E

Intersection Conditions and Recommendations



Intersection Summary Sheets

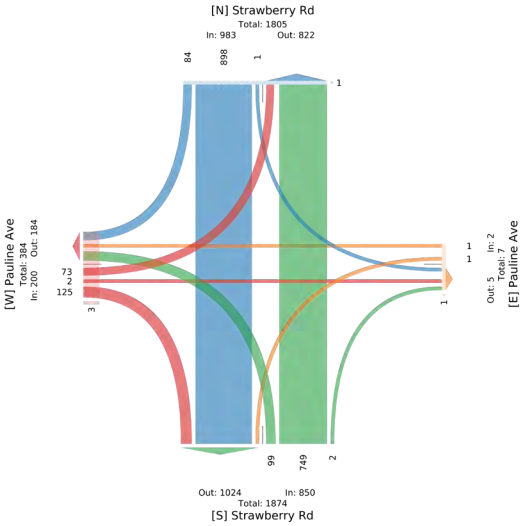
STRAWBERRY RD. & PAULINE ST.

Intersection ID: 0.1.1

Existing Aerial View



2021 Turning Movement Counts



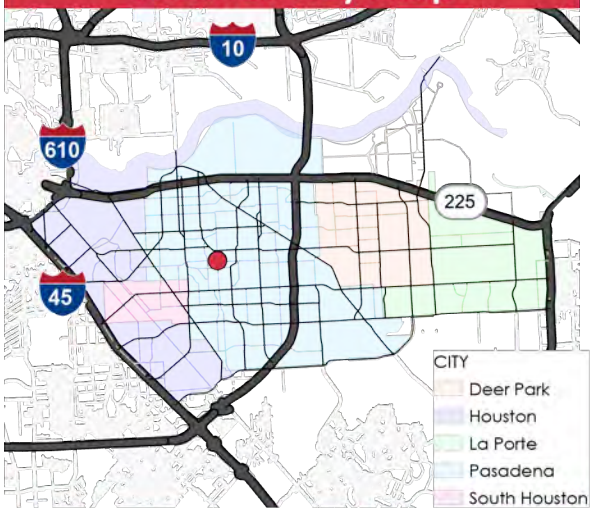
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	13.49	13.49	15.14	15.14
% Change in Delay	-	0%	-	0%

Location Key Map



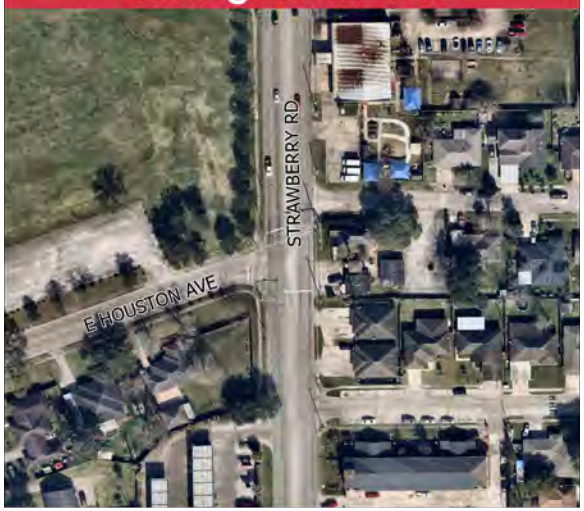
Crash Data (2016-2020)

Total Crashes	50
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	47
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	3
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (10)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (10)

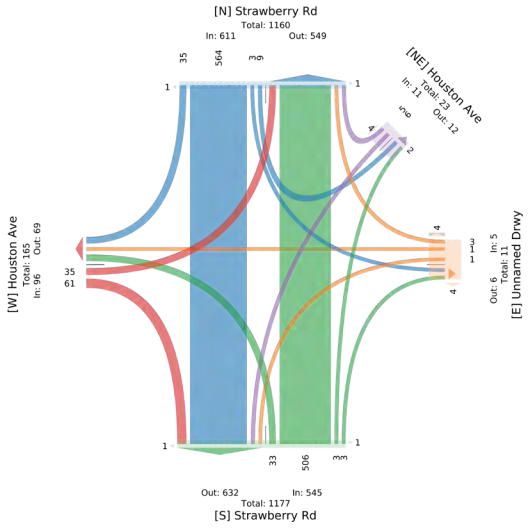
STRAWBERRY RD. & HOUSTON AVE.

Intersection ID: 0.1.2

Existing Aerial View



2021 Turning Movement Counts



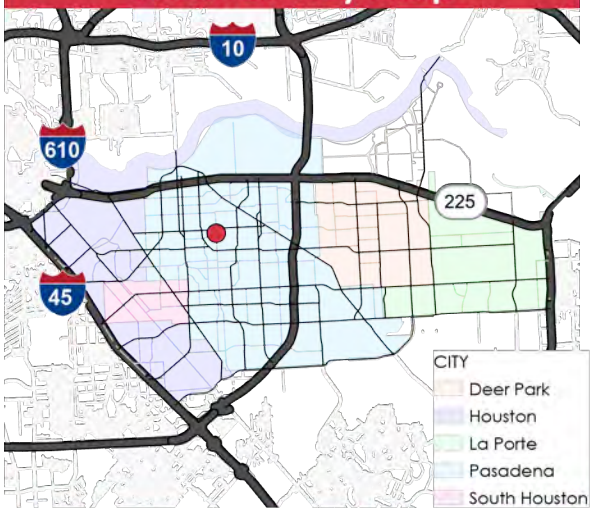
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	11.27	11.27	11.73	11.73
% Change in Delay	-	0%	-	0%

Location Key Map



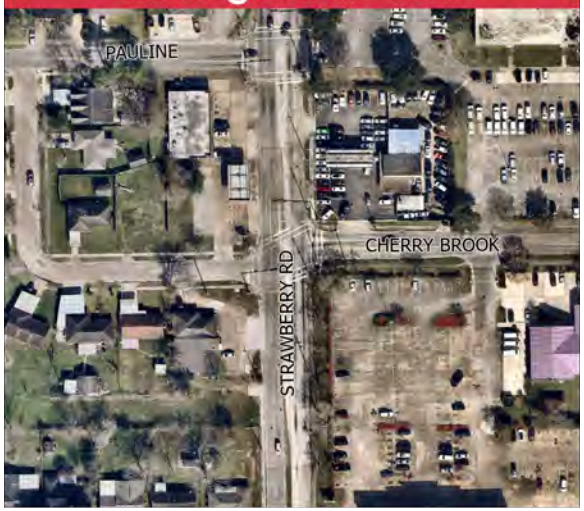
Crash Data (2016-2020)

Total Crashes	21
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	16
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	3
Most Common Object Struck	HIT FENCE
Most Common Manner of Collision	OMV VEHICLE GOING STRAIGHT (5)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (4)

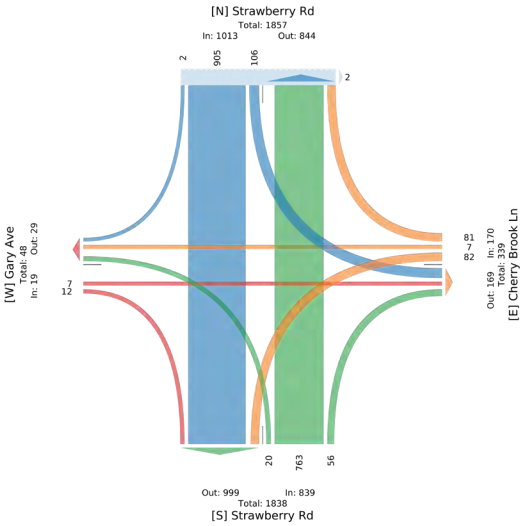
STRAWBERRY RD. & GARY AVE.

Intersection ID: 0.1.3

Existing Aerial View



2021 Turning Movement Counts



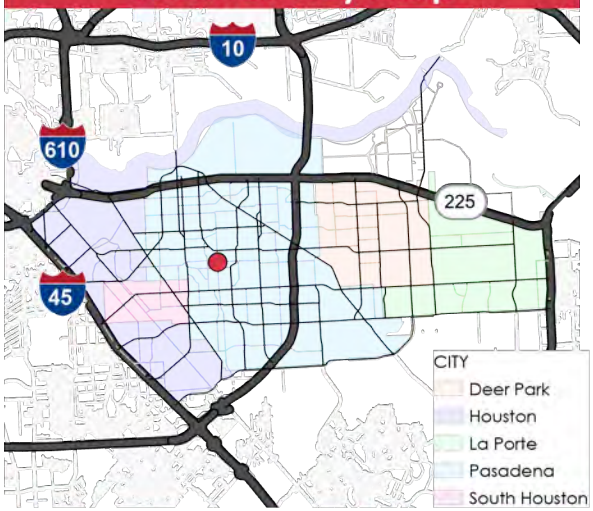
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	A	A	A	A
Delay (s/veh)	7.95	7.95	9.02	9.02
% Change in Delay	-	0%	-	0%

Location Key Map



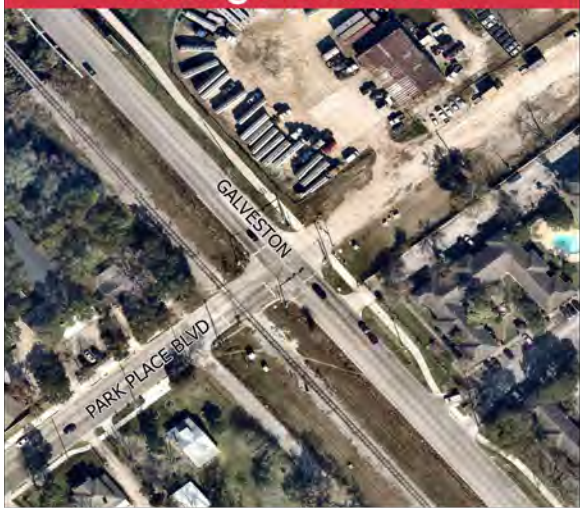
Crash Data (2016-2020)

Total Crashes	4
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	3
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT FENCE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (1)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (1)

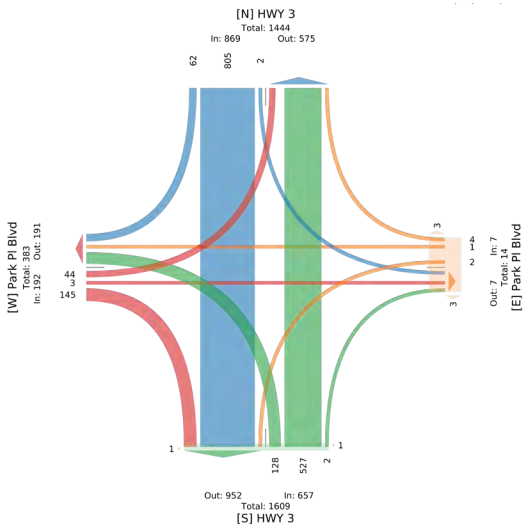
GALVESTON RD. & PARK PLACE BLVD.

Intersection ID: 2.1.1

Existing Aerial View



2021 Turning Movement Counts



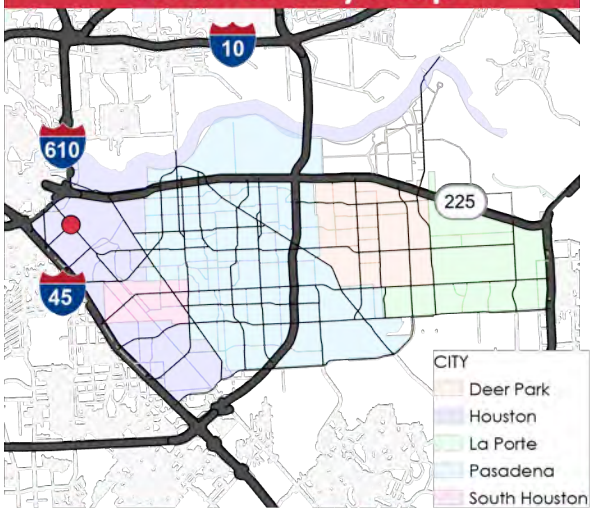
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	A	A	B	B
Delay (s/veh)	8.55	8.55	11.16	11.16
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	69
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	59
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	9
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (29)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (8)

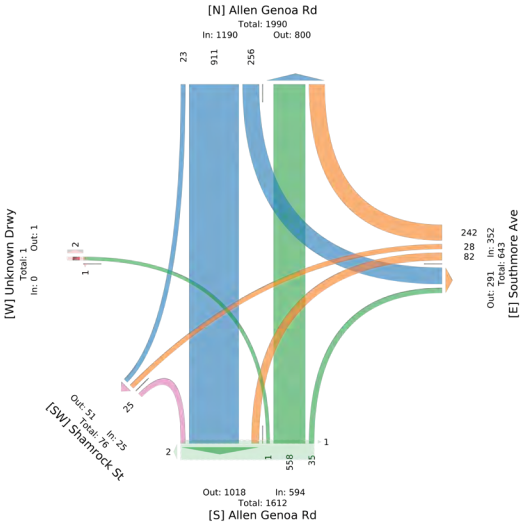
ALLEN GENOA RD. & SOUTHMORE AVE.

Intersection ID: 3.3.1

Existing Aerial View



2021 Turning Movement Counts



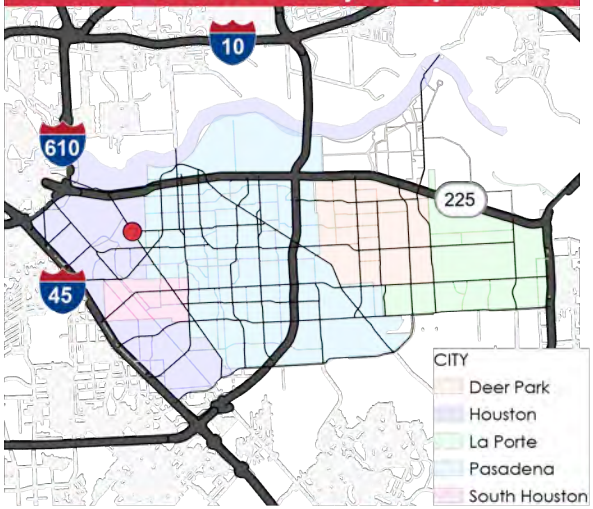
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install pedestrian signal	None
CAPACITY	
None	- Optimize cycle length and splits - Close driveway that serves as the eastbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	C	C
Delay (s/veh)	14.75	14.75	25.88	25.84
% Change in Delay	-	0%	-	-0.1%

Location Key Map



Crash Data (2016-2020)

Total Crashes	43
Severe Crashes (Fatal, Severe Injury)	(1,2)
Crashes with Another Vehicle	42
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (20)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (5)

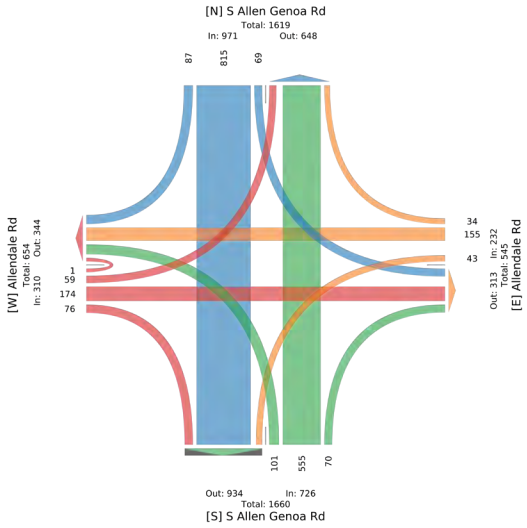
ALLEN GENOA RD. & ALLENDALE RD.

Intersection ID: 3.3.2

Existing Aerial View



2021 Turning Movement Counts



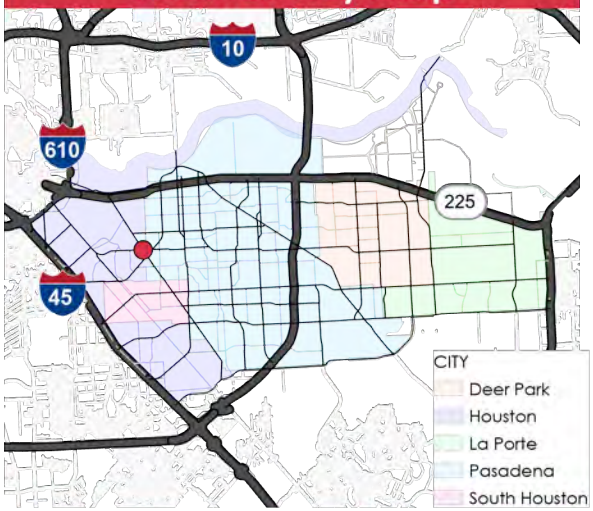
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install pedestrian signal	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	28.25	28.25	30.8	30.8
% Change in Delay	-	0%	-	0%

Location Key Map



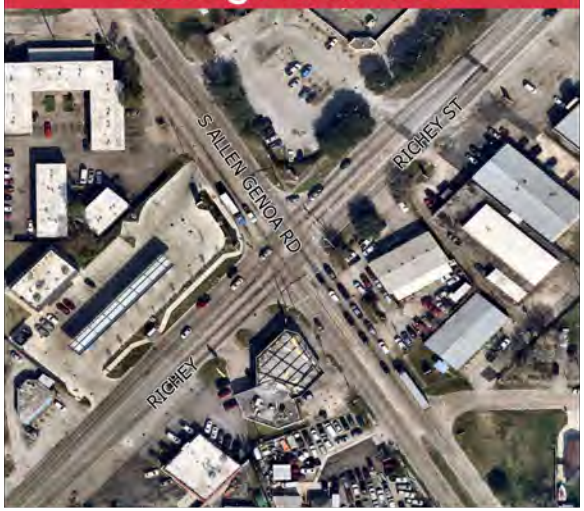
Crash Data (2016-2020)

Total Crashes	57
Severe Crashes (Fatal, Severe Injury)	(1,0)
Crashes with Another Vehicle	53
Crashes with a Bicyclist	0
Crashes with a Pedestrian	2
Crashes with a Fixed Object	1
Most Common Object Struck	FIRE HYDRANT
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (15)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (12)

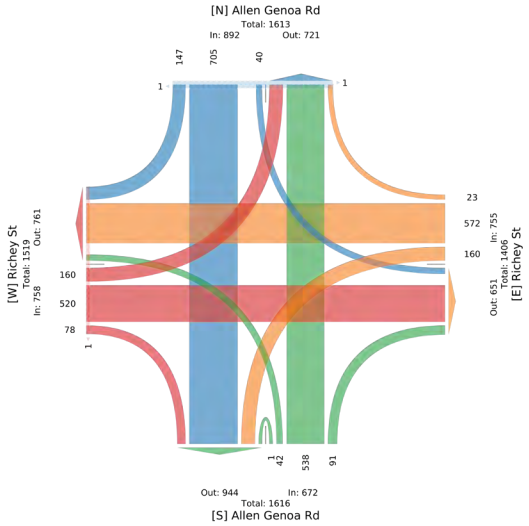
ALLEN GENOA RD. & RICHEY ST

Intersection ID: 3.3.3

Existing Aerial View



2021 Turning Movement Counts



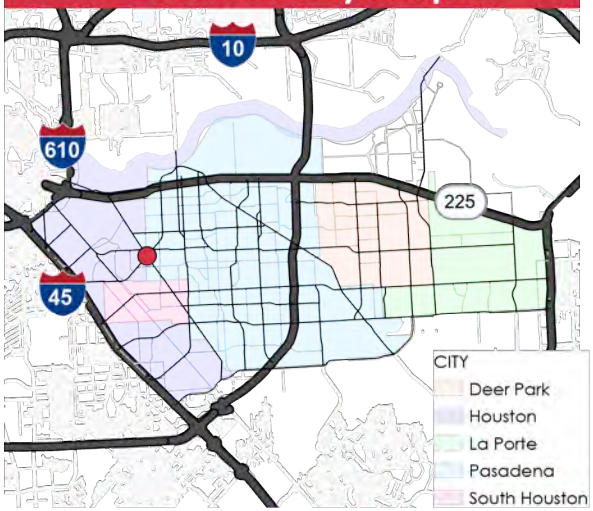
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install pedestrian signal	None
CAPACITY	
- Optimize cycle length and splits - Install Flashing Yellow Arrow turn signal for all approaches	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	D	C	E	D
Delay (s/veh)	36.42	31.6	59.73	41.29
% Change in Delay	-	-13.2%	-	-30.9%

Location Key Map



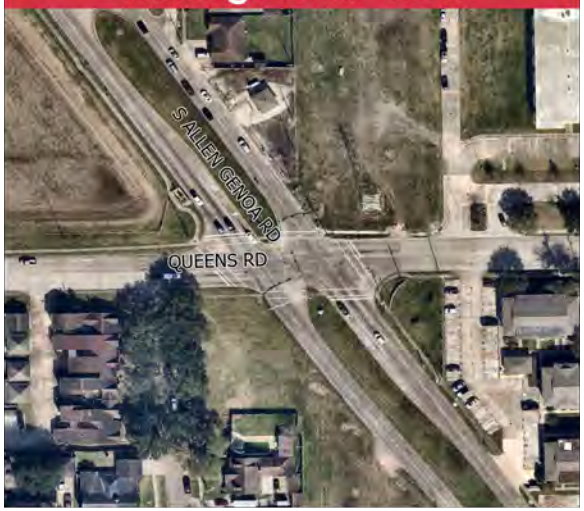
Crash Data (2016-2020)

Total Crashes	57
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	55
Crashes with a Bicyclist	0
Crashes with a Pedestrian	2
Crashes with a Fixed Object	0
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (12)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (7)

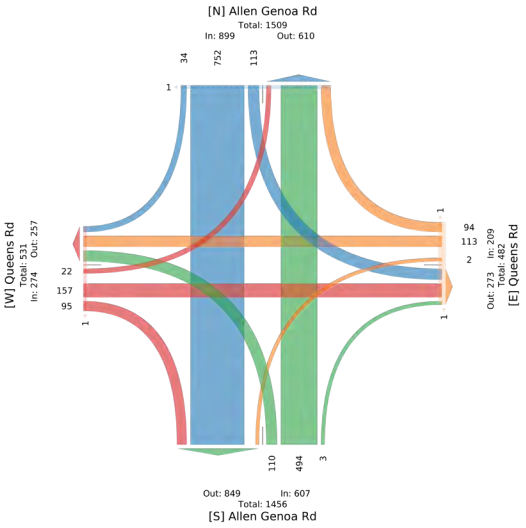
ALLEN GENOA RD. & QUEENS ST.

Intersection ID: 3.4.1

Existing Aerial View



2021 Turning Movement Counts



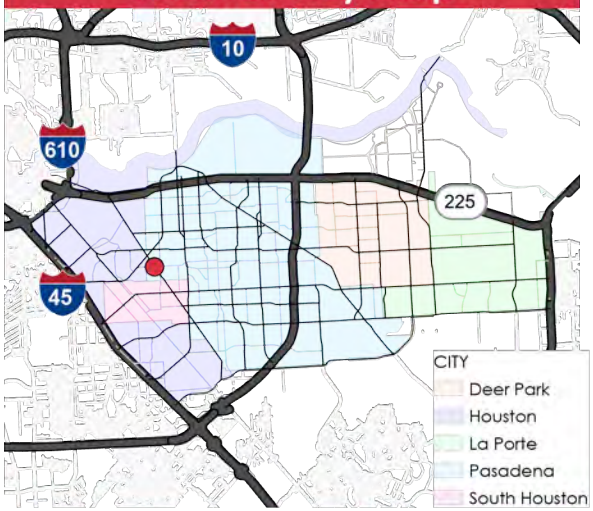
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	- Realign eastbound and westbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	26.78	26.78	25.62	25.62
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	48
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	46
Crashes with a Bicyclist	1
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT FENCE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (14)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (9)

Priority Intersection

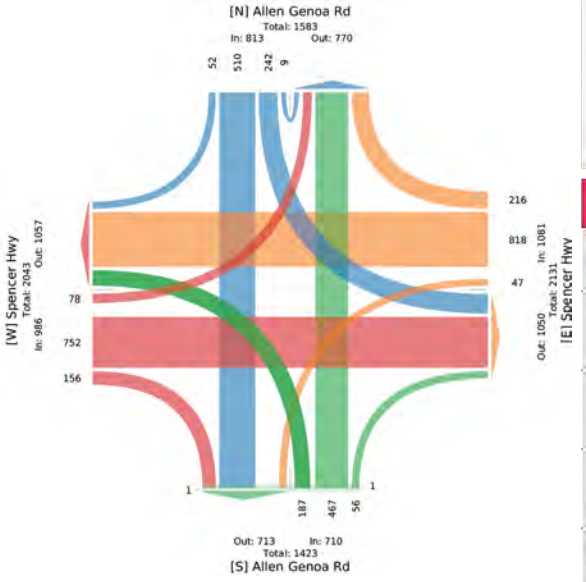
ALLEN GENOA RD. & SPENCER HWY.

Intersection ID: 3.5.1

Existing Aerial View



2021 Turning Movement Counts



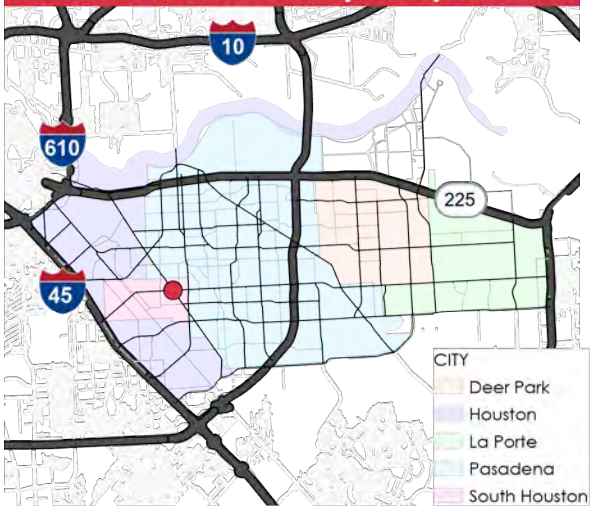
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive westbound right-turn lane	- Optimize cycle length and splits - Install exclusive left-turn lane for northbound and southbound approaches (dual left)

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	C	E	C
Delay (s/veh)	50.88	31.16	59.11	32.91
% Change in Delay	-	-38.8%	-	-44.3%

Location Key Map



Crash Data (2016-2020)

Total Crashes	108
Severe Crashes (Fatal, Severe Injury)	(1,2)
Crashes with Another Vehicle	105
Crashes with a Bicyclist	1
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (42)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (35)

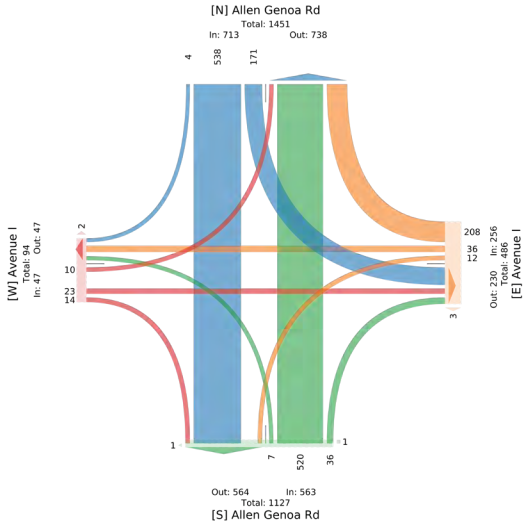
ALLEN GENOA RD. & AVE. I/VISTA RD.

Intersection ID: 3.5.2

Existing Aerial View



2021 Turning Movement Counts



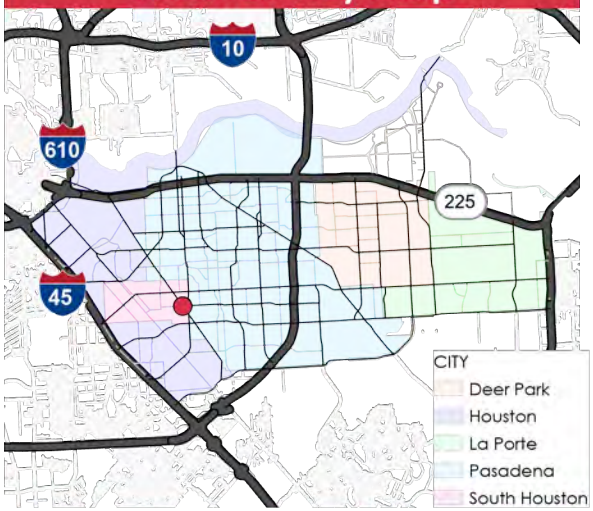
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
- Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	Existing	With Recommendations	Existing	With Recommendations
Level-Of-Service	C	C	C	C
Delay (s/veh)	21.16	21.16	31.21	31.21
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

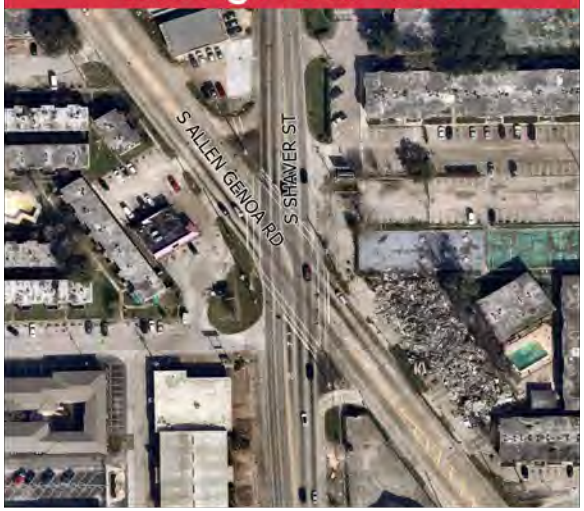
Total Crashes	13
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	11
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (4)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (3)

Priority Intersection

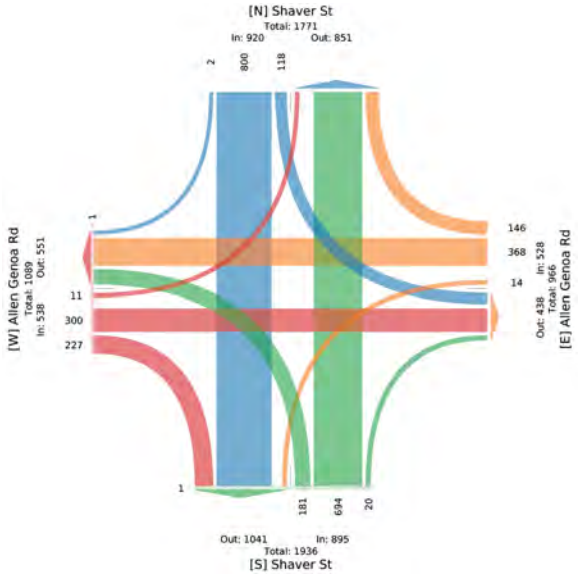
ALLEN GENOA RD. & SHAVER ST.

Intersection ID: 3.5.3

Existing Aerial View



2021 Turning Movement Counts



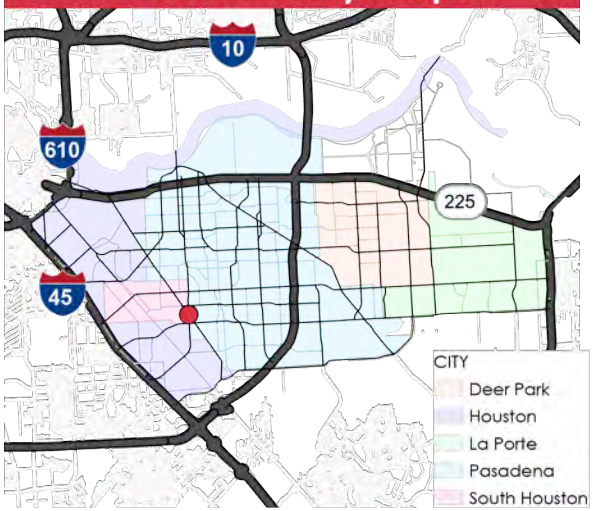
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pavement - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive left-turn lane for northbound approach (dual left) - Install exclusive right-turn lane for eastbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	D	C	D	D
Delay (s/veh)	42.44	29.93	51.52	39.32
% Change in Delay	-	-29.5%	-	-23.7%

Location Key Map



Crash Data (2016-2020)

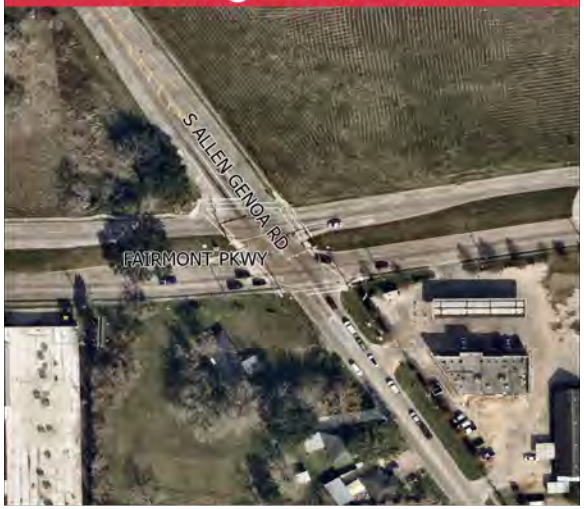
Total Crashes	78
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	73
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	2
Most Common Object Struck	HIT HOUSE, BLDG. OR BLDG. FIXTURE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (30)
Most Common Factor of Collision	NOT APPLICABLE (21)

Priority Intersection

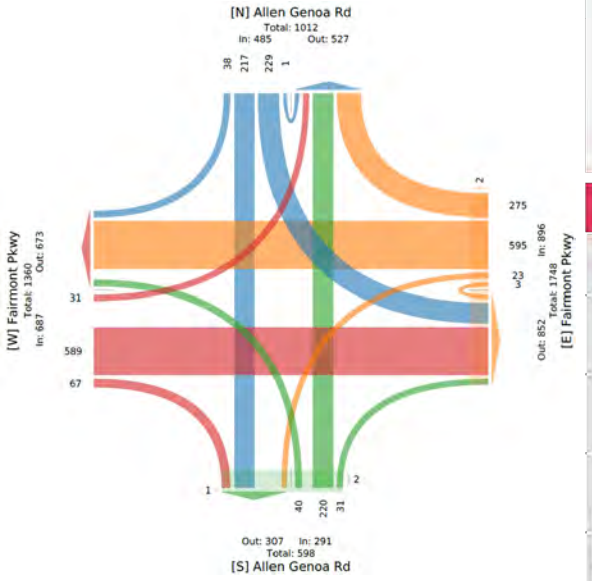
ALLEN GENOA RD. & FAIRMONT PKWY.

Intersection ID: 3.6.1

Existing Aerial View



2021 Turning Movement Counts



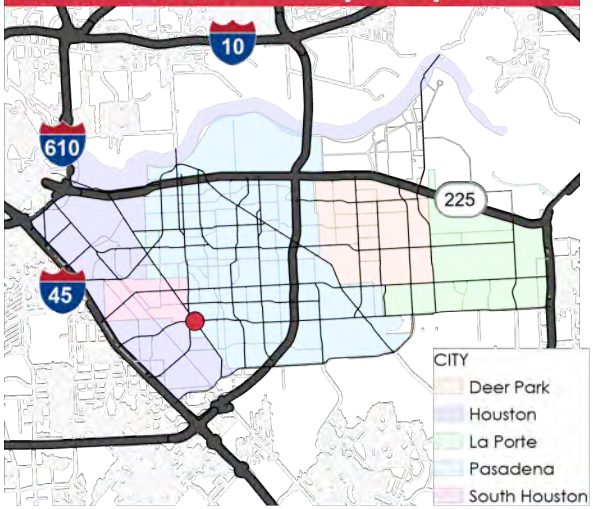
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	C	C	C	C
Delay (s/veh)	34.69	33.69	34.04	32.06
% Change in Delay	-	-2.9%	-	-5.8%

Location Key Map



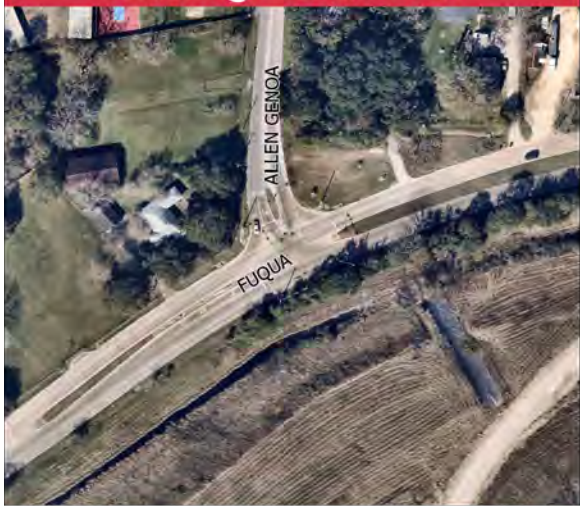
Crash Data (2016-2020)

Total Crashes	85
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	82
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	3
Most Common Object Struck	HIT HOUSE, BLDG. OR BLDG. FIXTURE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (28)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (19)

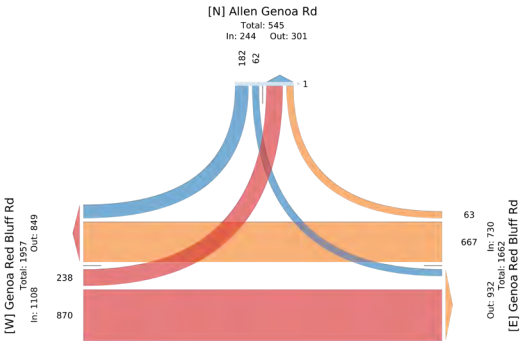
ALLEN GENOA RD. & GENOA RED BLUFF RD.

Intersection ID: 3.6.2

Existing Aerial View



2021 Turning Movement Counts



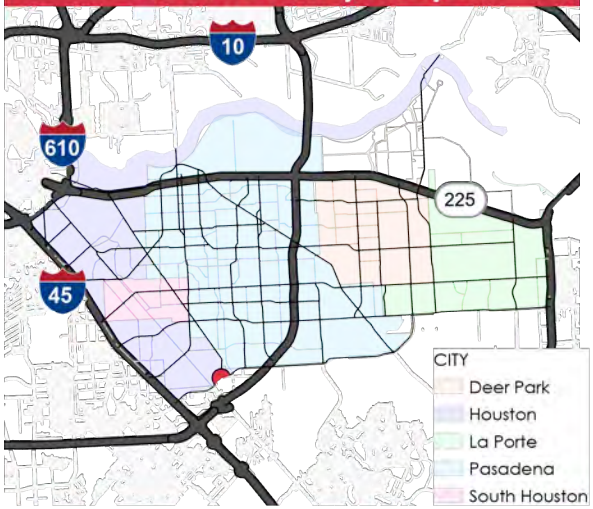
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	33.43	33.43	33.27	33.27
% Change in Delay	-	0%	-	0%

Location Key Map



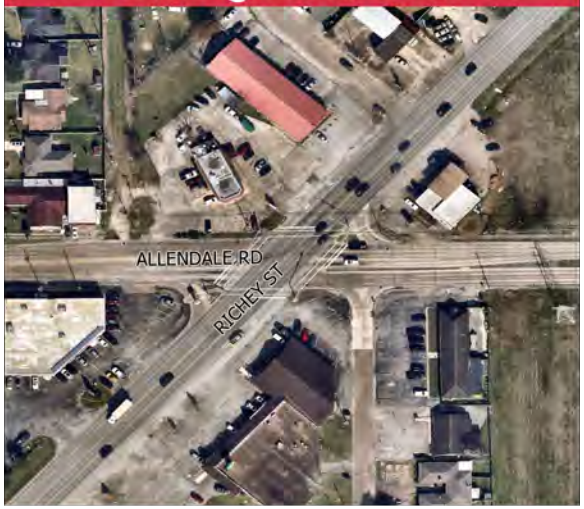
Crash Data (2016-2020)

Total Crashes	28
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	22
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	5
Most Common Object Struck	HIT TREE, SHRUB, LANDSCAPING
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (17)
Most Common Factor of Collision	ATTENTION DIVERTED FROM DRIVING (1)

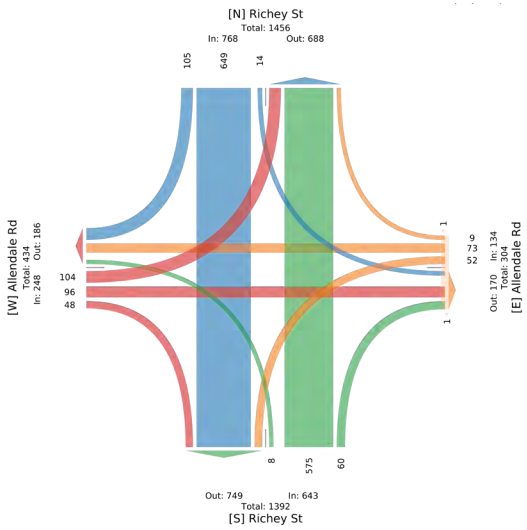
RICHEY ST. & ALLENDALE RD.

Intersection ID: 4.3.2

Existing Aerial View



2021 Turning Movement Counts



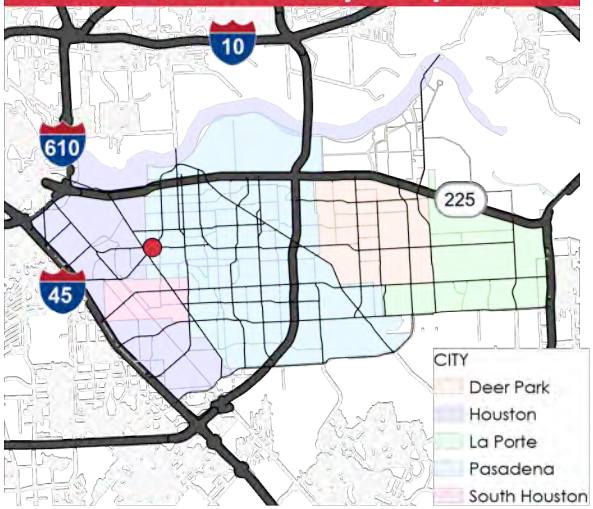
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	15.89	15.89	17.19	17.19
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

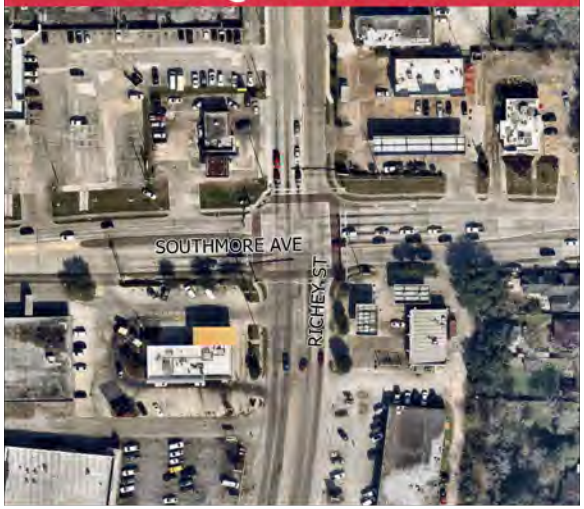
Total Crashes	49
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	45
Crashes with a Bicyclist	1
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	HIT OVERHEAD SIGNAL LIGHT, WIRES, SIGNS, ETC
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (15)
Most Common Factor of Collision	SLOWING/STOPPING-FOR TRAFFIC (7)

Priority Intersection

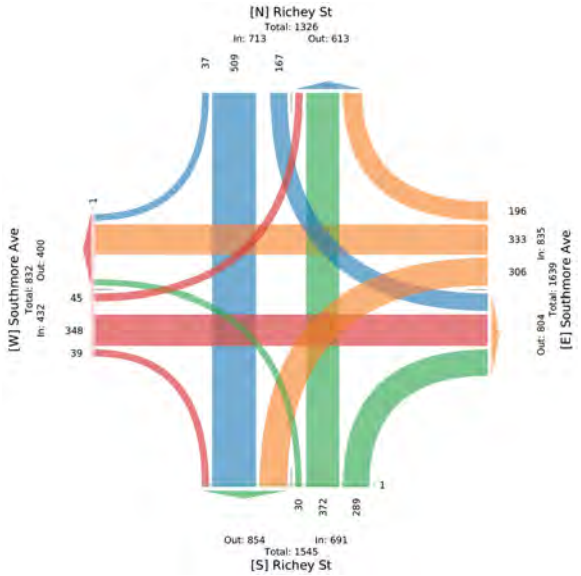
RICHEY ST. & SOUTHMORE AVE.

Intersection ID: 4.5.1

Existing Aerial View



2021 Turning Movement Counts



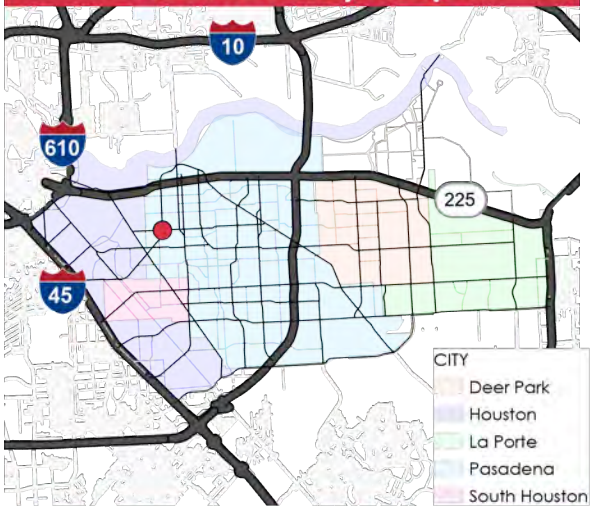
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install rumble strips for all approaches - Install signage at all approaches - Install lighting - Upgrade pavement markings - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	- Consolidate driveways in the northeast and southeast corners
CAPACITY	
- Optimize cycle length and splits - Install exclusive northbound right-turn lane	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	D	C	D	D
Delay (s/veh)	36.65	29.38	47.67	44.94
% Change in Delay	-	-19.8%	-	-5.7%

Location Key Map



Crash Data (2016-2020)

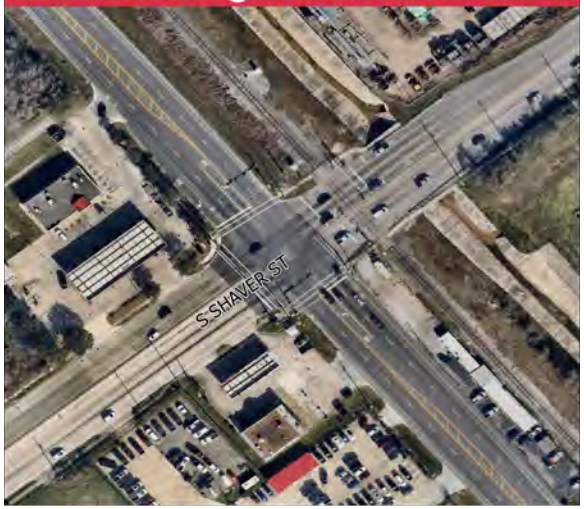
Total Crashes	118
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	109
Crashes with a Bicyclist	2
Crashes with a Pedestrian	2
Crashes with a Fixed Object	4
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (22)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (23)

Priority Intersection

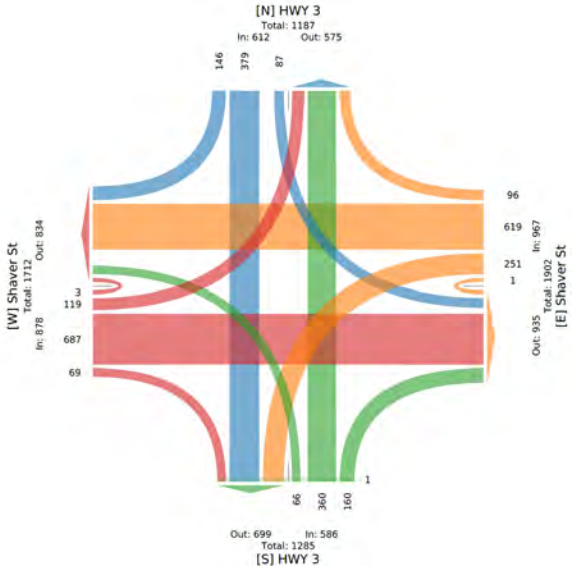
SHAVER ST. & GALVESTON RD./SH 3

Intersection ID: 5.2.1

Existing Aerial View



2021 Turning Movement Counts



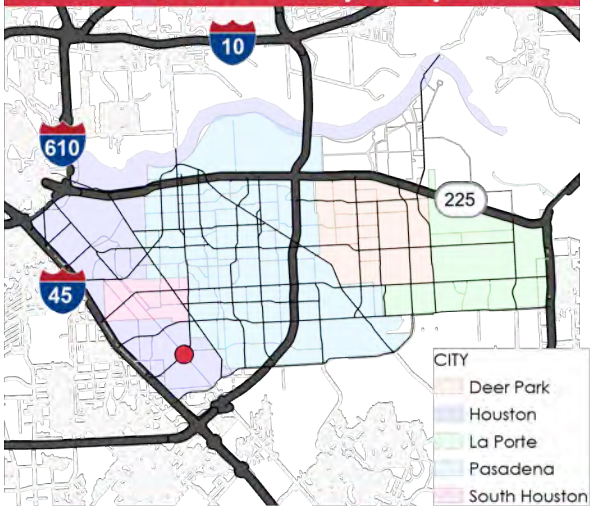
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pavement - Upgrade lighting	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install Flashing Yellow Arrow turn signal for all approaches - Install exclusive right-turn lane for northbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	D	F	D
Delay (s/veh)	48.84	46.16	96.56	42.17
% Change in Delay	-	-5.5%	-	-56.3%

Location Key Map



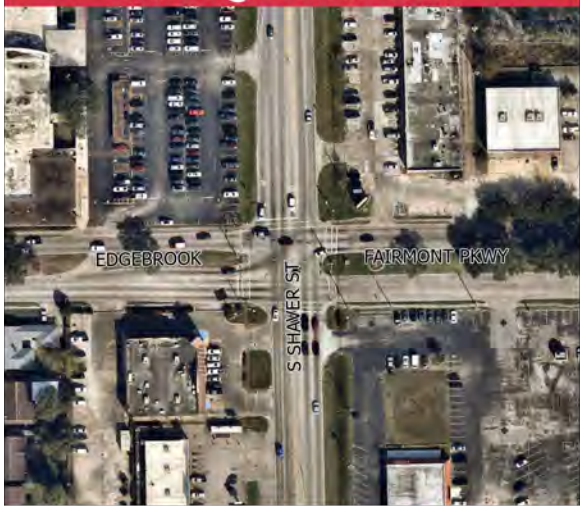
Crash Data (2016-2020)

Total Crashes	81
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	76
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	5
Most Common Object Struck	DITCH
Most Common Manner of Collision	SD BOTH GOING STRAIGHT-REAR END (20)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (12)

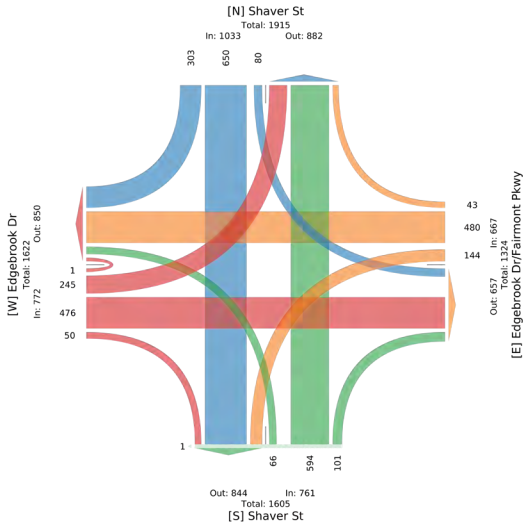
SHAVER ST. & EDGEBROOK DR.

Intersection ID: 5.2.2

Existing Aerial View



2021 Turning Movement Counts



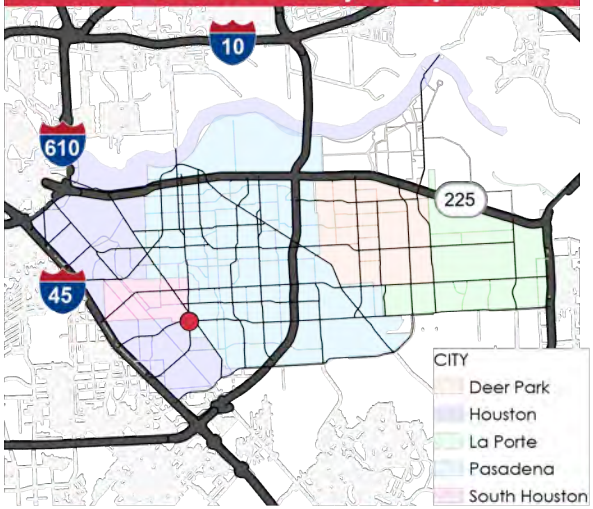
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install pedestrian signal - Install ADA-compliant curb ramps	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive left-turn lane for eastbound approach (dual left)

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	D	D	E	C
Delay (s/veh)	38.92	35.31	59.5	34.62
% Change in Delay	-	-9.3%	-	-41.8%

Location Key Map



Crash Data (2016-2020)

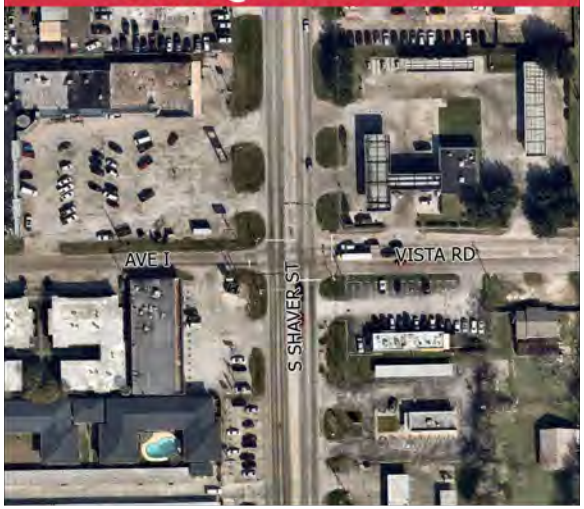
Total Crashes	101
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	95
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	2
Most Common Object Struck	OVERTURNED
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (28)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (18)

Priority Intersection

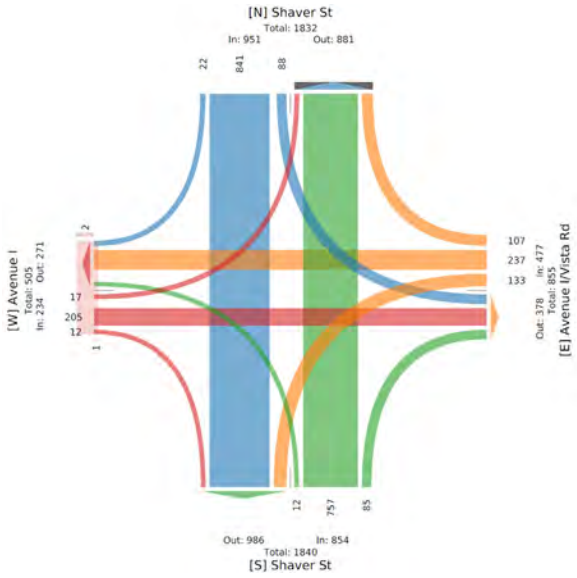
SHAVER ST. & VISTA RD.

Intersection ID: 5.2.4

Existing Aerial View



2021 Turning Movement Counts



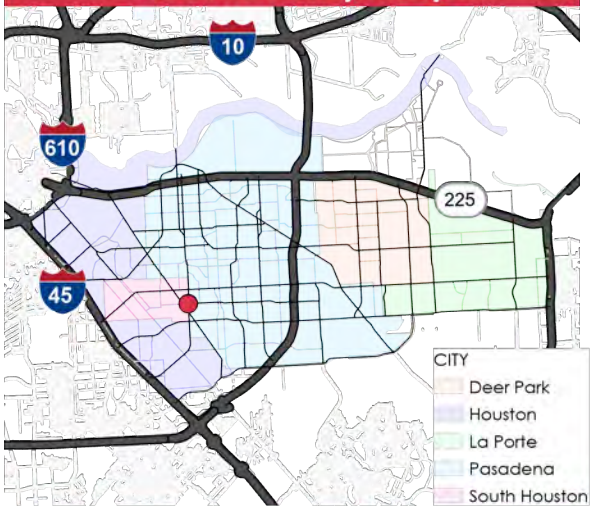
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pavement	None
CAPACITY	
None	- Optimize cycle length and splits - Install eastbound shared through-right turn lane - Install through lane for southbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	C	C	E	C
Delay (s/veh)	25.48	25.48	69.89	34.19
% Change in Delay	-	0%	-	-51.1%

Location Key Map



Crash Data (2016-2020)

Total Crashes	94
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	90
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	2
Most Common Object Struck	HIT HOUSE, BLDG. OR BLDG. FIXTURE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (24)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (11)

Priority Intersection

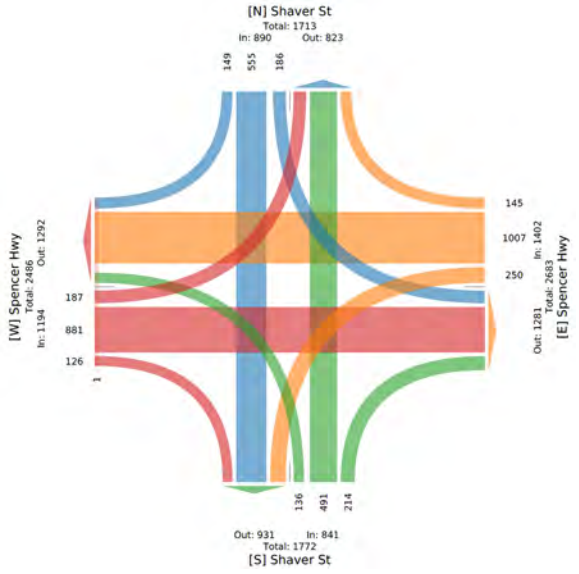
SHAVER ST. & SPENCER HWY.

Intersection ID: 5.3.1

Existing Aerial View



2021 Turning Movement Counts



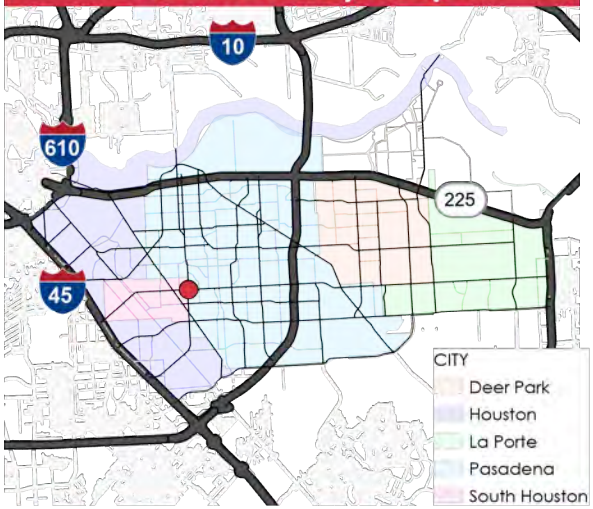
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install rumble strips for northbound and southbound approaches - Install signage at all approaches - Install lighting - Upgrade pavement markings - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	- Consolidate driveways in the northwest, southeast, and southwest corners
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive left-turn lane for eastbound and westbound approaches (dual left)

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	D	D	F	D
Delay (s/veh)	43.24	35.25	96.17	46.22
% Change in Delay	-	-18.5%	-	-51.9%

Location Key Map



Crash Data (2016-2020)

Total Crashes	121
Severe Crashes (Fatal, Severe Injury)	(0,4)
Crashes with Another Vehicle	117
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	1
Most Common Object Struck	HIT LUMINAIRE POLE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (31)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (34)

Priority Intersection

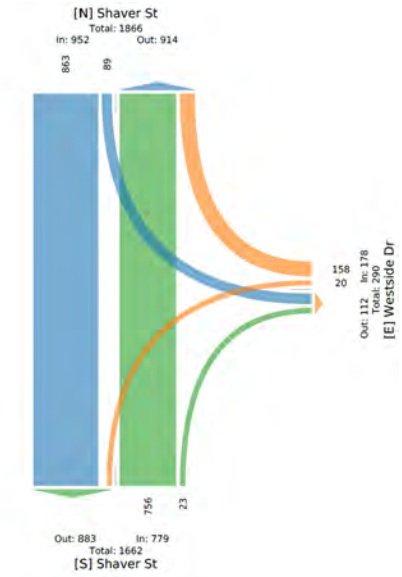
SHAVER ST. & WESTSIDE DR.

Intersection ID: 5.3.2

Existing Aerial View



2021 Turning Movement Counts



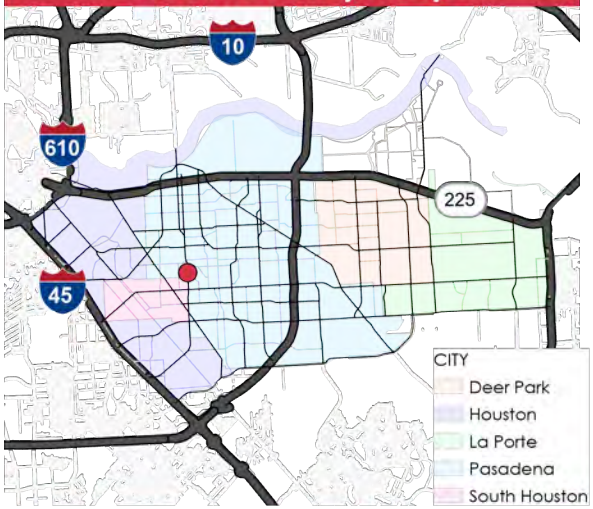
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pavement	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	A	A	B	B
Delay (s/veh)	7.95	7.95	10.93	10.93
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	53
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	53
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	HIT FENCE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (25)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (14)

Priority Intersection

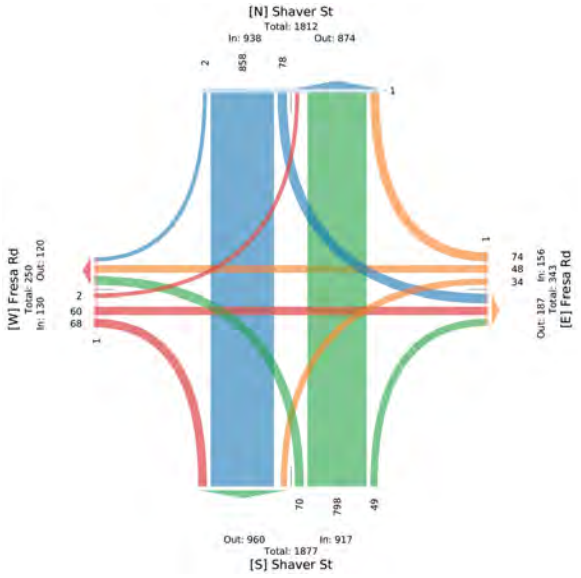
SHAVER ST. & FRESA RD.

Intersection ID: 5.3.3

Existing Aerial View



2021 Turning Movement Counts



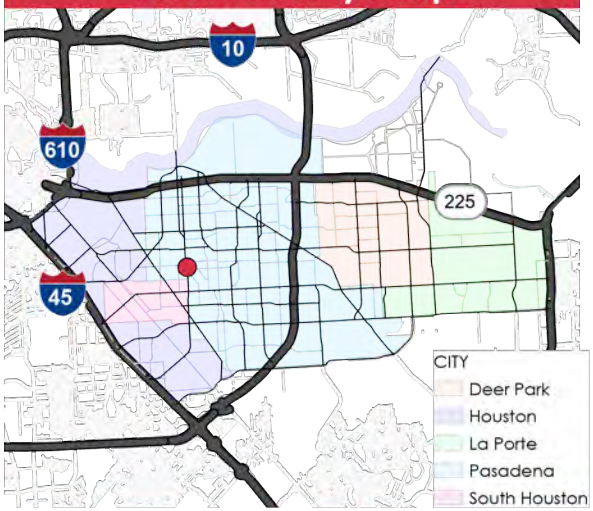
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	11.49	11.49	12.8	12.8
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	63
Severe Crashes (Fatal, Severe Injury)	(0,3)
Crashes with Another Vehicle	59
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	2
Most Common Object Struck	DITCH
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (18)
Most Common Factor of Collision	SLOWING/STOPPING-FOR TRAFFIC (8)

Priority Intersection

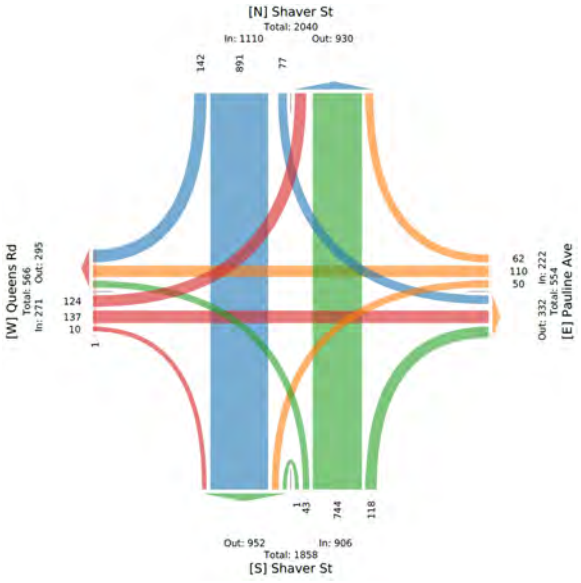
SHAVER ST. & PAULINE AVE.

Intersection ID: 5.3.4

Existing Aerial View



2021 Turning Movement Counts



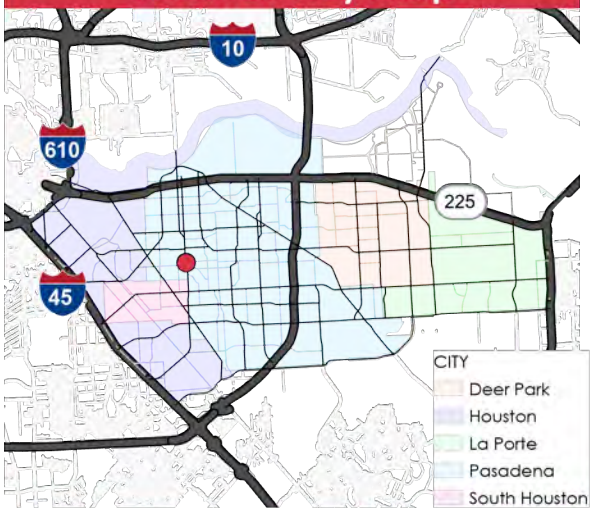
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	25.32	25.32	26.57	26.57
% Change in Delay	-	0%	-	0%

Location Key Map



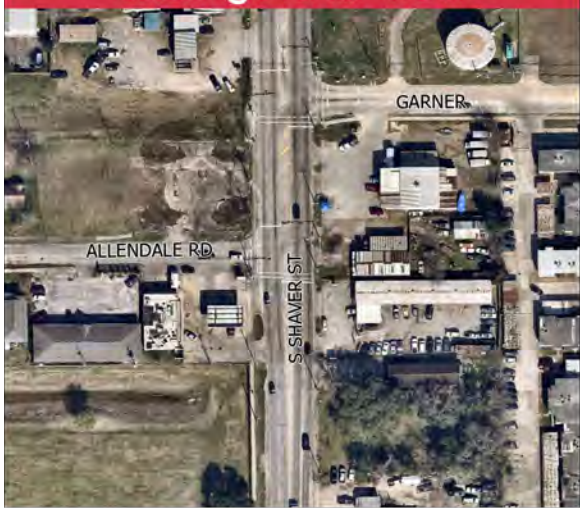
Crash Data (2016-2020)

Total Crashes	74
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	68
Crashes with a Bicyclist	1
Crashes with a Pedestrian	0
Crashes with a Fixed Object	5
Most Common Object Struck	HIT FENCE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (25)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (10)

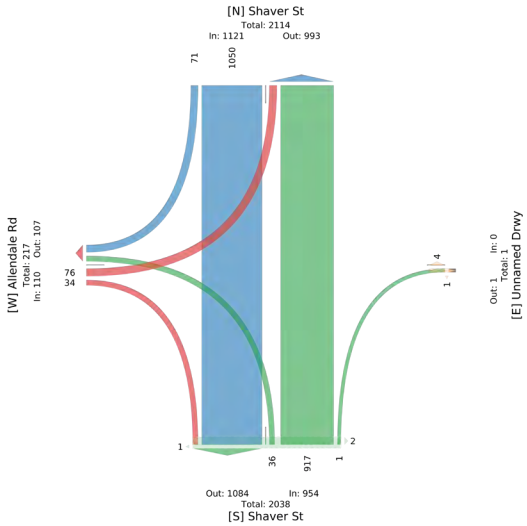
SHAVER ST. & ALLENDALE RD.

Intersection ID: 5.3.5

Existing Aerial View



2021 Turning Movement Counts



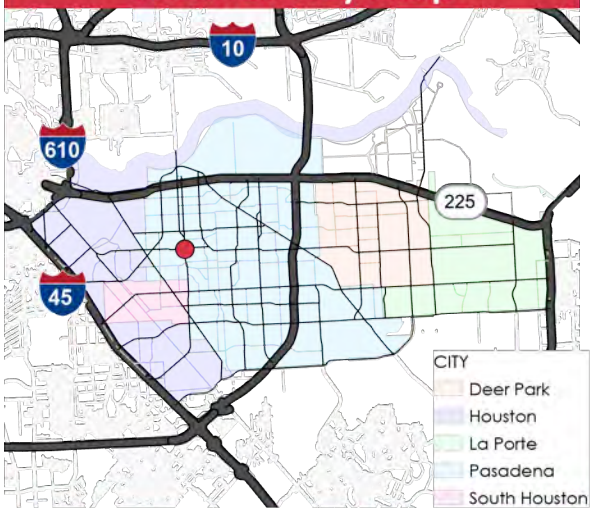
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	A	A	B	B
Delay (s/veh)	6.08	6.08	15.61	15.61
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	80
Severe Crashes (Fatal, Severe Injury)	(1,2)
Crashes with Another Vehicle	72
Crashes with a Bicyclist	0
Crashes with a Pedestrian	4
Crashes with a Fixed Object	4
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (23)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (13)

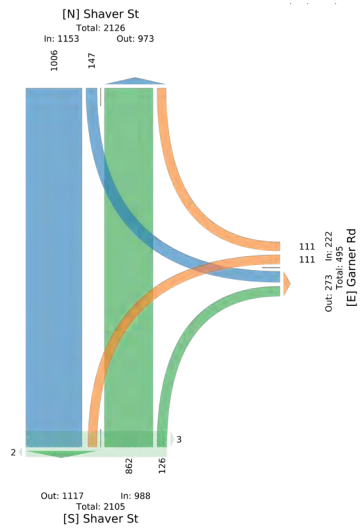
SHAVER ST. & GARNER RD.

Intersection ID: 5.4.1

Existing Aerial View



2021 Turning Movement Counts



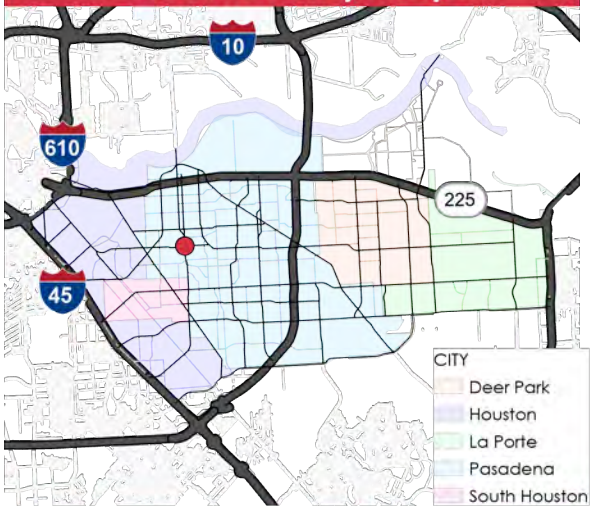
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	A	A	A	A
Delay (s/veh)	4.49	4.49	5.18	5.18
% Change in Delay	-	0%	-	0%

Location Key Map



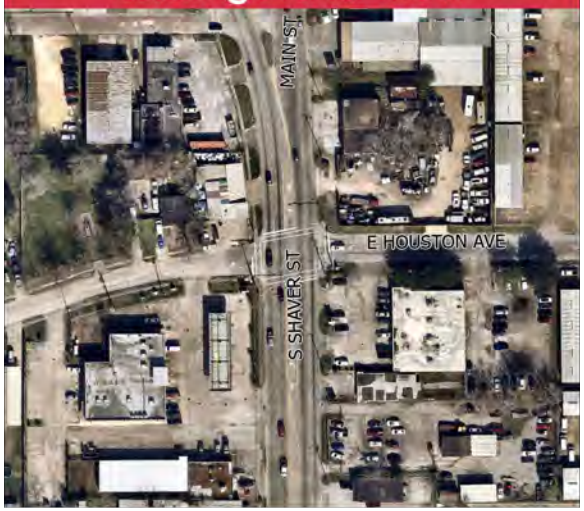
Crash Data (2016-2020)

Total Crashes	4
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	3
Crashes with a Bicyclist	1
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (1)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (1)

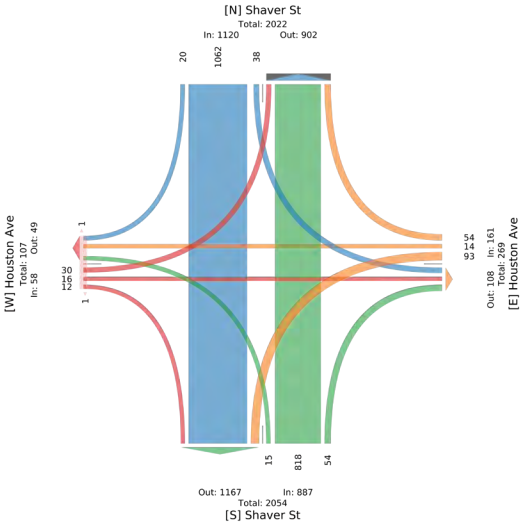
SHAVER ST. & HOUSTON AVE.

Intersection ID: 5.5.1

Existing Aerial View



2021 Turning Movement Counts



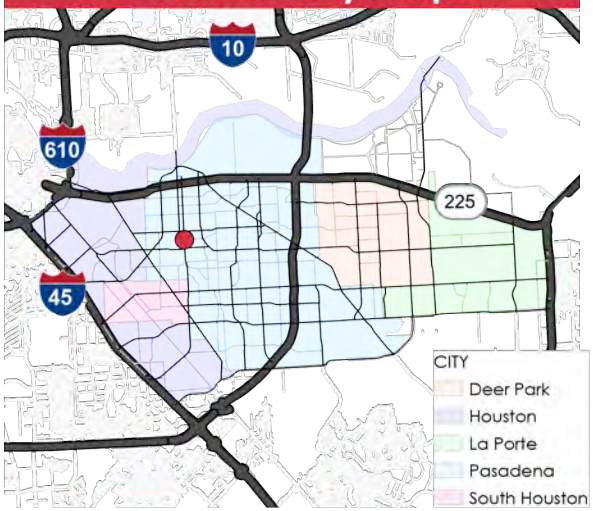
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	11.53	11.53	16.69	16.69
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	46
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	41
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	3
Most Common Object Struck	HIT HIGHWAY SIGN
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (10)
Most Common Factor of Collision	SLOWING/STOPPING-FOR TRAFFIC (8)

SHAVER ST. & JACKSON AVE.

Intersection ID: 5.5.3

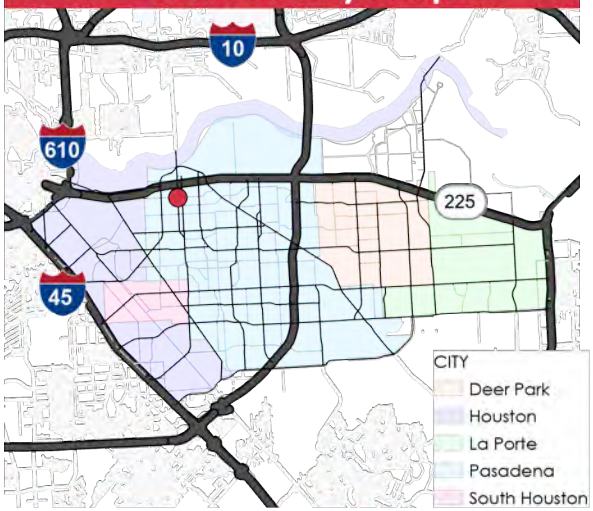
Existing Aerial View



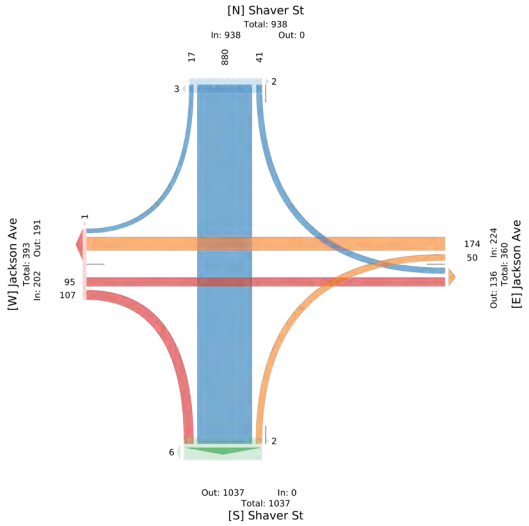
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	None

Location Key Map



2021 Turning Movement Counts



Traffic Model Results

Study Year	2021		2045	
Scenario	Existing	With Recommendations	Existing	With Recommendations
Level-Of-Service	B	B	B	B
Delay (s/veh)	13.74	13.74	12.38	12.38
% Change in Delay	-	0%	-	0%

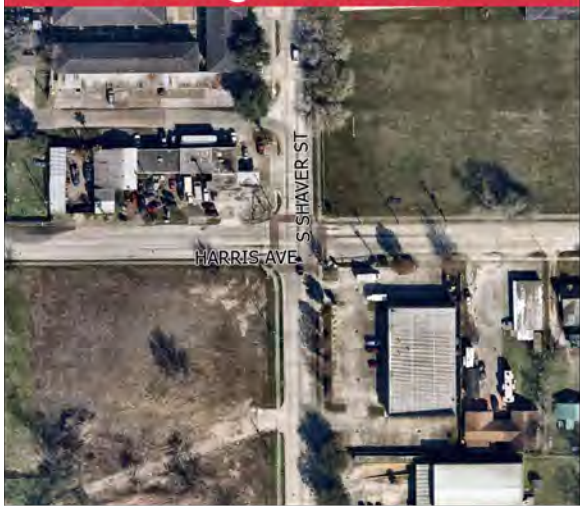
Crash Data (2016-2020)

Total Crashes	39
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	37
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	HIT UTILITY POLE
Most Common Manner of Collision	SD BOTH GOING STRAIGHT-SIDESWIPE (8)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (6)

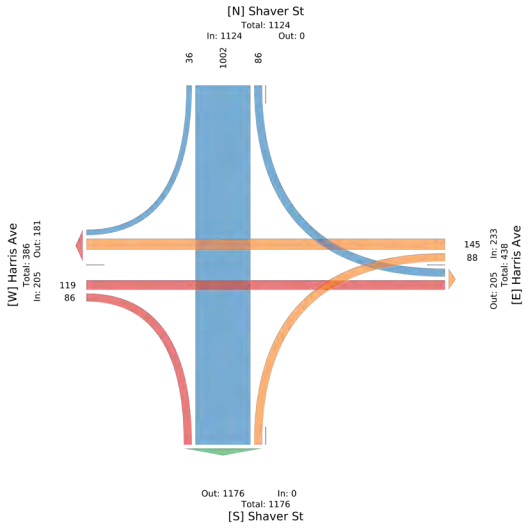
SHAVER ST. & HARRIS AVE.

Intersection ID: 5.6.1

Existing Aerial View



2021 Turning Movement Counts



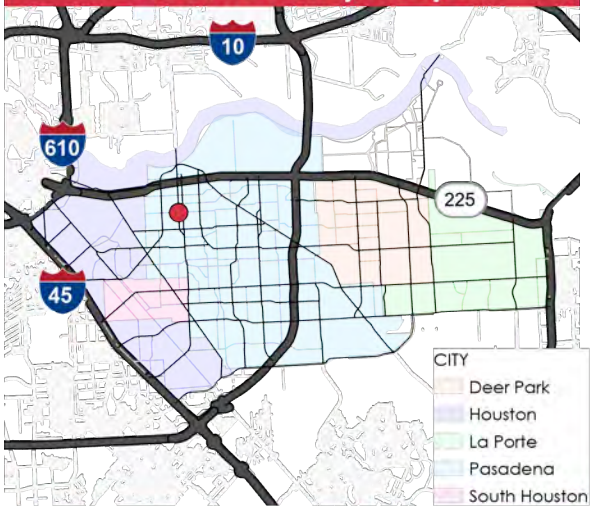
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	21.69	21.69	24.7	24.7
% Change in Delay	-	0%	-	0%

Location Key Map



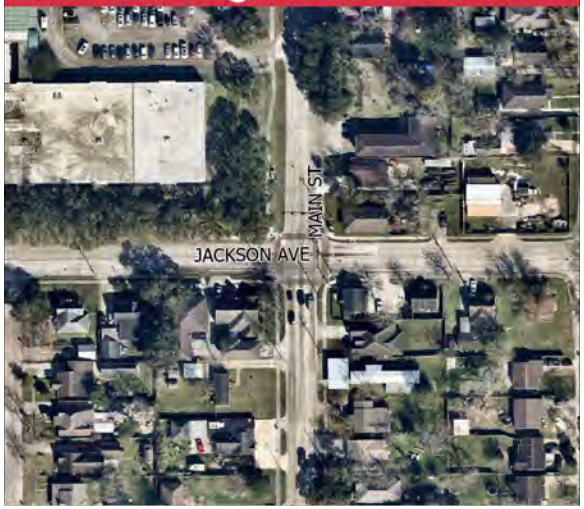
Crash Data (2016-2020)

Total Crashes	42
Severe Crashes (Fatal, Severe Injury)	(1,0)
Crashes with Another Vehicle	42
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	HIT TREE, SHRUB, LANDSCAPING
Most Common Manner of Collision	SD BOTH GOING STRAIGHT-SIDESWIPE (11)
Most Common Factor of Collision	VEHICLE CHANGING LANES (11)

MAIN ST. & JACKSON AVE.

Intersection ID: 6.2.1

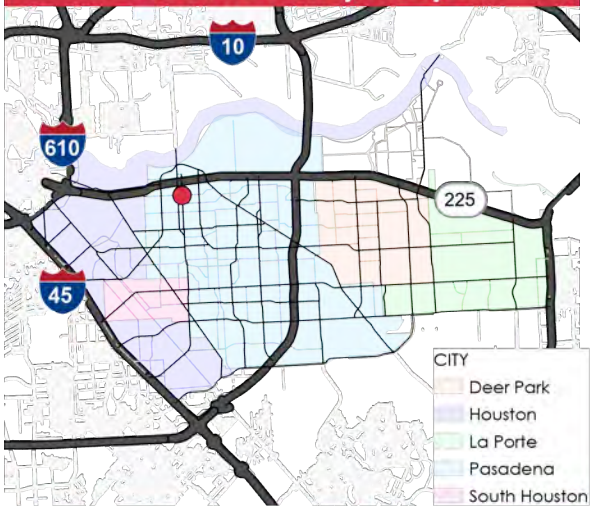
Existing Aerial View



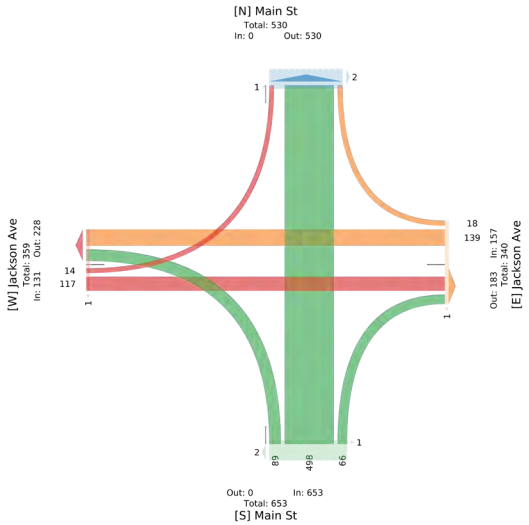
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	None

Location Key Map



2021 Turning Movement Counts



Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	18.65	18.65	19.6	19.6
% Change in Delay	-	0%	-	0%

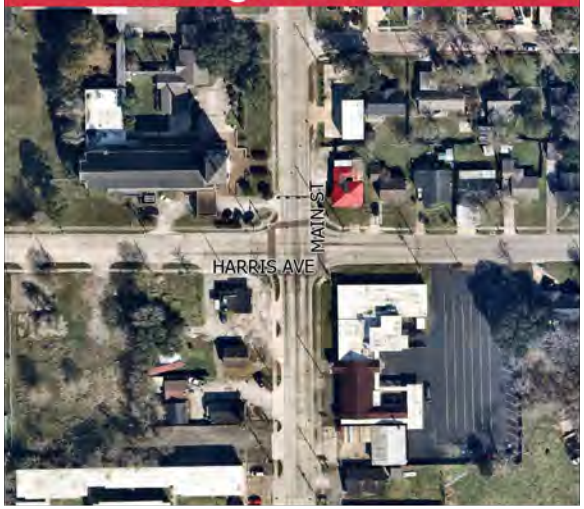
Crash Data (2016-2020)

Total Crashes	44
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	42
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	1
Most Common Object Struck	HIT HOUSE, BLDG. OR BLDG. FIXTURE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (22)
Most Common Factor of Collision	ATTENTION DIVERTED FROM DRIVING (3)

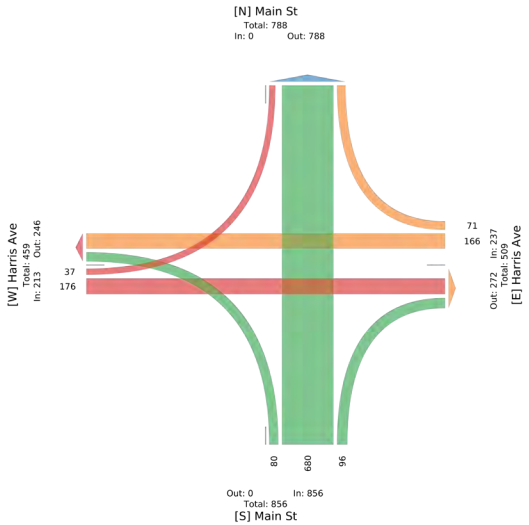
MAIN ST. & HARRIS AVE.

Intersection ID: 6.3.1

Existing Aerial View



2021 Turning Movement Counts



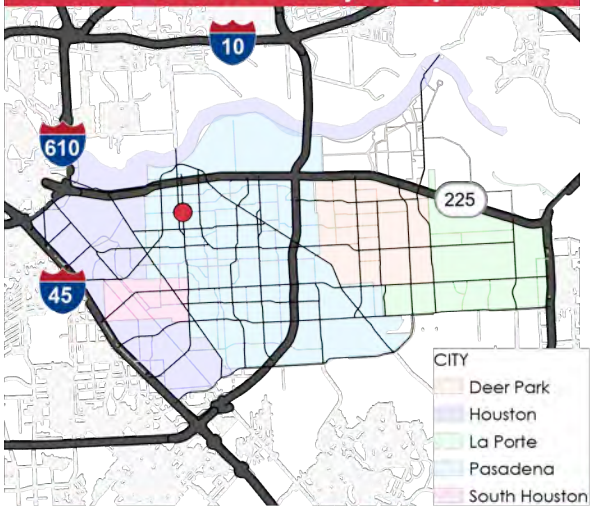
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	20.75	20.75	22.11	22.11
% Change in Delay	-	0%	-	0%

Location Key Map



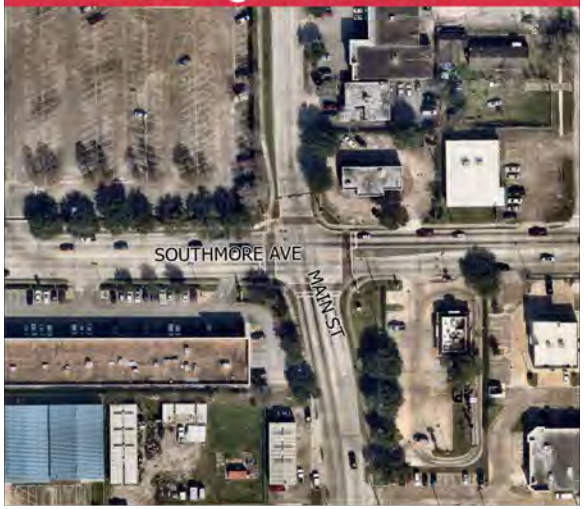
Crash Data (2016-2020)

Total Crashes	39
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	37
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT HOUSE, BLDG. OR BLDG. FIXTURE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (10)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (7)

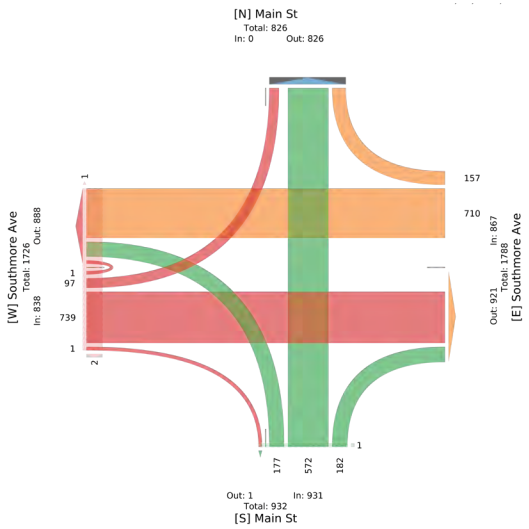
MAIN ST. & SOUTHMORE AVE.

Intersection ID: 6.3.2

Existing Aerial View



2021 Turning Movement Counts



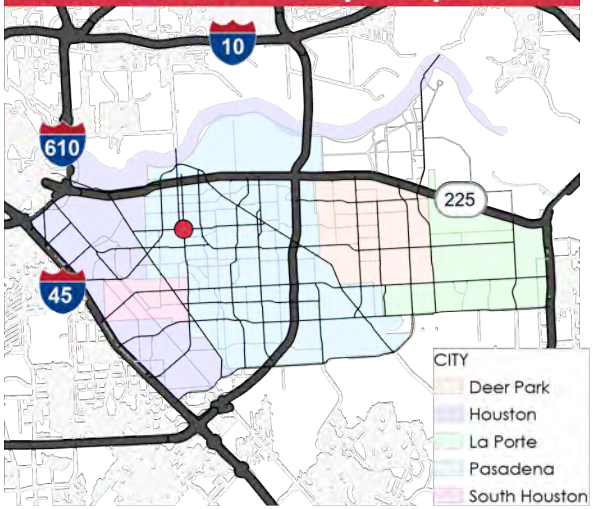
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	17.45	17.45	19.98	19.98
% Change in Delay	-	0%	-	0%

Location Key Map



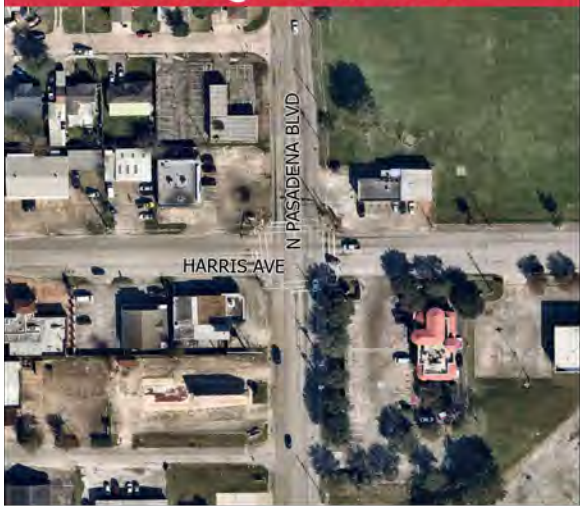
Crash Data (2016-2020)

Total Crashes	62
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	60
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (13)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (11)

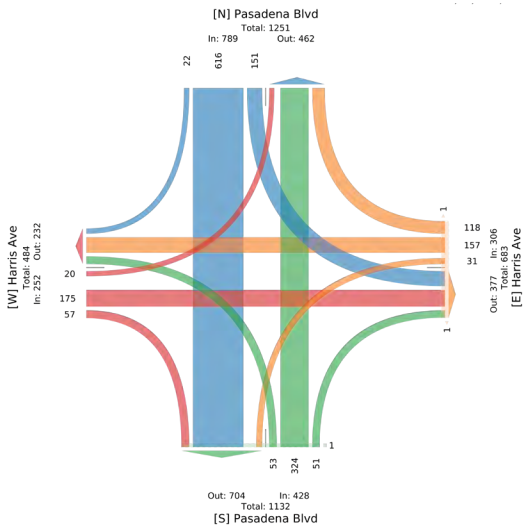
PASADENA BLVD. & HARRIS AVE.

Intersection ID: 7.2.1

Existing Aerial View



2021 Turning Movement Counts



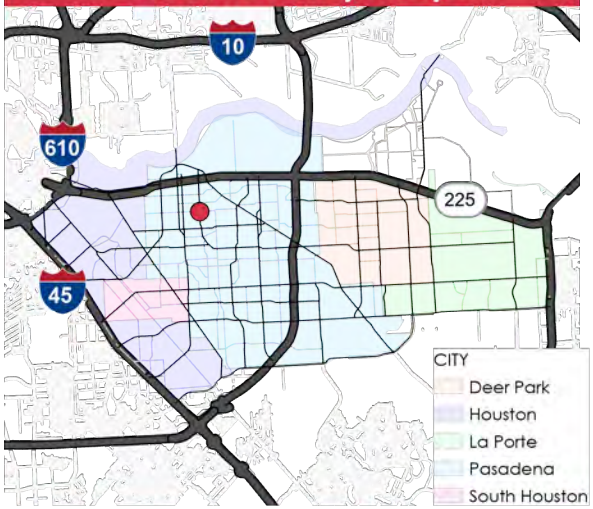
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	31.68	31.68	33.97	33.97
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	26
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	22
Crashes with a Bicyclist	1
Crashes with a Pedestrian	0
Crashes with a Fixed Object	3
Most Common Object Struck	HIT TRAFFIC SIGNAL POLE OR POST
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (6)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (4)

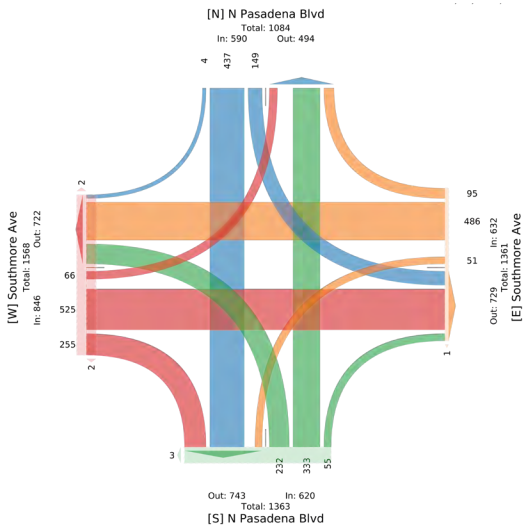
PASADENA BLVD. & SOUTHMORE AVE.

Intersection ID: 7.2.2

Existing Aerial View



2021 Turning Movement Counts



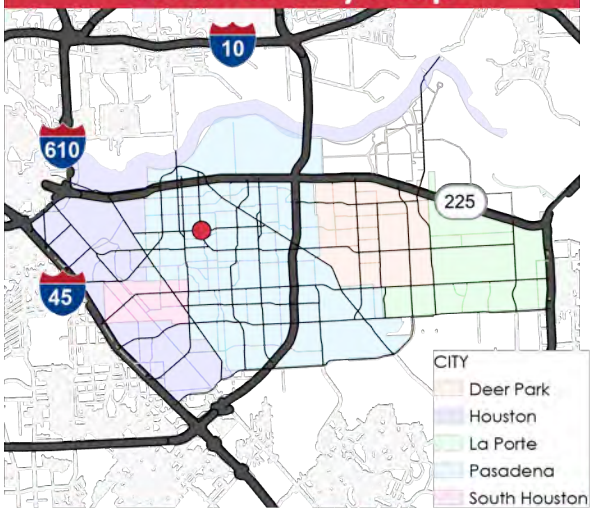
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive eastbound right-turn lane	- Optimize cycle length and splits - Install Flashing Yellow Arrow turn signal for all approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	D	E	D
Delay (s/veh)	50.95	39.6	68.34	42.74
% Change in Delay	-	-22.3%	-	-37.5%

Location Key Map



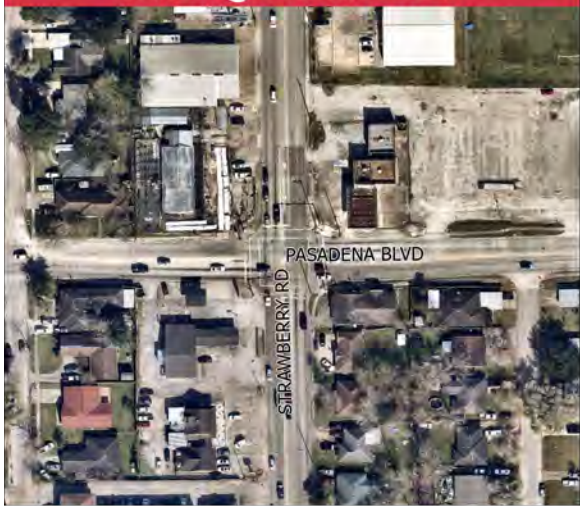
Crash Data (2016-2020)

Total Crashes	89
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	77
Crashes with a Bicyclist	2
Crashes with a Pedestrian	0
Crashes with a Fixed Object	10
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (24)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (19)

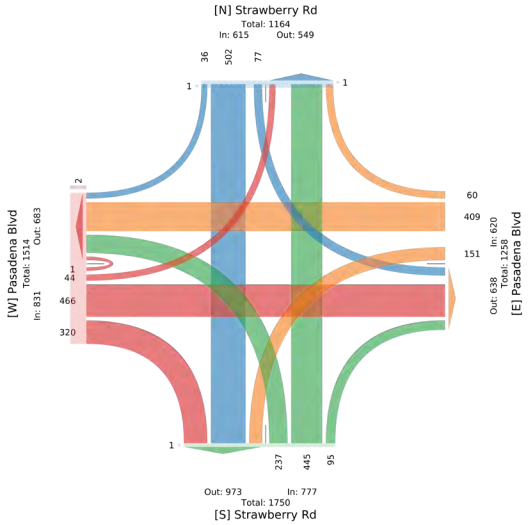
PASADENA BLVD. & STRAWBERRY RD.

Intersection ID: 7.3.1

Existing Aerial View



2021 Turning Movement Counts



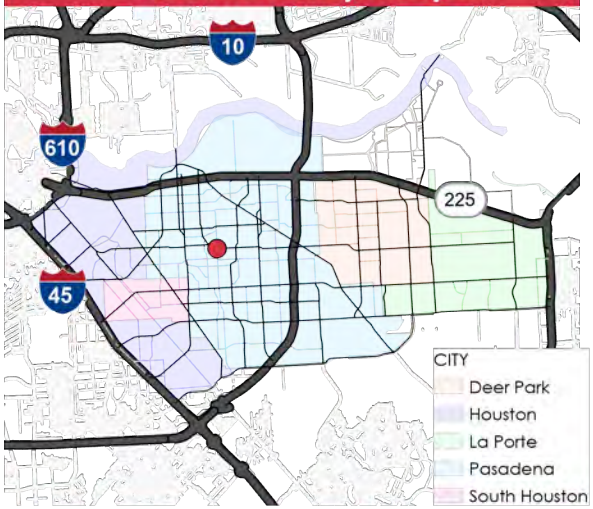
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive eastbound right-turn lane	- Optimize cycle length and splits - Install exclusive left-turn lane for northbound and southbound approaches (dual left) - Change left-turn type from Flashing Yellow Arrow to Protected for northbound and southbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	C	D	D
Delay (s/veh)	41.23	24.97	42.83	42.83
% Change in Delay	-	-39.4%	-	0%

Location Key Map



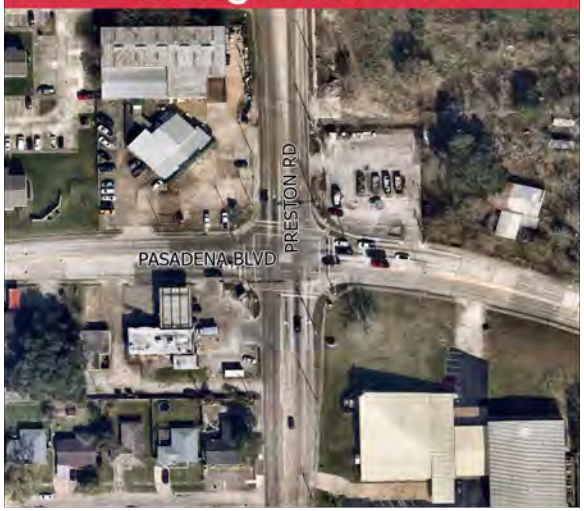
Crash Data (2016-2020)

Total Crashes	65
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	64
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT UTILITY POLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (16)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (12)

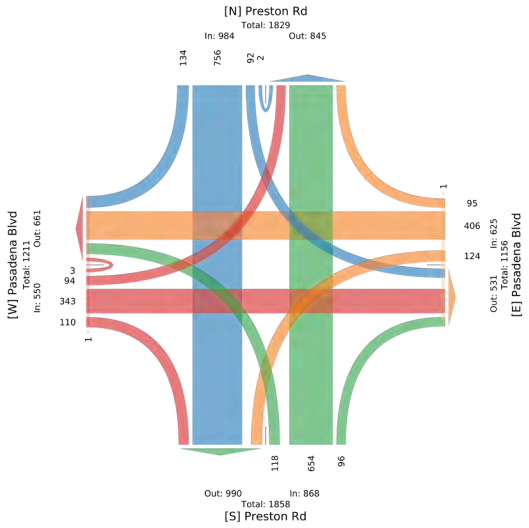
PASADENA BLVD. & PRESTON RD.

Intersection ID: 7.4.1

Existing Aerial View



2021 Turning Movement Counts



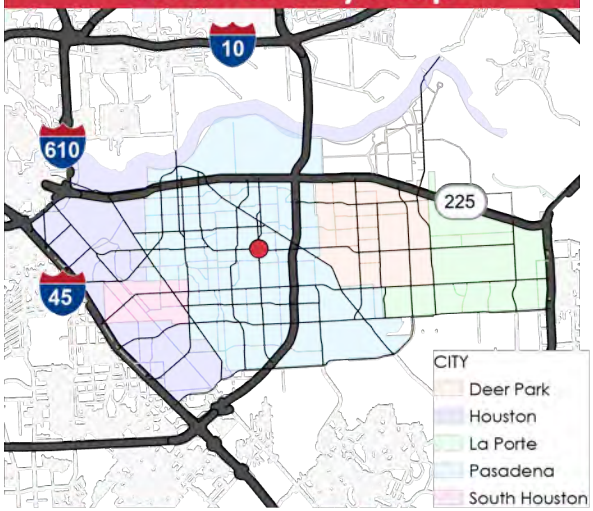
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
None	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	D	C
Delay (s/veh)	28.97	28.97	36.56	32.38
% Change in Delay	-	0%	-	-11.4%

Location Key Map



Crash Data (2016-2020)

Total Crashes	49
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	43
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	6
Most Common Object Struck	HIT HIGHWAY SIGN
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (17)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (14)

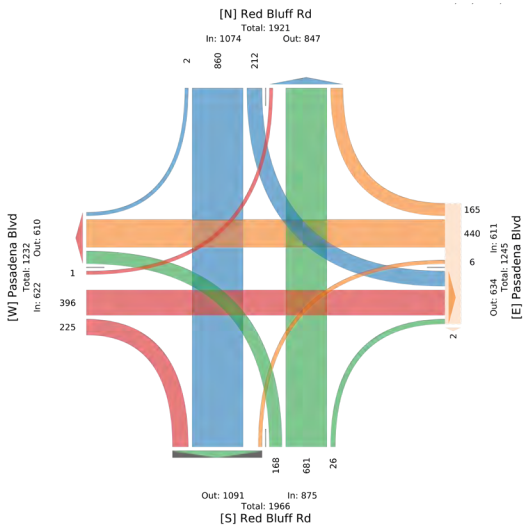
PASADENA BLVD. & RED BLUFF RD.

Intersection ID: 7.4.2

Existing Aerial View



2021 Turning Movement Counts



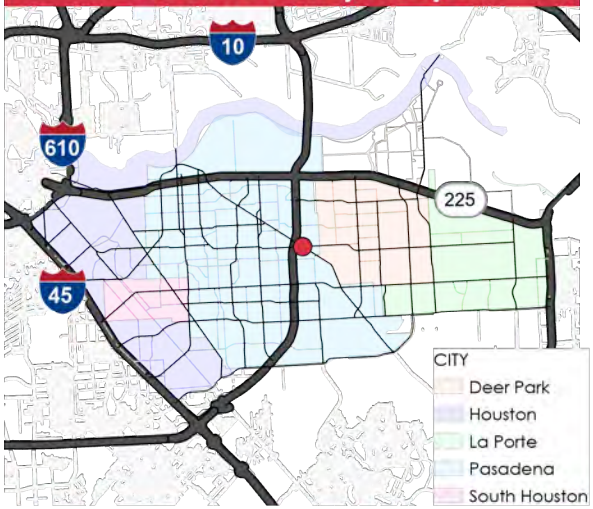
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
None	- Optimize cycle length and splits - Install exclusive right-turn lane for eastbound and westbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	D	C
Delay (s/veh)	33.4	33.4	41.12	30.63
% Change in Delay	-	0%	-	-25.5%

Location Key Map



Crash Data (2016-2020)

Total Crashes	57
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	56
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT GUARDRAIL
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (16)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (13)

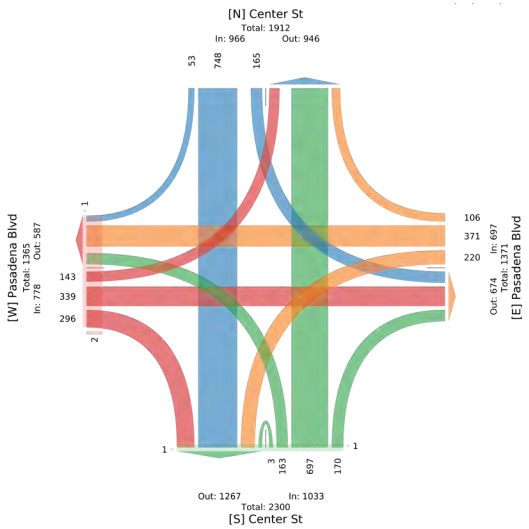
PASADENA BLVD. & CENTER ST.

Intersection ID: 7.6.1

Existing Aerial View



2021 Turning Movement Counts



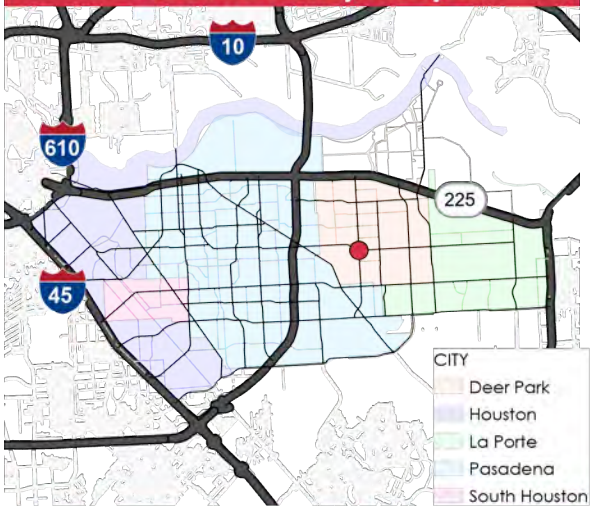
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive eastbound right-turn lane - Install Flashing Yellow Arrow turn signal for eastbound and westbound approaches	- Optimize cycle length and splits - Install exclusive right-turn lane for northbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	Existing	With Recommendations	Existing	With Recommendations
Level-Of-Service	E	E	F	F
Delay (s/veh)	79.85	64.92	125.89	115.9
% Change in Delay	-	-18.7%	-	-7.94%

Location Key Map



Crash Data (2016-2020)

Total Crashes	84
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	82
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT COMMERCIAL SIGN
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (31)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (18)

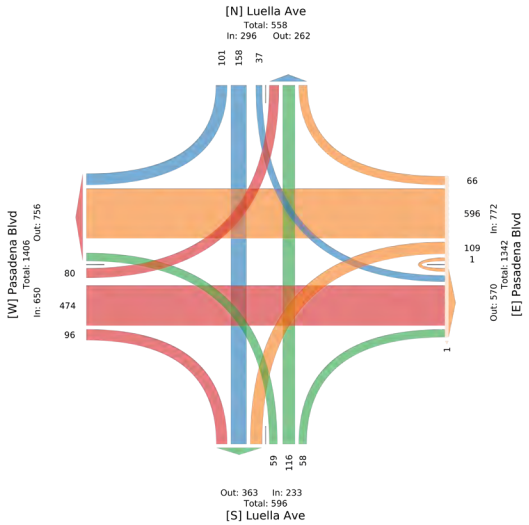
PASADENA BLVD. & LUELLA AVE.

Intersection ID: 7.7.1

Existing Aerial View



2021 Turning Movement Counts



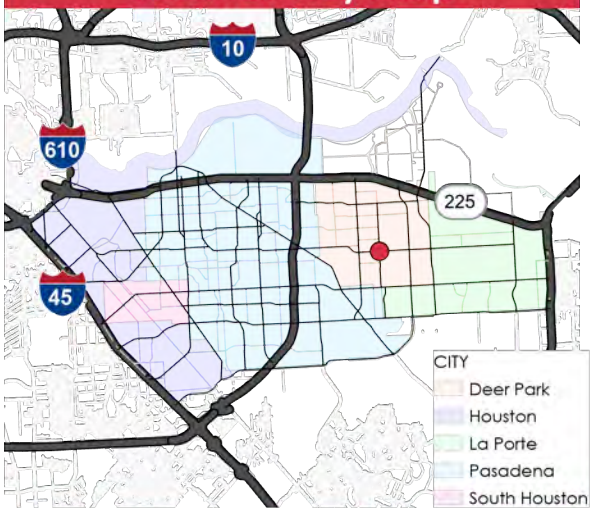
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install Flashing Yellow Arrow turn signal for eastbound and westbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	C	F	C
Delay (s/veh)	43.43	33.1	81.31	31.55
% Change in Delay	-	-23.8%	-	-61.2%

Location Key Map



Crash Data (2016-2020)

Total Crashes	23
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	21
Crashes with a Bicyclist	2
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	HIT FENCE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (11)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (4)

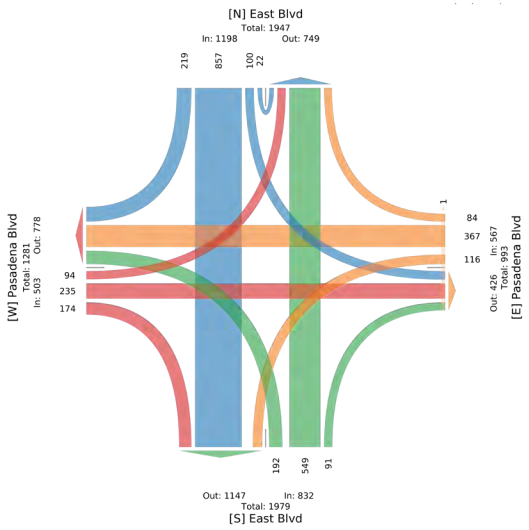
PASADENA BLVD. & EAST BLVD.

Intersection ID: 7.7.2

Existing Aerial View



2021 Turning Movement Counts



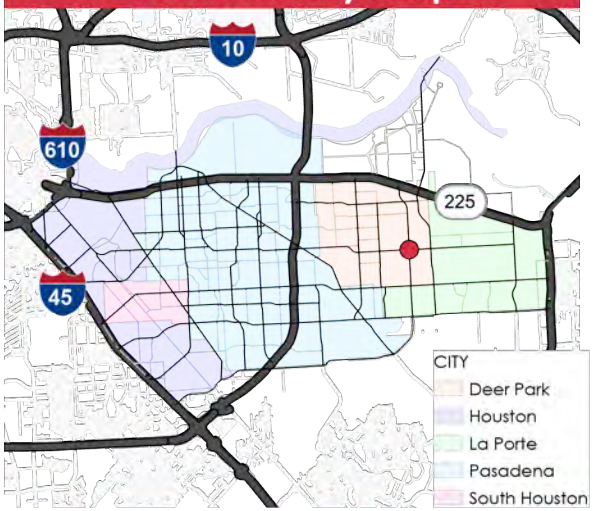
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive right-turn lane for southbound and eastbound approaches - Install through lane for westbound, northbound, and southbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	E	E	F	D
Delay (s/veh)	69.59	69.59	176.74	47.38
% Change in Delay	-	0%	-	-73.19%

Location Key Map



Crash Data (2016-2020)

Total Crashes	35
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	33
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	HIT MEDIAN BARRIER
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (13)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (10)

SE Harris Sub-Regional Study, Intersection Summary Sheets

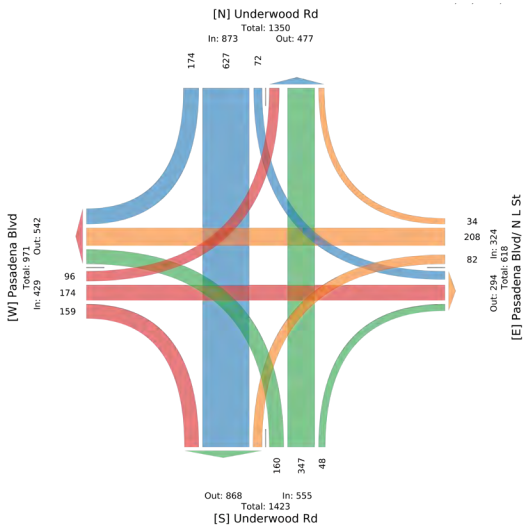
PASADENA BLVD./AVE. L & UNDERWOOD RD.

Intersection ID: 7.8.1

Existing Aerial View



2021 Turning Movement Counts



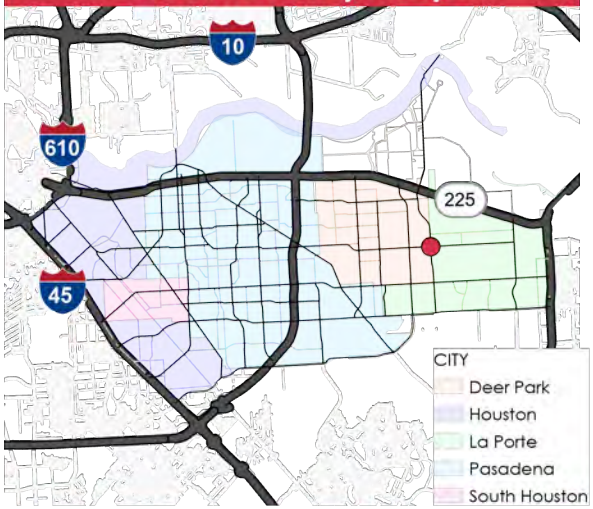
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install Flashing Yellow Arrow turn signal for all approaches - Install exclusive right-turn lane for southbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	C	E	C
Delay (s/veh)	36.92	29.59	61.27	33.9
% Change in Delay	-	-19.8%	-	-44.7%

Location Key Map



Crash Data (2016-2020)

Total Crashes	52
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	50
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (12)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (24)

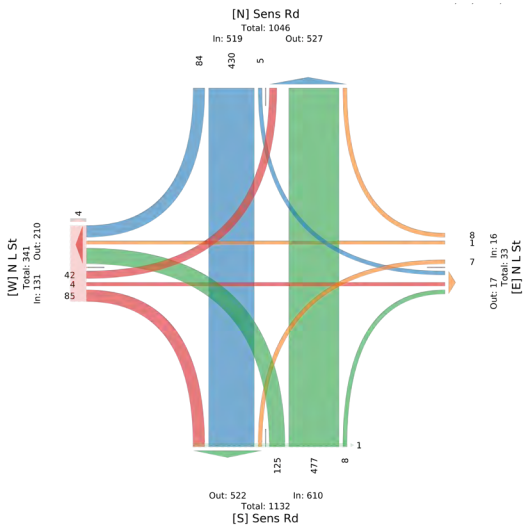
PASADENA BLVD./AVE. L & SENS RD./26TH ST

Intersection ID: 7.9.1

Existing Aerial View



2021 Turning Movement Counts



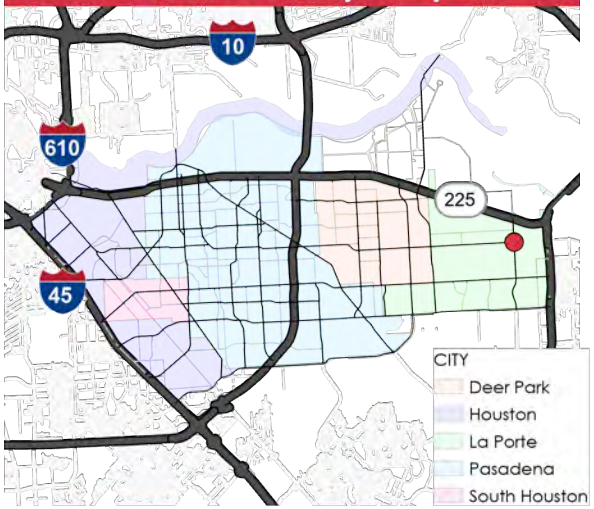
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
None	None
CAPACITY	
None	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	15	15	15.5	15.47
% Change in Delay	-	0%	-	-0.2%

Location Key Map



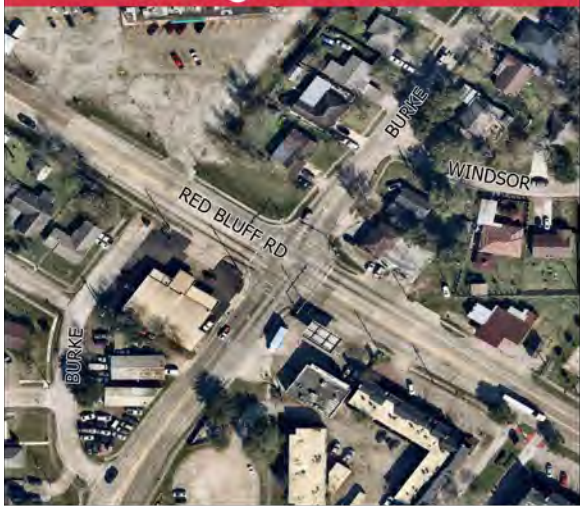
Crash Data (2016-2020)

Total Crashes	12
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	8
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	HIT GUARDRAIL
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (3)
Most Common Factor of Collision	CONSTRUCTION-WITHIN POSTED ROAD CONSTRUCTION ZONE (RELATED TO CRASH) (2)

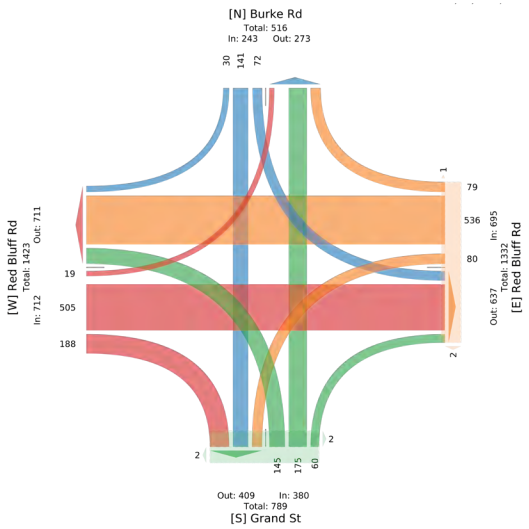
BURKE RD. & RED BLUFF RD.

Intersection ID: 8.2.1

Existing Aerial View



2021 Turning Movement Counts



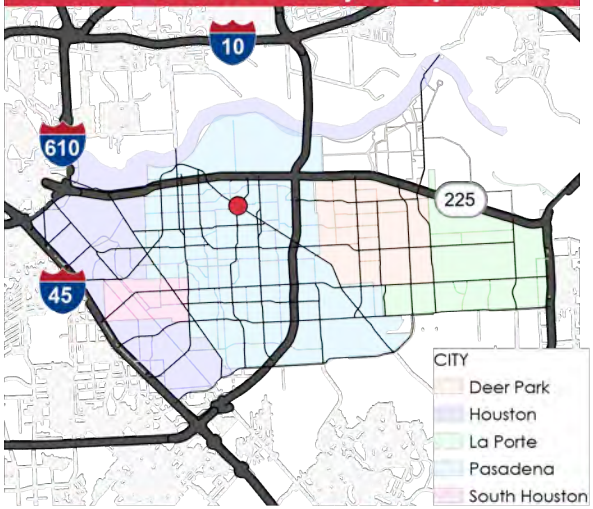
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	31.61	31.61	34.51	34.51
% Change in Delay	-	0%	-	0%

Location Key Map



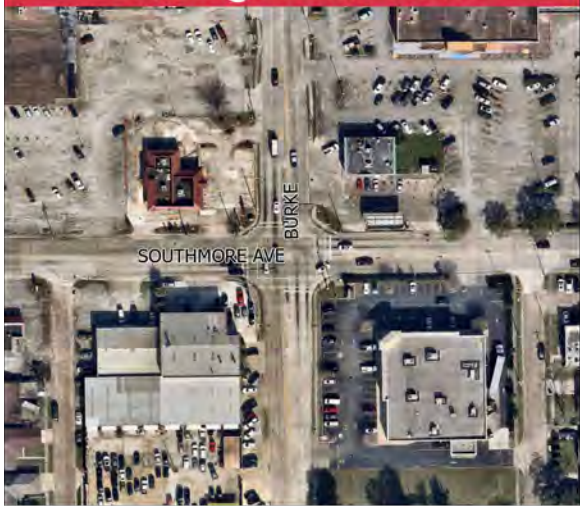
Crash Data (2016-2020)

Total Crashes	55
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	48
Crashes with a Bicyclist	1
Crashes with a Pedestrian	2
Crashes with a Fixed Object	2
Most Common Object Struck	HIT HIGHWAY SIGN
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (10)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (9)

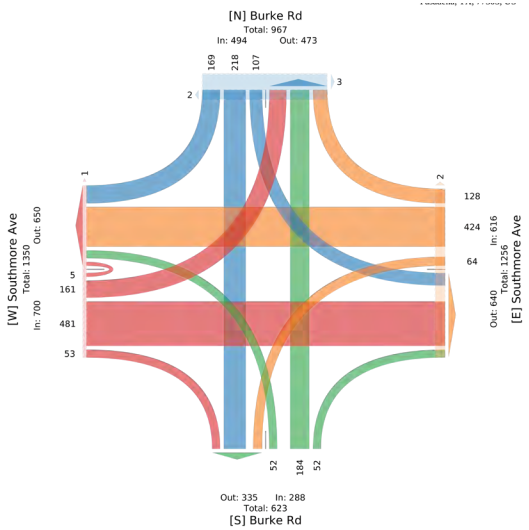
BURKE RD. & SOUTHMORE AVE.

Intersection ID: 8.3.1

Existing Aerial View



2021 Turning Movement Counts



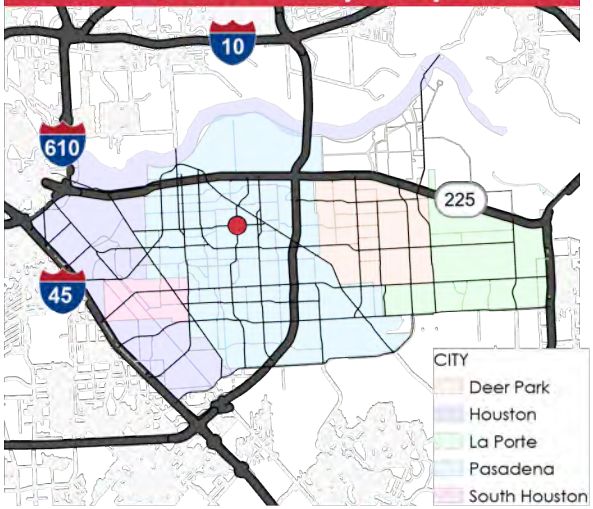
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	26.16	26.16	27.85	27.85
% Change in Delay	-	0%	-	0%

Location Key Map



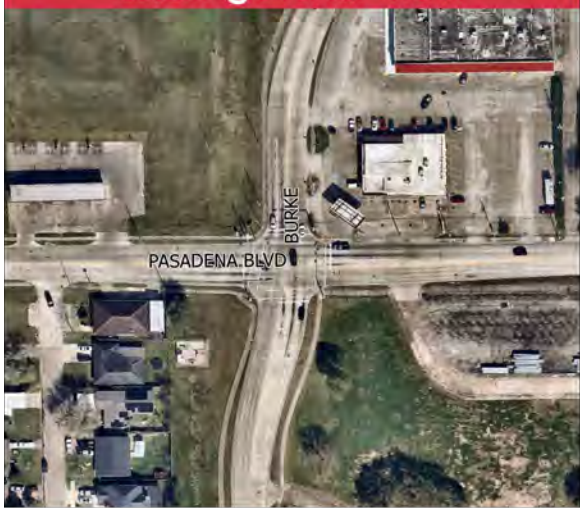
Crash Data (2016-2020)

Total Crashes	54
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	49
Crashes with a Bicyclist	0
Crashes with a Pedestrian	3
Crashes with a Fixed Object	2
Most Common Object Struck	FIRE HYDRANT
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (11)
Most Common Factor of Collision	ATTENTION DIVERTED FROM DRIVING (5)

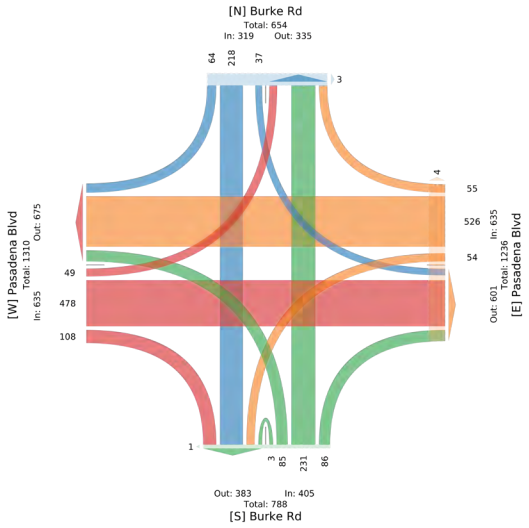
BURKE RD. & PASADENA BLVD.

Intersection ID: 8.4.1

Existing Aerial View



2021 Turning Movement Counts



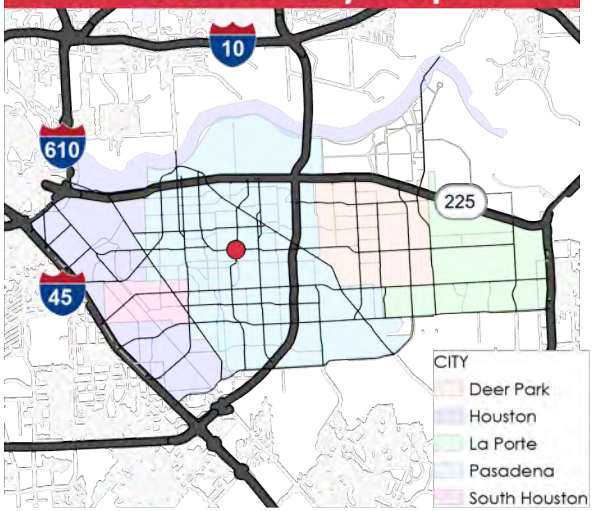
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	C	C	C	C
Delay (s/veh)	24.57	24.57	29.36	27.09
% Change in Delay	-	0%	-	-7.7%

Location Key Map



Crash Data (2016-2020)

Total Crashes	27
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	25
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT UTILITY POLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (8)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (4)

Priority Intersection

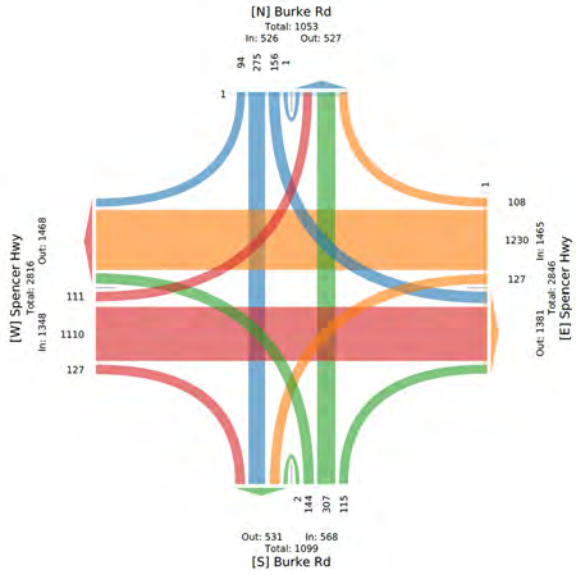
BURKE RD. & SPENCER HWY.

Intersection ID: 8.6.1

Existing Aerial View



2021 Turning Movement Counts



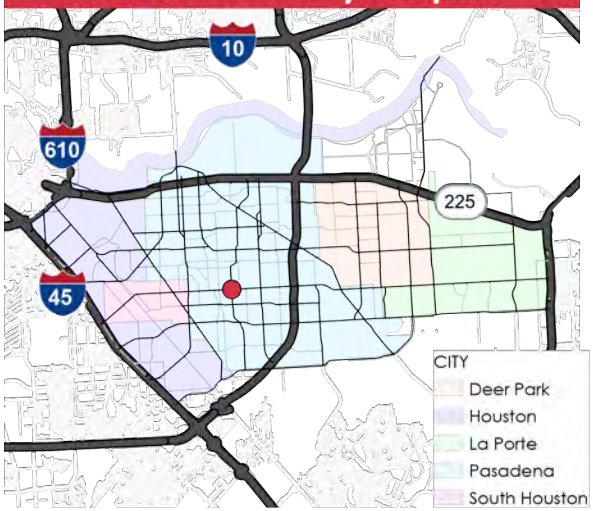
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	C	C	C	C
Delay (s/veh)	27.49	27.49	30.63	30.68
% Change in Delay	-	0%	-	0%

Location Key Map



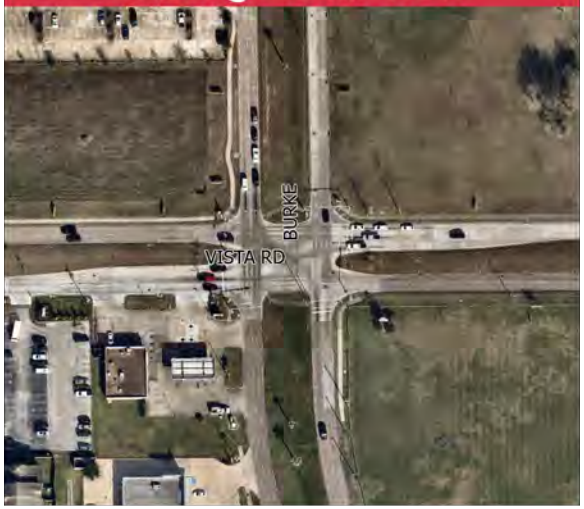
Crash Data (2016-2020)

Total Crashes	174
Severe Crashes (Fatal, Severe Injury)	(0,3)
Crashes with Another Vehicle	164
Crashes with a Bicyclist	2
Crashes with a Pedestrian	2
Crashes with a Fixed Object	5
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (40)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (35)

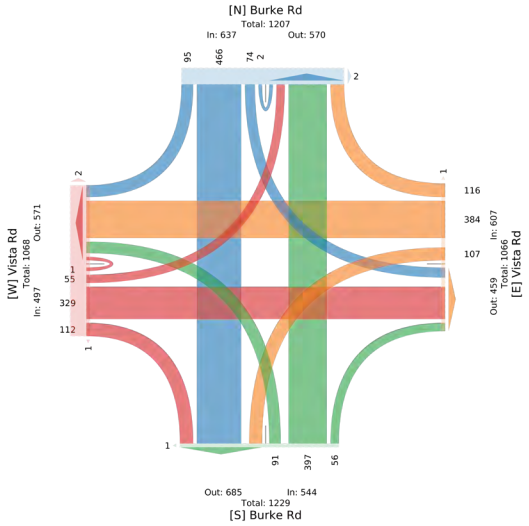
BURKE RD. & VISTA RD.

Intersection ID: 8.6.2

Existing Aerial View



2021 Turning Movement Counts



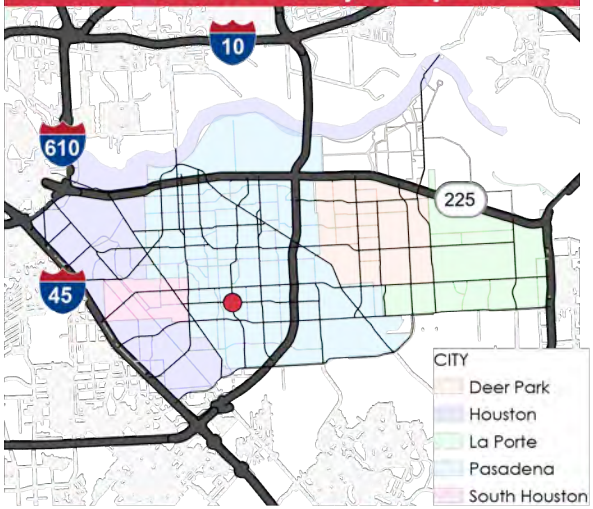
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	23.27	23.27	28.63	28.63
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

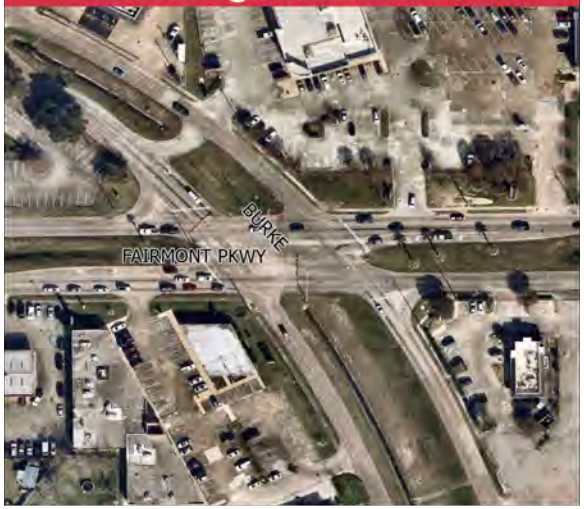
Total Crashes	54
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	49
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	4
Most Common Object Struck	HIT MEDIAN BARRIER
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (19)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (14)

Priority Intersection

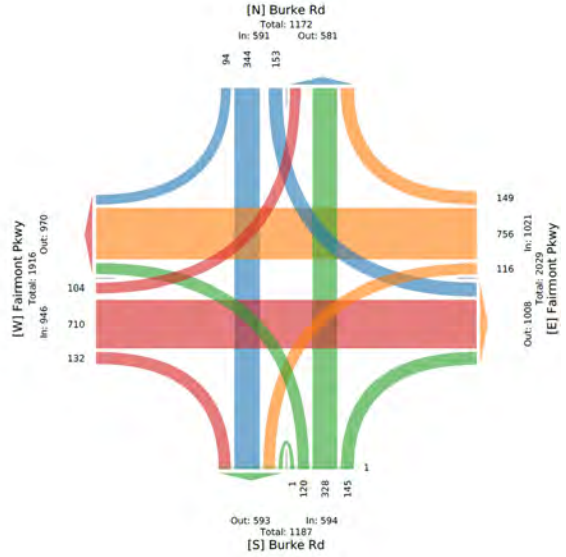
BURKE RD. & FAIRMONT PKWY.

Intersection ID: 8.8.1

Existing Aerial View



2021 Turning Movement Counts



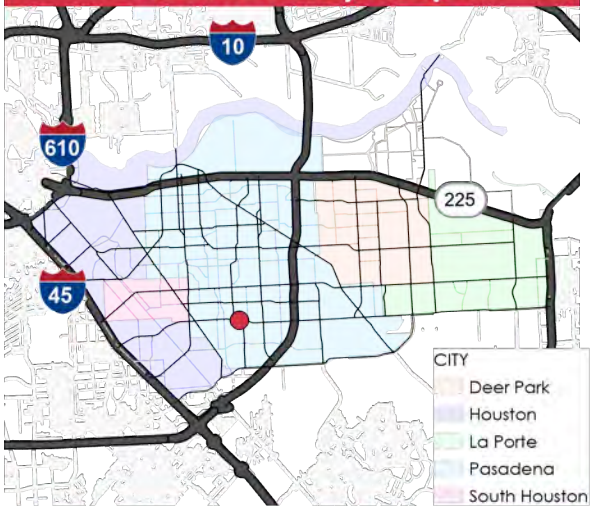
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches - Update all vehicle detection technology - Upgrade pavement markings - Improve enforcement of traffic cell phone laws	- Consolidate driveways in the southeast and southwest corners
CAPACITY	
- Optimize cycle length and splits - Install exclusive northbound left-turn lane	- Optimize cycle length and splits - Install through lane for eastbound and westbound approaches - Change left-turn type from Split to Protected for northbound and southbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	E	D	F	D
Delay (s/veh)	55.72	42.94	86.31	41.2
% Change in Delay	-	-22.9%	-	-52.3%

Location Key Map



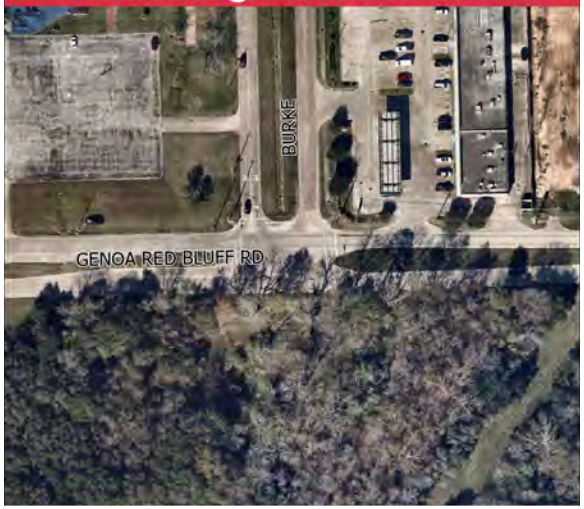
Crash Data (2016-2020)

Total Crashes	86
Severe Crashes (Fatal, Severe Injury)	(0,3)
Crashes with Another Vehicle	80
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	6
Most Common Object Struck	HIT MEDIAN BARRIER
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (24)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (20)

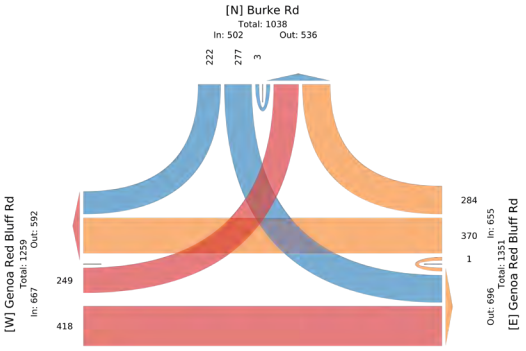
BURKE RD. & GENOA RED BLUFF RD.

Intersection ID: 8.9.1

Existing Aerial View



2021 Turning Movement Counts



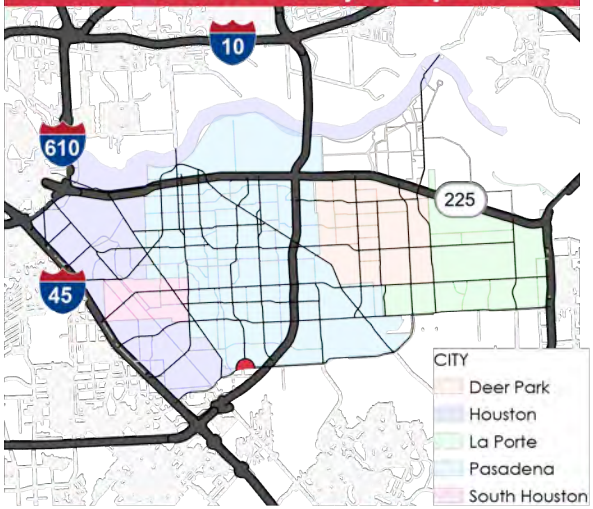
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	22.05	22.02	33.06	33.06
% Change in Delay	-	-0.1%	-	0%

Location Key Map



Crash Data (2016-2020)

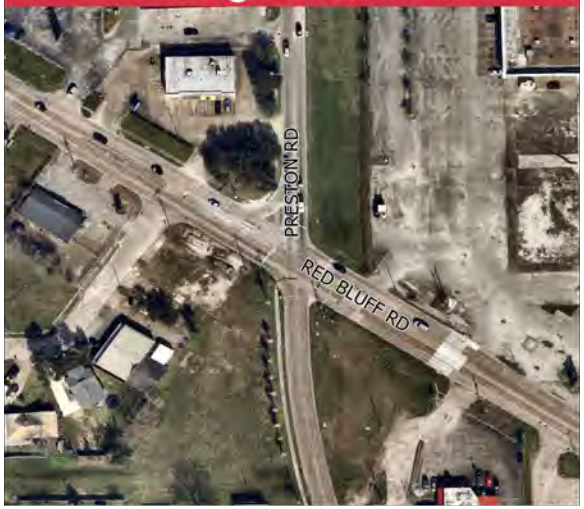
Total Crashes	46
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	41
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	5
Most Common Object Struck	DITCH
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (29)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (4)

Priority Intersection

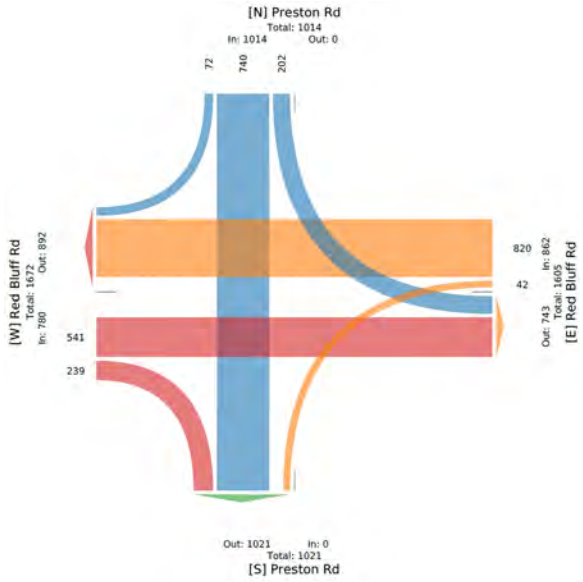
PRESTON RD. & RED BLUFF RD.

Intersection ID: 9.2.1

Existing Aerial View



2021 Turning Movement Counts



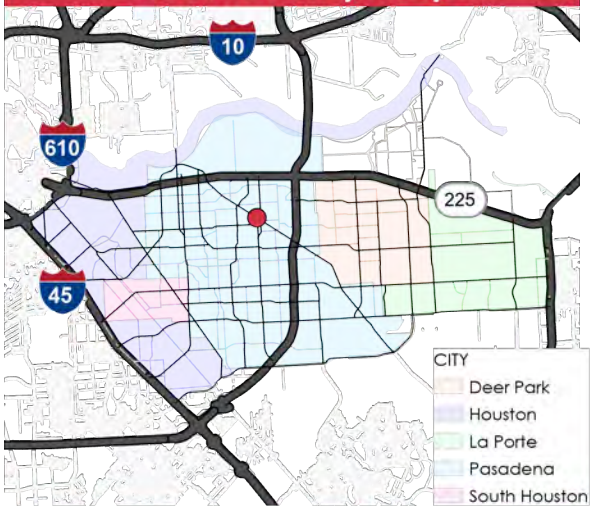
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pavement - Install pedestrian signal - Install crosswalk	None
CAPACITY	
None	- Optimize cycle length and splits - Install through lane for southbound approach - Install exclusive left-turn lane for southbound approach - Install exclusive right-turn lane for eastbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	D	C
Delay (s/veh)	18.08	18.08	40.17	26.16
% Change in Delay	-	0%	-	-34.9%

Location Key Map



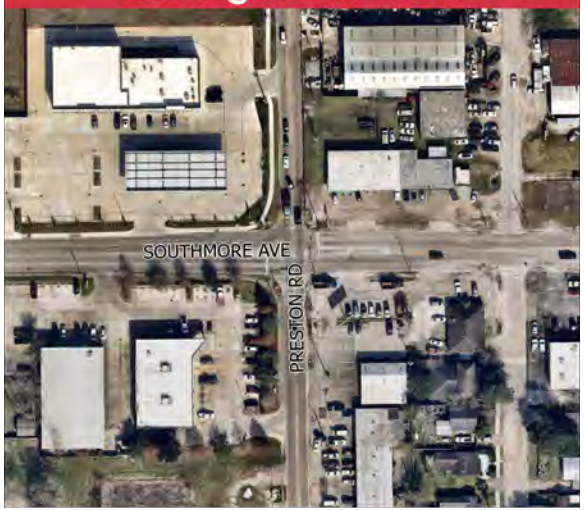
Crash Data (2016-2020)

Total Crashes	81
Severe Crashes (Fatal, Severe Injury)	(1,1)
Crashes with Another Vehicle	78
Crashes with a Bicyclist	1
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (22)
Most Common Factor of Collision	VEHICLE CHANGING LANES (12)

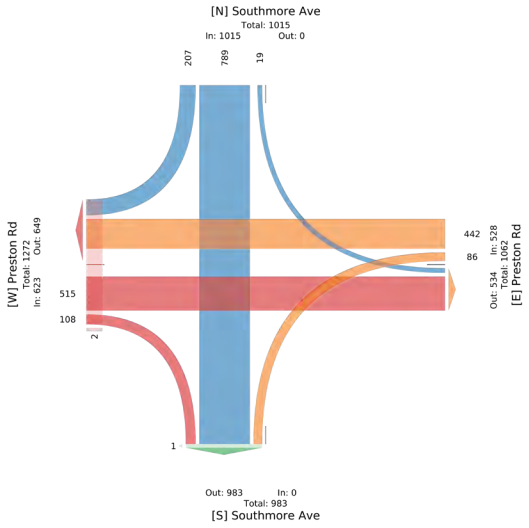
PRESTON RD. & SOUTHMORE AVE.

Intersection ID: 9.2.2

Existing Aerial View



2021 Turning Movement Counts



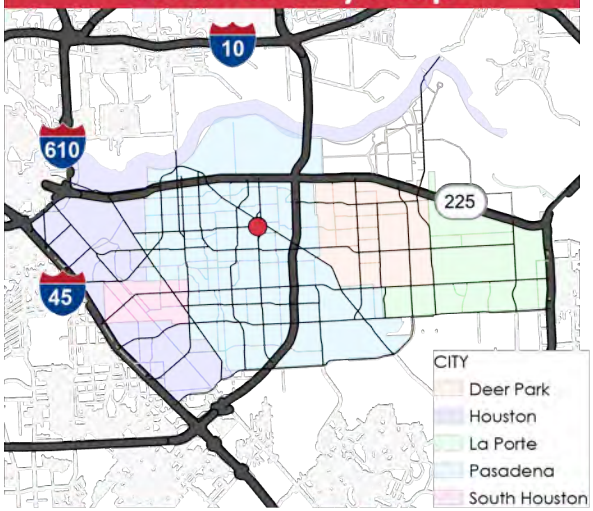
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
None	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	20.99	20.99	24.83	24.27
% Change in Delay	-	0%	-	-2.3%

Location Key Map



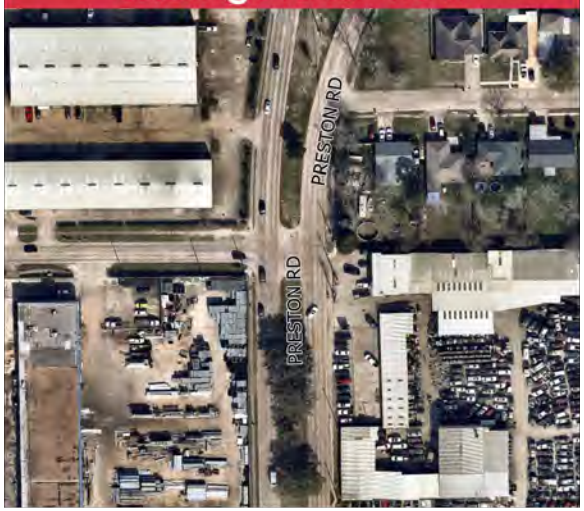
Crash Data (2016-2020)

Total Crashes	71
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	68
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	2
Most Common Object Struck	HIT TRAFFIC SIGNAL POLE OR POST
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (30)
Most Common Factor of Collision	VEHICLE CHANGING LANES (9)

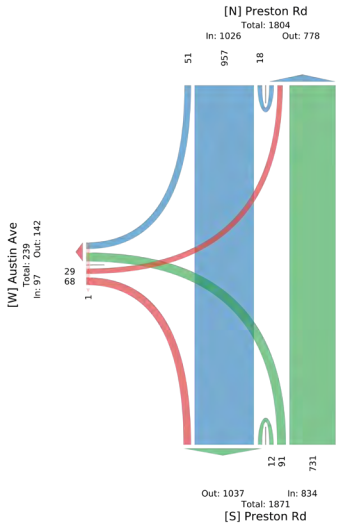
PRESTON RD. & AUSTIN AVE.

Intersection ID: 9.3.1

Existing Aerial View



2021 Turning Movement Counts



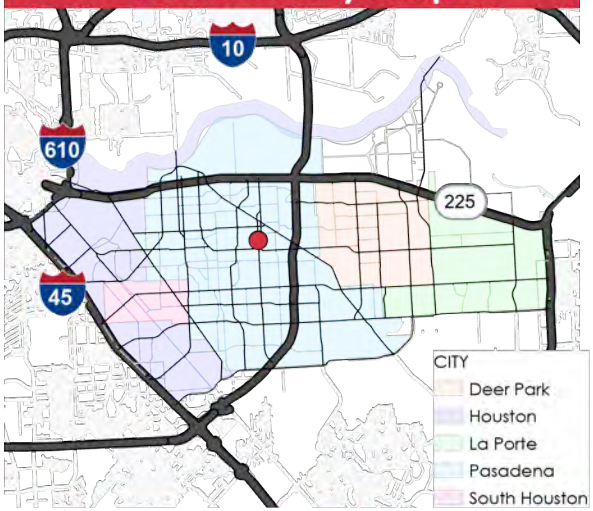
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	A	A	C	C
Delay (s/veh)	3.34	3.34	20.04	20.04
% Change in Delay	-	0%	-	0%

Location Key Map



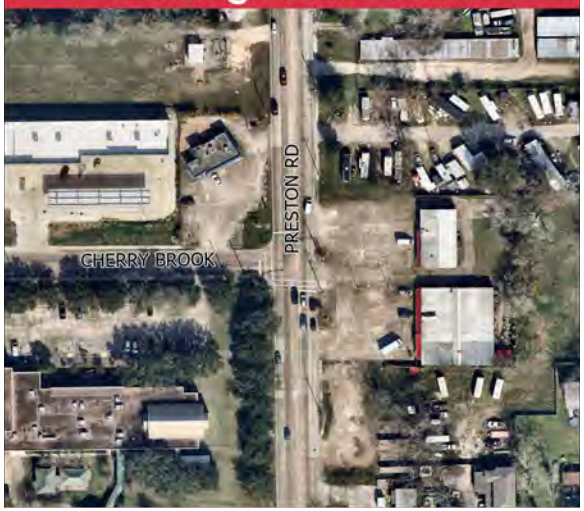
Crash Data (2016-2020)

Total Crashes	21
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	17
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	3
Most Common Object Struck	HIT FENCE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (3)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (2)

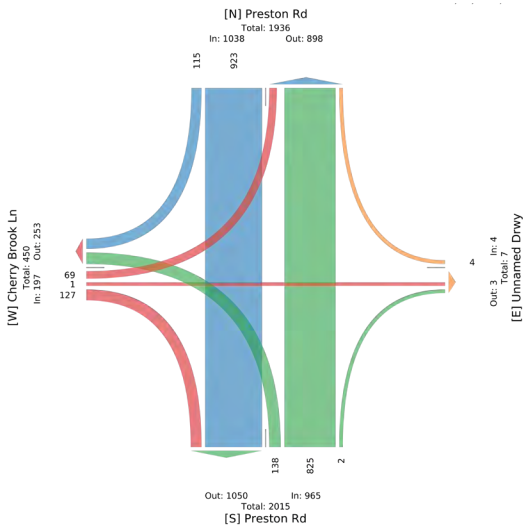
PRESTON RD. & CHERRY BROOK LN.

Intersection ID: 9.4.2

Existing Aerial View



2021 Turning Movement Counts



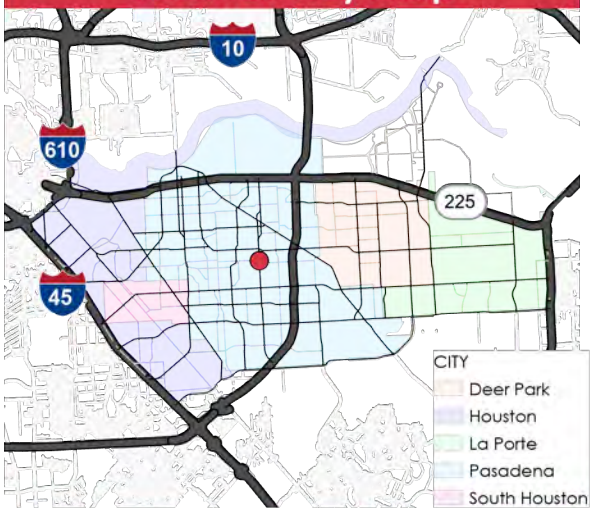
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	Existing	With Recommendations	Existing	With Recommendations
Level-Of-Service	B	B	C	C
Delay (s/veh)	15.03	15.03	21.83	21.83
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	39
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	35
Crashes with a Bicyclist	1
Crashes with a Pedestrian	2
Crashes with a Fixed Object	1
Most Common Object Struck	HIT HIGHWAY SIGN
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (10)
Most Common Factor of Collision	ATTENTION DIVERTED FROM DRIVING (6)

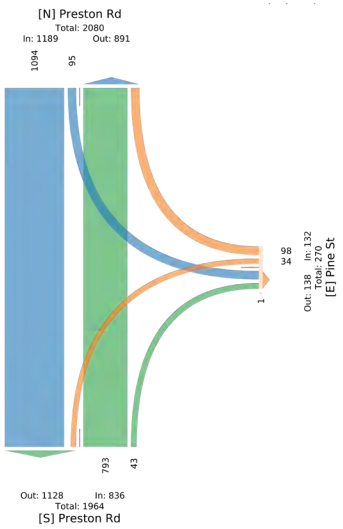
PRESTON RD. & PINE ST.

Intersection ID: 9.4.3

Existing Aerial View



2021 Turning Movement Counts



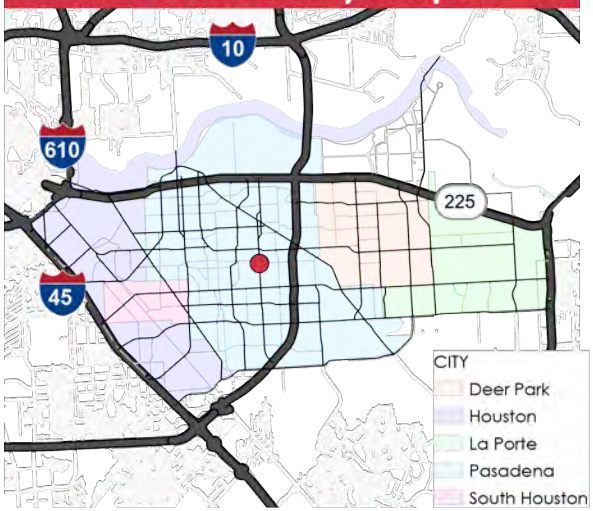
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	A	A	A	A
Delay (s/veh)	8.16	8.16	8.49	8.49
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	27
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	27
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (7)
Most Common Factor of Collision	VEHICLE CHANGING LANES (4)

Priority Intersection

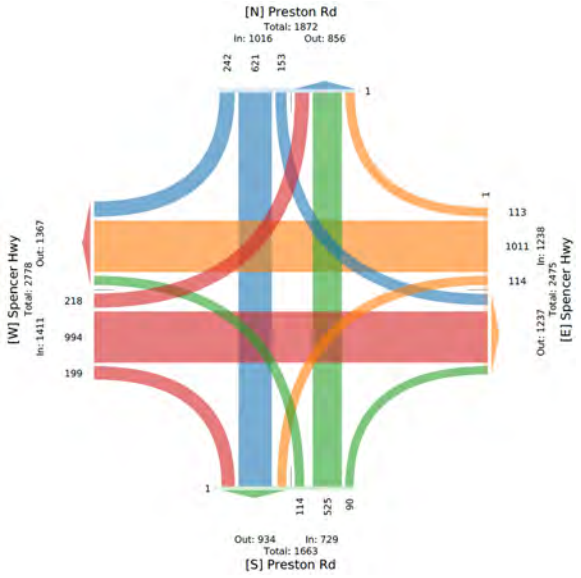
PRESTON RD. & SPENCER HWY.

Intersection ID: 9.5.1

Existing Aerial View



2021 Turning Movement Counts



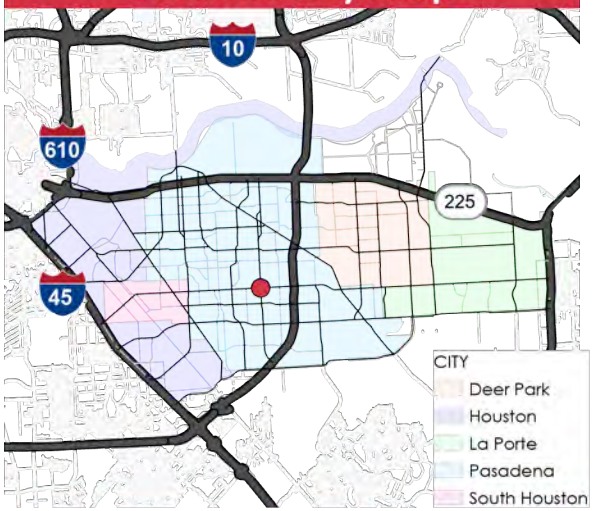
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive right-turn lane for eastbound and southbound approaches	- Optimize cycle length and splits - Install through lane for northbound and southbound approaches - Install exclusive right-turn lane for westbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	E	D	F	D
Delay (s/veh)	57.31	36.82	88.8	49.69
% Change in Delay	-	-35.8%	-	-44%

Location Key Map



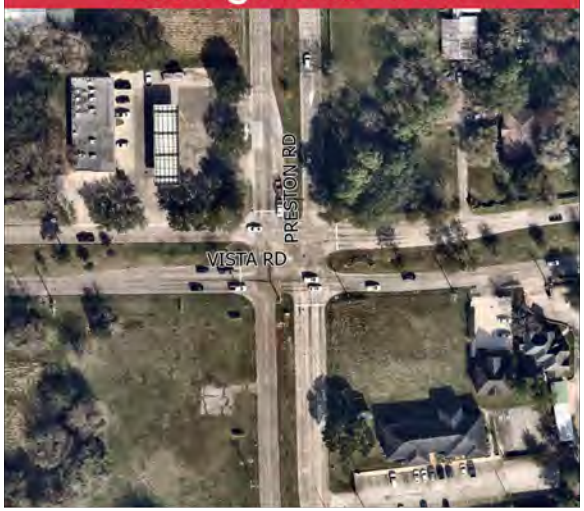
Crash Data (2016-2020)

Total Crashes	160
Severe Crashes (Fatal, Severe Injury)	(1,3)
Crashes with Another Vehicle	156
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	3
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (38)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (31)

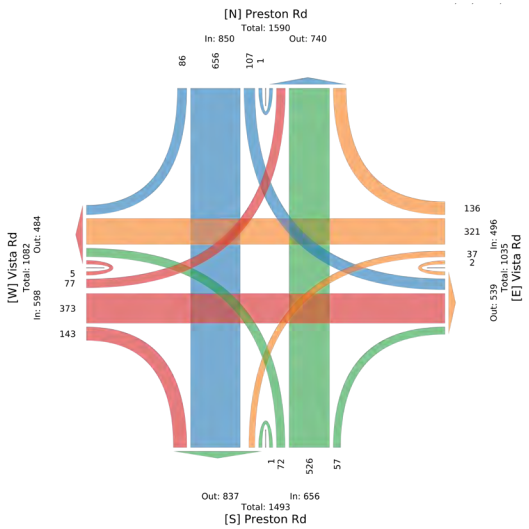
PRESTON RD. & VISTA RD.

Intersection ID: 9.5.2

Existing Aerial View



2021 Turning Movement Counts



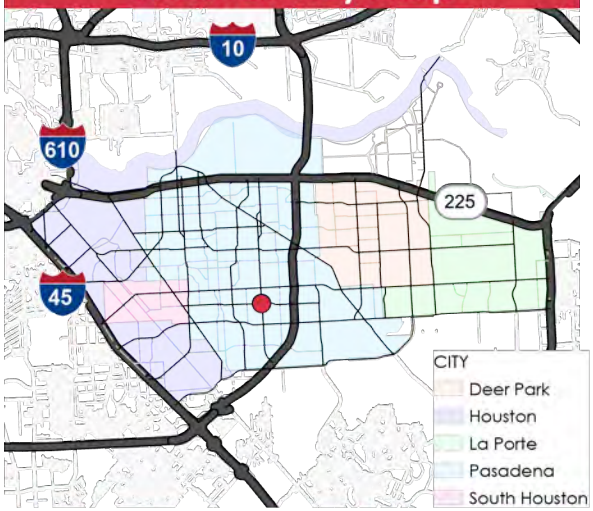
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install through lane for southbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	C	E	D
Delay (s/veh)	35.84	32.6	60.25	43.36
% Change in Delay	-	-9%	-	-28%

Location Key Map



Crash Data (2016-2020)

Total Crashes	72
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	70
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	HIT FENCE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (18)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (17)

Priority Intersection

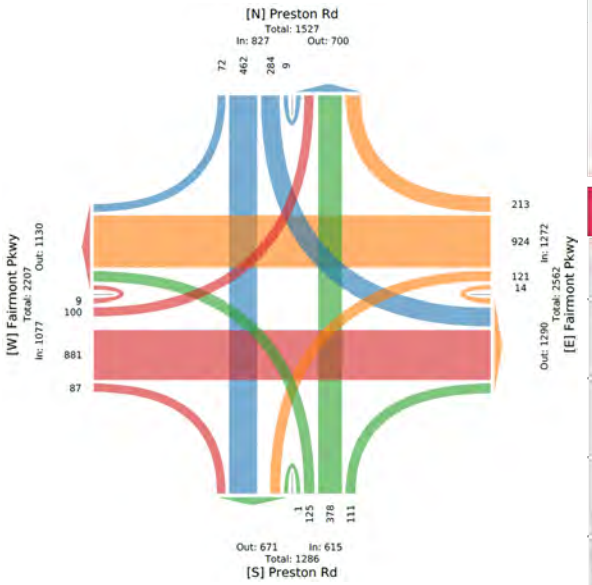
PRESTON RD. & FAIRMONT PKWY.

Intersection ID: 9.6.1

Existing Aerial View



2021 Turning Movement Counts



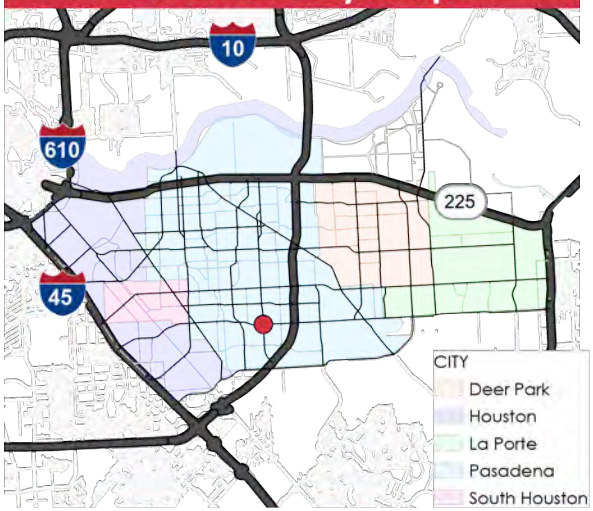
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches - Update all vehicle detection technology - Improve enforcement of traffic cell phone laws - Upgrade pavement markings - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	- Upgrade pavement - Consolidate driveways in the northwest and northeast corners
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive right-turn lane for westbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	D	D	F	D
Delay (s/veh)	41.92	36.99	91.63	48.5
% Change in Delay	-	-11.7%	-	-47.1%

Location Key Map



Crash Data (2016-2020)

Total Crashes	138
Severe Crashes (Fatal, Severe Injury)	(0,5)
Crashes with Another Vehicle	130
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	7
Most Common Object Struck	HIT TREE, SHRUB, LANDSCAPING
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (40)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (19)

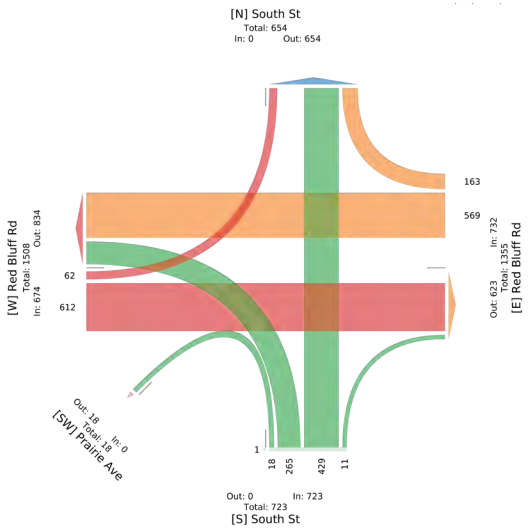
SOUTH ST. & RED BLUFF RD.

Intersection ID: 10.1.1

Existing Aerial View



2021 Turning Movement Counts



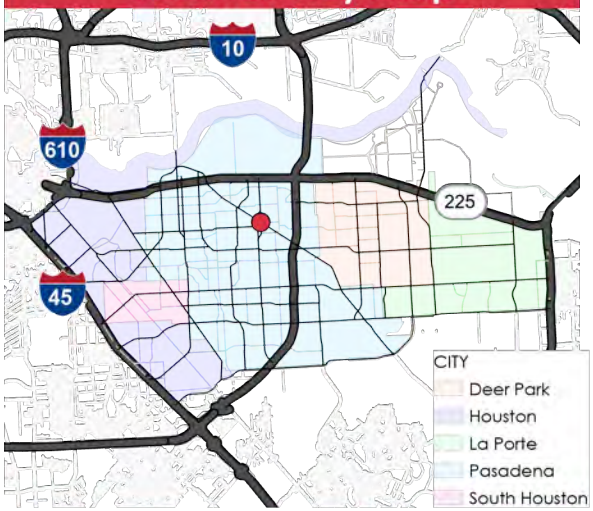
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
None	- Align north and south legs

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	18.03	18.03	16.68	16.68
% Change in Delay	-	0%	-	0%

Location Key Map



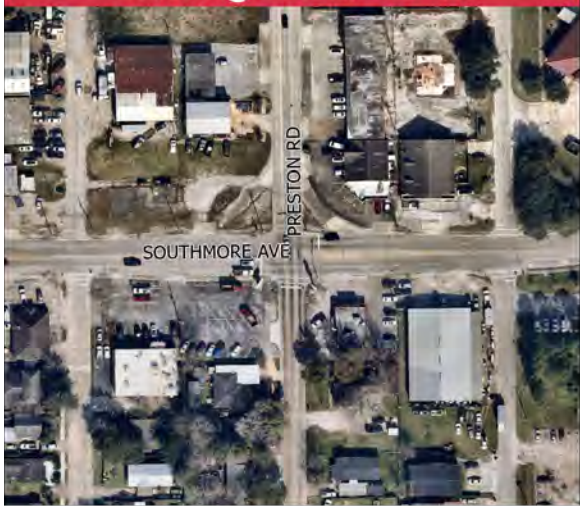
Crash Data (2016-2020)

Total Crashes	49
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	47
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	FIRE HYDRANT
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (15)
Most Common Factor of Collision	ONE VEHICLE ENTERING DRIVEWAY (4)

SOUTH ST. & DEEPWATER AVE.

Intersection ID: 10.2.1

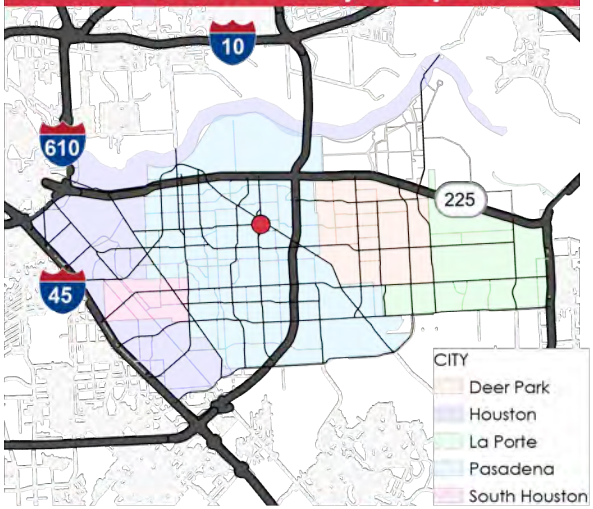
Existing Aerial View



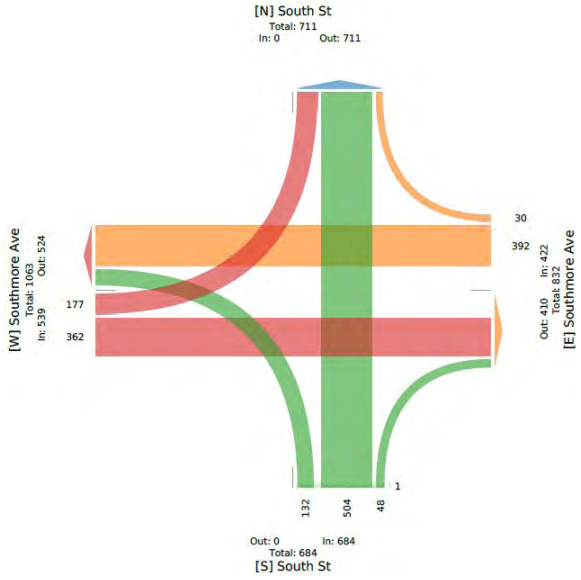
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
None	None

Location Key Map



2021 Turning Movement Counts



Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	14.62	14.62	15.78	15.78
% Change in Delay	-	0%	-	0%

Crash Data (2016-2020)

Total Crashes	53
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	51
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT HIGHWAY SIGN
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (28)
Most Common Factor of Collision	ATTENTION DIVERTED FROM DRIVING (6)

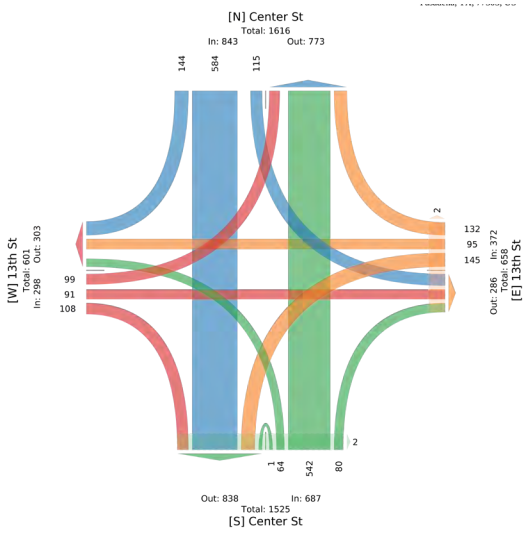
CENTER ST. & THIRTEENTH ST.

Intersection ID: 11.1.1

Existing Aerial View



2021 Turning Movement Counts



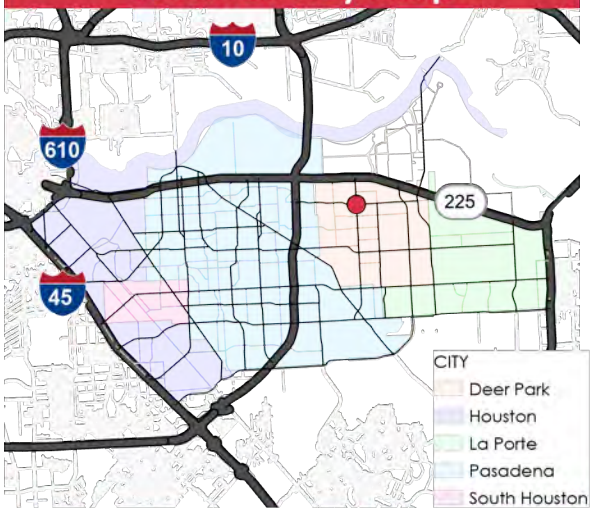
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive left-turn lanes for eastbound and westbound approaches	- Optimize cycle length and splits - Install Flashing Yellow Arrow turn signal for northbound and southbound approaches - Install exclusive right-turn lane for southbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	D	E	D
Delay (s/veh)	48.29	39.55	73.03	39.71
% Change in Delay	-	-18.1%	-	-45.6%

Location Key Map



Crash Data (2016-2020)

Total Crashes	46
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	40
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	4
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (15)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (9)

Priority Intersection

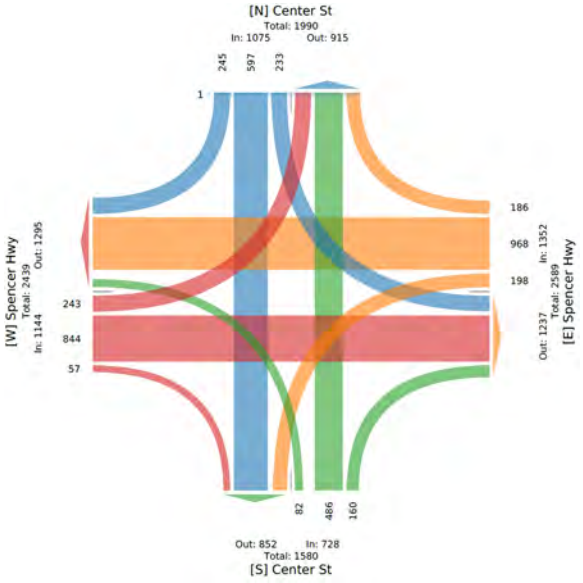
CENTER ST. & SPENCER HWY.

Intersection ID: 11.3.1

Existing Aerial View



2021 Turning Movement Counts



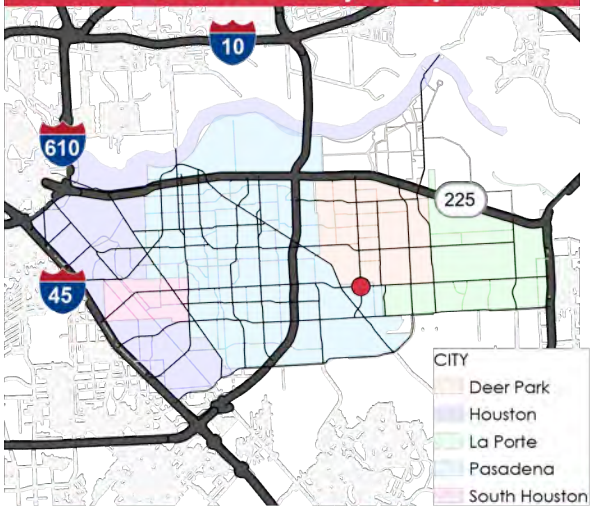
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive right-turn lane for westbound, northbound, and southbound approaches	- Optimize cycle length and splits - Install exclusive left-turn lane for eastbound, westbound, and southbound approaches (dual left)

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	E	D	F	D
Delay (s/veh)	76.5	50.3	95.9	46.7
% Change in Delay	-	-34.25%	-	-51.3%

Location Key Map



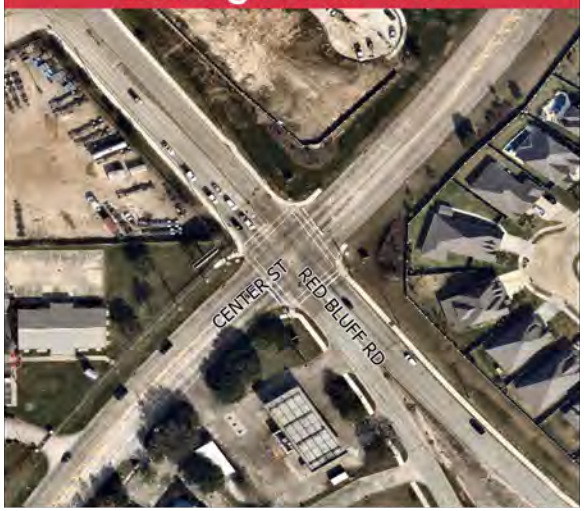
Crash Data (2016-2020)

Total Crashes	200
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	196
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	2
Most Common Object Struck	HIT MEDIAN BARRIER
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (53)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (47)

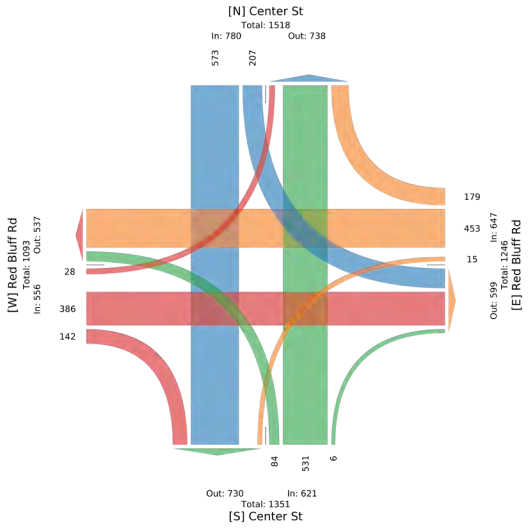
CENTER ST. & RED BLUFF RD.

Intersection ID: 11.3.2

Existing Aerial View



2021 Turning Movement Counts



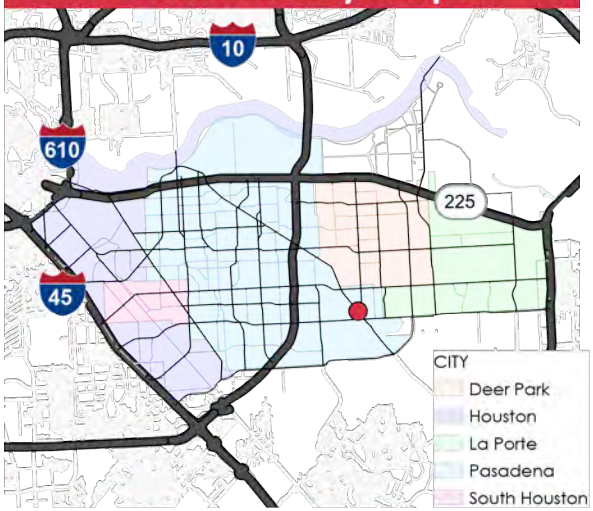
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits - Install Flashing Yellow Arrow turn signal for all approaches - Install exclusive westbound right-turn lane	- Optimize cycle length and splits - Install exclusive right-turn lane for eastbound approach - Install Flashing Yellow Arrow turn signal for all approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	C	E	D
Delay (s/veh)	51.62	27.88	57.03	38.21
% Change in Delay	-	-46%	-	-33%

Location Key Map



Crash Data (2016-2020)

Total Crashes	57
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	56
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (17)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (16)

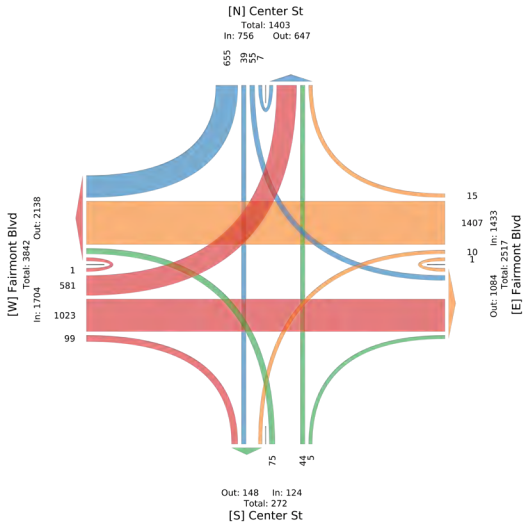
CENTER ST. & FAIRMONT PKWY.

Intersection ID: 11.3.3

Existing Aerial View



2021 Turning Movement Counts



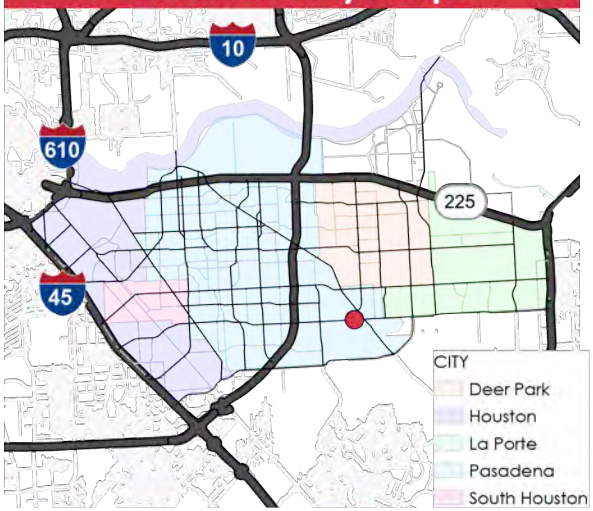
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	D	C	E	E
Delay (s/veh)	35.01	34.8	62.57	58.26
% Change in Delay	-	-0.6%	-	-6.9%

Location Key Map



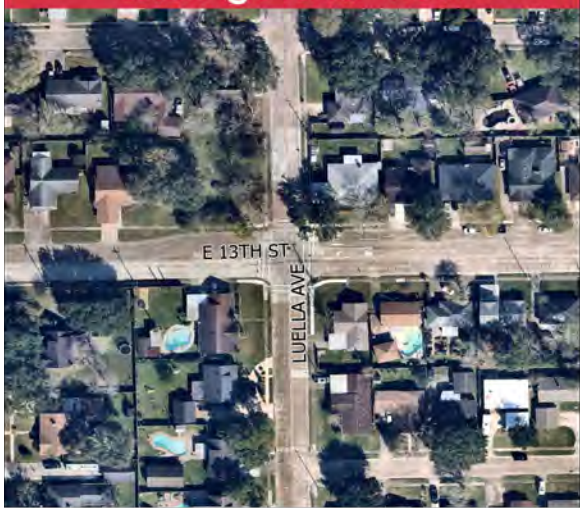
Crash Data (2016-2020)

Total Crashes	68
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	65
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	HIT GUARDRAIL
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (28)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (20)

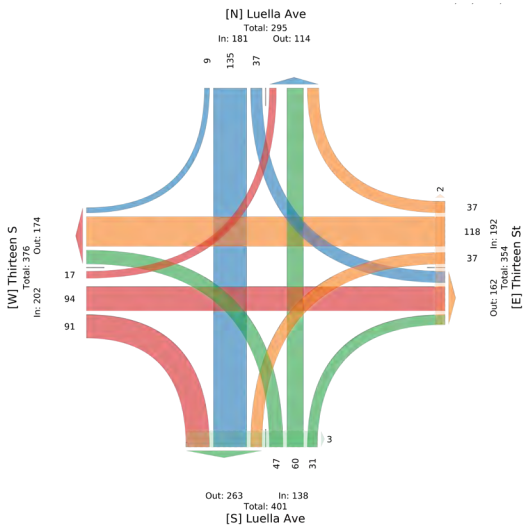
LUELLA AVE. & THIRTEENTH ST.

Intersection ID: 12.1.1

Existing Aerial View



2021 Turning Movement Counts



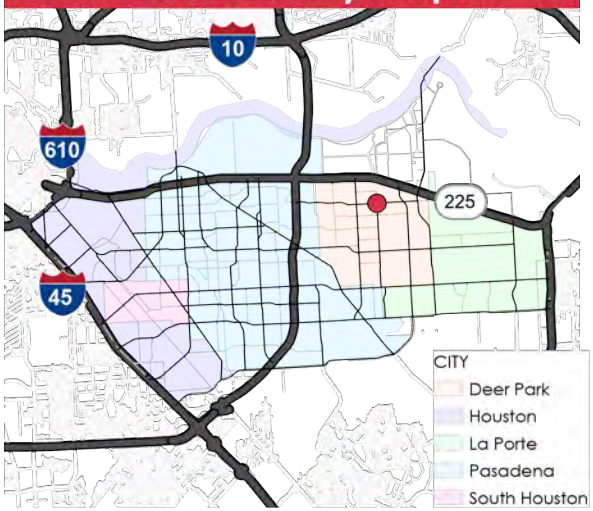
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	27.72	27.72	26.84	26.84
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	11
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	8
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (5)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (6)

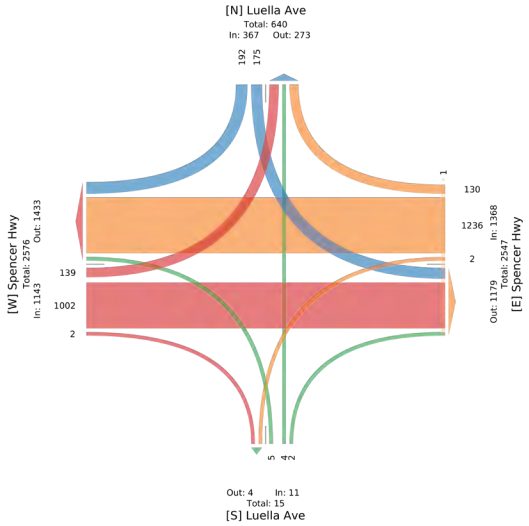
LUELLA AVE. & SPENCER HWY.

Intersection ID: 12.1.3

Existing Aerial View



2021 Turning Movement Counts



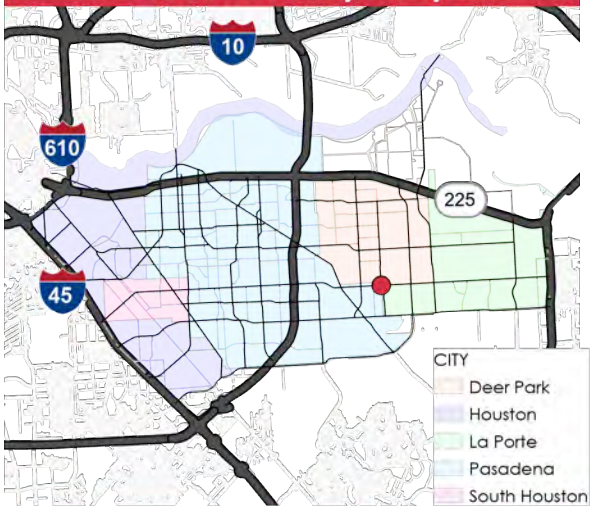
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	22.48	22.48	25.2	25.2
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	25
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	24
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	ANGLE - ONE STRAIGHT-ONE LEFT TURN (8)
Most Common Factor of Collision	ATTENTION DIVERTED FROM DRIVING (6)

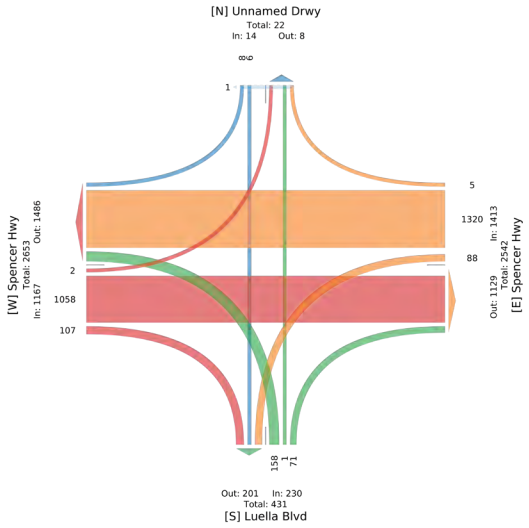
LUELLA BLVD. & SPENCER HWY.

Intersection ID: 12.2.1

Existing Aerial View



2021 Turning Movement Counts



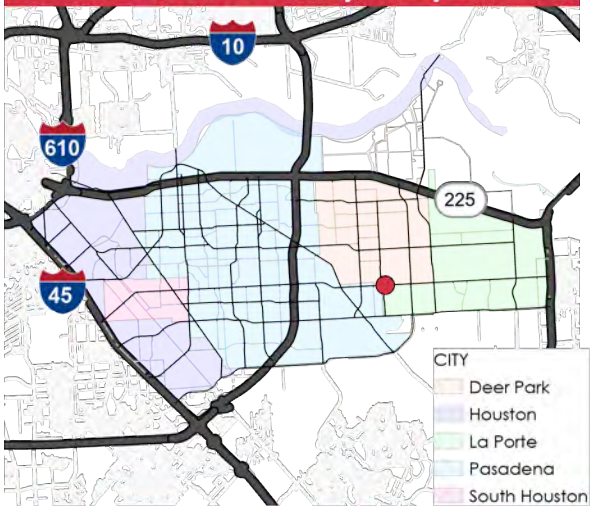
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	C	C	C	C
Delay (s/veh)	25.15	25.15	23.31	23.31
% Change in Delay	-	0%	-	0%

Location Key Map



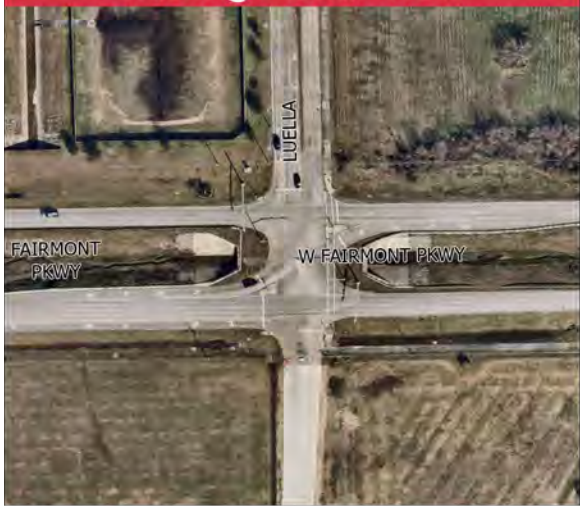
Crash Data (2016-2020)

Total Crashes	65
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	63
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	ANGLE - ONE STRAIGHT-ONE LEFT TURN (17)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (12)

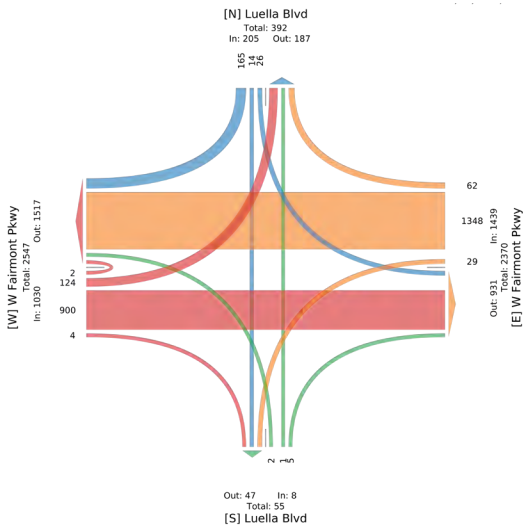
LUELLA BLVD. & FAIRMONT PKWY.

Intersection ID: 12.2.2

Existing Aerial View



2021 Turning Movement Counts



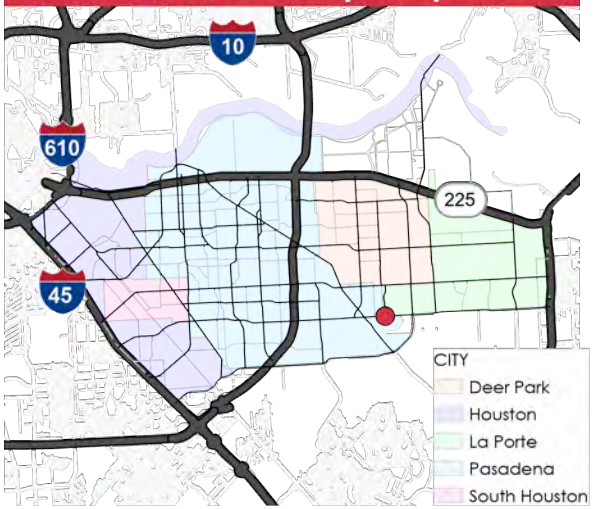
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	22.14	22.14	22.94	22.94
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	29
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	25
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	4
Most Common Object Struck	DITCH
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (11)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (12)

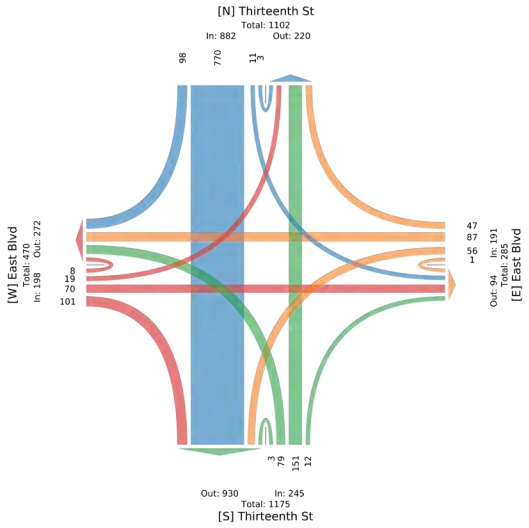
EAST BLVD. & THIRTEENTH ST.

Intersection ID: 13.1.1

Existing Aerial View



2021 Turning Movement Counts



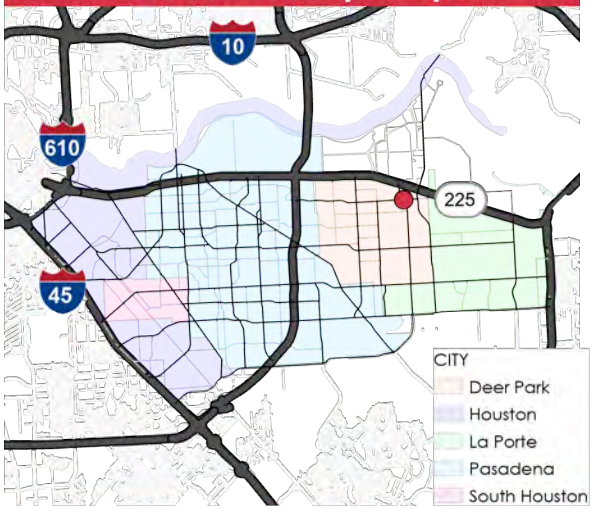
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	D	C
Delay (s/veh)	27.21	27.21	35.87	34.08
% Change in Delay	-	0%	-	-5%

Location Key Map



Crash Data (2016-2020)

Total Crashes	17
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	17
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	OVERTURNED
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (6)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (3)

CANADA RD./EAST BLVD. & SPENCER HWY.

Intersection ID: 13.2.1

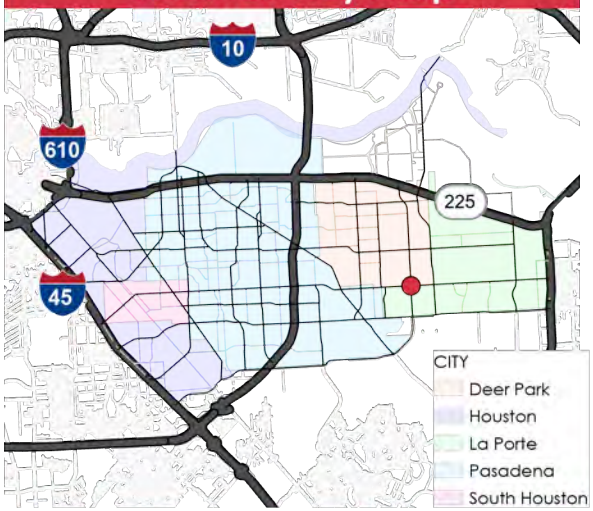
Existing Aerial View



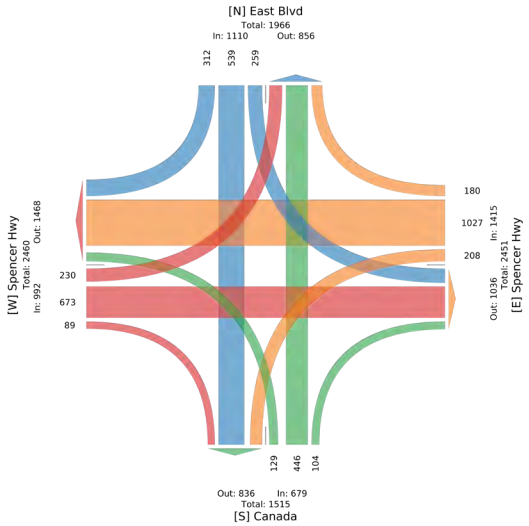
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Upgrade curb ramps	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive right-turn lane for southbound and westbound approaches	- Optimize cycle length and splits - Install exclusive left-turn lane for eastbound approach (dual left)

Location Key Map



2021 Turning Movement Counts



Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	C	E	D
Delay (s/veh)	50.27	34.51	78.84	52.2
% Change in Delay	-	-31.3%	-	-33.8%

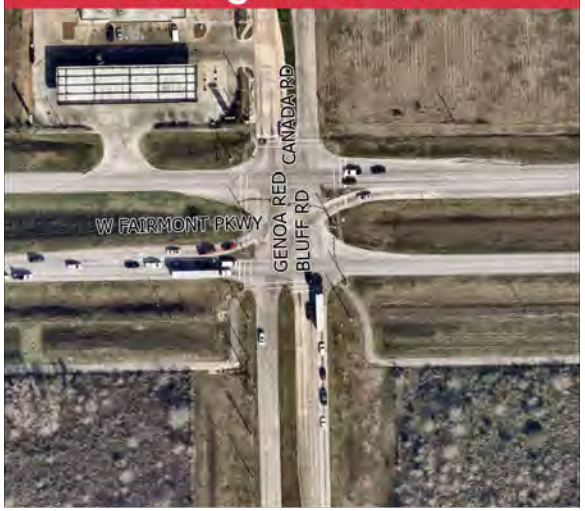
Crash Data (2016-2020)

Total Crashes	153
Severe Crashes (Fatal, Severe Injury)	(2,0)
Crashes with Another Vehicle	142
Crashes with a Bicyclist	2
Crashes with a Pedestrian	1
Crashes with a Fixed Object	7
Most Common Object Struck	HIT MEDIAN BARRIER
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (36)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (32)

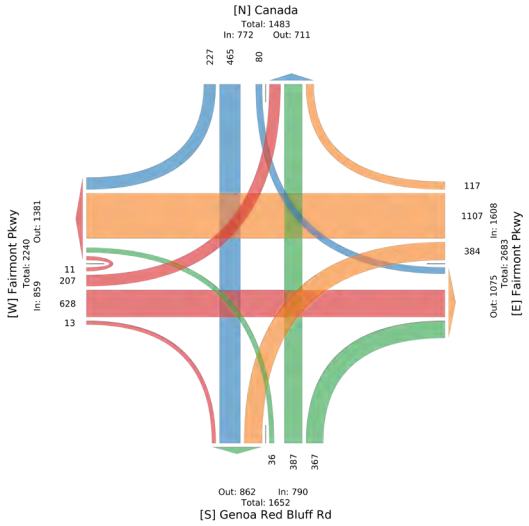
GENOA RED BLUFF RD./CANADA RD. & FAIRMONT PKWY.

Intersection ID: 13.3.1

Existing Aerial View



2021 Turning Movement Counts



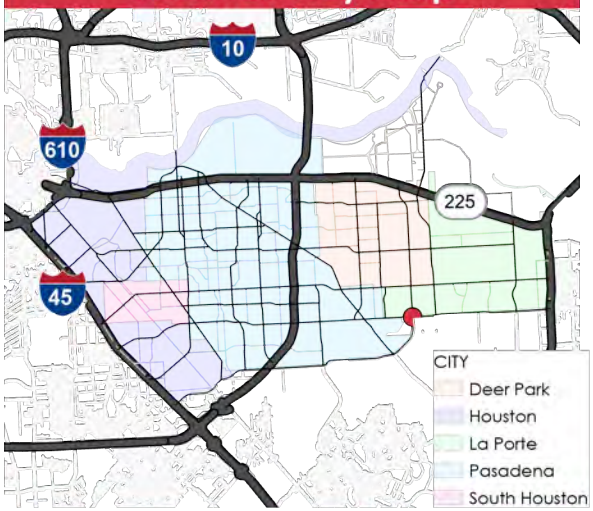
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive northbound right-turn lane	- Optimize cycle length and splits - Install exclusive right-turn lane for southbound approach - Install exclusive left-turn lane for eastbound and westbound approaches (dual left) - Install through lane for eastbound and westbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	E	E	F	D
Delay (s/veh)	64.95	58.97	130.1	54.1
% Change in Delay	-	-9.2%	-	-58.4%

Location Key Map



Crash Data (2016-2020)

Total Crashes	98
Severe Crashes (Fatal, Severe Injury)	(1,0)
Crashes with Another Vehicle	92
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	3
Most Common Object Struck	HIT LUMINAIRE POLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (42)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (39)

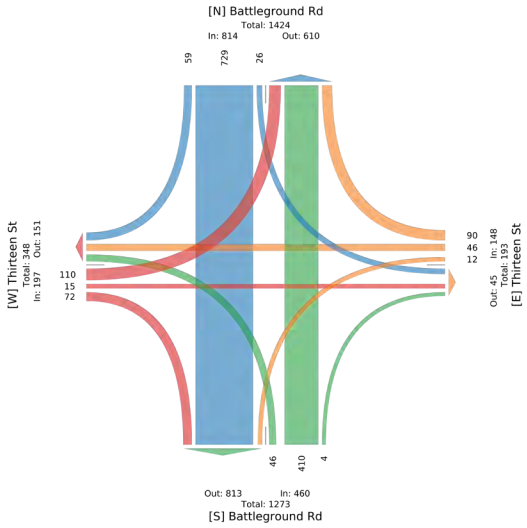
BATTLEGROUND RD./UNDERWOOD RD. & THIRTEENTH ST.

Intersection ID: 14.3.1

Existing Aerial View



2021 Turning Movement Counts



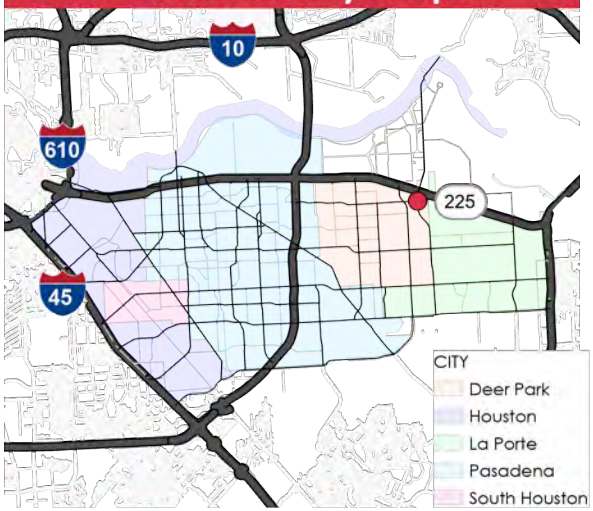
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	31.62	31.62	34.16	34.16
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	15
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	15
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	OVERTURNED
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (4)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (3)

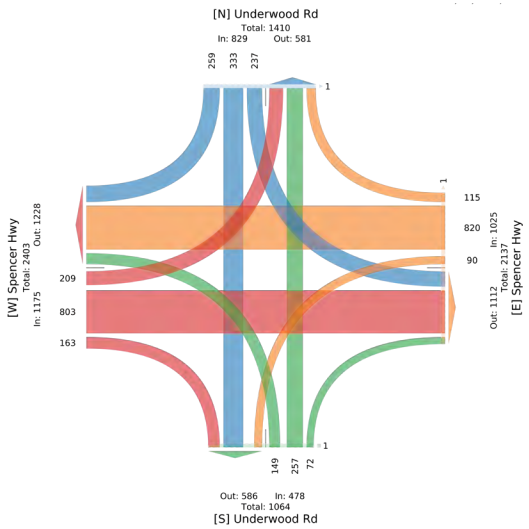
UNDERWOOD RD. & SPENCER HWY.

Intersection ID: 14.4.1

Existing Aerial View



2021 Turning Movement Counts



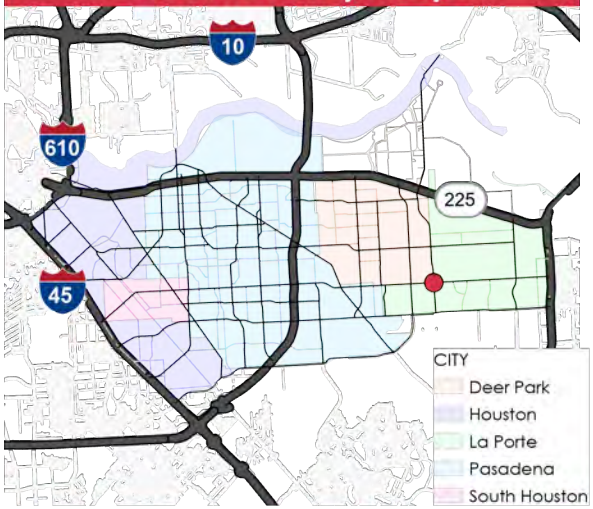
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive right-turn lane for southbound and westbound approaches	- Optimize cycle length and splits - Install exclusive left-turn lane for eastbound, northbound, and southbound approaches (dual left)

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	D	E	D
Delay (s/veh)	50.8	38.19	68.02	39.73
% Change in Delay	-	-24.8%	-	-41.6%

Location Key Map



Crash Data (2016-2020)

Total Crashes	158
Severe Crashes (Fatal, Severe Injury)	(0,4)
Crashes with Another Vehicle	158
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (45)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (50)

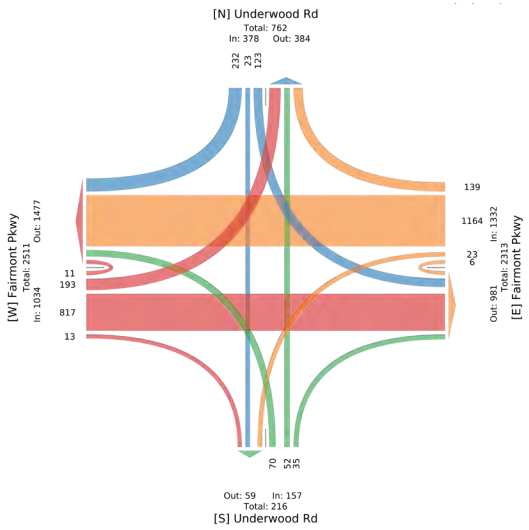
UNDERWOOD RD. & FAIRMONT PKWY..

Intersection ID: 14.4.2

Existing Aerial View



2021 Turning Movement Counts



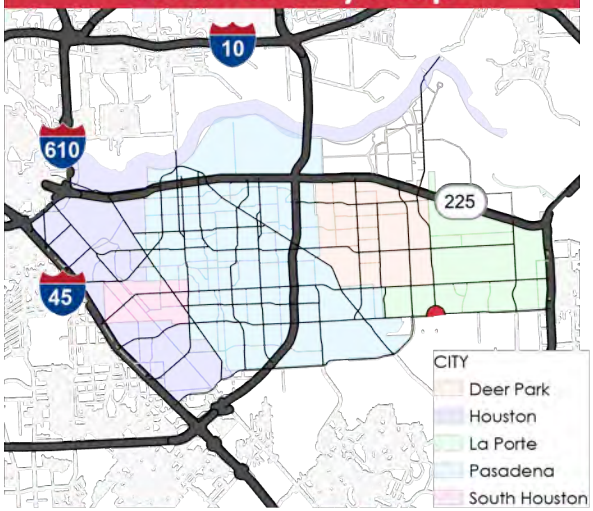
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive left-turn lane for northbound approach - Install exclusive left-turn lane for southbound and eastbound approaches (dual left) - Change left-turn type from Split to Protected for northbound and southbound approaches - Install through lanes for eastbound and westbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	F	F	F	E
Delay (s/veh)	107.7	99.28	182.68	71.8
% Change in Delay	-	-7.8%	-	-60.7%

Location Key Map



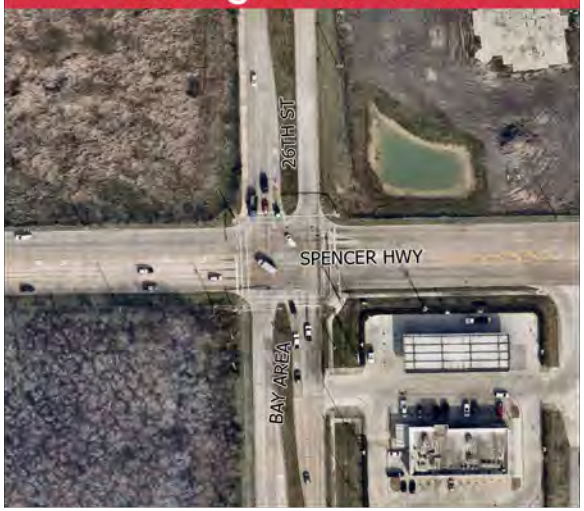
Crash Data (2016-2020)

Total Crashes	85
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	78
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	7
Most Common Object Struck	HIT TRAFFIC SIGNAL POLE OR POST
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (24)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (25)

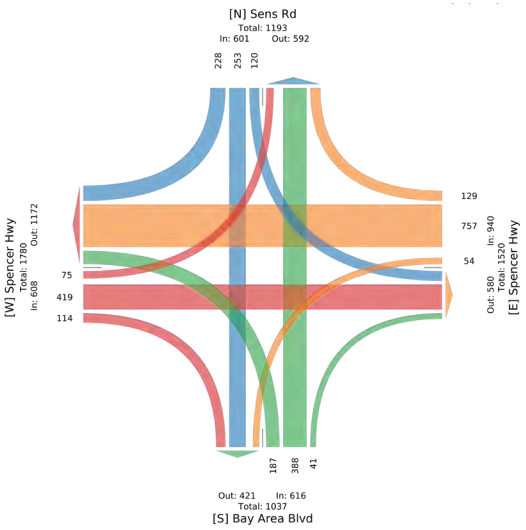
BAY AREA BLVD./SENS RD. & SPENCER HWY.

Intersection ID: 15.2.1

Existing Aerial View



2021 Turning Movement Counts



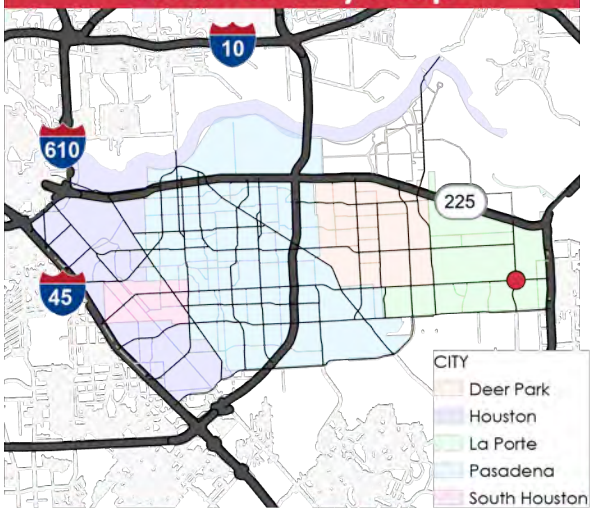
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	C	C	C
Delay (s/veh)	38.05	24.78	33.85	33.85
% Change in Delay	-	-34.9%	-	0%

Location Key Map



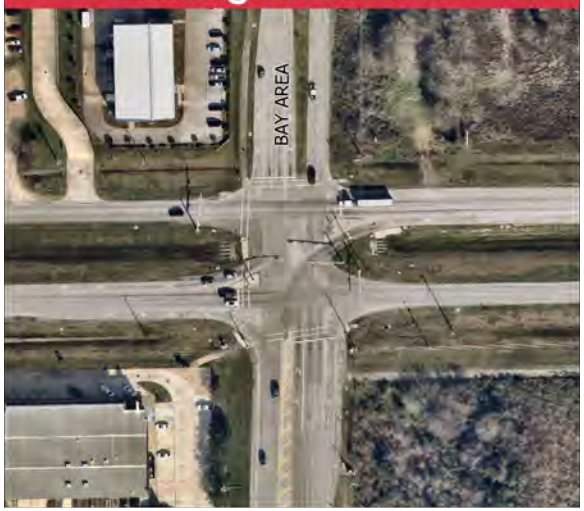
Crash Data (2016-2020)

Total Crashes	49
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	44
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	4
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (22)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (18)

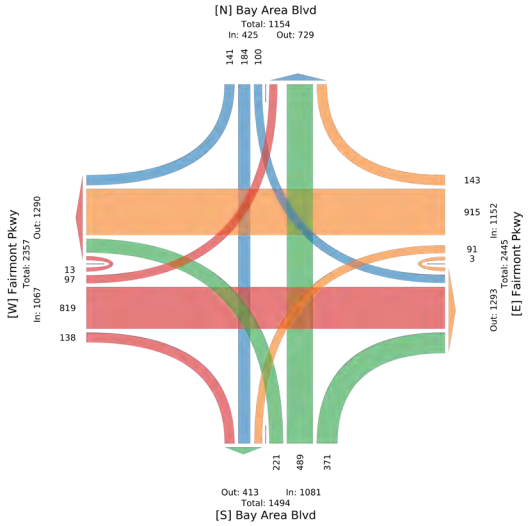
BAY AREA BLVD. & FAIRMONT PKWY.

Intersection ID: 15.2.2

Existing Aerial View



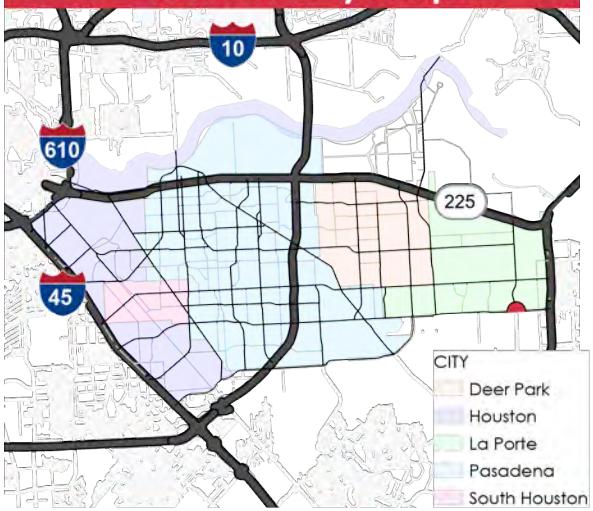
2021 Turning Movement Counts



Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install through lane for eastbound, westbound, and northbound approaches

Location Key Map



Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	E	E	F	E
Delay (s/veh)	57.69	57.58	135.19	69.14
% Change in Delay	-	-0.2%	-	-48.9%

Crash Data (2016-2020)

Total Crashes	75
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	67
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	6
Most Common Object Struck	HIT CULVERT-HEADWALL
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (30)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (25)

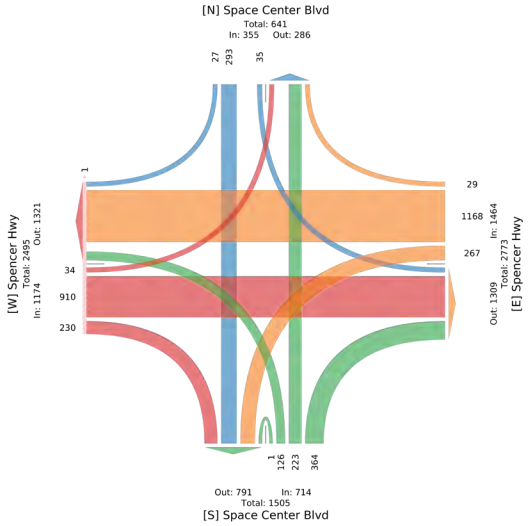
SPACE CENTER BLVD. & SPENCER HWY.

Intersection ID: 18.1.1

Existing Aerial View



2021 Turning Movement Counts



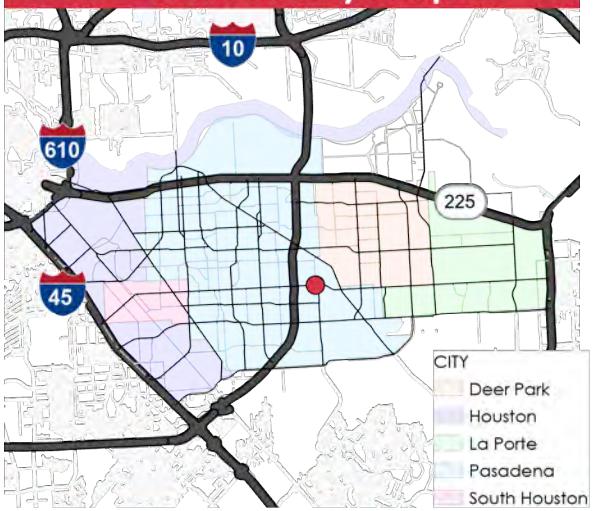
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive right-turn lane for eastbound and northbound approaches	- Optimize cycle length and splits - Apply overlap to northbound exclusive right-turn lane - Install exclusive left-turn lane for westbound and northbound approaches (dual left)

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	E	D	F	D
Delay (s/veh)	55.58	41.29	89.06	40.59
% Change in Delay	-	-25.7%	-	-54.4%

Location Key Map



Crash Data (2016-2020)

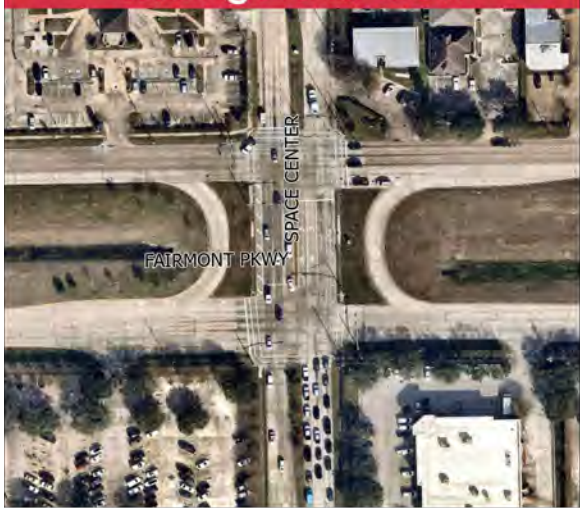
Total Crashes	78
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	71
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	6
Most Common Object Struck	HIT HOUSE, BLDG. OR BLDG. FIXTURE
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (16)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (8)

Priority Intersection

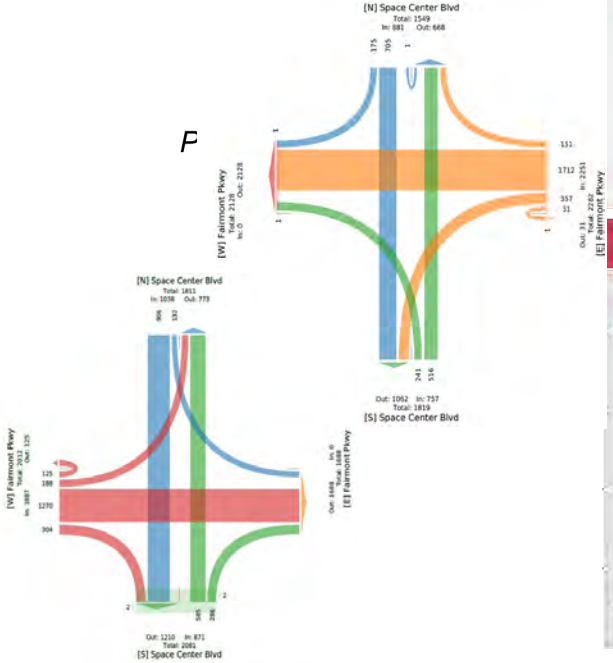
SPACE CENTER BLVD. & FAIRMONT PKWY.

Intersection ID: 18.1.2

Existing Aerial View



2021 Turning Movement Counts



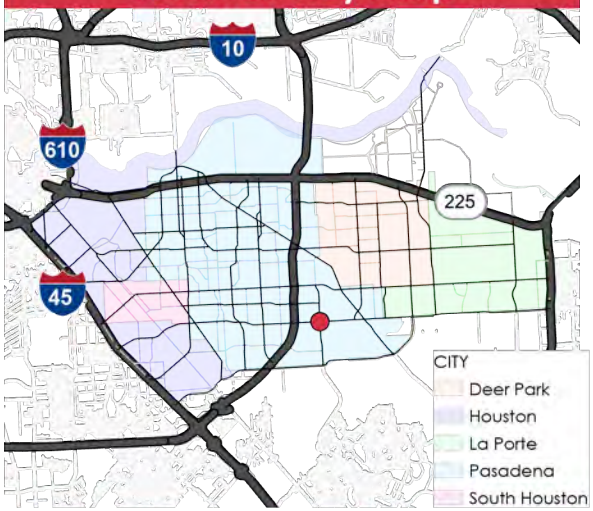
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive right-turn lane for northbound approach - Install exclusive left-turn lane for southbound approach (dual left)

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	E	C
Delay (s/veh)	29.84	21.16	55.1	34.46
% Change in Delay	-	-29.1%	-	-37.5%

Location Key Map



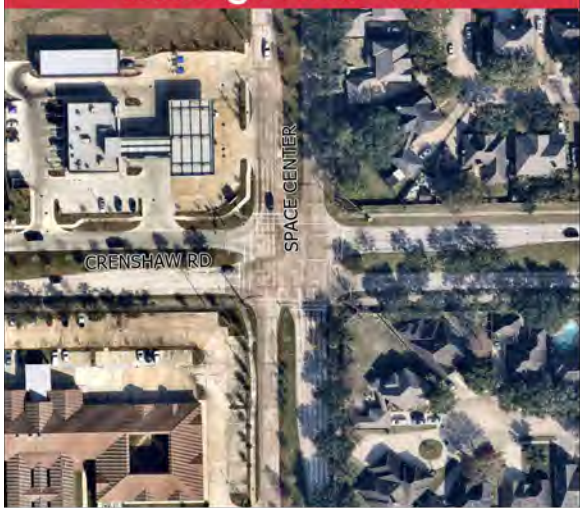
Crash Data (2016-2020)

Total Crashes	199
Severe Crashes (Fatal, Severe Injury)	(0,4)
Crashes with Another Vehicle	193
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	6
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (72)
Most Common Factor of Collision	VEHICLE CHANGING LANES (26)

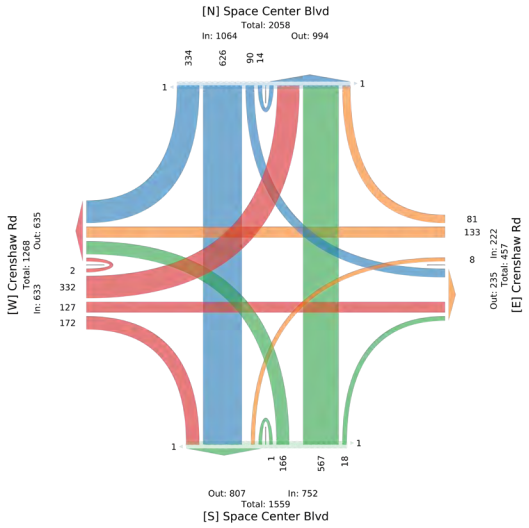
SPACE CENTER BLVD. & CRENSHAW RD.

Intersection ID: 18.1.3

Existing Aerial View



2021 Turning Movement Counts



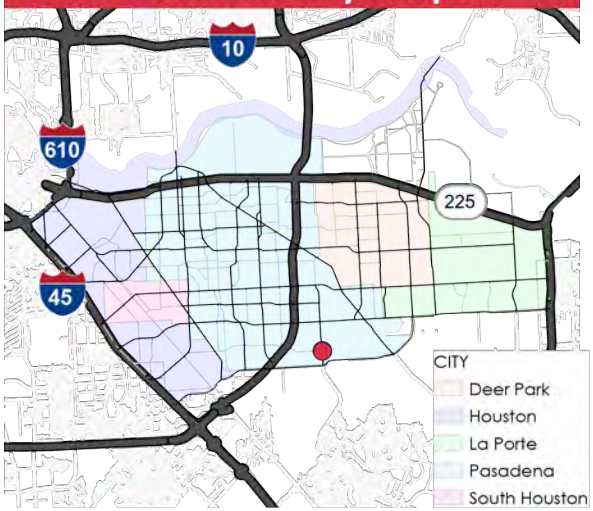
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive right-turn lane for southbound approach - Install exclusive left-turn lane for eastbound approach (dual left)

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	C	E	C
Delay (s/veh)	35.53	33.55	65.63	27.77
% Change in Delay	-	-5.6%	-	-57.7%

Location Key Map



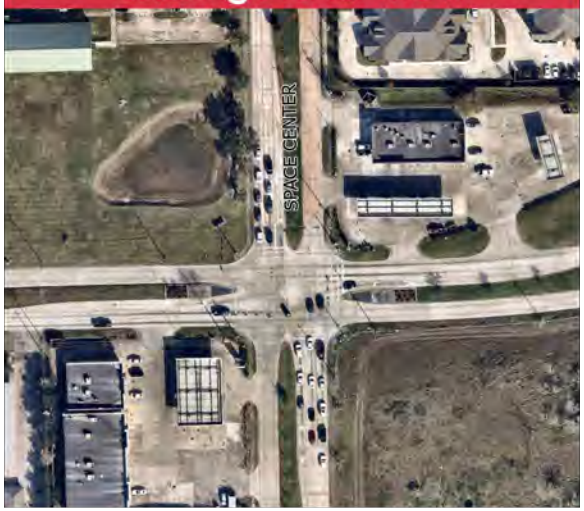
Crash Data (2016-2020)

Total Crashes	24
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	22
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	HIT TREE, SHRUB, LANDSCAPING
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (8)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (6)

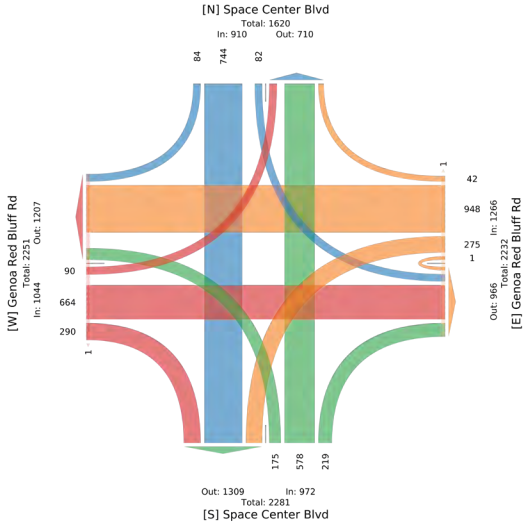
SPACE CENTER BLVD. & GENOA RED BLUFF RD.

Intersection ID: 18.1.4

Existing Aerial View



2021 Turning Movement Counts



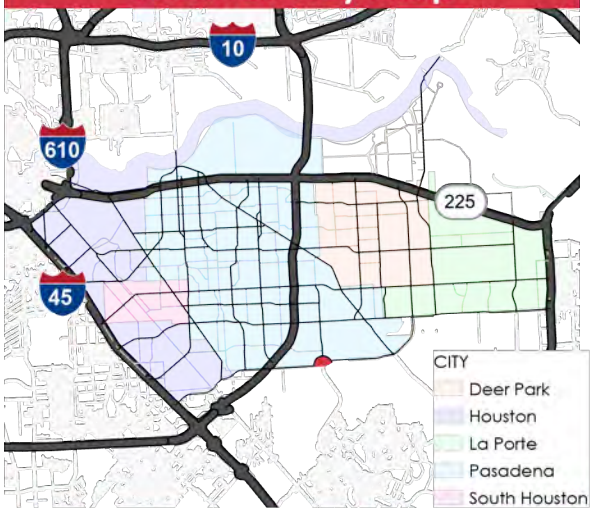
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
- Optimize cycle length and splits - Install exclusive right-turn lanes for eastbound and northbound approaches	- Optimize cycle length and splits - Install through lane for all approaches - Install exclusive left-turn lane for northbound and westbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	F	E	F	D
Delay (s/veh)	89.58	62.61	137.7	45.71
% Change in Delay	-	-30.1%	-	-66.8%

Location Key Map



Crash Data (2016-2020)

Total Crashes	30
Severe Crashes (Fatal, Severe Injury)	(1,0)
Crashes with Another Vehicle	27
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	3
Most Common Object Struck	HIT FENCE
Most Common Manner of Collision	SD BOTH GOING STRAIGHT-REAR END (12)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (5)

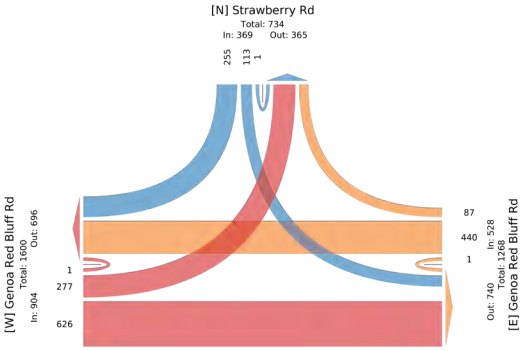
GENOA RED BLUFF RD. & STRAWBERRY RD.

Intersection ID: 19.2.2

Existing Aerial View



2021 Turning Movement Counts



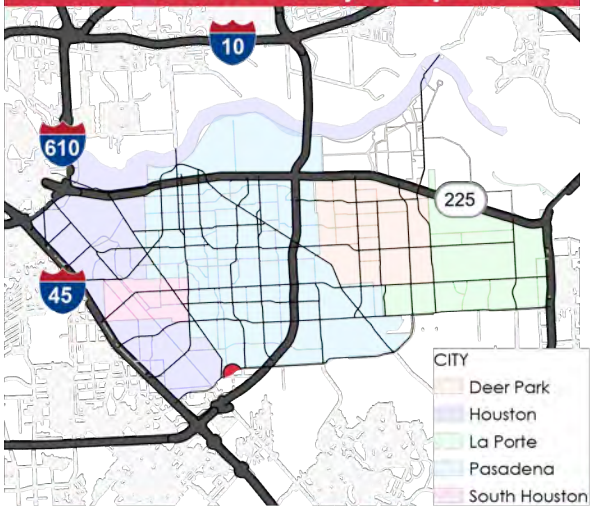
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
- Optimize cycle length and splits	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	28.97	28.63	25.52	25.52
% Change in Delay	-	-1.2%	-	0%

Location Key Map



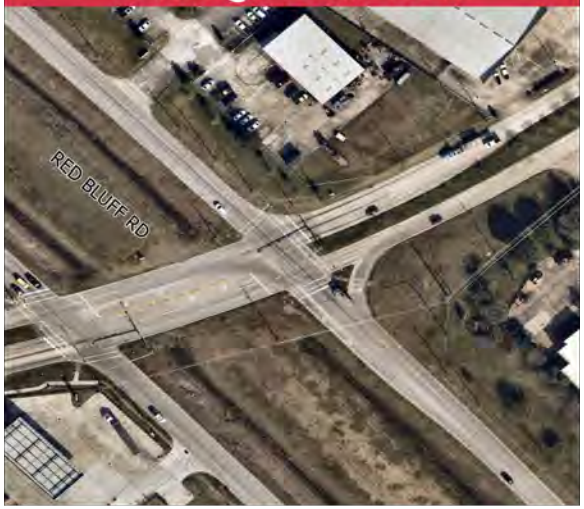
Crash Data (2016-2020)

Total Crashes	18
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	15
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	3
Most Common Object Struck	HIT CONCRETE TRAFFIC BARRIER
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (11)
Most Common Factor of Collision	ATTENTION DIVERTED FROM DRIVING (1)

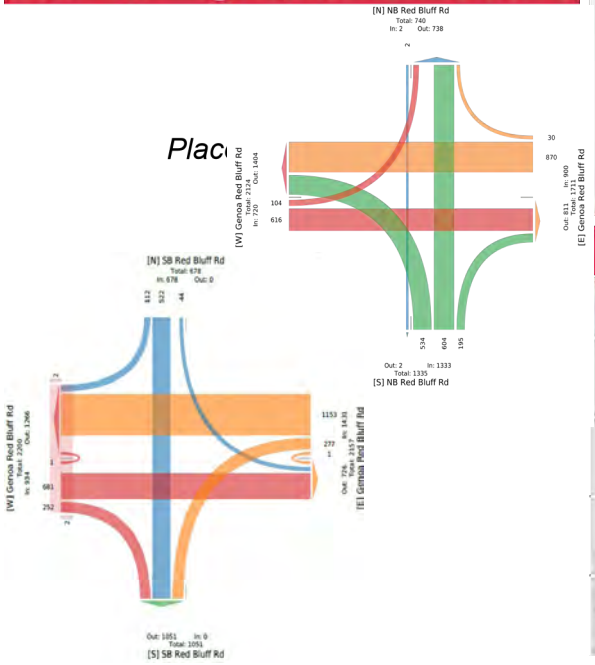
GENOA RED BLUFF RD. & RED BLUFF RD.

Intersection ID: 19.6.1

Existing Aerial View



2021 Turning Movement Counts



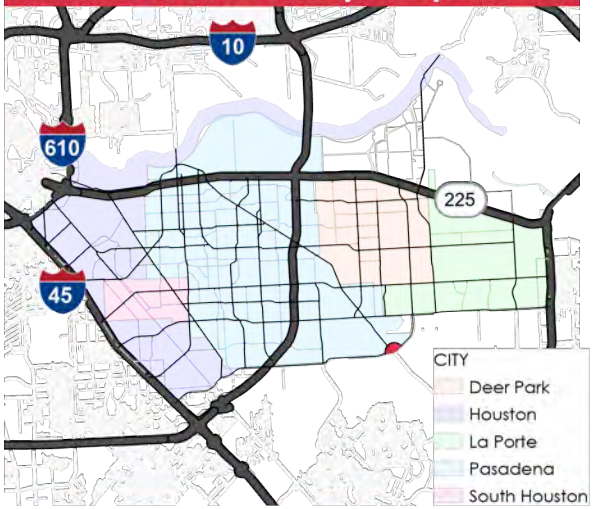
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	- Optimize cycle length and splits - Install through lane for eastbound approach - Install exclusive left-turn lane for northbound approach (dual left) - Install exclusive right-turn lane for northbound and eastbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	D	E	C
Delay (s/veh)	35.59	35.59	62.91	27.91
% Change in Delay	-	0%	-	-55.6%

Location Key Map



Crash Data (2016-2020)

Total Crashes	135
Severe Crashes (Fatal, Severe Injury)	(1,5)
Crashes with Another Vehicle	125
Crashes with a Bicyclist	1
Crashes with a Pedestrian	0
Crashes with a Fixed Object	7
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (47)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (22)

Priority Intersection

RED BLUFF RD. & DEEPWATER AVE./SOUTHMORE AVE.

Intersection ID: 20.4.1

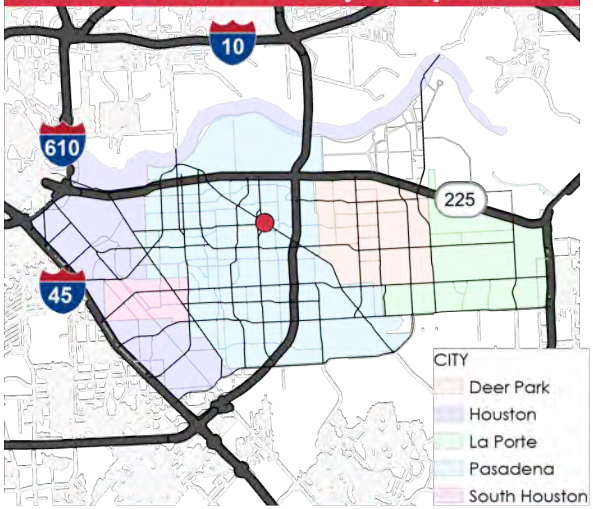
Existing Aerial View



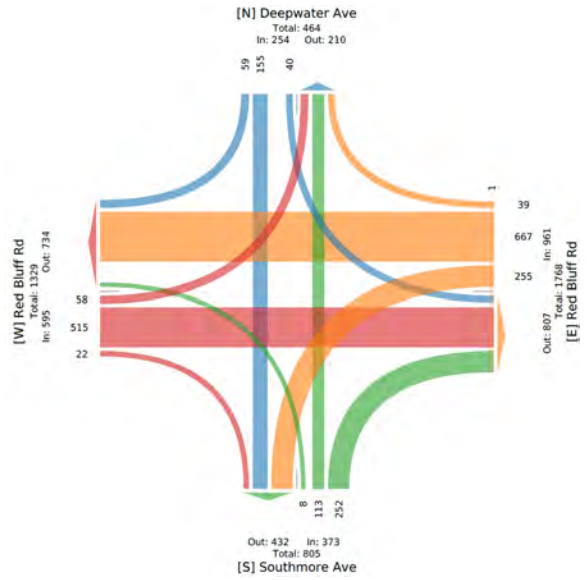
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pavement	None
CAPACITY	
None	None

Location Key Map



2021 Turning Movement Counts



Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	C	C
Delay (s/veh)	17.69	17.69	20.42	20.42
% Change in Delay	-	0%	-	0%

Crash Data (2016-2020)

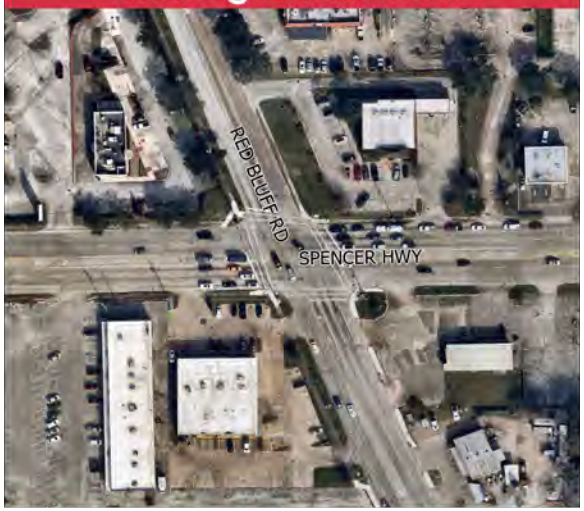
Total Crashes	77
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	69
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	6
Most Common Object Struck	HIT LUMINAIRE POLE
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (22)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (7)

Priority Intersection

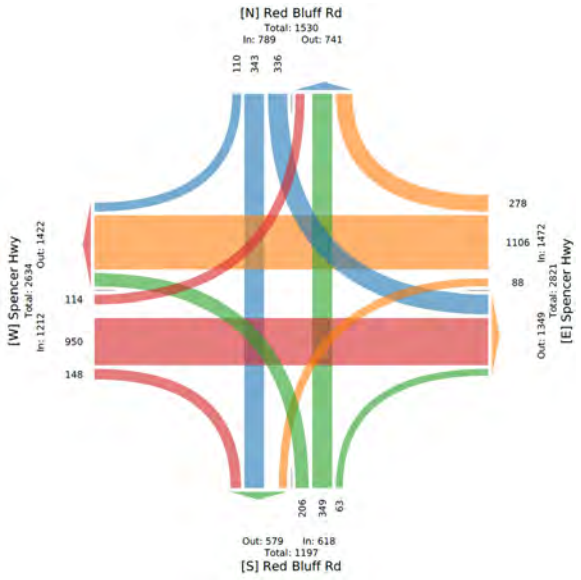
RED BLUFF RD. & SPENCER HWY.

Intersection ID: 20.6.1

Existing Aerial View



2021 Turning Movement Counts



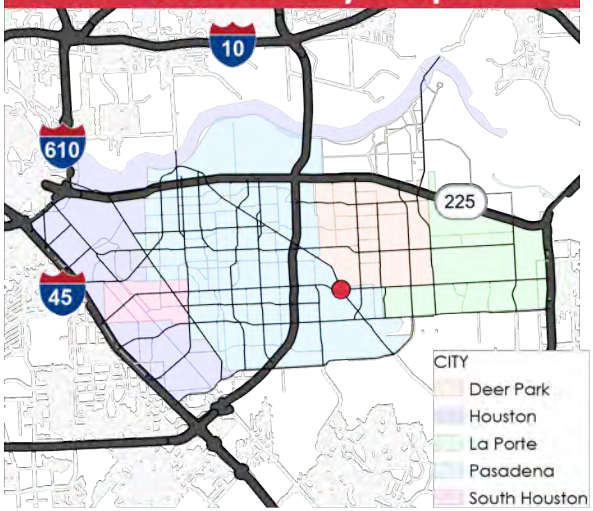
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	- Optimize cycle length and splits - Install exclusive right-turn lane for westbound approach - Install exclusive left-turn lane for northbound and southbound approaches (dual left) - Change left-turn type from Flashing Yellow Arrow to Protected for northbound and southbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	C	C	E	D
Delay (s/veh)	33.39	33.39	76.55	37.3
% Change in Delay	-	0%	-	-51.3%

Location Key Map



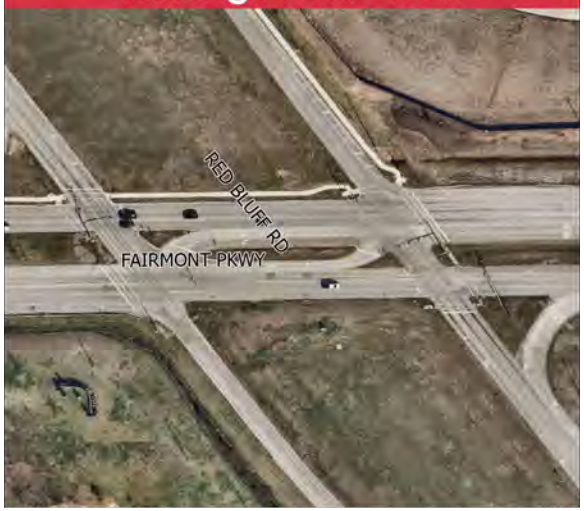
Crash Data (2016-2020)

Total Crashes	195
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	187
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	2
Most Common Object Struck	OVERTURNED
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (45)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (35)

RED BLUFF RD. & FAIRMONT PKWY.

Intersection ID: 20.7.2

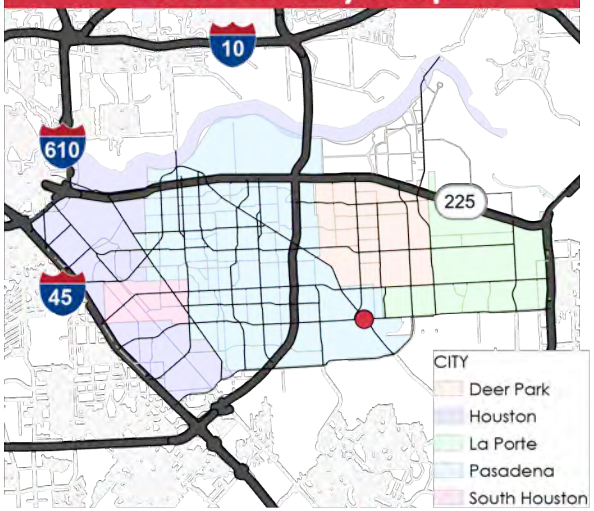
Existing Aerial View



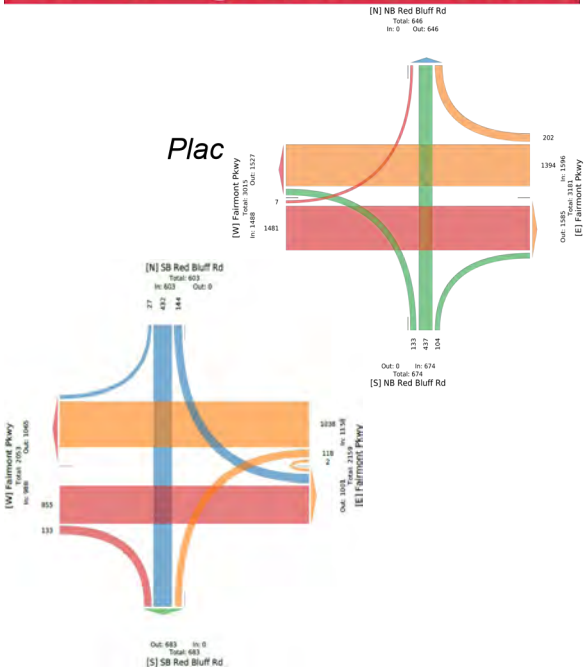
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits	None

Location Key Map



2021 Turning Movement Counts



Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	A	B	B
Delay (s/veh)	12.36	9.99	16.22	16.22
% Change in Delay	-	-19.2%	-	0%

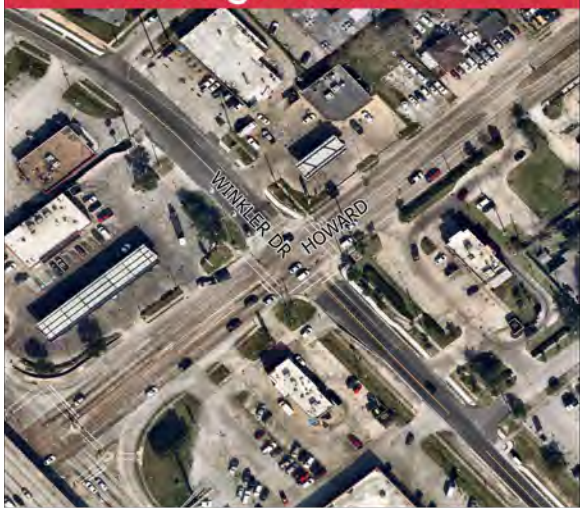
Crash Data (2016-2020)

Total Crashes	81
Severe Crashes (Fatal, Severe Injury)	(1,2)
Crashes with Another Vehicle	75
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	3
Most Common Object Struck	OTHER
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (26)
Most Common Factor of Collision	SLOWING/STOPPING-FOR TRAFFIC (11)

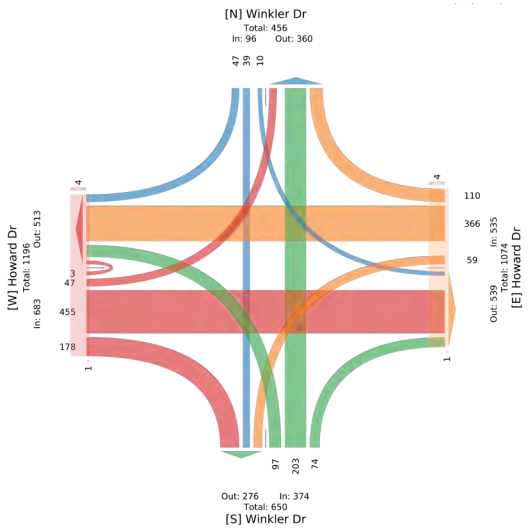
HOWARD DR. & WINKLER DR.

Intersection ID: 22.1.2

Existing Aerial View



2021 Turning Movement Counts



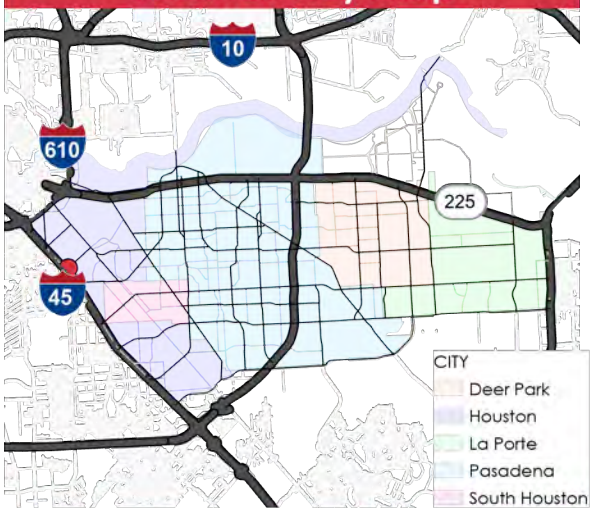
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	C	C	C	C
Delay (s/veh)	27.14	27.14	27.95	27.95
% Change in Delay	-	0%	-	0%

Location Key Map



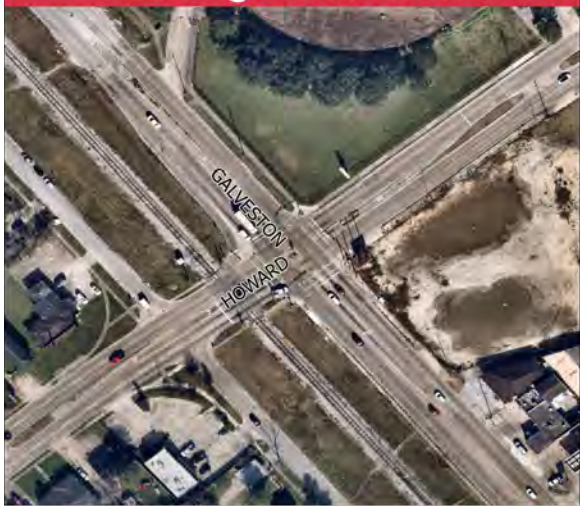
Crash Data (2016-2020)

Total Crashes	69
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	58
Crashes with a Bicyclist	1
Crashes with a Pedestrian	2
Crashes with a Fixed Object	7
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (16)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (6)

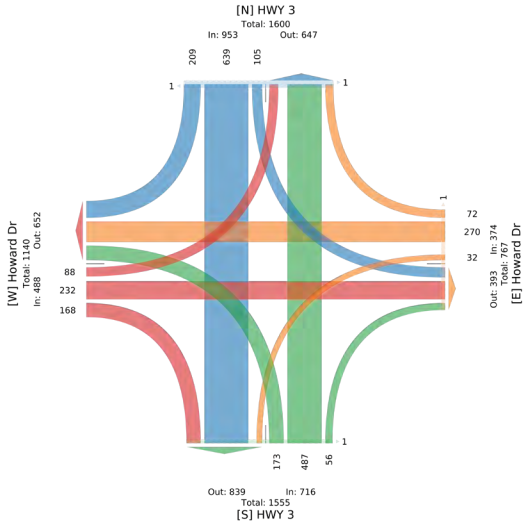
HOWARD DR. & GALVESTON RD.

Intersection ID: 22.1.3

Existing Aerial View



2021 Turning Movement Counts



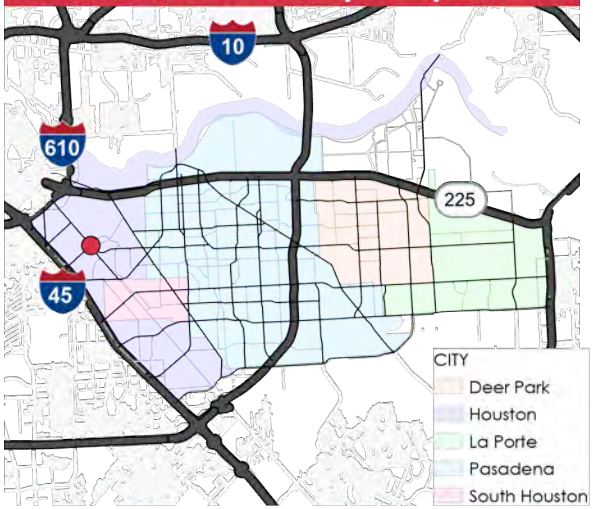
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	- Optimize cycle length and splits - Install exclusive left-turn lane for northbound approach (dual left) - Install exclusive right-turn lane for eastbound approach (with overlap phase) -Install through lane for southbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	D	C
Delay (s/veh)	34.44	34.44	49.31	33.2
% Change in Delay	-	0%	-	-32.67%

Location Key Map



Crash Data (2016-2020)

Total Crashes	94
Severe Crashes (Fatal, Severe Injury)	(1,1)
Crashes with Another Vehicle	87
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	4
Most Common Object Struck	HIT TRAFFIC SIGNAL POLE OR POST
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (29)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (11)

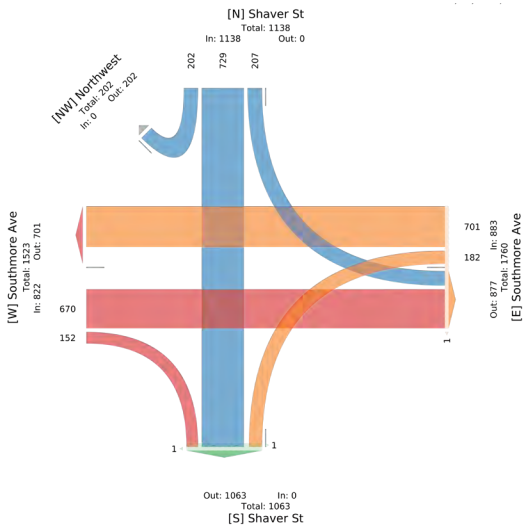
SOUTHMORE AVE. & SHAVER ST.

Intersection ID: 23.2.2

Existing Aerial View



2021 Turning Movement Counts



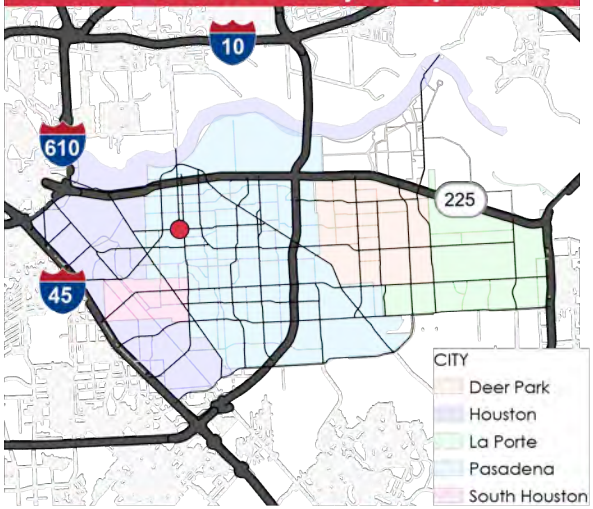
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Upgrade curb ramps	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	B	B	C	C
Delay (s/veh)	17.55	17.55	20.85	20.85
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	144
Severe Crashes (Fatal, Severe Injury)	(1,0)
Crashes with Another Vehicle	141
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	1
Most Common Object Struck	HIT LUMINAIRE POLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (45)
Most Common Factor of Collision	SLOWING/STOPPING-FOR TRAFFIC (25)

Priority Intersection

SOUTHMORE AVE. & STRAWBERRY RD.

Intersection ID: 23.3.1

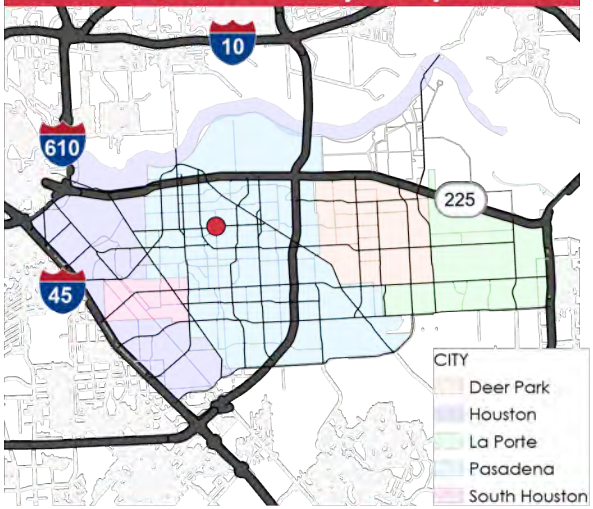
Existing Aerial View



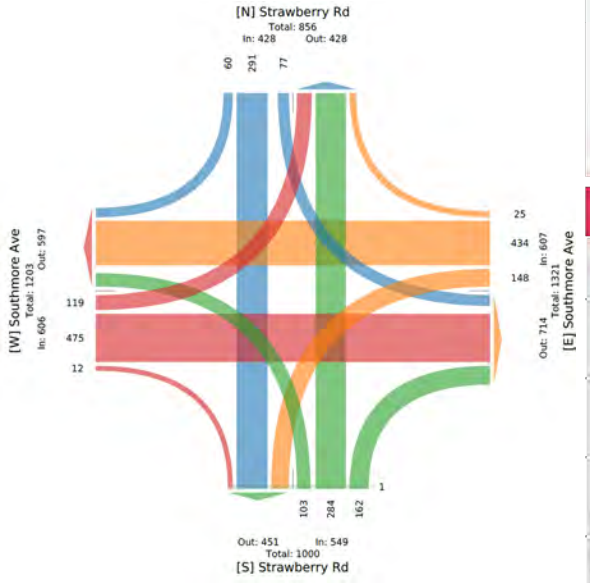
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches - Install lighting - Upgrade pavement markings - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	- Consolidate driveways in the southeast and northwest corners
CAPACITY	
None	None

Location Key Map



2021 Turning Movement Counts



Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	29.25	29.25	34.88	34.88
% Change in Delay	-	0%	-	0%

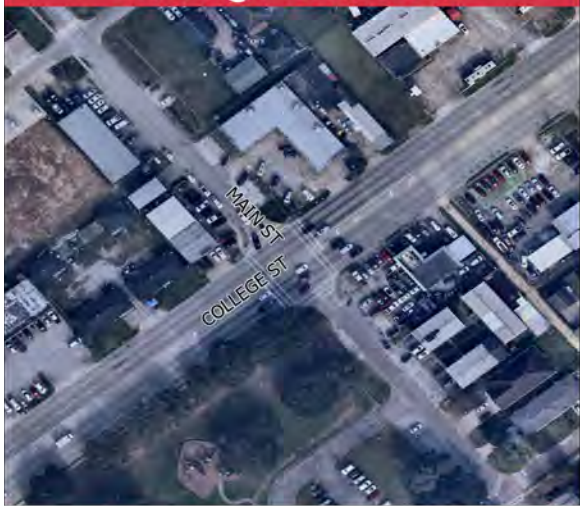
Crash Data (2016-2020)

Total Crashes	68
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	65
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	OVERTURNED
Most Common Manner of Collision	OD ONE STRAIGHT-ONE LEFT TURN (22)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (11)

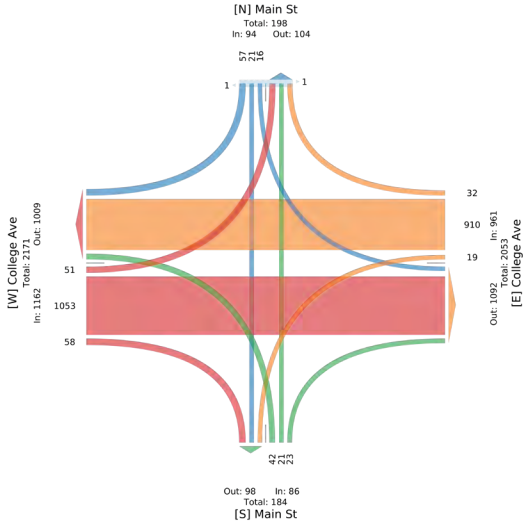
COLLEGE ST./SPENCER HWY. & MAIN ST.

Intersection ID: 26.2.1

Existing Aerial View



2021 Turning Movement Counts



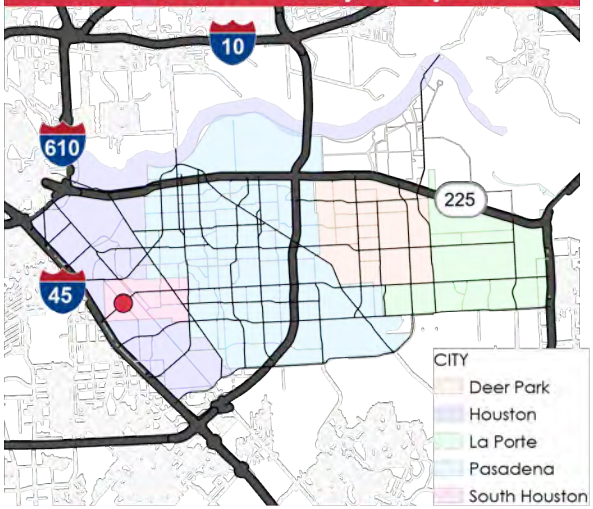
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	B	C	B
Delay (s/veh)	37.44	19.1	25.8	19.7
% Change in Delay	-	-48.99%	-	-23.64%

Location Key Map



Crash Data (2016-2020)

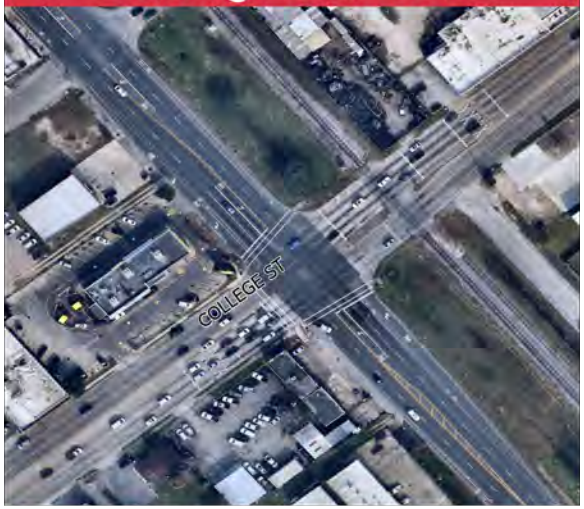
Total Crashes	28
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	27
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	DITCH
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (10)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (7)

Priority Intersection

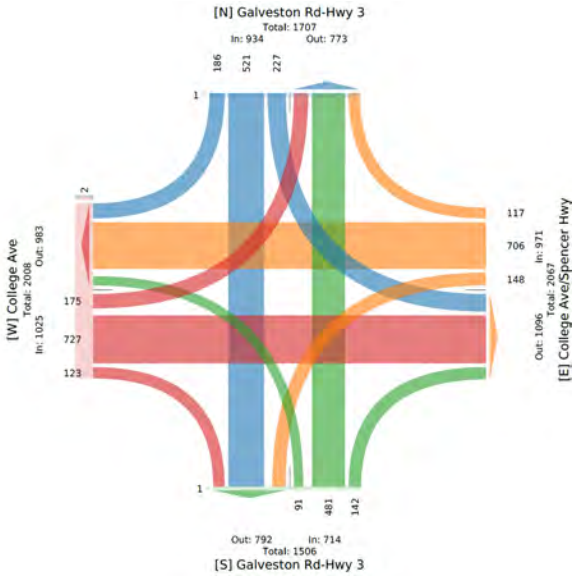
COLLEGE ST./SPENCER HWY. & HOUSTON BLVD.

Intersection ID: 26.2.2

Existing Aerial View



2021 Turning Movement Counts



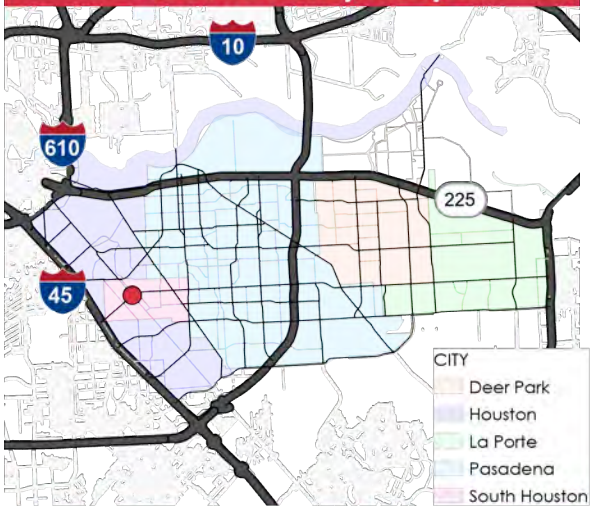
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install rumble strips for all approaches - Install signage at all approaches - Install lighting - Upgrade pavement markings - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Improve enforcement of traffic cell phone laws	- Consolidate driveways in the northwest and northeast corners
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install Flashing Yellow Arrow turn signal for all approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	D	E	D
Delay (s/veh)	46.29	35.67	69.14	35.82
% Change in Delay	-	-22.9%	-	-48.2%

Location Key Map



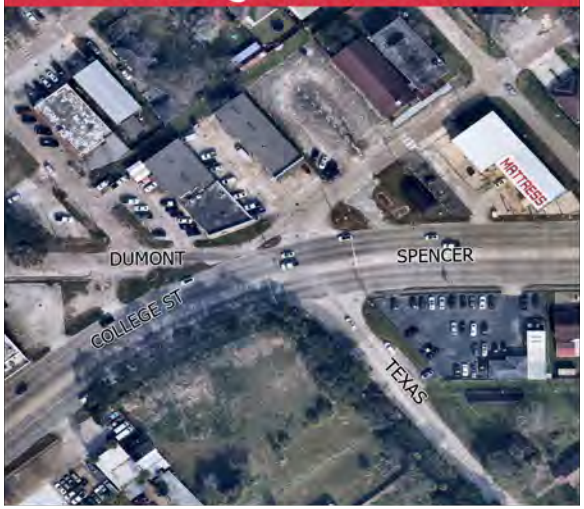
Crash Data (2016-2020)

Total Crashes	97
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	94
Crashes with a Bicyclist	1
Crashes with a Pedestrian	1
Crashes with a Fixed Object	1
Most Common Object Struck	HIT TREE, SHRUB, LANDSCAPING
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (39)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (30)

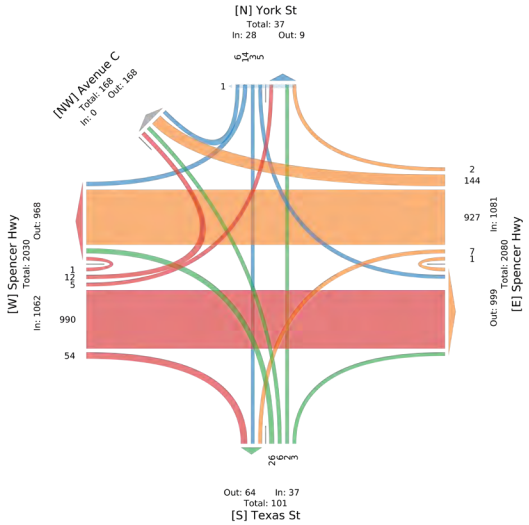
SPENCER HWY. & TEXAS ST.

Intersection ID: 26.2.3

Existing Aerial View



2021 Turning Movement Counts



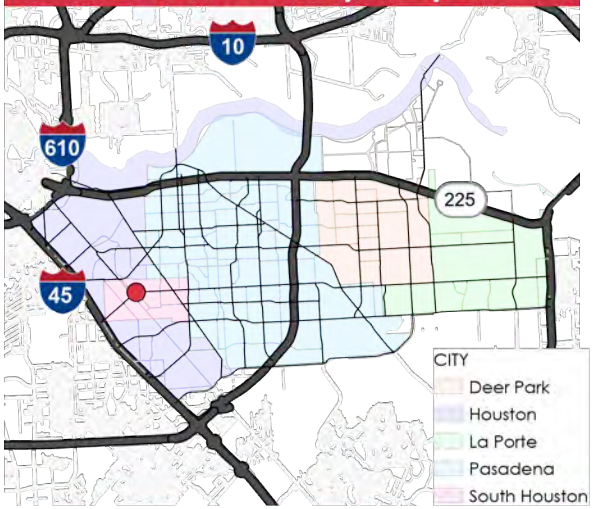
Recommended Improvements

Short-Term Recommendations	Long-Term Recommendations
SAFETY	
None	- Close Dumont Street approach to the intersection
CAPACITY	
- Optimize cycle length and splits	None

Traffic Model Results

Study Year	2021		2045	
Scenario	Existing	With Recommendations	Existing	With Recommendations
Level-Of-Service	D	B	C	C
Delay (s/veh)	37.95	18.34	23.79	23.79
% Change in Delay	-	-51.7%	-	0%

Location Key Map



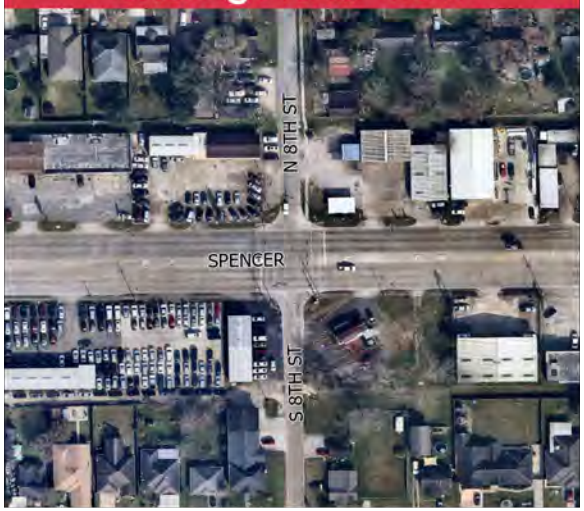
Crash Data (2016-2020)

Total Crashes	33
Severe Crashes (Fatal, Severe Injury)	(2,1)
Crashes with Another Vehicle	23
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	8
Most Common Object Struck	HIT LUMINAIRE POLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (10)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (8)

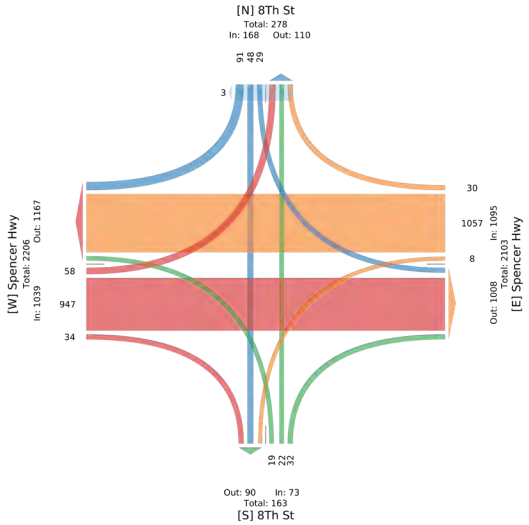
SPENCER HWY. & 8TH ST.

Intersection ID: 26.2.4

Existing Aerial View



2021 Turning Movement Counts



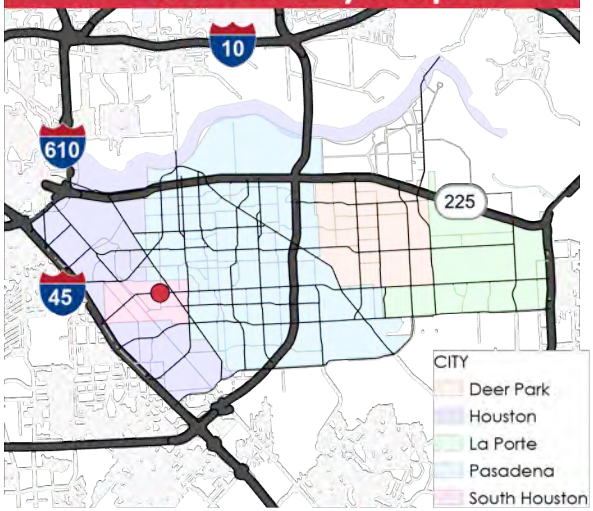
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	34.26	34.26	30.36	30.36
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

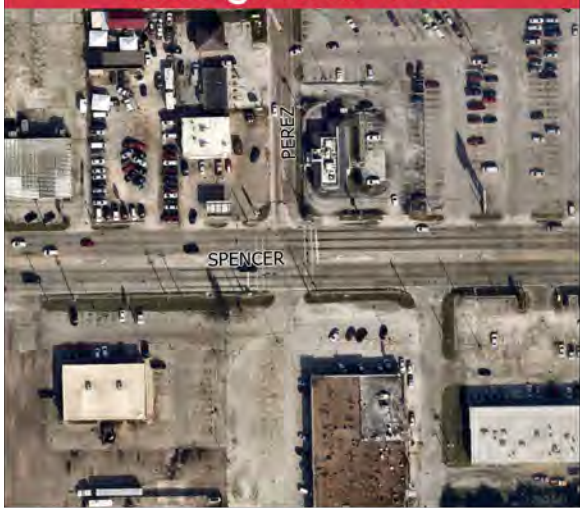
Total Crashes	28
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	27
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT MEDIAN BARRIER
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (7)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (8)

Priority Intersection

SPENCER HWY. & PEREZ RD.

Intersection ID: 26.2.6

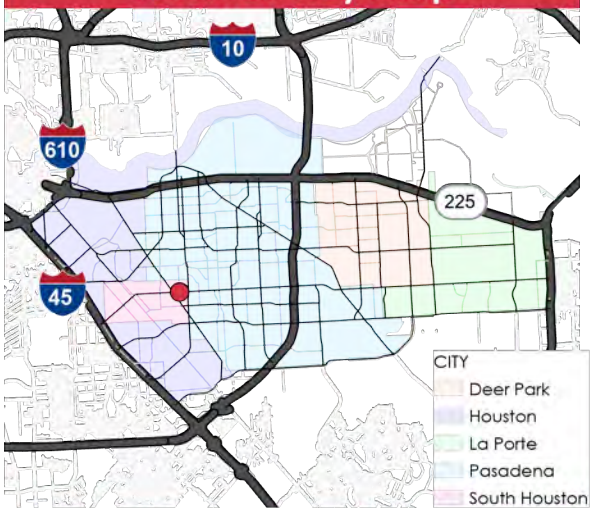
Existing Aerial View



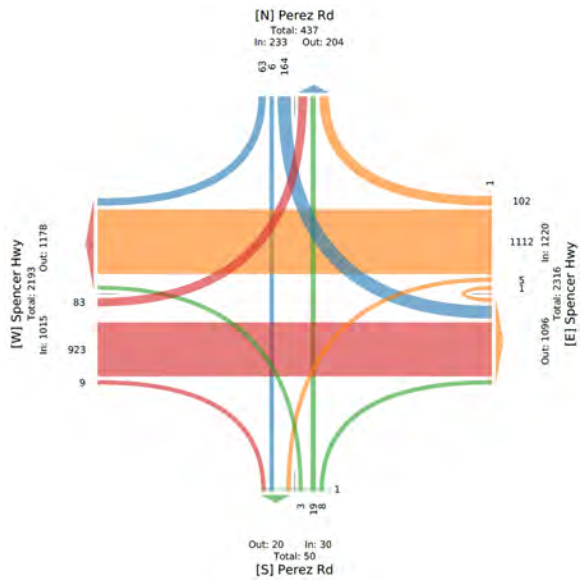
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install rumble strips for all approaches - Install signage at all approaches - Install lighting - Upgrade pavement markings - Upgrade pedestrian signal to include countdown signals and audible pushbuttons - Improve enforcement of traffic cell phone laws	None
CAPACITY	
- Optimize cycle length and splits	None

Location Key Map



2021 Turning Movement Counts



Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	B	C	C
Delay (s/veh)	35.03	17.32	32.08	32.08
% Change in Delay	-	-50.6%	-	0%

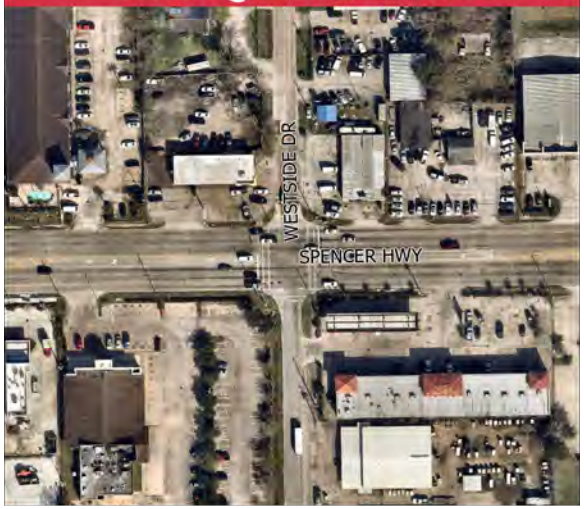
Crash Data (2016-2020)

Total Crashes	103
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	102
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	HIT LUMINAIRE POLE
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (27)
Most Common Factor of Collision	ONE VEHICLE LEAVING DRIVEWAY (33)

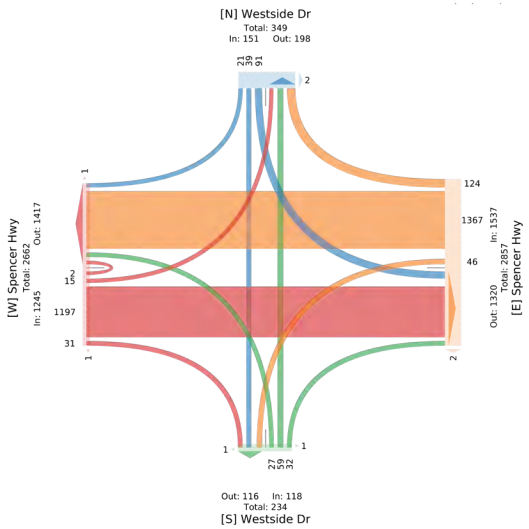
SPENCER HWY. & WESTSIDE DR.

Intersection ID: 26.3.2

Existing Aerial View



2021 Turning Movement Counts



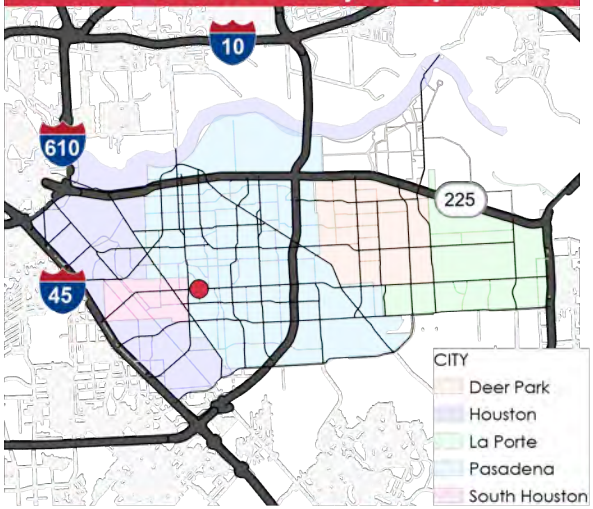
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	B	B	B
Delay (s/veh)	29.26	18.53	13.15	13.15
% Change in Delay	-	-36.7%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	56
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	53
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	3
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	SD BOTH GOING STRAIGHT-REAR END (13)
Most Common Factor of Collision	SLOWING/STOPPING-FOR TRAFFIC (8)

SPENCER HWY. & LAFFERTY RD.

Intersection ID: 26.3.3

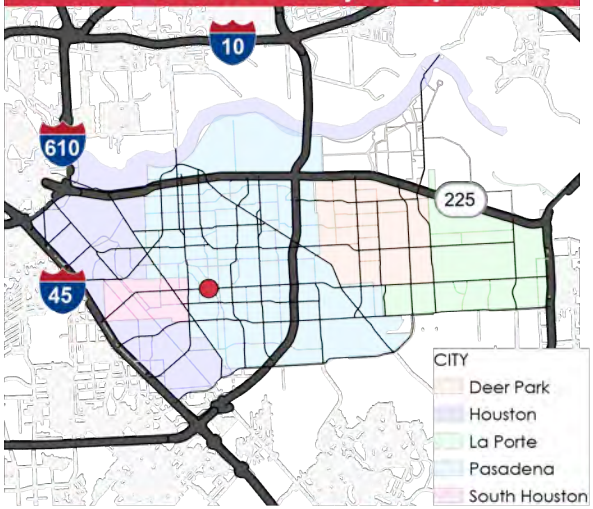
Existing Aerial View



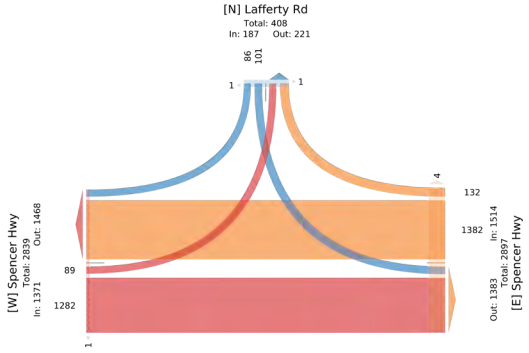
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	- Optimize cycle length and splits

Location Key Map



2021 Turning Movement Counts



Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	19.31	19.31	17.18	16.5
% Change in Delay	-	0%	-	-4%

Crash Data (2016-2020)

Total Crashes	1
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	1
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	SD BOTH GOING STRAIGHT-SIDESWIPE (1)
Most Common Factor of Collision	VEHICLE CHANGING LANES (1)

Priority Intersection

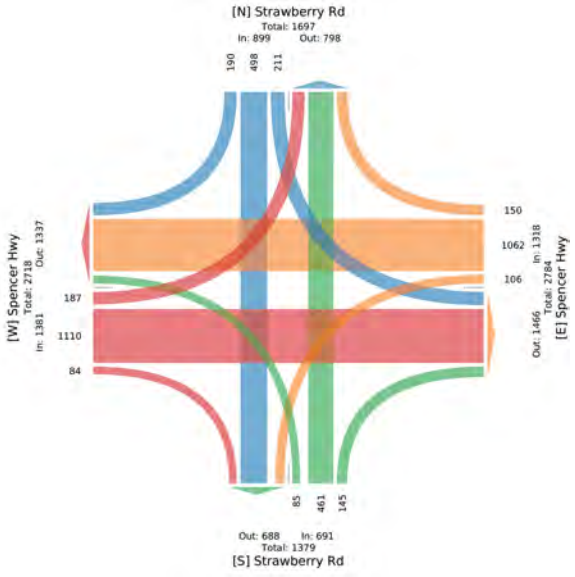
SPENCER HWY. & STRAWBERRY RD.

Intersection ID: 26.3.4

Existing Aerial View



2021 Turning Movement Counts



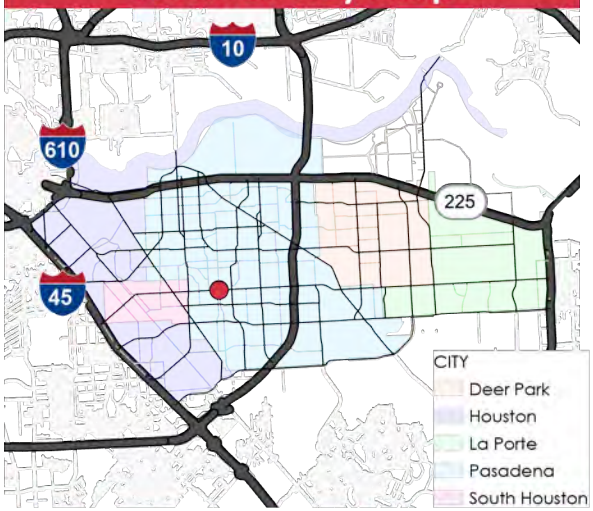
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Install signage at all approaches	- Upgrade pavement
CAPACITY	
None	- Optimize cycle length and splits - Install exclusive right-turn lane for westbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	D	C
Delay (s/veh)	34.58	34.58	38.98	31.05
% Change in Delay	-	0%	-	-20.3%

Location Key Map



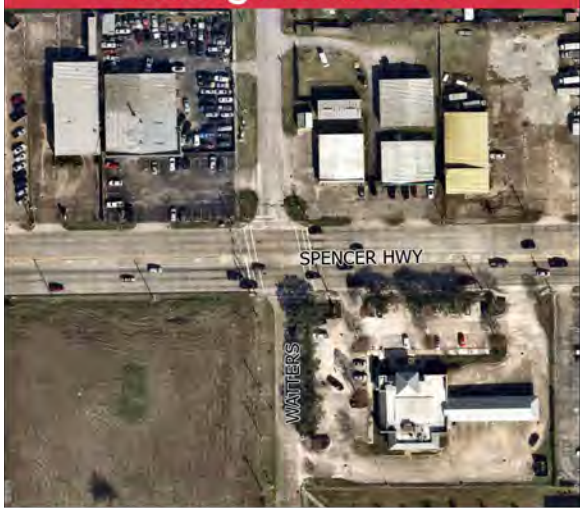
Crash Data (2016-2020)

Total Crashes	141
Severe Crashes (Fatal, Severe Injury)	(0,4)
Crashes with Another Vehicle	138
Crashes with a Bicyclist	0
Crashes with a Pedestrian	2
Crashes with a Fixed Object	1
Most Common Object Struck	HIT CURB
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (48)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (31)

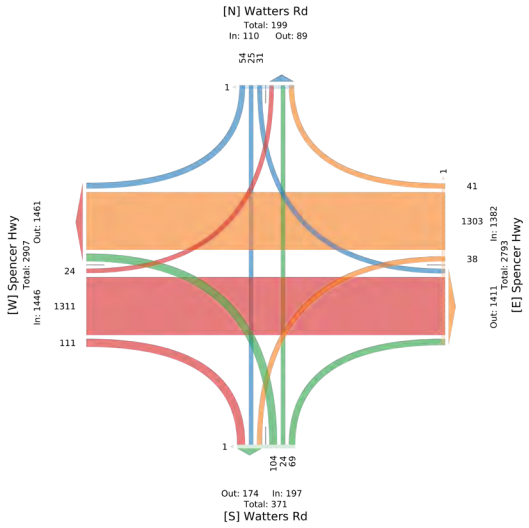
SPENCER HWY. & WATTERS RD.

Intersection ID: 26.3.6

Existing Aerial View



2021 Turning Movement Counts



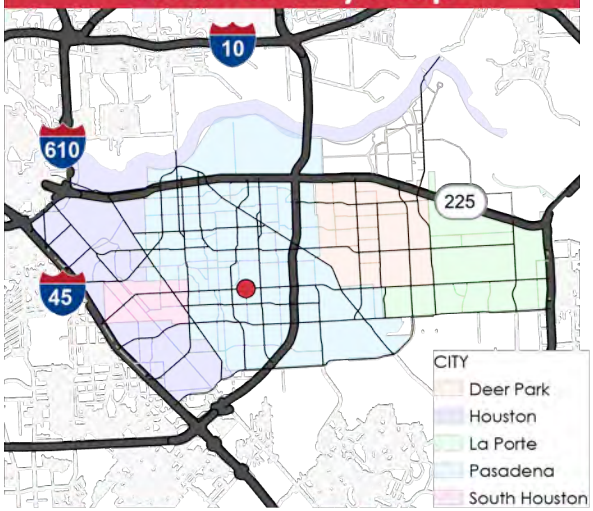
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	29.59	29.59	28.15	28.15
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	68
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	67
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT TRAFFIC SIGNAL POLE OR POST
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (23)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (17)

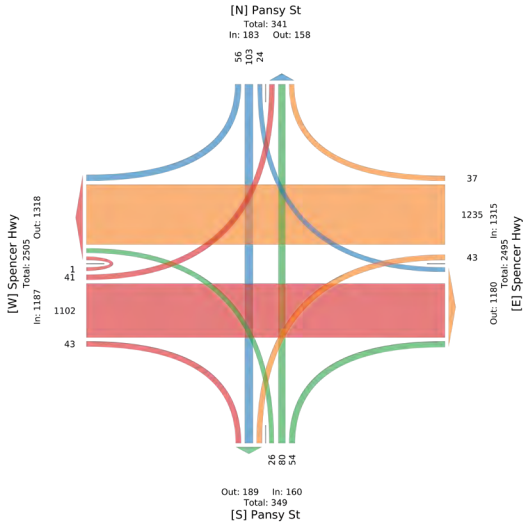
SPENCER HWY. & PANSY ST.

Intersection ID: 26.3.8

Existing Aerial View



2021 Turning Movement Counts



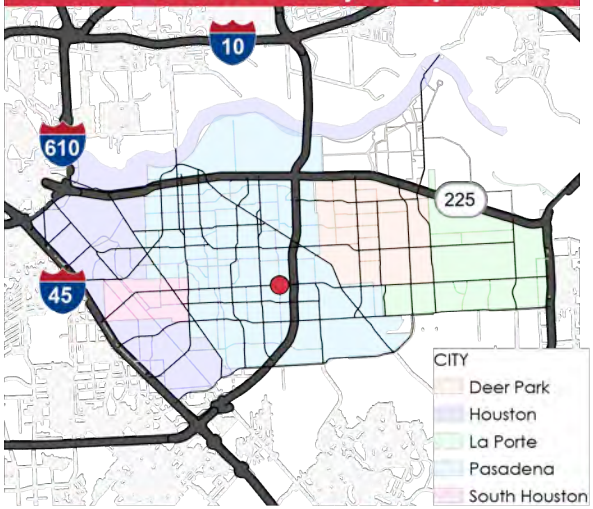
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	31.79	31.79	28.96	28.96
% Change in Delay	-	0%	-	0%

Location Key Map



Crash Data (2016-2020)

Total Crashes	31
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	31
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	0
Most Common Object Struck	NOT APPLICABLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (8)
Most Common Factor of Collision	VEHICLE CHANGING LANES (5)

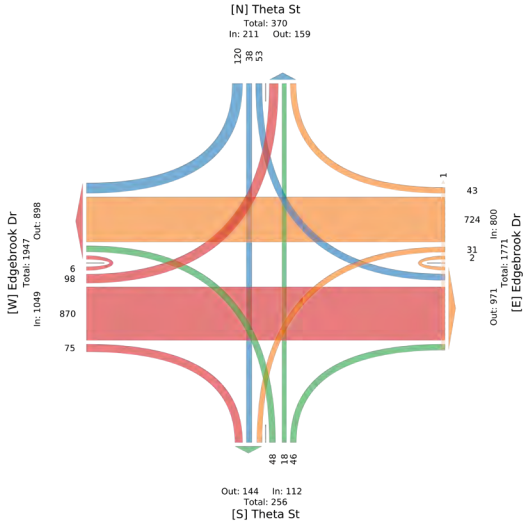
EDGEBROOK DR./FAIRMONT PKWY. & THETA ST.

Intersection ID: 28.1.1

Existing Aerial View



2021 Turning Movement Counts



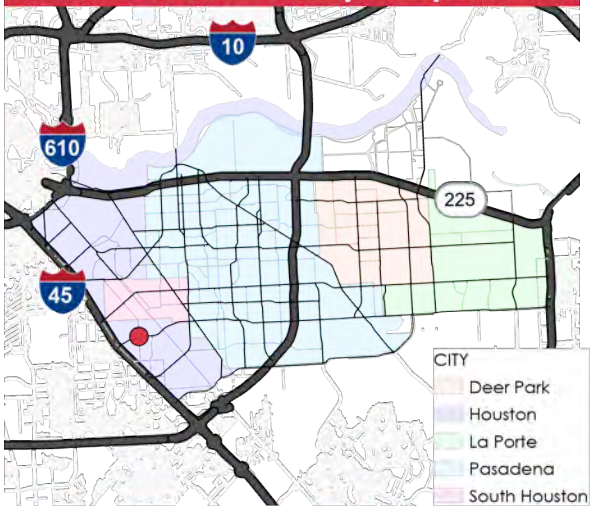
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install through lane for eastbound and westbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	D	E	C
Delay (s/veh)	44.69	36.88	78.58	28.57
% Change in Delay	-	-17.5%	-	-63.6%

Location Key Map



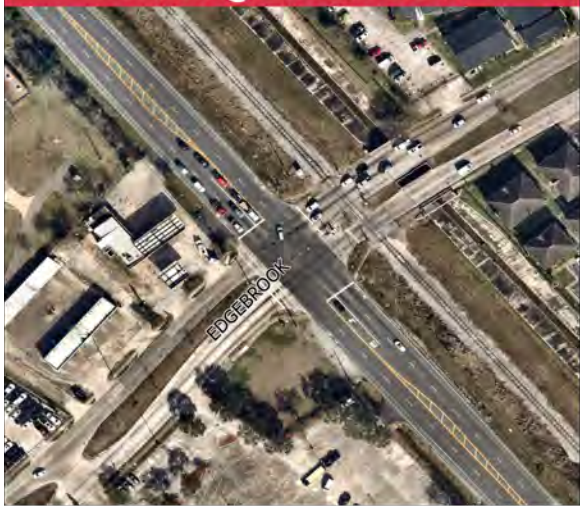
Crash Data (2016-2020)

Total Crashes	44
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	42
Crashes with a Bicyclist	1
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	HIT OTHER FIXED OBJECT
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (13)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (8)

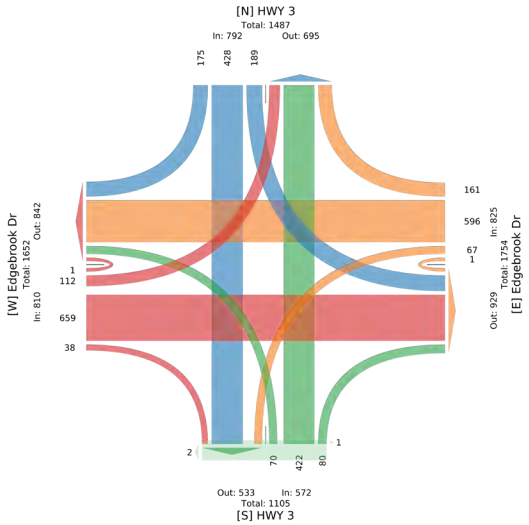
EDGEBROOK DR./FAIRMONT PKWY. & GALVESTON RD.

Intersection ID: 28.1.2

Existing Aerial View



2021 Turning Movement Counts



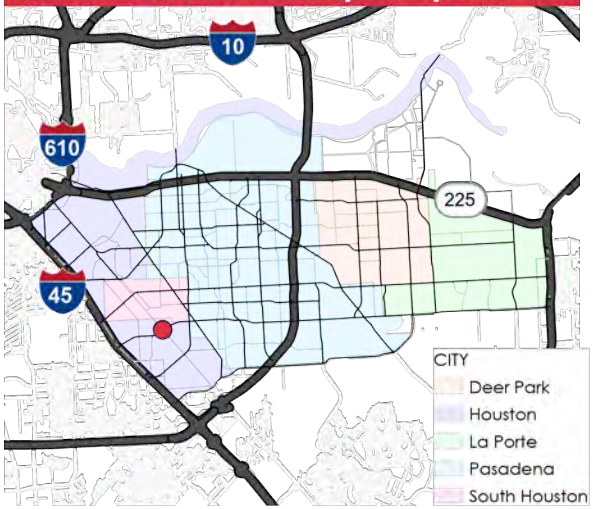
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	None
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive left-turn lane for westbound approach (dual left) - Change left-turn type from Protected to Flashing Yellow Arrow for northbound and southbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	D	E	C
Delay (s/veh)	48.38	38.57	75.05	34.57
% Change in Delay	-	-20.3%	-	-53.9%

Location Key Map



Crash Data (2016-2020)

Total Crashes	74
Severe Crashes (Fatal, Severe Injury)	(0,4)
Crashes with Another Vehicle	66
Crashes with a Bicyclist	0
Crashes with a Pedestrian	1
Crashes with a Fixed Object	5
Most Common Object Struck	DITCH
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (22)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (17)

Priority Intersection

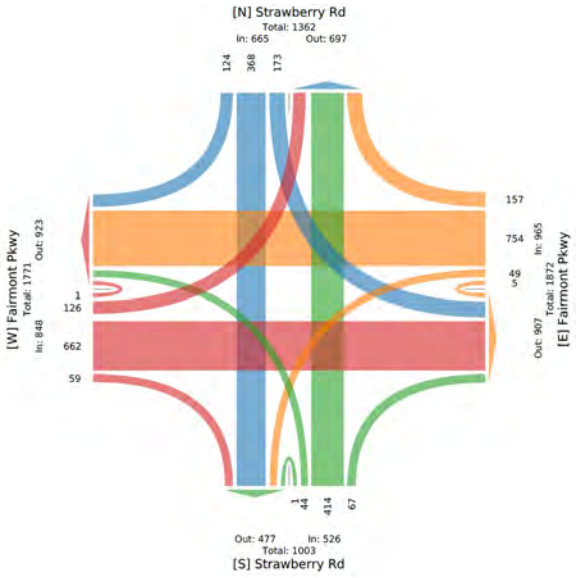
FAIRMONT PKWY. & STRAWBERRY RD.

Intersection ID: 28.2.2

Existing Aerial View



2021 Turning Movement Counts



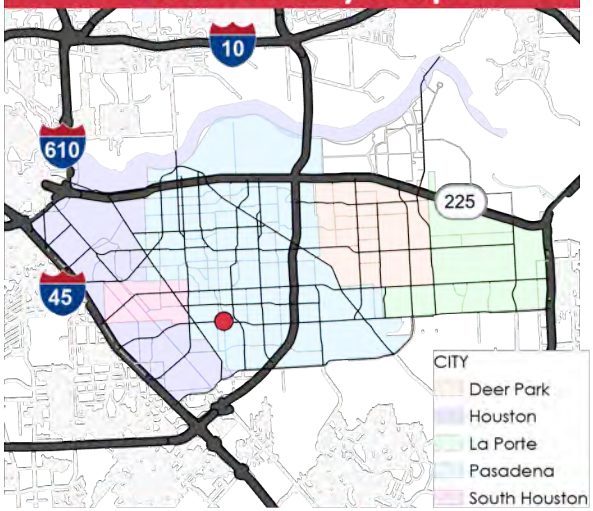
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	- Upgrade pavement
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive right-turn lane for westbound approach - Install through lanes for eastbound and westbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	***Existing***	***With Recommendations***	***Existing***	***With Recommendations***
Level-Of-Service	D	D	E	C
Delay (s/veh)	36.5	35.27	76.56	30.1
% Change in Delay	-	-3.4%	-	-60.68%

Location Key Map



Crash Data (2016-2020)

Total Crashes	79
Severe Crashes (Fatal, Severe Injury)	(0,2)
Crashes with Another Vehicle	73
Crashes with a Bicyclist	2
Crashes with a Pedestrian	0
Crashes with a Fixed Object	4
Most Common Object Struck	HIT LUMINAIRE POLE
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (27)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (19)

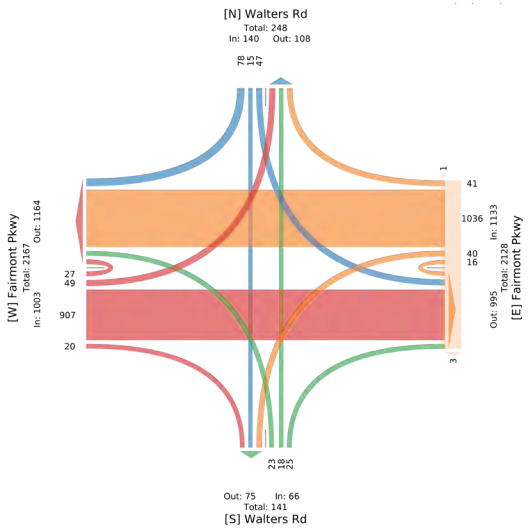
FAIRMONT PKWY. & WATTERS RD.

Intersection ID: 28.2.4

Existing Aerial View



2021 Turning Movement Counts



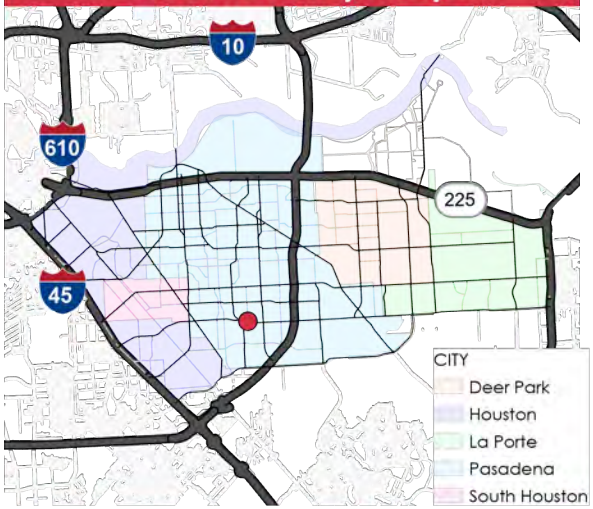
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates	None
CAPACITY	
- Optimize cycle length and splits	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	C	C
Delay (s/veh)	34.74	33.96	30.11	30.11
% Change in Delay	-	-2.3%	-	0%

Location Key Map



Crash Data (2016-2020)

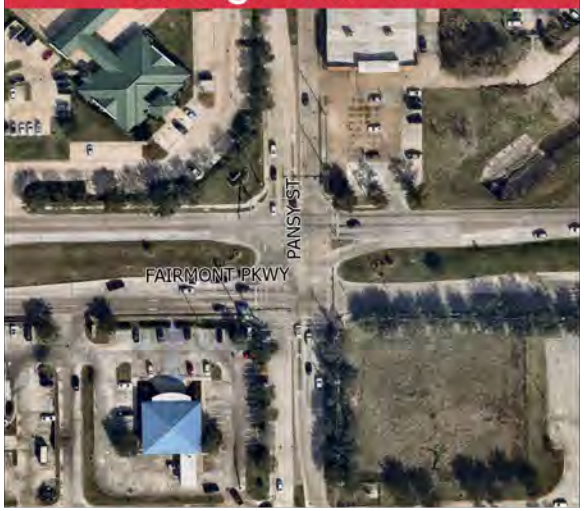
Total Crashes	54
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	48
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	6
Most Common Object Struck	HIT TRAFFIC SIGNAL POLE OR POST
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (12)
Most Common Factor of Collision	SLOWING/STOPPING-FOR TRAFFIC (9)

Priority Intersection

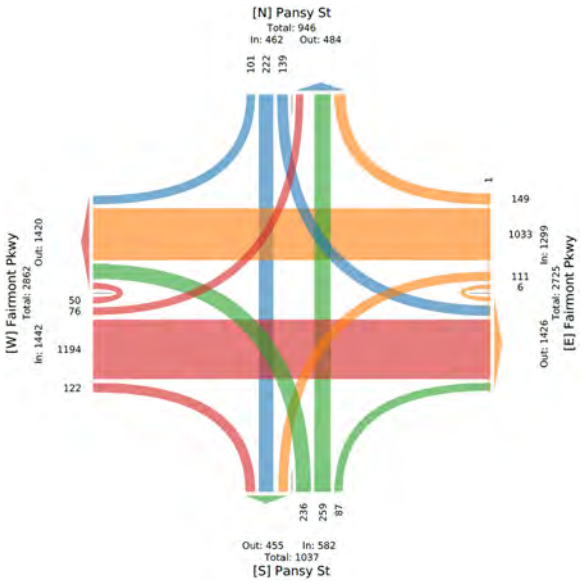
FAIRMONT PKWY. & PANSY ST.

Intersection ID: 28.3.2

Existing Aerial View



2021 Turning Movement Counts



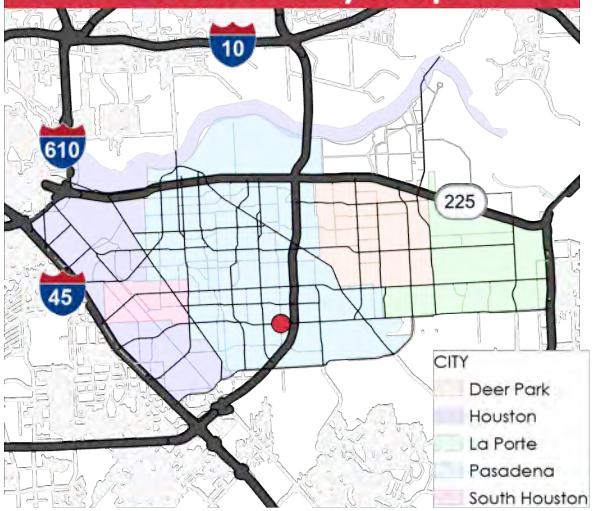
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
- Install reflectorized signal back plates - Upgrade curb ramps - Upgrade pedestrian signal to include countdown signals and audible pushbuttons	- Upgrade pavement
CAPACITY	
- Optimize cycle length and splits	- Optimize cycle length and splits - Install exclusive left-turn lane for northbound approach (dual left) - Install exclusive right-turn lane for westbound approach

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	D	D	F	E
Delay (s/veh)	51.42	44.95	108.69	59.86
% Change in Delay	-	-12.6%	-	-44.9%

Location Key Map



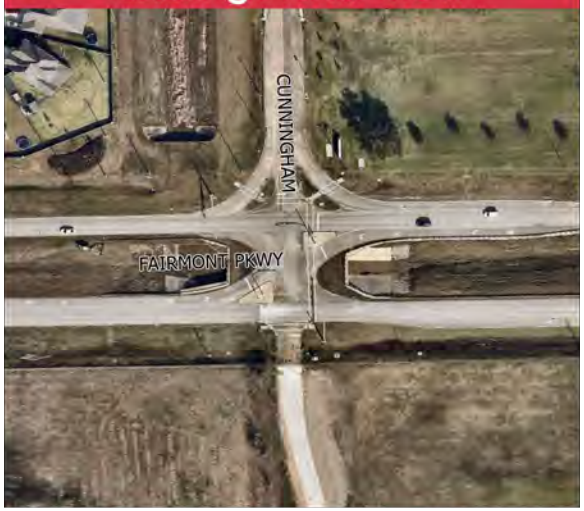
Crash Data (2016-2020)

Total Crashes	143
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	137
Crashes with a Bicyclist	2
Crashes with a Pedestrian	0
Crashes with a Fixed Object	3
Most Common Object Struck	HIT TREE, SHRUB, LANDSCAPING
Most Common Manner of Collision	ANGLE - BOTH GOING STRAIGHT (29)
Most Common Factor of Collision	NOT APPLICABLE (37)

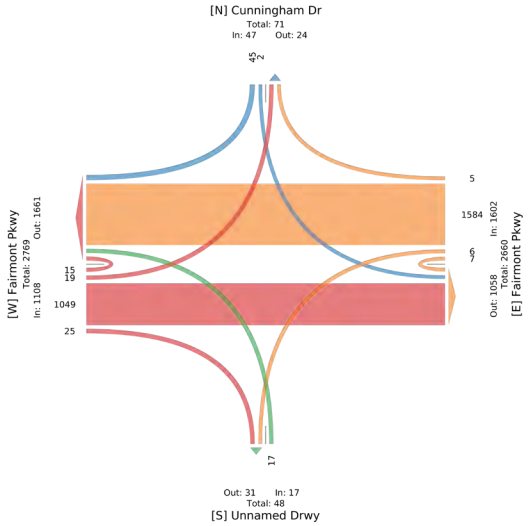
FAIRMONT PKWY. & CUNNINGHAM DR.

Intersection ID: 28.6.2

Existing Aerial View



2021 Turning Movement Counts



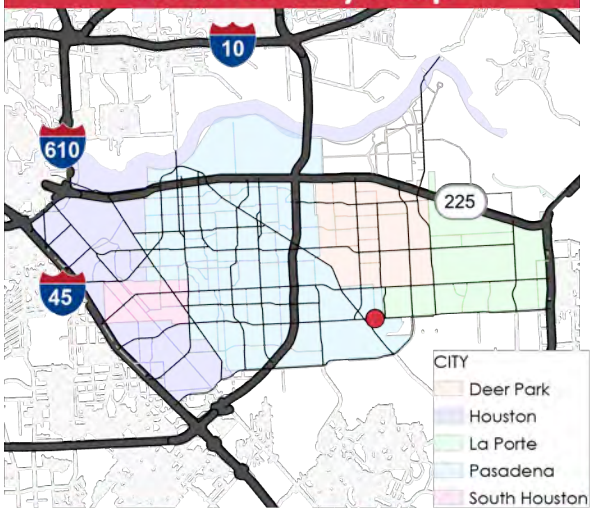
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	C	C
Delay (s/veh)	18.06	18.06	24.17	24.17
% Change in Delay	-	0%	-	0%

Location Key Map



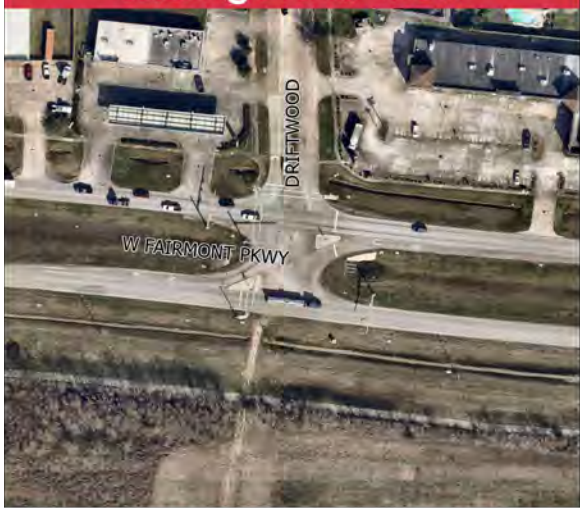
Crash Data (2016-2020)

Total Crashes	30
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	26
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	2
Most Common Object Struck	OVERTURNED
Most Common Manner of Collision	SD BOTH GOING STRAIGHT-REAR END (9)
Most Common Factor of Collision	ATTENTION DIVERTED FROM DRIVING (5)

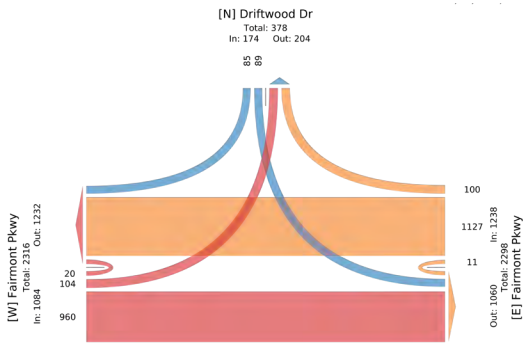
FAIRMONT PKWY. & DRIFTWOOD DR.

Intersection ID: 28.6.6

Existing Aerial View



2021 Turning Movement Counts



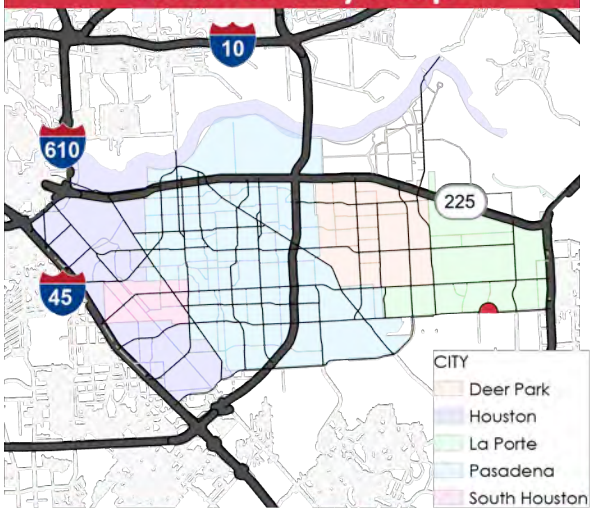
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
None	None

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	B	B	B	B
Delay (s/veh)	12.18	12.18	12.78	12.78
% Change in Delay	-	0%	-	0%

Location Key Map



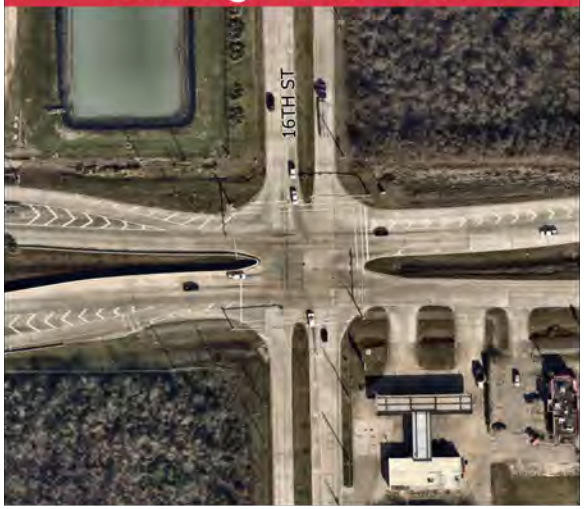
Crash Data (2016-2020)

Total Crashes	29
Severe Crashes (Fatal, Severe Injury)	(0,1)
Crashes with Another Vehicle	27
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	1
Most Common Object Struck	DITCH
Most Common Manner of Collision	SD ONE STRAIGHT-ONE STOPPED (11)
Most Common Factor of Collision	SLOWING/STOPPING - FOR OFF., FLAGMAN, OR TRF. CTRL. (10)

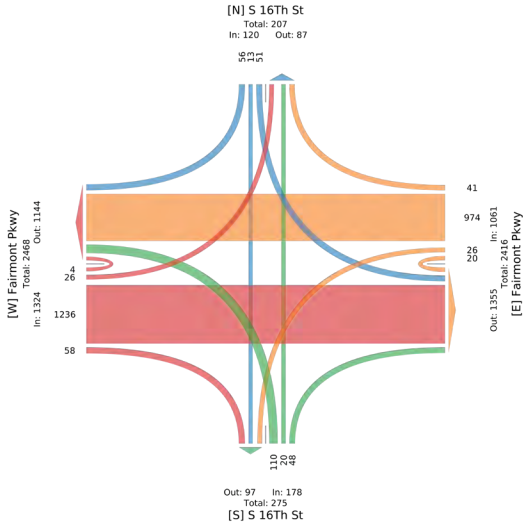
FAIRMONT PKWY. & 16TH ST.

Intersection ID: 28.8.1

Existing Aerial View



2021 Turning Movement Counts



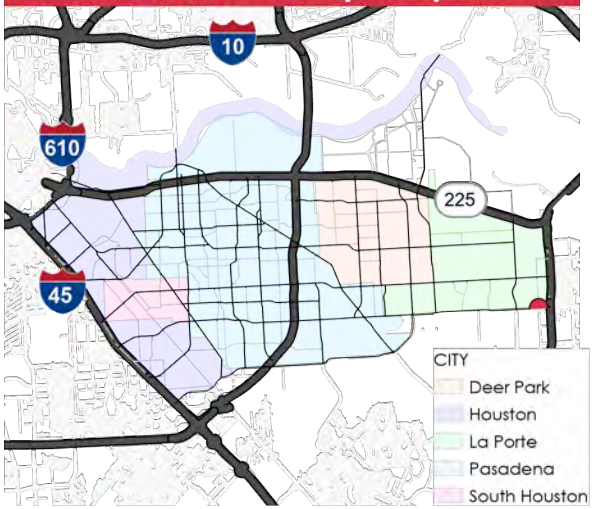
Recommended Improvements

Short-Term Recommendations	*Long-Term Recommendations*
SAFETY	
None	None
CAPACITY	
None	- Optimize cycle length and splits - Install through lane for eastbound westbound approaches

Traffic Model Results

Study Year	2021		2045	
Scenario	*Existing*	*With Recommendations*	*Existing*	*With Recommendations*
Level-Of-Service	C	C	D	C
Delay (s/veh)	34.16	34.16	46.32	29.03
% Change in Delay	-	0%	-	-37.3%

Location Key Map



Crash Data (2016-2020)

Total Crashes	39
Severe Crashes (Fatal, Severe Injury)	(0,0)
Crashes with Another Vehicle	35
Crashes with a Bicyclist	0
Crashes with a Pedestrian	0
Crashes with a Fixed Object	3
Most Common Object Struck	FIRE HYDRANT
Most Common Manner of Collision	SD BOTH GOING STRAIGHT-SIDESWIPE (11)
Most Common Factor of Collision	NOT APPLICABLE (9)

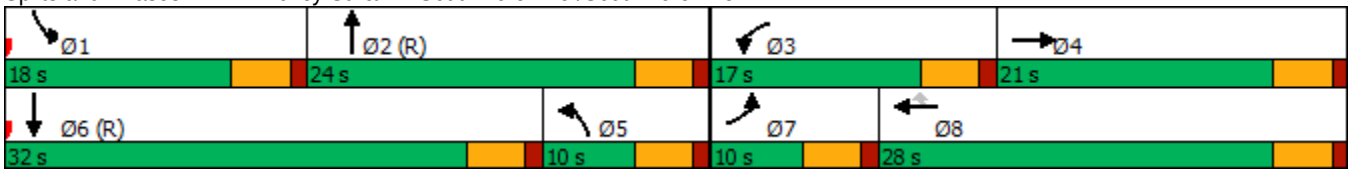
Synchro Report

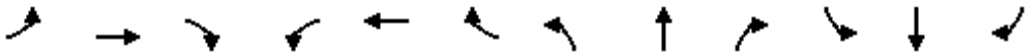
Short-Term Improved Network 2021 AM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	32	221	244	339	160	37	338	117	277
Future Volume (vph)	32	221	244	339	160	37	338	117	277
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	21.0	17.0	28.0	28.0	10.0	24.0	18.0	32.0
Total Split (%)	12.5%	26.3%	21.3%	35.0%	35.0%	12.5%	30.0%	22.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.5	11.1	10.8	22.4	22.4	5.5	31.5	10.8	38.6
Actuated g/C Ratio	0.07	0.14	0.14	0.28	0.28	0.07	0.39	0.14	0.48
v/c Ratio	0.28	0.55	0.55	0.36	0.28	0.32	0.35	0.52	0.19
Control Delay	38.2	36.2	22.7	14.2	4.5	36.9	14.2	39.3	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.2	36.2	22.7	14.2	4.5	36.9	14.2	39.3	13.6
LOS	D	D	C	B	A	D	B	D	B
Approach Delay		36.4		14.9			15.9		20.7
Approach LOS		D		B			B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 5 (6%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	221	41	244	339	160	37	338	122	117	277	30
Future Volume (veh/h)	32	221	41	244	339	160	37	338	122	117	277	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	33	228	42	252	349	165	38	348	126	121	286	31
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	40	330	60	344	664	296	383	1199	427	154	1095	118
Arrive On Green	0.02	0.11	0.11	0.10	0.19	0.19	0.22	0.47	0.47	0.09	0.34	0.34
Sat Flow, veh/h	1753	2957	536	3401	3497	1560	1753	2527	900	1753	3185	342
Grp Volume(v), veh/h	33	133	137	252	349	165	38	239	235	121	156	161
Grp Sat Flow(s),veh/h/ln	1753	1749	1744	1700	1749	1560	1753	1749	1679	1753	1749	1779
Q Serve(g_s), s	1.5	5.9	6.0	5.8	7.2	7.7	1.4	6.7	6.8	5.4	5.1	5.2
Cycle Q Clear(g_c), s	1.5	5.9	6.0	5.8	7.2	7.7	1.4	6.7	6.8	5.4	5.1	5.2
Prop In Lane	1.00		0.31	1.00		1.00	1.00		0.54	1.00		0.19
Lane Grp Cap(c), veh/h	40	195	195	344	664	296	383	830	797	154	601	612
V/C Ratio(X)	0.83	0.68	0.70	0.73	0.53	0.56	0.10	0.29	0.29	0.79	0.26	0.26
Avail Cap(c_a), veh/h	121	361	360	531	1027	458	383	830	797	296	601	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	34.2	34.3	34.9	29.2	29.4	25.0	12.8	12.8	35.7	18.9	18.9
Incr Delay (d2), s/veh	30.7	3.8	4.2	3.0	0.6	1.6	0.1	0.9	0.9	8.5	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	2.7	2.4	2.9	2.9	0.6	2.6	2.6	2.6	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.6	38.0	38.4	38.0	29.8	31.0	25.1	13.7	13.8	44.3	20.0	20.0
LnGrp LOS	E	D	D	D	C	C	C	B	B	D	B	B
Approach Vol, veh/h		303			766			512			438	
Approach Delay, s/veh		41.6			32.7			14.6			26.7	
Approach LOS		D			C			B			C	

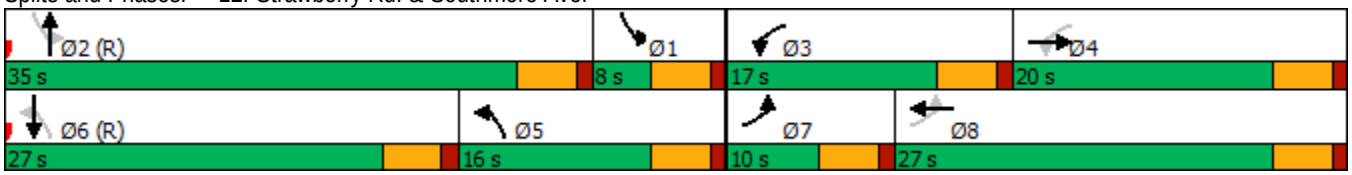
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	42.5	12.6	13.4	22.0	32.0	6.3	19.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	19.5	12.5	16.5	5.5	27.5	5.5	23.5
Max Q Clear Time (g_c+I1), s	7.4	8.8	7.8	8.0	3.4	7.2	3.5	9.7
Green Ext Time (p_c), s	0.1	2.0	0.4	0.9	0.0	1.7	0.0	2.3

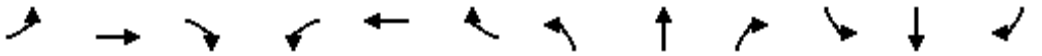
Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	72	325	185	440	173	383	45	397
Future Volume (vph)	72	325	185	440	173	383	45	397
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	17.0	27.0	16.0	35.0	8.0	27.0
Total Split (%)	12.5%	25.0%	21.3%	33.8%	20.0%	43.8%	10.0%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.5	13.3	24.6	20.8	37.4	37.1	40.6	28.2
Actuated g/C Ratio	0.32	0.17	0.31	0.26	0.47	0.46	0.51	0.35
v/c Ratio	0.31	0.64	0.57	0.61	0.46	0.39	0.14	0.46
Control Delay	22.4	40.6	16.1	20.5	12.7	11.2	12.5	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	40.6	16.1	20.5	12.7	11.2	12.5	21.9
LOS	C	D	B	C	B	B	B	C
Approach Delay		37.3		19.3		11.6		21.1
Approach LOS		D		B		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 15 (19%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	325	5	185	440	45	173	383	172	45	397	84
Future Volume (veh/h)	72	325	5	185	440	45	173	383	172	45	397	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	81	365	6	208	494	51	194	430	193	51	446	94
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	235	482	8	346	675	69	623	898	399	567	810	169
Arrive On Green	0.05	0.14	0.14	0.12	0.21	0.21	0.46	0.76	0.76	0.13	0.28	0.28
Sat Flow, veh/h	1753	3521	58	1753	3201	329	1753	2355	1046	1753	2879	602
Grp Volume(v), veh/h	81	181	190	208	269	276	194	318	305	51	270	270
Grp Sat Flow(s),veh/h/ln	1753	1749	1830	1753	1749	1781	1753	1749	1652	1753	1749	1732
Q Serve(g_s), s	2.9	8.0	8.0	8.0	11.5	11.6	0.0	5.4	5.6	0.0	10.5	10.6
Cycle Q Clear(g_c), s	2.9	8.0	8.0	8.0	11.5	11.6	0.0	5.4	5.6	0.0	10.5	10.6
Prop In Lane	1.00		0.03	1.00		0.18	1.00		0.63	1.00		0.35
Lane Grp Cap(c), veh/h	235	239	251	346	369	376	623	667	630	567	492	487
V/C Ratio(X)	0.34	0.76	0.76	0.60	0.73	0.73	0.31	0.48	0.48	0.09	0.55	0.55
Avail Cap(c_a), veh/h	267	339	355	401	492	501	623	667	630	567	492	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	33.2	33.2	25.2	29.4	29.5	12.8	6.5	6.5	13.2	24.4	24.5
Incr Delay (d2), s/veh	0.9	6.0	5.8	1.4	2.7	2.7	0.3	2.4	2.6	0.1	4.4	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.6	3.8	3.3	4.9	5.0	1.8	1.8	1.8	0.5	4.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	39.2	39.0	26.6	32.1	32.2	13.0	8.9	9.1	13.3	28.8	29.0
LnGrp LOS	C	D	D	C	C	C	B	A	A	B	C	C
Approach Vol, veh/h		452			753			817			591	
Approach Delay, s/veh		36.5			30.6			10.0			27.5	
Approach LOS		D			C			A			C	

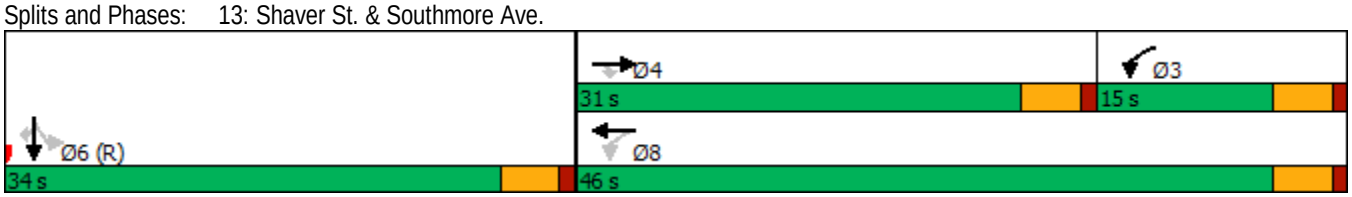
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	35.0	14.5	15.5	23.1	27.0	8.6	21.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	30.5	12.5	15.5	11.5	22.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	2.0	7.6	10.0	10.0	2.0	12.6	4.9	13.6
Green Ext Time (p_c), s	0.0	3.9	0.1	1.0	0.3	2.2	0.0	2.1

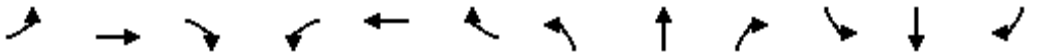
Intersection Summary	
HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	410	97	94	486	120	391	164
Future Volume (vph)	410	97	94	486	120	391	164
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	15.0	46.0	34.0	34.0	34.0
Total Split (%)	38.8%	38.8%	18.8%	57.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	17.7	17.7	26.8	25.7	45.3	45.3	45.3
Actuated g/C Ratio	0.22	0.22	0.34	0.32	0.57	0.57	0.57
v/c Ratio	0.62	0.26	0.37	0.53	0.14	0.23	0.22
Control Delay	27.8	9.2	9.3	9.8	7.4	7.2	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.8	9.2	9.3	9.8	7.4	7.2	7.8
LOS	C	A	A	A	A	A	A
Approach Delay	24.2			9.7		7.4	
Approach LOS	C			A		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 49.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	410	97	94	486	0	0	0	0	120	391	164
Future Volume (veh/h)	0	410	97	94	486	0	0	0	0	120	391	164
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	477	113	109	565	0				140	455	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	664	296	190	1000	0				1055	2104	
Arrive On Green	0.00	0.19	0.19	0.08	0.57	0.00				0.60	0.60	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	477	113	109	565	0				140	455	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	10.2	5.1	0.0	8.2	0.0				2.8	4.8	0.0
Cycle Q Clear(g_c), s	0.0	10.2	5.1	0.0	8.2	0.0				2.8	4.8	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	664	296	190	1000	0				1055	2104	
V/C Ratio(X)	0.00	0.72	0.38	0.57	0.56	0.00				0.13	0.22	
Avail Cap(c_a), veh/h	0	1159	517	350	1814	0				1055	2104	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.64	0.64	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	30.4	28.3	34.9	14.0	0.0				6.9	7.3	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.8	1.7	0.3	0.0				0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.3	1.9	2.0	2.4	0.0				0.9	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.9	29.1	36.7	14.3	0.0				7.2	7.5	0.0
LnGrp LOS	A	C	C	D	B	A				A	A	
Approach Vol, veh/h		590			674						595	A
Approach Delay, s/veh		31.3			17.9						7.4	
Approach LOS		C			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		7.7	19.7		52.6		27.4					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		10.5	26.5		29.5		41.5					
Max Q Clear Time (g_c+I1), s		2.0	12.2		6.8		10.2					
Green Ext Time (p_c), s		0.1	3.0		3.3		4.0					

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Notes

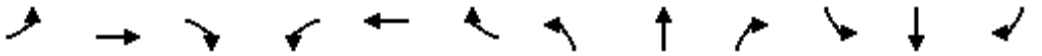
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	75	369	45	432	136	229	591	90	359
Future Volume (vph)	75	369	45	432	136	229	591	90	359
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	24.0	11.0	22.0	22.0	24.0	31.0	14.0	21.0
Total Split (%)	16.3%	30.0%	13.8%	27.5%	27.5%	30.0%	38.8%	17.5%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.8	19.6	6.5	16.1	16.1	16.1	33.7	8.6	24.1
Actuated g/C Ratio	0.10	0.24	0.08	0.20	0.20	0.20	0.42	0.11	0.30
v/c Ratio	0.49	0.70	0.36	0.69	0.32	0.73	0.48	0.54	0.39
Control Delay	27.5	16.7	39.1	32.7	9.8	42.0	20.7	35.0	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.5	16.7	39.1	32.7	9.8	42.0	20.7	35.0	24.1
LOS	C	B	D	C	A	D	C	D	C
Approach Delay		18.0		28.1			26.4		26.3
Approach LOS		B		C			C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 24.7	Intersection LOS: C
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	369	186	45	432	136	229	591	35	90	359	3
Future Volume (veh/h)	75	369	186	45	432	136	229	591	35	90	359	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	83	410	207	50	480	151	254	657	39	100	399	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	106	489	244	63	670	299	291	1509	90	128	1270	10
Arrive On Green	0.06	0.22	0.22	0.04	0.19	0.19	0.33	0.90	0.90	0.07	0.36	0.36
Sat Flow, veh/h	1753	2259	1127	1753	3497	1560	1753	3355	199	1753	3558	27
Grp Volume(v), veh/h	83	316	301	50	480	151	254	342	354	100	196	206
Grp Sat Flow(s),veh/h/ln	1753	1749	1638	1753	1749	1560	1753	1749	1805	1753	1749	1836
Q Serve(g_s), s	3.7	13.8	14.1	2.3	10.3	6.9	10.9	2.6	2.6	4.5	6.5	6.5
Cycle Q Clear(g_c), s	3.7	13.8	14.1	2.3	10.3	6.9	10.9	2.6	2.6	4.5	6.5	6.5
Prop In Lane	1.00		0.69	1.00		1.00	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	106	378	354	63	670	299	291	787	812	128	624	655
V/C Ratio(X)	0.78	0.84	0.85	0.80	0.72	0.51	0.87	0.44	0.44	0.78	0.31	0.31
Avail Cap(c_a), veh/h	186	426	399	142	765	341	427	787	812	208	624	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	30.0	30.1	38.3	30.3	28.9	26.0	2.3	2.3	36.5	18.6	18.6
Incr Delay (d2), s/veh	11.6	12.4	14.4	19.8	2.8	1.3	12.8	1.8	1.7	9.9	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	6.8	6.7	1.3	4.4	2.6	4.6	1.0	1.0	2.2	2.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	42.3	44.5	58.0	33.1	30.3	38.7	4.1	4.0	46.4	19.9	19.9
LnGrp LOS	D	D	D	E	C	C	D	A	A	D	B	B
Approach Vol, veh/h		700			681			950			502	
Approach Delay, s/veh		44.0			34.3			13.3			25.2	
Approach LOS		D			C			B			C	

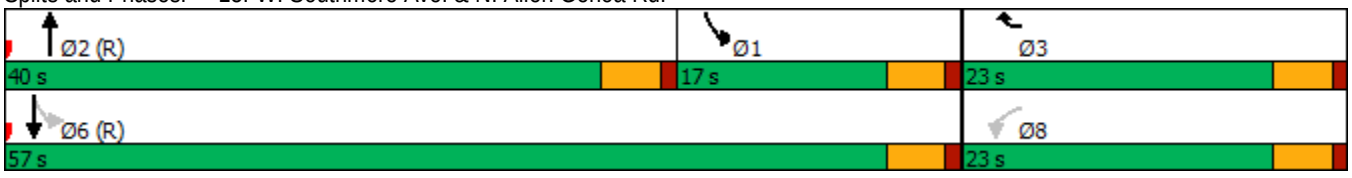
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	40.5	7.4	21.8	17.8	33.1	9.4	19.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	26.5	6.5	19.5	19.5	16.5	8.5	17.5
Max Q Clear Time (g_c+I1), s	6.5	4.6	4.3	16.1	12.9	8.5	5.7	12.3
Green Ext Time (p_c), s	0.1	4.2	0.0	1.2	0.4	1.4	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	71	260	864	192	382
Future Volume (vph)	71	260	864	192	382
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	23.0	23.0	40.0	17.0	57.0
Total Split (%)	28.8%	28.8%	50.0%	21.3%	71.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.3	9.3	44.7	61.7	61.7
Actuated g/C Ratio	0.12	0.12	0.56	0.77	0.77
v/c Ratio	0.38	0.66	0.49	0.40	0.16
Control Delay	17.3	13.4	7.3	9.1	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	13.4	7.3	9.1	2.9
LOS	B	B	A	A	A
Approach Delay	14.2		7.3		5.0
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 7.8	Intersection LOS: A
Intersection Capacity Utilization 55.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	71	260	864	17	192	382	
Future Volume (veh/h)	71	260	864	17	192	382	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	
Adj Flow Rate, veh/h	77	283	939	18	209	415	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	4	4	4	4	4	4	
Cap, veh/h	359	320	1558	30	534	2387	
Arrive On Green	0.20	0.20	0.44	0.44	0.18	0.68	
Sat Flow, veh/h	1753	1560	3602	67	1753	3589	
Grp Volume(v), veh/h	77	283	468	489	209	415	
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1829	1753	1749	
Q Serve(g_s), s	2.9	14.1	16.3	16.3	0.0	3.4	
Cycle Q Clear(g_c), s	2.9	14.1	16.3	16.3	0.0	3.4	
Prop In Lane	1.00	1.00		0.04	1.00		
Lane Grp Cap(c), veh/h	359	320	776	811	534	2387	
V/C Ratio(X)	0.21	0.89	0.60	0.60	0.39	0.17	
Avail Cap(c_a), veh/h	405	361	776	811	534	2387	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.94	0.94	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	26.4	30.9	16.9	16.9	21.6	4.6	
Incr Delay (d2), s/veh	0.3	19.6	3.5	3.3	0.5	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	6.7	6.6	6.9	3.2	1.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	26.7	50.5	20.4	20.2	22.1	4.7	
LnGrp LOS	C	D	C	C	C	A	
Approach Vol, veh/h	360		957			624	
Approach Delay, s/veh	45.4		20.3			10.5	
Approach LOS	D		C			B	

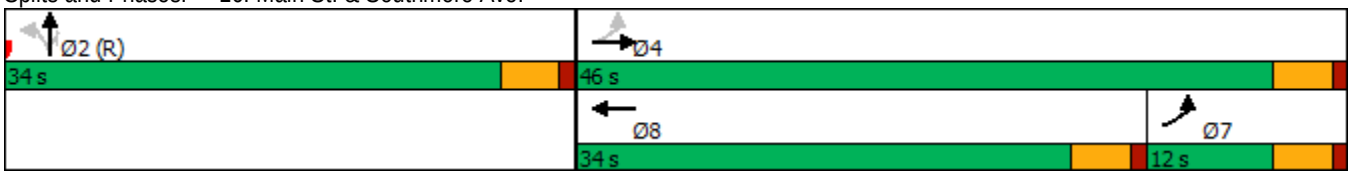
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	19.1	40.0			59.1	20.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	12.5	35.5			52.5	18.5
Max Q Clear Time (g_c+I1), s	2.0	18.3			5.4	16.1
Green Ext Time (p_c), s	0.4	5.7			2.9	0.3

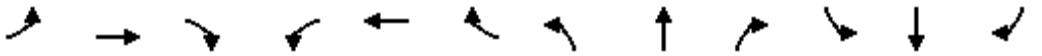
Intersection Summary	
HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	63	444	448	619	121
Future Volume (vph)	63	444	448	619	121
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	46.0	34.0	34.0	34.0
Total Split (%)	15.0%	57.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.6	29.5	21.0	41.5	41.5
Actuated g/C Ratio	0.38	0.37	0.26	0.52	0.52
v/c Ratio	0.26	0.41	0.71	0.33	0.16
Control Delay	6.9	11.8	16.8	13.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	11.8	16.8	13.1	3.3
LOS	A	B	B	B	A
Approach Delay		11.2	16.8	11.8	
Approach LOS		B	B	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 49.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



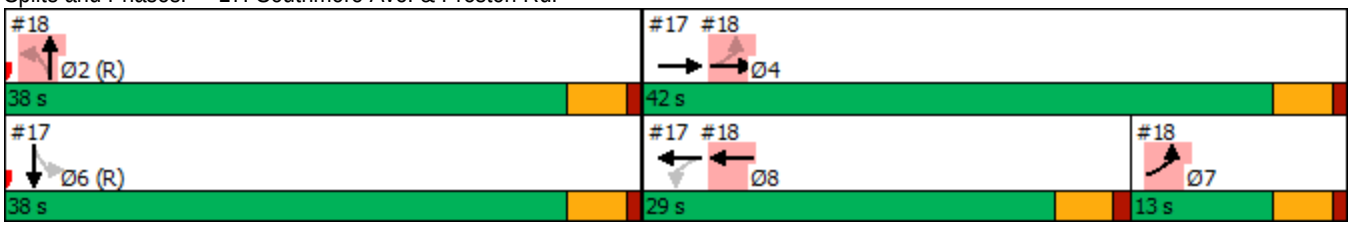


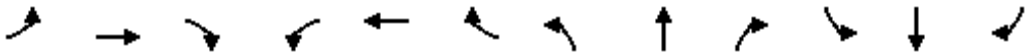
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	444	0	0	448	98	128	619	121	0	0	0
Future Volume (veh/h)	63	444	0	0	448	98	128	619	121	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	72	510	0	0	515	113	147	711	139			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	183	1139	0	0	669	146	466	2427	876			
Arrive On Green	0.07	0.65	0.00	0.00	0.23	0.23	0.56	0.56	0.56			
Sat Flow, veh/h	1753	3589	0	0	2946	623	829	4320	1560			
Grp Volume(v), veh/h	72	510	0	0	315	313	319	539	139			
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1729	1799	1675	1560			
Q Serve(g_s), s	0.0	5.7	0.0	0.0	13.4	13.6	7.6	6.7	3.4			
Cycle Q Clear(g_c), s	0.0	5.7	0.0	0.0	13.4	13.6	7.6	6.7	3.4			
Prop In Lane	1.00		0.00	0.00		0.36	0.46		1.00			
Lane Grp Cap(c), veh/h	183	1139	0	0	410	405	1011	1882	876			
V/C Ratio(X)	0.39	0.45	0.00	0.00	0.77	0.77	0.32	0.29	0.16			
Avail Cap(c_a), veh/h	286	1814	0	0	645	637	1011	1882	876			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	35.2	10.4	0.0	0.0	28.6	28.6	9.3	9.2	8.4			
Incr Delay (d2), s/veh	1.2	0.2	0.0	0.0	3.0	3.2	0.8	0.4	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.3	1.7	0.0	0.0	5.7	5.7	2.8	2.2	1.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	10.6	0.0	0.0	31.6	31.8	10.2	9.5	8.8			
LnGrp LOS	D	B	A	A	C	C	B	A	A			
Approach Vol, veh/h		582			628			997				
Approach Delay, s/veh		13.8			31.7			9.6				
Approach LOS		B			C			A				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		49.4		30.6			7.3	23.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		29.5		41.5			7.5	29.5				
Max Q Clear Time (g_c+I1), s		9.6		7.7			2.0	15.6				
Green Ext Time (p_c), s		5.9		3.6			0.1	3.2				
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	308	88	313	532		
Future Volume (vph)	308	88	313	532		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	42.0	29.0	29.0	38.0	38.0	13.0
Total Split (%)	52.5%	36.3%	36.3%	47.5%	48%	16%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lead	Lead			Lag
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	25.9	17.4	17.4	45.1		
Actuated g/C Ratio	0.32	0.22	0.22	0.56		
v/c Ratio	0.43	0.68	0.49	0.42		
Control Delay	26.9	38.7	21.1	8.2		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	26.9	38.7	21.1	8.2		
LOS	C	D	C	A		
Approach Delay	26.9		24.9	8.2		
Approach LOS	C		C	A		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





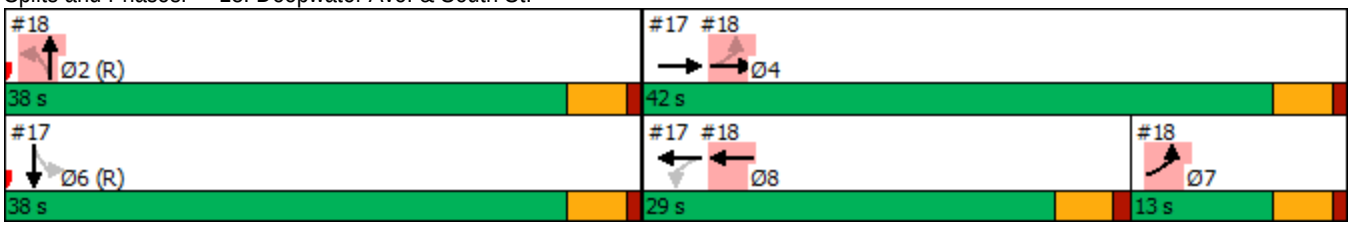
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	308	111	88	313	0	0	0	0	34	532	143
Future Volume (vph)	0	308	111	88	313	0	0	0	0	34	532	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.96		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3222		1736	3355						3358	
Flt Permitted		1.00		0.37	1.00						1.00	
Satd. Flow (perm)		3222		670	3355						3358	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	350	126	100	356	0	0	0	0	39	605	162
RTOR Reduction (vph)	0	57	0	0	0	0	0	0	0	0	21	0
Lane Group Flow (vph)	0	419	0	100	356	0	0	0	0	0	786	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		26.8		17.4	17.4						44.2	
Effective Green, g (s)		26.8		17.4	17.4						44.2	
Actuated g/C Ratio		0.34		0.22	0.22						0.55	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1079		145	729						1855	
v/s Ratio Prot		c0.13			0.11							
v/s Ratio Perm				c0.15							0.23	
v/c Ratio		0.39		0.69	0.49						0.42	
Uniform Delay, d1		20.3		28.8	27.4						10.5	
Progression Factor		1.62		0.58	0.72						0.67	
Incremental Delay, d2		0.2		12.4	0.5						0.6	
Delay (s)		33.2		29.2	20.1						7.7	
Level of Service		C		C	C						A	
Approach Delay (s)		33.2			22.1			0.0			7.7	
Approach LOS		C			C			A			A	

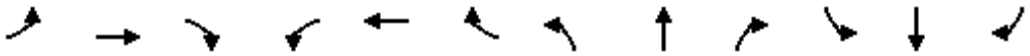
Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	97	228	297	477	
Future Volume (vph)	97	228	297	477	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	42.0	29.0	38.0	38.0
Total Split (%)	16.3%	52.5%	36.3%	47.5%	48%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	27.0	25.9	17.4	45.1	
Actuated g/C Ratio	0.34	0.32	0.22	0.56	
v/c Ratio	0.31	0.24	0.50	0.27	
Control Delay	6.5	8.4	27.9	10.4	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	6.5	8.4	27.9	10.4	
LOS	A	A	C	B	
Approach Delay		7.8	27.9	10.4	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





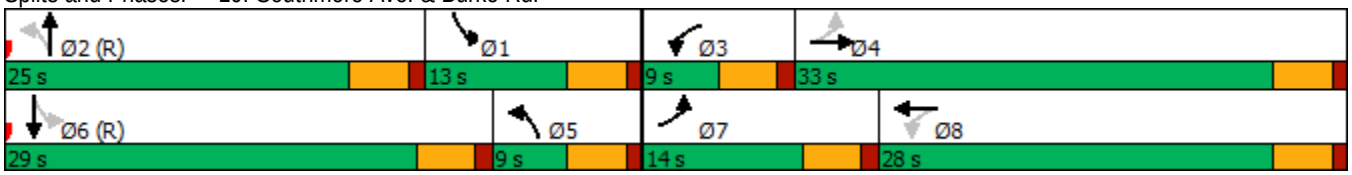
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	228	0	0	297	27	93	477	73	0	0	0
Future Volume (vph)	97	228	0	0	297	27	93	477	73	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.98				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3200			4543				
Flt Permitted	0.47	1.00			1.00			0.99				
Satd. Flow (perm)	809	3240			3200			4543				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	248	0	0	323	29	101	518	79	0	0	0
RTOR Reduction (vph)	0	0	0	0	9	0	0	16	0	0	0	0
Lane Group Flow (vph)	105	248	0	0	343	0	0	682	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	26.8	26.8			17.4			44.2				
Effective Green, g (s)	26.8	26.8			17.4			44.2				
Actuated g/C Ratio	0.34	0.34			0.22			0.55				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	320	1085			696			2510				
v/s Ratio Prot	c0.02	0.08			c0.11							
v/s Ratio Perm	0.09							0.15				
v/c Ratio	0.33	0.23			0.49			0.27				
Uniform Delay, d1	22.0	19.2			27.4			9.4				
Progression Factor	0.23	0.44			1.00			1.00				
Incremental Delay, d2	0.6	0.1			0.6			0.3				
Delay (s)	5.6	8.5			28.0			9.7				
Level of Service	A	A			C			A				
Approach Delay (s)		7.6			28.0			9.7			0.0	
Approach LOS		A			C			A			A	

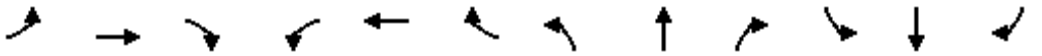
Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	99	278	30	316	38	156	119	170
Future Volume (vph)	99	278	30	316	38	156	119	170
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	33.0	9.0	28.0	9.0	25.0	13.0	29.0
Total Split (%)	17.5%	41.3%	11.3%	35.0%	11.3%	31.3%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	27.9	22.5	20.7	16.8	35.8	31.3	42.8	37.7
Actuated g/C Ratio	0.35	0.28	0.26	0.21	0.45	0.39	0.54	0.47
v/c Ratio	0.43	0.41	0.12	0.69	0.10	0.17	0.22	0.22
Control Delay	11.4	10.4	7.4	20.9	12.6	14.8	13.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	10.4	7.4	20.9	12.6	14.8	13.8	9.1
LOS	B	B	A	C	B	B	B	A
Approach Delay		10.7		20.0		14.4		10.4
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 17 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 50.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	278	35	30	316	103	38	156	27	119	170	121
Future Volume (veh/h)	99	278	35	30	316	103	38	156	27	119	170	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	118	331	42	36	376	123	45	186	32	142	202	144
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	262	746	94	279	496	160	647	767	130	753	610	414
Arrive On Green	0.07	0.24	0.24	0.02	0.19	0.19	0.21	0.26	0.26	0.43	0.51	0.51
Sat Flow, veh/h	1753	3125	393	1753	2599	839	1753	2992	506	1753	1993	1353
Grp Volume(v), veh/h	118	184	189	36	251	248	45	107	111	142	176	170
Grp Sat Flow(s),veh/h/ln	1753	1749	1770	1753	1749	1690	1753	1749	1750	1753	1749	1597
Q Serve(g_s), s	4.2	7.2	7.3	1.3	10.9	11.1	0.0	3.9	4.0	0.0	4.7	5.1
Cycle Q Clear(g_c), s	4.2	7.2	7.3	1.3	10.9	11.1	0.0	3.9	4.0	0.0	4.7	5.1
Prop In Lane	1.00		0.22	1.00		0.50	1.00		0.29	1.00		0.85
Lane Grp Cap(c), veh/h	262	418	423	279	333	322	647	448	448	753	536	489
V/C Ratio(X)	0.45	0.44	0.45	0.13	0.75	0.77	0.07	0.24	0.25	0.19	0.33	0.35
Avail Cap(c_a), veh/h	344	623	631	335	514	496	647	448	448	753	536	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	0.79	0.79	0.79	0.87	0.87	0.87	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	23.4	25.9	25.9	25.3	30.6	30.7	15.1	23.6	23.6	10.6	14.7	14.8
Incr Delay (d2), s/veh	1.0	0.6	0.6	0.2	3.0	3.4	0.0	1.3	1.3	0.1	1.5	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.9	3.0	0.5	4.6	4.6	0.5	1.7	1.7	1.1	1.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.3	26.5	26.5	25.4	33.6	34.1	15.2	24.8	24.9	10.7	16.2	16.6
LnGrp LOS	C	C	C	C	C	C	B	C	C	B	B	B
Approach Vol, veh/h		491			535			263			488	
Approach Delay, s/veh		26.0			33.3			23.2			14.7	
Approach LOS		C			C			C			B	

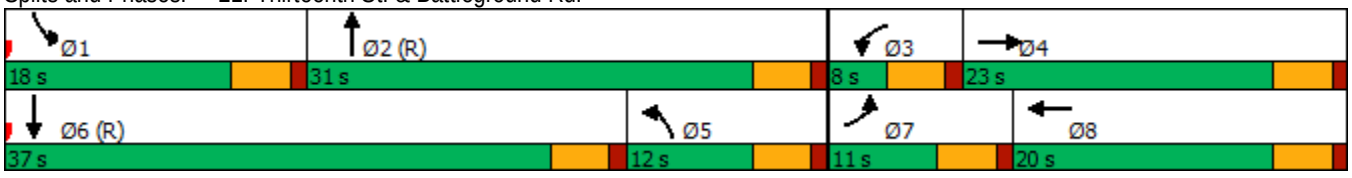
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	25.0	6.4	23.6	21.0	29.0	10.3	19.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	20.5	4.5	28.5	4.5	24.5	9.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	6.0	3.3	9.3	2.0	7.1	6.2	13.1
Green Ext Time (p_c), s	0.2	0.9	0.0	2.0	0.0	1.8	0.1	2.1

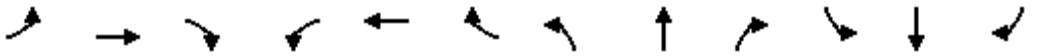
Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	55	12	3	4	63	595	130	524
Future Volume (vph)	55	12	3	4	63	595	130	524
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	23.0	8.0	20.0	12.0	31.0	18.0	37.0
Total Split (%)	13.8%	28.8%	10.0%	25.0%	15.0%	38.8%	22.5%	46.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.3	10.5	3.5	5.5	7.1	46.8	11.6	54.2
Actuated g/C Ratio	0.08	0.13	0.04	0.07	0.09	0.58	0.14	0.68
v/c Ratio	0.43	0.13	0.04	0.05	0.44	0.32	0.55	0.25
Control Delay	39.6	13.2	37.7	0.2	32.2	6.4	39.5	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	13.2	37.7	0.2	32.2	6.4	39.5	8.2
LOS	D	B	D	A	C	A	D	A
Approach Delay		26.6		3.3		8.8		14.1
Approach LOS		C		A		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 55 (69%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	12	41	3	4	27	63	595	14	130	524	30
Future Volume (veh/h)	55	12	41	3	4	27	63	595	14	130	524	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	59	13	44	3	4	29	67	633	15	138	557	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	75	165	147	5	95	85	476	2021	48	173	1366	78
Arrive On Green	0.04	0.09	0.09	0.00	0.05	0.05	0.27	0.58	0.58	0.10	0.41	0.41
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3492	83	1753	3362	193
Grp Volume(v), veh/h	59	13	44	3	4	29	67	317	331	138	289	300
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1826	1753	1749	1806
Q Serve(g_s), s	2.7	0.5	2.1	0.1	0.2	1.4	2.3	7.5	7.5	6.2	9.4	9.5
Cycle Q Clear(g_c), s	2.7	0.5	2.1	0.1	0.2	1.4	2.3	7.5	7.5	6.2	9.4	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.11
Lane Grp Cap(c), veh/h	75	165	147	5	95	85	476	1012	1057	173	710	734
V/C Ratio(X)	0.79	0.08	0.30	0.61	0.04	0.34	0.14	0.31	0.31	0.80	0.41	0.41
Avail Cap(c_a), veh/h	142	404	361	77	339	302	476	1012	1057	296	710	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	33.0	33.7	39.8	35.8	36.4	22.1	8.7	8.7	35.3	16.9	16.9
Incr Delay (d2), s/veh	16.0	0.2	1.1	82.6	0.2	2.3	0.1	0.8	0.8	8.1	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.2	0.8	0.2	0.1	0.6	0.9	2.5	2.6	2.8	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	33.2	34.8	122.5	36.0	38.8	22.2	9.5	9.4	43.3	18.6	18.6
LnGrp LOS	D	C	C	F	D	D	C	A	A	D	B	B
Approach Vol, veh/h		116			36			715			727	
Approach Delay, s/veh		44.4			45.4			10.7			23.3	
Approach LOS		D			D			B			C	

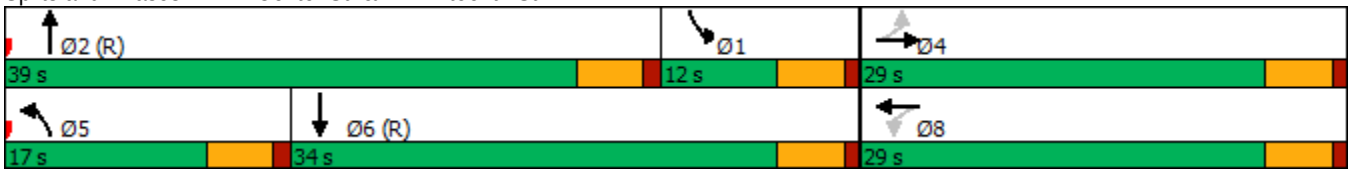
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	50.8	4.7	12.1	26.2	37.0	7.9	8.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	26.5	3.5	18.5	7.5	32.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	8.2	9.5	2.1	4.1	4.3	11.5	4.7	3.4
Green Ext Time (p_c), s	0.1	3.3	0.0	0.1	0.0	3.1	0.0	0.1

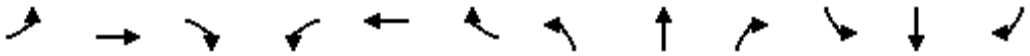
Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	112	114	242	181	188	959	102	747
Future Volume (vph)	112	114	242	181	188	959	102	747
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	29.0	29.0	29.0	29.0	17.0	39.0	12.0	34.0
Total Split (%)	36.3%	36.3%	36.3%	36.3%	21.3%	48.8%	15.0%	42.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		23.0		23.0	11.6	35.0	7.0	30.4
Actuated g/C Ratio		0.29		0.29	0.14	0.44	0.09	0.38
v/c Ratio		0.59		0.90	0.80	0.78	0.73	0.72
Control Delay		21.3		33.2	32.7	11.8	64.3	24.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		21.3		33.2	32.7	11.8	64.3	24.9
LOS		C		C	C	B	E	C
Approach Delay		21.3		33.2		14.8		29.0
Approach LOS		C		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 53 (66%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 23.2	Intersection LOS: C
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	114	109	242	181	131	188	959	135	102	747	132
Future Volume (veh/h)	112	114	109	242	181	131	188	959	135	102	747	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	120	123	117	260	195	141	202	1031	145	110	803	142
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	186	240	266	292	274	210	239	1309	184	153	1116	197
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	356	799	888	686	912	700	1753	3079	433	1753	2970	525
Grp Volume(v), veh/h	160	0	200	284	0	312	202	585	591	110	473	472
Grp Sat Flow(s),veh/h/ln	527	0	1515	749	0	1549	1753	1749	1763	1753	1749	1746
Q Serve(g_s), s	9.9	0.0	8.5	15.5	0.0	14.1	9.0	23.1	23.2	4.9	18.5	18.5
Cycle Q Clear(g_c), s	24.0	0.0	8.5	24.0	0.0	14.1	9.0	23.1	23.2	4.9	18.5	18.5
Prop In Lane	0.75		0.59	0.92		0.45	1.00		0.25	1.00		0.30
Lane Grp Cap(c), veh/h	237	0	455	311	0	465	239	743	749	153	657	656
V/C Ratio(X)	0.68	0.00	0.44	0.91	0.00	0.67	0.84	0.79	0.79	0.72	0.72	0.72
Avail Cap(c_a), veh/h	237	0	455	311	0	465	263	743	749	153	657	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.69	0.00	0.69	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	0.0	22.6	33.9	0.0	24.5	33.7	19.9	19.9	35.5	21.4	21.4
Incr Delay (d2), s/veh	7.5	0.0	0.7	22.9	0.0	2.6	2.2	0.8	0.8	14.8	6.7	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	3.0	7.5	0.0	5.3	3.8	8.5	8.6	2.6	8.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.0	23.2	56.7	0.0	27.1	36.0	20.7	20.7	50.4	28.0	28.0
LnGrp LOS	D	A	C	E	A	C	D	C	C	D	C	C
Approach Vol, veh/h		360			596			1378			1055	
Approach Delay, s/veh		31.1			41.3			22.9			30.4	
Approach LOS		C			D			C			C	

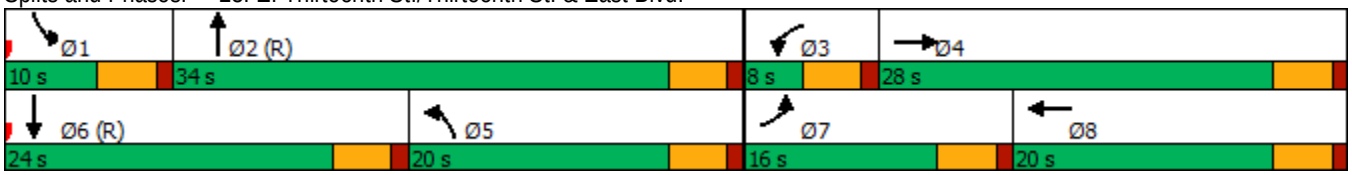
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	39.0		29.0	15.9	35.1		29.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	7.0	34.0		24.0	12.0	29.0		24.0				
Max Q Clear Time (g_c+I1), s	6.9	25.2		26.0	11.0	20.5		26.0				
Green Ext Time (p_c), s	0.0	4.7		0.0	0.1	3.7		0.0				

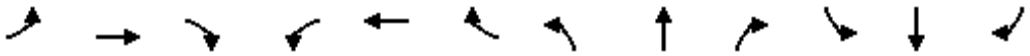
Intersection Summary			
HCM 6th Ctrl Delay		29.3	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	108	76	6	56	151	426	41	278
Future Volume (vph)	108	76	6	56	151	426	41	278
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	28.0	8.0	20.0	20.0	34.0	10.0	24.0
Total Split (%)	20.0%	35.0%	10.0%	25.0%	25.0%	42.5%	12.5%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.9	17.5	3.5	7.0	15.5	44.0	7.6	31.9
Actuated g/C Ratio	0.12	0.22	0.04	0.09	0.19	0.55	0.10	0.40
v/c Ratio	0.56	0.28	0.09	0.24	0.51	0.28	0.27	0.29
Control Delay	35.1	7.2	54.5	11.1	18.9	5.3	37.3	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	7.2	54.5	11.1	18.9	5.3	37.3	16.5
LOS	D	A	D	B	B	A	D	B
Approach Delay		17.0		14.9		8.5		18.6
Approach LOS		B		B		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 3 (4%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 48.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	76	125	6	56	11	151	426	60	41	278	84
Future Volume (veh/h)	108	76	125	6	56	11	151	426	60	41	278	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	119	84	137	7	62	12	166	468	66	45	305	92
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	151	249	222	11	183	35	671	1831	257	56	648	192
Arrive On Green	0.09	0.14	0.14	0.01	0.06	0.06	0.38	0.59	0.59	0.03	0.24	0.24
Sat Flow, veh/h	1753	1749	1560	1753	2937	553	1753	3079	432	1753	2660	788
Grp Volume(v), veh/h	119	84	137	7	36	38	166	265	269	45	199	198
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1741	1753	1749	1763	1753	1749	1699
Q Serve(g_s), s	5.3	3.5	6.6	0.3	1.6	1.7	5.2	5.8	5.8	2.0	7.8	8.0
Cycle Q Clear(g_c), s	5.3	3.5	6.6	0.3	1.6	1.7	5.2	5.8	5.8	2.0	7.8	8.0
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.25	1.00		0.46
Lane Grp Cap(c), veh/h	151	249	222	11	109	109	671	1039	1048	56	426	414
V/C Ratio(X)	0.79	0.34	0.62	0.63	0.33	0.35	0.25	0.25	0.26	0.80	0.47	0.48
Avail Cap(c_a), veh/h	252	514	458	77	339	337	671	1039	1048	121	426	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	30.9	32.3	39.7	35.9	35.9	16.8	7.8	7.8	38.5	25.8	25.9
Incr Delay (d2), s/veh	7.3	0.7	2.3	45.7	1.7	1.8	0.2	0.6	0.6	22.5	3.6	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.5	2.6	0.3	0.7	0.7	1.9	1.9	2.0	1.2	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	31.6	34.5	85.4	37.6	37.8	17.0	8.3	8.4	61.0	29.4	29.8
LnGrp LOS	D	C	C	F	D	D	B	A	A	E	C	C
Approach Vol, veh/h		340			81			700			442	
Approach Delay, s/veh		36.8			41.8			10.4			32.8	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	52.1	5.0	15.9	35.1	24.0	11.4	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	29.5	3.5	23.5	15.5	19.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	4.0	7.8	2.3	8.6	7.2	10.0	7.3	3.7
Green Ext Time (p_c), s	0.0	3.0	0.0	1.1	0.3	1.5	0.1	0.2

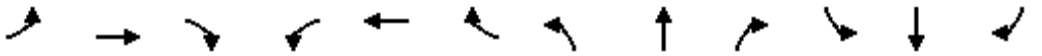
Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	5	230	86	330	246	103	73	94
Future Volume (vph)	5	230	86	330	246	103	73	94
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	26.0	26.0	26.0	26.0	54.0	54.0	54.0	54.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	67.5%	67.5%	67.5%	67.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.9	17.9	17.9	17.9		53.1		53.1
Actuated g/C Ratio	0.22	0.22	0.22	0.22		0.66		0.66
v/c Ratio	0.05	0.54	0.75	0.67		0.64		0.27
Control Delay	26.2	23.8	53.6	24.3		12.2		7.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	26.2	23.8	53.6	24.3		12.2		7.0
LOS	C	C	D	C		B		A
Approach Delay		23.8		29.3		12.2		7.0
Approach LOS		C		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 62 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	230	125	86	330	82	246	103	80	73	94	10
Future Volume (veh/h)	5	230	125	86	330	82	246	103	80	73	94	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	6	291	158	109	418	104	311	130	101	92	119	13
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	201	576	304	224	724	178	578	226	168	415	516	53
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	866	2210	1169	926	2780	686	809	360	268	561	824	85
Grp Volume(v), veh/h	6	229	220	109	261	261	542	0	0	224	0	0
Grp Sat Flow(s),veh/h/ln	866	1749	1630	926	1749	1717	1437	0	0	1470	0	0
Q Serve(g_s), s	0.5	8.9	9.3	9.1	10.4	10.6	12.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.1	8.9	9.3	18.4	10.4	10.6	16.7	0.0	0.0	4.6	0.0	0.0
Prop In Lane	1.00		0.72	1.00		0.40	0.57		0.19	0.41		0.06
Lane Grp Cap(c), veh/h	201	455	425	224	455	447	972	0	0	985	0	0
V/C Ratio(X)	0.03	0.50	0.52	0.49	0.57	0.58	0.56	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	208	470	438	232	470	462	972	0	0	985	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.91	0.91	0.91	0.91	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.6	25.2	25.3	33.2	25.7	25.8	8.4	0.0	0.0	6.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.7	1.5	1.5	1.6	2.1	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.6	3.5	2.1	4.3	4.4	5.0	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	25.8	26.0	34.6	27.2	27.4	10.5	0.0	0.0	6.9	0.0	0.0
LnGrp LOS	C	C	C	C	C	C	B	A	A	A	A	A
Approach Vol, veh/h		455			631			542			224	
Approach Delay, s/veh		26.0			28.6			10.5			6.9	
Approach LOS		C			C			B			A	

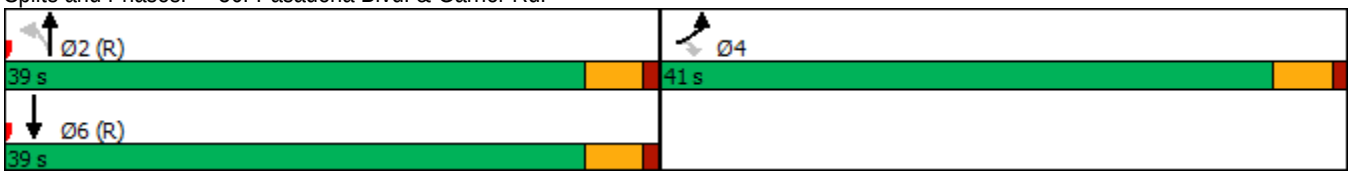
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.7		25.3		54.7		25.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		49.5		21.5		49.5		21.5				
Max Q Clear Time (g_c+I1), s		18.7		13.1		6.6		20.4				
Green Ext Time (p_c), s		4.3		1.8		1.6		0.5				

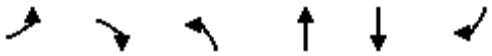
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									

Lane Group	Ø2	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	2	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0
Total Split (%)	49%	51%	49%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	2	2	0	3301	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1560	0	3681	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1560	0	1749	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	2	2	0	3301	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	800	712	0	3301	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0			0	0	
Approach Delay, s/veh	0.0			0.0	0.0	
Approach LOS						

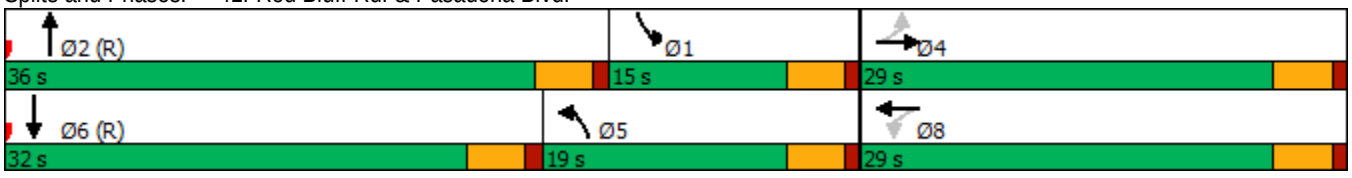
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		34.5		36.5		34.5
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0
Green Ext Time (p_c), s		0.0		0.0		0.0

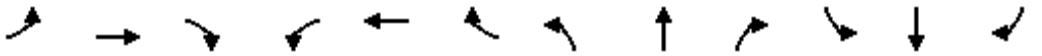
Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	263	11	349	113	658	77	502
Future Volume (vph)	263	11	349	113	658	77	502
Turn Type	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8					
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	29.0	29.0	29.0	19.0	36.0	15.0	32.0
Total Split (%)	36.3%	36.3%	36.3%	23.8%	45.0%	18.8%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lead	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.9		18.9	12.2	40.8	8.8	37.6
Actuated g/C Ratio	0.24		0.24	0.15	0.51	0.11	0.47
v/c Ratio	0.48		0.75	0.49	0.44	0.46	0.35
Control Delay	15.3		26.8	39.3	17.9	40.7	16.7
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	15.3		26.8	39.3	17.9	40.7	16.7
LOS	B		C	D	B	D	B
Approach Delay	15.3		26.8		21.0		19.8
Approach LOS	B		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	263	86	11	349	175	113	658	22	77	502	9
Future Volume (veh/h)	0	263	86	11	349	175	113	658	22	77	502	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	292	96	12	388	194	126	731	0	86	558	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	586	189	53	496	241	460	1377		372	1202	
Arrive On Green	0.00	0.23	0.23	0.23	0.23	0.23	0.26	0.39	0.00	0.21	0.34	0.00
Sat Flow, veh/h	0	2693	838	26	2203	1071	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	0	194	194	325	0	269	126	731	0	86	558	0
Grp Sat Flow(s),veh/h/ln	0	1749	1690	1818	0	1482	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	7.8	8.0	2.6	0.0	13.7	4.6	12.8	0.0	3.3	10.0	0.0
Cycle Q Clear(g_c), s	0.0	7.8	8.0	13.4	0.0	13.7	4.6	12.8	0.0	3.3	10.0	0.0
Prop In Lane	0.00		0.50	0.04		0.72	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	394	381	456	0	334	460	1377		372	1202	
V/C Ratio(X)	0.00	0.49	0.51	0.71	0.00	0.80	0.27	0.53		0.23	0.46	
Avail Cap(c_a), veh/h	0	536	518	600	0	454	460	1377		372	1202	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	27.0	27.1	29.2	0.0	29.3	23.5	18.6	0.0	26.1	20.5	0.0
Incr Delay (d2), s/veh	0.0	1.0	1.1	2.7	0.0	7.3	0.3	1.5	0.0	0.3	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	3.1	5.8	0.0	5.2	1.9	5.2	0.0	1.4	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.0	28.2	31.9	0.0	36.7	23.8	20.1	0.0	26.4	21.8	0.0
LnGrp LOS	A	C	C	C	A	D	C	C		C	C	
Approach Vol, veh/h		388			594			857	A		644	A
Approach Delay, s/veh		28.1			34.1			20.6			22.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.5	36.0		22.5	25.5	32.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	31.5		24.5	14.5	27.5		24.5				
Max Q Clear Time (g_c+I1), s	5.3	14.8		10.0	6.6	12.0		15.7				
Green Ext Time (p_c), s	0.1	4.7		1.8	0.2	3.4		2.3				

Intersection Summary			
HCM 6th Ctrl Delay		25.5	
HCM 6th LOS		C	

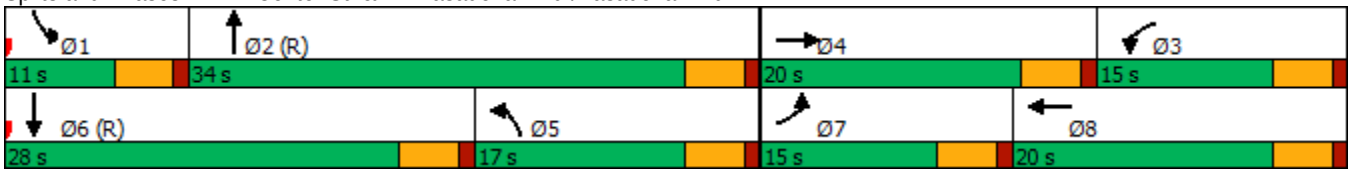
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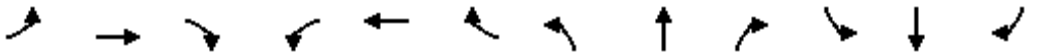
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	195	281	207	346	205	1088	129	772
Future Volume (vph)	195	281	207	346	205	1088	129	772
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	20.0	15.0	20.0	17.0	34.0	11.0	28.0
Total Split (%)	18.8%	25.0%	18.8%	25.0%	21.3%	42.5%	13.8%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.5	13.1	12.3	15.0	12.5	29.5	7.0	24.0
Actuated g/C Ratio	0.13	0.16	0.15	0.19	0.16	0.37	0.09	0.30
v/c Ratio	0.95	0.76	0.84	0.82	0.84	1.07	0.91	0.85
Control Delay	80.9	18.1	61.2	33.9	52.5	67.3	78.8	27.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.9	18.1	61.2	33.9	52.5	67.3	78.8	27.8
LOS	F	B	E	C	D	E	E	C
Approach Delay		35.3		41.0		65.1		34.7
Approach LOS		D		D		E		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 64 (80%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 47.3	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	281	238	207	346	242	205	1088	134	129	772	49
Future Volume (veh/h)	195	281	238	207	346	242	205	1088	134	129	772	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	210	302	256	223	372	260	220	1170	144	139	830	53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	230	349	288	233	384	264	274	1156	142	142	981	63
Arrive On Green	0.13	0.19	0.19	0.13	0.19	0.19	0.16	0.37	0.37	0.08	0.29	0.29
Sat Flow, veh/h	1753	1818	1501	1753	1980	1364	1753	3135	385	1753	3338	213
Grp Volume(v), veh/h	210	290	268	223	328	304	220	651	663	139	435	448
Grp Sat Flow(s),veh/h/ln	1753	1749	1570	1753	1749	1595	1753	1749	1771	1753	1749	1802
Q Serve(g_s), s	9.5	12.9	13.3	10.1	14.9	15.2	9.7	29.5	29.5	6.3	18.7	18.7
Cycle Q Clear(g_c), s	9.5	12.9	13.3	10.1	14.9	15.2	9.7	29.5	29.5	6.3	18.7	18.7
Prop In Lane	1.00		0.96	1.00		0.85	1.00		0.22	1.00		0.12
Lane Grp Cap(c), veh/h	230	336	302	233	339	309	274	645	653	142	514	529
V/C Ratio(X)	0.91	0.86	0.89	0.96	0.97	0.98	0.80	1.01	1.01	0.98	0.85	0.85
Avail Cap(c_a), veh/h	230	339	304	233	339	309	274	645	653	142	514	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.57	0.57	0.57	0.32	0.32	0.32	0.62	0.62	0.62
Uniform Delay (d), s/veh	34.3	31.3	31.5	34.5	32.0	32.1	32.6	25.3	25.3	36.7	26.6	26.6
Incr Delay (d2), s/veh	36.6	19.9	25.5	33.4	28.9	34.4	5.6	22.5	23.6	52.4	10.4	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	6.9	6.9	6.2	8.6	8.4	4.3	14.9	15.3	4.7	8.8	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	51.2	57.0	67.9	60.9	66.5	38.1	47.8	48.9	89.0	37.0	36.7
LnGrp LOS	E	D	E	E	E	E	D	F	F	F	D	D
Approach Vol, veh/h		768			855			1534			1022	
Approach Delay, s/veh		58.6			64.7			46.9			43.9	
Approach LOS		E			E			D			D	

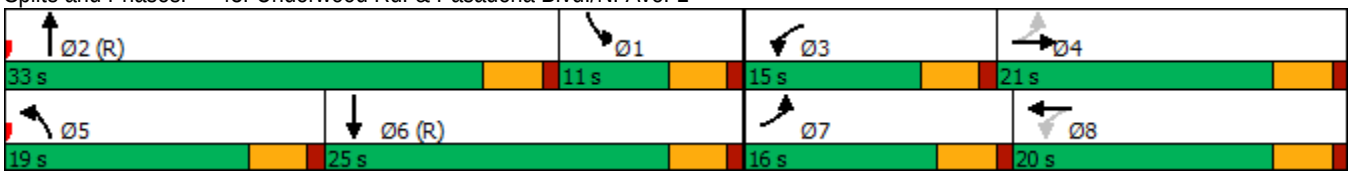
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	34.0	15.1	19.9	17.0	28.0	15.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	29.5	10.5	15.5	12.5	23.5	10.5	15.5
Max Q Clear Time (g_c+I1), s	8.3	31.5	12.1	15.3	11.7	20.7	11.5	17.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.1	1.4	0.0	0.0

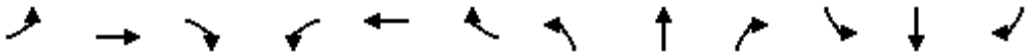
Intersection Summary	
HCM 6th Ctrl Delay	52.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	180	148	156	149	142	595	39	410
Future Volume (vph)	180	148	156	149	142	595	39	410
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	21.0	15.0	20.0	19.0	33.0	11.0	25.0
Total Split (%)	20.0%	26.3%	18.8%	25.0%	23.8%	41.3%	13.8%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.6	10.7	19.7	9.8	12.6	39.2	6.3	28.7
Actuated g/C Ratio	0.27	0.13	0.25	0.12	0.16	0.49	0.08	0.36
v/c Ratio	0.63	0.60	0.60	0.59	0.61	0.49	0.34	0.45
Control Delay	29.5	22.7	26.2	20.7	36.1	13.1	32.3	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	22.7	26.2	20.7	36.1	13.1	32.3	16.3
LOS	C	C	C	C	D	B	C	B
Approach Delay		25.3		22.8		16.9		17.5
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 61.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	148	146	156	149	102	142	595	109	39	410	62
Future Volume (veh/h)	180	148	146	156	149	102	142	595	109	39	410	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	212	174	172	184	175	120	167	700	128	46	482	73
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	358	251	224	326	263	170	205	1052	192	285	1224	184
Arrive On Green	0.13	0.14	0.14	0.11	0.13	0.13	0.12	0.36	0.36	0.16	0.40	0.40
Sat Flow, veh/h	1753	1749	1560	1753	2033	1319	1753	2953	540	1753	3047	459
Grp Volume(v), veh/h	212	174	172	184	149	146	167	414	414	46	276	279
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1603	1753	1749	1744	1753	1749	1758
Q Serve(g_s), s	8.2	7.6	8.5	7.1	6.5	7.0	7.4	16.0	16.0	1.8	9.0	9.0
Cycle Q Clear(g_c), s	8.2	7.6	8.5	7.1	6.5	7.0	7.4	16.0	16.0	1.8	9.0	9.0
Prop In Lane	1.00		1.00	1.00		0.82	1.00		0.31	1.00		0.26
Lane Grp Cap(c), veh/h	358	251	224	326	226	207	205	623	621	285	702	706
V/C Ratio(X)	0.59	0.69	0.77	0.56	0.66	0.70	0.81	0.67	0.67	0.16	0.39	0.40
Avail Cap(c_a), veh/h	387	361	322	358	339	311	318	623	621	285	702	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	32.6	33.0	26.1	33.2	33.4	34.5	21.7	21.7	28.8	17.0	17.0
Incr Delay (d2), s/veh	1.2	1.9	3.8	1.7	3.3	4.3	6.1	3.8	3.8	0.3	1.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.2	3.3	2.9	2.8	2.8	3.3	6.3	6.3	0.7	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	34.5	36.8	27.8	36.4	37.7	40.6	25.5	25.5	29.1	18.7	18.7
LnGrp LOS	C	C	D	C	D	D	D	C	C	C	B	B
Approach Vol, veh/h		558			479			995			601	
Approach Delay, s/veh		32.2			33.5			28.0			19.5	
Approach LOS		C			C			C			B	

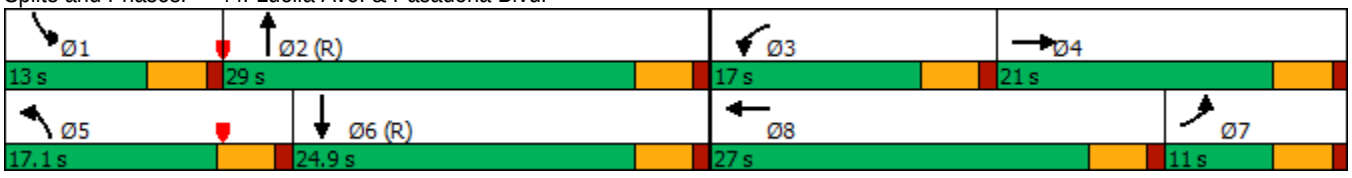
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	33.0	13.5	16.0	13.9	36.6	14.7	14.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	28.5	10.5	16.5	14.5	20.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	3.8	18.0	9.1	10.5	9.4	11.0	10.2	9.0
Green Ext Time (p_c), s	0.0	3.4	0.1	1.0	0.2	2.1	0.1	0.8

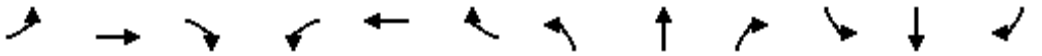
Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	55	381	114	516	111	117	68	104
Future Volume (vph)	55	381	114	516	111	117	68	104
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	11.0	21.0	17.0	27.0	17.1	29.0	13.0	24.9
Total Split (%)	13.8%	26.3%	21.3%	33.8%	21.4%	36.3%	16.3%	31.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.6	16.7	10.5	20.4	10.5	31.3	7.7	28.8
Actuated g/C Ratio	0.08	0.21	0.13	0.26	0.13	0.39	0.10	0.36
v/c Ratio	0.44	0.70	0.57	0.79	0.56	0.42	0.47	0.35
Control Delay	41.3	31.5	45.1	40.3	32.8	27.8	54.7	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	31.5	45.1	40.3	32.8	27.8	54.7	11.0
LOS	D	C	D	D	C	C	D	B
Approach Delay		32.6		41.1		29.3		22.2
Approach LOS		C		D		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	381	57	114	516	89	111	117	142	68	104	92
Future Volume (veh/h)	55	381	57	114	516	89	111	117	142	68	104	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	63	438	66	131	593	102	128	134	163	78	120	106
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	80	579	87	165	711	122	162	328	399	100	359	317
Arrive On Green	0.05	0.19	0.19	0.09	0.24	0.24	0.09	0.43	0.43	0.06	0.40	0.40
Sat Flow, veh/h	1753	3050	457	1753	2985	512	1753	756	919	1753	901	796
Grp Volume(v), veh/h	63	250	254	131	347	348	128	0	297	78	0	226
Grp Sat Flow(s),veh/h/ln	1753	1749	1758	1753	1749	1749	1753	0	1675	1753	0	1697
Q Serve(g_s), s	2.8	10.8	10.9	5.9	15.1	15.2	5.7	0.0	9.8	3.5	0.0	7.4
Cycle Q Clear(g_c), s	2.8	10.8	10.9	5.9	15.1	15.2	5.7	0.0	9.8	3.5	0.0	7.4
Prop In Lane	1.00		0.26	1.00		0.29	1.00		0.55	1.00		0.47
Lane Grp Cap(c), veh/h	80	332	334	165	416	416	162	0	727	100	0	677
V/C Ratio(X)	0.79	0.75	0.76	0.79	0.83	0.84	0.79	0.00	0.41	0.78	0.00	0.33
Avail Cap(c_a), veh/h	142	361	363	274	492	492	276	0	727	186	0	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.41	0.41	0.41	0.94	0.00	0.94	0.91	0.00	0.91
Uniform Delay (d), s/veh	37.8	30.6	30.7	35.5	29.0	29.0	35.6	0.0	15.6	37.2	0.0	16.7
Incr Delay (d2), s/veh	8.3	4.2	4.5	3.6	4.5	4.6	7.9	0.0	1.6	11.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.7	4.8	2.5	6.4	6.4	2.7	0.0	3.8	1.7	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	34.9	35.2	39.0	33.4	33.6	43.4	0.0	17.2	48.4	0.0	17.9
LnGrp LOS	D	C	D	D	C	C	D	A	B	D	A	B
Approach Vol, veh/h		567			826			425			304	
Approach Delay, s/veh		36.3			34.4			25.1			25.7	
Approach LOS		D			C			C			C	

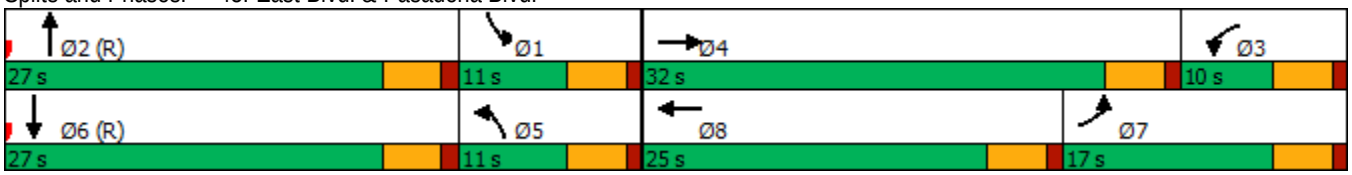
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	39.2	12.0	19.7	11.9	36.4	8.2	23.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	24.5	12.5	16.5	12.6	20.4	6.5	22.5
Max Q Clear Time (g_c+I1), s	5.5	11.8	7.9	12.9	7.7	9.4	4.8	17.2
Green Ext Time (p_c), s	0.0	1.5	0.1	1.0	0.1	0.9	0.0	1.9

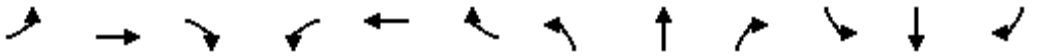
Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	169	264	51	250	92	501	92	577
Future Volume (vph)	169	264	51	250	92	501	92	577
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	9.5	20.0	8.0	20.0	8.0	20.0
Total Split (s)	17.0	32.0	10.0	25.0	11.0	27.0	11.0	27.0
Total Split (%)	21.3%	40.0%	12.5%	31.3%	13.8%	33.8%	13.8%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.8	29.7	5.8	19.4	6.5	24.3	6.5	24.3
Actuated g/C Ratio	0.15	0.37	0.07	0.24	0.08	0.30	0.08	0.30
v/c Ratio	0.76	0.77	0.47	0.88	0.75	0.67	0.75	0.74
Control Delay	57.7	31.1	43.0	38.9	69.8	22.5	64.1	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	31.1	43.0	38.9	69.8	22.5	64.1	24.6
LOS	E	C	D	D	E	C	E	C
Approach Delay		38.4		39.4		28.7		29.4
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 33.0	Intersection LOS: C
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	264	182	51	250	86	92	501	109	92	577	102
Future Volume (veh/h)	169	264	182	51	250	86	92	501	109	92	577	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	194	303	209	59	287	99	106	576	125	106	663	117
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	232	327	226	91	317	109	209	804	174	209	836	147
Arrive On Green	0.13	0.32	0.32	0.05	0.24	0.24	0.12	0.28	0.28	0.12	0.28	0.28
Sat Flow, veh/h	1753	1015	700	1753	1308	451	1753	2859	619	1753	2971	524
Grp Volume(v), veh/h	194	0	512	59	0	386	106	352	349	106	390	390
Grp Sat Flow(s),veh/h/ln	1753	0	1715	1753	0	1759	1753	1749	1729	1753	1749	1746
Q Serve(g_s), s	8.6	0.0	23.1	2.6	0.0	17.0	4.5	14.5	14.6	4.5	16.5	16.5
Cycle Q Clear(g_c), s	8.6	0.0	23.1	2.6	0.0	17.0	4.5	14.5	14.6	4.5	16.5	16.5
Prop In Lane	1.00		0.41	1.00		0.26	1.00		0.36	1.00		0.30
Lane Grp Cap(c), veh/h	232	0	553	91	0	426	209	492	486	209	492	491
V/C Ratio(X)	0.84	0.00	0.93	0.65	0.00	0.91	0.51	0.71	0.72	0.51	0.79	0.79
Avail Cap(c_a), veh/h	274	0	589	121	0	451	209	492	486	209	492	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.00	0.70	0.77	0.00	0.77	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	0.0	26.2	37.2	0.0	29.4	33.0	25.9	25.9	33.0	26.6	26.6
Incr Delay (d2), s/veh	12.8	0.0	15.4	5.9	0.0	17.3	1.6	7.2	7.4	2.0	12.4	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	10.7	1.2	0.0	8.6	1.9	6.3	6.3	1.9	7.8	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	0.0	41.5	43.2	0.0	46.7	34.7	33.1	33.3	35.0	38.9	39.1
LnGrp LOS	D	A	D	D	A	D	C	C	C	D	D	D
Approach Vol, veh/h		706			445			807			886	
Approach Delay, s/veh		42.9			46.2			33.4			38.5	
Approach LOS		D			D			C			D	

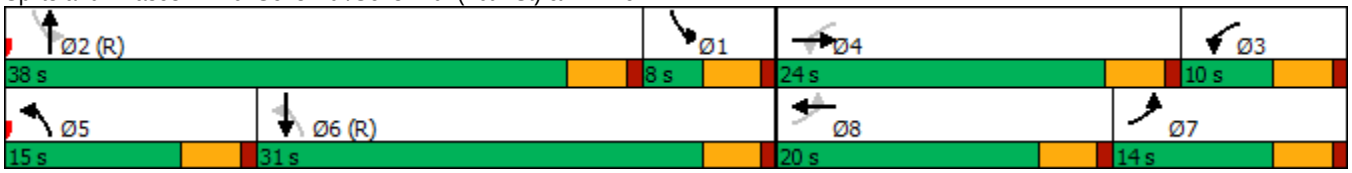
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	27.0	8.6	30.3	14.0	27.0	15.1	23.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.5	5.5	27.5	6.5	22.5	12.5	20.5
Max Q Clear Time (g_c+I1), s	6.5	16.6	4.6	25.1	6.5	18.5	10.6	19.0
Green Ext Time (p_c), s	0.0	2.0	0.0	0.7	0.0	1.6	0.1	0.3

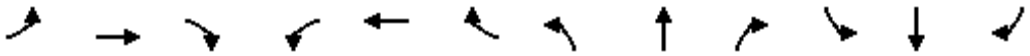
Intersection Summary	
HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	59	2	6	0	94	367	318	
Future Volume (vph)	59	2	6	0	94	367	318	
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	NA	
Protected Phases	7	4	3	8	5	2	6	1
Permitted Phases	8		4		6			
Detector Phase	7	4	3	8	5	2	6	
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0
Total Split (s)	14.0	24.0	10.0	20.0	15.0	38.0	31.0	8.0
Total Split (%)	17.5%	30.0%	12.5%	25.0%	18.8%	47.5%	38.8%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	9.1	8.0	12.4	5.5	59.4	63.9	54.5	
Actuated g/C Ratio	0.11	0.10	0.16	0.07	0.74	0.80	0.68	
v/c Ratio	0.33	0.33	0.03	0.00	0.13	0.15	0.17	
Control Delay	29.6	12.0	24.5	0.0	3.3	2.7	7.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	29.6	12.0	24.5	0.0	3.3	2.7	7.2	
LOS	C	B	C	A	A	A	A	
Approach Delay		20.3		19.1		2.8	7.2	
Approach LOS		C		B		A	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.33	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 42.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	2	65	6	0	2	94	367	7	0	318	30
Future Volume (veh/h)	59	2	65	6	0	2	94	367	7	0	318	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	66	2	72	7	0	2	104	408	8	0	353	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	221	3	108	149	0	82	755	1469	29	890	2094	195
Arrive On Green	0.03	0.07	0.07	0.02	0.00	0.05	0.04	0.42	0.42	0.00	0.65	0.65
Sat Flow, veh/h	1753	42	1524	1753	0	1560	1753	3508	69	1753	3235	301
Grp Volume(v), veh/h	66	0	74	7	0	2	104	203	213	0	190	196
Grp Sat Flow(s),veh/h/ln	1753	0	1566	1753	0	1560	1753	1749	1828	1753	1749	1787
Q Serve(g_s), s	0.0	0.0	3.7	0.0	0.0	0.1	1.6	6.1	6.1	0.0	3.4	3.5
Cycle Q Clear(g_c), s	0.0	0.0	3.7	0.0	0.0	0.1	1.6	6.1	6.1	0.0	3.4	3.5
Prop In Lane	1.00		0.97	1.00		1.00	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	221	0	111	149	0	82	755	732	766	890	1132	1156
V/C Ratio(X)	0.30	0.00	0.67	0.05	0.00	0.02	0.14	0.28	0.28	0.00	0.17	0.17
Avail Cap(c_a), veh/h	370	0	382	243	0	302	913	732	766	890	1132	1156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.00	0.80	1.00	0.00	1.00	0.94	0.94	0.94	0.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	36.2	37.0	0.0	35.9	4.2	15.3	15.3	0.0	5.6	5.6
Incr Delay (d2), s/veh	0.6	0.0	5.4	0.1	0.0	0.1	0.1	0.9	0.8	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.5	0.1	0.0	0.0	0.4	2.4	2.5	0.0	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	41.7	37.2	0.0	36.1	4.3	16.2	16.1	0.0	5.9	5.9
LnGrp LOS	D	A	D	D	A	D	A	B	B	A	A	A
Approach Vol, veh/h		140			9			520			386	
Approach Delay, s/veh		38.9			36.9			13.8			5.9	
Approach LOS		D			D			B			A	

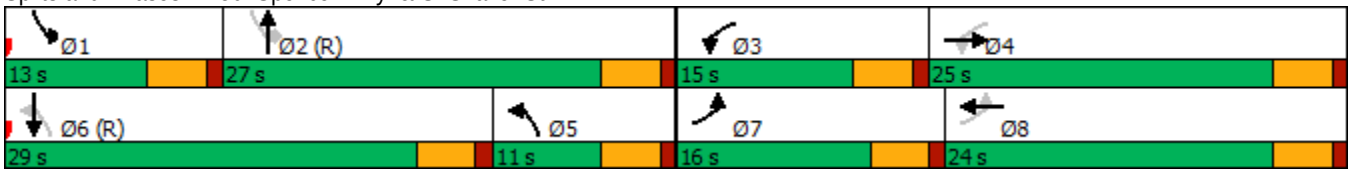
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.1	38.0	5.7	10.2	7.8	56.3	7.2	8.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	33.5	5.5	19.5	10.5	26.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	0.0	8.1	2.0	5.7	3.6	5.5	2.0	2.1
Green Ext Time (p_c), s	0.0	2.3	0.0	0.2	0.1	2.0	0.1	0.0

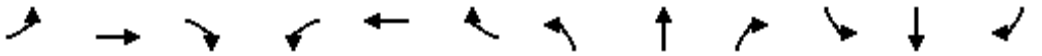
Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	147	662	122	708	86	384	147	125	372
Future Volume (vph)	147	662	122	708	86	384	147	125	372
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	16.0	25.0	15.0	24.0	11.0	27.0	27.0	13.0	29.0
Total Split (%)	20.0%	31.3%	18.8%	30.0%	13.8%	33.8%	33.8%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	29.1	20.0	29.1	19.2	33.8	24.9	24.9	32.9	28.6
Actuated g/C Ratio	0.36	0.25	0.36	0.24	0.42	0.31	0.31	0.41	0.36
v/c Ratio	0.56	0.68	0.50	0.78	0.31	0.43	0.29	0.36	0.51
Control Delay	14.9	20.7	26.6	12.8	36.6	39.8	21.3	11.9	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	20.7	26.6	12.8	36.6	39.8	21.3	11.9	11.4
LOS	B	C	C	B	D	D	C	B	B
Approach Delay		19.7		14.7		35.0			11.5
Approach LOS		B		B		C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 58 (73%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 64.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	662	58	122	708	82	86	384	147	125	372	172
Future Volume (veh/h)	147	662	58	122	708	82	86	384	147	125	372	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	173	779	68	144	833	96	101	452	173	147	438	202
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	290	1135	99	287	1032	118	455	1319	588	443	714	326
Arrive On Green	0.03	0.08	0.08	0.03	0.07	0.07	0.14	0.38	0.38	0.07	0.31	0.31
Sat Flow, veh/h	1753	4708	409	1753	4572	524	1753	3497	1560	1753	2332	1066
Grp Volume(v), veh/h	173	553	294	144	609	320	101	452	173	147	327	313
Grp Sat Flow(s),veh/h/ln	1753	1675	1767	1753	1675	1746	1753	1749	1560	1753	1749	1649
Q Serve(g_s), s	5.9	12.9	13.0	4.8	14.3	14.4	0.0	7.4	6.2	4.0	12.8	13.0
Cycle Q Clear(g_c), s	5.9	12.9	13.0	4.8	14.3	14.4	0.0	7.4	6.2	4.0	12.8	13.0
Prop In Lane	1.00		0.23	1.00		0.30	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	290	807	426	287	756	394	455	1319	588	443	536	505
V/C Ratio(X)	0.60	0.69	0.69	0.50	0.81	0.81	0.22	0.34	0.29	0.33	0.61	0.62
Avail Cap(c_a), veh/h	369	858	453	371	817	426	455	1319	588	500	536	505
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	33.9	33.9	22.6	35.3	35.3	23.3	17.8	17.4	13.6	23.7	23.8
Incr Delay (d2), s/veh	1.8	1.9	3.7	1.0	4.2	8.2	0.2	0.7	1.3	0.4	5.1	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.9	6.5	2.0	6.8	7.5	1.5	3.0	2.2	1.5	5.8	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	35.7	37.6	23.6	39.5	43.5	23.5	18.5	18.7	14.0	28.8	29.4
LnGrp LOS	C	D	D	C	D	D	C	B	B	B	C	C
Approach Vol, veh/h		1020			1073			726			787	
Approach Delay, s/veh		34.5			38.6			19.3			26.3	
Approach LOS		C			D			B			C	

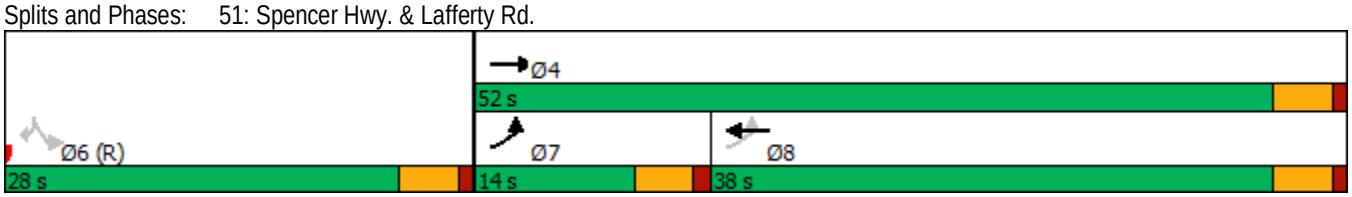
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	34.7	11.2	23.8	16.1	29.0	12.4	22.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	22.5	10.5	20.5	6.5	24.5	11.5	19.5
Max Q Clear Time (g_c+I1), s	6.0	9.4	6.8	15.0	2.0	15.0	7.9	16.4
Green Ext Time (p_c), s	0.1	3.0	0.1	2.4	0.1	2.8	0.1	1.6

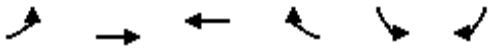
Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	67	877	858	109	79
Future Volume (vph)	67	877	858	109	79
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	52.0	38.0	28.0	28.0
Total Split (%)	17.5%	65.0%	47.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	32.8	36.4	26.5	34.6	34.6
Actuated g/C Ratio	0.41	0.46	0.33	0.43	0.43
v/c Ratio	0.32	0.46	0.69	0.17	0.13
Control Delay	6.9	9.3	23.8	18.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	9.3	23.8	18.0	5.2
LOS	A	A	C	B	A
Approach Delay		9.1	23.8	12.6	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 4 (5%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 44.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





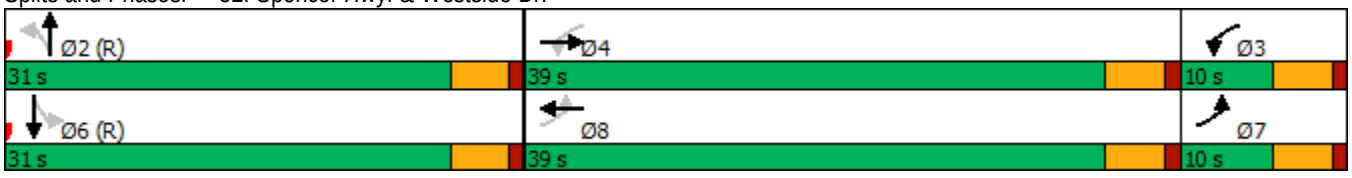
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	67	877	858	101	109	79
Future Volume (vph)	67	877	858	101	109	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4745		1678	1501
Flt Permitted	0.15	1.00	1.00		0.95	1.00
Satd. Flow (perm)	267	4821	4745		1678	1501
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	76	997	975	115	124	90
RTOR Reduction (vph)	0	0	21	0	0	52
Lane Group Flow (vph)	76	997	1069	0	124	38
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	32.8	37.3	26.5		33.7	33.7
Effective Green, g (s)	32.8	37.3	26.5		33.7	33.7
Actuated g/C Ratio	0.41	0.47	0.33		0.42	0.42
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	220	2247	1571		706	632
v/s Ratio Prot	0.03	c0.21	c0.23			
v/s Ratio Perm	0.11				c0.07	0.03
v/c Ratio	0.35	0.44	0.68		0.18	0.06
Uniform Delay, d1	15.5	14.4	23.1		14.5	13.7
Progression Factor	0.37	0.60	0.99		1.00	1.00
Incremental Delay, d2	0.9	0.1	0.9		0.5	0.2
Delay (s)	6.6	8.8	23.9		15.0	13.9
Level of Service	A	A	C		B	B
Approach Delay (s)		8.6	23.9		14.6	
Approach LOS		A	C		B	

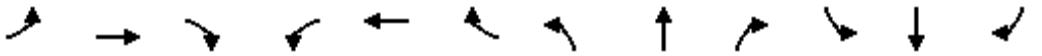
Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	8	839	25	861	26	41	67	37
Future Volume (vph)	8	839	25	861	26	41	67	37
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	39.0	10.0	39.0	31.0	31.0	31.0	31.0
Total Split (%)	12.5%	48.8%	12.5%	48.8%	38.8%	38.8%	38.8%	38.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	32.1	25.1	31.2	27.7		41.3		41.3
Actuated g/C Ratio	0.40	0.31	0.39	0.35		0.52		0.52
v/c Ratio	0.04	0.63	0.11	0.62		0.14		0.17
Control Delay	9.6	18.0	2.0	4.9		9.9		18.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	9.6	18.0	2.0	4.9		9.9		18.2
LOS	A	B	A	A		A		B
Approach Delay		18.0		4.9		9.9		18.2
Approach LOS		B		A		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 47 (59%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 41.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	839	30	25	861	70	26	41	42	67	37	9
Future Volume (veh/h)	8	839	30	25	861	70	26	41	42	67	37	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	9	922	33	27	946	77	29	45	46	74	41	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	1373	49	191	1389	113	229	352	326	515	274	62
Arrive On Green	0.00	0.09	0.09	0.02	0.20	0.20	0.53	0.53	0.53	0.53	0.53	0.53
Sat Flow, veh/h	1753	4981	178	1753	4737	385	327	663	615	837	518	118
Grp Volume(v), veh/h	9	620	335	27	668	355	120	0	0	125	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1771	1605	0	0	1472	0	0
Q Serve(g_s), s	0.0	14.3	14.4	0.0	14.8	14.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	14.3	14.4	0.0	14.8	14.9	2.8	0.0	0.0	2.8	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.22	0.24		0.38	0.59		0.08
Lane Grp Cap(c), veh/h	162	923	498	191	983	520	907	0	0	852	0	0
V/C Ratio(X)	0.06	0.67	0.67	0.14	0.68	0.68	0.13	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	269	1445	780	266	1445	764	907	0	0	852	0	0
HCM Platoon Ratio	0.33	0.33	0.33	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.72	0.72	0.72	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.0	32.9	32.9	32.7	28.7	28.7	9.5	0.0	0.0	9.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.7	1.3	0.2	0.6	1.1	0.3	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.4	7.0	0.5	6.2	6.7	1.1	0.0	0.0	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	33.5	34.1	32.9	29.3	29.8	9.8	0.0	0.0	9.9	0.0	0.0
LnGrp LOS	C	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		964			1050			120			125	
Approach Delay, s/veh		33.7			29.5			9.8			9.9	
Approach LOS		C			C			A			A	

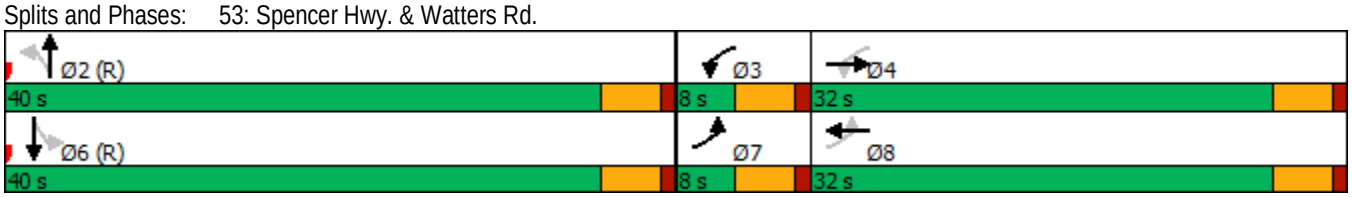
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.9	6.6	26.5		46.9	5.1	28.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	5.5	34.5		26.5	5.5	34.5				
Max Q Clear Time (g_c+I1), s		4.8	2.0	16.4		4.8	2.0	16.9				
Green Ext Time (p_c), s		0.6	0.0	5.7		0.6	0.0	6.6				

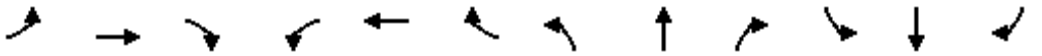
Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	49	1095	64	1106	176	32	51	35
Future Volume (vph)	49	1095	64	1106	176	32	51	35
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	32.0	8.0	32.0	40.0	40.0	40.0	40.0
Total Split (%)	10.0%	40.0%	10.0%	40.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	30.8	27.1	29.9	28.7		37.5		37.5
Actuated g/C Ratio	0.38	0.34	0.37	0.36		0.47		0.47
v/c Ratio	0.33	0.84	0.43	0.71		0.56		0.35
Control Delay	10.5	13.4	10.6	8.1		19.5		8.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	10.5	13.4	10.6	8.1		19.5		8.7
LOS	B	B	B	A		B		A
Approach Delay		13.3		8.2		19.5		8.7
Approach LOS		B		A		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1095	200	64	1106	60	176	32	71	51	35	159
Future Volume (veh/h)	49	1095	200	64	1106	60	176	32	71	51	35	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	53	1190	217	70	1202	65	191	35	77	55	38	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	211	1344	245	192	1582	86	448	88	158	177	139	488
Arrive On Green	0.06	0.63	0.63	0.08	0.65	0.65	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1753	4272	779	1753	4880	264	787	185	331	258	293	1026
Grp Volume(v), veh/h	53	933	474	70	825	442	303	0	0	266	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1701	1753	1675	1793	1303	0	0	1577	0	0
Q Serve(g_s), s	1.6	18.7	18.7	2.1	13.6	13.7	4.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	18.7	18.7	2.1	13.6	13.7	12.5	0.0	0.0	8.0	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.15	0.63		0.25	0.21		0.65
Lane Grp Cap(c), veh/h	211	1054	535	192	1086	581	693	0	0	805	0	0
V/C Ratio(X)	0.25	0.89	0.89	0.36	0.76	0.76	0.44	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	233	1152	585	197	1152	616	693	0	0	805	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.14	0.14	0.14	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	13.6	13.6	19.1	11.9	11.9	14.2	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.4	5.1	9.4	0.2	0.4	0.8	2.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.3	5.0	0.8	2.9	3.2	3.8	0.0	0.0	3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	18.8	23.1	19.3	12.3	12.7	16.2	0.0	0.0	14.2	0.0	0.0
LnGrp LOS	B	B	C	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1460			1337			303			266	
Approach Delay, s/veh		20.1			12.8			16.2			14.2	
Approach LOS		C			B			B			B	

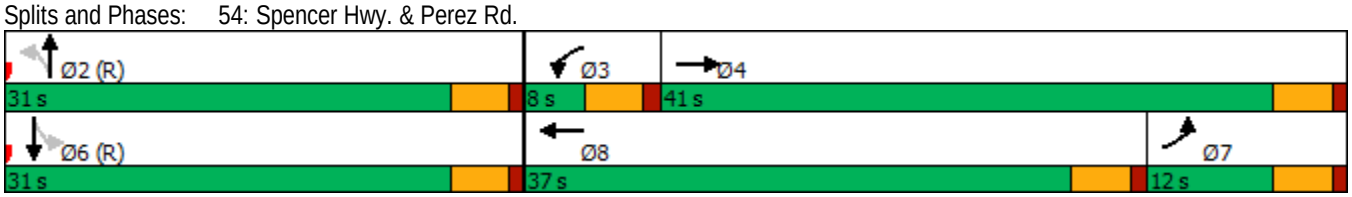
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.6	7.8	29.7		42.6	7.0	30.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	3.5	27.5		35.5	3.5	27.5				
Max Q Clear Time (g_c+I1), s		14.5	4.1	20.7		10.0	3.6	15.7				
Green Ext Time (p_c), s		2.0	0.0	4.5		1.7	0.0	6.1				

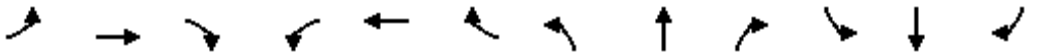
Intersection Summary												
HCM 6th Ctrl Delay			16.4									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	26	725	1	892	7	106	3
Future Volume (vph)	26	725	1	892	7	106	3
Turn Type	Prot	NA	Prot	NA	NA	Perm	NA
Protected Phases	7	4	3	8	2		6
Permitted Phases						6	
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	41.0	8.0	37.0	31.0	31.0	31.0
Total Split (%)	15.0%	51.3%	10.0%	46.3%	38.8%	38.8%	38.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	6.7	30.8	3.5	27.5	38.6		38.6
Actuated g/C Ratio	0.08	0.38	0.04	0.34	0.48		0.48
v/c Ratio	0.21	0.45	0.01	0.69	0.02		0.26
Control Delay	47.8	23.4	35.0	12.8	11.7		14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	47.8	23.4	35.0	12.8	11.7		14.8
LOS	D	C	C	B	B		B
Approach Delay		24.3		12.8	11.7		14.8
Approach LOS		C		B	B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 37 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	725	0	1	892	95	0	7	8	106	3	39
Future Volume (veh/h)	26	725	0	1	892	95	0	7	8	106	3	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	863	0	1	1062	113	0	8	10	126	4	46
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	38	1665	0	2	1432	152	0	371	464	576	29	187
Arrive On Green	0.02	0.33	0.00	0.00	0.31	0.31	0.00	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1753	5191	0	1753	4612	490	0	744	930	1000	58	374
Grp Volume(v), veh/h	31	863	0	1	771	404	0	0	18	176	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	0	1753	1675	1752	0	0	1673	1432	0	0
Q Serve(g_s), s	1.4	11.1	0.0	0.0	16.5	16.5	0.0	0.0	0.4	4.6	0.0	0.0
Cycle Q Clear(g_c), s	1.4	11.1	0.0	0.0	16.5	16.5	0.0	0.0	0.4	5.4	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.28	0.00		0.56	0.72		0.26
Lane Grp Cap(c), veh/h	38	1665	0	2	1040	544	0	0	835	792	0	0
V/C Ratio(X)	0.81	0.52	0.00	0.46	0.74	0.74	0.00	0.00	0.02	0.22	0.00	0.00
Avail Cap(c_a), veh/h	164	2293	0	77	1361	712	0	0	835	792	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.00	0.60	0.60	0.60	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.0	21.6	0.0	39.9	24.7	24.7	0.0	0.0	10.2	11.4	0.0	0.0
Incr Delay (d2), s/veh	23.4	0.2	0.0	69.6	0.9	1.8	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.0	0.0	0.1	6.1	6.6	0.0	0.0	0.2	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.4	21.8	0.0	109.5	25.6	26.5	0.0	0.0	10.2	12.0	0.0	0.0
LnGrp LOS	E	C	A	F	C	C	A	A	B	B	A	A
Approach Vol, veh/h		894			1176			18			176	
Approach Delay, s/veh		23.2			26.0			10.2			12.0	
Approach LOS		C			C			B			B	

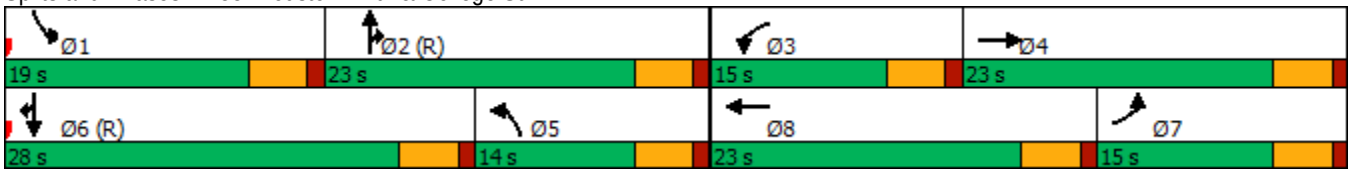
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.4	4.6	31.0		44.4	6.2	29.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	3.5	36.5		26.5	7.5	32.5				
Max Q Clear Time (g_c+I1), s		2.4	2.0	13.1		7.4	3.4	18.5				
Green Ext Time (p_c), s		0.0	0.0	6.0		0.9	0.0	6.3				

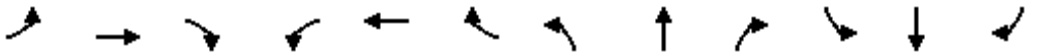
Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	130	447	104	748	96	510	104	180	348	167
Future Volume (vph)	130	447	104	748	96	510	104	180	348	167
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	Prot	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases										
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	15.0	23.0	15.0	23.0	14.0	23.0	23.0	19.0	28.0	28.0
Total Split (%)	18.8%	28.8%	18.8%	28.8%	17.5%	28.8%	28.8%	23.8%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.8	20.9	9.3	18.2	8.8	21.3	21.3	12.7	27.3	27.3
Actuated g/C Ratio	0.12	0.26	0.12	0.23	0.11	0.27	0.27	0.16	0.34	0.34
v/c Ratio	0.66	0.45	0.56	0.85	0.54	0.59	0.20	0.70	0.32	0.27
Control Delay	32.8	9.2	22.6	23.4	44.2	29.7	0.8	45.8	22.0	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	9.2	22.6	23.4	44.2	29.7	0.8	45.8	22.0	3.6
LOS	C	A	C	C	D	C	A	D	C	A
Approach Delay		13.9		23.3		27.4			23.7	
Approach LOS		B		C		C			C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 52 (65%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	447	82	104	748	124	96	510	104	180	348	167
Future Volume (veh/h)	130	447	82	104	748	124	96	510	104	180	348	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	140	481	88	112	804	133	103	548	112	194	374	180
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	1016	182	142	952	156	285	1131	504	234	1027	458
Arrive On Green	0.10	0.24	0.24	0.08	0.22	0.22	0.16	0.32	0.32	0.13	0.29	0.29
Sat Flow, veh/h	1753	4286	767	1753	4348	714	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	140	374	195	112	618	319	103	548	112	194	374	180
Grp Sat Flow(s),veh/h/ln	1753	1675	1703	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	6.3	7.7	7.9	5.0	14.1	14.3	4.2	10.1	4.2	8.6	6.8	7.4
Cycle Q Clear(g_c), s	6.3	7.7	7.9	5.0	14.1	14.3	4.2	10.1	4.2	8.6	6.8	7.4
Prop In Lane	1.00		0.45	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	795	404	142	734	375	285	1131	504	234	1027	458
V/C Ratio(X)	0.80	0.47	0.48	0.79	0.84	0.85	0.36	0.48	0.22	0.83	0.36	0.39
Avail Cap(c_a), veh/h	230	795	404	230	775	396	285	1131	504	318	1027	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	26.2	26.3	36.1	29.9	30.0	29.8	21.7	19.7	33.8	22.3	22.6
Incr Delay (d2), s/veh	14.1	0.4	0.9	9.2	8.1	15.4	0.8	1.5	1.0	12.6	1.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.9	3.1	2.4	6.1	7.1	1.8	4.2	1.6	4.4	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	26.6	27.2	45.2	38.0	45.4	30.6	23.2	20.8	46.3	23.3	25.1
LnGrp LOS	D	C	C	D	D	D	C	C	C	D	C	C
Approach Vol, veh/h		709			1049			763			748	
Approach Delay, s/veh		31.3			41.0			23.8			29.7	
Approach LOS		C			D			C			C	

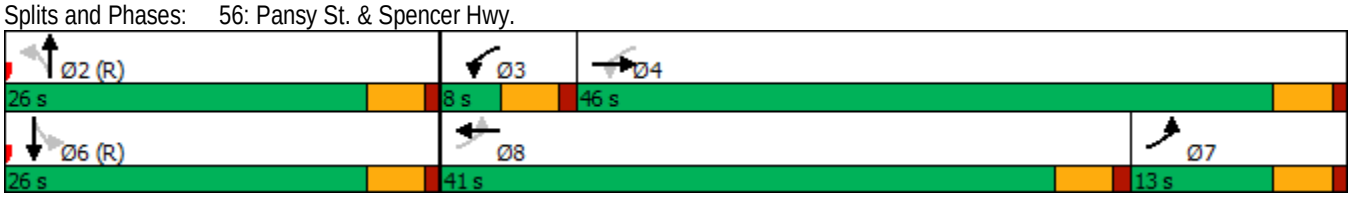
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	30.4	11.0	23.5	17.5	28.0	12.5	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	18.5	10.5	18.5	9.5	23.5	10.5	18.5
Max Q Clear Time (g_c+I1), s	10.6	12.1	7.0	9.9	6.2	9.4	8.3	16.3
Green Ext Time (p_c), s	0.2	2.2	0.1	2.2	0.1	2.6	0.1	1.2

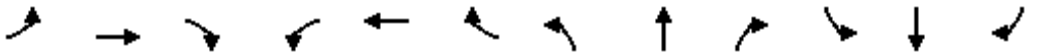
Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	69	921	28	1267	13	64	36	52
Future Volume (vph)	69	921	28	1267	13	64	36	52
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	46.0	8.0	41.0	26.0	26.0	26.0	26.0
Total Split (%)	16.3%	57.5%	10.0%	51.3%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	38.4	37.7	39.1	32.3		30.1		30.1
Actuated g/C Ratio	0.48	0.47	0.49	0.40		0.38		0.38
v/c Ratio	0.34	0.45	0.12	0.70		0.16		0.25
Control Delay	8.8	10.7	7.9	21.2		17.9		16.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	8.8	10.7	7.9	21.2		17.9		16.6
LOS	A	B	A	C		B		B
Approach Delay		10.6		20.9		17.9		16.6
Approach LOS		B		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	921	25	28	1267	42	13	64	20	36	52	57
Future Volume (veh/h)	69	921	25	28	1267	42	13	64	20	36	52	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	990	27	30	1362	45	14	69	22	39	56	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	1900	52	290	1817	60	114	520	155	196	279	269
Arrive On Green	0.07	0.76	0.76	0.02	0.36	0.36	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1753	5029	137	1753	4996	165	146	1204	358	323	645	621
Grp Volume(v), veh/h	74	659	358	30	913	494	105	0	0	156	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1816	1753	1675	1811	1708	0	0	1589	0	0
Q Serve(g_s), s	0.0	6.3	6.4	0.8	19.1	19.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.3	6.4	0.8	19.1	19.1	2.9	0.0	0.0	4.5	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.09	0.13		0.21	0.25		0.39
Lane Grp Cap(c), veh/h	199	1266	686	290	1219	659	789	0	0	743	0	0
V/C Ratio(X)	0.37	0.52	0.52	0.10	0.75	0.75	0.13	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	323	1738	942	329	1528	826	789	0	0	743	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.73	0.73	0.73	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.7	6.9	6.9	15.0	22.3	22.3	13.7	0.0	0.0	14.2	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.2	0.4	0.1	1.2	2.2	0.3	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.5	1.7	0.3	7.0	7.7	1.2	0.0	0.0	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	7.1	7.3	15.1	23.4	24.4	14.1	0.0	0.0	14.8	0.0	0.0
LnGrp LOS	C	A	A	B	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1091			1437			105			156	
Approach Delay, s/veh		8.9			23.6			14.1			14.8	
Approach LOS		A			C			B			B	

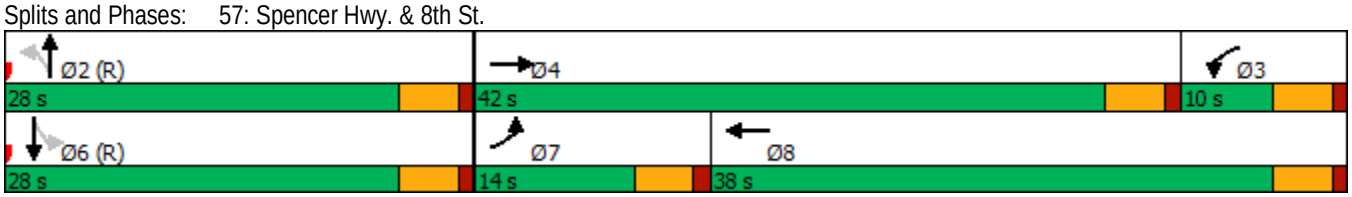
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.1	6.2	34.7		39.1	7.3	33.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	8.5	36.5				
Max Q Clear Time (g_c+I1), s		4.9	2.8	8.4		6.5	2.0	21.1				
Green Ext Time (p_c), s		0.4	0.0	7.4		0.7	0.1	8.0				

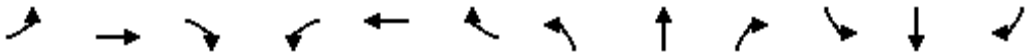
Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	54	683	11	956	16	27	26	15
Future Volume (vph)	54	683	11	956	16	27	26	15
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	42.0	10.0	38.0	28.0	28.0	28.0	28.0
Total Split (%)	17.5%	52.5%	12.5%	47.5%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.8	29.8	8.1	26.1		36.9		36.9
Actuated g/C Ratio	0.10	0.37	0.10	0.33		0.46		0.46
v/c Ratio	0.34	0.42	0.07	0.67		0.11		0.18
Control Delay	17.1	5.9	29.8	23.0		11.3		7.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	17.1	5.9	29.8	23.0		11.3		7.9
LOS	B	A	C	C		B		A
Approach Delay		6.7		23.1		11.3		7.9
Approach LOS		A		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 15.3	Intersection LOS: B
Intersection Capacity Utilization 48.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	683	16	11	956	28	16	27	36	26	15	90
Future Volume (veh/h)	54	683	16	11	956	28	16	27	36	26	15	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	58	734	17	12	1028	30	17	29	39	28	16	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	74	1100	25	194	1436	42	181	307	368	176	121	537
Arrive On Green	0.04	0.22	0.22	0.11	0.29	0.29	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1753	5053	117	1753	5018	146	252	610	731	243	240	1067
Grp Volume(v), veh/h	58	486	265	12	686	372	85	0	0	141	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1820	1753	1675	1814	1593	0	0	1551	0	0
Q Serve(g_s), s	2.6	10.6	10.7	0.5	14.7	14.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	10.6	10.7	0.5	14.7	14.7	2.1	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.08	0.20		0.46	0.20		0.69
Lane Grp Cap(c), veh/h	74	730	396	194	958	519	855	0	0	834	0	0
V/C Ratio(X)	0.78	0.67	0.67	0.06	0.72	0.72	0.10	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	208	1570	853	194	1403	760	855	0	0	834	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.0	28.6	28.6	31.9	25.6	25.6	10.4	0.0	0.0	10.8	0.0	0.0
Incr Delay (d2), s/veh	16.4	1.1	2.0	0.1	0.5	0.9	0.2	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.1	4.6	0.2	5.5	6.0	0.8	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.4	29.7	30.6	31.9	26.1	26.5	10.6	0.0	0.0	11.3	0.0	0.0
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		809			1070			85			141	
Approach Delay, s/veh		31.8			26.3			10.6			11.3	
Approach LOS		C			C			B			B	

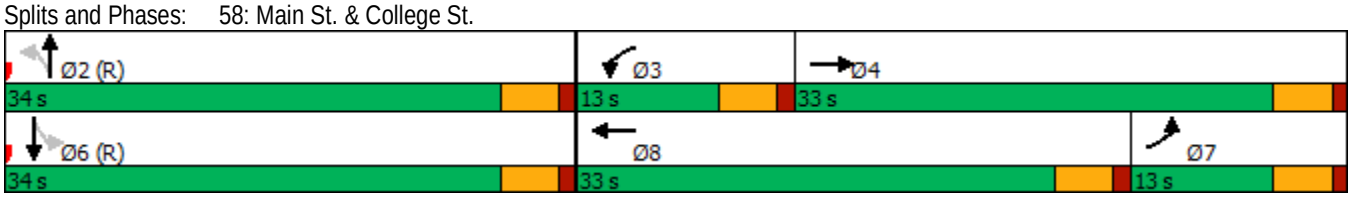
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.7	13.3	21.9		44.7	7.9	27.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.5	37.5		23.5	9.5	33.5				
Max Q Clear Time (g_c+I1), s		4.1	2.5	12.7		5.7	4.6	16.7				
Green Ext Time (p_c), s		0.4	0.0	4.8		0.7	0.0	6.2				

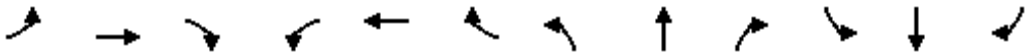
Intersection Summary												
HCM 6th Ctrl Delay			26.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	668	43	850	78	37	22	38
Future Volume (vph)	43	668	43	850	78	37	22	38
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	33.0	13.0	33.0	34.0	34.0	34.0	34.0
Total Split (%)	16.3%	41.3%	16.3%	41.3%	42.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.3	23.7	7.3	23.7		39.7		39.7
Actuated g/C Ratio	0.09	0.30	0.09	0.30		0.50		0.50
v/c Ratio	0.29	0.58	0.29	0.66		0.25		0.17
Control Delay	38.3	23.5	44.6	7.0		20.9		8.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	38.3	23.5	44.6	7.0		20.9		8.4
LOS	D	C	D	A		C		A
Approach Delay		24.3		8.8		20.9		8.4
Approach LOS		C		A		C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 55.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	668	127	43	850	21	78	37	57	22	38	73
Future Volume (veh/h)	43	668	127	43	850	21	78	37	57	22	38	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	46	718	137	46	914	23	84	40	61	24	41	78
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	58	1081	204	58	1284	32	405	197	264	164	283	472
Arrive On Green	0.03	0.25	0.25	0.03	0.25	0.25	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1753	4245	801	1753	5041	127	624	362	485	204	520	869
Grp Volume(v), veh/h	46	565	290	46	607	330	185	0	0	143	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1696	1753	1675	1818	1471	0	0	1593	0	0
Q Serve(g_s), s	2.1	12.1	12.3	2.1	13.2	13.2	1.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.1	12.1	12.3	2.1	13.2	13.2	4.5	0.0	0.0	3.4	0.0	0.0
Prop In Lane	1.00		0.47	1.00		0.07	0.45		0.33	0.17		0.55
Lane Grp Cap(c), veh/h	58	853	432	58	853	463	865	0	0	919	0	0
V/C Ratio(X)	0.80	0.66	0.67	0.80	0.71	0.71	0.21	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	186	1193	604	186	1193	648	865	0	0	919	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.4	26.7	26.8	38.4	27.1	27.1	9.3	0.0	0.0	9.1	0.0	0.0
Incr Delay (d2), s/veh	21.6	0.9	1.8	21.6	1.2	2.2	0.6	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.8	5.0	1.2	5.2	5.8	1.6	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	27.6	28.6	60.0	28.3	29.3	9.9	0.0	0.0	9.5	0.0	0.0
LnGrp LOS	E	C	C	E	C	C	A	A	A	A	A	A
Approach Vol, veh/h		901			983			185			143	
Approach Delay, s/veh		29.6			30.1			9.9			9.5	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.0	7.1	24.9		48.0	7.1	24.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	8.5	28.5		29.5	8.5	28.5				
Max Q Clear Time (g_c+I1), s		6.5	4.1	14.3		5.4	4.1	15.2				
Green Ext Time (p_c), s		1.1	0.0	4.9		0.8	0.0	5.2				

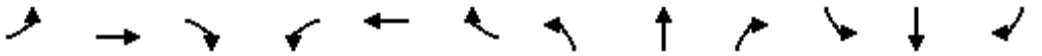
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	678	4	888	67	3	2	0
Future Volume (vph)	4	678	4	888	67	3	2	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	42.0	10.0	42.0	28.0	28.0	28.0	28.0
Total Split (%)	12.5%	52.5%	12.5%	52.5%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.8	26.4	7.6	28.2		40.6		40.6
Actuated g/C Ratio	0.07	0.33	0.10	0.35		0.51		0.51
v/c Ratio	0.03	0.49	0.02	0.68		0.11		0.03
Control Delay	41.8	16.1	14.2	6.1		14.4		0.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	41.8	16.1	14.2	6.1		14.4		0.0
LOS	D	B	B	A		B		A
Approach Delay		16.2		6.1		14.4		
Approach LOS		B		A		B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 43.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	678	30	4	888	168	67	3	0	2	0	21
Future Volume (veh/h)	4	678	30	4	888	168	67	3	0	2	0	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	4	745	33	4	976	185	74	3	0	2	0	23
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	7	1112	49	175	1363	258	761	29	0	82	30	727
Arrive On Green	0.00	0.23	0.23	0.10	0.32	0.32	0.51	0.51	0.00	0.51	0.00	0.51
Sat Flow, veh/h	1753	4934	218	1753	4244	802	1329	58	0	66	58	1436
Grp Volume(v), veh/h	4	505	273	4	770	391	77	0	0	25	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1802	1753	1675	1696	1386	0	0	1561	0	0
Q Serve(g_s), s	0.2	11.0	11.1	0.2	16.2	16.3	1.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	11.0	11.1	0.2	16.2	16.3	2.1	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.47	0.96		0.00	0.08		0.92
Lane Grp Cap(c), veh/h	7	755	406	175	1076	545	790	0	0	839	0	0
V/C Ratio(X)	0.61	0.67	0.67	0.02	0.72	0.72	0.10	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	121	1570	844	175	1570	795	790	0	0	839	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.8	28.3	28.3	32.5	23.9	24.0	10.2	0.0	0.0	9.9	0.0	0.0
Incr Delay (d2), s/veh	68.0	1.0	1.9	0.1	0.9	1.8	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.2	4.7	0.1	6.0	6.3	0.7	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.8	29.3	30.2	32.6	24.8	25.7	10.5	0.0	0.0	10.0	0.0	0.0
LnGrp LOS	F	C	C	C	C	C	B	A	A	A	A	A
Approach Vol, veh/h		782			1165			77			25	
Approach Delay, s/veh		30.0			25.2			10.5			10.0	
Approach LOS		C			C			B			A	

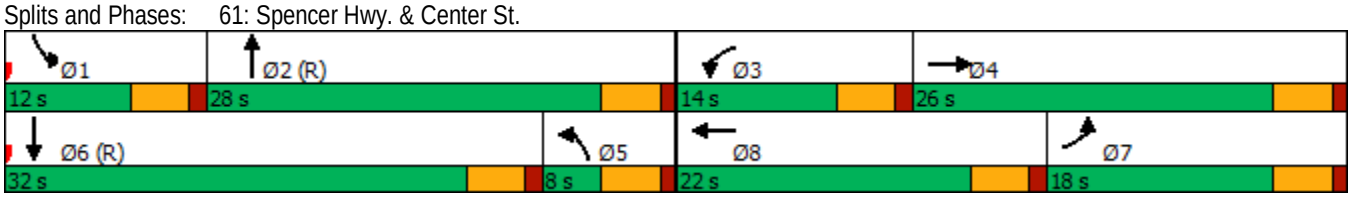
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		45.0	12.5	22.5		45.0	4.8	30.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.5	37.5		23.5	5.5	37.5				
Max Q Clear Time (g_c+I1), s		4.1	2.2	13.1		2.6	2.2	18.3				
Green Ext Time (p_c), s		0.3	0.0	5.0		0.1	0.0	7.4				

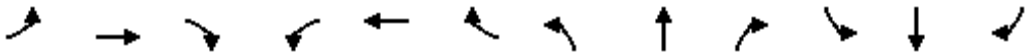
Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	272	641	133	734	45	717	147	548
Future Volume (vph)	272	641	133	734	45	717	147	548
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	26.0	14.0	22.0	8.0	28.0	12.0	32.0
Total Split (%)	22.5%	32.5%	17.5%	27.5%	10.0%	35.0%	15.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.5	21.8	9.2	17.5	3.5	23.5	7.5	29.1
Actuated g/C Ratio	0.17	0.27	0.12	0.22	0.04	0.29	0.09	0.36
v/c Ratio	1.01	0.60	0.73	0.90	0.65	0.86	0.99	0.71
Control Delay	79.0	12.9	44.8	23.1	54.6	18.1	90.9	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.0	12.9	44.8	23.1	54.6	18.1	90.9	9.7
LOS	E	B	D	C	D	B	F	A
Approach Delay		30.5		25.9		20.0		21.9
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	272	641	108	133	734	187	45	717	81	147	548	285
Future Volume (veh/h)	272	641	108	133	734	187	45	717	81	147	548	285
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	296	697	117	145	798	203	49	779	88	160	596	310
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	296	1238	206	179	875	221	77	930	105	164	765	398
Arrive On Green	0.34	0.57	0.57	0.10	0.22	0.22	0.04	0.29	0.29	0.09	0.34	0.34
Sat Flow, veh/h	1753	4340	721	1753	4000	1009	1753	3167	358	1753	2225	1157
Grp Volume(v), veh/h	296	536	278	145	667	334	49	430	437	160	468	438
Grp Sat Flow(s),veh/h/ln	1753	1675	1711	1753	1675	1659	1753	1749	1776	1753	1749	1633
Q Serve(g_s), s	13.5	8.1	8.3	6.5	15.5	15.7	2.2	18.4	18.4	7.3	19.2	19.2
Cycle Q Clear(g_c), s	13.5	8.1	8.3	6.5	15.5	15.7	2.2	18.4	18.4	7.3	19.2	19.2
Prop In Lane	1.00		0.42	1.00		0.61	1.00		0.20	1.00		0.71
Lane Grp Cap(c), veh/h	296	956	488	179	733	363	77	514	522	164	601	561
V/C Ratio(X)	1.00	0.56	0.57	0.81	0.91	0.92	0.64	0.84	0.84	0.97	0.78	0.78
Avail Cap(c_a), veh/h	296	956	488	208	733	363	77	514	522	164	601	561
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.69	0.69	0.69	1.00	1.00	1.00	0.42	0.42	0.42
Uniform Delay (d), s/veh	26.5	14.0	14.0	35.2	30.5	30.6	37.6	26.5	26.5	36.2	23.5	23.5
Incr Delay (d2), s/veh	48.1	0.6	1.3	13.4	11.5	21.5	16.4	15.0	14.8	38.4	4.3	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	2.4	2.6	3.4	7.2	8.2	1.3	9.4	9.6	4.8	8.2	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.6	14.6	15.4	48.5	42.0	52.0	54.0	41.4	41.2	74.5	27.8	28.1
LnGrp LOS	F	B	B	D	D	D	D	D	D	E	C	C
Approach Vol, veh/h		1110			1146			916			1066	
Approach Delay, s/veh		30.8			45.8			42.0			34.9	
Approach LOS		C			D			D			C	

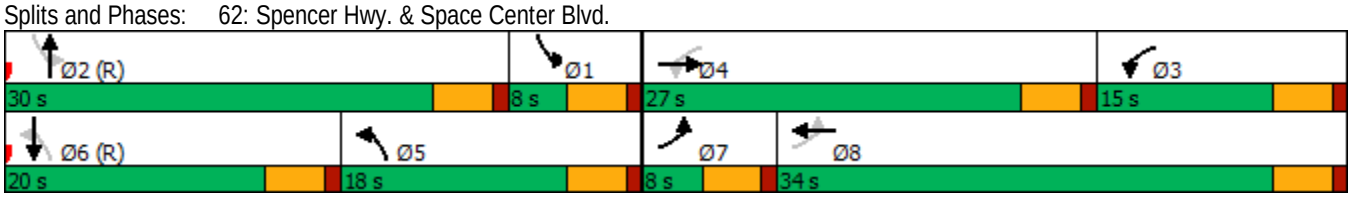
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	28.0	12.7	27.3	8.0	32.0	18.0	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	23.5	9.5	21.5	3.5	27.5	13.5	17.5
Max Q Clear Time (g_c+I1), s	9.3	20.4	8.5	10.3	4.2	21.2	15.5	17.7
Green Ext Time (p_c), s	0.0	1.6	0.0	4.1	0.0	3.0	0.0	0.0

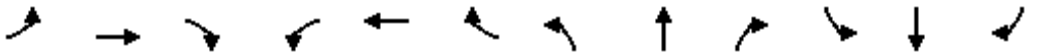
Intersection Summary	
HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	863	173	1105	278	310	27	210
Future Volume (vph)	23	863	173	1105	278	310	27	210
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	27.0	15.0	34.0	18.0	30.0	8.0	20.0
Total Split (%)	10.0%	33.8%	18.8%	42.5%	22.5%	37.5%	10.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	34.2	22.9	31.5	32.8	30.5	31.8	35.2	20.3
Actuated g/C Ratio	0.43	0.29	0.39	0.41	0.38	0.40	0.44	0.25
v/c Ratio	0.13	0.81	0.68	0.63	0.66	0.40	0.09	0.34
Control Delay	8.6	20.3	24.9	12.2	23.5	7.0	15.0	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	20.3	24.9	12.2	23.5	7.0	15.0	24.3
LOS	A	C	C	B	C	A	B	C
Approach Delay		20.0		13.9		12.9		23.4
Approach LOS		C		B		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 16.4	Intersection LOS: B
Intersection Capacity Utilization 73.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	863	170	173	1105	30	278	310	190	27	210	55
Future Volume (veh/h)	23	863	170	173	1105	30	278	310	190	27	210	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	25	938	185	188	1201	33	302	337	207	29	228	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	164	1111	218	230	1559	43	661	669	403	471	533	137
Arrive On Green	0.02	0.26	0.26	0.07	0.31	0.31	0.25	0.32	0.32	0.13	0.19	0.19
Sat Flow, veh/h	1753	4214	828	1753	5028	138	1753	2099	1263	1753	2753	709
Grp Volume(v), veh/h	25	745	378	188	800	434	302	280	264	29	143	145
Grp Sat Flow(s),veh/h/ln	1753	1675	1692	1753	1675	1816	1753	1749	1613	1753	1749	1713
Q Serve(g_s), s	0.8	16.9	16.9	3.1	17.3	17.3	0.4	10.4	10.7	0.0	5.7	6.0
Cycle Q Clear(g_c), s	0.8	16.9	16.9	3.1	17.3	17.3	0.4	10.4	10.7	0.0	5.7	6.0
Prop In Lane	1.00		0.49	1.00		0.08	1.00		0.78	1.00		0.41
Lane Grp Cap(c), veh/h	164	883	446	230	1039	563	661	557	514	471	339	332
V/C Ratio(X)	0.15	0.84	0.85	0.82	0.77	0.77	0.46	0.50	0.51	0.06	0.42	0.44
Avail Cap(c_a), veh/h	208	942	476	346	1235	670	661	557	514	471	339	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.61	0.61	0.61	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	27.9	27.9	35.2	25.0	25.0	20.3	22.1	22.2	19.6	28.3	28.4
Incr Delay (d2), s/veh	0.4	6.1	11.6	5.7	1.6	2.9	0.5	3.2	3.6	0.1	3.8	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.9	7.7	3.7	6.4	7.2	4.2	4.5	4.3	0.4	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	34.0	39.5	40.9	26.6	27.9	20.8	25.3	25.8	19.6	32.1	32.5
LnGrp LOS	C	C	D	D	C	C	C	C	C	B	C	C
Approach Vol, veh/h		1148			1422			846			317	
Approach Delay, s/veh		35.5			28.9			23.9			31.2	
Approach LOS		D			C			C			C	

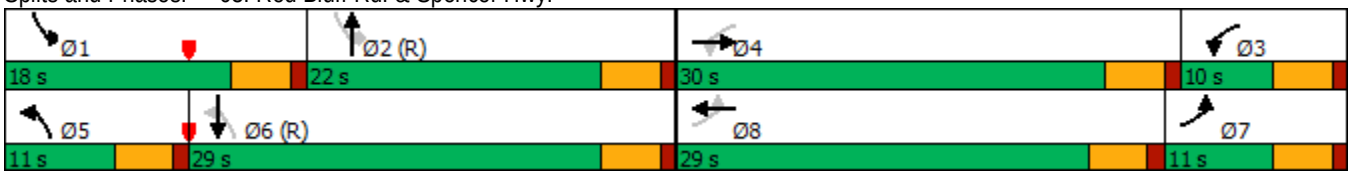
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	30.0	9.7	25.6	24.7	20.0	6.0	29.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	25.5	10.5	22.5	13.5	15.5	3.5	29.5
Max Q Clear Time (g_c+I1), s	2.0	12.7	5.1	18.9	2.4	8.0	2.8	19.3
Green Ext Time (p_c), s	0.0	2.7	0.2	2.1	0.7	0.9	0.0	5.2

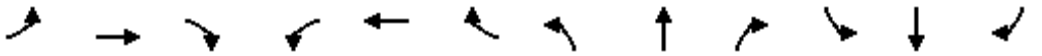
Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	75	665	60	782	130	266	36	247	296
Future Volume (vph)	75	665	60	782	130	266	36	247	296
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	11.0	30.0	10.0	29.0	11.0	22.0	22.0	18.0	29.0
Total Split (%)	13.8%	37.5%	12.5%	36.3%	13.8%	27.5%	27.5%	22.5%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	29.6	24.1	30.1	23.7	34.4	22.5	22.5	34.4	27.6
Actuated g/C Ratio	0.37	0.30	0.38	0.30	0.43	0.28	0.28	0.43	0.34
v/c Ratio	0.37	0.55	0.22	0.78	0.30	0.30	0.07	0.49	0.31
Control Delay	38.3	35.4	27.1	28.5	17.4	28.1	0.7	9.8	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	35.4	27.1	28.5	17.4	28.1	0.7	9.8	7.5
LOS	D	D	C	C	B	C	A	A	A
Approach Delay		35.6		28.4		22.6			8.4
Approach LOS		D		C		C			A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 70 (88%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 25.7	Intersection LOS: C
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	665	106	60	782	281	130	266	36	247	296	50
Future Volume (veh/h)	75	665	106	60	782	281	130	266	36	247	296	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	80	707	113	64	832	299	138	283	38	263	315	53
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	186	977	155	300	1023	365	527	1171	522	595	1171	195
Arrive On Green	0.04	0.22	0.22	0.09	0.28	0.28	0.07	0.33	0.33	0.12	0.39	0.39
Sat Flow, veh/h	1753	4374	692	1753	3652	1304	1753	3497	1560	1753	3000	499
Grp Volume(v), veh/h	80	540	280	64	763	368	138	283	38	263	182	186
Grp Sat Flow(s),veh/h/ln	1753	1675	1716	1753	1675	1606	1753	1749	1560	1753	1749	1751
Q Serve(g_s), s	0.0	11.9	12.1	0.0	17.0	17.1	3.7	4.7	0.9	7.6	5.7	5.8
Cycle Q Clear(g_c), s	0.0	11.9	12.1	0.0	17.0	17.1	3.7	4.7	0.9	7.6	5.7	5.8
Prop In Lane	1.00		0.40	1.00		0.81	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	186	748	383	300	938	450	527	1171	522	595	683	683
V/C Ratio(X)	0.43	0.72	0.73	0.21	0.81	0.82	0.26	0.24	0.07	0.44	0.27	0.27
Avail Cap(c_a), veh/h	265	1068	547	300	1026	492	550	1171	522	674	683	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.34	0.34	0.34	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	28.8	28.8	30.8	26.8	26.9	13.0	19.3	8.7	14.0	16.6	16.6
Incr Delay (d2), s/veh	0.8	0.7	1.5	0.1	1.7	3.6	0.3	0.5	0.3	0.5	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.5	4.7	1.1	6.7	6.7	1.4	1.9	0.5	2.9	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	29.5	30.3	30.9	28.5	30.5	13.2	19.7	8.9	14.5	17.6	17.6
LnGrp LOS	D	C	C	C	C	C	B	B	A	B	B	B
Approach Vol, veh/h		900			1195			459			631	
Approach Delay, s/veh		30.4			29.2			16.9			16.3	
Approach LOS		C			C			B			B	

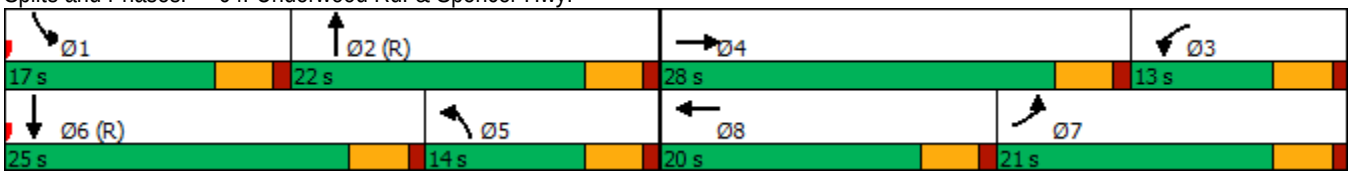
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	31.3	11.9	22.4	10.0	35.7	7.4	26.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	17.5	5.5	25.5	6.5	24.5	6.5	24.5
Max Q Clear Time (g_c+I1), s	9.6	6.7	2.0	14.1	5.7	7.8	2.0	19.1
Green Ext Time (p_c), s	0.3	1.4	0.0	3.8	0.0	1.9	0.1	3.3

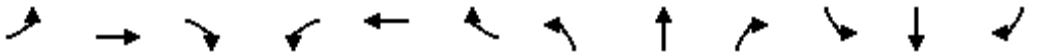
Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	243	472	71	518	116	399	175	307
Future Volume (vph)	243	472	71	518	116	399	175	307
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	28.0	13.0	20.0	14.0	22.0	17.0	25.0
Total Split (%)	26.3%	35.0%	16.3%	25.0%	17.5%	27.5%	21.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.3	19.7	13.1	15.5	9.5	19.4	11.8	21.7
Actuated g/C Ratio	0.19	0.25	0.16	0.19	0.12	0.24	0.15	0.27
v/c Ratio	0.80	0.52	0.28	0.88	0.64	0.63	0.75	0.52
Control Delay	42.8	9.4	32.2	32.7	60.3	41.7	44.6	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	9.4	32.2	32.7	60.3	41.7	44.6	17.2
LOS	D	A	C	C	E	D	D	B
Approach Delay		19.5		32.7		45.3		24.8
Approach LOS		B		C		D		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 72 (90%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 73.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	472	87	71	518	288	116	399	82	175	307	152
Future Volume (veh/h)	243	472	87	71	518	288	116	399	82	175	307	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	267	519	96	78	569	316	127	438	90	192	337	167
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	307	757	137	337	649	302	263	795	162	230	585	284
Arrive On Green	0.18	0.18	0.18	0.19	0.19	0.19	0.15	0.27	0.27	0.13	0.26	0.26
Sat Flow, veh/h	1753	4276	775	1753	3350	1560	1753	2893	590	1753	2281	1109
Grp Volume(v), veh/h	267	404	211	78	569	316	127	263	265	192	257	247
Grp Sat Flow(s),veh/h/ln	1753	1675	1701	1753	1675	1560	1753	1749	1734	1753	1749	1641
Q Serve(g_s), s	11.9	9.0	9.3	3.0	13.2	15.5	5.3	10.3	10.4	8.5	10.2	10.6
Cycle Q Clear(g_c), s	11.9	9.0	9.3	3.0	13.2	15.5	5.3	10.3	10.4	8.5	10.2	10.6
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.34	1.00		0.68
Lane Grp Cap(c), veh/h	307	593	301	337	649	302	263	481	477	230	448	421
V/C Ratio(X)	0.87	0.68	0.70	0.23	0.88	1.05	0.48	0.55	0.55	0.83	0.57	0.59
Avail Cap(c_a), veh/h	362	984	500	337	649	302	263	481	477	274	448	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.80	0.80	0.80	0.71	0.71	0.71	0.87	0.87	0.87
Uniform Delay (d), s/veh	32.1	30.8	30.9	27.3	31.3	32.3	31.2	24.8	24.8	33.9	25.9	26.1
Incr Delay (d2), s/veh	15.1	1.2	2.5	0.3	10.7	58.7	1.0	3.2	3.3	15.2	4.6	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	3.5	3.7	1.2	5.9	10.3	2.2	4.3	4.4	4.4	4.5	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	32.0	33.4	27.6	42.0	90.9	32.2	27.9	28.1	49.1	30.5	31.2
LnGrp LOS	D	C	C	C	D	F	C	C	C	D	C	C
Approach Vol, veh/h		882			963			655			696	
Approach Delay, s/veh		36.9			56.9			28.8			35.9	
Approach LOS		D			E			C			D	

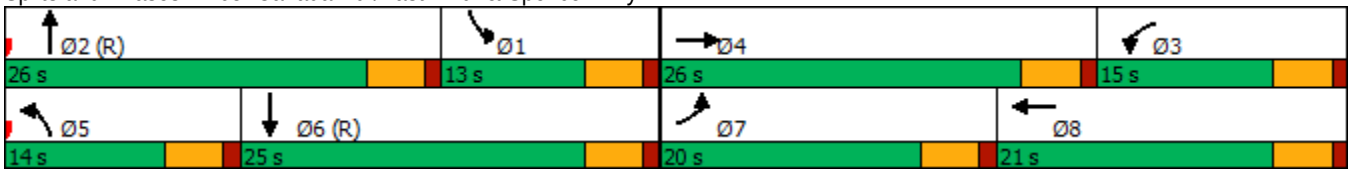
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	26.5	19.9	18.7	16.5	25.0	18.5	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	17.5	8.5	23.5	9.5	20.5	16.5	15.5
Max Q Clear Time (g_c+I1), s	10.5	12.4	5.0	11.3	7.3	12.6	13.9	17.5
Green Ext Time (p_c), s	0.1	1.3	0.0	2.9	0.1	1.7	0.2	0.0

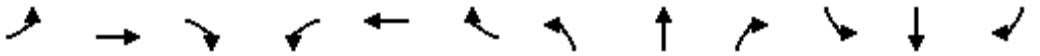
Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	165	471	97	528	75	384	180	403
Future Volume (vph)	165	471	97	528	75	384	180	403
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	26.0	15.0	21.0	14.0	26.0	13.0	25.0
Total Split (%)	25.0%	32.5%	18.8%	26.3%	17.5%	32.5%	16.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.7	18.1	12.6	15.8	8.3	24.9	8.5	27.2
Actuated g/C Ratio	0.16	0.23	0.16	0.20	0.10	0.31	0.11	0.34
v/c Ratio	0.64	0.53	0.38	0.76	0.47	0.49	0.54	0.51
Control Delay	21.0	11.7	15.9	14.2	43.2	22.2	44.9	29.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	11.7	15.9	14.2	43.2	22.2	44.9	29.1
LOS	C	B	B	B	D	C	D	C
Approach Delay		13.9		14.4		25.0		32.9
Approach LOS		B		B		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 63.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	471	65	97	528	170	75	384	110	180	403	158
Future Volume (veh/h)	165	471	65	97	528	170	75	384	110	180	403	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	506	70	104	568	183	81	413	118	194	433	170
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	217	736	100	257	710	223	104	723	205	664	996	387
Arrive On Green	0.12	0.16	0.16	0.15	0.19	0.19	0.06	0.27	0.27	0.20	0.40	0.40
Sat Flow, veh/h	1753	4473	609	1753	3786	1190	1753	2691	761	3401	2460	957
Grp Volume(v), veh/h	177	377	199	104	501	250	81	267	264	194	307	296
Grp Sat Flow(s),veh/h/ln	1753	1675	1731	1753	1675	1626	1753	1749	1704	1700	1749	1669
Q Serve(g_s), s	7.9	8.5	8.7	4.3	11.4	11.8	3.6	10.5	10.7	3.9	10.1	10.3
Cycle Q Clear(g_c), s	7.9	8.5	8.7	4.3	11.4	11.8	3.6	10.5	10.7	3.9	10.1	10.3
Prop In Lane	1.00		0.35	1.00		0.73	1.00		0.45	1.00		0.57
Lane Grp Cap(c), veh/h	217	551	285	257	628	305	104	470	458	664	708	675
V/C Ratio(X)	0.82	0.68	0.70	0.41	0.80	0.82	0.78	0.57	0.58	0.29	0.43	0.44
Avail Cap(c_a), veh/h	340	900	465	257	691	335	208	470	458	664	708	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	0.41	0.41	0.41	0.68	0.68	0.68	0.62	0.62	0.62
Uniform Delay (d), s/veh	34.2	31.5	31.5	31.0	31.1	31.2	37.1	25.2	25.3	27.5	17.2	17.2
Incr Delay (d2), s/veh	6.2	1.1	2.2	0.4	2.6	6.2	8.2	3.4	3.6	0.1	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.3	3.6	1.7	4.5	4.8	1.7	4.5	4.5	1.5	4.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	32.5	33.8	31.4	33.6	37.4	45.3	28.6	28.9	27.6	18.4	18.5
LnGrp LOS	D	C	C	C	C	D	D	C	C	C	B	B
Approach Vol, veh/h		753			855			612			797	
Approach Delay, s/veh		34.7			34.5			30.9			20.7	
Approach LOS		C			C			C			C	

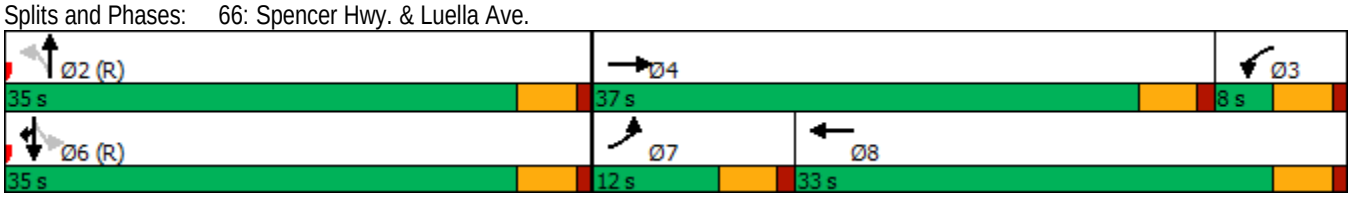
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	26.0	16.2	17.7	9.3	36.9	14.4	19.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	21.5	10.5	21.5	9.5	20.5	15.5	16.5
Max Q Clear Time (g_c+I1), s	5.9	12.7	6.3	10.7	5.6	12.3	9.9	13.8
Green Ext Time (p_c), s	0.1	2.0	0.1	2.5	0.0	2.3	0.2	1.2

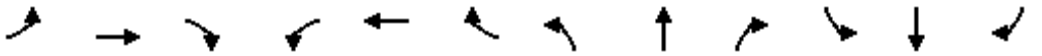
Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	53	711	3	828	4	0	209	4	160
Future Volume (vph)	53	711	3	828	4	0	209	4	160
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	37.0	8.0	33.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	15.0%	46.3%	10.0%	41.3%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.0	30.0	6.7	25.9		37.9		37.9	37.9
Actuated g/C Ratio	0.09	0.38	0.08	0.32		0.47		0.47	0.47
v/c Ratio	0.39	0.43	0.02	0.73		0.01		0.38	0.21
Control Delay	29.0	9.3	22.0	17.0		0.0		22.3	8.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	29.0	9.3	22.0	17.0		0.0		22.3	8.1
LOS	C	A	C	B		A		C	A
Approach Delay		10.6		17.0				16.2	
Approach LOS		B		B				B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	711	17	3	828	250	4	0	1	209	4	160
Future Volume (veh/h)	53	711	17	3	828	250	4	0	1	209	4	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	59	790	19	3	920	278	4	0	1	232	4	178
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	75	1143	27	185	1107	333	487	9	104	788	13	779
Arrive On Green	0.04	0.23	0.23	0.21	0.58	0.58	0.50	0.00	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1753	5048	121	1753	3830	1154	814	18	208	1399	26	1560
Grp Volume(v), veh/h	59	524	285	3	804	394	5	0	0	236	0	178
Grp Sat Flow(s),veh/h/ln	1753	1675	1819	1753	1675	1633	1040	0	0	1425	0	1560
Q Serve(g_s), s	2.7	11.5	11.5	0.1	15.6	15.7	0.0	0.0	0.0	0.0	0.0	5.2
Cycle Q Clear(g_c), s	2.7	11.5	11.5	0.1	15.6	15.7	7.3	0.0	0.0	7.3	0.0	5.2
Prop In Lane	1.00		0.07	1.00		0.71	0.80		0.20	0.98		1.00
Lane Grp Cap(c), veh/h	75	759	412	185	968	472	600	0	0	801	0	779
V/C Ratio(X)	0.79	0.69	0.69	0.02	0.83	0.83	0.01	0.00	0.00	0.29	0.00	0.23
Avail Cap(c_a), veh/h	164	1361	739	185	1193	582	600	0	0	801	0	779
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.83	0.83	0.83	1.00	0.00	0.00	0.90	0.00	0.90
Uniform Delay (d), s/veh	37.9	28.4	28.4	28.3	15.3	15.3	10.3	0.0	0.0	11.8	0.0	11.3
Incr Delay (d2), s/veh	11.9	0.8	1.5	0.0	3.5	7.2	0.0	0.0	0.0	0.8	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.3	4.8	0.0	3.9	4.3	0.0	0.0	0.0	2.5	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.8	29.2	29.9	28.3	18.8	22.5	10.4	0.0	0.0	12.7	0.0	11.9
LnGrp LOS	D	C	C	C	B	C	B	A	A	B	A	B
Approach Vol, veh/h		868			1201			5			414	
Approach Delay, s/veh		30.8			20.1			10.4			12.4	
Approach LOS		C			C			B			B	

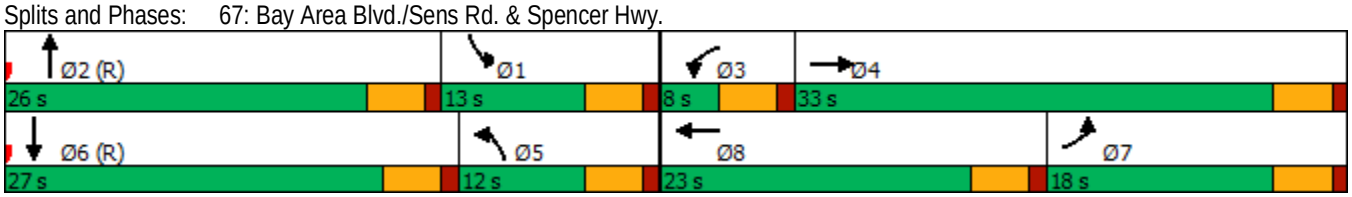
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.5	12.9	22.6		44.5	7.9	27.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	3.5	32.5		30.5	7.5	28.5				
Max Q Clear Time (g_c+I1), s		9.3	2.1	13.5		9.3	4.7	17.7				
Green Ext Time (p_c), s		0.0	0.0	4.6		1.9	0.0	5.4				

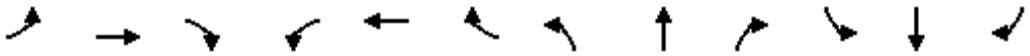
Intersection Summary	
HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	159	462	31	351	66	242	105	229
Future Volume (vph)	159	462	31	351	66	242	105	229
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	33.0	8.0	23.0	12.0	26.0	13.0	27.0
Total Split (%)	22.5%	41.3%	10.0%	28.8%	15.0%	32.5%	16.3%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.3	24.8	3.9	12.8	7.1	31.0	8.1	31.8
Actuated g/C Ratio	0.15	0.31	0.05	0.16	0.09	0.39	0.10	0.40
v/c Ratio	0.63	0.38	0.39	0.58	0.48	0.23	0.65	0.24
Control Delay	29.1	13.3	51.9	27.9	38.9	5.6	52.9	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	13.3	51.9	27.9	38.9	5.6	52.9	11.4
LOS	C	B	D	C	D	A	D	B
Approach Delay		16.9		29.4		11.7		21.9
Approach LOS		B		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 20.1	Intersection LOS: C
Intersection Capacity Utilization 52.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	462	74	31	351	102	66	242	51	105	229	82
Future Volume (veh/h)	159	462	74	31	351	102	66	242	51	105	229	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	167	486	78	33	369	107	69	255	54	111	241	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	205	1042	164	40	562	156	408	774	161	430	716	249
Arrive On Green	0.12	0.24	0.24	0.02	0.14	0.14	0.23	0.27	0.27	0.25	0.28	0.28
Sat Flow, veh/h	1753	4378	689	1753	3909	1087	1753	2881	600	1753	2546	885
Grp Volume(v), veh/h	167	370	194	33	314	162	69	153	156	111	164	163
Grp Sat Flow(s),veh/h/ln	1753	1675	1717	1753	1675	1645	1753	1749	1733	1753	1749	1681
Q Serve(g_s), s	7.4	7.6	7.8	1.5	7.1	7.5	2.5	5.6	5.8	4.1	5.9	6.2
Cycle Q Clear(g_c), s	7.4	7.6	7.8	1.5	7.1	7.5	2.5	5.6	5.8	4.1	5.9	6.2
Prop In Lane	1.00		0.40	1.00		0.66	1.00		0.35	1.00		0.53
Lane Grp Cap(c), veh/h	205	798	409	40	482	237	408	470	466	430	492	473
V/C Ratio(X)	0.81	0.46	0.48	0.83	0.65	0.68	0.17	0.33	0.33	0.26	0.33	0.35
Avail Cap(c_a), veh/h	296	1193	612	77	775	380	408	470	466	430	492	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	1.00	1.00	1.00	0.96	0.96	0.96	0.99	0.99	0.99
Uniform Delay (d), s/veh	34.5	26.1	26.2	38.9	32.4	32.5	24.5	23.4	23.5	24.3	22.8	22.9
Incr Delay (d2), s/veh	8.8	0.3	0.7	32.9	1.5	3.5	0.2	1.8	1.9	0.3	1.8	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.0	3.2	1.0	2.9	3.1	1.0	2.4	2.4	1.7	2.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	26.4	26.9	71.9	33.8	36.0	24.7	25.2	25.4	24.6	24.6	24.9
LnGrp LOS	D	C	C	E	C	D	C	C	C	C	C	C
Approach Vol, veh/h		731			509			378			438	
Approach Delay, s/veh		30.4			37.0			25.2			24.7	
Approach LOS		C			D			C			C	

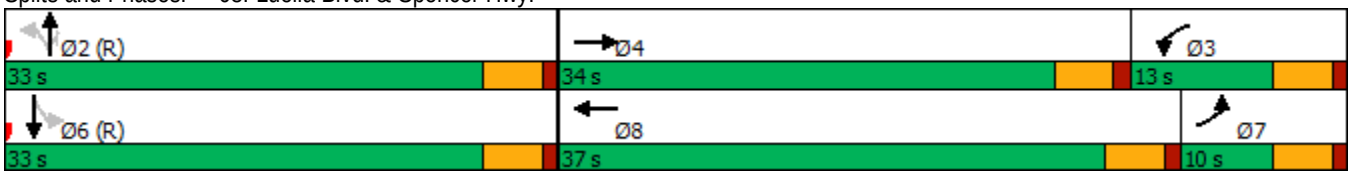
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.1	26.0	6.3	23.5	23.1	27.0	13.9	16.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	21.5	3.5	28.5	7.5	22.5	13.5	18.5
Max Q Clear Time (g_c+I1), s	6.1	7.8	3.5	9.8	4.5	8.2	9.4	9.5
Green Ext Time (p_c), s	0.1	1.3	0.0	3.5	0.0	1.6	0.2	2.0

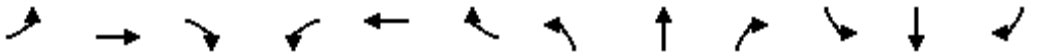
Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	6	805	52	961	148	3	50	3	3
Future Volume (vph)	6	805	52	961	148	3	50	3	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	7	4	3	8		2			6
Permitted Phases					2		2	6	
Detector Phase	7	4	3	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	34.0	13.0	37.0	33.0	33.0	33.0	33.0	33.0
Total Split (%)	12.5%	42.5%	16.3%	46.3%	41.3%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.8	24.9	7.6	30.7	38.3	38.3	38.3		38.3
Actuated g/C Ratio	0.07	0.31	0.10	0.38	0.48	0.48	0.48		0.48
v/c Ratio	0.06	0.68	0.35	0.58	0.26	0.00	0.07		0.01
Control Delay	31.3	12.4	35.8	13.2	22.0	20.7	10.6		13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	31.3	12.4	35.8	13.2	22.0	20.7	10.6		13.8
LOS	C	B	D	B	C	C	B		B
Approach Delay		12.6		14.4		19.1			13.8
Approach LOS		B		B		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	805	108	52	961	4	148	3	50	3	3	3
Future Volume (veh/h)	6	805	108	52	961	4	148	3	50	3	3	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	7	894	120	58	1068	4	164	3	56	3	3	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	19	1144	153	74	1479	6	832	983	833	309	307	278
Arrive On Green	0.02	0.51	0.51	0.04	0.29	0.29	0.53	0.53	0.53	0.53	0.53	0.53
Sat Flow, veh/h	1753	4484	599	1753	5168	19	1388	1841	1560	467	576	521
Grp Volume(v), veh/h	7	667	347	58	692	380	164	3	56	9	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1733	1753	1675	1837	1388	1841	1560	1564	0	0
Q Serve(g_s), s	0.3	13.0	13.1	2.6	14.9	14.9	4.7	0.1	1.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	13.0	13.1	2.6	14.9	14.9	4.9	0.1	1.4	0.2	0.0	0.0
Prop In Lane	1.00		0.35	1.00		0.01	1.00		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	19	855	442	74	959	526	832	983	833	895	0	0
V/C Ratio(X)	0.36	0.78	0.78	0.79	0.72	0.72	0.20	0.00	0.07	0.01	0.00	0.00
Avail Cap(c_a), veh/h	121	1235	639	186	1361	746	832	983	833	895	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.61	0.61	0.61	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.8	17.8	17.8	38.0	25.7	25.7	9.8	8.7	9.0	8.7	0.0	0.0
Incr Delay (d2), s/veh	9.8	1.8	3.6	10.6	0.7	1.2	0.5	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.5	3.8	1.3	5.6	6.2	1.5	0.0	0.4	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	19.6	21.4	48.6	26.4	26.9	10.4	8.7	9.2	8.8	0.0	0.0
LnGrp LOS	D	B	C	D	C	C	B	A	A	A	A	A
Approach Vol, veh/h		1021			1130			223			9	
Approach Delay, s/veh		20.4			27.7			10.0			8.8	
Approach LOS		C			C			B			A	

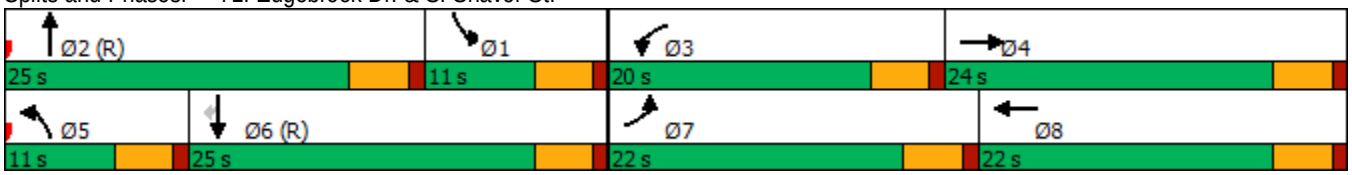
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		47.2	7.9	24.9		47.2	5.4	27.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	8.5	29.5		28.5	5.5	32.5				
Max Q Clear Time (g_c+I1), s		6.9	4.6	15.1		2.2	2.3	16.9				
Green Ext Time (p_c), s		0.6	0.0	5.3		0.0	0.0	6.0				

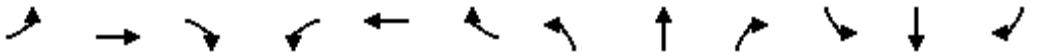
Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	184	541	161	446	50	382	57	411	212
Future Volume (vph)	184	541	161	446	50	382	57	411	212
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	22.0	24.0	20.0	22.0	11.0	25.0	11.0	25.0	25.0
Total Split (%)	27.5%	30.0%	25.0%	27.5%	13.8%	31.3%	13.8%	31.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.0	17.6	12.8	16.4	6.6	27.3	6.3	29.2	29.2
Actuated g/C Ratio	0.18	0.22	0.16	0.20	0.08	0.34	0.08	0.36	0.36
v/c Ratio	0.67	0.58	0.65	0.74	0.39	0.48	0.46	0.36	0.33
Control Delay	30.2	20.3	24.4	33.1	32.1	10.9	37.6	15.3	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	20.3	24.4	33.1	32.1	10.9	37.6	15.3	4.2
LOS	C	C	C	C	C	B	D	B	A
Approach Delay		22.7		30.9		12.8		13.7	
Approach LOS		C		C		B		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 75 (94%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	541	30	161	446	30	50	382	130	57	411	212
Future Volume (veh/h)	184	541	30	161	446	30	50	382	130	57	411	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	204	601	33	179	496	33	56	424	144	63	457	236
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	246	976	53	222	620	41	71	659	221	337	1426	636
Arrive On Green	0.14	0.20	0.20	0.04	0.06	0.06	0.04	0.26	0.26	0.06	0.13	0.13
Sat Flow, veh/h	1753	4877	266	1753	3329	221	1753	2570	864	1753	3497	1560
Grp Volume(v), veh/h	204	412	222	179	260	269	56	287	281	63	457	236
Grp Sat Flow(s),veh/h/ln	1753	1675	1793	1753	1749	1801	1753	1749	1685	1753	1749	1560
Q Serve(g_s), s	9.1	9.0	9.1	8.1	11.7	11.8	2.5	11.7	11.9	2.7	9.5	11.0
Cycle Q Clear(g_c), s	9.1	9.0	9.1	8.1	11.7	11.8	2.5	11.7	11.9	2.7	9.5	11.0
Prop In Lane	1.00		0.15	1.00		0.12	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	246	671	359	222	326	336	71	448	432	337	1426	636
V/C Ratio(X)	0.83	0.61	0.62	0.81	0.80	0.80	0.79	0.64	0.65	0.19	0.32	0.37
Avail Cap(c_a), veh/h	383	817	437	340	383	394	142	448	432	337	1426	636
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	33.5	29.2	29.2	37.4	36.1	36.1	38.0	26.5	26.6	31.5	24.6	25.3
Incr Delay (d2), s/veh	8.5	0.9	1.9	5.3	6.5	6.5	17.4	6.9	7.4	0.3	0.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	3.6	4.0	4.0	6.0	6.2	1.4	5.5	5.4	1.2	4.4	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	30.1	31.1	42.6	42.5	42.6	55.4	33.3	34.0	31.8	25.2	26.9
LnGrp LOS	D	C	C	D	D	D	E	C	C	C	C	C
Approach Vol, veh/h		838			708			624			756	
Approach Delay, s/veh		33.2			42.6			35.6			26.2	
Approach LOS		C			D			D			C	

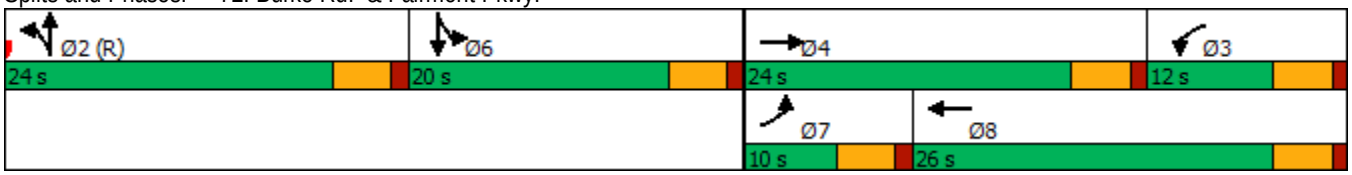
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	25.0	14.6	20.5	7.7	37.1	15.7	19.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	20.5	15.5	19.5	6.5	20.5	17.5	17.5
Max Q Clear Time (g_c+I1), s	4.7	13.9	10.1	11.1	4.5	13.0	11.1	13.8
Green Ext Time (p_c), s	0.0	1.8	0.2	2.6	0.0	2.3	0.3	1.1

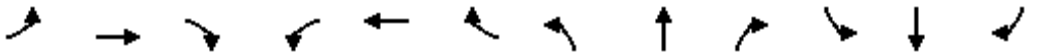
Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	60	625	95	532	317	130	269
Future Volume (vph)	60	625	95	532	317	130	269
Turn Type	Prot	NA	Prot	NA	NA	Split	NA
Protected Phases	7	4	3	8	2	6	6
Permitted Phases							
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	24.0	12.0	26.0	24.0	20.0	20.0
Total Split (%)	12.5%	30.0%	15.0%	32.5%	30.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	Max	Max
Act Effct Green (s)	5.5	19.5	7.3	21.1	21.9	15.5	15.5
Actuated g/C Ratio	0.07	0.24	0.09	0.26	0.27	0.19	0.19
v/c Ratio	0.54	0.91	0.64	0.74	0.74	0.41	0.52
Control Delay	49.1	39.7	46.6	24.9	21.4	30.4	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	39.7	46.6	24.9	21.4	30.4	27.6
LOS	D	D	D	C	C	C	C
Approach Delay		40.4		27.7	21.4		28.4
Approach LOS		D		C	C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 71 (89%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 30.0	Intersection LOS: C
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	625	94	95	532	105	181	317	154	130	269	61
Future Volume (veh/h)	60	625	94	95	532	105	181	317	154	130	269	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	64	665	100	101	566	112	193	337	0	138	286	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	81	733	110	129	780	154	327	615		340	678	
Arrive On Green	0.05	0.24	0.24	0.02	0.09	0.09	0.27	0.27	0.00	0.19	0.19	0.00
Sat Flow, veh/h	1753	3049	458	1753	2912	574	1224	2397	0	1753	3589	0
Grp Volume(v), veh/h	64	381	384	101	339	339	281	249	0	138	286	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1758	1753	1749	1737	1780	1749	0	1753	1749	0
Q Serve(g_s), s	2.9	16.9	17.0	4.6	15.1	15.2	11.0	9.8	0.0	5.5	5.7	0.0
Cycle Q Clear(g_c), s	2.9	16.9	17.0	4.6	15.1	15.2	11.0	9.8	0.0	5.5	5.7	0.0
Prop In Lane	1.00		0.26	1.00		0.33	0.69		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	81	421	423	129	468	465	475	467		340	678	
V/C Ratio(X)	0.79	0.91	0.91	0.78	0.72	0.73	0.59	0.53		0.41	0.42	
Avail Cap(c_a), veh/h	121	426	429	164	470	467	475	467		340	678	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.67	0.67	0.67	0.27	0.27	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.7	29.5	29.5	38.4	33.6	33.6	25.5	25.1	0.0	28.2	28.3	0.0
Incr Delay (d2), s/veh	15.2	19.3	19.5	11.7	3.7	3.8	1.5	1.2	0.0	3.6	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.1	9.2	2.4	7.5	7.5	4.7	4.1	0.0	2.6	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.0	48.8	49.1	50.1	37.3	37.5	27.0	26.3	0.0	31.8	30.2	0.0
LnGrp LOS	D	D	D	D	D	D	C	C		C	C	
Approach Vol, veh/h		829			779			530	A		424	A
Approach Delay, s/veh		49.3			39.0			26.6			30.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	25.9	10.4	23.7	20.0	8.2	25.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	7.5	19.5	15.5	5.5	21.5
Max Q Clear Time (g_c+I1), s	13.0	6.6	19.0	7.7	4.9	17.2
Green Ext Time (p_c), s	1.7	0.0	0.3	1.4	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

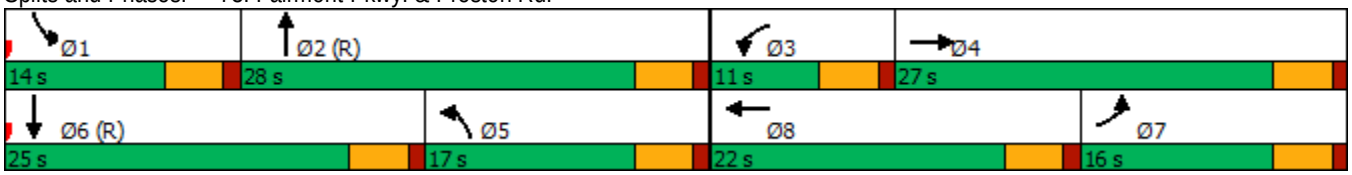
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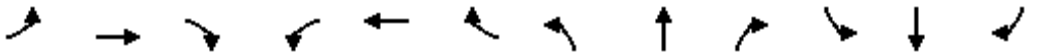
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	131	678	57	625	142	457	211	497
Future Volume (vph)	131	678	57	625	142	457	211	497
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	27.0	11.0	22.0	17.0	28.0	14.0	25.0
Total Split (%)	20.0%	33.8%	13.8%	27.5%	21.3%	35.0%	17.5%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.3	25.1	6.3	16.9	12.5	25.7	9.1	22.3
Actuated g/C Ratio	0.13	0.31	0.08	0.21	0.16	0.32	0.11	0.28
v/c Ratio	0.62	0.54	0.44	0.76	0.55	0.55	0.58	0.61
Control Delay	21.8	3.9	45.6	32.4	39.7	23.7	26.4	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	3.9	45.6	32.4	39.7	23.7	26.4	18.7
LOS	C	A	D	C	D	C	C	B
Approach Delay		6.5		33.3		26.8		20.8
Approach LOS		A		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 64 (80%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 66.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	678	118	57	625	149	142	457	125	211	497	63
Future Volume (veh/h)	131	678	118	57	625	149	142	457	125	211	497	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	138	714	124	60	658	157	149	481	132	222	523	66
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	170	1096	188	76	815	192	388	1052	287	306	801	101
Arrive On Green	0.19	0.51	0.51	0.04	0.20	0.20	0.22	0.39	0.39	0.09	0.26	0.26
Sat Flow, veh/h	1753	4315	742	1753	4064	955	1753	2716	740	3401	3126	393
Grp Volume(v), veh/h	138	553	285	60	541	274	149	309	304	222	292	297
Grp Sat Flow(s),veh/h/ln	1753	1675	1707	1753	1675	1669	1753	1749	1707	1700	1749	1770
Q Serve(g_s), s	6.0	9.7	9.9	2.7	12.3	12.6	5.8	10.5	10.6	5.1	11.9	12.0
Cycle Q Clear(g_c), s	6.0	9.7	9.9	2.7	12.3	12.6	5.8	10.5	10.6	5.1	11.9	12.0
Prop In Lane	1.00		0.43	1.00		0.57	1.00		0.43	1.00		0.22
Lane Grp Cap(c), veh/h	170	851	434	76	672	335	388	678	662	306	448	454
V/C Ratio(X)	0.81	0.65	0.66	0.79	0.80	0.82	0.38	0.46	0.46	0.72	0.65	0.66
Avail Cap(c_a), veh/h	252	942	480	142	733	365	388	678	662	404	448	454
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.51	0.51	0.51	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	31.6	17.1	17.1	37.9	30.5	30.6	26.5	18.2	18.3	35.4	26.6	26.6
Incr Delay (d2), s/veh	8.8	1.0	2.1	8.8	3.2	7.0	0.6	2.2	2.3	3.7	6.1	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.9	3.1	1.3	5.1	5.5	2.4	4.4	4.4	2.2	5.5	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	18.1	19.2	46.7	33.7	37.6	27.1	20.4	20.6	39.1	32.6	32.7
LnGrp LOS	D	B	B	D	C	D	C	C	C	D	C	C
Approach Vol, veh/h		976			875			762			811	
Approach Delay, s/veh		21.6			35.8			21.8			34.4	
Approach LOS		C			D			C			C	

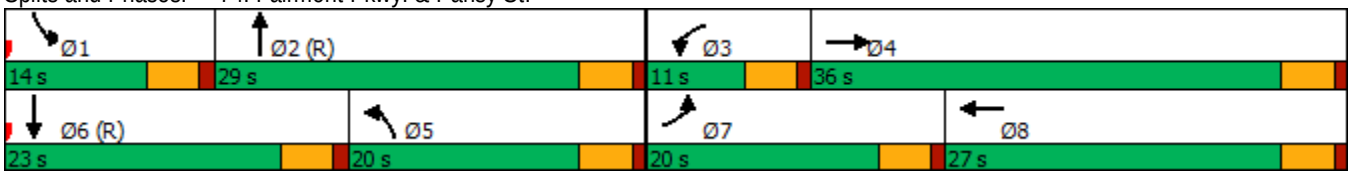
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	35.5	8.0	24.8	22.2	25.0	12.2	20.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	23.5	6.5	22.5	12.5	20.5	11.5	17.5
Max Q Clear Time (g_c+I1), s	7.1	12.6	4.7	11.9	7.8	14.0	8.0	14.6
Green Ext Time (p_c), s	0.2	2.9	0.0	4.1	0.1	1.9	0.1	1.5

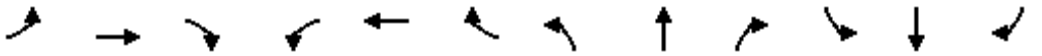
Intersection Summary	
HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	173	904	44	823	174	163	71	171
Future Volume (vph)	173	904	44	823	174	163	71	171
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	8.0	20.0	9.5	20.0
Total Split (s)	20.0	36.0	11.0	27.0	20.0	29.0	14.0	23.0
Total Split (%)	22.2%	40.0%	12.2%	30.0%	22.2%	32.2%	15.6%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.9	34.4	6.3	22.6	15.5	29.1	8.5	20.0
Actuated g/C Ratio	0.15	0.38	0.07	0.25	0.17	0.32	0.09	0.22
v/c Ratio	0.74	0.64	0.41	0.82	0.66	0.24	0.50	0.37
Control Delay	53.0	24.3	50.6	37.8	46.9	18.2	49.1	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	24.3	50.6	37.8	46.9	18.2	49.1	22.3
LOS	D	C	D	D	D	B	D	C
Approach Delay		28.3		38.4		30.5		28.1
Approach LOS		C		D		C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 64.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	904	165	44	823	79	174	163	71	71	171	87
Future Volume (veh/h)	173	904	165	44	823	79	174	163	71	71	171	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	197	1027	188	50	935	90	198	185	81	81	194	99
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	233	1406	257	69	1100	106	395	892	376	104	468	229
Arrive On Green	0.13	0.33	0.33	0.04	0.24	0.24	0.23	0.37	0.37	0.06	0.21	0.21
Sat Flow, veh/h	1753	4270	780	1753	4663	448	1753	2398	1010	1753	2275	1114
Grp Volume(v), veh/h	197	805	410	50	671	354	198	133	133	81	147	146
Grp Sat Flow(s),veh/h/ln	1753	1675	1700	1753	1675	1760	1753	1749	1659	1753	1749	1640
Q Serve(g_s), s	9.9	19.1	19.2	2.5	17.2	17.3	8.9	4.7	4.9	4.1	6.6	7.0
Cycle Q Clear(g_c), s	9.9	19.1	19.2	2.5	17.2	17.3	8.9	4.7	4.9	4.1	6.6	7.0
Prop In Lane	1.00		0.46	1.00		0.25	1.00		0.61	1.00		0.68
Lane Grp Cap(c), veh/h	233	1103	560	69	790	415	395	650	617	104	359	337
V/C Ratio(X)	0.84	0.73	0.73	0.72	0.85	0.85	0.50	0.20	0.22	0.78	0.41	0.43
Avail Cap(c_a), veh/h	302	1173	595	127	838	440	395	650	617	185	359	337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	26.7	26.7	42.7	32.9	32.9	30.4	19.2	19.3	41.8	31.0	31.2
Incr Delay (d2), s/veh	13.2	1.8	3.6	13.0	7.9	14.3	1.0	0.7	0.8	11.8	3.4	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	7.6	8.0	1.3	7.7	8.8	3.8	2.0	2.0	2.1	3.1	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	28.5	30.2	55.7	40.8	47.2	31.4	19.9	20.1	53.6	34.4	35.2
LnGrp LOS	D	C	C	E	D	D	C	B	C	D	C	D
Approach Vol, veh/h		1412			1075			464			374	
Approach Delay, s/veh		32.2			43.6			24.9			38.9	
Approach LOS		C			D			C			D	

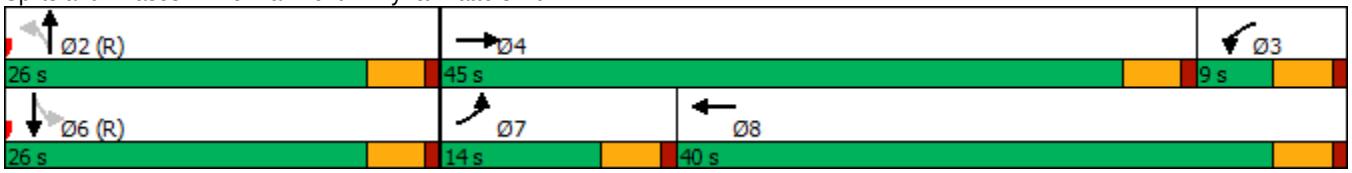
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	38.0	8.1	34.1	24.8	23.0	16.5	25.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	24.5	6.5	31.5	15.5	18.5	15.5	22.5
Max Q Clear Time (g_c+I1), s	6.1	6.9	4.5	21.2	10.9	9.0	11.9	19.3
Green Ext Time (p_c), s	0.0	1.4	0.0	5.7	0.2	1.1	0.2	1.9

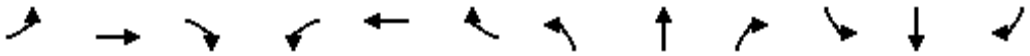
Intersection Summary	
HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	61	913	15	704	13	6	52	8
Future Volume (vph)	61	913	15	704	13	6	52	8
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	45.0	9.0	40.0	26.0	26.0	26.0	26.0
Total Split (%)	17.5%	56.3%	11.3%	50.0%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.0	36.8	5.9	28.3		32.2		32.2
Actuated g/C Ratio	0.10	0.46	0.07	0.35		0.40		0.40
v/c Ratio	0.38	0.63	0.12	0.68		0.05		0.22
Control Delay	51.4	8.7	17.5	12.4		16.0		11.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	51.4	8.7	17.5	12.4		16.0		11.9
LOS	D	A	B	B		B		B
Approach Delay		11.3		12.5		16.0		11.9
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 53.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	913	13	15	704	65	13	6	7	52	8	69
Future Volume (veh/h)	61	913	13	15	704	65	13	6	7	52	8	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	66	992	14	16	765	71	14	7	8	57	9	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	85	1261	18	23	1042	97	378	190	191	319	69	370
Arrive On Green	0.05	0.36	0.36	0.01	0.32	0.32	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1753	3531	50	1753	3235	300	676	412	414	556	151	803
Grp Volume(v), veh/h	66	491	515	16	413	423	29	0	0	141	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1832	1753	1749	1787	1502	0	0	1509	0	0
Q Serve(g_s), s	3.0	20.1	20.1	0.7	16.8	16.8	0.0	0.0	0.0	1.1	0.0	0.0
Cycle Q Clear(g_c), s	3.0	20.1	20.1	0.7	16.8	16.8	0.7	0.0	0.0	4.1	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.17	0.48		0.28	0.40		0.53
Lane Grp Cap(c), veh/h	85	624	654	23	563	575	759	0	0	759	0	0
V/C Ratio(X)	0.78	0.79	0.79	0.70	0.73	0.73	0.04	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	208	885	927	99	776	793	759	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.61	0.61	0.61	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.6	23.0	23.0	39.3	24.1	24.1	11.8	0.0	0.0	12.7	0.0	0.0
Incr Delay (d2), s/veh	6.7	1.4	1.3	20.7	1.4	1.4	0.1	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	8.0	8.4	0.4	6.8	7.0	0.3	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	24.4	24.3	60.0	25.5	25.5	11.9	0.0	0.0	13.2	0.0	0.0
LnGrp LOS	D	C	C	E	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1072			852			29			141	
Approach Delay, s/veh		25.6			26.1			11.9			13.2	
Approach LOS		C			C			B			B	

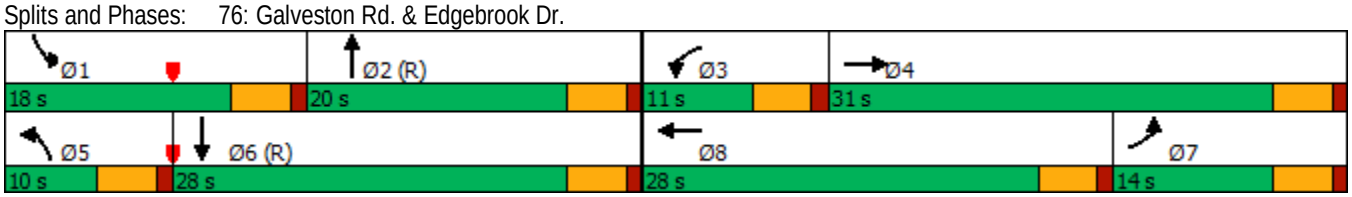
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		41.4	5.5	33.1		41.4	8.4	30.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	4.5	40.5		21.5	9.5	35.5				
Max Q Clear Time (g_c+I1), s		2.7	2.7	22.1		6.1	5.0	18.8				
Green Ext Time (p_c), s		0.1	0.0	6.5		0.6	0.0	5.0				

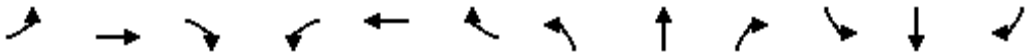
Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	114	575	59	571	41	365	169	298
Future Volume (vph)	114	575	59	571	41	365	169	298
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	31.0	11.0	28.0	10.0	20.0	18.0	28.0
Total Split (%)	17.5%	38.8%	13.8%	35.0%	12.5%	25.0%	22.5%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.8	26.8	6.3	22.4	5.7	21.2	11.9	31.6
Actuated g/C Ratio	0.11	0.34	0.08	0.28	0.07	0.26	0.15	0.40
v/c Ratio	0.61	0.56	0.44	0.84	0.34	0.47	0.67	0.29
Control Delay	32.6	8.9	40.8	23.2	44.0	14.8	45.2	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	8.9	40.8	23.2	44.0	14.8	45.2	17.8
LOS	C	A	D	C	D	B	D	B
Approach Delay		12.5		24.4		17.4		26.1
Approach LOS		B		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 71.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	575	59	59	571	240	41	365	55	169	298	88
Future Volume (veh/h)	114	575	59	59	571	240	41	365	55	169	298	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	116	587	60	60	583	245	42	372	56	172	304	90
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	1013	103	76	662	278	52	901	135	210	1031	300
Arrive On Green	0.08	0.32	0.32	0.04	0.28	0.28	0.03	0.30	0.30	0.12	0.39	0.39
Sat Flow, veh/h	1753	3204	327	1753	2401	1007	1753	3052	456	1753	2672	777
Grp Volume(v), veh/h	116	320	327	60	424	404	42	212	216	172	197	197
Grp Sat Flow(s),veh/h/ln	1753	1749	1782	1753	1749	1659	1753	1749	1759	1753	1749	1701
Q Serve(g_s), s	5.2	12.2	12.3	2.7	18.6	18.6	1.9	7.8	7.9	7.7	6.2	6.4
Cycle Q Clear(g_c), s	5.2	12.2	12.3	2.7	18.6	18.6	1.9	7.8	7.9	7.7	6.2	6.4
Prop In Lane	1.00		0.18	1.00		0.61	1.00		0.26	1.00		0.46
Lane Grp Cap(c), veh/h	147	553	563	76	483	458	52	517	519	210	674	656
V/C Ratio(X)	0.79	0.58	0.58	0.79	0.88	0.88	0.81	0.41	0.42	0.82	0.29	0.30
Avail Cap(c_a), veh/h	208	579	590	142	514	487	121	517	519	296	674	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	22.9	22.9	37.9	27.7	27.7	38.6	22.6	22.6	34.3	17.0	17.1
Incr Delay (d2), s/veh	12.5	1.3	1.3	16.1	15.4	16.3	24.4	2.4	2.4	11.6	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	5.0	5.1	1.5	9.5	9.1	1.2	3.4	3.5	3.9	2.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	24.2	24.2	54.0	43.1	44.1	63.0	25.0	25.1	45.9	18.1	18.2
LnGrp LOS	D	C	C	D	D	D	E	C	C	D	B	B
Approach Vol, veh/h		763			888			470			566	
Approach Delay, s/veh		27.9			44.3			28.4			26.6	
Approach LOS		C			D			C			C	

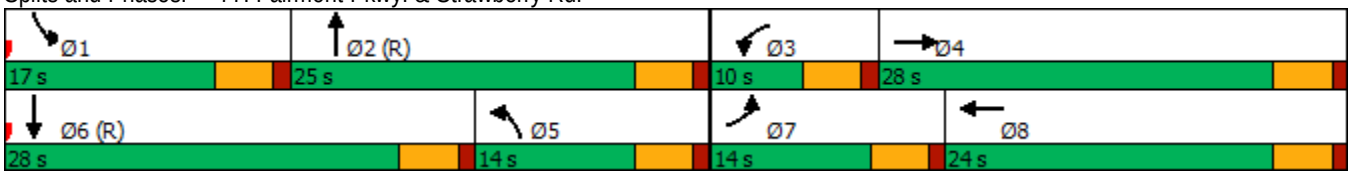
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	28.1	8.0	29.8	6.9	35.4	11.2	26.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	15.5	6.5	26.5	5.5	23.5	9.5	23.5
Max Q Clear Time (g_c+I1), s	9.7	9.9	4.7	14.3	3.9	8.4	7.2	20.6
Green Ext Time (p_c), s	0.2	1.2	0.0	3.2	0.0	2.0	0.1	1.5

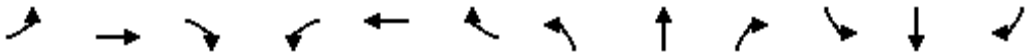
Intersection Summary	
HCM 6th Ctrl Delay	33.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	111	485	26	443	83	448	149	284
Future Volume (vph)	111	485	26	443	83	448	149	284
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	28.0	10.0	24.0	14.0	25.0	17.0	28.0
Total Split (%)	17.5%	35.0%	12.5%	30.0%	17.5%	31.3%	21.3%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.8	25.5	5.5	18.3	8.8	25.9	11.2	30.3
Actuated g/C Ratio	0.11	0.32	0.07	0.23	0.11	0.32	0.14	0.38
v/c Ratio	0.62	0.51	0.24	0.82	0.47	0.50	0.66	0.35
Control Delay	37.6	14.3	34.9	24.9	34.1	18.7	36.3	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.6	14.3	34.9	24.9	34.1	18.7	36.3	11.5
LOS	D	B	C	C	C	B	D	B
Approach Delay		18.4		25.3		20.8		17.9
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 66 (83%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 20.7	Intersection LOS: C
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	485	35	26	443	181	83	448	74	149	284	145
Future Volume (veh/h)	111	485	35	26	443	181	83	448	74	149	284	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	119	522	38	28	476	195	89	482	80	160	305	156
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	150	978	71	36	559	227	290	1041	172	197	663	331
Arrive On Green	0.09	0.30	0.30	0.01	0.08	0.08	0.17	0.35	0.35	0.11	0.29	0.29
Sat Flow, veh/h	1753	3306	240	1753	2425	987	1753	3004	496	1753	2259	1128
Grp Volume(v), veh/h	119	276	284	28	342	329	89	280	282	160	234	227
Grp Sat Flow(s),veh/h/ln	1753	1749	1797	1753	1749	1663	1753	1749	1751	1753	1749	1638
Q Serve(g_s), s	5.3	10.5	10.6	1.3	15.5	15.6	3.6	9.9	10.1	7.1	8.7	9.1
Cycle Q Clear(g_c), s	5.3	10.5	10.6	1.3	15.5	15.6	3.6	9.9	10.1	7.1	8.7	9.1
Prop In Lane	1.00		0.13	1.00		0.59	1.00		0.28	1.00		0.69
Lane Grp Cap(c), veh/h	150	517	532	36	403	383	290	606	607	197	514	481
V/C Ratio(X)	0.79	0.53	0.53	0.79	0.85	0.86	0.31	0.46	0.47	0.81	0.46	0.47
Avail Cap(c_a), veh/h	208	517	532	121	426	405	290	606	607	274	514	481
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.59	0.59	0.59	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	35.9	23.5	23.6	39.6	35.6	35.7	29.4	20.3	20.4	34.7	23.0	23.2
Incr Delay (d2), s/veh	10.6	0.8	0.8	19.9	9.1	10.1	0.6	2.5	2.6	10.3	2.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.3	4.4	0.7	8.2	8.0	1.5	4.3	4.3	3.5	3.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	24.4	24.4	59.4	44.7	45.8	30.0	22.8	22.9	45.0	25.5	25.9
LnGrp LOS	D	C	C	E	D	D	C	C	C	D	C	C
Approach Vol, veh/h		679			699			651			621	
Approach Delay, s/veh		28.3			45.8			23.9			30.7	
Approach LOS		C			D			C			C	

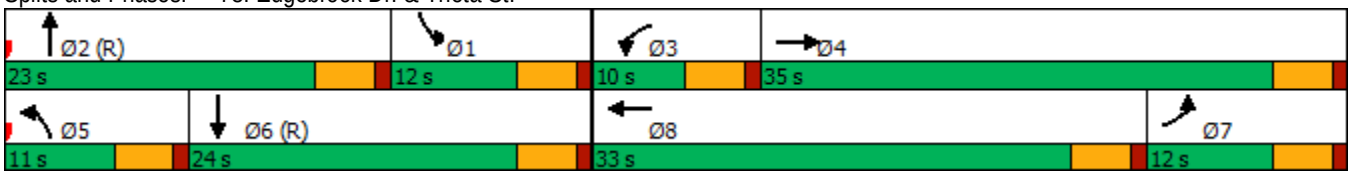
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	32.2	6.1	28.2	17.7	28.0	11.4	22.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	20.5	5.5	23.5	9.5	23.5	9.5	19.5
Max Q Clear Time (g_c+I1), s	9.1	12.1	3.3	12.6	5.6	11.1	7.3	17.6
Green Ext Time (p_c), s	0.1	2.2	0.0	2.6	0.1	2.3	0.1	0.8

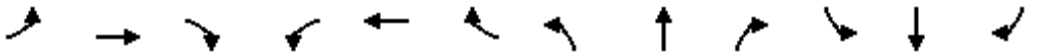
Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	83	699	28	804	48	32	72	32
Future Volume (vph)	83	699	28	804	48	32	72	32
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	35.0	10.0	33.0	11.0	23.0	12.0	24.0
Total Split (%)	15.0%	43.8%	12.5%	41.3%	13.8%	28.8%	15.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.4	32.9	5.5	27.1	6.3	24.5	7.1	27.5
Actuated g/C Ratio	0.09	0.41	0.07	0.34	0.08	0.31	0.09	0.34
v/c Ratio	0.59	0.58	0.27	0.85	0.40	0.20	0.53	0.26
Control Delay	51.0	20.3	54.5	19.4	44.0	11.7	37.4	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	20.3	54.5	19.4	44.0	11.7	37.4	3.7
LOS	D	C	D	B	D	B	D	A
Approach Delay		23.4		20.5		22.6		14.9
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 62.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	699	30	28	804	76	48	32	63	72	32	113
Future Volume (veh/h)	83	699	30	28	804	76	48	32	63	72	32	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	94	794	34	32	914	86	55	36	72	82	36	128
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	120	1263	54	39	1045	98	70	127	253	266	122	433
Arrive On Green	0.07	0.37	0.37	0.02	0.32	0.32	0.04	0.23	0.23	0.15	0.34	0.34
Sat Flow, veh/h	1753	3417	146	1753	3231	304	1753	548	1096	1753	354	1260
Grp Volume(v), veh/h	94	406	422	32	495	505	55	0	108	82	0	164
Grp Sat Flow(s),veh/h/ln	1753	1749	1814	1753	1749	1786	1753	0	1644	1753	0	1614
Q Serve(g_s), s	4.2	15.3	15.3	1.5	21.4	21.4	2.5	0.0	4.3	3.3	0.0	5.9
Cycle Q Clear(g_c), s	4.2	15.3	15.3	1.5	21.4	21.4	2.5	0.0	4.3	3.3	0.0	5.9
Prop In Lane	1.00		0.08	1.00		0.17	1.00		0.67	1.00		0.78
Lane Grp Cap(c), veh/h	120	646	671	39	566	578	70	0	380	266	0	554
V/C Ratio(X)	0.78	0.63	0.63	0.82	0.87	0.87	0.79	0.00	0.28	0.31	0.00	0.30
Avail Cap(c_a), veh/h	164	667	692	121	623	636	142	0	380	266	0	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.7	20.7	20.7	38.9	25.5	25.5	38.1	0.0	25.3	30.2	0.0	19.2
Incr Delay (d2), s/veh	15.5	1.8	1.7	32.4	12.3	12.1	17.7	0.0	1.9	0.6	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.7	5.9	0.9	9.7	9.9	1.4	0.0	1.8	1.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	22.5	22.5	71.3	37.9	37.6	55.8	0.0	27.2	30.8	0.0	20.6
LnGrp LOS	D	C	C	E	D	D	E	A	C	C	A	C
Approach Vol, veh/h		922			1032			163			246	
Approach Delay, s/veh		25.5			38.8			36.8			24.0	
Approach LOS		C			D			D			C	

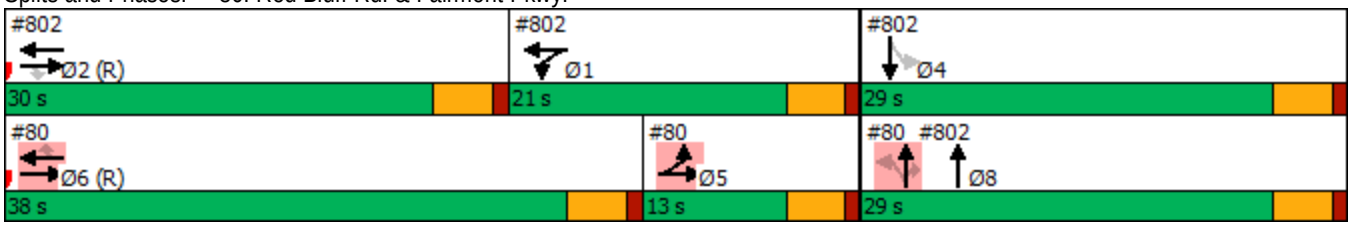
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	23.0	6.3	34.1	7.7	32.0	10.0	30.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	5.5	30.5	6.5	19.5	7.5	28.5
Max Q Clear Time (g_c+I1), s	5.3	6.3	3.5	17.3	4.5	7.9	6.2	23.4
Green Ext Time (p_c), s	0.0	0.4	0.0	3.8	0.0	0.6	0.0	2.5

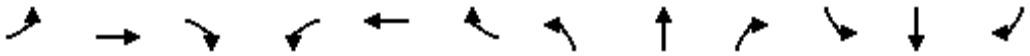
Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	8	653	655	94	111	336	53			
Future Volume (vph)	8	653	655	94	111	336	53			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0		38.0	38.0	29.0	29.0	29.0	21.0	30.0	29.0
Total Split (%)	16.3%		47.5%	47.5%	36.3%	36.3%	36.3%	26%	38%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	7.6	50.8	38.6	38.6	20.2	20.2	20.2			
Actuated g/C Ratio	0.10	0.64	0.48	0.48	0.25	0.25	0.25			
v/c Ratio	0.05	0.22	0.19	0.12	0.27	0.40	0.11			
Control Delay	25.8	1.8	15.2	8.3	11.2	12.5	1.2			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	25.8	1.8	15.2	8.3	11.2	12.5	1.2			
LOS	C	A	B	A	B	B	A			
Approach Delay		2.1	14.3			11.0				
Approach LOS		A	B			B				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 34.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





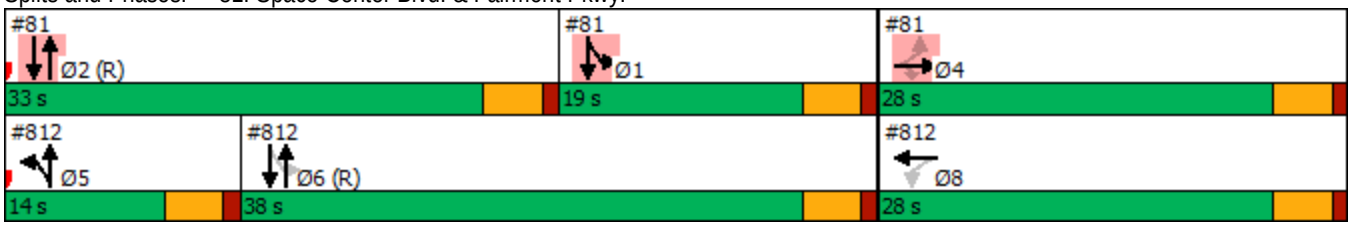
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	653	0	0	655	94	111	336	53	0	0	0
Future Volume (vph)	8	653	0	0	655	94	111	336	53	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	687	0	0	689	99	117	354	56	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	51	0	0	42	0	0	0
Lane Group Flow (vph)	8	687	0	0	689	48	117	354	14	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	7.6	50.8			38.7	38.7	20.2	20.2	20.2			
Effective Green, g (s)	7.6	50.8			38.7	38.7	20.2	20.2	20.2			
Actuated g/C Ratio	0.09	0.63			0.48	0.48	0.25	0.25	0.25			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	164	3167			3579	751	438	876	392			
v/s Ratio Prot	0.00	c0.14			0.09			c0.10				
v/s Ratio Perm						0.03	0.07		0.01			
v/c Ratio	0.05	0.22			0.19	0.06	0.27	0.40	0.04			
Uniform Delay, d1	32.9	6.2			11.8	11.0	24.0	24.9	22.6			
Progression Factor	0.78	0.24			1.17	2.33	0.44	0.47	1.00			
Incremental Delay, d2	0.1	0.0			0.1	0.1	0.3	0.3	0.0			
Delay (s)	25.7	1.5			13.8	25.7	10.9	12.0	22.6			
Level of Service	C	A			B	C	B	B	C			
Approach Delay (s)		1.8			15.3			12.9			0.0	
Approach LOS		A			B			B			A	

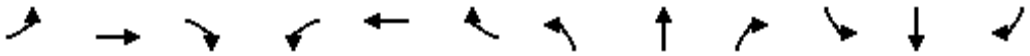
Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	84	1251	137	715	140	568			
Future Volume (vph)	84	1251	137	715	140	568			
Turn Type	Perm	NA	Perm	NA	Prot	NA			
Protected Phases		4		2	1	1 2	5	6	8
Permitted Phases	4		4						
Detector Phase	4	4	4	2	1	1 2			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	28.0	28.0	28.0	33.0	19.0		14.0	38.0	28.0
Total Split (%)	35.0%	35.0%	35.0%	41.3%	23.8%		18%	48%	35%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	23.5	23.5	23.5	28.5	14.5	47.5			
Actuated g/C Ratio	0.29	0.29	0.29	0.36	0.18	0.59			
v/c Ratio	0.19	0.77	0.28	0.68	0.51	0.31			
Control Delay	22.4	29.2	5.3	17.8	35.4	8.3			
Queue Delay	0.0	0.0	0.0	0.0	15.4	1.3			
Total Delay	22.4	29.2	5.3	17.8	50.8	9.6			
LOS	C	C	A	B	D	A			
Approach Delay		26.6		17.8		17.7			
Approach LOS		C		B		B			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 59 (74%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





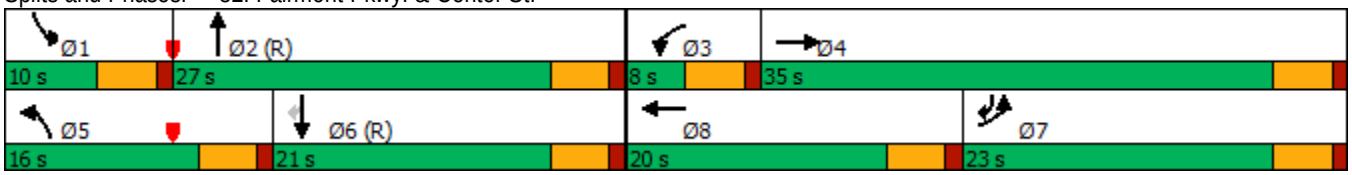
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	1251	137	0	0	0	0	715	352	140	568	0
Future Volume (vph)	84	1251	137	0	0	0	0	715	352	140	568	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91		1.00	0.95	
Frt	1.00	1.00	0.85					0.95		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4741		1736	3471	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4741		1736	3471	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	95	1422	156	0	0	0	0	812	400	159	645	0
RTOR Reduction (vph)	0	0	110	0	0	0	0	86	0	0	0	0
Lane Group Flow (vph)	95	1422	46	0	0	0	0	1127	0	159	645	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4									
Actuated Green, G (s)	23.5	23.5	23.5					28.5		14.5	47.5	
Effective Green, g (s)	23.5	23.5	23.5					28.5		14.5	47.5	
Actuated g/C Ratio	0.29	0.29	0.29					0.36		0.18	0.59	
Clearance Time (s)	4.5	4.5	4.5					4.5		4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		
Lane Grp Cap (vph)	509	1846	456					1688		314	2060	
v/s Ratio Prot		c0.23						c0.24		c0.09	0.19	
v/s Ratio Perm	0.05		0.03									
v/c Ratio	0.19	0.77	0.10					0.67		0.51	0.31	
Uniform Delay, d1	21.1	25.8	20.6					21.7		29.5	8.1	
Progression Factor	1.00	1.00	1.00					0.80		0.99	0.96	
Incremental Delay, d2	0.2	2.0	0.1					2.1		1.3	0.1	
Delay (s)	21.3	27.8	20.7					19.6		30.4	7.9	
Level of Service	C	C	C					B		C	A	
Approach Delay (s)		26.8			0.0			19.6			12.3	
Approach LOS		C			A			B			B	

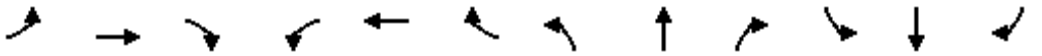
Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	603	991	16	666	177	105	25	32	489
Future Volume (vph)	603	991	16	666	177	105	25	32	489
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	23.0	35.0	8.0	20.0	16.0	27.0	10.0	21.0	23.0
Total Split (%)	28.8%	43.8%	10.0%	25.0%	20.0%	33.8%	12.5%	26.3%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	18.1	36.1	3.5	15.0	11.1	29.3	5.5	17.8	35.9
Actuated g/C Ratio	0.23	0.45	0.04	0.19	0.14	0.37	0.07	0.22	0.45
v/c Ratio	0.85	0.57	0.23	0.77	0.79	0.11	0.23	0.08	0.39
Control Delay	41.8	17.0	37.6	22.9	58.0	16.5	48.6	24.2	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	17.0	37.6	22.9	58.0	16.5	48.6	24.2	6.5
LOS	D	B	D	C	E	B	D	C	A
Approach Delay		25.4		23.2		40.9		9.5	
Approach LOS		C		C		D		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 47 (59%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 63.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	603	991	187	16	666	7	177	105	19	25	32	489
Future Volume (veh/h)	603	991	187	16	666	7	177	105	19	25	32	489
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	648	1066	201	17	716	8	190	113	20	27	34	526
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	745	1619	305	24	902	10	227	1074	186	35	461	1289
Arrive On Green	0.07	0.13	0.13	0.00	0.06	0.06	0.13	0.36	0.36	0.02	0.25	0.25
Sat Flow, veh/h	3401	4247	800	1753	5123	57	1753	2981	516	1753	1841	2745
Grp Volume(v), veh/h	648	841	426	17	468	256	190	65	68	27	34	526
Grp Sat Flow(s),veh/h/ln	1700	1675	1697	1753	1675	1830	1753	1749	1748	1753	1841	1373
Q Serve(g_s), s	15.1	19.1	19.2	0.8	11.0	11.1	8.5	2.0	2.1	1.2	1.1	3.5
Cycle Q Clear(g_c), s	15.1	19.1	19.2	0.8	11.0	11.1	8.5	2.0	2.1	1.2	1.1	3.5
Prop In Lane	1.00		0.47	1.00		0.03	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	745	1277	647	24	590	322	227	630	630	35	461	1289
V/C Ratio(X)	0.87	0.66	0.66	0.70	0.79	0.79	0.84	0.10	0.11	0.78	0.07	0.41
Avail Cap(c_a), veh/h	786	1277	647	77	649	355	252	630	630	121	461	1289
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	36.0	30.0	30.0	39.7	36.2	36.3	34.0	17.0	17.0	39.0	22.9	4.4
Incr Delay (d2), s/veh	10.0	1.2	2.5	29.6	5.8	10.3	19.7	0.3	0.3	27.7	0.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	8.7	9.0	0.5	5.2	6.1	4.7	0.8	0.8	0.8	0.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	31.2	32.5	69.2	42.1	46.6	53.7	17.3	17.4	66.8	23.2	5.2
LnGrp LOS	D	C	C	E	D	D	D	B	B	E	C	A
Approach Vol, veh/h		1915			741			323			587	
Approach Delay, s/veh		36.5			44.3			38.7			9.1	
Approach LOS		D			D			D			A	

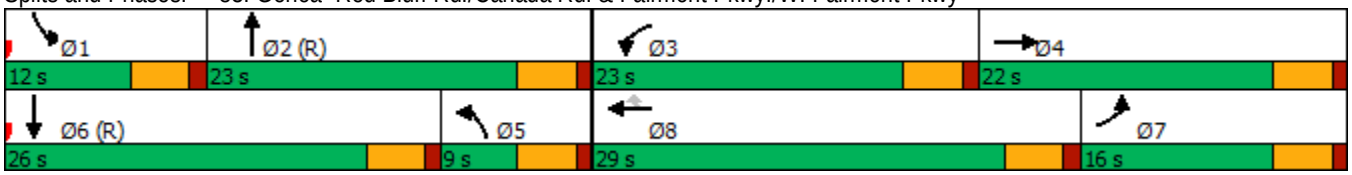
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	33.3	5.6	35.0	14.9	24.5	22.0	18.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	22.5	3.5	30.5	11.5	16.5	18.5	15.5
Max Q Clear Time (g_c+I1), s	3.2	4.1	2.8	21.2	10.5	5.5	17.1	13.1
Green Ext Time (p_c), s	0.0	0.5	0.0	5.5	0.1	1.8	0.4	1.0

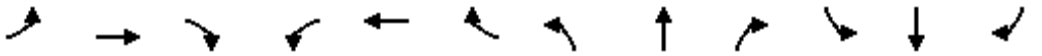
Intersection Summary	
HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	161	662	357	656	145	27	291	135	353
Future Volume (vph)	161	662	357	656	145	27	291	135	353
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	22.0	23.0	29.0	29.0	9.0	23.0	12.0	26.0
Total Split (%)	20.0%	27.5%	28.8%	36.3%	36.3%	11.3%	28.8%	15.0%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.7	17.5	18.5	22.3	22.3	4.5	18.5	7.5	26.9
Actuated g/C Ratio	0.17	0.22	0.23	0.28	0.28	0.06	0.23	0.09	0.34
v/c Ratio	0.60	1.00	0.98	0.75	0.27	0.31	0.77	0.91	0.47
Control Delay	24.7	49.4	45.4	12.2	0.5	42.4	14.2	83.6	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	49.4	45.4	12.2	0.5	42.4	14.2	83.6	20.9
LOS	C	D	D	B	A	D	B	F	C
Approach Delay		44.7		20.9			15.1		34.3
Approach LOS		D		C			B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 18 (23%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 28.0	Intersection LOS: C
Intersection Capacity Utilization 89.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	662	29	357	656	145	27	291	475	135	353	142
Future Volume (veh/h)	161	662	29	357	656	145	27	291	475	135	353	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	727	32	392	721	159	30	320	522	148	388	156
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	339	746	33	405	898	400	99	404	361	164	657	261
Arrive On Green	0.19	0.22	0.22	0.23	0.26	0.26	0.06	0.23	0.23	0.09	0.27	0.27
Sat Flow, veh/h	1753	3412	150	1753	3497	1560	1753	1749	1560	1753	2445	970
Grp Volume(v), veh/h	177	372	387	392	721	159	30	320	522	148	276	268
Grp Sat Flow(s),veh/h/ln	1753	1749	1814	1753	1749	1560	1753	1749	1560	1753	1749	1666
Q Serve(g_s), s	7.2	16.9	16.9	17.7	15.4	4.9	1.3	13.8	18.5	6.7	11.0	11.2
Cycle Q Clear(g_c), s	7.2	16.9	16.9	17.7	15.4	4.9	1.3	13.8	18.5	6.7	11.0	11.2
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		0.58
Lane Grp Cap(c), veh/h	339	383	397	405	898	400	99	404	361	164	470	448
V/C Ratio(X)	0.52	0.97	0.97	0.97	0.80	0.40	0.30	0.79	1.45	0.90	0.59	0.60
Avail Cap(c_a), veh/h	339	383	397	405	1071	478	99	404	361	164	470	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.12	0.12	0.12	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	29.0	31.0	31.0	30.4	27.8	12.8	36.2	28.9	30.8	35.9	25.4	25.5
Incr Delay (d2), s/veh	1.2	35.5	34.9	9.2	0.5	0.1	1.7	14.6	216.2	38.6	4.6	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	10.6	11.0	8.2	6.2	2.3	0.6	7.0	28.1	4.6	5.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	66.5	65.9	39.6	28.3	12.9	38.0	43.5	247.0	74.5	30.0	30.5
LnGrp LOS	C	E	E	D	C	B	D	D	F	E	C	C
Approach Vol, veh/h		936			1272			872			692	
Approach Delay, s/veh		59.4			29.9			165.1			39.7	
Approach LOS		E			C			F			D	

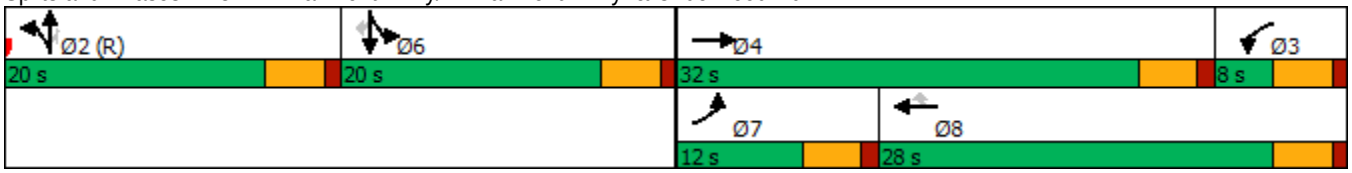
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.0	23.0	22.0	9.0	26.0	20.0	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	18.5	17.5	4.5	21.5	11.5	24.5
Max Q Clear Time (g_c+I1), s	8.7	20.5	19.7	18.9	3.3	13.2	9.2	17.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.1	0.1	3.1

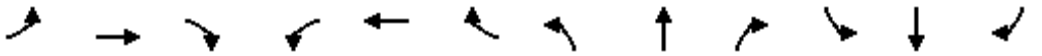
Intersection Summary	
HCM 6th Ctrl Delay	70.3
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	165	1140	87	1024	217	23	30	287	88	199
Future Volume (vph)	165	1140	87	1024	217	23	30	287	88	199
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Split	NA	Perm
Protected Phases	7	4	3	8		2		6	6	
Permitted Phases					8		2			6
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	32.0	8.0	28.0	28.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	15.0%	40.0%	10.0%	35.0%	35.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	7.5	27.5	3.5	23.5	23.5	15.5	15.5	15.5	15.5	15.5
Actuated g/C Ratio	0.09	0.34	0.04	0.29	0.29	0.19	0.19	0.19	0.19	0.19
v/c Ratio	1.10	1.12	1.27	1.09	0.42	0.17	0.07	0.93	0.27	0.45
Control Delay	116.7	94.1	220.1	83.1	11.4	28.4	0.3	58.5	19.6	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	116.7	94.1	220.1	83.1	11.4	28.4	0.3	58.5	19.6	4.4
LOS	F	F	F	F	B	C	A	E	B	A
Approach Delay		96.8		80.4		18.2			33.8	
Approach LOS		F		F		B			C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 77.7	Intersection LOS: E
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	1140	85	87	1024	217	30	23	30	287	88	199
Future Volume (veh/h)	165	1140	85	87	1024	217	30	23	30	287	88	199
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	179	1239	92	95	1113	236	33	25	33	312	96	216
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	164	1135	84	77	1027	458	197	149	302	340	357	302
Arrive On Green	0.09	0.34	0.34	0.04	0.29	0.29	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1753	3301	245	1753	3497	1560	1018	771	1560	1753	1841	1560
Grp Volume(v), veh/h	179	655	676	95	1113	236	58	0	33	312	96	216
Grp Sat Flow(s),veh/h/ln	1753	1749	1797	1753	1749	1560	1790	0	1560	1753	1841	1560
Q Serve(g_s), s	7.5	27.5	27.5	3.5	23.5	10.1	2.2	0.0	1.4	14.0	3.5	10.4
Cycle Q Clear(g_c), s	7.5	27.5	27.5	3.5	23.5	10.1	2.2	0.0	1.4	14.0	3.5	10.4
Prop In Lane	1.00		0.14	1.00		1.00	0.57		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	601	618	77	1027	458	347	0	302	340	357	302
V/C Ratio(X)	1.09	1.09	1.09	1.24	1.08	0.52	0.17	0.00	0.11	0.92	0.27	0.71
Avail Cap(c_a), veh/h	164	601	618	77	1027	458	347	0	302	340	357	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.12	0.12	0.12	0.56	0.56	0.56	1.00	0.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	36.3	26.3	26.3	38.3	28.3	23.5	26.9	0.0	26.6	31.6	27.4	30.2
Incr Delay (d2), s/veh	52.4	44.6	46.0	154.7	47.6	0.6	1.0	0.0	0.7	29.0	1.6	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	18.2	18.9	4.8	16.1	3.6	1.0	0.0	0.6	8.4	1.7	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.7	70.9	72.2	193.0	75.8	24.1	27.9	0.0	27.3	60.7	29.0	42.1
LnGrp LOS	F	F	F	F	F	C	C	A	C	E	C	D
Approach Vol, veh/h		1510			1444			91			624	
Approach Delay, s/veh		73.6			75.1			27.7			49.4	
Approach LOS		E			E			C			D	

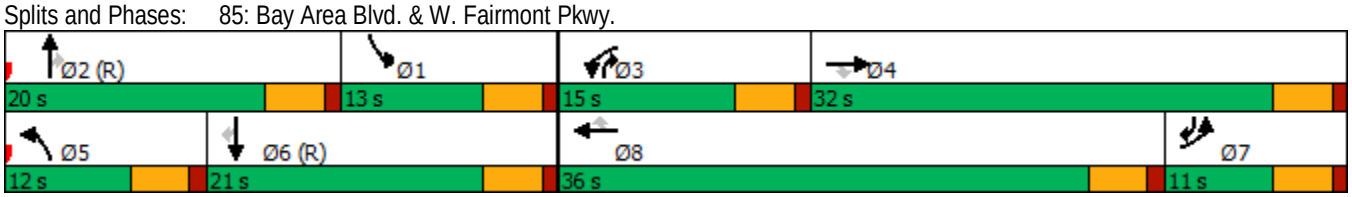
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	8.0	32.0		20.0	12.0	28.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	27.5		15.5	7.5	23.5				
Max Q Clear Time (g_c+I1), s		4.2	5.5	29.5		16.0	9.5	25.5				
Green Ext Time (p_c), s		0.2	0.0	0.0		0.0	0.0	0.0				

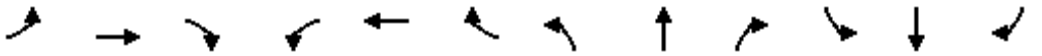
Intersection Summary												
HCM 6th Ctrl Delay			68.9									
HCM 6th LOS			E									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	1041	168	169	1044	98	112	193	116	129	210	170
Future Volume (vph)	88	1041	168	169	1044	98	112	193	116	129	210	170
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	11.0	32.0	32.0	15.0	36.0	36.0	12.0	20.0	15.0	13.0	21.0	11.0
Total Split (%)	13.8%	40.0%	40.0%	18.8%	45.0%	45.0%	15.0%	25.0%	18.8%	16.3%	26.3%	13.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	7.3	27.2	27.2	10.2	30.1	30.1	7.4	16.2	26.3	8.5	19.6	27.7
Actuated g/C Ratio	0.09	0.34	0.34	0.13	0.38	0.38	0.09	0.20	0.33	0.11	0.24	0.35
v/c Ratio	0.56	0.89	0.26	0.78	0.81	0.14	0.71	0.28	0.19	0.71	0.25	0.27
Control Delay	41.8	26.3	1.7	54.7	11.9	0.4	60.7	28.6	2.1	60.7	31.1	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	26.3	1.7	54.7	11.9	0.4	60.7	28.6	2.1	60.7	31.1	9.1
LOS	D	C	A	D	B	A	E	C	A	E	C	A
Approach Delay		24.2			16.5			29.9			31.2	
Approach LOS		C			B			C			C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 23.0	Intersection LOS: C
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1041	168	169	1044	98	112	193	116	129	210	170
Future Volume (veh/h)	88	1041	168	169	1044	98	112	193	116	129	210	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	89	1052	0	171	1055	99	113	195	117	130	212	172
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	166	1163		207	1245	555	142	678	486	229	850	527
Arrive On Green	0.09	0.33	0.00	0.12	0.36	0.36	0.08	0.19	0.19	0.13	0.24	0.24
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	89	1052	0	171	1055	99	113	195	117	130	212	172
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	3.9	23.0	0.0	7.6	22.3	3.5	5.1	3.8	2.5	5.6	3.9	1.4
Cycle Q Clear(g_c), s	3.9	23.0	0.0	7.6	22.3	3.5	5.1	3.8	2.5	5.6	3.9	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	1163		207	1245	555	142	678	486	229	850	527
V/C Ratio(X)	0.54	0.90		0.83	0.85	0.18	0.79	0.29	0.24	0.57	0.25	0.33
Avail Cap(c_a), veh/h	166	1202		230	1377	614	164	678	486	229	850	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.00	0.55	0.55	0.55	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	34.5	25.5	0.0	34.5	23.8	17.7	36.1	27.5	8.0	32.7	24.4	8.5
Incr Delay (d2), s/veh	3.0	8.7	0.0	11.8	2.7	0.1	20.3	1.1	1.2	3.2	0.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	10.4	0.0	3.8	9.1	1.2	2.9	1.6	1.2	2.5	1.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	34.2	0.0	46.2	26.4	17.8	56.4	28.6	9.2	35.9	25.1	10.1
LnGrp LOS	D	C		D	C	B	E	C	A	D	C	B
Approach Vol, veh/h		1141	A		1325			425			514	
Approach Delay, s/veh		34.4			28.4			30.7			22.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	20.0	13.9	31.1	11.0	23.9	12.1	33.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	15.5	10.5	27.5	7.5	16.5	6.5	31.5
Max Q Clear Time (g_c+I1), s	7.6	5.8	9.6	25.0	7.1	5.9	5.9	24.3
Green Ext Time (p_c), s	0.0	1.0	0.0	1.6	0.0	1.4	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

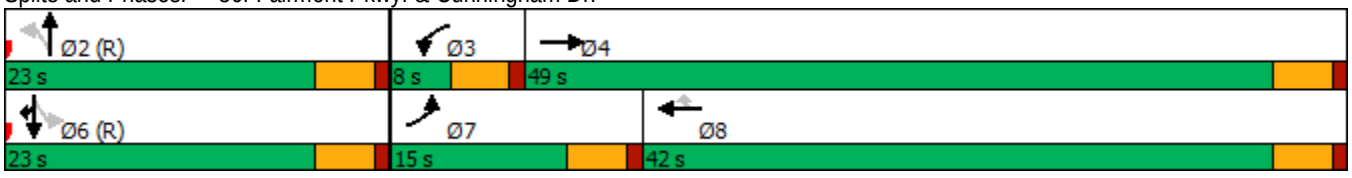
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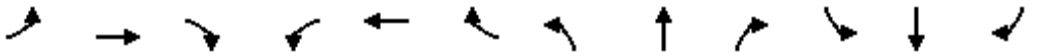
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR	Ø2
Lane Configurations									
Traffic Volume (vph)	64	940	4	841	4	4	0	4	
Future Volume (vph)	64	940	4	841	4	4	0	4	
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Prot	
Protected Phases	7	4	3	8			6	6	2
Permitted Phases					8	6			
Detector Phase	7	4	3	8	8	6	6	6	
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	49.0	8.0	42.0	42.0	23.0	23.0	23.0	23.0
Total Split (%)	18.8%	61.3%	10.0%	52.5%	52.5%	28.8%	28.8%	28.8%	29%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.4	39.9	3.5	30.6	30.6		29.5	29.5	
Actuated g/C Ratio	0.10	0.50	0.04	0.38	0.38		0.37	0.37	
v/c Ratio	0.39	0.60	0.05	0.70	0.01		0.01	0.01	
Control Delay	29.8	14.9	45.5	9.3	0.0		21.8	0.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	29.8	14.9	45.5	9.3	0.0		21.8	0.0	
LOS	C	B	D	A	A		C	A	
Approach Delay		15.8		9.4			10.9		
Approach LOS		B		A			B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 56 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	940	0	4	841	4	0	0	0	4	0	4
Future Volume (veh/h)	64	940	0	4	841	4	0	0	0	4	0	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	71	1044	0	4	934	0	0	0	0	4	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	91	1390	0	7	1221		0	792	0	690	0	
Arrive On Green	0.05	0.40	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.43	0.00	0.00
Sat Flow, veh/h	1753	3589	0	1753	3497	1560	0	1841	0	1395	0	1560
Grp Volume(v), veh/h	71	1044	0	4	934	0	0	0	0	4	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	1560	0	1841	0	1395	0	1560
Q Serve(g_s), s	3.2	20.5	0.0	0.2	19.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	3.2	20.5	0.0	0.2	19.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	1390	0	7	1221		0	792	0	690	0	
V/C Ratio(X)	0.78	0.75	0.00	0.61	0.77		0.00	0.00	0.00	0.01	0.00	
Avail Cap(c_a), veh/h	230	1945	0	77	1639		0	792	0	690	0	
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.69	0.69	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.5	20.7	0.0	39.8	27.6	0.0	0.0	0.0	0.0	13.0	0.0	0.0
Incr Delay (d2), s/veh	13.1	1.1	0.0	50.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	8.0	0.0	0.2	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	21.8	0.0	90.4	28.7	0.0	0.0	0.0	0.0	13.0	0.0	0.0
LnGrp LOS	D	C	A	F	C		A	A	A	B	A	
Approach Vol, veh/h		1115			938	A		0			4	A
Approach Delay, s/veh		23.6			28.9			0.0			13.0	
Approach LOS		C			C						B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		38.9	4.8	36.3		38.9	8.7	32.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	3.5	44.5		18.5	10.5	37.5				
Max Q Clear Time (g_c+I1), s		0.0	2.2	22.5		2.1	5.2	21.9				
Green Ext Time (p_c), s		0.0	0.0	8.0		0.0	0.1	6.0				

Intersection Summary	
HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

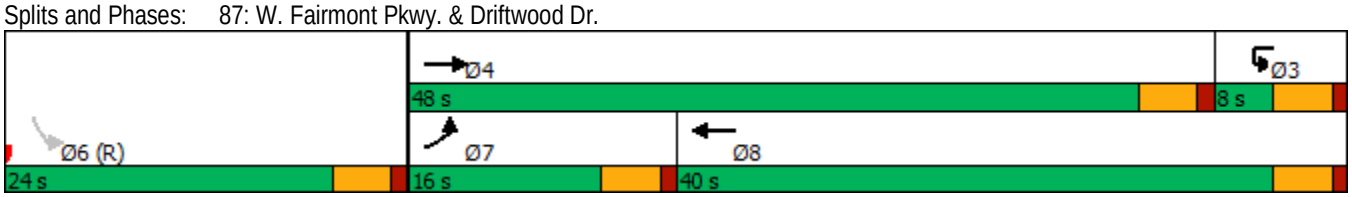
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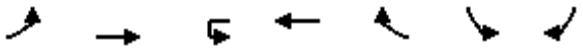
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	79	945	959	104	
Future Volume (vph)	79	945	959	104	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	16.0	48.0	40.0	24.0	8.0
Total Split (%)	20.0%	60.0%	50.0%	30.0%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lead	Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	8.9	43.0	31.7	28.0	
Actuated g/C Ratio	0.11	0.54	0.40	0.35	
v/c Ratio	0.42	0.52	0.76	0.22	
Control Delay	41.0	3.5	13.3	10.3	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	41.0	3.5	13.3	10.3	
LOS	D	A	B	B	
Approach Delay		6.4	13.3	10.3	
Approach LOS		A	B	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





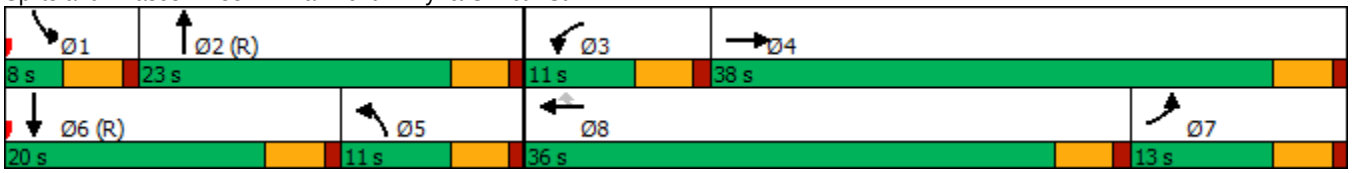
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	79	945	0	959	51	104	149
Future Volume (vph)	79	945	0	959	51	104	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.91	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3445		3166	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3445		3166	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	81	974	0	989	53	107	154
RTOR Reduction (vph)	0	0	0	5	0	102	0
Lane Group Flow (vph)	81	974	0	1037	0	159	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	7.7	43.9		31.7		27.1	
Effective Green, g (s)	7.7	43.9		31.7		27.1	
Actuated g/C Ratio	0.10	0.55		0.40		0.34	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	167	1904		1365		1072	
v/s Ratio Prot	0.05	c0.28		c0.30			
v/s Ratio Perm						c0.05	
v/c Ratio	0.49	0.51		0.76		0.15	
Uniform Delay, d1	34.3	11.3		20.9		18.4	
Progression Factor	1.24	0.30		0.51		1.00	
Incremental Delay, d2	0.2	0.0		1.7		0.3	
Delay (s)	42.7	3.4		12.4		18.7	
Level of Service	D	A		B		B	
Approach Delay (s)		6.4		12.4		18.7	
Approach LOS		A		B		B	

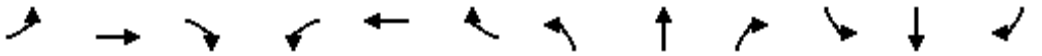
Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	75	824	48	960	78	58	15	16	15
Future Volume (vph)	75	824	48	960	78	58	15	16	15
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	38.0	11.0	36.0	36.0	11.0	23.0	8.0	20.0
Total Split (%)	16.3%	47.5%	13.8%	45.0%	45.0%	13.8%	28.8%	10.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.7	33.0	6.3	29.3	29.3	6.3	29.8	4.3	24.8
Actuated g/C Ratio	0.10	0.41	0.08	0.37	0.37	0.08	0.37	0.05	0.31
v/c Ratio	0.47	0.68	0.36	0.79	0.12	0.44	0.04	0.18	0.04
Control Delay	21.9	7.9	42.8	27.4	0.3	45.6	12.2	41.7	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	7.9	42.8	27.4	0.3	45.6	12.2	41.7	15.3
LOS	C	A	D	C	A	D	B	D	B
Approach Delay		8.9		26.1			31.9		23.0
Approach LOS		A		C			C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 18.6	Intersection LOS: B
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	824	104	48	960	78	58	15	25	16	15	24
Future Volume (veh/h)	75	824	104	48	960	78	58	15	25	16	15	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	78	858	108	50	1000	81	60	16	26	17	16	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	100	1142	144	63	1204	537	316	629	562	24	339	302
Arrive On Green	0.06	0.37	0.37	0.04	0.34	0.34	0.18	0.36	0.36	0.01	0.19	0.19
Sat Flow, veh/h	1753	3125	393	1753	3497	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	78	480	486	50	1000	81	60	16	26	17	16	25
Grp Sat Flow(s),veh/h/ln	1753	1749	1770	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	3.5	19.2	19.2	2.3	21.0	2.3	2.3	0.5	0.9	0.8	0.6	1.1
Cycle Q Clear(g_c), s	3.5	19.2	19.2	2.3	21.0	2.3	2.3	0.5	0.9	0.8	0.6	1.1
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	639	647	63	1204	537	316	629	562	24	339	302
V/C Ratio(X)	0.78	0.75	0.75	0.80	0.83	0.15	0.19	0.03	0.05	0.70	0.05	0.08
Avail Cap(c_a), veh/h	186	732	741	142	1377	614	316	629	562	77	339	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	22.2	22.2	38.3	24.1	11.8	27.8	16.5	16.7	39.3	26.2	26.4
Incr Delay (d2), s/veh	6.2	1.8	1.8	19.8	4.0	0.1	0.3	0.1	0.2	31.1	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.7	7.8	1.3	8.8	1.0	1.0	0.2	0.3	0.5	0.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	24.1	24.0	58.0	28.1	12.0	28.1	16.6	16.8	70.4	26.5	27.0
LnGrp LOS	D	C	C	E	C	B	C	B	B	E	C	C
Approach Vol, veh/h		1044			1131			102			58	
Approach Delay, s/veh		25.5			28.2			23.4			39.6	
Approach LOS		C			C			C			D	

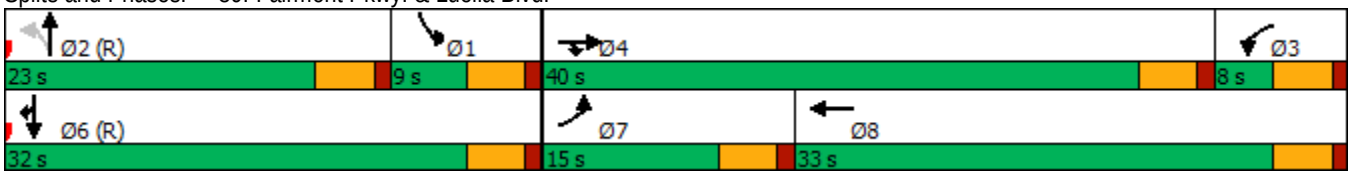
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	33.3	7.4	33.7	18.9	20.0	9.1	32.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	18.5	6.5	33.5	6.5	15.5	8.5	31.5
Max Q Clear Time (g_c+I1), s	2.8	2.9	4.3	21.2	4.3	3.1	5.5	23.0
Green Ext Time (p_c), s	0.0	0.1	0.0	5.0	0.0	0.1	0.0	4.5

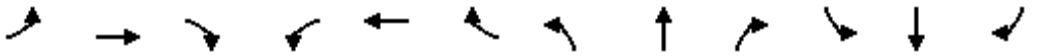
Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBR
Lane Configurations									
Traffic Volume (vph)	93	683	3	4	645	1	0	36	82
Future Volume (vph)	93	683	3	4	645	1	0	36	82
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	Prot
Protected Phases	7	4	4	3	8		2	1	6
Permitted Phases						2			
Detector Phase	7	4	4	3	8	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	15.0	40.0	40.0	8.0	33.0	23.0	23.0	9.0	32.0
Total Split (%)	18.8%	50.0%	50.0%	10.0%	41.3%	28.8%	28.8%	11.3%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.1	33.0	33.0	6.1	24.1		30.0	4.5	35.4
Actuated g/C Ratio	0.11	0.41	0.41	0.08	0.30		0.38	0.06	0.44
v/c Ratio	0.52	0.52	0.00	0.03	0.74		0.00	0.40	0.10
Control Delay	27.0	10.4	0.0	24.2	19.1		0.0	43.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	27.0	10.4	0.0	24.2	19.1		0.0	43.8	0.9
LOS	C	B	A	C	B		A	D	A
Approach Delay		12.4			19.1				
Approach LOS		B			B				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 18 (23%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 45.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	683	3	4	645	62	1	0	1	36	0	82
Future Volume (veh/h)	93	683	3	4	645	62	1	0	1	36	0	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	101	742	3	4	701	67	1	0	1	39	0	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	128	921	411	142	876	84	213	21	167	349	896	759
Arrive On Green	0.15	0.53	0.53	0.08	0.27	0.27	0.23	0.00	0.23	0.20	0.00	0.49
Sat Flow, veh/h	1753	3497	1560	1753	3226	308	629	91	720	1753	1841	1560
Grp Volume(v), veh/h	101	742	3	4	380	388	2	0	0	39	0	89
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1785	1441	0	0	1753	1841	1560
Q Serve(g_s), s	4.4	13.9	0.1	0.2	16.2	16.2	0.0	0.0	0.0	1.5	0.0	2.5
Cycle Q Clear(g_c), s	4.4	13.9	0.1	0.2	16.2	16.2	0.1	0.0	0.0	1.5	0.0	2.5
Prop In Lane	1.00		1.00	1.00		0.17	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	128	921	411	142	475	485	401	0	0	349	896	759
V/C Ratio(X)	0.79	0.81	0.01	0.03	0.80	0.80	0.00	0.00	0.00	0.11	0.00	0.12
Avail Cap(c_a), veh/h	230	1552	692	142	623	636	401	0	0	349	896	759
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.61	0.61	0.61	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.6	17.2	14.0	33.9	27.1	27.1	23.7	0.0	0.0	26.2	0.0	11.2
Incr Delay (d2), s/veh	8.1	1.3	0.0	0.0	3.5	3.4	0.0	0.0	0.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.9	0.0	0.1	6.9	7.1	0.0	0.0	0.0	0.6	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	18.6	14.0	33.9	30.6	30.5	23.7	0.0	0.0	26.4	0.0	11.5
LnGrp LOS	D	B	B	C	C	C	C	A	A	C	A	B
Approach Vol, veh/h		846			772			2			128	
Approach Delay, s/veh		21.3			30.6			23.7			16.0	
Approach LOS		C			C			C			B	

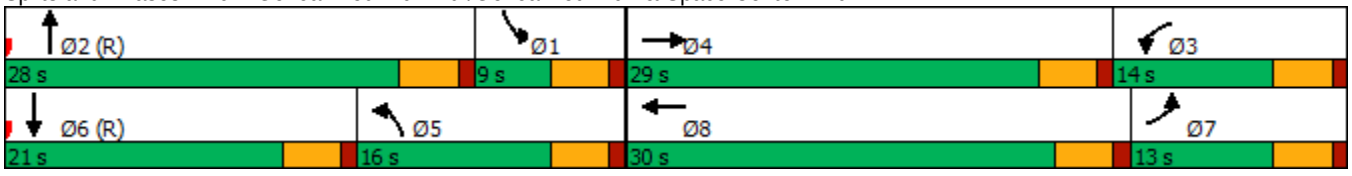
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	20.4	23.0	11.0	25.6		43.4	10.3	26.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.5	18.5	3.5	35.5		27.5	10.5	28.5				
Max Q Clear Time (g_c+I1), s	3.5	2.1	2.2	15.9		4.5	6.4	18.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.1		0.2	0.1	3.5				

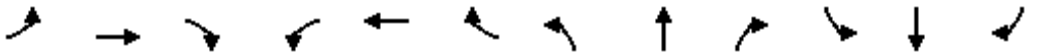
Intersection Summary												
HCM 6th Ctrl Delay			25.0									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	68	805	201	632	247	619	70	457
Future Volume (vph)	68	805	201	632	247	619	70	457
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	29.0	14.0	30.0	16.0	28.0	9.0	21.0
Total Split (%)	16.3%	36.3%	17.5%	37.5%	20.0%	35.0%	11.3%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.4	24.5	9.5	26.6	11.5	25.3	4.5	16.5
Actuated g/C Ratio	0.12	0.31	0.12	0.33	0.14	0.32	0.06	0.21
v/c Ratio	0.36	1.10	1.05	0.63	1.07	0.87	0.77	0.90
Control Delay	39.4	87.3	109.2	12.0	112.4	34.8	78.6	36.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	87.3	109.2	12.0	112.4	34.8	78.6	36.9
LOS	D	F	F	B	F	C	E	D
Approach Delay		84.5		34.5		51.5		41.2
Approach LOS		F		C		D		D

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 70 (88%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 55.7	Intersection LOS: E
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	805	285	201	632	37	247	619	280	70	457	154
Future Volume (veh/h)	68	805	285	201	632	37	247	619	280	70	457	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	73	866	306	216	680	40	266	666	301	75	491	166
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	305	776	274	208	843	50	252	688	311	99	530	178
Arrive On Green	0.17	0.31	0.31	0.12	0.25	0.25	0.14	0.29	0.29	0.11	0.41	0.41
Sat Flow, veh/h	1753	2535	894	1753	3357	197	1753	2341	1058	1753	2570	864
Grp Volume(v), veh/h	73	597	575	216	354	366	266	497	470	75	333	324
Grp Sat Flow(s),veh/h/ln	1753	1749	1680	1753	1749	1805	1753	1749	1650	1753	1749	1685
Q Serve(g_s), s	2.9	24.5	24.5	9.5	15.2	15.2	11.5	22.5	22.5	3.3	14.5	14.7
Cycle Q Clear(g_c), s	2.9	24.5	24.5	9.5	15.2	15.2	11.5	22.5	22.5	3.3	14.5	14.7
Prop In Lane	1.00		0.53	1.00		0.11	1.00		0.64	1.00		0.51
Lane Grp Cap(c), veh/h	305	536	514	208	439	453	252	514	485	99	361	348
V/C Ratio(X)	0.24	1.11	1.12	1.04	0.81	0.81	1.06	0.97	0.97	0.76	0.92	0.93
Avail Cap(c_a), veh/h	305	536	514	208	557	575	252	514	485	99	361	348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	28.5	27.7	27.8	35.2	28.1	28.1	34.3	27.9	27.9	35.0	22.9	23.0
Incr Delay (d2), s/veh	0.4	74.1	76.3	71.6	6.6	6.5	72.1	32.6	33.8	26.9	30.0	32.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	20.7	20.2	8.1	6.9	7.1	9.8	13.6	12.9	2.1	7.2	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	101.9	104.0	106.9	34.7	34.6	106.3	60.5	61.6	61.9	52.9	55.1
LnGrp LOS	C	F	F	F	C	C	F	E	E	E	D	E
Approach Vol, veh/h		1245			936			1233			732	
Approach Delay, s/veh		98.6			51.3			70.8			54.8	
Approach LOS		F			D			E			D	

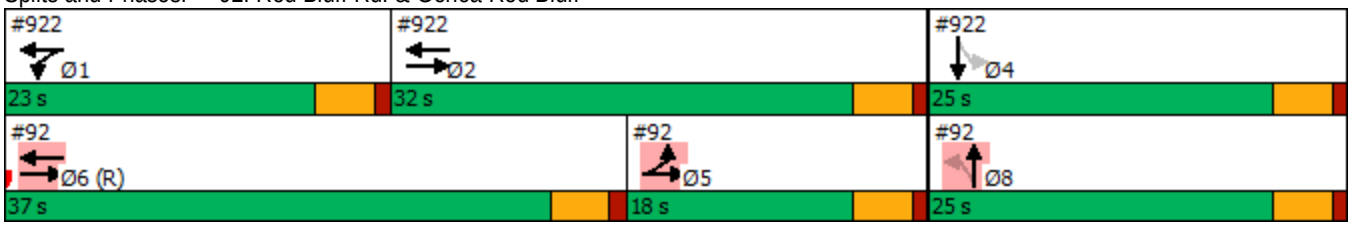
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	28.0	14.0	29.0	16.0	21.0	18.4	24.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	23.5	9.5	24.5	11.5	16.5	8.5	25.5
Max Q Clear Time (g_c+I1), s	5.3	24.5	11.5	26.5	13.5	16.7	4.9	17.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8

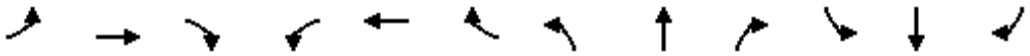
Intersection Summary	
HCM 6th Ctrl Delay	71.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	132	745	605	225	426	0			
Future Volume (vph)	132	745	605	225	426	0			
Turn Type	Prot	NA	NA	Perm	NA				
Protected Phases	5	5 6	6		8		1	2	4
Permitted Phases				8					
Detector Phase	5	5 6	6	8	8				
Switch Phase									
Minimum Initial (s)	3.5		5.0	5.0	5.0		3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0		8.0	20.0	20.0
Total Split (s)	18.0		37.0	25.0	25.0		23.0	32.0	25.0
Total Split (%)	22.5%		46.3%	31.3%	31.3%		29%	40%	31%
Yellow Time (s)	3.5		3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0				
Total Lost Time (s)	4.5		4.5	4.5	4.5				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None		C-Max	None	None		None	None	None
Act Effct Green (s)	12.2	53.7	36.9	17.3	17.3	0.0			
Actuated g/C Ratio	0.15	0.67	0.46	0.22	0.22	0.00			
v/c Ratio	0.53	0.34	0.28	0.64	0.57	0.01			
Control Delay	23.1	2.5	19.2	36.0	23.7	0.0			
Queue Delay	0.3	0.2	0.0	0.0	0.0	0.0			
Total Delay	23.4	2.7	19.2	36.0	23.7	0.0			
LOS	C	A	B	D	C	A			
Approach Delay		5.8	19.2		27.0				
Approach LOS		A	B		C				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 22 (28%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 56.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





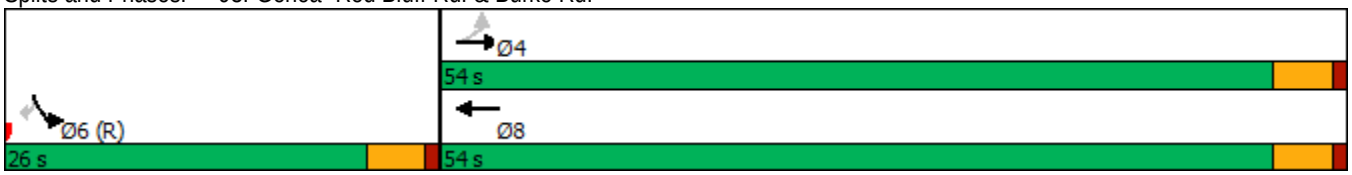
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	745	0	0	605	8	225	426	183	0	0	2
Future Volume (vph)	132	745	0	0	605	8	225	426	183	0	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5			4.0	
Lane Util. Factor	1.00	0.95			0.91		1.00	0.91			1.00	
Frt	1.00	1.00			1.00		1.00	0.95			0.85	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3471			4977		1736	4762			0	
Flt Permitted	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1736	3471			4977		1736	4762			0	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	140	793	0	0	644	9	239	453	195	0	0	2
RTOR Reduction (vph)	0	0	0	0	2	0	0	103	0	0	2	0
Lane Group Flow (vph)	140	793	0	0	651	0	239	545	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	5 6			6			8				
Permitted Phases							8					
Actuated Green, G (s)	12.3	53.7			36.9		17.3	17.3			0.0	
Effective Green, g (s)	12.3	53.7			36.9		17.3	17.3			0.0	
Actuated g/C Ratio	0.15	0.67			0.46		0.22	0.22			0.00	
Clearance Time (s)	4.5				4.5		4.5	4.5				
Vehicle Extension (s)	3.0				3.0		3.0	3.0				
Lane Grp Cap (vph)	266	2329			2295		375	1029			0	
v/s Ratio Prot	c0.08	c0.23			0.13			0.11				
v/s Ratio Perm							c0.14					
v/c Ratio	0.53	0.34			0.28		0.64	0.53			0.00	
Uniform Delay, d1	31.2	5.6			13.4		28.5	27.8			40.0	
Progression Factor	0.52	0.34			1.32		1.00	1.00			1.00	
Incremental Delay, d2	1.7	0.1			0.2		3.5	0.5			0.0	
Delay (s)	18.0	2.0			17.9		32.0	28.2			40.0	
Level of Service	B	A			B		C	C			D	
Approach Delay (s)		4.4			17.9			29.3			40.0	
Approach LOS		A			B			C			D	

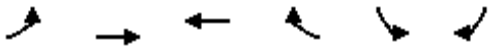
Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	300	466	373	303	183
Future Volume (vph)	300	466	373	303	183
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	54.0	54.0	54.0	26.0	26.0
Total Split (%)	67.5%	67.5%	67.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	44.7	44.7	44.7	26.3	26.3
Actuated g/C Ratio	0.56	0.56	0.56	0.33	0.33
v/c Ratio	0.92	0.26	0.35	0.58	0.31
Control Delay	42.5	6.9	1.1	21.9	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	6.9	1.1	21.9	3.2
LOS	D	A	A	C	A
Approach Delay		20.9	1.1	14.9	
Approach LOS		C	A	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	300	466	373	253	303	183
Future Volume (veh/h)	300	466	373	253	303	183
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	330	512	410	278	333	201
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	444	2046	1172	787	530	472
Arrive On Green	0.58	0.58	0.58	0.58	0.30	0.30
Sat Flow, veh/h	743	3589	2095	1345	1753	1560
Grp Volume(v), veh/h	330	512	357	331	333	201
Grp Sat Flow(s),veh/h/ln	743	1749	1749	1599	1753	1560
Q Serve(g_s), s	33.5	5.7	8.5	8.7	13.1	8.3
Cycle Q Clear(g_c), s	42.1	5.7	8.5	8.7	13.1	8.3
Prop In Lane	1.00			0.84	1.00	1.00
Lane Grp Cap(c), veh/h	444	2046	1023	935	530	472
V/C Ratio(X)	0.74	0.25	0.35	0.35	0.63	0.43
Avail Cap(c_a), veh/h	469	2164	1082	989	530	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.82	0.82
Uniform Delay (d), s/veh	19.7	8.1	8.7	8.7	24.0	22.3
Incr Delay (d2), s/veh	6.0	0.1	0.2	0.2	4.6	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	1.9	2.9	2.7	5.9	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.7	8.1	8.9	8.9	28.6	24.6
LnGrp LOS	C	A	A	A	C	C
Approach Vol, veh/h		842	688		534	
Approach Delay, s/veh		15.0	8.9		27.1	
Approach LOS		B	A		C	

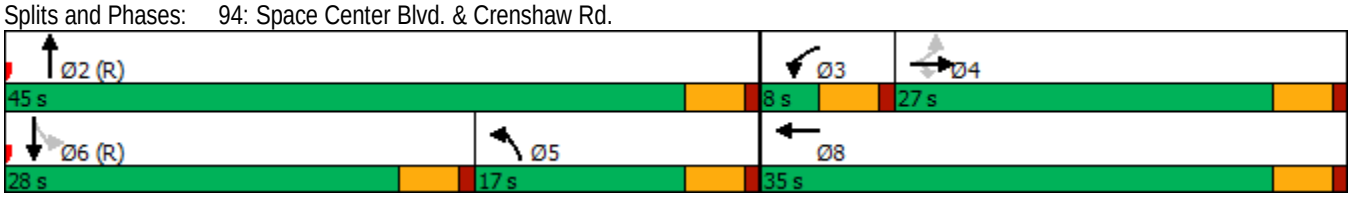
Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	51.3	28.7	51.3
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	49.5	21.5	49.5
Max Q Clear Time (g_c+I1), s	44.1	15.1	10.7
Green Ext Time (p_c), s	2.7	1.0	5.1

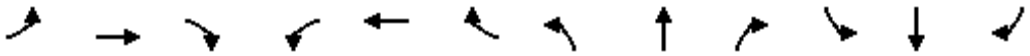
Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	157	85	111	15	81	113	502	80	414
Future Volume (vph)	157	85	111	15	81	113	502	80	414
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA
Protected Phases		4		3	8	5	2		6
Permitted Phases	4		4					6	
Detector Phase	4	4	4	3	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	27.0	8.0	35.0	17.0	45.0	28.0	28.0
Total Split (%)	33.8%	33.8%	33.8%	10.0%	43.8%	21.3%	56.3%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead		Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	17.3	17.3	17.3	3.5	18.9	11.4	52.1	38.5	38.5
Actuated g/C Ratio	0.22	0.22	0.22	0.04	0.24	0.14	0.65	0.48	0.48
v/c Ratio	0.73	0.24	0.28	0.23	0.27	0.52	0.26	0.25	0.41
Control Delay	46.5	25.7	5.0	44.3	9.7	16.5	1.8	12.3	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	25.7	5.0	44.3	9.7	16.5	1.8	12.3	7.6
LOS	D	C	A	D	A	B	A	B	A
Approach Delay		28.4			12.0		4.4		8.2
Approach LOS		C			B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 23 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	85	111	15	81	123	113	502	23	80	414	190
Future Volume (veh/h)	157	85	111	15	81	123	113	502	23	80	414	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	176	96	125	17	91	138	127	564	26	90	465	213
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	303	349	296	24	454	405	487	2137	98	329	686	312
Arrive On Green	0.19	0.19	0.19	0.01	0.26	0.26	0.56	1.00	1.00	0.29	0.29	0.29
Sat Flow, veh/h	1133	1841	1560	1753	1749	1560	1753	3404	157	813	2336	1062
Grp Volume(v), veh/h	176	96	125	17	91	138	127	289	301	90	347	331
Grp Sat Flow(s),veh/h/ln	1133	1841	1560	1753	1749	1560	1753	1749	1813	813	1749	1650
Q Serve(g_s), s	11.9	3.6	2.9	0.8	3.3	5.7	3.0	0.0	0.0	7.0	14.0	14.2
Cycle Q Clear(g_c), s	12.1	3.6	2.9	0.8	3.3	5.7	3.0	0.0	0.0	7.0	14.0	14.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.64
Lane Grp Cap(c), veh/h	303	349	296	24	454	405	487	1098	1138	329	514	485
V/C Ratio(X)	0.58	0.27	0.42	0.70	0.20	0.34	0.26	0.26	0.26	0.27	0.68	0.68
Avail Cap(c_a), veh/h	407	518	439	77	667	595	487	1098	1138	329	514	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.44	0.44	0.44	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	27.7	7.7	39.3	23.1	24.0	13.5	0.0	0.0	22.4	24.9	25.0
Incr Delay (d2), s/veh	1.8	0.4	1.0	31.1	0.2	0.5	0.1	0.3	0.2	2.0	7.0	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.6	2.0	0.5	1.3	2.1	1.1	0.1	0.1	1.5	6.5	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	28.1	8.6	70.4	23.3	24.5	13.6	0.3	0.2	24.5	31.9	32.5
LnGrp LOS	C	C	A	E	C	C	B	A	A	C	C	C
Approach Vol, veh/h		397			246			717			768	
Approach Delay, s/veh		24.1			27.3			2.6			31.3	
Approach LOS		C			C			A			C	

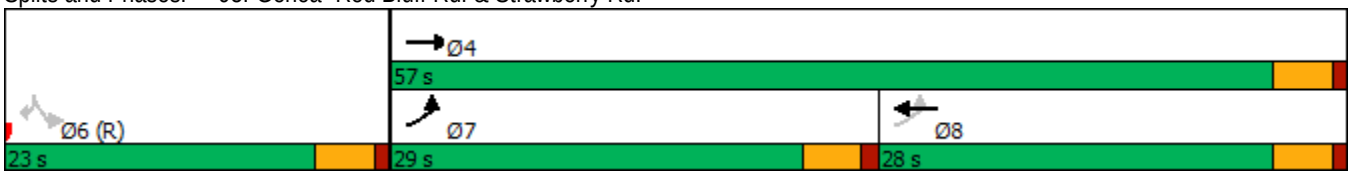
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		54.7	5.6	19.7	26.7	28.0		25.3				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		40.5	3.5	22.5	12.5	23.5		30.5				
Max Q Clear Time (g_c+I1), s		2.0	2.8	14.1	5.0	16.2		7.7				
Green Ext Time (p_c), s		4.0	0.0	1.1	0.2	2.9		1.3				

Intersection Summary												
HCM 6th Ctrl Delay			19.8									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	391	798	570	177	262
Future Volume (vph)	391	798	570	177	262
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	29.0	57.0	28.0	23.0	23.0
Total Split (%)	36.3%	71.3%	35.0%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	41.4	45.9	22.5	25.1	25.1
Actuated g/C Ratio	0.52	0.57	0.28	0.31	0.31
v/c Ratio	0.80	0.41	0.78	0.33	0.40
Control Delay	23.9	5.2	23.8	32.1	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	5.2	23.8	32.1	15.0
LOS	C	A	C	C	B
Approach Delay		11.3	23.8	21.9	
Approach LOS		B	C	C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 69 (86%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

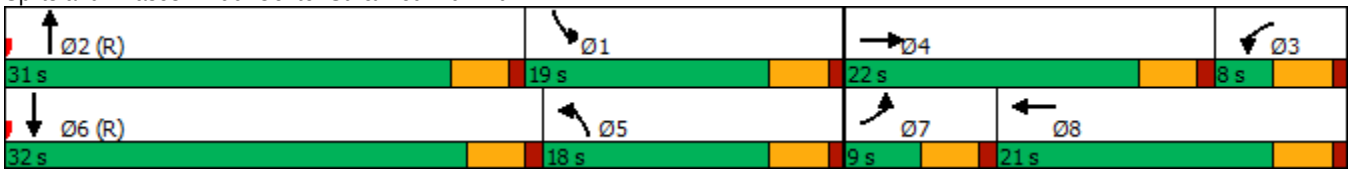
Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.

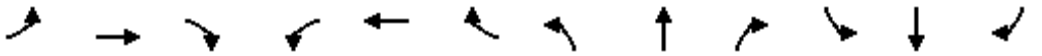


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	45	419	3	345	131	720	190	571
Future Volume (vph)	45	419	3	345	131	720	190	571
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	22.0	8.0	21.0	18.0	31.0	19.0	32.0
Total Split (%)	11.3%	27.5%	10.0%	26.3%	22.5%	38.8%	23.8%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	20.0	4.2	16.2	12.2	31.7	13.2	32.7
Actuated g/C Ratio	0.06	0.25	0.05	0.20	0.15	0.40	0.16	0.41
v/c Ratio	0.47	0.69	0.03	0.81	0.56	0.59	0.74	0.45
Control Delay	55.3	26.3	37.7	29.7	28.8	11.8	41.3	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	26.3	37.7	29.7	28.8	11.8	41.3	11.6
LOS	E	C	D	C	C	B	D	B
Approach Delay		28.5		29.8		14.4		19.0
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 37 (46%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	419	118	3	345	244	131	720	6	190	571	0
Future Volume (veh/h)	45	419	118	3	345	244	131	720	6	190	571	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	51	471	133	3	388	274	147	809	7	213	642	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	64	550	154	68	406	283	330	1177	10	352	1202	0
Arrive On Green	0.04	0.20	0.20	0.04	0.21	0.21	0.06	0.11	0.11	0.20	0.34	0.00
Sat Flow, veh/h	1753	2697	756	1753	1969	1373	1753	3553	31	1753	3589	0
Grp Volume(v), veh/h	51	304	300	3	344	318	147	398	418	213	642	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1705	1753	1749	1594	1753	1749	1835	1753	1749	0
Q Serve(g_s), s	2.3	13.4	13.6	0.1	15.6	15.8	6.5	17.5	17.5	8.8	11.8	0.0
Cycle Q Clear(g_c), s	2.3	13.4	13.6	0.1	15.6	15.8	6.5	17.5	17.5	8.8	11.8	0.0
Prop In Lane	1.00		0.44	1.00		0.86	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	64	357	348	68	361	329	330	579	608	352	1202	0
V/C Ratio(X)	0.80	0.85	0.86	0.04	0.95	0.97	0.44	0.69	0.69	0.60	0.53	0.00
Avail Cap(c_a), veh/h	99	383	373	77	361	329	330	579	608	352	1202	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.62	0.62	0.62	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.2	30.7	30.8	37.0	31.4	31.5	33.5	31.6	31.6	29.1	21.1	0.0
Incr Delay (d2), s/veh	21.6	16.0	17.5	0.3	35.4	40.8	0.6	4.1	3.9	2.9	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	7.0	7.1	0.1	9.9	9.6	2.9	8.8	9.2	3.9	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	46.7	48.2	37.3	66.8	72.2	34.1	35.8	35.6	32.0	22.8	0.0
LnGrp LOS	E	D	D	D	E	E	C	D	D	C	C	A
Approach Vol, veh/h		655			665			963			855	
Approach Delay, s/veh		48.4			69.3			35.4			25.1	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	31.0	7.6	20.8	19.6	32.0	7.4	21.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	26.5	3.5	17.5	13.5	27.5	4.5	16.5
Max Q Clear Time (g_c+I1), s	10.8	19.5	2.1	15.6	8.5	13.8	4.3	17.8
Green Ext Time (p_c), s	0.2	2.9	0.0	0.7	0.2	3.7	0.0	0.0

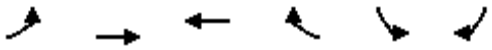
Intersection Summary	
HCM 6th Ctrl Delay	42.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	209	778	588	105	230
Future Volume (vph)	209	778	588	105	230
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	21.0	53.0	32.0	27.0	27.0
Total Split (%)	26.3%	66.3%	40.0%	33.8%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	41.2	41.2	23.2	29.8	29.8
Actuated g/C Ratio	0.52	0.52	0.29	0.37	0.37
v/c Ratio	0.57	0.47	0.73	0.18	0.34
Control Delay	16.6	12.8	15.9	11.2	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.6	12.8	15.9	11.2	2.9
LOS	B	B	B	B	A
Approach Delay		13.6	15.9	5.5	
Approach LOS		B	B	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 51.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	209	778	588	83	105	230
Future Volume (veh/h)	209	778	588	83	105	230
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	227	846	639	90	114	250
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	344	1518	801	113	795	707
Arrive On Green	0.12	0.43	0.26	0.26	0.45	0.45
Sat Flow, veh/h	1753	3589	3171	433	1753	1560
Grp Volume(v), veh/h	227	846	363	366	114	250
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1763	1753	1560
Q Serve(g_s), s	7.1	14.4	15.5	15.5	3.0	8.3
Cycle Q Clear(g_c), s	7.1	14.4	15.5	15.5	3.0	8.3
Prop In Lane	1.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	344	1518	455	459	795	707
V/C Ratio(X)	0.66	0.56	0.80	0.80	0.14	0.35
Avail Cap(c_a), veh/h	499	2120	601	606	795	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	16.9	27.6	27.6	12.8	14.2
Incr Delay (d2), s/veh	2.2	0.3	5.5	5.6	0.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.5	6.9	7.0	1.2	8.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.3	17.2	33.2	33.2	13.2	15.6
LnGrp LOS	C	B	C	C	B	B
Approach Vol, veh/h		1073	729		364	
Approach Delay, s/veh		18.1	33.2		14.8	
Approach LOS		B	C		B	

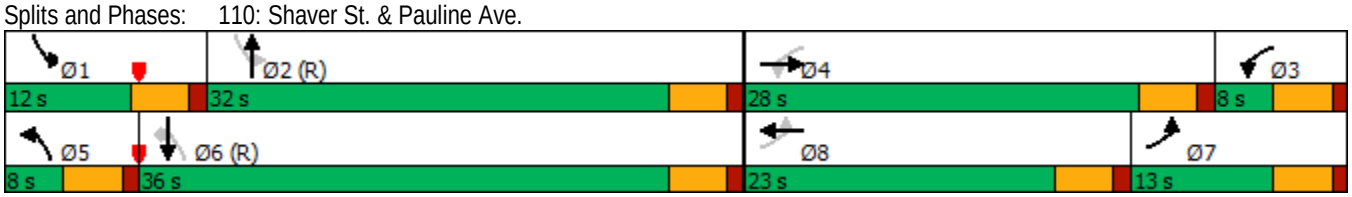
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			39.2		40.8	13.9	25.3
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			48.5		22.5	16.5	27.5
Max Q Clear Time (g_c+I1), s			16.4		10.3	9.1	17.5
Green Ext Time (p_c), s			7.0		1.0	0.4	3.3

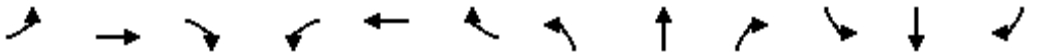
Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	105	81	57	105	35	525	45	489	74
Future Volume (vph)	105	81	57	105	35	525	45	489	74
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	28.0	8.0	23.0	8.0	32.0	12.0	36.0	36.0
Total Split (%)	16.3%	35.0%	10.0%	28.8%	10.0%	40.0%	15.0%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.4	10.2	17.3	12.6	47.4	43.1	47.4	43.6	43.6
Actuated g/C Ratio	0.23	0.13	0.22	0.16	0.59	0.54	0.59	0.54	0.54
v/c Ratio	0.46	0.49	0.20	0.64	0.07	0.33	0.11	0.29	0.09
Control Delay	24.0	19.7	21.7	34.5	3.5	11.9	5.0	6.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	19.7	21.7	34.5	3.5	11.9	5.0	6.1	0.2
LOS	C	B	C	C	A	B	A	A	A
Approach Delay		21.9		31.3		11.4		5.3	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 55.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	81	24	57	105	65	35	525	26	45	489	74
Future Volume (veh/h)	105	81	24	57	105	65	35	525	26	45	489	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	118	91	27	64	118	73	39	590	29	51	549	83
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	131	39	277	149	92	517	1917	94	470	1991	888
Arrive On Green	0.04	0.10	0.10	0.08	0.14	0.14	0.01	0.19	0.19	0.03	0.57	0.57
Sat Flow, veh/h	1753	1363	405	1753	1064	658	1753	3393	167	1753	3497	1560
Grp Volume(v), veh/h	118	0	118	64	0	191	39	304	315	51	549	83
Grp Sat Flow(s),veh/h/ln	1753	0	1768	1753	0	1722	1753	1749	1811	1753	1749	1560
Q Serve(g_s), s	0.0	0.0	5.2	0.0	0.0	8.6	0.7	12.0	12.0	1.0	6.4	1.2
Cycle Q Clear(g_c), s	0.0	0.0	5.2	0.0	0.0	8.6	0.7	12.0	12.0	1.0	6.4	1.2
Prop In Lane	1.00		0.23	1.00		0.38	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	199	0	169	277	0	241	517	988	1023	470	1991	888
V/C Ratio(X)	0.59	0.00	0.70	0.23	0.00	0.79	0.08	0.31	0.31	0.11	0.28	0.09
Avail Cap(c_a), veh/h	314	0	519	277	0	398	549	988	1023	583	1991	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	35.0	32.8	0.0	33.3	7.1	19.0	19.0	7.7	8.8	3.3
Incr Delay (d2), s/veh	2.8	0.0	5.1	0.4	0.0	5.9	0.1	0.8	0.8	0.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	2.4	1.2	0.0	3.9	0.3	5.7	5.9	0.3	2.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	40.1	33.2	0.0	39.2	7.2	19.8	19.8	7.8	9.1	3.5
LnGrp LOS	D	A	D	C	A	D	A	B	B	A	A	A
Approach Vol, veh/h		236			255			658			683	
Approach Delay, s/veh		39.7			37.7			19.1			8.4	
Approach LOS		D			D			B			A	

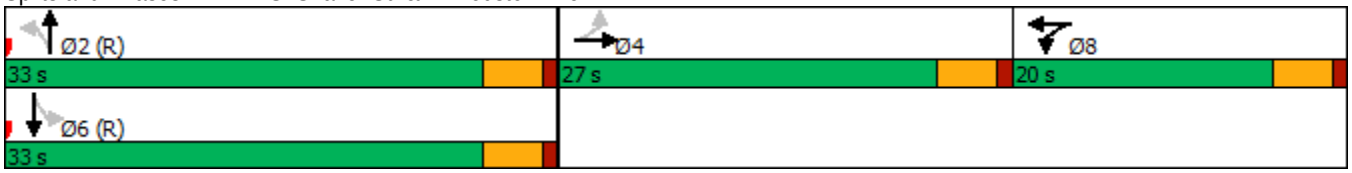
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	49.7	11.3	12.2	6.5	50.0	7.7	15.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	27.5	3.5	23.5	3.5	31.5	8.5	18.5
Max Q Clear Time (g_c+I1), s	3.0	14.0	2.0	7.2	2.7	8.4	2.0	10.6
Green Ext Time (p_c), s	0.0	3.2	0.0	0.5	0.0	4.1	0.1	0.6

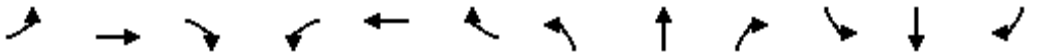
Intersection Summary	
HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	31	20	45	18	5	733	18	471
Future Volume (vph)	31	20	45	18	5	733	18	471
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	20.0	20.0	33.0	33.0	33.0	33.0
Total Split (%)	33.8%	33.8%	25.0%	25.0%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	13.8	13.8	7.7	7.7	52.5	52.5	52.5	52.5
Actuated g/C Ratio	0.17	0.17	0.10	0.10	0.66	0.66	0.66	0.66
v/c Ratio	0.30	0.12	0.29	0.34	0.01	0.38	0.06	0.23
Control Delay	32.4	16.9	37.4	19.6	7.8	8.8	12.5	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	32.4	16.9	37.4	19.6	7.8	8.8	12.5	10.1
LOS	C	B	D	B	A	A	B	B
Approach Delay		24.2		27.0		8.8		10.2
Approach LOS		C		C		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 11.3	Intersection LOS: B
Intersection Capacity Utilization 43.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	20	15	45	18	45	5	733	54	18	471	11
Future Volume (veh/h)	31	20	15	45	18	45	5	733	54	18	471	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	34	22	16	49	20	49	5	805	59	20	518	12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	87	49	36	114	31	75	664	2367	173	414	2504	58
Arrive On Green	0.05	0.05	0.05	0.06	0.06	0.06	0.24	0.24	0.24	0.72	0.72	0.72
Sat Flow, veh/h	1753	991	720	1753	473	1159	860	3304	242	630	3494	81
Grp Volume(v), veh/h	34	0	38	49	0	69	5	426	438	20	259	271
Grp Sat Flow(s),veh/h/ln	1753	0	1711	1753	0	1632	860	1749	1797	630	1749	1826
Q Serve(g_s), s	1.5	0.0	1.7	2.2	0.0	3.3	0.4	16.2	16.2	1.3	3.9	4.0
Cycle Q Clear(g_c), s	1.5	0.0	1.7	2.2	0.0	3.3	4.3	16.2	16.2	17.5	3.9	4.0
Prop In Lane	1.00		0.42	1.00		0.71	1.00		0.13	1.00		0.04
Lane Grp Cap(c), veh/h	87	0	85	114	0	106	664	1253	1288	414	1253	1308
V/C Ratio(X)	0.39	0.00	0.45	0.43	0.00	0.65	0.01	0.34	0.34	0.05	0.21	0.21
Avail Cap(c_a), veh/h	493	0	481	340	0	316	664	1253	1288	414	1253	1308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	0.0	36.9	36.0	0.0	36.5	11.8	14.8	14.8	9.8	3.8	3.8
Incr Delay (d2), s/veh	2.8	0.0	3.6	2.6	0.0	6.6	0.0	0.7	0.6	0.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.8	1.0	0.0	1.5	0.1	7.7	7.9	0.2	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	40.5	38.6	0.0	43.1	11.9	15.5	15.5	10.0	4.1	4.1
LnGrp LOS	D	A	D	D	A	D	B	B	B	A	A	A
Approach Vol, veh/h		72			118			869			550	
Approach Delay, s/veh		40.1			41.2			15.5			4.4	
Approach LOS		D			D			B			A	

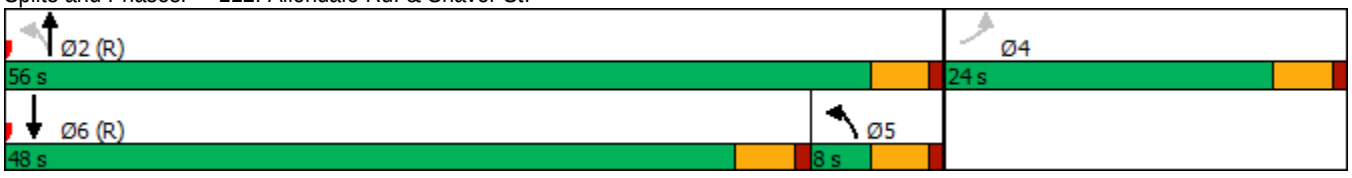
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.8		8.5		61.8		9.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		28.5		22.5		28.5		15.5				
Max Q Clear Time (g_c+I1), s		18.2		3.7		19.5		5.3				
Green Ext Time (p_c), s		4.0		0.2		2.3		0.3				

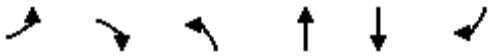
Intersection Summary												
HCM 6th Ctrl Delay			14.7									
HCM 6th LOS			B									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	116	20	981	843
Future Volume (vph)	116	20	981	843
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	24.0	8.0	56.0	48.0
Total Split (%)	30.0%	10.0%	70.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	12.4	58.6	58.6	55.4
Actuated g/C Ratio	0.16	0.73	0.73	0.69
v/c Ratio	0.60	0.06	0.44	0.46
Control Delay	26.4	2.8	3.6	4.5
Queue Delay	0.0	0.0	0.0	0.4
Total Delay	26.4	2.8	3.6	4.9
LOS	C	A	A	A
Approach Delay	26.4		3.6	4.9
Approach LOS	C		A	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 59 (74%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 5.8	Intersection LOS: A
Intersection Capacity Utilization 45.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	116	30	20	981	843	114
Future Volume (vph)	116	30	20	981	843	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.97		1.00	1.00	0.98	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1709		1736	3471	3409	
Flt Permitted	0.96		0.22	1.00	1.00	
Satd. Flow (perm)	1709		404	3471	3409	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	133	34	23	1128	969	131
RTOR Reduction (vph)	13	0	0	0	10	0
Lane Group Flow (vph)	154	0	23	1128	1090	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	12.4		58.6	58.6	52.7	
Effective Green, g (s)	12.4		58.6	58.6	52.7	
Actuated g/C Ratio	0.16		0.73	0.73	0.66	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	264		319	2542	2245	
v/s Ratio Prot			0.00	c0.32	c0.32	
v/s Ratio Perm	c0.09		0.05			
v/c Ratio	0.58		0.07	0.44	0.49	
Uniform Delay, d1	31.4		5.9	4.2	6.8	
Progression Factor	0.61		0.57	0.62	0.57	
Incremental Delay, d2	3.3		0.1	0.6	0.7	
Delay (s)	22.5		3.4	3.2	4.6	
Level of Service	C		A	A	A	
Approach Delay (s)	22.5			3.2	4.6	
Approach LOS	C			A	A	

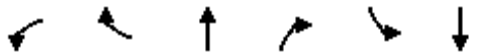
Intersection Summary			
HCM 2000 Control Delay	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	11	518	70	578
Future Volume (vph)	11	518	70	578
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	26.0	54.0	54.0	54.0
Total Split (%)	32.5%	67.5%	67.5%	67.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	63.6		63.6
Actuated g/C Ratio	0.09	0.80		0.80
v/c Ratio	0.53	0.23		0.34
Control Delay	18.9	0.7		2.0
Queue Delay	0.0	0.0		0.0
Total Delay	18.9	0.7		2.0
LOS	B	A		A
Approach Delay	18.9	0.7		2.0
Approach LOS	B	A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 50 (63%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 3.0	Intersection LOS: A
Intersection Capacity Utilization 54.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	11	106	518	12	70	578
Future Volume (veh/h)	11	106	518	12	70	578
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	13	126	617	14	83	688
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	16	157	2717	62	272	2157
Arrive On Green	0.11	0.11	0.78	0.78	1.00	1.00
Sat Flow, veh/h	147	1420	3588	79	280	2859
Grp Volume(v), veh/h	140	0	308	323	373	398
Grp Sat Flow(s),veh/h/ln	1578	0	1749	1826	1463	1591
Q Serve(g_s), s	6.9	0.0	3.8	3.8	0.0	0.0
Cycle Q Clear(g_c), s	6.9	0.0	3.8	3.8	0.0	0.0
Prop In Lane	0.09	0.90		0.04	0.22	
Lane Grp Cap(c), veh/h	174	0	1359	1420	1192	1237
V/C Ratio(X)	0.80	0.00	0.23	0.23	0.31	0.32
Avail Cap(c_a), veh/h	424	0	1359	1420	1192	1237
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.96	0.96
Uniform Delay (d), s/veh	34.7	0.0	2.4	2.4	0.0	0.0
Incr Delay (d2), s/veh	8.4	0.0	0.4	0.4	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.8	0.9	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.1	0.0	2.8	2.8	0.7	0.7
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	140		631			771
Approach Delay, s/veh	43.1		2.8			0.7
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		66.7			66.7	13.3
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		49.5			49.5	21.5
Max Q Clear Time (g_c+I1), s		5.8			2.0	8.9
Green Ext Time (p_c), s		4.2			5.9	0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

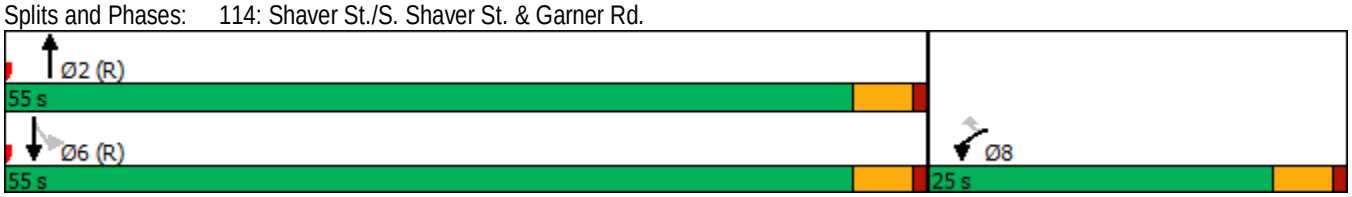
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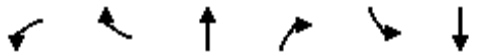
User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	183	164	772	83	617
Future Volume (vph)	183	164	772	83	617
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	25.0	55.0	55.0	55.0
Total Split (%)	31.3%	31.3%	68.8%	68.8%	68.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	14.8	14.8	56.2	56.2	56.2
Actuated g/C Ratio	0.18	0.18	0.70	0.70	0.70
v/c Ratio	0.65	0.44	0.44	0.30	0.29
Control Delay	39.3	9.1	2.9	9.5	5.3
Queue Delay	0.6	0.0	0.1	0.0	0.0
Total Delay	39.9	9.1	3.0	9.5	5.3
LOS	D	A	A	A	A
Approach Delay	25.3		3.0		5.8
Approach LOS	C		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 64 (80%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	183	164	772	138	83	617
Future Volume (veh/h)	183	164	772	138	83	617
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	210	189	887	159	95	709
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	268	239	2176	390	480	2569
Arrive On Green	0.15	0.15	1.00	1.00	0.98	0.98
Sat Flow, veh/h	1753	1560	3055	531	531	3589
Grp Volume(v), veh/h	210	189	523	523	95	709
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1745	531	1749
Q Serve(g_s), s	9.2	9.3	0.0	0.0	0.4	0.5
Cycle Q Clear(g_c), s	9.2	9.3	0.0	0.0	0.4	0.5
Prop In Lane	1.00	1.00		0.30	1.00	
Lane Grp Cap(c), veh/h	268	239	1284	1282	480	2569
V/C Ratio(X)	0.78	0.79	0.41	0.41	0.20	0.28
Avail Cap(c_a), veh/h	449	400	1284	1282	480	2569
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.88	0.88	0.98	0.98
Uniform Delay (d), s/veh	32.6	32.6	0.0	0.0	0.3	0.3
Incr Delay (d2), s/veh	5.0	5.8	0.8	0.8	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	3.8	0.3	0.3	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.6	38.5	0.8	0.8	1.2	0.5
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	399		1046			804
Approach Delay, s/veh	38.0		0.8			0.6
Approach LOS	D		A			A

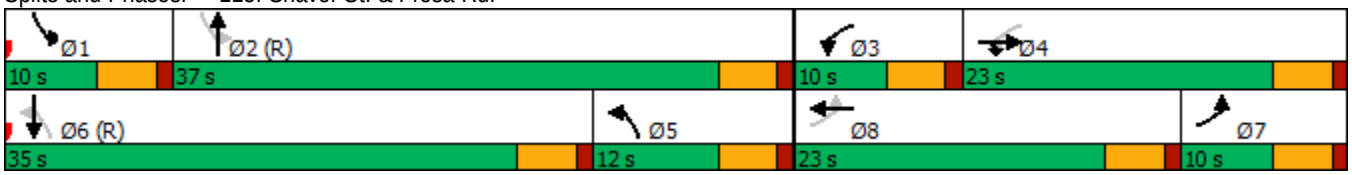
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		63.3			63.3	16.7
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		50.5			50.5	20.5
Max Q Clear Time (g_c+I1), s		2.0			2.5	11.3
Green Ext Time (p_c), s		9.0			7.5	0.9

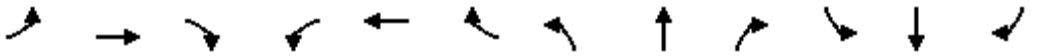
Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	Ø7
Lane Configurations									
Traffic Volume (vph)	26	98	33	44	67	530	41	497	
Future Volume (vph)	26	98	33	44	67	530	41	497	
Turn Type	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA	
Protected Phases	4	4	3	8	5	2	1	6	7
Permitted Phases			4		6		2		
Detector Phase	4	4	3	8	5	2	1	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	9.5
Total Split (s)	23.0	23.0	10.0	23.0	12.0	37.0	10.0	35.0	10.0
Total Split (%)	28.8%	28.8%	12.5%	28.8%	15.0%	46.3%	12.5%	43.8%	13%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	7.1	7.1	10.4	13.1	54.3	51.2	55.2	48.3	
Actuated g/C Ratio	0.09	0.09	0.13	0.16	0.68	0.64	0.69	0.60	
v/c Ratio	0.21	0.37	0.21	0.41	0.14	0.30	0.09	0.29	
Control Delay	36.5	3.4	28.4	16.1	3.4	5.3	5.5	7.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.5	3.4	28.4	16.1	3.4	5.3	5.5	7.9	
LOS	D	A	C	B	A	A	A	A	
Approach Delay	10.4			18.9		5.1		7.7	
Approach LOS	B			B		A		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 60 (75%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 115: Shaver St. & Fresa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	26	98	33	44	68	67	530	22	41	497	1
Future Volume (veh/h)	0	26	98	33	44	68	67	530	22	41	497	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	31	115	39	52	80	79	624	26	48	585	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	0	0	0	0	0	0	0	0	0	0	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Change Period (Y+Rc), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Green Setting (Gmax), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

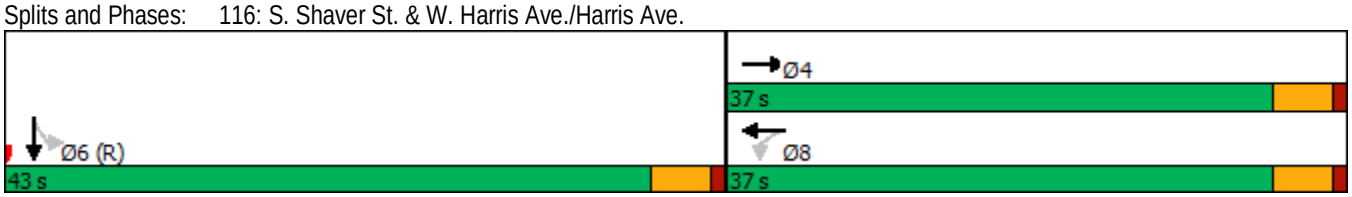
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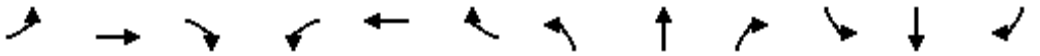
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	206	49	221	549
Future Volume (vph)	206	49	221	549
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	15.6		15.6	55.4
Actuated g/C Ratio	0.20		0.20	0.69
v/c Ratio	0.56		0.73	0.25
Control Delay	20.6		36.1	4.2
Queue Delay	0.0		0.0	0.0
Total Delay	20.6		36.1	4.2
LOS	C		D	A
Approach Delay	20.6		36.1	4.2
Approach LOS	C		D	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 1 (1%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 45.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	206	120	49	221	0	0	0	0	67	549	79
Future Volume (veh/h)	0	206	120	49	221	0	0	0	0	67	549	79
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	254	148	60	273	0				83	678	98
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	467	263	117	515	0				319	2774	411
Arrive On Green	0.00	0.22	0.22	0.07	0.07	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	2248	1215	255	2460	0				476	4134	613
Grp Volume(v), veh/h	0	204	198	162	171	0				317	265	277
Grp Sat Flow(s),veh/h/ln	0	1749	1622	1040	1591	0				1817	1675	1730
Q Serve(g_s), s	0.0	8.3	8.7	4.8	8.3	0.0				11.5	10.4	10.5
Cycle Q Clear(g_c), s	0.0	8.3	8.7	13.5	8.3	0.0				11.5	10.4	10.5
Prop In Lane	0.00		0.75	0.37		0.00				0.26		0.35
Lane Grp Cap(c), veh/h	0	379	351	287	345	0				1219	1124	1161
V/C Ratio(X)	0.00	0.54	0.56	0.56	0.50	0.00				0.26	0.24	0.24
Avail Cap(c_a), veh/h	0	710	659	549	646	0				1219	1124	1161
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.91	0.91	0.00				0.99	0.99	0.99
Uniform Delay (d), s/veh	0.0	27.8	28.0	35.2	32.9	0.0				14.7	14.3	14.3
Incr Delay (d2), s/veh	0.0	1.2	1.4	1.6	1.0	0.0				0.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	3.4	3.5	3.5	0.0				5.5	4.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.0	29.4	36.7	34.0	0.0				15.2	14.8	14.8
LnGrp LOS	A	C	C	D	C	A				B	B	B
Approach Vol, veh/h		402			333						859	
Approach Delay, s/veh		29.2			35.3						15.0	
Approach LOS		C			D						B	

Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				21.8		58.2		21.8				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				32.5		38.5		32.5				
Max Q Clear Time (g_c+I1), s				10.7		13.5		15.5				
Green Ext Time (p_c), s				2.4		5.5		1.8				

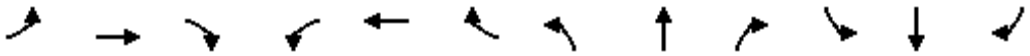
Intersection Summary												
HCM 6th Ctrl Delay			22.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	46	219	155	670
Future Volume (vph)	46	219	155	670
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	34.0	34.0	34.0	46.0
Total Split (%)	42.5%	42.5%	42.5%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		14.1	14.1	56.9
Actuated g/C Ratio		0.18	0.18	0.71
v/c Ratio		0.64	0.42	0.28
Control Delay		36.8	17.5	3.2
Queue Delay		0.0	0.0	0.0
Total Delay		36.8	17.5	3.2
LOS		D	B	A
Approach Delay		36.8	17.5	3.2
Approach LOS		D	B	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 47 (59%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 45.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



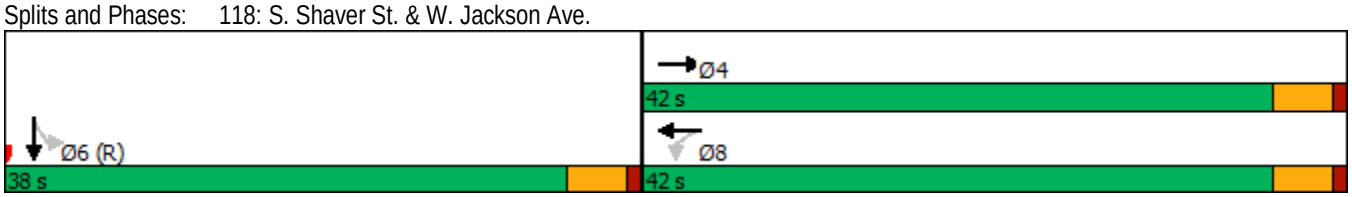


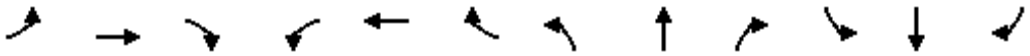
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	219	0	0	155	67	110	670	72	0	0	0
Future Volume (veh/h)	46	219	0	0	155	67	110	670	72	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	53	252	0	0	178	77	126	770	83			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	112	441	0	0	410	170	456	2976	329			
Arrive On Green	0.06	0.06	0.00	0.00	0.17	0.17	0.24	0.24	0.24			
Sat Flow, veh/h	303	2676	0	0	2500	1001	635	4149	458			
Grp Volume(v), veh/h	156	149	0	0	127	128	359	302	318			
Grp Sat Flow(s),veh/h/ln	1304	1591	0	0	1749	1660	1809	1675	1758			
Q Serve(g_s), s	4.5	7.3	0.0	0.0	5.2	5.5	13.0	11.7	11.8			
Cycle Q Clear(g_c), s	10.0	7.3	0.0	0.0	5.2	5.5	13.0	11.7	11.8			
Prop In Lane	0.34		0.00	0.00		0.60	0.35		0.26			
Lane Grp Cap(c), veh/h	282	271	0	0	298	283	1298	1202	1261			
V/C Ratio(X)	0.55	0.55	0.00	0.00	0.43	0.45	0.28	0.25	0.25			
Avail Cap(c_a), veh/h	581	587	0	0	645	612	1298	1202	1261			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.81	0.81	0.00	0.00	0.72	0.72	0.95	0.95	0.95			
Uniform Delay (d), s/veh	36.0	34.8	0.0	0.0	29.7	29.8	13.6	13.1	13.1			
Incr Delay (d2), s/veh	1.4	1.4	0.0	0.0	0.7	0.8	0.5	0.5	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.3	3.1	0.0	0.0	2.2	2.2	6.3	5.2	5.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	36.2	0.0	0.0	30.4	30.7	14.1	13.6	13.6			
LnGrp LOS	D	D	A	A	C	C	B	B	B			
Approach Vol, veh/h		305			255			979				
Approach Delay, s/veh		36.8			30.5			13.8				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		61.9		18.1				18.1				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		41.5		29.5				29.5				
Max Q Clear Time (g_c+I1), s		15.0		12.0				7.5				
Green Ext Time (p_c), s		6.5		1.6				1.4				
Intersection Summary												
HCM 6th Ctrl Delay			21.1									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	142	43	325	434
Future Volume (vph)	142	43	325	434
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	38.0
Total Split (%)	52.5%	52.5%	52.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	17.2		17.2	53.8
Actuated g/C Ratio	0.22		0.22	0.67
v/c Ratio	0.38		0.67	0.20
Control Delay	15.0		22.9	5.4
Queue Delay	0.0		0.0	0.0
Total Delay	15.0		22.9	5.4
LOS	B		C	A
Approach Delay	15.0		22.9	5.4
Approach LOS	B		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 44.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	142	118	43	325	0	0	0	0	97	434	49
Future Volume (veh/h)	0	142	118	43	325	0	0	0	0	97	434	49
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	158	131	48	361	0				108	482	54
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	377	292	99	571	0				567	2716	309
Arrive On Green	0.00	0.20	0.20	0.07	0.07	0.00				0.69	0.69	0.69
Sat Flow, veh/h	0	1967	1453	218	2920	0				826	3957	451
Grp Volume(v), veh/h	0	147	142	212	197	0				235	198	211
Grp Sat Flow(s),veh/h/ln	0	1749	1579	1463	1591	0				1799	1675	1760
Q Serve(g_s), s	0.0	5.8	6.3	5.4	9.7	0.0				3.8	3.4	3.4
Cycle Q Clear(g_c), s	0.0	5.8	6.3	11.7	9.7	0.0				3.8	3.4	3.4
Prop In Lane	0.00		0.92	0.23		0.00				0.46		0.26
Lane Grp Cap(c), veh/h	0	352	318	350	320	0				1235	1149	1207
V/C Ratio(X)	0.00	0.42	0.45	0.60	0.62	0.00				0.19	0.17	0.17
Avail Cap(c_a), veh/h	0	820	740	773	746	0				1235	1149	1207
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.77	0.77	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	27.9	28.0	35.1	34.3	0.0				4.5	4.5	4.5
Incr Delay (d2), s/veh	0.0	0.8	1.0	1.3	1.5	0.0				0.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	2.4	4.5	4.1	0.0				1.2	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.6	29.0	36.4	35.8	0.0				4.9	4.8	4.8
LnGrp LOS	A	C	C	D	D	A				A	A	A
Approach Vol, veh/h		289			409						644	
Approach Delay, s/veh		28.8			36.1						4.8	
Approach LOS		C			D						A	

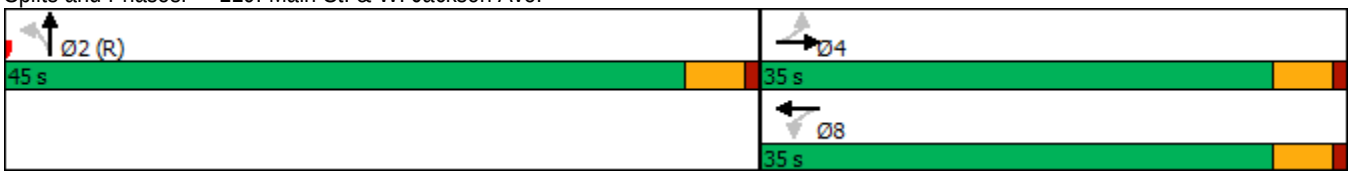
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				20.6		59.4		20.6				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				37.5		33.5		37.5				
Max Q Clear Time (g_c+I1), s				8.3		5.8		13.7				
Green Ext Time (p_c), s				1.7		4.0		2.4				

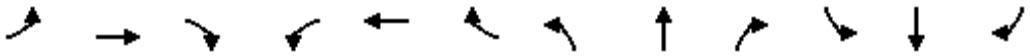
Intersection Summary												
HCM 6th Ctrl Delay			19.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Configurations					
Traffic Volume (vph)	63	185	1	235	631
Future Volume (vph)	63	185	1	235	631
Turn Type	Perm	NA	Perm	NA	NA
Protected Phases		4		8	2
Permitted Phases	4		8		
Detector Phase	4	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	35.0	35.0	35.0	35.0	45.0
Total Split (%)	43.8%	43.8%	43.8%	43.8%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)		13.6		13.6	57.4
Actuated g/C Ratio		0.17		0.17	0.72
v/c Ratio		0.69		0.60	0.24
Control Delay		44.0		28.3	2.3
Queue Delay		0.0		0.0	0.0
Total Delay		44.0		28.3	2.3
LOS		D		C	A
Approach Delay		44.0		28.3	2.3
Approach LOS		D		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 46.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



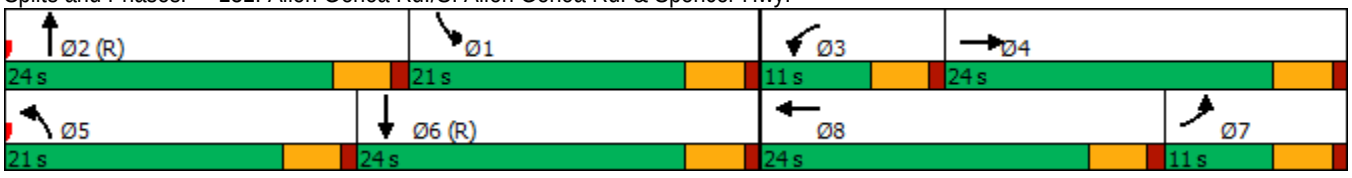


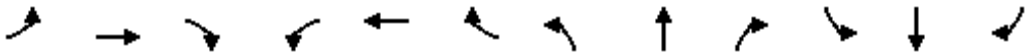
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	185	0	1	235	83	132	631	40	0	0	0
Future Volume (veh/h)	63	185	0	1	235	83	132	631	40	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	1841	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	67	197	0	1	250	88	140	671	43			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	4	4	0	4	4	4	4	4	4			
Cap, veh/h	142	423	0	46	498	170	559	2879	188			
Arrive On Green	0.07	0.07	0.00	0.20	0.20	0.20	0.23	0.23	0.23			
Sat Flow, veh/h	369	2209	0	2	2505	854	812	4181	274			
Grp Volume(v), veh/h	127	137	0	182	0	157	311	262	281			
Grp Sat Flow(s),veh/h/ln	902	1591	0	1840	0	1521	1800	1675	1791			
Q Serve(g_s), s	5.2	6.6	0.0	0.0	0.0	7.4	11.3	10.2	10.2			
Cycle Q Clear(g_c), s	12.5	6.6	0.0	7.0	0.0	7.4	11.3	10.2	10.2			
Prop In Lane	0.53		0.00	0.01		0.56	0.45		0.15			
Lane Grp Cap(c), veh/h	248	317	0	411	0	303	1239	1153	1233			
V/C Ratio(X)	0.51	0.43	0.00	0.44	0.00	0.52	0.25	0.23	0.23			
Avail Cap(c_a), veh/h	485	607	0	746	0	580	1239	1153	1233			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.93	0.93	0.00	1.00	0.00	1.00	0.97	0.97	0.97			
Uniform Delay (d), s/veh	36.5	33.0	0.0	28.5	0.0	28.6	14.0	13.6	13.6			
Incr Delay (d2), s/veh	1.5	0.9	0.0	0.8	0.0	1.4	0.5	0.4	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	2.7	0.0	3.1	0.0	2.7	5.3	4.2	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	33.9	0.0	29.2	0.0	30.0	14.5	14.0	14.0			
LnGrp LOS	D	C	A	C	A	C	B	B	B			
Approach Vol, veh/h		264			339			854				
Approach Delay, s/veh		35.9			29.6			14.2				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		59.6		20.4				20.4				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		40.5		30.5				30.5				
Max Q Clear Time (g_c+I1), s		13.3		14.5				9.4				
Green Ext Time (p_c), s		5.5		1.4				2.0				
Intersection Summary												
HCM 6th Ctrl Delay			21.7									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	64	568	54	687	174	413	202	305
Future Volume (vph)	64	568	54	687	174	413	202	305
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	24.0	11.0	24.0	21.0	24.0	21.0	24.0
Total Split (%)	13.8%	30.0%	13.8%	30.0%	26.3%	30.0%	26.3%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.3	19.3	6.3	19.3	13.7	21.9	16.5	24.8
Actuated g/C Ratio	0.08	0.24	0.08	0.24	0.17	0.27	0.21	0.31
v/c Ratio	0.54	0.69	0.45	0.84	0.67	0.54	0.65	0.39
Control Delay	30.9	8.4	52.1	12.8	28.1	18.5	30.8	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	8.4	52.1	12.8	28.1	18.5	30.8	16.0
LOS	C	A	D	B	C	B	C	B
Approach Delay		10.2		15.1		21.3		21.4
Approach LOS		B		B		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 44 (55%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 64.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	568	137	54	687	176	174	413	18	202	305	42
Future Volume (veh/h)	64	568	137	54	687	176	174	413	18	202	305	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	653	157	62	790	202	200	475	21	232	351	48
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	94	960	227	78	910	231	241	832	37	438	1102	149
Arrive On Green	0.11	0.47	0.47	0.09	0.46	0.46	0.14	0.24	0.24	0.25	0.36	0.36
Sat Flow, veh/h	1753	4057	961	1753	3996	1013	1753	3412	151	1753	3094	420
Grp Volume(v), veh/h	74	537	273	62	661	331	200	243	253	232	197	202
Grp Sat Flow(s),veh/h/ln	1753	1675	1668	1753	1675	1658	1753	1749	1814	1753	1749	1765
Q Serve(g_s), s	3.3	10.0	10.2	2.8	14.2	14.5	8.9	9.8	9.8	9.2	6.5	6.7
Cycle Q Clear(g_c), s	3.3	10.0	10.2	2.8	14.2	14.5	8.9	9.8	9.8	9.2	6.5	6.7
Prop In Lane	1.00		0.58	1.00		0.61	1.00		0.08	1.00		0.24
Lane Grp Cap(c), veh/h	94	792	394	78	763	378	241	426	442	438	623	629
V/C Ratio(X)	0.79	0.68	0.69	0.79	0.87	0.88	0.83	0.57	0.57	0.53	0.32	0.32
Avail Cap(c_a), veh/h	142	817	407	142	817	404	362	426	442	438	623	629
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.67	0.67	0.67	0.98	0.98	0.98	0.97	0.97	0.97
Uniform Delay (d), s/veh	35.3	18.7	18.8	36.1	20.7	20.8	33.6	26.6	26.6	25.9	18.7	18.7
Incr Delay (d2), s/veh	14.0	2.0	4.4	11.2	6.5	13.0	9.4	5.3	5.2	1.2	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.1	3.4	1.4	4.5	5.2	4.3	4.6	4.7	3.8	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	20.7	23.1	47.2	27.2	33.8	43.0	31.9	31.8	27.1	20.0	20.0
LnGrp LOS	D	C	C	D	C	C	D	C	C	C	B	C
Approach Vol, veh/h		884			1054			696			631	
Approach Delay, s/veh		23.9			30.5			35.1			22.6	
Approach LOS		C			C			D			C	

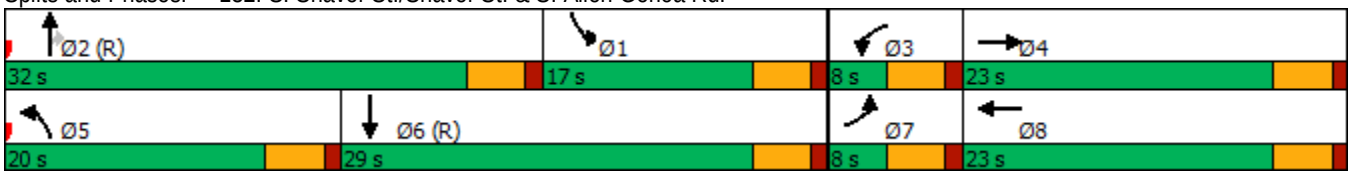
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.5	24.0	8.1	23.4	15.5	33.0	8.8	22.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	19.5	6.5	19.5	16.5	19.5	6.5	19.5
Max Q Clear Time (g_c+I1), s	11.2	11.8	4.8	12.2	10.9	8.7	5.3	16.5
Green Ext Time (p_c), s	0.3	1.8	0.0	3.0	0.3	1.7	0.0	1.8

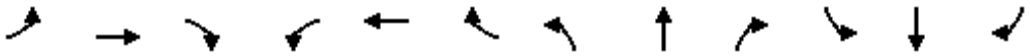
Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	8	268	11	294	139	462	6	99	482
Future Volume (vph)	8	268	11	294	139	462	6	99	482
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases							2		
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	23.0	8.0	23.0	20.0	32.0	32.0	17.0	29.0
Total Split (%)	10.0%	28.8%	10.0%	28.8%	25.0%	40.0%	40.0%	21.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	3.5	14.4	3.5	14.4	11.7	41.4	41.4	11.2	38.8
Actuated g/C Ratio	0.04	0.18	0.04	0.18	0.15	0.52	0.52	0.14	0.48
v/c Ratio	0.11	0.64	0.16	0.68	0.57	0.27	0.01	0.43	0.30
Control Delay	55.5	14.8	52.7	25.4	35.8	11.6	0.0	26.6	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	14.8	52.7	25.4	35.8	11.6	0.0	26.6	10.8
LOS	E	B	D	C	D	B	A	C	B
Approach Delay		15.5		26.1		17.0			13.5
Approach LOS		B		C		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	268	175	11	294	141	139	462	6	99	482	3
Future Volume (veh/h)	8	268	175	11	294	141	139	462	6	99	482	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	8	282	184	12	309	148	146	486	0	104	507	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	12	365	231	18	418	196	183	1202		426	1720	10
Arrive On Green	0.01	0.18	0.18	0.01	0.18	0.18	0.10	0.34	0.00	0.49	0.96	0.96
Sat Flow, veh/h	1753	2054	1301	1753	2312	1082	1753	3497	1560	1753	3565	21
Grp Volume(v), veh/h	8	239	227	12	232	225	146	486	0	104	249	261
Grp Sat Flow(s),veh/h/ln	1753	1749	1607	1753	1749	1646	1753	1749	1560	1753	1749	1837
Q Serve(g_s), s	0.4	10.4	10.8	0.5	10.0	10.4	6.5	8.5	0.0	2.8	0.6	0.6
Cycle Q Clear(g_c), s	0.4	10.4	10.8	0.5	10.0	10.4	6.5	8.5	0.0	2.8	0.6	0.6
Prop In Lane	1.00		0.81	1.00		0.66	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	12	311	286	18	316	298	183	1202		426	844	886
V/C Ratio(X)	0.64	0.77	0.80	0.67	0.73	0.76	0.80	0.40		0.24	0.29	0.29
Avail Cap(c_a), veh/h	77	404	372	77	404	381	340	1202		426	844	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	39.6	31.3	31.5	39.5	30.9	31.1	35.0	20.0	0.0	16.3	0.7	0.7
Incr Delay (d2), s/veh	43.7	6.5	8.8	35.3	5.0	6.3	6.5	0.8	0.0	0.3	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.8	4.8	0.4	4.5	4.5	3.0	3.4	0.0	1.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.3	37.8	40.2	74.8	35.9	37.4	41.5	20.8	0.0	16.5	1.6	1.5
LnGrp LOS	F	D	D	E	D	D	D	C		B	A	A
Approach Vol, veh/h		474			469			632	A		614	
Approach Delay, s/veh		39.7			37.6			25.6			4.1	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	32.0	5.3	18.7	12.9	43.1	5.1	19.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	27.5	3.5	18.5	15.5	24.5	3.5	18.5
Max Q Clear Time (g_c+I1), s	4.8	10.5	2.5	12.8	8.5	2.6	2.4	12.4
Green Ext Time (p_c), s	0.1	2.9	0.0	1.4	0.2	2.9	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

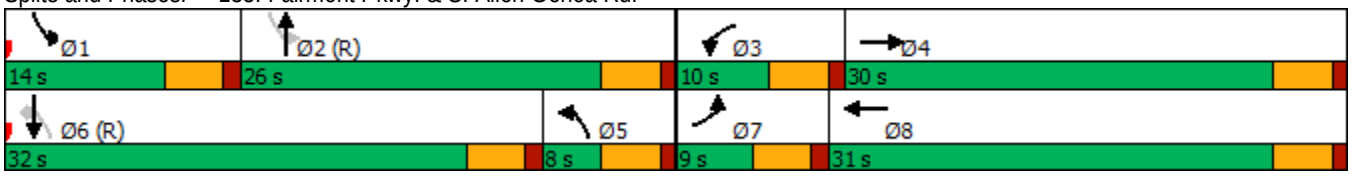
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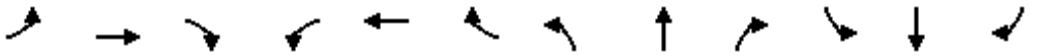
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	26	679	31	551	63	193	177	207	45
Future Volume (vph)	26	679	31	551	63	193	177	207	45
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	9.0	30.0	10.0	31.0	8.0	26.0	14.0	32.0	32.0
Total Split (%)	11.3%	37.5%	12.5%	38.8%	10.0%	32.5%	17.5%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	4.5	23.5	5.5	25.9	37.9	27.8	37.0	35.1	35.1
Actuated g/C Ratio	0.06	0.29	0.07	0.32	0.47	0.35	0.46	0.44	0.44
v/c Ratio	0.32	0.61	0.31	0.79	0.15	0.44	0.43	0.31	0.07
Control Delay	46.0	15.9	38.9	22.8	5.8	13.9	13.7	13.7	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	15.9	38.9	22.8	5.8	13.9	13.7	13.7	0.8
LOS	D	B	D	C	A	B	B	B	A
Approach Delay		16.9		23.5		12.2		12.3	
Approach LOS		B		C		B		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	679	67	31	551	195	63	193	37	177	207	45
Future Volume (veh/h)	26	679	67	31	551	195	63	193	37	177	207	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	808	80	37	656	232	75	230	44	211	246	54
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	38	1378	136	45	761	269	539	530	101	522	633	536
Arrive On Green	0.02	0.30	0.30	0.03	0.30	0.30	0.11	0.35	0.35	0.10	0.34	0.34
Sat Flow, veh/h	1753	4650	458	1753	2533	895	1753	1502	287	1753	1841	1560
Grp Volume(v), veh/h	31	581	307	37	453	435	75	0	274	211	246	54
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1749	1680	1753	0	1789	1753	1841	1560
Q Serve(g_s), s	1.4	11.8	11.9	1.7	19.6	19.6	0.0	0.0	9.4	6.0	8.1	1.5
Cycle Q Clear(g_c), s	1.4	11.8	11.9	1.7	19.6	19.6	0.0	0.0	9.4	6.0	8.1	1.5
Prop In Lane	1.00		0.26	1.00		0.53	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	38	992	521	45	525	504	539	0	631	522	633	536
V/C Ratio(X)	0.81	0.59	0.59	0.82	0.86	0.86	0.14	0.00	0.43	0.40	0.39	0.10
Avail Cap(c_a), veh/h	99	1068	560	121	579	556	539	0	631	555	633	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.53	0.53	0.53	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	24.0	24.0	38.8	26.4	26.4	18.1	0.0	19.8	14.3	19.9	11.3
Incr Delay (d2), s/veh	26.7	0.6	1.1	16.9	6.7	7.0	0.1	0.0	2.2	0.5	1.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.6	4.9	0.9	8.7	8.4	0.9	0.0	4.0	2.2	3.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	24.6	25.2	55.6	33.2	33.5	18.2	0.0	21.9	14.8	21.7	11.7
LnGrp LOS	E	C	C	E	C	C	B	A	C	B	C	B
Approach Vol, veh/h		919			925			349			511	
Approach Delay, s/veh		26.1			34.2			21.1			17.8	
Approach LOS		C			C			C			B	

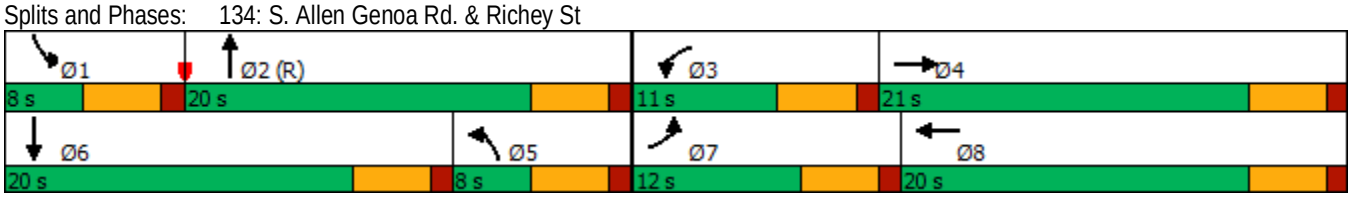
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	32.7	6.6	28.2	13.2	32.0	6.2	28.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	21.5	5.5	25.5	3.5	27.5	4.5	26.5
Max Q Clear Time (g_c+I1), s	8.0	11.4	3.7	13.9	2.0	10.1	3.4	21.6
Green Ext Time (p_c), s	0.1	1.1	0.0	4.5	0.0	1.4	0.0	2.4

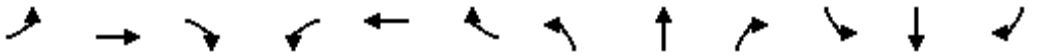
Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	122	299	72	367	32	547	17	337
Future Volume (vph)	122	299	72	367	32	547	17	337
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	21.0	11.0	20.0	8.0	20.0	8.0	20.0
Total Split (%)	20.0%	35.0%	18.3%	33.3%	13.3%	33.3%	13.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	7.3	13.6	6.3	12.8	5.0	27.0	4.9	25.4
Actuated g/C Ratio	0.12	0.23	0.10	0.21	0.08	0.45	0.08	0.42
v/c Ratio	0.68	0.49	0.47	0.60	0.26	0.46	0.14	0.36
Control Delay	44.2	21.1	34.3	24.4	31.4	15.5	28.8	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	21.1	34.3	24.4	31.4	15.5	28.8	13.8
LOS	D	C	C	C	C	B	C	B
Approach Delay		27.4		26.0		16.3		14.3
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 52.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	299	25	72	367	4	32	547	50	17	337	107
Future Volume (veh/h)	122	299	25	72	367	4	32	547	50	17	337	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	145	356	30	86	437	5	38	651	60	20	401	127
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	183	638	53	142	610	7	389	1318	121	29	528	165
Arrive On Green	0.10	0.20	0.20	0.08	0.17	0.17	0.22	0.41	0.41	0.02	0.20	0.20
Sat Flow, veh/h	1753	3266	274	1753	3542	40	1753	3238	298	1753	2621	821
Grp Volume(v), veh/h	145	190	196	86	216	226	38	351	360	20	266	262
Grp Sat Flow(s),veh/h/ln	1753	1749	1791	1753	1749	1833	1753	1749	1787	1753	1749	1693
Q Serve(g_s), s	4.8	5.9	5.9	2.8	7.0	7.0	1.0	8.9	9.0	0.7	8.6	8.8
Cycle Q Clear(g_c), s	4.8	5.9	5.9	2.8	7.0	7.0	1.0	8.9	9.0	0.7	8.6	8.8
Prop In Lane	1.00		0.15	1.00		0.02	1.00		0.17	1.00		0.48
Lane Grp Cap(c), veh/h	183	342	350	142	301	316	389	712	727	29	353	341
V/C Ratio(X)	0.79	0.56	0.56	0.60	0.72	0.72	0.10	0.49	0.49	0.69	0.75	0.77
Avail Cap(c_a), veh/h	219	481	493	190	452	474	389	712	727	102	452	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	21.8	21.8	26.6	23.4	23.5	18.6	13.2	13.2	29.4	22.6	22.6
Incr Delay (d2), s/veh	15.2	1.4	1.4	4.1	3.2	3.0	0.1	2.4	2.4	25.3	5.3	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.3	2.4	1.3	2.9	3.0	0.4	3.5	3.5	0.5	3.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	23.2	23.2	30.7	26.6	26.5	18.7	15.6	15.6	54.6	27.9	28.7
LnGrp LOS	D	C	C	C	C	C	B	B	B	D	C	C
Approach Vol, veh/h		531			528			749			548	
Approach Delay, s/veh		28.2			27.2			15.8			29.3	
Approach LOS		C			C			B			C	

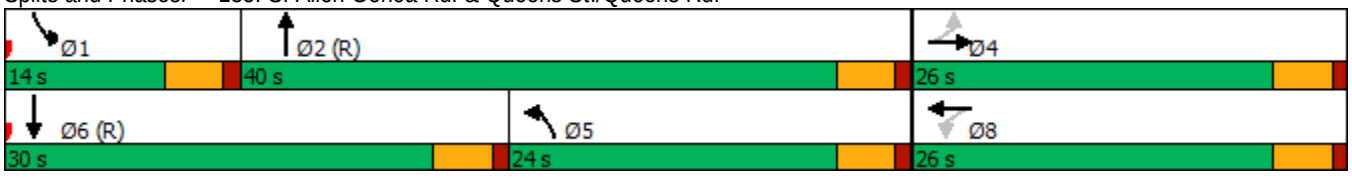
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	28.9	9.4	16.2	17.8	16.6	10.8	14.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	15.5	6.5	16.5	3.5	15.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	2.7	11.0	4.8	7.9	3.0	10.8	6.8	9.0
Green Ext Time (p_c), s	0.0	1.8	0.0	1.4	0.0	1.3	0.0	1.3

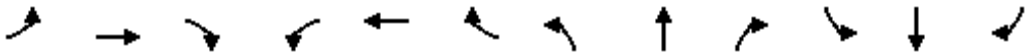
Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	22	195	210	144	464	39	339
Future Volume (vph)	22	195	210	144	464	39	339
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	24.0	40.0	14.0	30.0
Total Split (%)	32.5%	32.5%	32.5%	30.0%	50.0%	17.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		12.1	12.1	19.5	51.1	7.4	34.9
Actuated g/C Ratio		0.15	0.15	0.24	0.64	0.09	0.44
v/c Ratio		0.67	0.59	0.37	0.23	0.26	0.29
Control Delay		27.6	17.5	11.8	1.2	37.1	14.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		27.6	17.5	11.8	1.2	37.1	14.9
LOS		C	B	B	A	D	B
Approach Delay		27.6	17.5		3.7		16.8
Approach LOS		C	B		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 55.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	195	113	0	210	99	144	464	14	39	339	64
Future Volume (veh/h)	22	195	113	0	210	99	144	464	14	39	339	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	210	122	0	226	106	155	499	15	42	365	69
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	66	302	177	0	387	175	608	2204	66	52	937	175
Arrive On Green	0.17	0.17	0.17	0.00	0.17	0.17	0.35	0.64	0.64	0.03	0.32	0.32
Sat Flow, veh/h	94	1824	1070	0	2431	1060	1753	3467	104	1753	2940	550
Grp Volume(v), veh/h	187	0	169	0	167	165	155	251	263	42	216	218
Grp Sat Flow(s),veh/h/ln	1507	0	1482	0	1749	1650	1753	1749	1822	1753	1749	1742
Q Serve(g_s), s	2.5	0.0	8.6	0.0	7.0	7.4	5.1	4.9	4.9	1.9	7.7	7.8
Cycle Q Clear(g_c), s	9.9	0.0	8.6	0.0	7.0	7.4	5.1	4.9	4.9	1.9	7.7	7.8
Prop In Lane	0.13		0.72	0.00		0.64	1.00		0.06	1.00		0.32
Lane Grp Cap(c), veh/h	300	0	245	0	289	273	608	1112	1159	52	557	555
V/C Ratio(X)	0.62	0.00	0.69	0.00	0.58	0.60	0.25	0.23	0.23	0.80	0.39	0.39
Avail Cap(c_a), veh/h	473	0	398	0	470	443	608	1112	1159	208	557	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	0.0	31.4	0.0	30.8	30.9	18.7	6.2	6.2	38.6	21.2	21.2
Incr Delay (d2), s/veh	2.1	0.0	3.4	0.0	1.8	2.1	0.2	0.4	0.4	24.0	2.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	3.1	0.0	2.9	2.9	2.0	1.6	1.7	1.1	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	0.0	34.9	0.0	32.6	33.1	18.9	6.6	6.6	62.6	23.2	23.3
LnGrp LOS	C	A	C	A	C	C	B	A	A	E	C	C
Approach Vol, veh/h		356			332			669			476	
Approach Delay, s/veh		34.2			32.9			9.4			26.7	
Approach LOS		C			C			A			C	

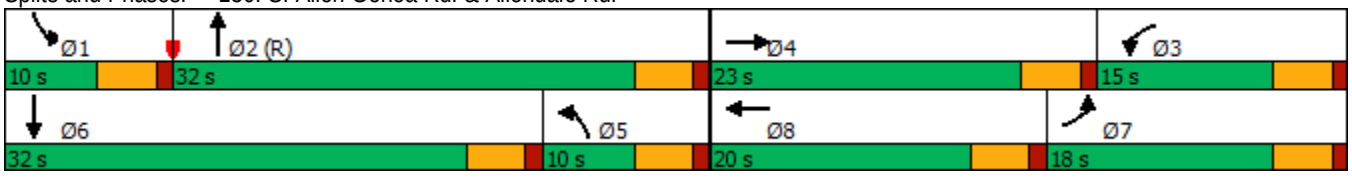
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	55.4		17.7	32.3	30.0		17.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	35.5		21.5	19.5	25.5		21.5				
Max Q Clear Time (g_c+I1), s	3.9	6.9		11.9	7.1	9.8		9.4				
Green Ext Time (p_c), s	0.0	3.1		1.4	0.3	2.2		1.4				

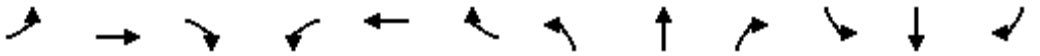
Intersection Summary			
HCM 6th Ctrl Delay		23.0	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	130	113	87	101	27	574	22	330
Future Volume (vph)	130	113	87	101	27	574	22	330
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	23.0	15.0	20.0	10.0	32.0	10.0	32.0
Total Split (%)	22.5%	28.8%	18.8%	25.0%	12.5%	40.0%	12.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	12.2	11.0	11.8	8.4	9.6	41.3	6.3	38.2
Actuated g/C Ratio	0.15	0.14	0.15	0.10	0.12	0.52	0.08	0.48
v/c Ratio	0.58	0.38	0.41	0.47	0.16	0.44	0.19	0.26
Control Delay	28.6	14.8	33.7	17.3	31.3	15.2	37.2	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	14.8	33.7	17.3	31.3	15.2	37.2	18.8
LOS	C	B	C	B	C	B	D	B
Approach Delay		20.9		23.1		15.9		19.8
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 46.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	113	51	87	101	57	27	574	82	22	330	33
Future Volume (veh/h)	130	113	51	87	101	57	27	574	82	22	330	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	153	133	60	102	119	67	32	675	0	26	388	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	190	217	93	185	195	103	736	1956		34	556	
Arrive On Green	0.11	0.09	0.09	0.11	0.09	0.09	0.42	0.56	0.00	0.02	0.16	0.00
Sat Flow, veh/h	1753	2382	1024	1753	2209	1170	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	153	96	97	102	93	93	32	675	0	26	388	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1656	1753	1749	1630	1753	1749	0	1753	1749	0
Q Serve(g_s), s	6.8	4.2	4.5	4.4	4.1	4.4	0.9	8.4	0.0	1.2	8.4	0.0
Cycle Q Clear(g_c), s	6.8	4.2	4.5	4.4	4.1	4.4	0.9	8.4	0.0	1.2	8.4	0.0
Prop In Lane	1.00		0.62	1.00		0.72	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	190	159	151	185	154	144	736	1956		34	556	
V/C Ratio(X)	0.80	0.60	0.64	0.55	0.60	0.65	0.04	0.35		0.77	0.70	
Avail Cap(c_a), veh/h	296	404	383	230	339	316	736	1956		121	1202	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.8	35.0	35.1	34.0	35.1	35.3	13.7	9.6	0.0	39.1	31.8	0.0
Incr Delay (d2), s/veh	8.6	3.6	4.5	2.5	3.7	4.8	0.0	0.5	0.0	30.3	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.9	2.0	2.0	1.9	1.9	0.3	3.0	0.0	0.8	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	38.6	39.6	36.5	38.8	40.1	13.7	10.1	0.0	69.3	33.4	0.0
LnGrp LOS	D	D	D	D	D	D	B	B		E	C	
Approach Vol, veh/h		346			288			707	A		414	A
Approach Delay, s/veh		41.0			38.4			10.3			35.7	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	49.2	12.9	11.8	38.1	17.2	13.2	11.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	27.5	10.5	18.5	5.5	27.5	13.5	15.5
Max Q Clear Time (g_c+I1), s	3.2	10.4	6.4	6.5	2.9	10.4	8.8	6.4
Green Ext Time (p_c), s	0.0	4.3	0.1	0.8	0.0	2.3	0.2	0.6

Intersection Summary	
HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

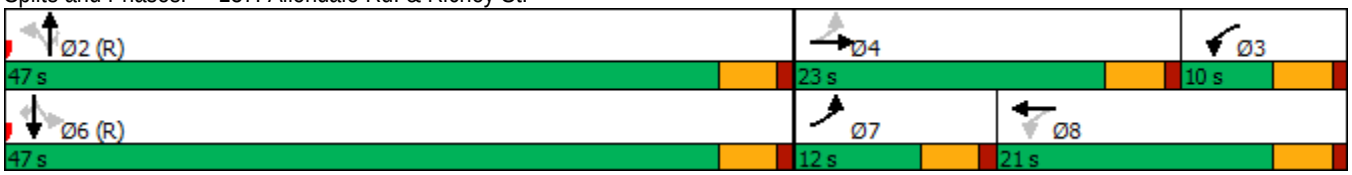
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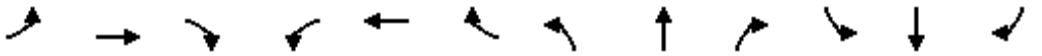
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	66	94	47	102	386	50	8	441	49
Future Volume (vph)	66	94	47	102	386	50	8	441	49
Turn Type	pm+pt	NA	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8	2			6	
Permitted Phases	4		8			2	6		6
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	23.0	10.0	21.0	47.0	47.0	47.0	47.0	47.0
Total Split (%)	15.0%	28.8%	12.5%	26.3%	58.8%	58.8%	58.8%	58.8%	58.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.3	10.3	9.5	8.2	53.2	53.2		53.2	53.2
Actuated g/C Ratio	0.13	0.13	0.12	0.10	0.66	0.66		0.66	0.66
v/c Ratio	0.33	0.32	0.25	0.31	0.34	0.05		0.23	0.05
Control Delay	25.2	14.6	22.5	21.8	7.9	0.1		2.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	25.2	14.6	22.5	21.8	7.9	0.1		2.8	0.1
LOS	C	B	C	C	A	A		A	A
Approach Delay		18.0		22.0	7.0			2.5	
Approach LOS		B		C	A			A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 40 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.34	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 45.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	94	45	47	102	2	0	386	50	8	441	49
Future Volume (veh/h)	66	94	45	47	102	2	0	386	50	8	441	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	68	97	0	48	105	0	0	398	52	8	455	51
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	177	218		177	218		90	1324	1122	62	2439	1122
Arrive On Green	0.05	0.06	0.00	0.05	0.06	0.00	0.00	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1753	3589	0	1753	3589	0	879	1841	1560	21	3390	1560
Grp Volume(v), veh/h	68	97	0	48	105	0	0	398	52	247	216	51
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	879	1841	1560	1820	1591	1560
Q Serve(g_s), s	3.1	2.1	0.0	0.0	2.3	0.0	0.0	6.2	0.8	0.0	3.5	0.8
Cycle Q Clear(g_c), s	3.1	2.1	0.0	0.0	2.3	0.0	0.0	6.2	0.8	3.5	3.5	0.8
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.03		1.00
Lane Grp Cap(c), veh/h	177	218		177	218		90	1324	1122	1356	1145	1122
V/C Ratio(X)	0.38	0.44		0.27	0.48		0.00	0.30	0.05	0.18	0.19	0.05
Avail Cap(c_a), veh/h	254	809		211	721		90	1324	1122	1356	1145	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	36.2	0.0	36.1	36.3	0.0	0.0	4.0	3.3	3.6	3.6	3.3
Incr Delay (d2), s/veh	1.3	1.3	0.0	0.8	1.7	0.0	0.0	0.6	0.1	0.3	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.9	0.0	0.9	1.0	0.0	0.0	1.8	0.2	1.0	0.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	37.5	0.0	37.0	37.9	0.0	0.0	4.6	3.3	3.9	4.0	3.3
LnGrp LOS	D	D		D	D		A	A	A	A	A	A
Approach Vol, veh/h		165	A		153	A		450			514	
Approach Delay, s/veh		38.0			37.6			4.5			3.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		62.1	8.5	9.5		62.1	8.5	9.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		42.5	5.5	18.5		42.5	7.5	16.5				
Max Q Clear Time (g_c+I1), s		8.2	2.0	4.1		5.5	5.1	4.3				
Green Ext Time (p_c), s		2.7	0.0	0.4		3.0	0.0	0.4				

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

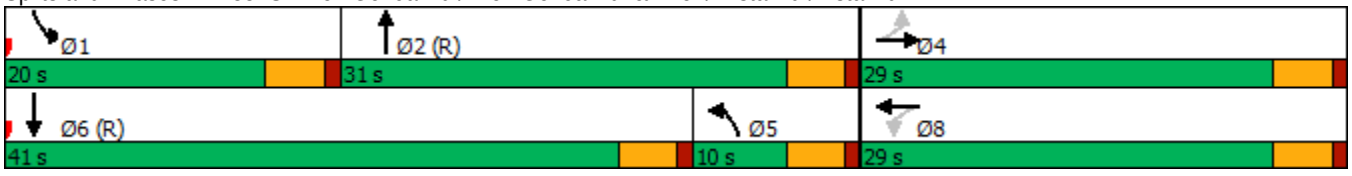
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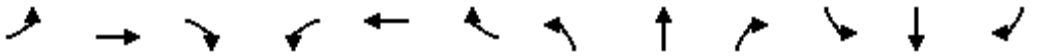
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	3	27	5	27	3	453	96	389
Future Volume (vph)	3	27	5	27	3	453	96	389
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	29.0	29.0	29.0	29.0	10.0	31.0	20.0	41.0
Total Split (%)	36.3%	36.3%	36.3%	36.3%	12.5%	38.8%	25.0%	51.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		8.6		8.6	5.5	50.1	10.0	60.4
Actuated g/C Ratio		0.11		0.11	0.07	0.63	0.12	0.76
v/c Ratio		0.21		0.64	0.03	0.23	0.47	0.16
Control Delay		29.6		14.0	48.3	15.7	30.3	1.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		29.6		14.0	48.3	15.7	30.3	1.4
LOS		C		B	D	B	C	A
Approach Delay		29.6		14.0		15.9		7.1
Approach LOS		C		B		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 46.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	27	6	5	27	172	3	453	26	96	389	2
Future Volume (veh/h)	3	27	6	5	27	172	3	453	26	96	389	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	3	28	6	5	28	181	3	477	27	101	409	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	56	239	48	48	39	223	367	1992	113	129	1628	8
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.21	0.59	0.59	0.15	0.91	0.91
Sat Flow, veh/h	42	1445	288	13	233	1348	1753	3365	190	1753	3569	17
Grp Volume(v), veh/h	37	0	0	214	0	0	3	247	257	101	200	211
Grp Sat Flow(s),veh/h/ln	1774	0	0	1594	0	0	1753	1749	1807	1753	1749	1838
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	0.0	0.1	5.4	5.4	4.4	1.0	1.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	10.3	0.0	0.0	0.1	5.4	5.4	4.4	1.0	1.0
Prop In Lane	0.08		0.16	0.02		0.85	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	343	0	0	310	0	0	367	1035	1069	129	798	838
V/C Ratio(X)	0.11	0.00	0.00	0.69	0.00	0.00	0.01	0.24	0.24	0.78	0.25	0.25
Avail Cap(c_a), veh/h	583	0	0	533	0	0	367	1035	1069	340	798	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	0.89	0.00	0.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	28.4	0.0	0.0	32.2	0.0	0.0	25.1	7.8	7.8	33.5	1.9	1.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.4	0.0	0.0	0.0	0.5	0.5	9.2	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	4.1	0.0	0.0	0.0	1.9	2.0	2.1	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	0.0	34.6	0.0	0.0	25.1	8.3	8.3	42.7	2.6	2.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		37			214			507			512	
Approach Delay, s/veh		28.6			34.6			8.4			10.5	
Approach LOS		C			C			A			B	

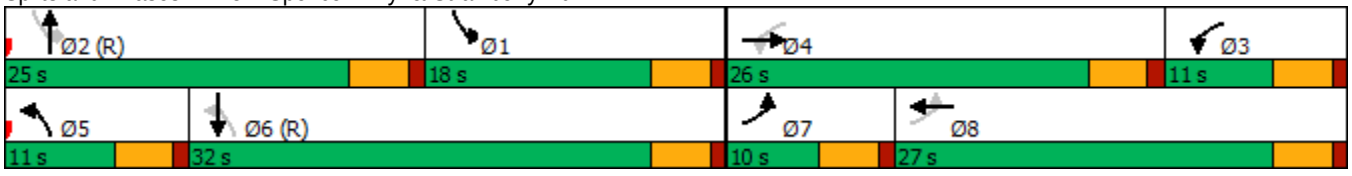
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	51.9		17.8	21.2	41.0		17.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.5	26.5		24.5	5.5	36.5		24.5				
Max Q Clear Time (g_c+I1), s	6.4	7.4		3.4	2.1	3.0		12.3				
Green Ext Time (p_c), s	0.1	2.9		0.1	0.0	2.6		1.0				

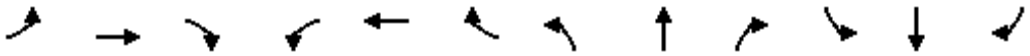
Intersection Summary												
HCM 6th Ctrl Delay			14.3									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	111	925	122	742	101	526	145	252	426
Future Volume (vph)	111	925	122	742	101	526	145	252	426
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	26.0	11.0	27.0	11.0	25.0	25.0	18.0	32.0
Total Split (%)	12.5%	32.5%	13.8%	33.8%	13.8%	31.3%	31.3%	22.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.4	21.3	27.5	24.0	35.4	21.0	21.0	34.5	30.1
Actuated g/C Ratio	0.36	0.27	0.34	0.30	0.44	0.26	0.26	0.43	0.38
v/c Ratio	0.61	0.85	0.59	0.71	0.36	0.66	0.30	0.71	0.50
Control Delay	28.6	16.9	24.5	16.7	11.8	22.4	2.0	26.2	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	16.9	24.5	16.7	11.8	22.4	2.0	26.2	11.5
LOS	C	B	C	B	B	C	A	C	B
Approach Delay		18.0		17.6		17.2			15.9
Approach LOS		B		B		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 16 (20%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 17.3	Intersection LOS: B
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	925	70	122	742	204	101	526	145	252	426	170
Future Volume (veh/h)	111	925	70	122	742	204	101	526	145	252	426	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	122	1016	77	134	815	224	111	578	159	277	468	187
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	239	1194	90	252	1018	278	377	896	400	502	952	378
Arrive On Green	0.09	0.33	0.33	0.03	0.09	0.09	0.06	0.26	0.26	0.19	0.39	0.39
Sat Flow, veh/h	1753	4765	361	1753	3927	1071	1753	3497	1560	1753	2445	970
Grp Volume(v), veh/h	122	714	379	134	694	345	111	578	159	277	334	321
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1648	1753	1749	1560	1753	1749	1666
Q Serve(g_s), s	4.0	15.9	15.9	0.7	16.3	16.4	3.0	11.8	6.8	3.1	11.5	11.7
Cycle Q Clear(g_c), s	4.0	15.9	15.9	0.7	16.3	16.4	3.0	11.8	6.8	3.1	11.5	11.7
Prop In Lane	1.00		0.20	1.00		0.65	1.00		1.00	1.00		0.58
Lane Grp Cap(c), veh/h	239	840	445	252	868	427	377	896	400	502	681	649
V/C Ratio(X)	0.51	0.85	0.85	0.53	0.80	0.81	0.29	0.64	0.40	0.55	0.49	0.49
Avail Cap(c_a), veh/h	239	900	477	259	942	463	419	896	400	502	681	649
HCM Platoon Ratio	1.33	1.33	1.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.73	0.73	0.73	0.84	0.84	0.84	0.92	0.92	0.92
Uniform Delay (d), s/veh	21.1	25.3	25.3	35.6	34.5	34.6	14.1	26.5	24.6	25.3	18.4	18.5
Incr Delay (d2), s/veh	1.6	6.8	12.2	1.4	3.4	7.1	0.4	3.0	2.5	1.2	2.3	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.0	7.0	2.5	7.6	8.0	1.1	5.0	2.6	4.4	4.7	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	32.1	37.4	37.0	38.0	41.7	14.4	29.5	27.1	26.5	20.7	20.9
LnGrp LOS	C	C	D	D	D	D	B	C	C	C	C	C
Approach Vol, veh/h		1215			1173			848			932	
Approach Delay, s/veh		32.8			38.9			27.1			22.5	
Approach LOS		C			D			C			C	

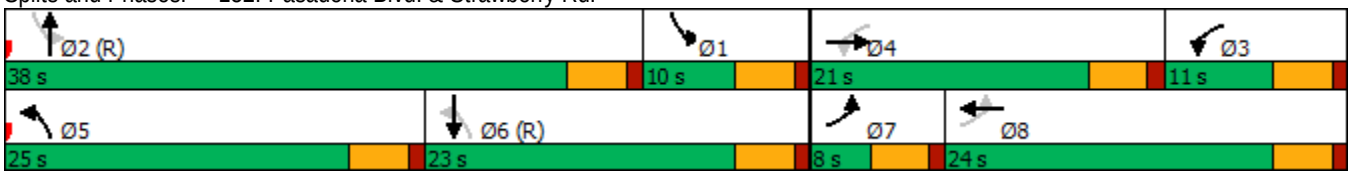
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	25.0	10.7	24.5	9.1	35.7	10.0	25.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	20.5	6.5	21.5	6.5	27.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	5.1	13.8	2.7	17.9	5.0	13.7	6.0	18.4
Green Ext Time (p_c), s	0.5	2.4	0.1	2.1	0.0	3.4	0.0	2.3

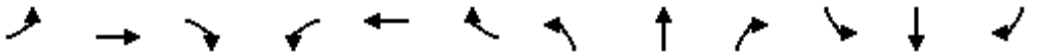
Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	38	329	130	426	354	546	91	472
Future Volume (vph)	38	329	130	426	354	546	91	472
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	21.0	11.0	24.0	25.0	38.0	10.0	23.0
Total Split (%)	10.0%	26.3%	13.8%	30.0%	31.3%	47.5%	12.5%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	23.8	15.8	22.0	21.7	40.0	36.5	40.9	22.5
Actuated g/C Ratio	0.30	0.20	0.28	0.27	0.50	0.46	0.51	0.28
v/c Ratio	0.21	0.87	0.64	0.63	0.79	0.47	0.28	0.56
Control Delay	20.4	30.4	24.3	12.4	19.0	5.9	11.5	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	30.4	24.3	12.4	19.0	5.9	11.5	19.5
LOS	C	C	C	B	B	A	B	B
Approach Delay		29.8		14.7		10.6		18.2
Approach LOS		C		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 47 (59%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 80.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	329	355	130	426	107	354	546	77	91	472	17
Future Volume (veh/h)	38	329	355	130	426	107	354	546	77	91	472	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	42	366	394	144	473	119	393	607	86	101	524	19
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	196	361	322	182	644	161	584	1288	182	531	1138	41
Arrive On Green	0.03	0.21	0.21	0.05	0.23	0.23	0.37	0.84	0.84	0.07	0.22	0.22
Sat Flow, veh/h	1753	1749	1560	1753	2772	693	1753	3076	435	1753	3442	125
Grp Volume(v), veh/h	42	366	394	144	297	295	393	345	348	101	266	277
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1716	1753	1749	1762	1753	1749	1818
Q Serve(g_s), s	1.5	16.5	16.5	2.3	12.6	12.7	12.1	4.2	4.3	0.0	10.5	10.6
Cycle Q Clear(g_c), s	1.5	16.5	16.5	2.3	12.6	12.7	12.1	4.2	4.3	0.0	10.5	10.6
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	196	361	322	182	406	398	584	732	738	531	578	601
V/C Ratio(X)	0.21	1.01	1.22	0.79	0.73	0.74	0.67	0.47	0.47	0.19	0.46	0.46
Avail Cap(c_a), veh/h	226	361	322	232	426	418	708	732	738	531	578	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.82	0.82	0.91	0.91	0.91	0.95	0.95	0.95
Uniform Delay (d), s/veh	23.6	31.7	31.8	36.3	28.4	28.5	10.3	4.1	4.1	13.9	24.9	25.0
Incr Delay (d2), s/veh	0.5	51.2	125.6	11.1	5.0	5.4	1.7	2.0	2.0	0.2	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.8	17.2	3.2	5.6	5.6	3.1	1.4	1.4	1.1	4.8	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	82.9	157.4	47.4	33.4	33.9	12.1	6.1	6.1	14.1	27.4	27.4
LnGrp LOS	C	F	F	D	C	C	B	A	A	B	C	C
Approach Vol, veh/h		802			736			1086			644	
Approach Delay, s/veh		116.4			36.3			8.3			25.3	
Approach LOS		F			D			A			C	

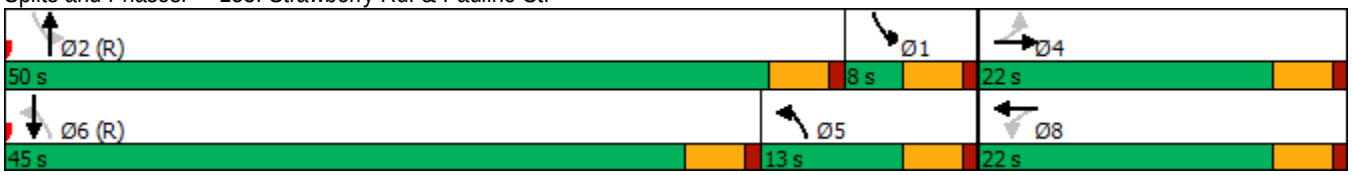
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	38.0	8.7	21.0	19.3	31.0	6.6	23.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	33.5	6.5	16.5	20.5	18.5	3.5	19.5
Max Q Clear Time (g_c+I1), s	2.0	6.3	4.3	18.5	14.1	12.6	3.5	14.7
Green Ext Time (p_c), s	0.1	4.5	0.1	0.0	0.7	1.6	0.0	1.5

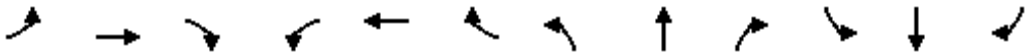
Intersection Summary	
HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	93	9	1	95	889	10	850
Future Volume (vph)	93	9	1	95	889	10	850
Turn Type	Perm	NA	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4			6		2	
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	22.0	13.0	50.0	8.0	45.0
Total Split (%)	27.5%	27.5%	27.5%	16.3%	62.5%	10.0%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lead	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.6	11.6	11.6	56.8	57.8	60.8	50.6
Actuated g/C Ratio	0.14	0.14	0.14	0.71	0.72	0.76	0.63
v/c Ratio	0.54	0.48	0.01	0.29	0.42	0.03	0.49
Control Delay	40.4	10.3	22.5	4.5	1.3	2.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	40.4	10.3	22.5	4.5	1.4	2.2	7.2
LOS	D	B	C	A	A	A	A
Approach Delay		21.6	22.5		1.7		7.1
Approach LOS		C	C		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 17 (21%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	9	148	0	1	1	95	889	18	10	850	82
Future Volume (veh/h)	93	9	148	0	1	1	95	889	18	10	850	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	107	10	170	0	1	1	109	1022	21	11	977	94
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	290	13	215	0	122	122	523	1993	41	599	1632	157
Arrive On Green	0.14	0.14	0.14	0.00	0.14	0.14	0.36	1.00	1.00	0.04	0.17	0.17
Sat Flow, veh/h	1393	87	1486	0	844	844	1753	3504	72	1753	3223	310
Grp Volume(v), veh/h	107	0	180	0	0	2	109	510	533	11	530	541
Grp Sat Flow(s),veh/h/ln	1393	0	1573	0	0	1689	1753	1749	1828	1753	1749	1785
Q Serve(g_s), s	5.7	0.0	8.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	22.4	22.4
Cycle Q Clear(g_c), s	5.8	0.0	8.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	22.4	22.4
Prop In Lane	1.00		0.94	0.00		0.50	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	290	0	227	0	0	244	523	995	1040	599	885	904
V/C Ratio(X)	0.37	0.00	0.79	0.00	0.00	0.01	0.21	0.51	0.51	0.02	0.60	0.60
Avail Cap(c_a), veh/h	393	0	344	0	0	369	523	995	1040	599	885	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.83	0.83	0.83	0.79	0.79	0.79
Uniform Delay (d), s/veh	31.8	0.0	33.0	0.0	0.0	29.3	13.2	0.0	0.0	4.4	25.8	25.8
Incr Delay (d2), s/veh	0.8	0.0	7.0	0.0	0.0	0.0	0.2	1.6	1.5	0.0	2.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	3.7	0.0	0.0	0.0	1.1	0.4	0.4	0.1	10.9	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	0.0	40.1	0.0	0.0	29.3	13.3	1.6	1.5	4.4	28.2	28.1
LnGrp LOS	C	A	D	A	A	C	B	A	A	A	C	C
Approach Vol, veh/h		287			2			1152			1082	
Approach Delay, s/veh		37.3			29.3			2.7			27.9	
Approach LOS		D			C			A			C	

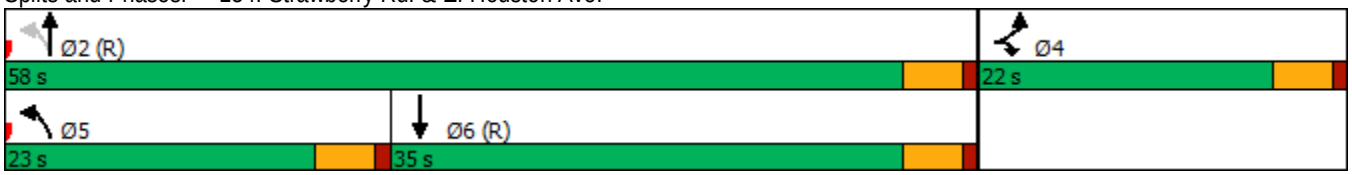
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.9	50.0		16.1	18.9	45.0		16.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	45.5		17.5	8.5	40.5		17.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		10.8	2.0	24.4		2.1				
Green Ext Time (p_c), s	0.0	8.2		0.7	0.1	6.6		0.0				

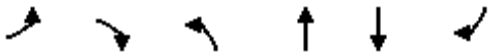
Intersection Summary			
HCM 6th Ctrl Delay		17.4	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	58	91	212	591	506
Future Volume (vph)	58	91	212	591	506
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	22.0	22.0	23.0	58.0	35.0
Total Split (%)	27.5%	27.5%	28.8%	72.5%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.5	8.5	64.5	65.4	51.5
Actuated g/C Ratio	0.11	0.11	0.81	0.82	0.64
v/c Ratio	0.37	0.41	0.41	0.25	0.32
Control Delay	38.1	12.0	4.5	1.4	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.1	12.0	4.5	1.4	6.0
LOS	D	B	A	A	A
Approach Delay	22.1			2.2	6.0
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 10 (13%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 5.6	Intersection LOS: A
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	58	91	212	591	506	87
Future Volume (veh/h)	58	91	212	591	506	87
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	68	107	249	695	595	102
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	165	147	709	2775	1977	338
Arrive On Green	0.09	0.09	0.15	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	1753	3589	3079	511
Grp Volume(v), veh/h	68	107	249	695	348	349
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1749
Q Serve(g_s), s	2.9	5.3	3.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.9	5.3	3.5	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.29
Lane Grp Cap(c), veh/h	165	147	709	2775	1158	1158
V/C Ratio(X)	0.41	0.73	0.35	0.25	0.30	0.30
Avail Cap(c_a), veh/h	383	341	983	2775	1158	1158
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.89	0.89	0.86	0.86
Uniform Delay (d), s/veh	34.2	35.2	2.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.6	6.8	0.3	0.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.8	0.6	0.1	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.8	42.0	2.8	0.2	0.6	0.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	175			944	697	
Approach Delay, s/veh	39.6			0.9	0.6	
Approach LOS	D			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		68.0		12.0	10.5	57.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		53.5		17.5	18.5	30.5
Max Q Clear Time (g_c+I1), s		2.0		7.3	5.5	2.0
Green Ext Time (p_c), s		5.4		0.3	0.6	4.6

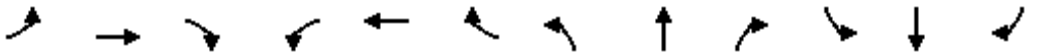
Intersection Summary	
HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	183	64	184	49	582	118	359
Future Volume (vph)	76	183	64	184	49	582	118	359
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	21.0	13.0	20.0	11.0	29.0	17.0	35.0
Total Split (%)	17.5%	26.3%	16.3%	25.0%	13.8%	36.3%	21.3%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.3	10.6	8.8	11.0	7.1	35.6	11.4	41.8
Actuated g/C Ratio	0.10	0.13	0.11	0.14	0.09	0.44	0.14	0.52
v/c Ratio	0.46	0.55	0.37	0.68	0.35	0.47	0.53	0.25
Control Delay	21.2	12.8	38.0	20.4	29.0	14.5	39.7	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	12.8	38.0	20.4	29.0	14.5	39.7	13.5
LOS	C	B	D	C	C	B	D	B
Approach Delay		14.8		22.9		15.5		19.5
Approach LOS		B		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 18.1	Intersection LOS: B
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	183	53	64	184	205	49	582	70	118	359	40
Future Volume (veh/h)	76	183	53	64	184	205	49	582	70	118	359	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	84	203	59	71	204	228	54	647	78	131	399	44
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	108	297	84	218	303	271	68	963	116	410	1592	175
Arrive On Green	0.06	0.11	0.11	0.12	0.17	0.17	0.04	0.31	0.31	0.23	0.50	0.50
Sat Flow, veh/h	1753	2691	762	1753	1749	1560	1753	3143	378	1753	3178	349
Grp Volume(v), veh/h	84	130	132	71	204	228	54	360	365	131	219	224
Grp Sat Flow(s),veh/h/ln	1753	1749	1704	1753	1749	1560	1753	1749	1773	1753	1749	1778
Q Serve(g_s), s	3.8	5.7	6.0	3.0	8.7	11.3	2.4	14.4	14.4	5.0	5.7	5.8
Cycle Q Clear(g_c), s	3.8	5.7	6.0	3.0	8.7	11.3	2.4	14.4	14.4	5.0	5.7	5.8
Prop In Lane	1.00		0.45	1.00		1.00	1.00		0.21	1.00		0.20
Lane Grp Cap(c), veh/h	108	193	188	218	303	271	68	536	543	410	876	891
V/C Ratio(X)	0.78	0.67	0.70	0.33	0.67	0.84	0.79	0.67	0.67	0.32	0.25	0.25
Avail Cap(c_a), veh/h	208	361	351	218	339	302	142	536	543	410	876	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	34.2	34.3	31.9	30.9	32.0	38.1	24.2	24.3	25.4	11.4	11.4
Incr Delay (d2), s/veh	8.5	3.0	3.4	0.9	4.4	17.5	18.1	6.6	6.5	0.4	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.5	2.6	1.3	3.9	5.4	1.4	6.5	6.6	2.0	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	37.2	37.7	32.8	35.4	49.5	56.2	30.8	30.8	25.8	12.1	12.1
LnGrp LOS	D	D	D	C	D	D	E	C	C	C	B	B
Approach Vol, veh/h		346			503			779			574	
Approach Delay, s/veh		39.4			41.4			32.6			15.2	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	29.0	14.5	13.3	7.6	44.6	9.4	18.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	24.5	8.5	16.5	6.5	30.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	7.0	16.4	5.0	8.0	4.4	7.8	5.8	13.3
Green Ext Time (p_c), s	0.1	2.7	0.0	0.9	0.0	2.5	0.0	0.6

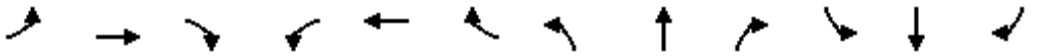
Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	6	68	3	24	909	118	885
Future Volume (vph)	6	68	3	24	909	118	885
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	20.0	8.0	47.0	13.0	52.0
Total Split (%)	25.0%	25.0%	25.0%	10.0%	58.8%	16.3%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.9	9.9	9.9	61.3	50.1	58.6	60.1
Actuated g/C Ratio	0.12	0.12	0.12	0.77	0.63	0.73	0.75
v/c Ratio	0.14	0.47	0.38	0.06	0.53	0.35	0.39
Control Delay	16.1	40.8	11.1	2.6	6.7	5.5	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	16.1	40.8	11.1	2.6	6.7	5.5	1.8
LOS	B	D	B	A	A	A	A
Approach Delay	16.1		23.5		6.6		2.2
Approach LOS	B		C		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 12 (15%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 6.0	Intersection LOS: A
Intersection Capacity Utilization 62.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	6	21	68	3	92	24	909	88	118	885	1
Future Volume (veh/h)	0	6	21	68	3	92	24	909	88	118	885	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	7	24	78	3	106	28	1045	101	136	1017	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	38	129	206	4	157	511	1712	165	583	2537	2
Arrive On Green	0.00	0.10	0.10	0.10	0.10	0.10	0.02	0.53	0.53	0.39	1.00	1.00
Sat Flow, veh/h	0	365	1251	1357	43	1523	1753	3222	311	1753	3585	4
Grp Volume(v), veh/h	0	0	31	78	0	109	28	567	579	136	496	522
Grp Sat Flow(s),veh/h/ln	0	0	1616	1357	0	1567	1753	1749	1785	1753	1749	1840
Q Serve(g_s), s	0.0	0.0	1.4	4.5	0.0	5.4	0.4	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	5.9	0.0	5.4	0.4	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00		0.77	1.00		0.97	1.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	167	206	0	162	511	929	948	583	1238	1302
V/C Ratio(X)	0.00	0.00	0.19	0.38	0.00	0.67	0.05	0.61	0.61	0.23	0.40	0.40
Avail Cap(c_a), veh/h	0	0	313	329	0	304	552	929	948	583	1238	1302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.71	0.71	0.71	0.86	0.86	0.86
Uniform Delay (d), s/veh	0.0	0.0	32.8	35.5	0.0	34.6	3.0	13.0	13.0	9.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	1.1	0.0	4.8	0.0	2.1	2.1	0.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	1.5	0.0	2.2	0.1	6.7	6.8	1.1	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	33.3	36.6	0.0	39.4	3.0	15.1	15.1	9.7	0.8	0.8
LnGrp LOS	A	A	C	D	A	D	A	B	B	A	A	A
Approach Vol, veh/h		31			187			1174			1154	
Approach Delay, s/veh		33.3			38.2			14.8			1.9	
Approach LOS		C			D			B			A	

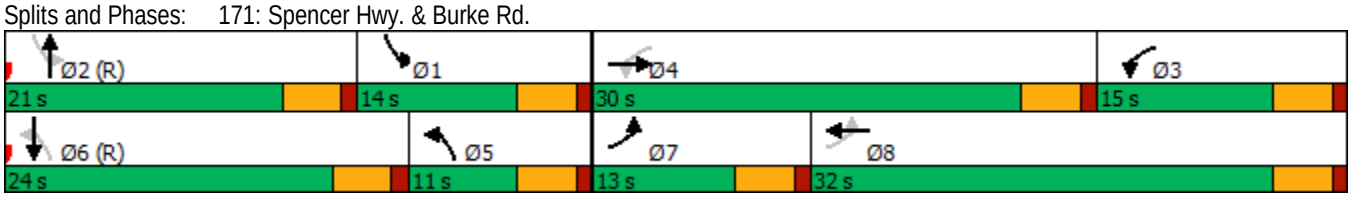
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.2	47.0		12.8	6.1	61.1		12.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	42.5		15.5	3.5	47.5		15.5				
Max Q Clear Time (g_c+I1), s	2.0	20.0		3.4	2.4	2.0		7.9				
Green Ext Time (p_c), s	0.2	8.0		0.1	0.0	7.9		0.5				

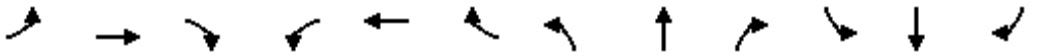
Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	97	949	132	901	110	136	143	181
Future Volume (vph)	97	949	132	901	110	136	143	181
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	30.0	15.0	32.0	11.0	21.0	14.0	24.0
Total Split (%)	16.3%	37.5%	18.8%	40.0%	13.8%	26.3%	17.5%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	33.9	24.9	33.0	27.2	30.4	20.7	29.0	25.2
Actuated g/C Ratio	0.42	0.31	0.41	0.34	0.38	0.26	0.36	0.32
v/c Ratio	0.41	0.78	0.55	0.67	0.30	0.30	0.37	0.27
Control Delay	15.5	10.5	22.4	17.7	12.5	9.2	11.0	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	10.5	22.4	17.7	12.5	9.2	11.0	10.6
LOS	B	B	C	B	B	A	B	B
Approach Delay		10.9		18.3		10.2		10.8
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 52 (65%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 63.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	949	101	132	901	82	110	136	111	143	181	73
Future Volume (veh/h)	97	949	101	132	901	82	110	136	111	143	181	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	108	1054	112	147	1001	91	122	151	123	159	201	81
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	240	1255	133	265	1350	123	595	390	297	617	599	233
Arrive On Green	0.12	0.54	0.54	0.03	0.10	0.10	0.18	0.21	0.21	0.22	0.24	0.24
Sat Flow, veh/h	1753	4613	490	1753	4689	425	1753	1892	1438	1753	2459	958
Grp Volume(v), veh/h	108	765	401	147	715	377	122	139	135	159	141	141
Grp Sat Flow(s),veh/h/ln	1753	1675	1753	1753	1675	1764	1753	1749	1582	1753	1749	1668
Q Serve(g_s), s	3.4	15.3	15.4	0.7	16.6	16.7	0.0	5.5	5.9	0.0	5.3	5.6
Cycle Q Clear(g_c), s	3.4	15.3	15.4	0.7	16.6	16.7	0.0	5.5	5.9	0.0	5.3	5.6
Prop In Lane	1.00		0.28	1.00		0.24	1.00		0.91	1.00		0.57
Lane Grp Cap(c), veh/h	240	911	477	265	965	508	595	361	326	617	426	407
V/C Ratio(X)	0.45	0.84	0.84	0.56	0.74	0.74	0.20	0.38	0.41	0.26	0.33	0.35
Avail Cap(c_a), veh/h	317	1068	559	358	1152	606	595	361	326	617	426	407
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	16.8	16.8	35.1	33.3	33.3	18.8	27.4	27.6	19.8	24.9	25.0
Incr Delay (d2), s/veh	0.7	3.0	5.7	1.1	1.3	2.6	0.2	3.1	3.9	0.2	2.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.0	4.5	2.8	7.5	8.1	1.6	2.5	2.5	2.1	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	19.8	22.5	36.3	34.6	35.9	18.9	30.5	31.4	20.0	27.0	27.3
LnGrp LOS	B	B	C	D	C	D	B	C	C	B	C	C
Approach Vol, veh/h		1274			1239			396			441	
Approach Delay, s/veh		20.6			35.2			27.2			24.6	
Approach LOS		C			D			C			C	

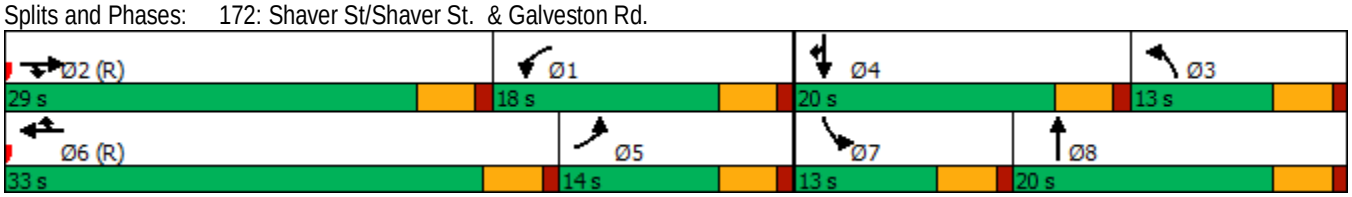
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	21.0	10.7	26.3	19.0	24.0	9.5	27.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	16.5	10.5	25.5	6.5	19.5	8.5	27.5
Max Q Clear Time (g_c+I1), s	2.0	7.9	2.7	17.4	2.0	7.6	5.4	18.7
Green Ext Time (p_c), s	0.2	0.9	0.2	4.4	0.1	1.2	0.1	4.4

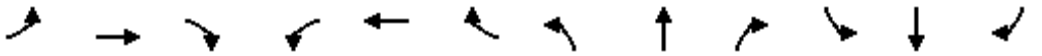
Intersection Summary	
HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	145	734	101	208	740	131	76	341	117	372	139
Future Volume (vph)	145	734	101	208	740	131	76	341	117	372	139
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	Prot	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8	7	4	4
Permitted Phases											
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	29.0	29.0	18.0	33.0	33.0	13.0	20.0	13.0	20.0	20.0
Total Split (%)	17.5%	36.3%	36.3%	22.5%	41.3%	41.3%	16.3%	25.0%	16.3%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	9.3	25.9	25.9	13.3	29.9	29.9	8.3	14.6	8.2	16.5	16.5
Actuated g/C Ratio	0.12	0.32	0.32	0.17	0.37	0.37	0.10	0.18	0.10	0.21	0.21
v/c Ratio	0.78	0.70	0.17	0.78	0.61	0.20	0.46	0.81	0.71	0.56	0.34
Control Delay	61.1	28.2	0.6	47.0	19.0	1.3	42.1	36.3	51.8	27.9	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	28.2	0.6	47.0	19.0	1.3	42.1	36.3	51.8	27.9	4.6
LOS	E	C	A	D	B	A	D	D	D	C	A
Approach Delay		30.2			22.3			37.0		27.2	
Approach LOS		C			C			D		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 28.3	Intersection LOS: C
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	734	101	208	740	131	76	341	168	117	372	139
Future Volume (veh/h)	145	734	101	208	740	131	76	341	168	117	372	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	156	789	109	224	796	141	82	367	181	126	400	149
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	248	1071	478	336	1246	556	221	428	208	158	530	236
Arrive On Green	0.14	0.31	0.31	0.19	0.36	0.36	0.13	0.19	0.19	0.09	0.15	0.15
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	2282	1108	1753	3497	1560
Grp Volume(v), veh/h	156	789	109	224	796	141	82	280	268	126	400	149
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1641	1753	1749	1560
Q Serve(g_s), s	6.7	16.2	4.2	9.5	15.2	3.5	3.4	12.4	12.7	5.6	8.8	7.2
Cycle Q Clear(g_c), s	6.7	16.2	4.2	9.5	15.2	3.5	3.4	12.4	12.7	5.6	8.8	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	248	1071	478	336	1246	556	221	328	308	158	530	236
V/C Ratio(X)	0.63	0.74	0.23	0.67	0.64	0.25	0.37	0.85	0.87	0.80	0.76	0.63
Avail Cap(c_a), veh/h	248	1071	478	336	1246	556	221	339	318	186	678	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	24.9	20.7	30.0	21.5	8.6	32.1	31.4	31.6	35.7	32.5	31.8
Incr Delay (d2), s/veh	5.0	4.5	1.1	5.0	2.5	1.1	1.0	18.3	21.8	18.6	3.6	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.9	1.6	4.3	6.3	1.9	1.5	6.7	6.7	3.2	3.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	29.4	21.8	35.0	24.0	9.7	33.1	49.7	53.4	54.2	36.2	34.6
LnGrp LOS	D	C	C	C	C	A	C	D	D	D	D	C
Approach Vol, veh/h		1054			1161			630			675	
Approach Delay, s/veh		29.8			24.4			49.1			39.2	
Approach LOS		C			C			D			D	

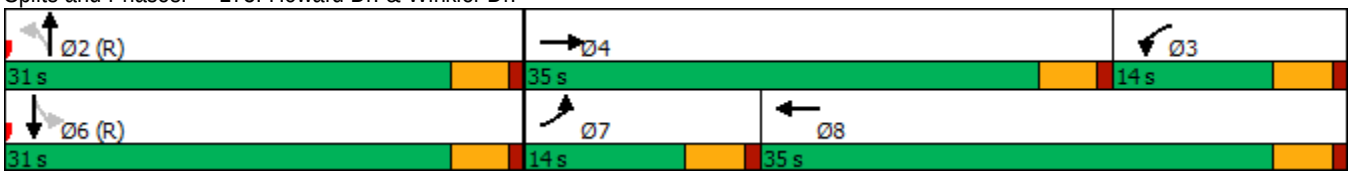
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	29.0	14.6	16.6	15.8	33.0	11.7	19.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	24.5	8.5	15.5	9.5	28.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	11.5	18.2	5.4	10.8	8.7	17.2	7.6	14.7
Green Ext Time (p_c), s	0.1	2.9	0.0	1.3	0.0	4.6	0.0	0.3

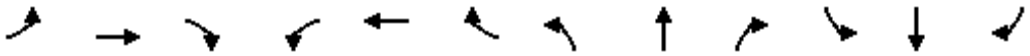
Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	346	32	325	54	176	10	37
Future Volume (vph)	30	346	32	325	54	176	10	37
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	35.0	14.0	35.0	31.0	31.0	31.0	31.0
Total Split (%)	17.5%	43.8%	17.5%	43.8%	38.8%	38.8%	38.8%	38.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.0	15.9	7.2	18.4		47.5		47.5
Actuated g/C Ratio	0.09	0.20	0.09	0.23		0.59		0.59
v/c Ratio	0.21	0.67	0.22	0.63		0.15		0.05
Control Delay	36.6	30.6	22.2	9.6		9.2		6.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	36.6	30.6	22.2	9.6		9.2		6.8
LOS	D	C	C	A		A		A
Approach Delay		30.9		10.3		9.2		6.8
Approach LOS		C		B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 41.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	346	99	32	325	226	54	176	26	10	37	37
Future Volume (veh/h)	30	346	99	32	325	226	54	176	26	10	37	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	368	105	34	346	240	57	187	28	11	39	39
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	39	506	142	114	458	312	410	1310	199	243	823	772
Arrive On Green	0.02	0.19	0.19	0.06	0.23	0.23	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	1753	2694	759	1753	1990	1355	599	2263	343	324	1422	1334
Grp Volume(v), veh/h	32	237	236	34	303	283	140	0	132	47	0	42
Grp Sat Flow(s),veh/h/ln	1753	1749	1704	1753	1749	1597	1592	0	1613	1645	0	1435
Q Serve(g_s), s	1.5	10.2	10.4	1.5	12.9	13.3	0.0	0.0	3.0	0.0	0.0	1.0
Cycle Q Clear(g_c), s	1.5	10.2	10.4	1.5	12.9	13.3	2.8	0.0	3.0	0.9	0.0	1.0
Prop In Lane	1.00		0.45	1.00		0.85	0.41		0.21	0.23		0.93
Lane Grp Cap(c), veh/h	39	328	320	114	403	368	984	0	934	1008	0	830
V/C Ratio(X)	0.82	0.72	0.74	0.30	0.75	0.77	0.14	0.00	0.14	0.05	0.00	0.05
Avail Cap(c_a), veh/h	208	667	650	208	667	609	984	0	934	1008	0	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.9	30.5	30.6	35.7	28.7	28.8	7.7	0.0	7.7	7.3	0.0	7.3
Incr Delay (d2), s/veh	32.4	3.0	3.3	1.5	2.9	3.4	0.3	0.0	0.3	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.4	4.4	0.7	5.5	5.2	1.0	0.0	1.0	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.3	33.5	33.9	37.1	31.5	32.2	8.0	0.0	8.0	7.4	0.0	7.4
LnGrp LOS	E	C	C	D	C	C	A	A	A	A	A	A
Approach Vol, veh/h		505			620			272			89	
Approach Delay, s/veh		36.1			32.2			8.0			7.4	
Approach LOS		D			C			A			A	

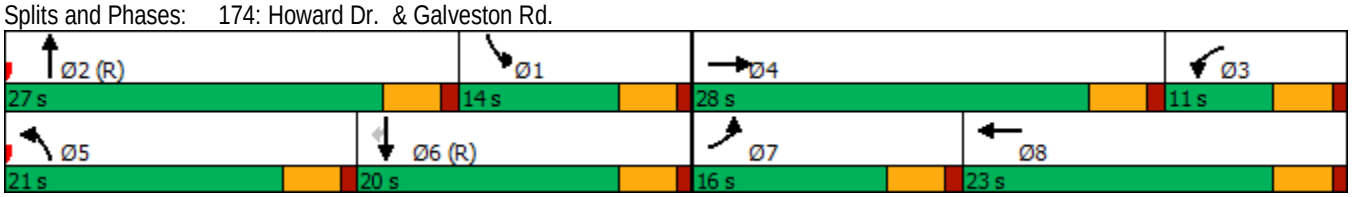
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		50.8	9.7	19.5		50.8	6.3	22.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	9.5	30.5		26.5	9.5	30.5				
Max Q Clear Time (g_c+I1), s		5.0	3.5	12.4		3.0	3.5	15.3				
Green Ext Time (p_c), s		1.4	0.0	2.6		0.4	0.0	3.2				

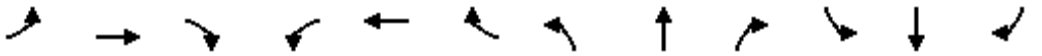
Intersection Summary												
HCM 6th Ctrl Delay			27.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	106	271	47	369	181	529	92	346	89
Future Volume (vph)	106	271	47	369	181	529	92	346	89
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	16.0	28.0	11.0	23.0	21.0	27.0	14.0	20.0	20.0
Total Split (%)	20.0%	35.0%	13.8%	28.8%	26.3%	33.8%	17.5%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.8	17.9	10.5	16.5	13.7	31.2	8.8	24.2	24.2
Actuated g/C Ratio	0.12	0.22	0.13	0.21	0.17	0.39	0.11	0.30	0.30
v/c Ratio	0.55	0.56	0.24	0.76	0.67	0.47	0.53	0.36	0.16
Control Delay	27.7	9.2	32.7	33.3	44.5	20.3	42.6	25.2	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	9.2	32.7	33.3	44.5	20.3	42.6	25.2	1.3
LOS	C	A	C	C	D	C	D	C	A
Approach Delay		12.8		33.2		26.1		24.2	
Approach LOS		B		C		C		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 24.3	Intersection LOS: C
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	271	169	47	369	138	181	529	42	92	346	89
Future Volume (veh/h)	106	271	169	47	369	138	181	529	42	92	346	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	116	298	186	52	405	152	199	581	46	101	380	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	397	241	161	493	183	240	923	73	372	1246	
Arrive On Green	0.08	0.19	0.19	0.09	0.20	0.20	0.14	0.28	0.28	0.21	0.36	0.00
Sat Flow, veh/h	1753	2090	1270	1753	2497	926	1753	3283	259	1753	3497	1560
Grp Volume(v), veh/h	116	248	236	52	282	275	199	309	318	101	380	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1612	1753	1749	1674	1753	1749	1794	1753	1749	1560
Q Serve(g_s), s	5.2	10.7	11.1	2.2	12.4	12.6	8.8	12.3	12.4	3.9	6.3	0.0
Cycle Q Clear(g_c), s	5.2	10.7	11.1	2.2	12.4	12.6	8.8	12.3	12.4	3.9	6.3	0.0
Prop In Lane	1.00		0.79	1.00		0.55	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	147	332	306	161	346	331	240	492	505	372	1246	
V/C Ratio(X)	0.79	0.75	0.77	0.32	0.82	0.83	0.83	0.63	0.63	0.27	0.31	
Avail Cap(c_a), veh/h	252	514	474	161	404	387	362	492	505	372	1246	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.9	30.6	30.7	34.0	30.7	30.8	33.6	25.1	25.1	26.4	18.6	0.0
Incr Delay (d2), s/veh	8.9	3.3	4.1	1.2	10.8	12.5	9.5	6.0	5.9	0.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.6	4.5	1.0	6.0	6.0	4.2	5.6	5.7	1.6	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	33.9	34.8	35.2	41.5	43.3	43.1	31.1	31.0	26.7	19.2	0.0
LnGrp LOS	D	C	C	D	D	D	D	C	C	C	B	
Approach Vol, veh/h		600			609			826			481	A
Approach Delay, s/veh		36.4			41.8			33.9			20.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	27.0	11.8	19.7	15.5	33.0	11.2	20.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	22.5	6.5	23.5	16.5	15.5	11.5	18.5
Max Q Clear Time (g_c+I1), s	5.9	14.4	4.2	13.1	10.8	8.3	7.2	14.6
Green Ext Time (p_c), s	0.1	2.3	0.0	2.1	0.2	1.3	0.1	1.2

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

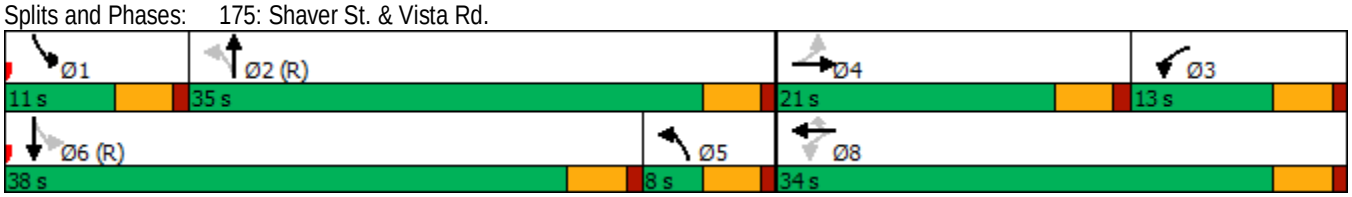
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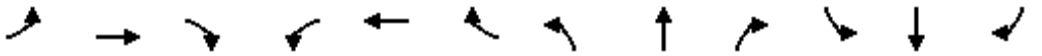
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	18	156	147	230	116	8	581	86	556
Future Volume (vph)	18	156	147	230	116	8	581	86	556
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	13.0	34.0	34.0	8.0	35.0	11.0	38.0
Total Split (%)	26.3%	26.3%	16.3%	42.5%	42.5%	10.0%	43.8%	13.8%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		13.7	23.9	23.9	23.9	37.3	37.3	45.5	45.5
Actuated g/C Ratio		0.17	0.30	0.30	0.30	0.47	0.47	0.57	0.57
v/c Ratio		0.75	0.52	0.47	0.23	0.02	0.51	0.28	0.33
Control Delay		43.6	34.1	29.0	9.4	6.4	8.8	11.3	12.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		43.6	34.1	29.0	9.4	6.4	8.8	11.3	12.8
LOS		D	C	C	A	A	A	B	B
Approach Delay		43.6		25.9			8.8		12.6
Approach LOS		D		C			A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 34 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	156	8	147	230	116	8	581	148	86	556	20
Future Volume (veh/h)	18	156	8	147	230	116	8	581	148	86	556	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	20	175	9	165	258	130	9	653	166	97	625	22
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	59	225	11	261	507	430	534	1385	352	388	1443	51
Arrive On Green	0.18	0.18	0.18	0.04	0.28	0.28	0.27	1.00	1.00	0.05	0.42	0.42
Sat Flow, veh/h	55	1273	61	1753	1841	1560	1753	2762	701	1753	3446	121
Grp Volume(v), veh/h	204	0	0	165	258	130	9	413	406	97	317	330
Grp Sat Flow(s),veh/h/ln	1389	0	0	1753	1841	1560	1753	1749	1714	1753	1749	1819
Q Serve(g_s), s	2.4	0.0	0.0	0.0	9.4	5.3	0.0	0.0	0.0	2.9	10.3	10.3
Cycle Q Clear(g_c), s	11.9	0.0	0.0	0.0	9.4	5.3	0.0	0.0	0.0	2.9	10.3	10.3
Prop In Lane	0.10		0.04	1.00		1.00	1.00		0.41	1.00		0.07
Lane Grp Cap(c), veh/h	295	0	0	261	507	430	534	877	860	388	732	762
V/C Ratio(X)	0.69	0.00	0.00	0.63	0.51	0.30	0.02	0.47	0.47	0.25	0.43	0.43
Avail Cap(c_a), veh/h	345	0	0	373	679	575	534	877	860	435	732	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.00	0.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	0.0	33.2	24.4	22.9	12.2	0.0	0.0	15.9	16.5	16.5
Incr Delay (d2), s/veh	4.4	0.0	0.0	2.5	0.8	0.4	0.0	1.8	1.8	0.3	1.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.0	3.1	3.9	1.9	0.1	0.4	0.4	1.1	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	0.0	0.0	35.7	25.2	23.3	12.2	1.8	1.8	16.2	18.4	18.3
LnGrp LOS	D	A	A	D	C	C	B	A	A	B	B	B
Approach Vol, veh/h		204			553			828			744	
Approach Delay, s/veh		35.6			27.9			1.9			18.1	
Approach LOS		D			C			A			B	

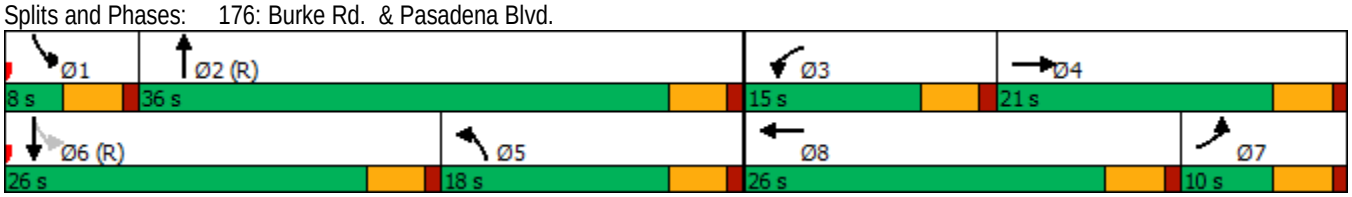
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	44.6	7.9	18.6	15.5	38.0		26.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	30.5	8.5	16.5	3.5	33.5		29.5				
Max Q Clear Time (g_c+I1), s	4.9	2.0	2.0	13.9	2.0	12.3		11.4				
Green Ext Time (p_c), s	0.0	5.6	0.2	0.2	0.0	3.8		1.7				

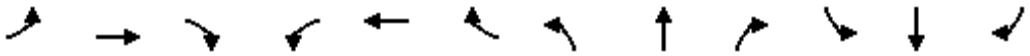
Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	34	294	92	346	143	192	27	260
Future Volume (vph)	34	294	92	346	143	192	27	260
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	21.0	15.0	26.0	18.0	36.0	8.0	26.0
Total Split (%)	12.5%	26.3%	18.8%	32.5%	22.5%	45.0%	10.0%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	13.9	9.0	17.4	13.5	45.7		27.7
Actuated g/C Ratio	0.09	0.17	0.11	0.22	0.17	0.57		0.35
v/c Ratio	0.22	0.68	0.51	0.56	0.52	0.16		0.37
Control Delay	35.0	29.8	30.8	21.6	30.9	3.8		14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	35.0	29.8	30.8	21.6	30.9	3.8		14.3
LOS	C	C	C	C	C	A		B
Approach Delay		30.2		23.4		12.8		14.3
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 7 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





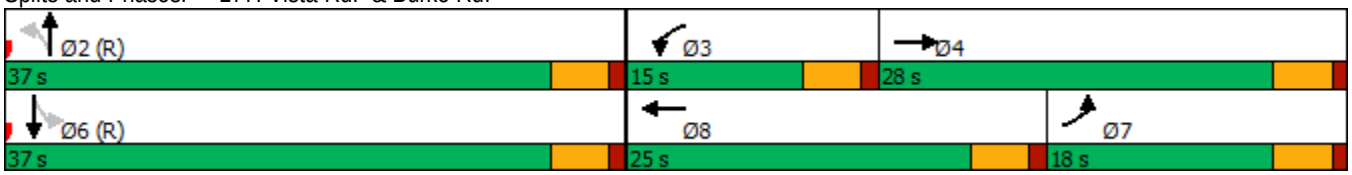
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	294	114	92	346	29	143	192	98	27	260	67
Future Volume (vph)	34	294	114	92	346	29	143	192	98	27	260	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.96		1.00	0.99		1.00	0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3326		1678	3202		1736	3295			3135	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.91	
Satd. Flow (perm)	1736	3326		1678	3202		1736	3295			2874	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	36	309	120	97	364	31	151	202	103	28	274	71
RTOR Reduction (vph)	0	52	0	0	9	0	0	46	0	0	24	0
Lane Group Flow (vph)	36	377	0	97	386	0	151	259	0	0	349	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	5.2	14.8		7.8	17.4		13.5	43.9			25.9	
Effective Green, g (s)	5.2	14.8		7.8	17.4		13.5	43.9			25.9	
Actuated g/C Ratio	0.07	0.19		0.10	0.22		0.17	0.55			0.32	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	112	615		163	696		292	1808			930	
v/s Ratio Prot	0.02	c0.11		0.06	c0.12		c0.09	0.08				
v/s Ratio Perm											c0.12	
v/c Ratio	0.32	0.61		0.60	0.56		0.52	0.14			0.38	
Uniform Delay, d1	35.7	30.0		34.6	27.9		30.3	8.8			20.8	
Progression Factor	0.98	0.98		0.67	0.69		0.80	0.55			0.67	
Incremental Delay, d2	1.2	1.3		5.1	0.8		1.5	0.2			0.3	
Delay (s)	36.2	30.8		28.3	20.2		25.7	5.0			14.2	
Level of Service	D	C		C	C		C	A			B	
Approach Delay (s)		31.2			21.8			11.9			14.2	
Approach LOS		C			C			B			B	

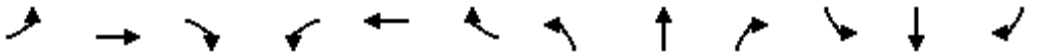
Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	82	304	48	241	77	283	85	241
Future Volume (vph)	82	304	48	241	77	283	85	241
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	18.0	28.0	15.0	25.0	37.0	37.0	37.0	37.0
Total Split (%)	22.5%	35.0%	18.8%	31.3%	46.3%	46.3%	46.3%	46.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	9.3	16.2	7.8	12.5		46.7		46.7
Actuated g/C Ratio	0.12	0.20	0.10	0.16		0.58		0.58
v/c Ratio	0.43	0.53	0.30	0.58		0.30		0.26
Control Delay	42.3	33.6	33.2	19.2		13.0		6.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	42.3	33.6	33.2	19.2		13.0		6.3
LOS	D	C	C	B		B		A
Approach Delay		35.3		21.1		13.0		6.3
Approach LOS		D		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 14 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	304	47	48	241	62	77	283	105	85	241	46
Future Volume (veh/h)	82	304	47	48	241	62	77	283	105	85	241	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	323	50	51	256	66	82	301	112	90	256	49
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	113	487	75	65	367	93	342	1204	448	414	1203	240
Arrive On Green	0.06	0.16	0.16	0.04	0.13	0.13	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	1753	3040	466	1753	2765	699	444	1899	707	547	1896	378
Grp Volume(v), veh/h	87	184	189	51	160	162	250	0	245	187	0	208
Grp Sat Flow(s),veh/h/ln	1753	1749	1757	1753	1749	1715	1502	0	1548	1214	0	1607
Q Serve(g_s), s	3.9	7.9	8.1	2.3	7.0	7.2	0.7	0.0	5.5	2.3	0.0	4.4
Cycle Q Clear(g_c), s	3.9	7.9	8.1	2.3	7.0	7.2	5.1	0.0	5.5	7.8	0.0	4.4
Prop In Lane	1.00		0.27	1.00		0.41	0.33		0.46	0.48		0.24
Lane Grp Cap(c), veh/h	113	280	281	65	232	228	1013	0	982	837	0	1019
V/C Ratio(X)	0.77	0.66	0.67	0.79	0.69	0.71	0.25	0.00	0.25	0.22	0.00	0.20
Avail Cap(c_a), veh/h	296	514	516	230	448	439	1013	0	982	837	0	1019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	31.5	31.6	38.2	33.1	33.2	6.2	0.0	6.4	6.6	0.0	6.1
Incr Delay (d2), s/veh	10.6	2.6	2.8	13.8	2.6	2.9	0.6	0.0	0.6	0.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.5	3.5	1.2	3.1	3.1	1.7	0.0	1.7	1.2	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	34.2	34.4	52.1	35.7	36.1	6.8	0.0	7.0	7.2	0.0	6.6
LnGrp LOS	D	C	C	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		460			373			495			395	
Approach Delay, s/veh		36.8			38.1			6.9			6.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		55.2	7.4	17.3		55.2	9.6	15.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		32.5	10.5	23.5		32.5	13.5	20.5				
Max Q Clear Time (g_c+I1), s		7.5	4.3	10.1		9.8	5.9	9.2				
Green Ext Time (p_c), s		3.3	0.0	1.8		2.6	0.1	1.4				

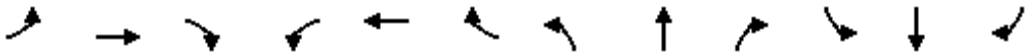
Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	28	1	0	96	487	3	291
Future Volume (vph)	28	1	0	96	487	3	291
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA
Protected Phases		4	8		2		6
Permitted Phases	4			2		6	
Detector Phase	4	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	26.0	26.0	26.0	54.0	54.0	54.0	54.0
Total Split (%)	32.5%	32.5%	32.5%	67.5%	67.5%	67.5%	67.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0
Total Lost Time (s)		4.5	4.5		4.5		4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		7.0	7.0		64.0		64.0
Actuated g/C Ratio		0.09	0.09		0.80		0.80
v/c Ratio		0.47	0.01		0.28		0.13
Control Delay		14.2	0.0		0.5		1.9
Queue Delay		0.0	0.0		0.0		0.0
Total Delay		14.2	0.0		0.5		1.9
LOS		B	A		A		A
Approach Delay		14.2			0.5		1.9
Approach LOS		B			A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 79 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 2.9	Intersection LOS: A
Intersection Capacity Utilization 50.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1	124	0	0	3	96	487	1	3	291	21
Future Volume (veh/h)	28	1	124	0	0	3	96	487	1	3	291	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	1	138	0	0	3	107	541	1	3	323	23
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	256	7	178	0	219	195	416	2032	4	51	2465	173
Arrive On Green	0.13	0.13	0.13	0.00	0.00	0.13	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1340	55	1420	0	1841	1560	467	2666	5	6	3233	228
Grp Volume(v), veh/h	32	0	138	0	0	3	309	0	340	184	0	165
Grp Sat Flow(s),veh/h/ln	1395	0	1420	0	1749	1560	1464	0	1674	1833	0	1634
Q Serve(g_s), s	1.6	0.0	7.5	0.0	0.0	0.1	0.1	0.0	4.8	0.0	0.0	2.1
Cycle Q Clear(g_c), s	1.7	0.0	7.5	0.0	0.0	0.1	3.9	0.0	4.8	2.1	0.0	2.1
Prop In Lane	0.97		1.00	0.00		1.00	0.35		0.00	0.02		0.14
Lane Grp Cap(c), veh/h	263	0	178	0	219	195	1176	0	1276	1443	0	1246
V/C Ratio(X)	0.12	0.00	0.78	0.00	0.00	0.02	0.26	0.00	0.27	0.13	0.00	0.13
Avail Cap(c_a), veh/h	465	0	382	0	470	419	1176	0	1276	1443	0	1246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	33.9	0.0	0.0	30.7	2.7	0.0	2.8	2.5	0.0	2.5
Incr Delay (d2), s/veh	0.2	0.0	7.1	0.0	0.0	0.0	0.5	0.0	0.5	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.9	0.0	0.0	0.1	0.9	0.0	1.0	0.5	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	0.0	41.0	0.0	0.0	30.7	3.3	0.0	3.3	2.7	0.0	2.7
LnGrp LOS	C	A	D	A	A	C	A	A	A	A	A	A
Approach Vol, veh/h		170			3			649			349	
Approach Delay, s/veh		39.2			30.7			3.3			2.7	
Approach LOS		D			C			A			A	

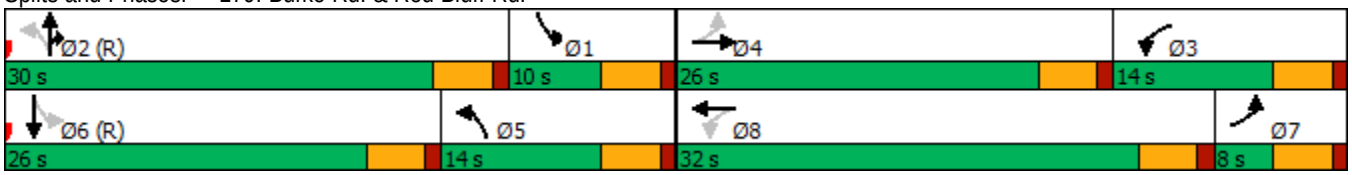
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.5		14.5		65.5		14.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		49.5		21.5		49.5		21.5				
Max Q Clear Time (g_c+I1), s		6.8		9.5		4.1		2.1				
Green Ext Time (p_c), s		4.4		0.7		2.0		0.0				

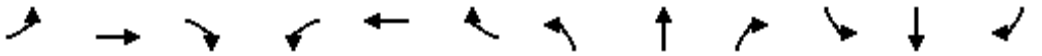
Intersection Summary												
HCM 6th Ctrl Delay			8.4									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	23	428	120	473	176	146	60	100	170
Future Volume (vph)	23	428	120	473	176	146	60	100	170
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	26.0	14.0	32.0	14.0	30.0	30.0	10.0	26.0
Total Split (%)	10.0%	32.5%	17.5%	40.0%	17.5%	37.5%	37.5%	12.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	25.1	19.0	28.1	23.6	42.4	34.8	34.8	35.1	29.6
Actuated g/C Ratio	0.31	0.24	0.35	0.30	0.53	0.44	0.44	0.44	0.37
v/c Ratio	0.10	0.76	0.51	0.56	0.34	0.21	0.09	0.21	0.37
Control Delay	16.4	32.3	17.4	9.7	8.8	17.7	1.6	13.8	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	32.3	17.4	9.7	8.8	17.7	1.6	13.8	22.0
LOS	B	C	B	A	A	B	A	B	C
Approach Delay		31.7		11.2		11.1			19.4
Approach LOS		C		B		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 43 (54%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 64.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	428	134	120	473	47	176	146	60	100	170	48
Future Volume (veh/h)	23	428	134	120	473	47	176	146	60	100	170	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	25	465	146	130	514	51	191	159	65	109	185	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	226	574	179	196	680	67	676	587	497	667	371	104
Arrive On Green	0.05	0.22	0.22	0.04	0.21	0.21	0.25	0.32	0.32	0.20	0.27	0.27
Sat Flow, veh/h	1753	2624	818	1753	3214	318	1753	1841	1560	1753	1382	389
Grp Volume(v), veh/h	25	309	302	130	279	286	191	159	65	109	0	237
Grp Sat Flow(s),veh/h/ln	1753	1749	1693	1753	1749	1783	1753	1841	1560	1753	0	1771
Q Serve(g_s), s	0.0	13.4	13.6	0.1	12.0	12.0	0.0	5.2	2.4	0.0	0.0	9.0
Cycle Q Clear(g_c), s	0.0	13.4	13.6	0.1	12.0	12.0	0.0	5.2	2.4	0.0	0.0	9.0
Prop In Lane	1.00		0.48	1.00		0.18	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	226	382	370	196	370	378	676	587	497	667	0	476
V/C Ratio(X)	0.11	0.81	0.82	0.66	0.75	0.76	0.28	0.27	0.13	0.16	0.00	0.50
Avail Cap(c_a), veh/h	226	470	455	332	601	613	676	587	497	667	0	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.74	0.74	0.74	0.98	0.98	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	29.6	29.7	36.3	29.6	29.6	18.3	20.3	19.4	15.9	0.0	24.7
Incr Delay (d2), s/veh	0.2	8.3	9.2	2.8	2.3	2.3	0.2	1.1	0.5	0.1	0.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	6.3	6.3	2.5	5.1	5.2	2.5	2.3	0.9	1.3	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	38.0	38.9	39.2	31.9	31.9	18.6	21.4	19.9	16.0	0.0	28.4
LnGrp LOS	C	D	D	D	C	C	B	C	B	B	A	C
Approach Vol, veh/h		636			695			415			346	
Approach Delay, s/veh		38.2			33.3			19.9			24.5	
Approach LOS		D			C			B			C	

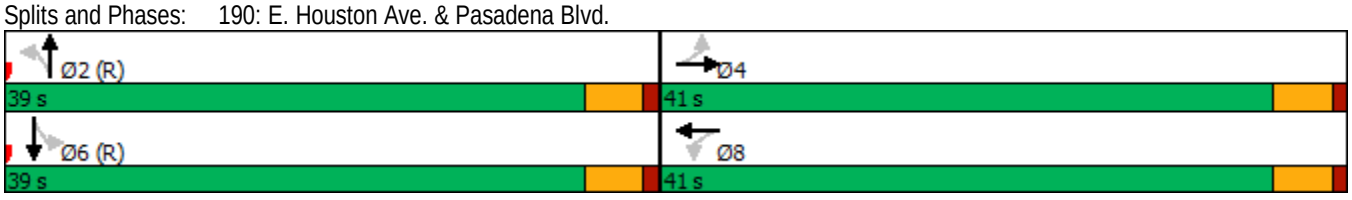
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	30.0	7.8	22.0	24.2	26.0	8.4	21.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	25.5	9.5	21.5	9.5	21.5	3.5	27.5
Max Q Clear Time (g_c+I1), s	2.0	7.2	2.1	15.6	2.0	11.0	2.0	14.0
Green Ext Time (p_c), s	0.1	0.9	0.2	1.9	0.3	0.9	0.0	2.9

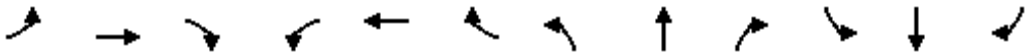
Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Lane Group	Ø2	Ø4	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	2	4	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0	41.0
Total Split (%)	49%	51%	49%	51%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1841	0	1753	1841	0	0	3681	0	0	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1841	0	1753	1841	0	0	1749	0	0	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	988	840	0	988	840	0	0	3301	0	0	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

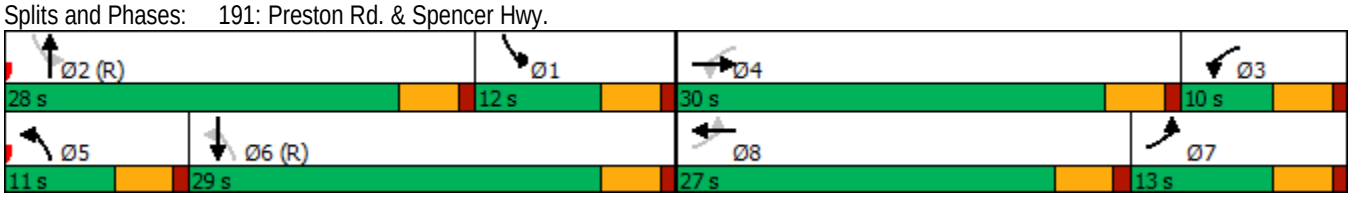
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0		0.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		34.5		36.5		34.5		36.5				
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0		0.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

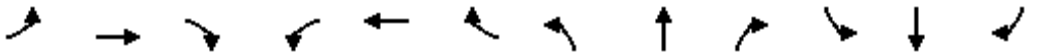
Intersection Summary												
HCM 6th Ctrl Delay			0.0									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	222	888	69	1146	181	520	158	610
Future Volume (vph)	222	888	69	1146	181	520	158	610
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	30.0	10.0	27.0	11.0	28.0	12.0	29.0
Total Split (%)	16.3%	37.5%	12.5%	33.8%	13.8%	35.0%	15.0%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	30.9	27.0	31.8	22.5	31.1	23.6	31.1	24.5
Actuated g/C Ratio	0.39	0.34	0.40	0.28	0.39	0.30	0.39	0.31
v/c Ratio	0.88	0.69	0.35	1.00	0.82	0.60	0.55	0.84
Control Delay	42.0	7.7	12.9	32.1	43.3	25.9	22.3	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	7.7	12.9	32.1	43.3	25.9	22.3	26.5
LOS	D	A	B	C	D	C	C	C
Approach Delay		13.7		31.1		30.1		25.8
Approach LOS		B		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 24.7	Intersection LOS: C
Intersection Capacity Utilization 92.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	888	154	69	1146	156	181	520	53	158	610	229
Future Volume (veh/h)	222	888	154	69	1146	156	181	520	53	158	610	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	239	955	166	74	1232	168	195	559	57	170	656	246
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	278	1215	211	307	1258	171	269	941	96	372	766	287
Arrive On Green	0.07	0.19	0.19	0.21	0.56	0.56	0.08	0.29	0.29	0.10	0.31	0.31
Sat Flow, veh/h	1753	4310	747	1753	4471	610	1753	3205	326	1753	2489	933
Grp Volume(v), veh/h	239	742	379	74	923	477	195	304	312	170	461	441
Grp Sat Flow(s),veh/h/ln	1753	1675	1706	1753	1675	1731	1753	1749	1782	1753	1749	1673
Q Serve(g_s), s	6.4	16.9	16.9	0.0	21.5	21.5	6.1	11.9	12.0	0.0	19.8	19.8
Cycle Q Clear(g_c), s	6.4	16.9	16.9	0.0	21.5	21.5	6.1	11.9	12.0	0.0	19.8	19.8
Prop In Lane	1.00		0.44	1.00		0.35	1.00		0.18	1.00		0.56
Lane Grp Cap(c), veh/h	278	945	481	307	942	487	269	514	523	372	538	515
V/C Ratio(X)	0.86	0.79	0.79	0.24	0.98	0.98	0.73	0.59	0.60	0.46	0.86	0.86
Avail Cap(c_a), veh/h	281	1068	544	307	942	487	269	514	523	372	538	515
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.65	0.65	0.65	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	35.0	30.1	30.2	27.1	17.3	17.3	20.1	24.2	24.2	28.9	26.0	26.0
Incr Delay (d2), s/veh	11.3	1.6	3.1	0.3	18.9	27.8	9.3	5.0	4.9	0.9	15.7	16.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	7.1	7.5	1.1	6.7	8.2	3.0	5.4	5.5	3.0	10.2	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	31.7	33.3	27.3	36.2	45.1	29.5	29.1	29.1	29.7	41.7	42.3
LnGrp LOS	D	C	C	C	D	D	C	C	C	C	D	D
Approach Vol, veh/h		1360			1474			811			1072	
Approach Delay, s/veh		34.7			38.6			29.2			40.1	
Approach LOS		C			D			C			D	

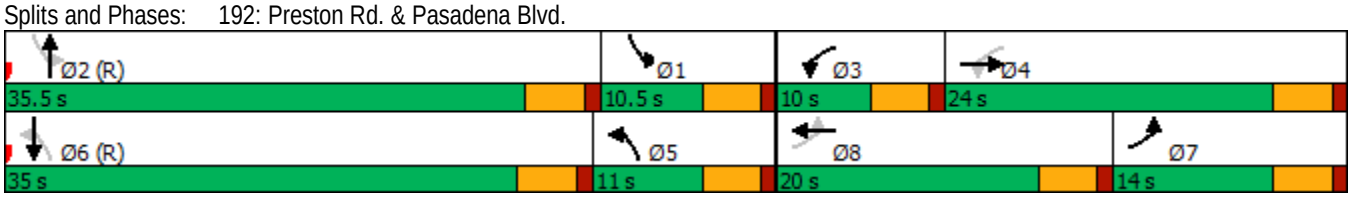
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	28.0	12.8	27.1	11.0	29.1	12.9	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	23.5	5.5	25.5	6.5	24.5	8.5	22.5
Max Q Clear Time (g_c+I1), s	2.0	14.0	2.0	18.9	8.1	21.8	8.4	23.5
Green Ext Time (p_c), s	0.2	2.6	0.0	3.6	0.0	1.5	0.0	0.0

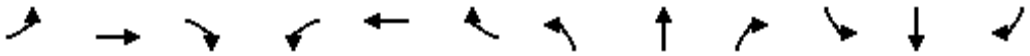
Intersection Summary	
HCM 6th Ctrl Delay	36.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	113	230	75	274	79	560	69	668
Future Volume (vph)	113	230	75	274	79	560	69	668
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	14.0	24.0	10.0	20.0	11.0	35.5	10.5	35.0
Total Split (%)	17.5%	30.0%	12.5%	25.0%	13.8%	44.4%	13.1%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.6	13.9	18.5	13.1	46.4	40.7	46.4	40.3
Actuated g/C Ratio	0.24	0.17	0.23	0.16	0.58	0.51	0.58	0.50
v/c Ratio	0.50	0.58	0.35	0.66	0.25	0.40	0.18	0.51
Control Delay	20.8	13.3	15.3	17.3	13.5	11.1	10.7	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	13.3	15.3	17.3	13.5	11.1	10.7	16.3
LOS	C	B	B	B	B	B	B	B
Approach Delay		15.1		17.0		11.4		15.9
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 16 (20%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	230	122	75	274	78	79	560	75	69	668	135
Future Volume (veh/h)	113	230	122	75	274	78	79	560	75	69	668	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	124	253	134	82	301	86	87	615	82	76	734	148
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	235	346	177	226	394	110	521	1202	160	553	1106	223
Arrive On Green	0.06	0.15	0.15	0.05	0.15	0.15	0.06	0.13	0.13	0.18	0.38	0.38
Sat Flow, veh/h	1753	2236	1147	1753	2696	757	1753	3102	413	1753	2900	585
Grp Volume(v), veh/h	124	196	191	82	193	194	87	346	351	76	443	439
Grp Sat Flow(s),veh/h/ln	1753	1749	1634	1753	1749	1704	1753	1749	1766	1753	1749	1736
Q Serve(g_s), s	0.0	8.5	8.9	3.1	8.5	8.8	0.0	14.8	14.8	0.0	16.8	16.8
Cycle Q Clear(g_c), s	0.0	8.5	8.9	3.1	8.5	8.8	0.0	14.8	14.8	0.0	16.8	16.8
Prop In Lane	1.00		0.70	1.00		0.44	1.00		0.23	1.00		0.34
Lane Grp Cap(c), veh/h	235	270	253	226	255	249	521	678	684	553	667	662
V/C Ratio(X)	0.53	0.72	0.76	0.36	0.76	0.78	0.17	0.51	0.51	0.14	0.66	0.66
Avail Cap(c_a), veh/h	334	426	398	252	339	330	521	678	684	553	667	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	32.2	32.4	26.9	32.8	32.9	22.7	27.8	27.8	17.1	20.5	20.5
Incr Delay (d2), s/veh	1.8	3.7	4.6	1.0	6.8	8.2	0.1	2.6	2.5	0.1	5.2	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.7	3.7	1.3	3.9	4.0	1.4	7.3	7.4	0.9	7.4	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	35.9	36.9	27.8	39.6	41.2	22.9	30.4	30.4	17.2	25.7	25.7
LnGrp LOS	D	D	D	C	D	D	C	C	C	B	C	C
Approach Vol, veh/h		511			469			784			958	
Approach Delay, s/veh		36.4			38.2			29.5			25.0	
Approach LOS		D			D			C			C	

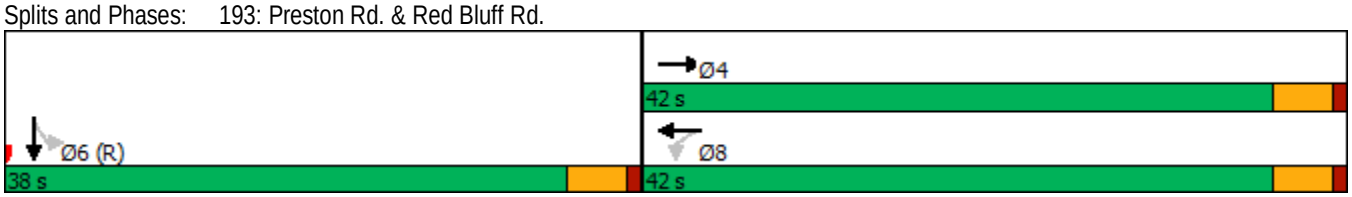
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	35.5	8.8	16.9	19.3	35.0	9.5	16.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.0	31.0	5.5	19.5	6.5	30.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	16.8	5.1	10.9	2.0	18.8	2.0	10.8
Green Ext Time (p_c), s	0.0	3.6	0.0	1.4	0.1	4.5	0.2	0.9

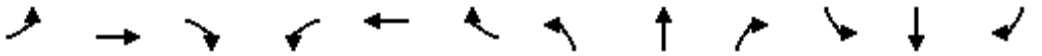
Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	574	37	709	519
Future Volume (vph)	574	37	709	519
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	38.0
Total Split (%)	52.5%	52.5%	52.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	29.5	29.5	29.5	41.5
Actuated g/C Ratio	0.37	0.37	0.37	0.52
v/c Ratio	0.74	0.44	0.63	0.48
Control Delay	12.7	26.3	18.5	14.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.7	26.3	18.5	14.4
LOS	B	C	B	B
Approach Delay	12.7		18.9	14.4
Approach LOS	B		B	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	574	279	37	709	0	0	0	0	169	519	56
Future Volume (veh/h)	0	574	279	37	709	0	0	0	0	169	519	56
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	652	317	42	806	0				192	590	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	884	430	171	1356	0				416	1357	
Arrive On Green	0.00	0.39	0.39	0.78	0.78	0.00				0.50	0.50	0.00
Sat Flow, veh/h	0	2373	1109	571	3589	0				832	2808	0
Grp Volume(v), veh/h	0	500	469	42	806	0				415	367	0
Grp Sat Flow(s),veh/h/ln	0	1749	1641	571	1749	0				1799	1749	0
Q Serve(g_s), s	0.0	19.6	19.6	4.9	7.7	0.0				12.0	10.6	0.0
Cycle Q Clear(g_c), s	0.0	19.6	19.6	24.5	7.7	0.0				12.0	10.6	0.0
Prop In Lane	0.00		0.68	1.00		0.00				0.46		0.00
Lane Grp Cap(c), veh/h	0	678	636	171	1356	0				899	874	
V/C Ratio(X)	0.00	0.74	0.74	0.25	0.59	0.00				0.46	0.42	
Avail Cap(c_a), veh/h	0	820	769	218	1639	0				899	874	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.74	0.74	0.86	0.86	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	21.0	21.0	16.5	6.4	0.0				13.0	12.7	0.0
Incr Delay (d2), s/veh	0.0	2.1	2.2	0.6	0.4	0.0				1.7	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.9	7.4	0.5	1.8	0.0				4.9	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.1	23.2	17.1	6.7	0.0				14.7	14.1	0.0
LnGrp LOS	A	C	C	B	A	A				B	B	
Approach Vol, veh/h		969			848						782	A
Approach Delay, s/veh		23.2			7.2						14.4	
Approach LOS		C			A						B	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		35.5		44.5		35.5						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		37.5		33.5		37.5						
Max Q Clear Time (g_c+I1), s		21.6		14.0		26.5						
Green Ext Time (p_c), s		6.0		4.9		4.5						

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

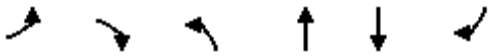
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	143	195	165	806	941
Future Volume (vph)	143	195	165	806	941
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	17.0	60.0	43.0
Total Split (%)	25.0%	25.0%	21.3%	75.0%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	12.1	12.1	58.9	58.9	45.7
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.57
v/c Ratio	0.61	0.52	0.50	0.35	0.64
Control Delay	41.9	9.7	12.2	1.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	9.7	12.2	1.4	7.3
LOS	D	A	B	A	A
Approach Delay	23.3			3.2	7.3
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 23 (29%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 7.9	Intersection LOS: A
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	143	195	165	806	941	172
Future Volume (veh/h)	143	195	165	806	941	172
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	149	203	172	840	980	179
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	274	243	490	2558	1814	331
Arrive On Green	0.16	0.16	0.12	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	1753	3589	3046	539
Grp Volume(v), veh/h	149	203	172	840	580	579
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1744
Q Serve(g_s), s	6.3	10.1	2.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.3	10.1	2.7	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.31
Lane Grp Cap(c), veh/h	274	243	490	2558	1074	1071
V/C Ratio(X)	0.54	0.83	0.35	0.33	0.54	0.54
Avail Cap(c_a), veh/h	340	302	657	2558	1074	1071
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.95	0.95	0.86	0.86
Uniform Delay (d), s/veh	31.1	32.8	3.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.7	15.0	0.4	0.3	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	9.3	0.7	0.1	0.5	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.8	47.7	4.2	0.3	1.7	1.7
LnGrp LOS	C	D	A	A	A	A
Approach Vol, veh/h	352			1012	1159	
Approach Delay, s/veh	41.4			1.0	1.7	
Approach LOS	D			A	A	

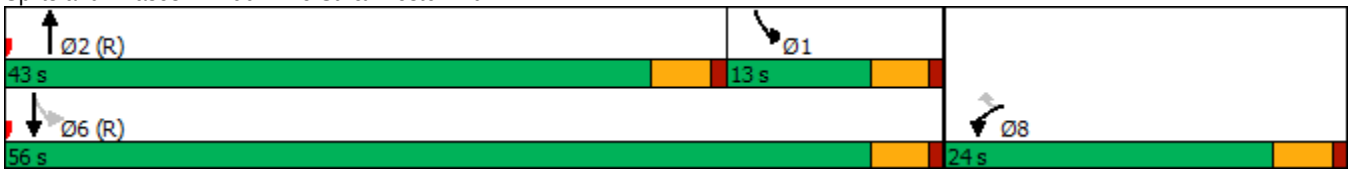
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		63.0		17.0	9.4	53.6
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		15.5	12.5	38.5
Max Q Clear Time (g_c+I1), s		2.0		12.1	4.7	2.0
Green Ext Time (p_c), s		7.0		0.4	0.3	9.6

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	21	71	683	73	682
Future Volume (vph)	21	71	683	73	682
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	24.0	24.0	43.0	13.0	56.0
Total Split (%)	30.0%	30.0%	53.8%	16.3%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.9	6.9	56.6	67.0	67.0
Actuated g/C Ratio	0.09	0.09	0.71	0.84	0.84
v/c Ratio	0.15	0.39	0.32	0.13	0.26
Control Delay	35.4	14.3	0.9	1.7	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	14.3	0.9	1.7	1.3
LOS	D	B	A	A	A
Approach Delay	19.1		0.9		1.3
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 2.2	Intersection LOS: A
Intersection Capacity Utilization 44.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	71	683	27	73	682
Future Volume (veh/h)	21	71	683	27	73	682
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	23	79	759	30	81	758
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	121	108	1650	65	791	2862
Arrive On Green	0.07	0.07	0.48	0.48	0.37	1.00
Sat Flow, veh/h	1753	1560	3522	136	1753	3589
Grp Volume(v), veh/h	23	79	387	402	81	758
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1816	1753	1749
Q Serve(g_s), s	1.0	4.0	11.8	11.8	0.0	0.0
Cycle Q Clear(g_c), s	1.0	4.0	11.8	11.8	0.0	0.0
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	121	108	842	874	791	2862
V/C Ratio(X)	0.19	0.73	0.46	0.46	0.10	0.26
Avail Cap(c_a), veh/h	427	380	842	874	791	2862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.68	0.68	0.75	0.75
Uniform Delay (d), s/veh	35.1	36.5	13.8	13.8	6.6	0.0
Incr Delay (d2), s/veh	0.7	9.2	1.2	1.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	4.6	4.7	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.9	45.7	15.1	15.0	6.6	0.2
LnGrp LOS	D	D	B	B	A	A
Approach Vol, veh/h	102		789			839
Approach Delay, s/veh	43.5		15.0			0.8
Approach LOS	D		B			A

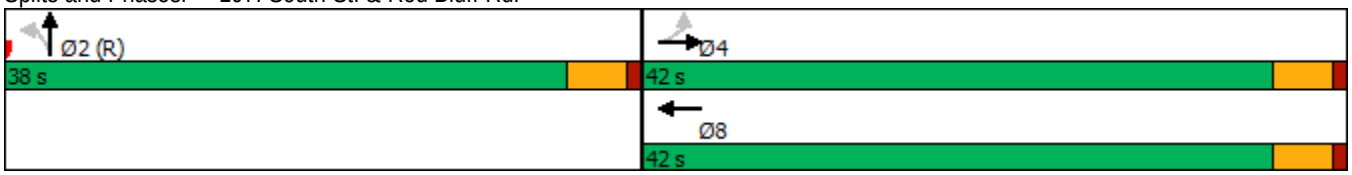
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	27.0	43.0			70.0	10.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	38.5			51.5	19.5
Max Q Clear Time (g_c+I1), s	2.0	13.8			2.0	6.0
Green Ext Time (p_c), s	0.1	5.3			6.4	0.2

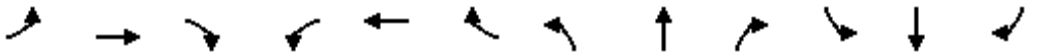
Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	87	578	424	223	496
Future Volume (vph)	87	578	424	223	496
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	38.0	38.0
Total Split (%)	52.5%	52.5%	52.5%	47.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	22.0	22.0	22.0	49.0	49.0
Actuated g/C Ratio	0.28	0.28	0.28	0.61	0.61
v/c Ratio	0.66	0.66	0.60	0.23	0.26
Control Delay	44.4	31.8	24.7	6.6	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	31.8	24.7	6.6	6.2
LOS	D	C	C	A	A
Approach Delay		33.5	24.7		6.3
Approach LOS		C	C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	578	0	0	424	111	223	496	4	0	0	0
Future Volume (veh/h)	87	578	0	0	424	111	223	496	4	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	95	628	0	0	461	0	242	539	0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	247	981	0	0	981		1064	2123				
Arrive On Green	0.56	0.56	0.00	0.00	0.28	0.00	0.20	0.20	0.00			
Sat Flow, veh/h	916	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	95	628	0	0	461	0	242	539	0			
Grp Sat Flow(s),veh/h/ln	916	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	6.9	9.8	0.0	0.0	8.7	0.0	9.3	10.4	0.0			
Cycle Q Clear(g_c), s	15.6	9.8	0.0	0.0	8.7	0.0	9.3	10.4	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	247	981	0	0	981		1064	2123				
V/C Ratio(X)	0.38	0.64	0.00	0.00	0.47		0.23	0.25				
Avail Cap(c_a), veh/h	419	1639	0	0	1639		1064	2123				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.59	0.59	0.00	0.00	0.99	0.00	0.97	0.97	0.00			
Uniform Delay (d), s/veh	19.7	14.8	0.0	0.0	23.9	0.0	16.3	16.7	0.0			
Incr Delay (d2), s/veh	0.6	0.4	0.0	0.0	0.3	0.0	0.5	0.3	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	2.9	0.0	0.0	3.5	0.0	4.2	4.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	15.2	0.0	0.0	24.2	0.0	16.7	17.0	0.0			
LnGrp LOS	C	B	A	A	C		B	B				
Approach Vol, veh/h		723			461	A		781	A			
Approach Delay, s/veh		15.9			24.2			16.9				
Approach LOS		B			C			B				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		53.1		26.9				26.9				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		33.5		37.5				37.5				
Max Q Clear Time (g_c+I1), s		12.4		17.6				10.7				
Green Ext Time (p_c), s		4.4		4.8				3.2				

Intersection Summary		
HCM 6th Ctrl Delay		18.2
HCM 6th LOS		B

Notes

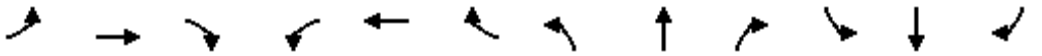
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	67	217	34	245	169	522	88	610
Future Volume (vph)	67	217	34	245	169	522	88	610
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	22.0	10.0	20.0	20.0	34.0	14.0	28.0
Total Split (%)	15.0%	27.5%	12.5%	25.0%	25.0%	42.5%	17.5%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.1	14.1	7.5	12.5	13.0	37.8	8.7	31.5
Actuated g/C Ratio	0.09	0.18	0.09	0.16	0.16	0.47	0.11	0.39
v/c Ratio	0.46	0.52	0.23	0.66	0.65	0.35	0.49	0.54
Control Delay	35.5	16.0	36.7	30.1	49.4	11.2	33.6	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	16.0	36.7	30.1	49.4	11.2	33.6	16.5
LOS	D	B	D	C	D	B	C	B
Approach Delay		19.2		30.7		20.2		18.5
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	217	123	34	245	114	169	522	28	88	610	80
Future Volume (veh/h)	67	217	123	34	245	114	169	522	28	88	610	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	71	228	129	36	258	120	178	549	29	93	642	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	91	313	170	95	340	154	218	1723	91	119	1411	184
Arrive On Green	0.05	0.14	0.14	0.05	0.15	0.15	0.12	0.51	0.51	0.07	0.45	0.45
Sat Flow, veh/h	1753	2185	1190	1753	2341	1058	1753	3379	178	1753	3110	406
Grp Volume(v), veh/h	71	181	176	36	191	187	178	284	294	93	361	365
Grp Sat Flow(s),veh/h/ln	1753	1749	1626	1753	1749	1650	1753	1749	1809	1753	1749	1768
Q Serve(g_s), s	3.2	7.9	8.3	1.6	8.4	8.8	7.9	7.6	7.6	4.2	11.4	11.4
Cycle Q Clear(g_c), s	3.2	7.9	8.3	1.6	8.4	8.8	7.9	7.6	7.6	4.2	11.4	11.4
Prop In Lane	1.00		0.73	1.00		0.64	1.00		0.10	1.00		0.23
Lane Grp Cap(c), veh/h	91	250	233	95	254	240	218	892	922	119	793	802
V/C Ratio(X)	0.78	0.72	0.76	0.38	0.75	0.78	0.82	0.32	0.32	0.78	0.45	0.46
Avail Cap(c_a), veh/h	164	383	356	121	339	320	340	892	922	208	793	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	32.8	32.9	36.5	32.8	33.0	34.1	11.5	11.5	36.7	15.0	15.1
Incr Delay (d2), s/veh	11.5	3.3	4.2	2.5	6.4	8.6	6.9	0.8	0.7	10.5	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.4	3.4	0.7	3.8	3.9	3.6	2.7	2.8	2.1	4.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	36.1	37.2	39.0	39.2	41.6	41.1	12.2	12.2	47.2	16.9	16.9
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		428			414			756			819	
Approach Delay, s/veh		38.7			40.2			19.0			20.4	
Approach LOS		D			D			B			C	

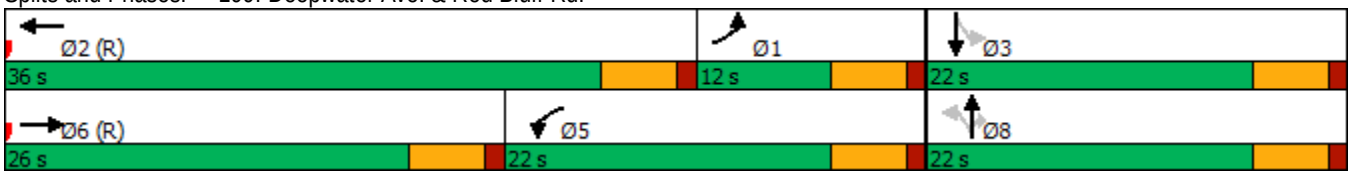
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	45.3	8.8	15.9	14.4	40.8	8.6	16.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	29.5	5.5	17.5	15.5	23.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	6.2	9.6	3.6	10.3	9.9	13.4	5.2	10.8
Green Ext Time (p_c), s	0.1	3.1	0.0	1.1	0.2	3.1	0.0	0.9

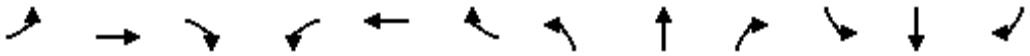
Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	27	436	161	397	1	93	155	30	162
Future Volume (vph)	27	436	161	397	1	93	155	30	162
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	26.0	22.0	36.0	22.0	22.0	22.0	22.0	22.0
Total Split (%)	17.1%	37.1%	31.4%	51.4%	31.4%	31.4%	31.4%	31.4%	31.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lag	Lead	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	6.4	30.8	12.9	43.9		11.3	11.3		11.3
Actuated g/C Ratio	0.09	0.44	0.18	0.63		0.16	0.16		0.16
v/c Ratio	0.19	0.32	0.56	0.21		0.35	0.42		0.51
Control Delay	32.1	14.7	32.0	7.2		29.3	7.2		25.6
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	32.1	14.7	32.0	7.2		29.3	7.2		25.6
LOS	C	B	C	A		C	A		C
Approach Delay		15.7		14.2		15.5			25.6
Approach LOS		B		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 51.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





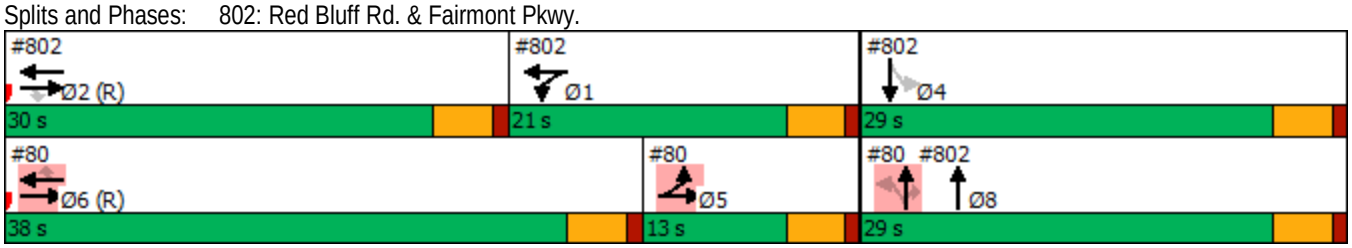
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	436	8	161	397	16	1	93	155	30	162	51
Future Volume (vph)	27	436	8	161	397	16	1	93	155	30	162	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	1.00		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3462		1736	3451			1826	1553		3341	
Flt Permitted	0.95	1.00		0.95	1.00			1.00	1.00		0.90	
Satd. Flow (perm)	1736	3462		1736	3451			1819	1553		3036	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	30	484	9	179	441	18	1	103	172	33	180	57
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	144	0	39	0
Lane Group Flow (vph)	30	491	0	179	456	0	0	104	28	0	231	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	2.8	27.8		15.9	40.9			11.3	11.3		11.3	
Effective Green, g (s)	2.8	27.8		15.9	40.9			11.3	11.3		11.3	
Actuated g/C Ratio	0.04	0.40		0.23	0.58			0.16	0.16		0.16	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	69	1374		394	2016			293	250		490	
v/s Ratio Prot	0.02	c0.14		c0.10	0.13							
v/s Ratio Perm								0.06	0.02		c0.08	
v/c Ratio	0.43	0.36		0.45	0.23			0.35	0.11		0.47	
Uniform Delay, d1	32.8	14.8		23.3	7.0			26.1	25.1		26.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	4.3	0.7		0.8	0.3			0.7	0.2		0.7	
Delay (s)	37.2	15.6		24.1	7.2			26.8	25.3		27.4	
Level of Service	D	B		C	A			C	C		C	
Approach Delay (s)		16.8			12.0			25.9			27.4	
Approach LOS		B			B			C			C	

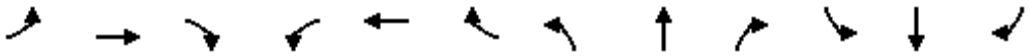
Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	Ø5	Ø6
Lane Configurations									
Traffic Volume (vph)	843	203	93	1020	1	138	419		
Future Volume (vph)	843	203	93	1020	1	138	419		
Turn Type	NA	Perm	Prot	NA	NA	Perm	NA		
Protected Phases	2		1	1 2	8		4	5	6
Permitted Phases		2				4			
Detector Phase	2	2	1	1 2	8	4	4		
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	20.0	8.0	20.0
Total Split (s)	30.0	30.0	21.0		29.0	29.0	29.0	13.0	38.0
Total Split (%)	37.5%	37.5%	26.3%		36.3%	36.3%	36.3%	16%	48%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5			4.5	4.5		
Lead/Lag	Lead	Lead	Lag					Lag	Lead
Lead-Lag Optimize?								Yes	
Recall Mode	C-Max	C-Max	None		None	None	None	None	C-Max
Act Effct Green (s)	30.6	30.6	15.6	50.8	0.0	20.2	20.2		
Actuated g/C Ratio	0.38	0.38	0.20	0.64	0.00	0.25	0.25		
v/c Ratio	0.39	0.31	0.16	0.36	no cap	0.44	0.55		
Control Delay	7.4	2.0	22.2	4.7		28.0	27.5		
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		
Total Delay	7.4	2.0	22.2	4.7	Error	28.0	27.5		
LOS	A	A	C	A	F	C	C		
Approach Delay	6.3			6.2	Err		27.6		
Approach LOS	A			A	F		C		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





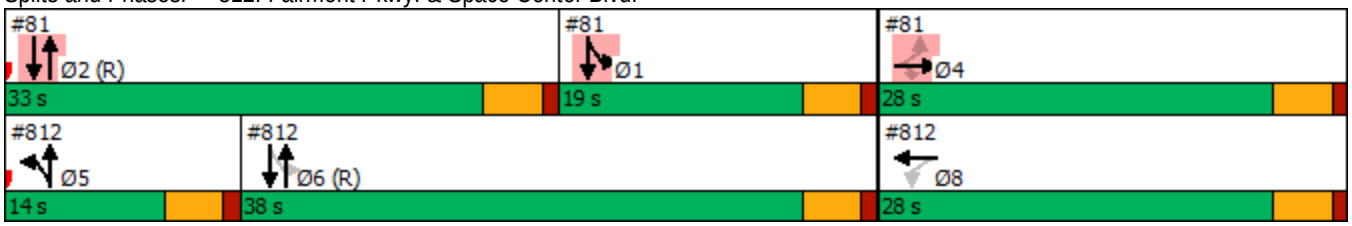
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	843	203	93	1020	0	0	1	0	138	419	9
Future Volume (vph)	0	843	203	93	1020	0	0	1	0	138	419	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5			4.5		4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91			1.00		1.00	0.95	
Frt		1.00	0.85	1.00	1.00			1.00		1.00	1.00	
Flt Protected		1.00	1.00	0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988			0		1736	3460	
Flt Permitted		1.00	1.00	0.95	1.00			1.00		0.76	1.00	
Satd. Flow (perm)		6285	1553	3367	4988			0		1383	3460	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	947	228	104	1146	0	0	1	0	155	471	10
RTOR Reduction (vph)	0	0	141	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	947	87	104	1146	0	0	1	0	155	479	0
Turn Type		NA	Perm	Prot	NA			NA		Perm	NA	
Protected Phases		2		1	1 2			8			4	
Permitted Phases			2							4		
Actuated Green, G (s)		30.7	30.7	15.6	50.8			20.2		20.2	20.2	
Effective Green, g (s)		30.7	30.7	15.6	50.8			20.2		20.2	20.2	
Actuated g/C Ratio		0.38	0.38	0.19	0.63			0.25		0.25	0.25	
Clearance Time (s)		4.5	4.5	4.5				4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0				3.0		3.0	3.0	
Lane Grp Cap (vph)		2411	595	656	3167			0		349	873	
v/s Ratio Prot		c0.15		0.03	c0.23						c0.14	
v/s Ratio Perm			0.06							0.11		
v/c Ratio		0.39	0.15	0.16	0.36			no cap		0.44	0.55	
Uniform Delay, d1		17.9	16.1	26.7	6.9			Error		25.2	25.9	
Progression Factor		0.36	0.33	0.82	0.57					1.00	1.00	
Incremental Delay, d2		0.4	0.4	0.1	0.1			Error		0.9	0.7	
Delay (s)		6.9	5.7	22.0	4.0			Error		26.1	26.7	
Level of Service		A	A	C	A			F		C	C	
Approach Delay (s)		6.6			5.5			Error			26.5	
Approach LOS		A			A			F			C	

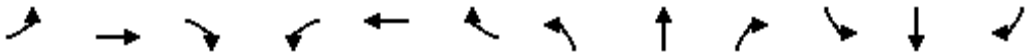
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	217	920	207	395	1	377			
Future Volume (vph)	217	920	207	395	1	377			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	28.0	28.0	14.0		38.0	38.0	19.0	33.0	28.0
Total Split (%)	35.0%	35.0%	17.5%		47.5%	47.5%	24%	41%	35%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	23.5	23.5	9.2	47.5		33.8			
Actuated g/C Ratio	0.29	0.29	0.12	0.59		0.42			
v/c Ratio	0.45	0.59	0.56	0.20		0.26			
Control Delay	26.4	24.8	47.0	3.0		15.4			
Queue Delay	0.3	0.0	2.9	0.8		0.0			
Total Delay	26.7	24.8	49.9	3.8		15.4			
LOS	C	C	D	A		B			
Approach Delay		25.1		19.6		15.4			
Approach LOS		C		B		B			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 59 (74%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





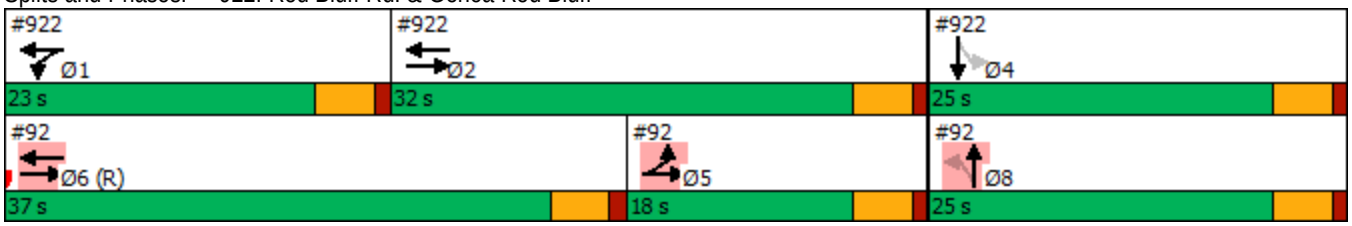
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	217	920	118	207	395	0	1	377	97
Future Volume (vph)	0	0	0	217	920	118	207	395	0	1	377	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.98		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6178		3367	3471			4834	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6178		3367	3471			4543	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	228	968	124	218	416	0	1	397	102
RTOR Reduction (vph)	0	0	0	0	29	0	0	0	0	0	21	0
Lane Group Flow (vph)	0	0	0	228	1063	0	218	416	0	0	479	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				23.5	23.5		9.2	47.5			33.8	
Effective Green, g (s)				23.5	23.5		9.2	47.5			33.8	
Actuated g/C Ratio				0.29	0.29		0.11	0.59			0.42	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				509	1814		387	2060			1919	
v/s Ratio Prot					c0.17		c0.06	0.12				
v/s Ratio Perm				0.13							c0.11	
v/c Ratio				0.45	0.59		0.56	0.20			0.25	
Uniform Delay, d1				23.0	24.1		33.5	7.5			14.9	
Progression Factor				1.00	1.00		1.26	0.37			1.08	
Incremental Delay, d2				0.6	0.5		1.5	0.0			0.3	
Delay (s)				23.6	24.6		43.6	2.8			16.4	
Level of Service				C	C		D	A			B	
Approach Delay (s)		0.0			24.4			16.8			16.4	
Approach LOS		A			C			B			B	

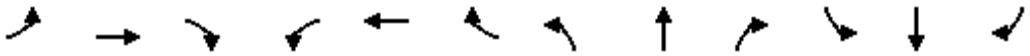
Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	658	180	627	413			
Future Volume (vph)	658	180	627	413			
Turn Type	NA	Prot	NA	NA			
Protected Phases	2	1	2 1	4	5	6	8
Permitted Phases							
Detector Phase	2	1	2 1	4			
Switch Phase							
Minimum Initial (s)	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	32.0	23.0		25.0	18.0	37.0	25.0
Total Split (%)	40.0%	28.8%		31.3%	23%	46%	31%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0			
Total Lost Time (s)	4.5	4.5		4.5			
Lead/Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?							
Recall Mode	None	None		None	None	C-Max	None
Act Effct Green (s)	33.8	15.4	53.7	17.3			
Actuated g/C Ratio	0.42	0.19	0.67	0.22			
v/c Ratio	0.50	0.57	0.29	0.55			
Control Delay	9.7	16.5	4.0	24.1			
Queue Delay	0.0	0.8	0.3	0.0			
Total Delay	9.7	17.3	4.3	24.1			
LOS	A	B	A	C			
Approach Delay	9.7		7.2	24.1			
Approach LOS	A		A	C			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 22 (28%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 56.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	658	337	180	627	0	0	0	0	68	413	74
Future Volume (vph)	0	658	337	180	627	0	0	0	0	68	413	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.91		1.00	0.95						0.91	
Frt		0.95		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		4734		1736	3471						4858	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		4734		1736	3471						4858	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	700	359	191	667	0	0	0	0	72	439	79
RTOR Reduction (vph)	0	102	0	0	0	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	957	0	191	667	0	0	0	0	0	563	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases										4		
Actuated Green, G (s)		33.8		15.4	53.7						17.3	
Effective Green, g (s)		33.8		15.4	53.7						17.3	
Actuated g/C Ratio		0.42		0.19	0.67						0.22	
Clearance Time (s)		4.5		4.5							4.5	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		2000		334	2329						1050	
v/s Ratio Prot		c0.20		c0.11	0.19							
v/s Ratio Perm											0.12	
v/c Ratio		0.48		0.57	0.29						0.54	
Uniform Delay, d1		16.7		29.3	5.4						27.8	
Progression Factor		0.63		0.34	0.64						0.87	
Incremental Delay, d2		0.0		2.3	0.1						0.5	
Delay (s)		10.6		12.3	3.5						24.6	
Level of Service		B		B	A						C	
Approach Delay (s)		10.6			5.4			0.0			24.6	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

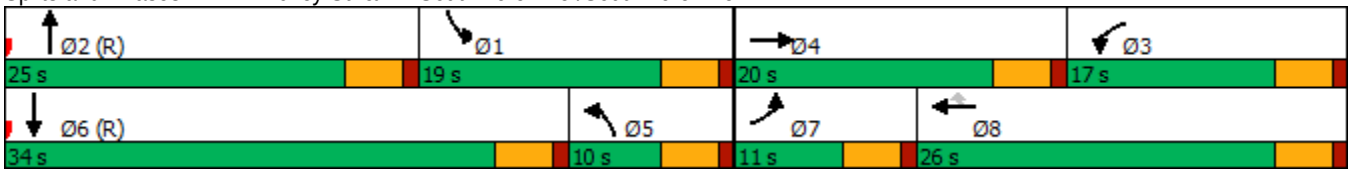
Synchro Report

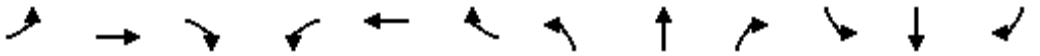
Short-Term Improved Network 2021 PM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	52	400	352	383	225	35	428	192	585
Future Volume (vph)	52	400	352	383	225	35	428	192	585
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	20.0	17.0	26.0	26.0	10.0	25.0	19.0	34.0
Total Split (%)	13.6%	24.7%	21.0%	32.1%	32.1%	12.3%	30.9%	23.5%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.3	14.4	12.0	24.2	24.2	5.5	23.8	12.9	35.2
Actuated g/C Ratio	0.08	0.18	0.15	0.30	0.30	0.07	0.29	0.16	0.43
v/c Ratio	0.39	0.74	0.72	0.38	0.37	0.31	0.70	0.71	0.43
Control Delay	40.5	34.9	33.5	18.7	3.1	43.2	22.4	46.7	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	34.9	33.5	18.7	3.1	43.2	22.4	46.7	18.3
LOS	D	C	C	B	A	D	C	D	B
Approach Delay		35.5		20.5			23.3		25.0
Approach LOS		D		C			C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 52 (64%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 75.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	400	45	352	383	225	35	428	332	192	585	43
Future Volume (veh/h)	52	400	45	352	383	225	35	428	332	192	585	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	53	408	46	359	391	230	36	437	339	196	597	44
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	67	507	57	445	884	394	215	476	367	410	1203	89
Arrive On Green	0.04	0.16	0.16	0.13	0.25	0.25	0.12	0.25	0.25	0.23	0.36	0.36
Sat Flow, veh/h	1753	3170	355	3401	3497	1560	1753	1879	1450	1753	3303	243
Grp Volume(v), veh/h	53	224	230	359	391	230	36	407	369	196	316	325
Grp Sat Flow(s),veh/h/ln	1753	1749	1777	1700	1749	1560	1753	1749	1580	1753	1749	1797
Q Serve(g_s), s	2.4	10.0	10.1	8.3	7.6	5.6	1.5	18.3	18.5	7.8	11.3	11.4
Cycle Q Clear(g_c), s	2.4	10.0	10.1	8.3	7.6	5.6	1.5	18.3	18.5	7.8	11.3	11.4
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.92	1.00		0.14
Lane Grp Cap(c), veh/h	67	280	284	445	884	394	215	443	400	410	637	654
V/C Ratio(X)	0.79	0.80	0.81	0.81	0.44	0.58	0.17	0.92	0.92	0.48	0.50	0.50
Avail Cap(c_a), veh/h	141	335	340	525	928	414	215	443	400	410	637	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	32.8	32.8	34.2	25.5	7.7	31.8	29.4	29.5	26.8	20.0	20.0
Incr Delay (d2), s/veh	15.5	9.3	9.7	7.8	0.3	1.9	0.4	26.6	29.4	0.9	2.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.8	4.9	3.8	3.1	3.6	0.6	10.5	9.9	3.2	4.8	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	42.1	42.6	42.0	25.8	9.6	32.2	56.0	58.9	27.6	22.7	22.7
LnGrp LOS	D	D	D	D	C	A	C	E	E	C	C	C
Approach Vol, veh/h		507			980			812			837	
Approach Delay, s/veh		43.6			27.9			56.3			23.9	
Approach LOS		D			C			E			C	

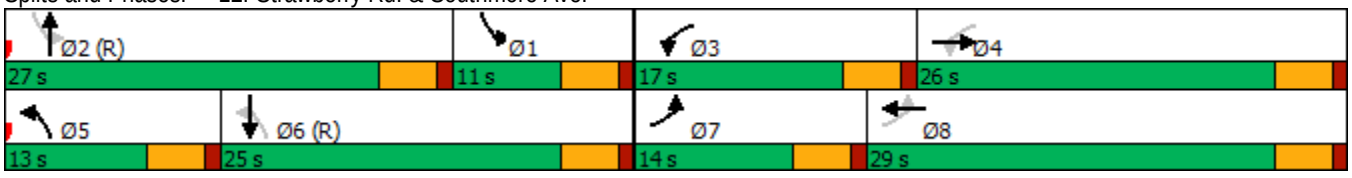
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	25.0	15.1	17.5	14.4	34.0	7.6	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	20.5	12.5	15.5	5.5	29.5	6.5	21.5
Max Q Clear Time (g_c+I1), s	9.8	20.5	10.3	12.1	3.5	13.4	4.4	9.6
Green Ext Time (p_c), s	0.2	0.0	0.3	0.8	0.0	3.5	0.0	2.6

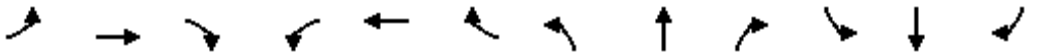
Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	156	622	194	569	135	372	101	381
Future Volume (vph)	156	622	194	569	135	372	101	381
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	26.0	17.0	29.0	13.0	27.0	11.0	25.0
Total Split (%)	17.3%	32.1%	21.0%	35.8%	16.0%	33.3%	13.6%	30.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	30.5	19.6	30.5	21.6	32.5	28.2	33.4	24.4
Actuated g/C Ratio	0.38	0.24	0.38	0.27	0.40	0.35	0.41	0.30
v/c Ratio	0.51	0.78	0.61	0.67	0.35	0.48	0.31	0.47
Control Delay	9.7	15.4	19.4	20.1	17.2	18.9	20.2	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	15.4	19.4	20.1	17.2	18.9	20.2	24.6
LOS	A	B	B	C	B	B	C	C
Approach Delay		14.3		19.9		18.6		23.8
Approach LOS		B		B		B		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 49 (60%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	622	16	194	569	33	135	372	212	101	381	79
Future Volume (veh/h)	156	622	16	194	569	33	135	372	212	101	381	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	159	635	16	198	581	34	138	380	216	103	389	81
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	312	770	19	319	812	47	464	600	336	482	1087	224
Arrive On Green	0.09	0.22	0.22	0.11	0.24	0.24	0.07	0.28	0.28	0.17	0.38	0.38
Sat Flow, veh/h	1753	3486	88	1753	3358	196	1753	2161	1211	1753	2887	595
Grp Volume(v), veh/h	159	318	333	198	302	313	138	306	290	103	234	236
Grp Sat Flow(s),veh/h/ln	1753	1749	1825	1753	1749	1805	1753	1749	1623	1753	1749	1734
Q Serve(g_s), s	5.4	14.0	14.1	6.9	12.8	12.9	3.8	12.4	12.7	0.0	7.8	8.0
Cycle Q Clear(g_c), s	5.4	14.0	14.1	6.9	12.8	12.9	3.8	12.4	12.7	0.0	7.8	8.0
Prop In Lane	1.00		0.05	1.00		0.11	1.00		0.75	1.00		0.34
Lane Grp Cap(c), veh/h	312	386	403	319	423	437	464	486	451	482	658	653
V/C Ratio(X)	0.51	0.82	0.83	0.62	0.71	0.72	0.30	0.63	0.64	0.21	0.36	0.36
Avail Cap(c_a), veh/h	360	464	484	396	529	546	526	486	451	482	658	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.67	0.67	0.67	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	30.1	30.1	22.0	28.1	28.2	13.9	25.6	25.7	23.4	18.2	18.2
Incr Delay (d2), s/veh	1.3	9.9	9.6	1.3	2.3	2.3	0.4	6.1	6.8	0.2	1.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.7	6.9	2.8	5.4	5.6	1.4	5.7	5.5	1.5	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	39.9	39.6	23.4	30.5	30.4	14.3	31.7	32.5	23.7	19.7	19.8
LnGrp LOS	C	D	D	C	C	C	B	C	C	C	B	B
Approach Vol, veh/h		810			813			734			573	
Approach Delay, s/veh		36.4			28.7			28.7			20.4	
Approach LOS		D			C			C			C	

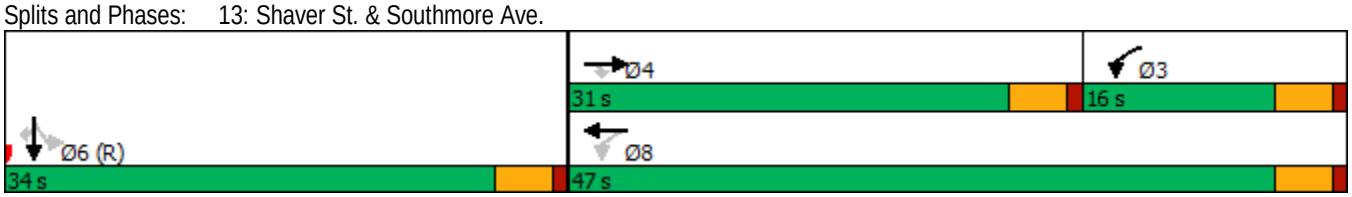
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	27.0	13.5	22.4	10.1	35.0	11.8	24.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.5	12.5	21.5	8.5	20.5	9.5	24.5
Max Q Clear Time (g_c+I1), s	2.0	14.7	8.9	16.1	5.8	10.0	7.4	14.9
Green Ext Time (p_c), s	0.1	2.2	0.2	1.8	0.1	2.0	0.1	2.5

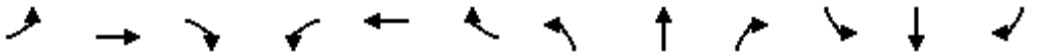
Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	744	169	202	778	230	809	224
Future Volume (vph)	744	169	202	778	230	809	224
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	16.0	47.0	34.0	34.0	34.0
Total Split (%)	38.3%	38.3%	19.8%	58.0%	42.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	24.3	24.3	37.2	37.2	34.8	34.8	34.8
Actuated g/C Ratio	0.30	0.30	0.46	0.46	0.43	0.43	0.43
v/c Ratio	0.77	0.33	0.71	0.54	0.33	0.58	0.36
Control Delay	17.9	5.5	26.5	7.1	13.5	14.5	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	5.5	26.5	7.1	13.5	14.5	13.9
LOS	B	A	C	A	B	B	B
Approach Delay	15.6			11.1		14.2	
Approach LOS	B			B		B	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 23 (28%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	744	169	202	778	0	0	0	0	230	809	224
Future Volume (veh/h)	0	744	169	202	778	0	0	0	0	230	809	224
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	800	182	217	837	0				247	870	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	979	437	253	1454	0				829	1654	
Arrive On Green	0.00	0.28	0.28	0.16	0.83	0.00				0.47	0.47	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	800	182	217	837	0				247	870	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	17.3	7.7	4.3	6.3	0.0				7.0	14.1	0.0
Cycle Q Clear(g_c), s	0.0	17.3	7.7	4.3	6.3	0.0				7.0	14.1	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	979	437	253	1454	0				829	1654	
V/C Ratio(X)	0.00	0.82	0.42	0.86	0.58	0.00				0.30	0.53	
Avail Cap(c_a), veh/h	0	1144	510	361	1835	0				829	1654	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.55	0.55	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	27.2	23.8	31.8	4.5	0.0				13.1	15.0	0.0
Incr Delay (d2), s/veh	0.0	4.1	0.6	7.8	0.2	0.0				0.9	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.3	2.8	4.2	1.3	0.0				2.7	5.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.3	24.4	39.6	4.7	0.0				14.0	16.2	0.0
LnGrp LOS	A	C	C	D	A	A				B	B	
Approach Vol, veh/h		982			1054						1117	A
Approach Delay, s/veh		30.1			11.9						15.7	
Approach LOS		C			B						B	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		11.0	27.2		42.8		38.2					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		11.5	26.5		29.5		42.5					
Max Q Clear Time (g_c+I1), s		6.3	19.3		16.1		8.3					
Green Ext Time (p_c), s		0.3	3.4		5.6		6.6					

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

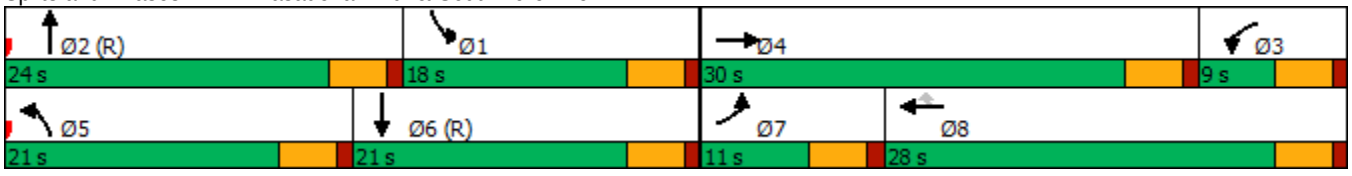
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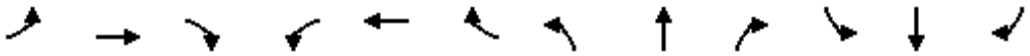
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	86	688	67	637	124	304	436	195	572
Future Volume (vph)	86	688	67	637	124	304	436	195	572
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	30.0	9.0	28.0	28.0	21.0	24.0	18.0	21.0
Total Split (%)	13.6%	37.0%	11.1%	34.6%	34.6%	25.9%	29.6%	22.2%	25.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	25.5	4.5	23.9	23.9	16.7	21.3	13.5	18.1
Actuated g/C Ratio	0.08	0.31	0.06	0.30	0.30	0.21	0.26	0.17	0.22
v/c Ratio	0.68	1.01	0.77	0.68	0.24	0.94	0.61	0.74	0.82
Control Delay	55.8	50.8	72.4	18.4	2.6	67.8	28.5	49.4	41.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	50.8	72.4	18.4	2.6	67.8	28.5	49.4	41.0
LOS	E	D	E	B	A	E	C	D	D
Approach Delay		51.2		20.5			43.2		43.1
Approach LOS		D		C			D		D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 8 (10%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 40.3	Intersection LOS: D
Intersection Capacity Utilization 87.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	688	334	67	637	124	304	436	72	195	572	5
Future Volume (veh/h)	86	688	334	67	637	124	304	436	72	195	572	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	95	756	367	74	700	136	334	479	79	214	629	5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	121	719	348	94	1048	468	357	724	119	295	731	6
Arrive On Green	0.07	0.31	0.31	0.05	0.30	0.30	0.41	0.48	0.48	0.17	0.21	0.21
Sat Flow, veh/h	1753	2284	1106	1753	3497	1560	1753	3007	493	1753	3556	28
Grp Volume(v), veh/h	95	579	544	74	700	136	334	278	280	214	309	325
Grp Sat Flow(s),veh/h/ln	1753	1749	1642	1753	1749	1560	1753	1749	1752	1753	1749	1836
Q Serve(g_s), s	4.3	25.5	25.5	3.4	14.2	3.3	14.8	9.8	9.9	9.4	13.8	13.8
Cycle Q Clear(g_c), s	4.3	25.5	25.5	3.4	14.2	3.3	14.8	9.8	9.9	9.4	13.8	13.8
Prop In Lane	1.00		0.67	1.00		1.00	1.00		0.28	1.00		0.02
Lane Grp Cap(c), veh/h	121	551	517	94	1048	468	357	421	422	295	359	377
V/C Ratio(X)	0.79	1.05	1.05	0.78	0.67	0.29	0.94	0.66	0.67	0.72	0.86	0.86
Avail Cap(c_a), veh/h	141	551	517	97	1048	468	357	421	422	295	359	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	27.8	27.8	37.9	24.8	7.9	23.5	18.5	18.5	31.9	31.1	31.1
Incr Delay (d2), s/veh	22.0	52.4	54.4	32.4	1.6	0.3	31.5	7.9	8.0	8.5	22.7	21.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	17.9	17.1	2.3	5.8	1.8	7.4	3.9	3.9	4.5	7.8	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	80.2	82.2	70.3	26.5	8.2	55.0	26.3	26.6	40.5	53.8	53.0
LnGrp LOS	E	F	F	E	C	A	D	C	C	D	D	D
Approach Vol, veh/h		1218			910			892			848	
Approach Delay, s/veh		79.4			27.3			37.1			50.1	
Approach LOS		E			C			D			D	

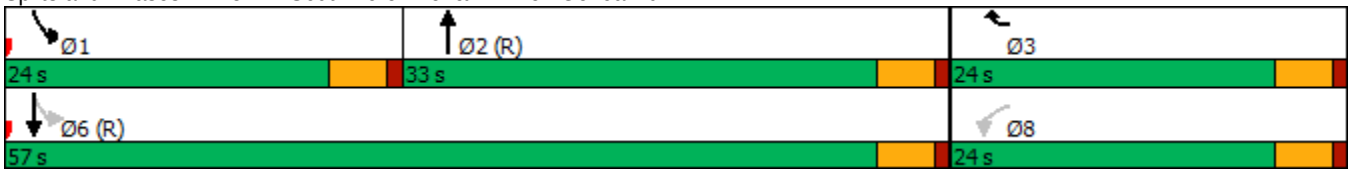
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	24.0	8.9	30.0	21.0	21.1	10.1	28.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	19.5	4.5	25.5	16.5	16.5	6.5	23.5
Max Q Clear Time (g_c+I1), s	11.4	11.9	5.4	27.5	16.8	15.8	6.3	16.2
Green Ext Time (p_c), s	0.1	2.0	0.0	0.0	0.0	0.3	0.0	3.0

Intersection Summary	
HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	127	278	642	294	1048
Future Volume (vph)	127	278	642	294	1048
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	24.0	24.0	33.0	24.0	57.0
Total Split (%)	29.6%	29.6%	40.7%	29.6%	70.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.4	11.4	45.2	60.6	60.6
Actuated g/C Ratio	0.14	0.14	0.56	0.75	0.75
v/c Ratio	0.54	0.62	0.37	0.55	0.44
Control Delay	22.6	9.4	11.8	7.5	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.6	9.4	11.8	7.5	4.8
LOS	C	A	B	A	A
Approach Delay	13.5		11.8		5.4
Approach LOS	B		B		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 53 (65%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 8.6	Intersection LOS: A
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	127	278	642	40	294	1048	
Future Volume (veh/h)	127	278	642	40	294	1048	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	
Adj Flow Rate, veh/h	132	290	669	42	306	1092	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	4	4	4	4	4	4	
Cap, veh/h	369	328	1722	108	564	2373	
Arrive On Green	0.21	0.21	0.52	0.52	0.11	0.68	
Sat Flow, veh/h	1753	1560	3434	210	1753	3589	
Grp Volume(v), veh/h	132	290	350	361	306	1092	
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1803	1753	1749	
Q Serve(g_s), s	5.2	14.6	9.8	9.8	6.0	11.8	
Cycle Q Clear(g_c), s	5.2	14.6	9.8	9.8	6.0	11.8	
Prop In Lane	1.00	1.00		0.12	1.00		
Lane Grp Cap(c), veh/h	369	328	901	929	564	2373	
V/C Ratio(X)	0.36	0.88	0.39	0.39	0.54	0.46	
Avail Cap(c_a), veh/h	422	376	901	929	797	2373	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.94	0.94	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	27.3	31.0	11.9	11.9	7.6	6.1	
Incr Delay (d2), s/veh	0.6	18.6	1.3	1.2	0.8	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.1	6.8	3.7	3.8	1.9	3.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	27.9	49.6	13.2	13.1	8.4	6.7	
LnGrp LOS	C	D	B	B	A	A	
Approach Vol, veh/h	422		711			1398	
Approach Delay, s/veh	42.8		13.1			7.1	
Approach LOS	D		B			A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.2	46.2			59.5	21.5
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	19.5	28.5			52.5	19.5
Max Q Clear Time (g_c+I1), s	8.0	11.8			13.8	16.6
Green Ext Time (p_c), s	0.7	3.9			9.8	0.4

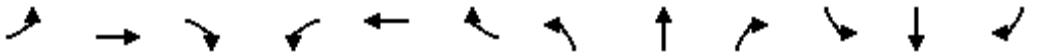
Intersection Summary		
HCM 6th Ctrl Delay	14.7	
HCM 6th LOS	B	

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	109	820	788	635	202
Future Volume (vph)	109	820	788	635	202
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	52.0	41.0	29.0	29.0
Total Split (%)	13.6%	64.2%	50.6%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	41.6	40.5	31.6	31.5	31.5
Actuated g/C Ratio	0.51	0.50	0.39	0.39	0.39
v/c Ratio	0.43	0.51	0.77	0.45	0.30
Control Delay	8.3	8.9	10.5	21.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	8.9	10.5	21.1	7.6
LOS	A	A	B	C	A
Approach Delay		8.8	10.5	18.4	
Approach LOS		A	B	B	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 17 (21%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 64.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



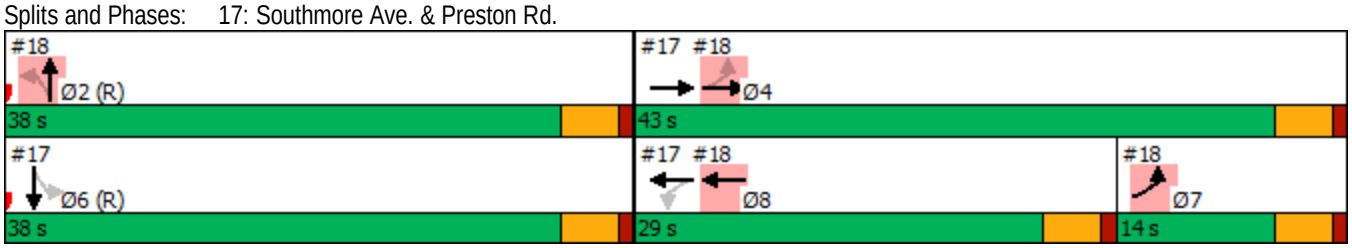


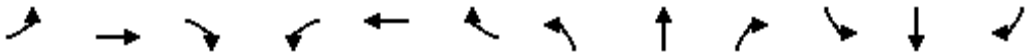
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	820	1	0	788	174	196	635	202	0	0	0
Future Volume (veh/h)	109	820	1	0	788	174	196	635	202	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	114	854	1	0	821	181	204	661	210			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	4	0	4	4	4	4	4			
Cap, veh/h	195	1606	2	0	1004	221	502	1761	688			
Arrive On Green	0.08	0.90	0.90	0.00	0.35	0.35	0.44	0.44	0.44			
Sat Flow, veh/h	1753	3584	4	0	2940	628	1138	3996	1560			
Grp Volume(v), veh/h	114	417	438	0	504	498	320	545	210			
Grp Sat Flow(s),veh/h/ln	1753	1749	1840	0	1749	1728	1784	1675	1560			
Q Serve(g_s), s	0.0	3.8	3.8	0.0	21.2	21.2	9.9	8.8	7.0			
Cycle Q Clear(g_c), s	0.0	3.8	3.8	0.0	21.2	21.2	9.9	8.8	7.0			
Prop In Lane	1.00		0.00	0.00		0.36	0.64		1.00			
Lane Grp Cap(c), veh/h	195	784	824	0	617	609	786	1477	688			
V/C Ratio(X)	0.58	0.53	0.53	0.00	0.82	0.82	0.41	0.37	0.31			
Avail Cap(c_a), veh/h	266	1025	1079	0	788	779	786	1477	688			
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.70	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	34.9	2.5	2.5	0.0	23.8	23.8	15.4	15.1	14.6			
Incr Delay (d2), s/veh	1.9	0.4	0.4	0.0	5.3	5.4	1.6	0.7	1.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	0.8	0.9	0.0	9.0	8.9	4.0	3.2	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	2.9	2.9	0.0	29.2	29.2	17.0	15.8	15.8			
LnGrp LOS	D	A	A	A	C	C	B	B	B			
Approach Vol, veh/h		969			1002			1075				
Approach Delay, s/veh		6.9			29.2			16.2				
Approach LOS		A			C			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		40.2		40.8			7.7	33.1				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		24.5		47.5			6.5	36.5				
Max Q Clear Time (g_c+I1), s		11.9		5.8			2.0	23.2				
Green Ext Time (p_c), s		5.1		6.1			0.1	5.3				
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	515	86	442	789		
Future Volume (vph)	515	86	442	789		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	43.0	29.0	29.0	38.0	38.0	14.0
Total Split (%)	53.1%	35.8%	35.8%	46.9%	47%	17%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lead	Lead			Lag
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	30.0	19.5	19.5	42.0		
Actuated g/C Ratio	0.37	0.24	0.24	0.52		
v/c Ratio	0.51	0.74	0.55	0.58		
Control Delay	35.7	49.3	17.7	11.0		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	35.7	49.3	17.7	11.0		
LOS	D	D	B	B		
Approach Delay	35.7		22.9	11.0		
Approach LOS	D		C	B		

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





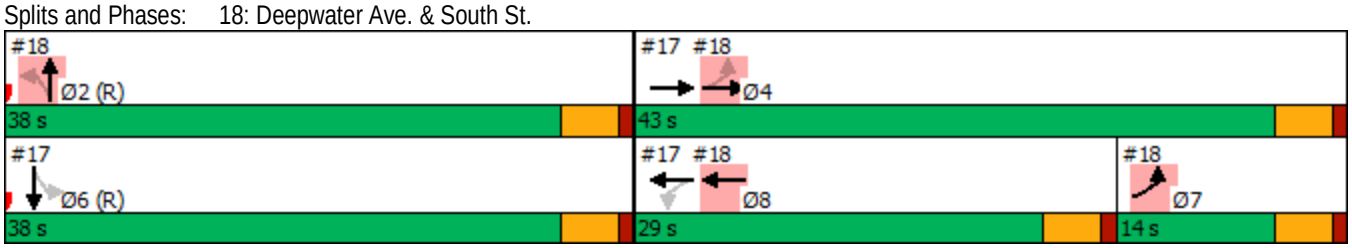
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	515	108	86	442	0	0	0	0	19	789	207
Future Volume (vph)	0	515	108	86	442	0	0	0	0	19	789	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.97		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3268		1736	3355						3362	
Flt Permitted		1.00		0.27	1.00						1.00	
Satd. Flow (perm)		3268		485	3355						3362	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	520	109	87	446	0	0	0	0	19	797	209
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	0	23	0
Lane Group Flow (vph)	0	603	0	87	446	0	0	0	0	0	1002	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		30.1		19.5	19.5						41.9	
Effective Green, g (s)		30.1		19.5	19.5						41.9	
Actuated g/C Ratio		0.37		0.24	0.24						0.52	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1214		116	807						1739	
v/s Ratio Prot		c0.18			0.13							
v/s Ratio Perm				c0.18							0.30	
v/c Ratio		0.50		0.75	0.55						0.58	
Uniform Delay, d1		19.6		28.5	26.9						13.4	
Progression Factor		1.94		0.52	0.58						0.72	
Incremental Delay, d2		0.3		22.0	0.8						0.9	
Delay (s)		38.3		36.9	16.4						10.6	
Level of Service		D		D	B						B	
Approach Delay (s)		38.3			19.7			0.0			10.6	
Approach LOS		D			B			A			B	

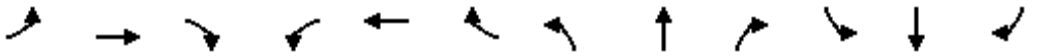
Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	177	362	392	504	
Future Volume (vph)	177	362	392	504	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	43.0	29.0	38.0	38.0
Total Split (%)	17.3%	53.1%	35.8%	46.9%	47%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.0	30.0	19.5	42.0	
Actuated g/C Ratio	0.37	0.37	0.24	0.52	
v/c Ratio	0.57	0.31	0.56	0.30	
Control Delay	12.2	4.1	28.6	12.2	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	12.2	4.1	28.6	12.2	
LOS	B	A	C	B	
Approach Delay		6.8	28.6	12.2	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





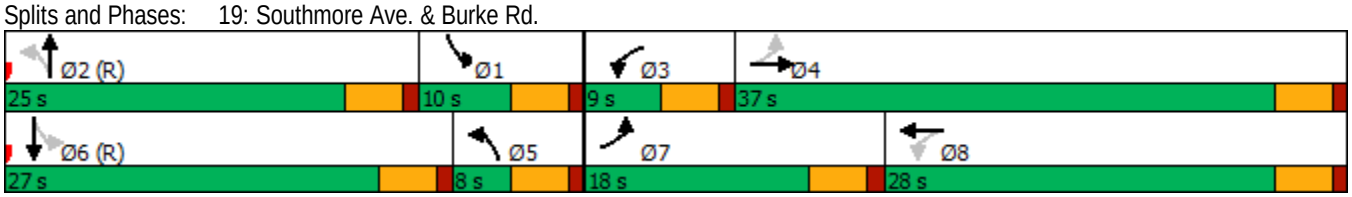
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	177	362	0	0	392	30	132	504	48	0	0	0
Future Volume (vph)	177	362	0	0	392	30	132	504	48	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.99				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3205			4562				
Flt Permitted	0.40	1.00			1.00			0.99				
Satd. Flow (perm)	687	3240			3205			4562				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	184	377	0	0	408	31	138	525	50	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	9	0	0	0	0
Lane Group Flow (vph)	184	377	0	0	431	0	0	704	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	30.1	30.1			19.5			41.9				
Effective Green, g (s)	30.1	30.1			19.5			41.9				
Actuated g/C Ratio	0.37	0.37			0.24			0.52				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	325	1204			771			2359				
v/s Ratio Prot	c0.04	0.12			0.13							
v/s Ratio Perm	c0.17							0.15				
v/c Ratio	0.57	0.31			0.56			0.30				
Uniform Delay, d1	24.2	18.1			27.0			11.2				
Progression Factor	0.26	0.20			1.00			1.00				
Incremental Delay, d2	2.1	0.1			0.9			0.3				
Delay (s)	8.4	3.7			27.9			11.5				
Level of Service	A	A			C			B				
Approach Delay (s)		5.3			27.9			11.5			0.0	
Approach LOS		A			C			B			A	

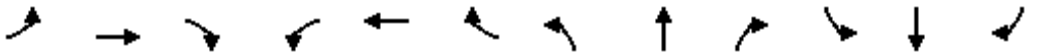
Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	166	481	64	424	52	184	107	218
Future Volume (vph)	166	481	64	424	52	184	107	218
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	37.0	9.0	28.0	8.0	25.0	10.0	27.0
Total Split (%)	22.2%	45.7%	11.1%	34.6%	9.9%	30.9%	12.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	35.0	27.8	23.7	19.0	32.5	29.0	36.6	32.2
Actuated g/C Ratio	0.43	0.34	0.29	0.23	0.40	0.36	0.45	0.40
v/c Ratio	0.53	0.51	0.24	0.74	0.15	0.21	0.22	0.30
Control Delay	9.8	9.1	6.7	19.6	15.7	14.2	13.2	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	9.1	6.7	19.6	15.7	14.2	13.2	9.6
LOS	A	A	A	B	B	B	B	A
Approach Delay		9.2		18.2		14.5		10.4
Approach LOS		A		B		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 52 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 60.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	481	53	64	424	128	52	184	52	107	218	169
Future Volume (veh/h)	166	481	53	64	424	128	52	184	52	107	218	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	512	56	68	451	136	55	196	55	114	232	180
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	306	864	94	273	570	170	574	687	188	672	531	395
Arrive On Green	0.10	0.27	0.27	0.04	0.21	0.21	0.19	0.25	0.25	0.35	0.46	0.46
Sat Flow, veh/h	1753	3180	347	1753	2653	794	1753	2714	742	1753	1912	1421
Grp Volume(v), veh/h	177	281	287	68	296	291	55	124	127	114	211	201
Grp Sat Flow(s),veh/h/ln	1753	1749	1778	1753	1749	1698	1753	1749	1707	1753	1749	1585
Q Serve(g_s), s	6.0	11.3	11.4	2.4	13.0	13.2	0.0	4.6	4.8	0.0	6.6	7.0
Cycle Q Clear(g_c), s	6.0	11.3	11.4	2.4	13.0	13.2	0.0	4.6	4.8	0.0	6.6	7.0
Prop In Lane	1.00		0.19	1.00		0.47	1.00		0.43	1.00		0.90
Lane Grp Cap(c), veh/h	306	475	483	273	376	365	574	443	432	672	486	440
V/C Ratio(X)	0.58	0.59	0.59	0.25	0.79	0.80	0.10	0.28	0.29	0.17	0.43	0.46
Avail Cap(c_a), veh/h	424	702	714	295	507	493	574	443	432	672	486	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	0.63	0.63	0.63	0.81	0.81	0.81	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	21.5	25.6	25.6	23.5	30.1	30.1	18.0	24.3	24.4	12.9	17.4	17.6
Incr Delay (d2), s/veh	1.1	0.7	0.7	0.4	4.8	5.3	0.1	1.6	1.7	0.1	2.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.5	4.7	1.0	5.7	5.7	0.7	2.0	2.1	1.1	2.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	26.3	26.4	23.9	34.8	35.5	18.1	25.9	26.1	13.0	19.9	20.5
LnGrp LOS	C	C	C	C	C	D	B	C	C	B	B	C
Approach Vol, veh/h		745			655			306			526	
Approach Delay, s/veh		25.5			34.0			24.6			18.7	
Approach LOS		C			C			C			B	

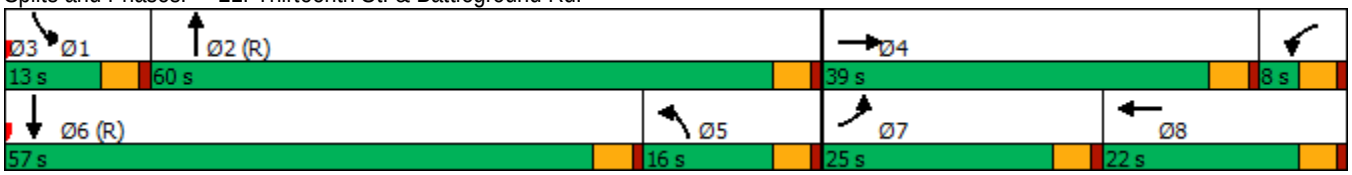
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	25.0	8.0	26.5	19.5	27.0	12.6	21.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	20.5	4.5	32.5	3.5	22.5	13.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	6.8	4.4	13.4	2.0	9.0	8.0	15.2
Green Ext Time (p_c), s	0.1	1.1	0.0	3.2	0.0	2.0	0.2	2.2

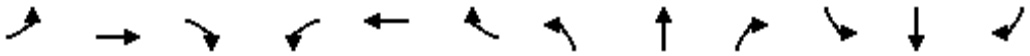
Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	119	16	13	50	50	443	28	787
Future Volume (vph)	119	16	13	50	50	443	28	787
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	25.0	39.0	8.0	22.0	16.0	60.0	13.0	57.0
Total Split (%)	20.8%	32.5%	6.7%	18.3%	13.3%	50.0%	10.8%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.1	16.7	11.4	7.8	10.3	76.7	7.6	71.8
Actuated g/C Ratio	0.12	0.14	0.10	0.06	0.09	0.64	0.06	0.60
v/c Ratio	0.63	0.20	0.09	0.53	0.36	0.22	0.28	0.44
Control Delay	60.4	13.1	45.9	26.7	48.6	5.7	59.1	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	13.1	45.9	26.7	48.6	5.7	59.1	15.7
LOS	E	B	D	C	D	A	E	B
Approach Delay		39.5		28.3		10.1		17.1
Approach LOS		D		C		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	16	78	13	50	97	50	443	4	28	787	64
Future Volume (veh/h)	119	16	78	13	50	97	50	443	4	28	787	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	128	17	84	14	54	104	54	476	4	30	846	69
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	156	128	114	177	149	133	418	2327	20	37	1433	117
Arrive On Green	0.09	0.07	0.07	0.10	0.09	0.09	0.24	0.65	0.65	0.02	0.44	0.44
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3554	30	1753	3274	267
Grp Volume(v), veh/h	128	17	84	14	54	104	54	234	246	30	452	463
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1835	1753	1749	1793
Q Serve(g_s), s	8.6	1.1	6.3	0.9	3.5	7.8	2.9	6.4	6.4	2.0	23.5	23.5
Cycle Q Clear(g_c), s	8.6	1.1	6.3	0.9	3.5	7.8	2.9	6.4	6.4	2.0	23.5	23.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.15
Lane Grp Cap(c), veh/h	156	128	114	177	149	133	418	1145	1201	37	765	784
V/C Ratio(X)	0.82	0.13	0.74	0.08	0.36	0.78	0.13	0.20	0.20	0.80	0.59	0.59
Avail Cap(c_a), veh/h	299	503	448	177	255	227	418	1145	1201	124	765	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	52.0	54.5	48.9	51.8	53.8	35.9	8.3	8.3	58.5	25.6	25.6
Incr Delay (d2), s/veh	8.6	0.4	7.3	0.2	1.5	9.6	0.1	0.4	0.4	31.1	3.3	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.5	2.6	0.4	1.5	3.3	1.2	2.3	2.4	1.2	10.0	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	52.4	61.8	49.1	53.3	63.3	36.0	8.7	8.6	89.5	28.9	28.9
LnGrp LOS	E	D	E	D	D	E	D	A	A	F	C	C
Approach Vol, veh/h		229			172			534			945	
Approach Delay, s/veh		61.4			59.0			11.4			30.8	
Approach LOS		E			E			B			C	

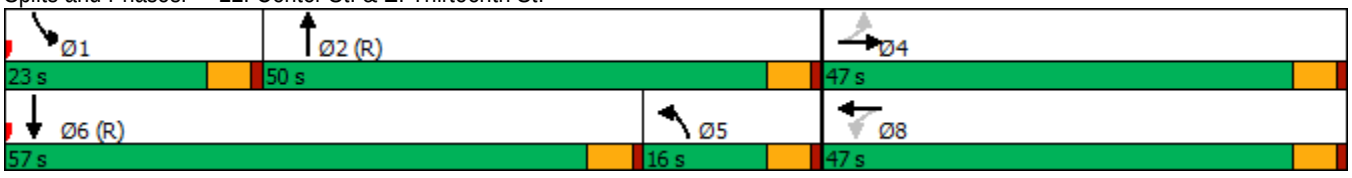
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	83.1	16.6	13.3	33.1	57.0	15.2	14.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	55.5	3.5	34.5	11.5	52.5	20.5	17.5
Max Q Clear Time (g_c+I1), s	4.0	8.4	2.9	8.3	4.9	25.5	10.6	9.8
Green Ext Time (p_c), s	0.0	2.7	0.0	0.5	0.0	5.7	0.2	0.4

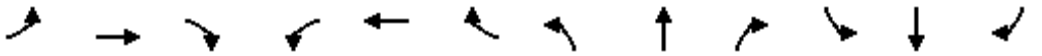
Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	135	124	197	129	88	737	156	794
Future Volume (vph)	135	124	197	129	88	737	156	794
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	47.0	47.0	47.0	47.0	16.0	50.0	23.0	57.0
Total Split (%)	39.2%	39.2%	39.2%	39.2%	13.3%	41.7%	19.2%	47.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		39.3		39.3	11.0	49.0	16.7	54.7
Actuated g/C Ratio		0.33		0.33	0.09	0.41	0.14	0.46
v/c Ratio		0.80		0.94	0.70	0.77	0.82	0.81
Control Delay		38.9		50.5	36.9	9.7	75.9	33.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		38.9		50.5	36.9	9.7	75.9	33.1
LOS		D		D	D	A	E	C
Approach Delay		38.9		50.5		12.3		39.0
Approach LOS		D		D		B		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 57 (48%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 32.6	Intersection LOS: C
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	124	147	197	129	180	88	737	109	156	794	196
Future Volume (veh/h)	135	124	147	197	129	180	88	737	109	156	794	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	171	157	186	249	163	228	111	933	138	197	1005	248
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	179	228	335	239	215	337	161	1213	179	224	1206	296
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.09	0.40	0.40	0.13	0.43	0.43
Sat Flow, veh/h	358	653	956	522	613	963	1753	3056	452	1753	2782	684
Grp Volume(v), veh/h	222	0	292	285	0	355	111	534	537	197	630	623
Grp Sat Flow(s),veh/h/ln	464	0	1503	596	0	1502	1753	1749	1759	1753	1749	1718
Q Serve(g_s), s	17.8	0.0	18.8	23.2	0.0	24.2	7.4	31.8	31.8	13.2	38.3	38.7
Cycle Q Clear(g_c), s	42.0	0.0	18.8	42.0	0.0	24.2	7.4	31.8	31.8	13.2	38.3	38.7
Prop In Lane	0.77		0.64	0.87		0.64	1.00		0.26	1.00		0.40
Lane Grp Cap(c), veh/h	216	0	526	265	0	526	161	694	698	224	758	744
V/C Ratio(X)	1.03	0.00	0.56	1.07	0.00	0.68	0.69	0.77	0.77	0.88	0.83	0.84
Avail Cap(c_a), veh/h	216	0	526	265	0	526	161	694	698	263	758	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.77	0.00	0.77	0.13	0.13	0.13	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	0.0	31.5	50.9	0.0	33.2	52.9	31.4	31.4	51.4	30.1	30.2
Incr Delay (d2), s/veh	68.7	0.0	1.3	69.6	0.0	2.7	1.7	1.1	1.1	24.3	10.3	10.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	0.0	7.0	13.2	0.0	9.1	3.3	13.1	13.2	7.2	17.5	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.0	0.0	32.8	120.5	0.0	35.9	54.5	32.5	32.5	75.7	40.5	41.0
LnGrp LOS	F	A	C	F	A	D	D	C	C	E	D	D
Approach Vol, veh/h		514			640			1182			1450	
Approach Delay, s/veh		71.2			73.5			34.6			45.5	
Approach LOS		E			E			C			D	

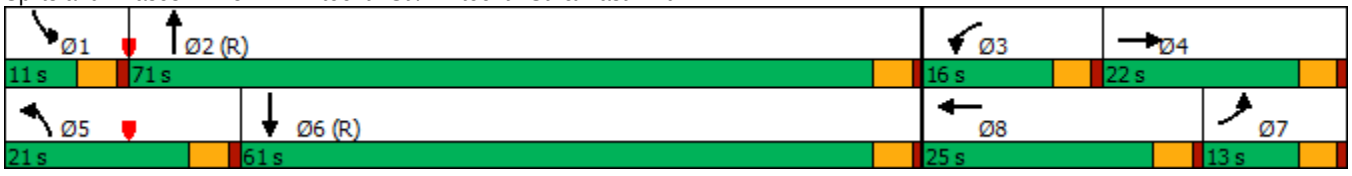
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.4	52.6		47.0	16.0	57.0		47.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0	45.0		42.0	11.0	52.0		42.0				
Max Q Clear Time (g_c+I1), s	15.2	33.8		44.0	9.4	40.7		44.0				
Green Ext Time (p_c), s	0.1	5.0		0.0	0.0	6.0		0.0				

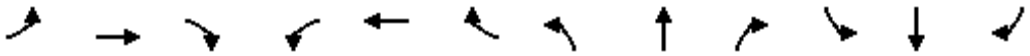
Intersection Summary												
HCM 6th Ctrl Delay			50.3									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	76	62	94	89	163	15	832
Future Volume (vph)	29	76	62	94	89	163	15	832
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	22.0	16.0	25.0	21.0	71.0	11.0	61.0
Total Split (%)	10.8%	18.3%	13.3%	20.8%	17.5%	59.2%	9.2%	50.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.8	8.7	9.4	11.3	11.9	85.7	6.6	74.2
Actuated g/C Ratio	0.07	0.07	0.08	0.09	0.10	0.71	0.06	0.62
v/c Ratio	0.24	0.57	0.47	0.42	0.56	0.07	0.16	0.46
Control Delay	49.8	24.9	54.7	28.4	45.7	17.9	57.1	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	24.9	54.7	28.4	45.7	17.9	57.1	14.6
LOS	D	C	D	C	D	B	E	B
Approach Delay		28.3		36.3		27.2		15.3
Approach LOS		C		D		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 99 (83%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 61.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	76	109	62	94	51	89	163	13	15	832	106
Future Volume (veh/h)	29	76	109	62	94	51	89	163	13	15	832	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	78	112	64	97	53	92	168	13	15	858	109
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	125	160	143	82	149	77	116	2305	177	20	2015	256
Arrive On Green	0.07	0.09	0.09	0.05	0.07	0.07	0.07	0.70	0.70	0.01	0.65	0.65
Sat Flow, veh/h	1753	1749	1560	1753	2237	1146	1753	3291	252	1753	3121	397
Grp Volume(v), veh/h	30	78	112	64	74	76	92	89	92	15	481	486
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1634	1753	1749	1795	1753	1749	1769
Q Serve(g_s), s	1.9	5.1	8.4	4.3	5.0	5.4	6.2	1.9	2.0	1.0	16.1	16.1
Cycle Q Clear(g_c), s	1.9	5.1	8.4	4.3	5.0	5.4	6.2	1.9	2.0	1.0	16.1	16.1
Prop In Lane	1.00		1.00	1.00		0.70	1.00		0.14	1.00		0.22
Lane Grp Cap(c), veh/h	125	160	143	82	117	109	116	1224	1257	20	1129	1142
V/C Ratio(X)	0.24	0.49	0.78	0.78	0.64	0.69	0.79	0.07	0.07	0.75	0.43	0.43
Avail Cap(c_a), veh/h	125	255	227	168	299	279	241	1224	1257	95	1129	1142
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	51.8	53.4	56.6	54.6	54.8	55.2	5.7	5.7	59.1	10.4	10.4
Incr Delay (d2), s/veh	0.7	1.8	7.1	12.9	4.9	6.7	11.5	0.1	0.1	41.6	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.3	3.6	2.2	2.4	2.4	3.1	0.7	0.7	0.7	6.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	53.6	60.5	69.4	59.5	61.4	66.8	5.8	5.8	100.7	11.6	11.6
LnGrp LOS	D	D	E	E	E	E	E	A	A	F	B	B
Approach Vol, veh/h		220			214			273			982	
Approach Delay, s/veh		57.1			63.2			26.3			12.9	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	88.5	10.1	15.5	12.4	82.0	13.1	12.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	66.5	11.5	17.5	16.5	56.5	8.5	20.5
Max Q Clear Time (g_c+I1), s	3.0	4.0	6.3	10.4	8.2	18.1	3.9	7.4
Green Ext Time (p_c), s	0.0	1.0	0.0	0.5	0.1	7.0	0.0	0.6

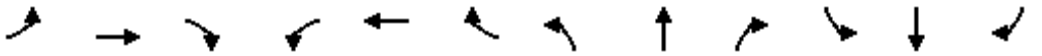
Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	128	50	160	64	82	50	184
Future Volume (vph)	23	128	50	160	64	82	50	184
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	42.0	78.0	78.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	14.5	14.5	14.5	14.5		96.5		96.5
Actuated g/C Ratio	0.12	0.12	0.12	0.12		0.80		0.80
v/c Ratio	0.30	0.59	0.86	0.60		0.20		0.23
Control Delay	48.3	24.9	113.2	38.1		5.7		3.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	48.3	24.9	113.2	38.1		5.7		3.7
LOS	D	C	F	D		A		A
Approach Delay		26.8		52.5		5.7		3.7
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 91 (76%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 23.8	Intersection LOS: C
Intersection Capacity Utilization 44.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	128	124	50	160	50	64	82	42	50	184	12
Future Volume (veh/h)	23	128	124	50	160	50	64	82	42	50	184	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	28	158	153	62	198	62	79	101	52	62	227	15
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	179	309	276	152	467	142	399	502	249	266	956	62
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1102	1749	1560	1052	2641	804	479	672	332	308	1277	82
Grp Volume(v), veh/h	28	158	153	62	129	131	232	0	0	304	0	0
Grp Sat Flow(s),veh/h/ln	1102	1749	1560	1052	1749	1696	1483	0	0	1667	0	0
Q Serve(g_s), s	2.8	9.8	10.7	6.9	7.9	8.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.0	9.8	10.7	17.6	7.9	8.3	4.5	0.0	0.0	6.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.47	0.34		0.22	0.20		0.05
Lane Grp Cap(c), veh/h	179	309	276	152	309	300	1150	0	0	1283	0	0
V/C Ratio(X)	0.16	0.51	0.55	0.41	0.42	0.44	0.20	0.00	0.00	0.24	0.00	0.00
Avail Cap(c_a), veh/h	328	546	487	294	546	530	1150	0	0	1283	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	0.50	0.88	0.88	0.88	0.88	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	49.0	44.7	45.1	53.1	43.9	44.0	4.4	0.0	0.0	4.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.7	0.9	1.5	0.8	0.9	0.3	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.3	4.2	1.9	3.5	3.6	1.6	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	45.3	45.9	54.6	44.7	44.9	4.7	0.0	0.0	5.0	0.0	0.0
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		339			322			232			304	
Approach Delay, s/veh		45.9			46.7			4.7			5.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		94.3		25.7		94.3		25.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		73.5		37.5		73.5		37.5				
Max Q Clear Time (g_c+I1), s		6.5		13.0		8.0		19.6				
Green Ext Time (p_c), s		1.7		2.0		2.1		1.6				

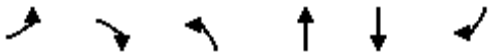
Intersection Summary												
HCM 6th Ctrl Delay			27.8									
HCM 6th LOS			C									

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	31	100	300	800
Future Volume (vph)	1	31	100	300	800
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	4			2	6
Permitted Phases		4	2		
Detector Phase	4	4	2	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	23.0	58.0	58.0	58.0
Total Split (%)	28.4%	28.4%	71.6%	71.6%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	6.2	6.2		71.6	71.6
Actuated g/C Ratio	0.08	0.08		0.88	0.88
v/c Ratio	0.01	0.23		0.22	0.29
Control Delay	43.0	20.2		1.7	0.3
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	43.0	20.2		1.7	0.3
LOS	D	C		A	A
Approach Delay	20.9			1.7	0.3
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 24 (30%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 1.3	Intersection LOS: A
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	31	100	300	800	11
Future Volume (veh/h)	1	31	100	300	800	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	34	109	326	870	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	59	52	491	1630	3021	42
Arrive On Green	0.03	0.03	0.86	0.86	0.86	0.86
Sat Flow, veh/h	1753	1560	490	1990	3624	49
Grp Volume(v), veh/h	1	34	172	263	431	451
Grp Sat Flow(s),veh/h/ln	1753	1560	804	1591	1749	1832
Q Serve(g_s), s	0.0	1.7	0.8	2.3	3.8	3.8
Cycle Q Clear(g_c), s	0.0	1.7	4.7	2.3	3.8	3.8
Prop In Lane	1.00	1.00	0.63			0.03
Lane Grp Cap(c), veh/h	59	52	761	1361	1496	1567
V/C Ratio(X)	0.02	0.65	0.23	0.19	0.29	0.29
Avail Cap(c_a), veh/h	400	356	761	1361	1496	1567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.82	0.82	1.00	1.00
Uniform Delay (d), s/veh	37.8	38.7	1.0	1.0	1.1	1.1
Incr Delay (d2), s/veh	0.1	8.9	0.6	0.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.2	0.2	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.9	47.6	1.6	1.3	1.6	1.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	35			435	882	
Approach Delay, s/veh	47.3			1.4	1.6	
Approach LOS	D			A	A	

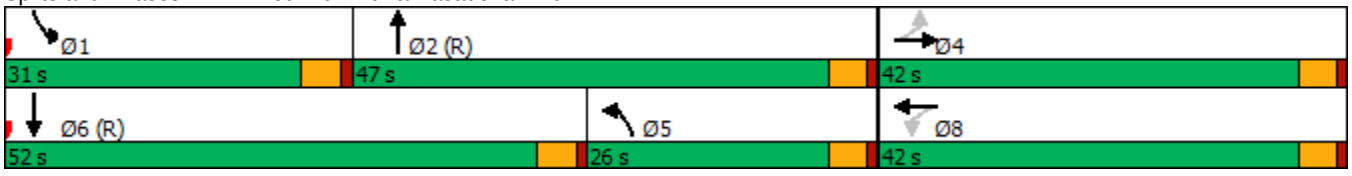
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		73.8		7.2		73.8
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		53.5		18.5		53.5
Max Q Clear Time (g_c+I1), s		6.7		3.7		5.8
Green Ext Time (p_c), s		3.9		0.0		6.9

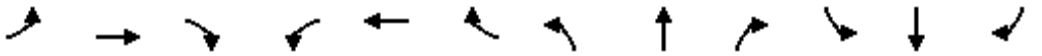
Intersection Summary		
HCM 6th Ctrl Delay	2.7	
HCM 6th LOS	A	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	416	6	462	176	715	223	903
Future Volume (vph)	1	416	6	462	176	715	223	903
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	42.0	42.0	42.0	42.0	26.0	47.0	31.0	52.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	21.7%	39.2%	25.8%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		31.2		31.2	21.5	54.3	21.1	53.8
Actuated g/C Ratio		0.26		0.26	0.18	0.45	0.18	0.45
v/c Ratio		0.81		0.82	0.62	0.52	0.78	0.62
Control Delay		43.5		33.7	27.8	8.3	64.3	28.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		43.5		33.7	27.8	8.3	64.3	28.3
LOS		D		C	C	A	E	C
Approach Delay		43.5		33.7		12.0		35.4
Approach LOS		D		C		B		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 13 (11%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 30.3	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	416	236	6	462	173	176	715	27	223	903	2
Future Volume (veh/h)	1	416	236	6	462	173	176	715	27	223	903	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	443	251	6	491	184	187	761	0	237	961	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	30	542	304	32	584	229	413	1674		268	1384	
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.24	0.48	0.00	0.15	0.40	0.00
Sat Flow, veh/h	1	2115	1186	6	2281	895	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	386	0	309	370	0	311	187	761	0	237	961	0
Grp Sat Flow(s),veh/h/ln	1840	0	1462	1669	0	1514	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	0.0	24.0	1.9	0.0	23.1	11.0	17.4	0.0	15.9	27.5	0.0
Cycle Q Clear(g_c), s	23.7	0.0	24.0	25.9	0.0	23.1	11.0	17.4	0.0	15.9	27.5	0.0
Prop In Lane	0.00		0.81	0.02		0.59	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	501	0	374	458	0	388	413	1674		268	1384	
V/C Ratio(X)	0.77	0.00	0.83	0.81	0.00	0.80	0.45	0.45		0.89	0.69	
Avail Cap(c_a), veh/h	605	0	457	559	0	473	413	1674		387	1384	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.0	0.0	42.1	41.7	0.0	41.8	39.2	20.8	0.0	49.8	30.2	0.0
Incr Delay (d2), s/veh	4.9	0.0	10.1	7.2	0.0	8.0	0.8	0.9	0.0	15.6	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	0.0	9.5	10.8	0.0	9.3	4.8	7.3	0.0	8.1	12.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	0.0	52.2	48.9	0.0	49.8	40.0	21.7	0.0	65.4	33.1	0.0
LnGrp LOS	D	A	D	D	A	D	D	C		E	C	
Approach Vol, veh/h		695			681			948	A		1198	A
Approach Delay, s/veh		49.3			49.3			25.3			39.5	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.8	61.9		35.2	32.8	52.0		35.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	26.5	42.5		37.5	21.5	47.5		37.5				
Max Q Clear Time (g_c+I1), s	17.9	19.4		26.0	13.0	29.5		27.9				
Green Ext Time (p_c), s	0.4	5.6		3.2	0.3	6.7		2.8				

Intersection Summary			
HCM 6th Ctrl Delay		39.5	
HCM 6th LOS		D	

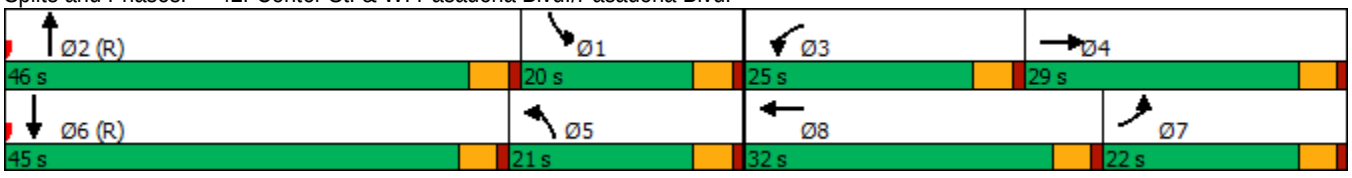
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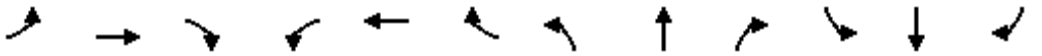
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	186	441	286	482	216	906	215	972
Future Volume (vph)	186	441	286	482	216	906	215	972
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	22.0	29.0	25.0	32.0	21.0	46.0	20.0	45.0
Total Split (%)	18.3%	24.2%	20.8%	26.7%	17.5%	38.3%	16.7%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.1	24.5	20.5	25.9	16.5	41.5	15.5	40.5
Actuated g/C Ratio	0.16	0.20	0.17	0.22	0.14	0.35	0.13	0.34
v/c Ratio	0.73	1.09	1.01	0.86	0.98	1.03	1.00	0.93
Control Delay	59.8	89.8	79.5	41.8	76.2	61.8	86.7	36.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	89.8	79.5	41.8	76.2	61.8	86.7	36.7
LOS	E	F	E	D	E	E	F	D
Approach Delay		84.2		53.7		64.1		45.2
Approach LOS		F		D		E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 76 (63%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 61.3	Intersection LOS: E
Intersection Capacity Utilization 104.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	441	385	286	482	138	216	906	221	215	972	69
Future Volume (veh/h)	186	441	385	286	482	138	216	906	221	215	972	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	194	459	401	298	502	144	225	944	230	224	1012	72
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	289	361	315	299	564	161	241	965	235	226	1118	80
Arrive On Green	0.16	0.20	0.20	0.17	0.21	0.21	0.14	0.35	0.35	0.13	0.34	0.34
Sat Flow, veh/h	1753	1769	1543	1753	2685	766	1753	2789	678	1753	3311	236
Grp Volume(v), veh/h	194	454	406	298	326	320	225	591	583	224	534	550
Grp Sat Flow(s),veh/h/ln	1753	1749	1563	1753	1749	1703	1753	1749	1719	1753	1749	1798
Q Serve(g_s), s	12.5	24.5	24.5	20.4	21.7	21.9	15.2	40.1	40.3	15.3	35.0	35.0
Cycle Q Clear(g_c), s	12.5	24.5	24.5	20.4	21.7	21.9	15.2	40.1	40.3	15.3	35.0	35.0
Prop In Lane	1.00		0.99	1.00		0.45	1.00		0.39	1.00		0.13
Lane Grp Cap(c), veh/h	289	357	319	299	367	358	241	605	594	226	590	607
V/C Ratio(X)	0.67	1.27	1.27	1.00	0.89	0.89	0.93	0.98	0.98	0.99	0.91	0.91
Avail Cap(c_a), veh/h	289	357	319	299	401	390	241	605	594	226	590	607
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.41	0.41	0.41	0.09	0.09	0.09	0.49	0.49	0.49
Uniform Delay (d), s/veh	47.1	47.8	47.8	49.7	46.0	46.1	51.2	38.8	38.8	52.2	37.9	37.9
Incr Delay (d2), s/veh	5.9	142.1	145.2	32.0	9.4	10.3	6.9	6.9	7.4	38.9	11.3	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	24.5	22.2	11.4	10.2	10.1	7.0	17.7	17.5	9.1	16.4	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.0	189.8	193.0	81.7	55.4	56.4	58.1	45.7	46.3	91.1	49.2	49.0
LnGrp LOS	D	F	F	F	E	E	E	D	D	F	D	D
Approach Vol, veh/h		1054			944			1399			1308	
Approach Delay, s/veh		165.9			64.0			47.9			56.3	
Approach LOS		F			E			D			E	

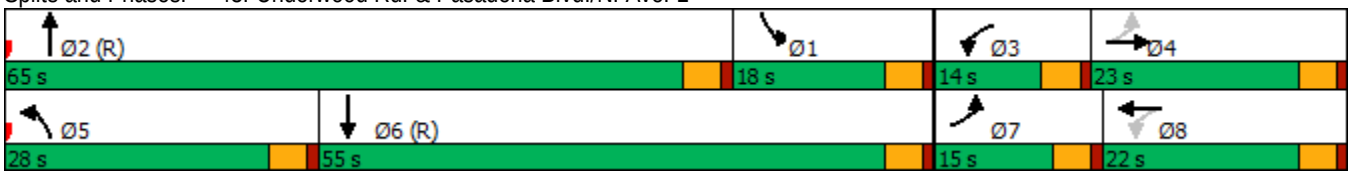
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	46.0	25.0	29.0	21.0	45.0	24.3	29.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	41.5	20.5	24.5	16.5	40.5	17.5	27.5
Max Q Clear Time (g_c+I1), s	17.3	42.3	22.4	26.5	17.2	37.0	14.5	23.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.1	0.1	1.3

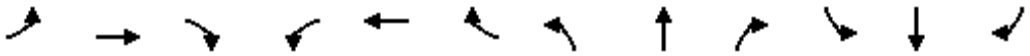
Intersection Summary	
HCM 6th Ctrl Delay	79.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	116	211	99	252	194	420	87	759
Future Volume (vph)	116	211	99	252	194	420	87	759
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	23.0	14.0	22.0	28.0	65.0	18.0	55.0
Total Split (%)	12.5%	19.2%	11.7%	18.3%	23.3%	54.2%	15.0%	45.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	26.6	16.6	24.7	15.6	19.5	62.8	13.5	56.9
Actuated g/C Ratio	0.22	0.14	0.21	0.13	0.16	0.52	0.11	0.47
v/c Ratio	0.59	0.77	0.58	0.73	0.78	0.30	0.50	0.68
Control Delay	40.8	34.3	46.4	57.0	61.9	6.4	48.1	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	34.3	46.4	57.0	61.9	6.4	48.1	17.4
LOS	D	C	D	E	E	A	D	B
Approach Delay		35.8		54.3		22.5		19.9
Approach LOS		D		D		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55 (46%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 75.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	211	192	99	252	41	194	420	58	87	759	211
Future Volume (veh/h)	116	211	192	99	252	41	194	420	58	87	759	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	130	237	216	111	283	46	218	472	65	98	853	237
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	254	273	238	195	436	70	247	1558	214	216	1315	365
Arrive On Green	0.08	0.15	0.15	0.07	0.14	0.14	0.14	0.50	0.50	0.12	0.49	0.49
Sat Flow, veh/h	1753	1769	1543	1753	3018	485	1753	3090	423	1753	2704	751
Grp Volume(v), veh/h	130	234	219	111	163	166	218	266	271	98	552	538
Grp Sat Flow(s),veh/h/ln	1753	1749	1563	1753	1749	1753	1753	1749	1764	1753	1749	1706
Q Serve(g_s), s	7.5	15.7	16.5	6.4	10.5	10.8	14.6	10.7	10.8	6.2	28.4	28.4
Cycle Q Clear(g_c), s	7.5	15.7	16.5	6.4	10.5	10.8	14.6	10.7	10.8	6.2	28.4	28.4
Prop In Lane	1.00		0.99	1.00		0.28	1.00		0.24	1.00		0.44
Lane Grp Cap(c), veh/h	254	270	241	195	252	253	247	882	890	216	850	829
V/C Ratio(X)	0.51	0.87	0.91	0.57	0.64	0.66	0.88	0.30	0.30	0.45	0.65	0.65
Avail Cap(c_a), veh/h	270	270	241	214	255	256	343	882	890	216	850	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.98	0.98	0.98	0.60	0.60	0.60	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	49.6	49.9	40.8	48.4	48.5	50.5	17.4	17.4	48.8	23.1	23.1
Incr Delay (d2), s/veh	0.1	3.0	5.1	2.9	5.3	5.8	11.4	0.5	0.5	1.5	3.8	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	7.0	6.7	2.8	4.8	5.0	7.0	4.1	4.2	2.8	11.8	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	52.6	55.0	43.7	53.7	54.4	61.9	17.9	18.0	50.3	26.9	27.1
LnGrp LOS	D	D	D	D	D	D	E	B	B	D	C	C
Approach Vol, veh/h		583			440			755			1188	
Approach Delay, s/veh		50.6			51.4			30.6			28.9	
Approach LOS		D			D			C			C	

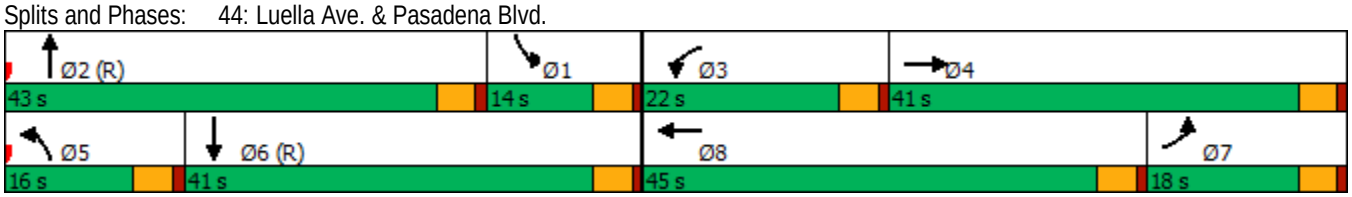
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	65.0	12.7	23.0	21.4	62.9	13.9	21.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	60.5	9.5	18.5	23.5	50.5	10.5	17.5
Max Q Clear Time (g_c+I1), s	8.2	12.8	8.4	18.5	16.6	30.4	9.5	12.8
Green Ext Time (p_c), s	0.1	3.0	0.0	0.0	0.3	6.7	0.0	0.7

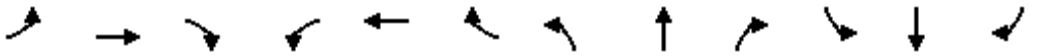
Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	103	611	142	769	76	150	48	204
Future Volume (vph)	103	611	142	769	76	150	48	204
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	18.0	41.0	22.0	45.0	16.0	43.0	14.0	41.0
Total Split (%)	15.0%	34.2%	18.3%	37.5%	13.3%	35.8%	11.7%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.9	35.1	15.1	38.3	10.1	45.1	8.7	44.0
Actuated g/C Ratio	0.10	0.29	0.13	0.32	0.08	0.38	0.07	0.37
v/c Ratio	0.67	0.82	0.73	0.87	0.59	0.38	0.43	0.58
Control Delay	57.3	44.1	49.5	27.5	79.5	21.3	78.5	48.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	44.1	49.5	27.5	79.5	21.3	78.5	48.8
LOS	E	D	D	C	E	C	E	D
Approach Delay		45.7		30.7		35.9		52.6
Approach LOS		D		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 39.6	Intersection LOS: D
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	611	124	142	769	85	76	150	75	48	204	130
Future Volume (veh/h)	103	611	124	142	769	85	76	150	75	48	204	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	116	687	139	160	864	96	85	169	84	54	229	146
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	806	163	188	966	107	107	372	185	252	424	270
Arrive On Green	0.08	0.28	0.28	0.11	0.30	0.30	0.06	0.32	0.32	0.14	0.40	0.40
Sat Flow, veh/h	1753	2898	586	1753	3173	353	1753	1160	577	1753	1050	670
Grp Volume(v), veh/h	116	414	412	160	476	484	85	0	253	54	0	375
Grp Sat Flow(s),veh/h/ln	1753	1749	1735	1753	1749	1777	1753	0	1737	1753	0	1720
Q Serve(g_s), s	7.8	26.9	26.9	10.8	31.2	31.2	5.7	0.0	13.9	3.3	0.0	20.0
Cycle Q Clear(g_c), s	7.8	26.9	26.9	10.8	31.2	31.2	5.7	0.0	13.9	3.3	0.0	20.0
Prop In Lane	1.00		0.34	1.00		0.20	1.00		0.33	1.00		0.39
Lane Grp Cap(c), veh/h	142	486	483	188	533	541	107	0	557	252	0	694
V/C Ratio(X)	0.82	0.85	0.85	0.85	0.89	0.89	0.79	0.00	0.45	0.21	0.00	0.54
Avail Cap(c_a), veh/h	197	532	528	256	590	600	168	0	557	252	0	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.09	0.09	0.62	0.00	0.62	0.95	0.00	0.95
Uniform Delay (d), s/veh	54.3	41.0	41.0	52.6	39.9	39.9	55.6	0.0	32.4	45.4	0.0	27.3
Incr Delay (d2), s/veh	1.8	1.2	1.3	2.0	1.7	1.7	8.3	0.0	1.7	0.4	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	11.4	11.4	4.8	13.2	13.4	2.8	0.0	6.1	1.4	0.0	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	42.2	42.2	54.6	41.6	41.6	63.9	0.0	34.0	45.8	0.0	30.1
LnGrp LOS	E	D	D	D	D	D	E	A	C	D	A	C
Approach Vol, veh/h		942			1120			338			429	
Approach Delay, s/veh		43.9			43.5			41.5			32.1	
Approach LOS		D			D			D			C	

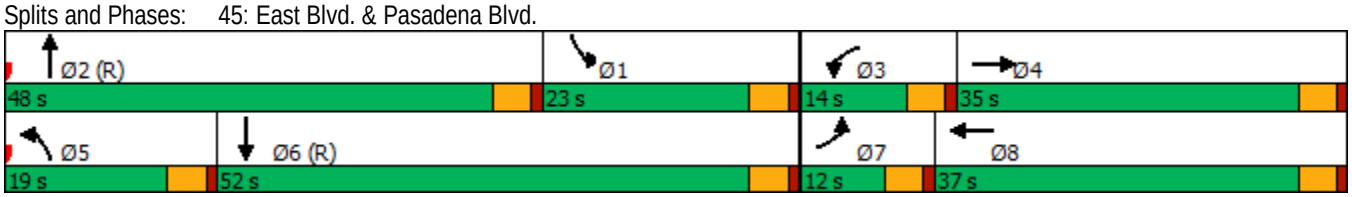
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.8	43.0	17.4	37.9	11.8	52.9	14.2	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	38.5	17.5	36.5	11.5	36.5	13.5	40.5
Max Q Clear Time (g_c+I1), s	5.3	15.9	12.8	28.9	7.7	22.0	9.8	33.2
Green Ext Time (p_c), s	0.0	1.5	0.2	2.9	0.1	1.9	0.1	3.3

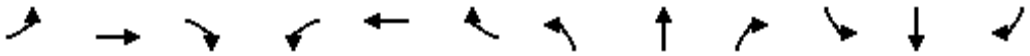
Intersection Summary	
HCM 6th Ctrl Delay	41.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	114	284	140	444	232	664	148	1037
Future Volume (vph)	114	284	140	444	232	664	148	1037
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	9.5	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	35.0	14.0	37.0	19.0	48.0	23.0	52.0
Total Split (%)	10.0%	29.2%	11.7%	30.8%	15.8%	40.0%	19.2%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	30.5	9.5	32.5	14.5	43.5	18.5	47.5
Actuated g/C Ratio	0.06	0.25	0.08	0.27	0.12	0.36	0.15	0.40
v/c Ratio	1.12	1.15	1.09	1.19	1.18	0.66	0.59	1.03
Control Delay	145.8	129.0	160.5	131.3	148.6	29.3	58.1	68.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	145.8	129.0	160.5	131.3	148.6	29.3	58.1	68.0
LOS	F	F	F	F	F	C	E	E
Approach Delay		132.1		137.3		56.8		67.0
Approach LOS		F		F		E		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 87.7	Intersection LOS: F
Intersection Capacity Utilization 105.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	284	211	140	444	102	232	664	110	148	1037	265
Future Volume (veh/h)	114	284	211	140	444	102	232	664	110	148	1037	265
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	121	302	224	149	472	109	247	706	117	157	1103	282
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	110	249	185	139	392	90	212	1088	180	270	1093	277
Arrive On Green	0.06	0.25	0.25	0.08	0.27	0.27	0.12	0.36	0.36	0.15	0.40	0.40
Sat Flow, veh/h	1753	982	728	1753	1447	334	1753	3003	497	1753	2762	701
Grp Volume(v), veh/h	121	0	526	149	0	581	247	411	412	157	695	690
Grp Sat Flow(s),veh/h/ln	1753	0	1710	1753	0	1781	1753	1749	1751	1753	1749	1715
Q Serve(g_s), s	7.5	0.0	30.5	9.5	0.0	32.5	14.5	23.5	23.5	10.0	47.5	47.5
Cycle Q Clear(g_c), s	7.5	0.0	30.5	9.5	0.0	32.5	14.5	23.5	23.5	10.0	47.5	47.5
Prop In Lane	1.00		0.43	1.00		0.19	1.00		0.28	1.00		0.41
Lane Grp Cap(c), veh/h	110	0	435	139	0	482	212	634	635	270	692	679
V/C Ratio(X)	1.10	0.00	1.21	1.07	0.00	1.20	1.17	0.65	0.65	0.58	1.00	1.02
Avail Cap(c_a), veh/h	110	0	435	139	0	482	212	634	635	270	692	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.00	0.50	0.58	0.00	0.58	0.56	0.56	0.56	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	0.0	44.8	55.2	0.0	43.8	52.8	31.9	31.9	47.1	36.3	36.3
Incr Delay (d2), s/veh	91.5	0.0	105.4	79.1	0.0	103.5	99.7	2.9	2.9	3.1	35.2	38.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	25.1	7.1	0.0	27.6	12.0	9.9	9.9	4.4	25.5	25.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	147.8	0.0	150.2	134.3	0.0	147.2	152.5	34.8	34.8	50.3	71.5	75.0
LnGrp LOS	F	A	F	F	A	F	F	C	C	D	F	F
Approach Vol, veh/h		647			730			1070			1542	
Approach Delay, s/veh		149.7			144.6			61.9			70.9	
Approach LOS		F			F			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	48.0	14.0	35.0	19.0	52.0	12.0	37.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	43.5	9.5	30.5	14.5	47.5	7.5	32.5
Max Q Clear Time (g_c+I1), s	12.0	25.5	11.5	32.5	16.5	49.5	9.5	34.5
Green Ext Time (p_c), s	0.2	4.3	0.0	0.0	0.0	0.0	0.0	0.0

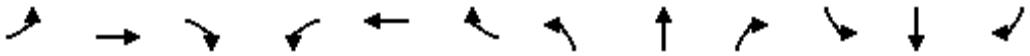
Intersection Summary	
HCM 6th Ctrl Delay	94.8
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	42	4	7	1	125	477	5	430
Future Volume (vph)	42	4	7	1	125	477	5	430
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	28.0	11.0	25.0	24.0	71.0	10.0	57.0
Total Split (%)	11.7%	23.3%	9.2%	20.8%	20.0%	59.2%	8.3%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.0	8.7	10.0	6.0	95.6	98.1	99.2	88.1
Actuated g/C Ratio	0.08	0.07	0.08	0.05	0.80	0.82	0.83	0.73
v/c Ratio	0.34	0.51	0.07	0.11	0.22	0.20	0.01	0.24
Control Delay	41.6	13.7	46.4	32.2	4.3	4.1	3.0	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	13.7	46.4	32.2	4.3	4.1	3.0	6.1
LOS	D	B	D	C	A	A	A	A
Approach Delay		22.6		38.6		4.1		6.0
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 47.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	4	85	7	1	8	125	477	8	5	430	84
Future Volume (veh/h)	42	4	85	7	1	8	125	477	8	5	430	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	49	5	100	8	1	9	147	561	9	6	506	99
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	6	127	97	6	58	659	1952	31	807	2093	408
Arrive On Green	0.05	0.08	0.08	0.01	0.04	0.04	0.04	0.55	0.55	0.20	0.72	0.72
Sat Flow, veh/h	1753	75	1497	1753	158	1426	1753	3523	56	1753	2919	568
Grp Volume(v), veh/h	49	0	105	8	0	10	147	278	292	6	302	303
Grp Sat Flow(s),veh/h/ln	1753	0	1571	1753	0	1584	1753	1749	1831	1753	1749	1738
Q Serve(g_s), s	0.0	0.0	7.9	0.5	0.0	0.7	2.7	10.1	10.1	0.0	7.1	7.2
Cycle Q Clear(g_c), s	0.0	0.0	7.9	0.5	0.0	0.7	2.7	10.1	10.1	0.0	7.1	7.2
Prop In Lane	1.00		0.95	1.00		0.90	1.00		0.03	1.00		0.33
Lane Grp Cap(c), veh/h	197	0	133	97	0	65	659	969	1014	807	1254	1247
V/C Ratio(X)	0.25	0.00	0.79	0.08	0.00	0.15	0.22	0.29	0.29	0.01	0.24	0.24
Avail Cap(c_a), veh/h	247	0	308	180	0	271	872	969	1014	807	1254	1247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.00	0.61	1.00	0.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	53.8	50.0	0.0	55.5	4.1	14.2	14.2	6.4	5.8	5.8
Incr Delay (d2), s/veh	0.4	0.0	6.2	0.4	0.0	1.1	0.2	0.7	0.7	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	3.3	0.2	0.0	0.3	0.8	4.0	4.2	0.0	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	0.0	60.0	50.3	0.0	56.6	4.3	14.9	14.9	6.4	6.3	6.3
LnGrp LOS	D	A	E	D	A	E	A	B	B	A	A	A
Approach Vol, veh/h		154			18			717			611	
Approach Delay, s/veh		57.6			53.8			12.7			6.3	
Approach LOS		E			D			B			A	

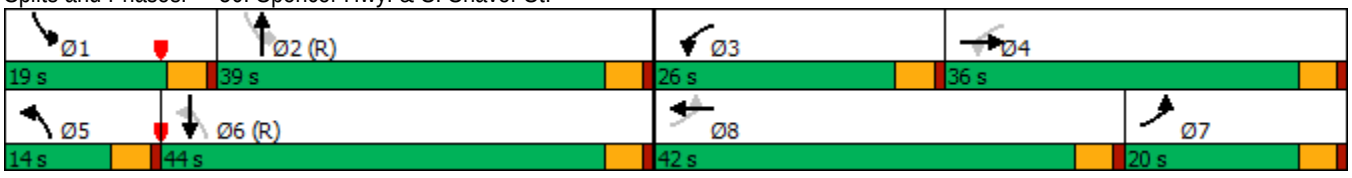
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	71.0	5.3	14.7	9.4	90.6	10.6	9.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	66.5	6.5	23.5	19.5	52.5	9.5	20.5
Max Q Clear Time (g_c+I1), s	2.0	12.1	2.5	9.9	4.7	9.2	2.0	2.7
Green Ext Time (p_c), s	0.0	3.5	0.0	0.4	0.3	3.8	0.0	0.0

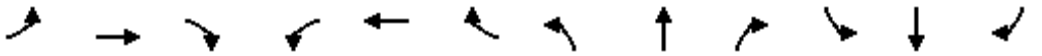
Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	209	987	280	1128	152	550	240	208	622
Future Volume (vph)	209	987	280	1128	152	550	240	208	622
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	20.0	36.0	26.0	42.0	14.0	39.0	39.0	19.0	44.0
Total Split (%)	16.7%	30.0%	21.7%	35.0%	11.7%	32.5%	32.5%	15.8%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	51.5	32.1	51.5	37.0	50.5	37.3	37.3	50.5	41.3
Actuated g/C Ratio	0.43	0.27	0.43	0.31	0.42	0.31	0.31	0.42	0.34
v/c Ratio	0.82	0.90	0.87	0.89	0.67	0.56	0.42	0.62	0.71
Control Delay	43.2	28.5	43.8	23.1	35.4	37.7	13.2	29.0	37.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	28.5	43.8	23.1	35.4	37.7	13.2	29.0	37.3
LOS	D	C	D	C	D	D	B	C	D
Approach Delay		30.8		26.8		31.1			35.6
Approach LOS		C		C		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 108 (90%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	987	141	280	1128	162	152	550	240	208	622	167
Future Volume (veh/h)	209	987	141	280	1128	162	152	550	240	208	622	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	220	1039	148	295	1187	171	160	579	253	219	655	176
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	244	1150	164	328	1344	194	304	1238	552	376	1033	277
Arrive On Green	0.19	0.52	0.52	0.05	0.10	0.10	0.07	0.35	0.35	0.10	0.38	0.38
Sat Flow, veh/h	1753	4445	632	1753	4437	639	1753	3497	1560	1753	2726	732
Grp Volume(v), veh/h	220	783	404	295	896	462	160	579	253	219	420	411
Grp Sat Flow(s),veh/h/ln	1753	1675	1727	1753	1675	1726	1753	1749	1560	1753	1749	1709
Q Serve(g_s), s	9.3	25.4	25.5	14.5	31.7	31.7	6.6	15.4	15.0	9.4	23.6	23.6
Cycle Q Clear(g_c), s	9.3	25.4	25.5	14.5	31.7	31.7	6.6	15.4	15.0	9.4	23.6	23.6
Prop In Lane	1.00		0.37	1.00		0.37	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	244	867	447	328	1015	523	304	1238	552	376	663	647
V/C Ratio(X)	0.90	0.90	0.91	0.90	0.88	0.88	0.53	0.47	0.46	0.58	0.63	0.63
Avail Cap(c_a), veh/h	302	879	453	396	1047	539	317	1238	552	419	663	647
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	27.6	27.6	34.0	51.9	51.9	23.0	30.0	29.9	22.2	30.5	30.5
Incr Delay (d2), s/veh	22.5	11.2	19.3	14.3	6.0	10.7	1.5	1.3	2.7	1.7	4.6	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	8.3	9.6	8.0	15.0	16.2	2.8	6.7	5.9	4.0	10.7	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.3	38.8	47.0	48.3	57.9	62.6	24.5	31.3	32.6	23.9	35.0	35.2
LnGrp LOS	E	D	D	D	E	E	C	C	C	C	D	D
Approach Vol, veh/h		1407			1653			992			1050	
Approach Delay, s/veh		45.8			57.5			30.5			32.8	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.1	47.0	21.4	35.5	13.1	50.0	16.1	40.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	34.5	21.5	31.5	9.5	39.5	15.5	37.5
Max Q Clear Time (g_c+I1), s	11.4	17.4	16.5	27.5	8.6	25.6	11.3	33.7
Green Ext Time (p_c), s	0.2	4.6	0.4	2.5	0.0	4.6	0.2	2.7

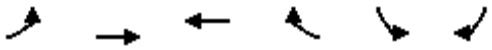
Intersection Summary	
HCM 6th Ctrl Delay	43.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	92	1320	1423	104	89
Future Volume (vph)	92	1320	1423	104	89
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	90.0	71.0	30.0	30.0
Total Split (%)	15.8%	75.0%	59.2%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	62.1	66.6	54.9	44.4	44.4
Actuated g/C Ratio	0.52	0.56	0.46	0.37	0.37
v/c Ratio	0.60	0.51	0.73	0.17	0.15
Control Delay	27.9	8.5	28.0	29.3	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.9	8.5	28.0	29.3	7.0
LOS	C	A	C	C	A
Approach Delay		9.8	28.0	19.0	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 59 (49%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





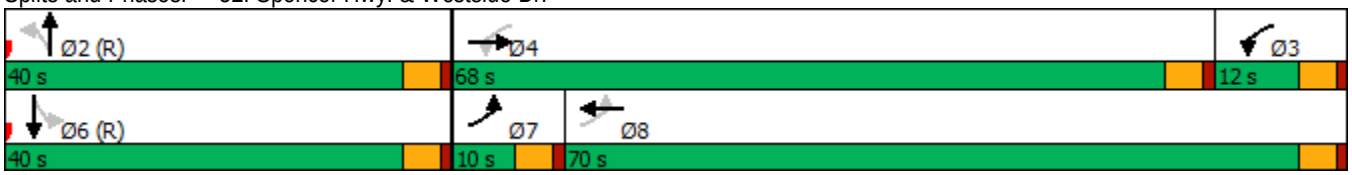
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	92	1320	1423	136	104	89
Future Volume (vph)	92	1320	1423	136	104	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4758		1678	1501
Flt Permitted	0.07	1.00	1.00		0.95	1.00
Satd. Flow (perm)	129	4821	4758		1678	1501
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	95	1361	1467	140	107	92
RTOR Reduction (vph)	0	0	11	0	0	58
Lane Group Flow (vph)	95	1361	1596	0	107	34
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	62.1	66.6	54.9		44.4	44.4
Effective Green, g (s)	62.1	66.6	54.9		44.4	44.4
Actuated g/C Ratio	0.52	0.55	0.46		0.37	0.37
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	159	2675	2176		620	555
v/s Ratio Prot	0.04	c0.28	c0.34			
v/s Ratio Perm	0.27				c0.06	0.02
v/c Ratio	0.60	0.51	0.73		0.17	0.06
Uniform Delay, d1	40.4	16.6	26.6		25.4	24.4
Progression Factor	0.41	0.49	1.00		1.00	1.00
Incremental Delay, d2	5.3	0.1	1.3		0.6	0.2
Delay (s)	21.7	8.2	27.9		26.0	24.6
Level of Service	C	A	C		C	C
Approach Delay (s)		9.1	27.9		25.4	
Approach LOS		A	C		C	

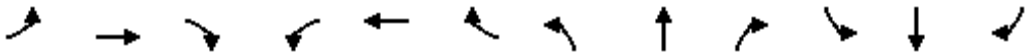
Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	1233	47	1408	28	61	94	40
Future Volume (vph)	18	1233	47	1408	28	61	94	40
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	68.0	12.0	70.0	40.0	40.0	40.0	40.0
Total Split (%)	8.3%	56.7%	10.0%	58.3%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	58.1	46.6	56.3	55.9		51.1		51.1
Actuated g/C Ratio	0.48	0.39	0.47	0.47		0.43		0.43
v/c Ratio	0.13	0.70	0.21	0.71		0.18		0.27
Control Delay	6.1	19.6	10.4	13.6		23.0		26.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	6.1	19.6	10.4	13.6		23.0		26.4
LOS	A	B	B	B		C		C
Approach Delay		19.4		13.5		23.0		26.4
Approach LOS		B		B		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	1233	32	47	1408	128	28	61	33	94	40	22
Future Volume (veh/h)	18	1233	32	47	1408	128	28	61	33	94	40	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	19	1271	33	48	1452	132	29	63	34	97	41	23
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	131	1742	45	162	1717	156	205	436	223	481	200	105
Arrive On Green	0.00	0.11	0.11	0.07	0.73	0.73	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1753	5037	131	1753	4688	426	331	859	440	852	393	208
Grp Volume(v), veh/h	19	845	459	48	1038	546	126	0	0	161	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1817	1753	1675	1764	1630	0	0	1453	0	0
Q Serve(g_s), s	0.8	29.3	29.3	0.0	26.1	26.2	0.0	0.0	0.0	1.6	0.0	0.0
Cycle Q Clear(g_c), s	0.8	29.3	29.3	0.0	26.1	26.2	4.6	0.0	0.0	6.2	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.24	0.23		0.27	0.60		0.14
Lane Grp Cap(c), veh/h	131	1159	629	162	1227	646	864	0	0	786	0	0
V/C Ratio(X)	0.14	0.73	0.73	0.30	0.85	0.85	0.15	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	187	1773	962	212	1829	963	864	0	0	786	0	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.65	0.65	0.65	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.6	47.7	47.7	48.6	13.7	13.7	15.7	0.0	0.0	16.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.5	0.9	0.7	1.6	3.1	0.4	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	13.2	14.4	1.4	4.9	5.4	1.9	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	48.2	48.6	49.3	15.3	16.7	16.0	0.0	0.0	16.6	0.0	0.0
LnGrp LOS	C	D	D	D	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1323			1632			126			161	
Approach Delay, s/veh		48.0			16.8			16.0			16.6	
Approach LOS		D			B			B			B	

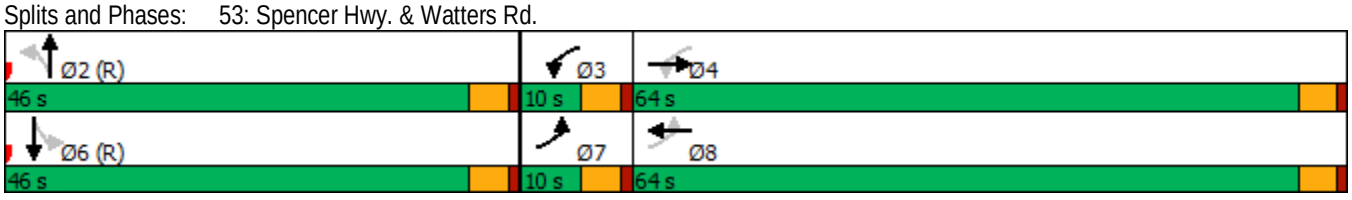
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		65.4	8.6	46.0		65.4	6.1	48.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	7.5	63.5		35.5	5.5	65.5				
Max Q Clear Time (g_c+I1), s		6.6	2.0	31.3		8.2	2.8	28.2				
Green Ext Time (p_c), s		0.7	0.0	10.2		0.9	0.0	15.8				

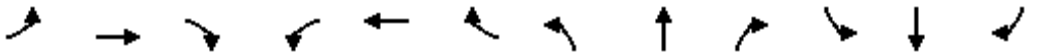
Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	1560	45	1551	124	29	37	30
Future Volume (vph)	29	1560	45	1551	124	29	37	30
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	64.0	10.0	64.0	46.0	46.0	46.0	46.0
Total Split (%)	8.3%	53.3%	8.3%	53.3%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	60.8	55.5	59.9	57.5		47.5		47.5
Actuated g/C Ratio	0.51	0.46	0.50	0.48		0.40		0.40
v/c Ratio	0.22	0.77	0.34	0.70		0.45		0.22
Control Delay	15.1	29.1	18.4	26.2		29.0		19.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	15.1	29.1	18.4	26.2		29.0		19.2
LOS	B	C	B	C		C		B
Approach Delay		28.9		26.0		29.0		19.2
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 27.3	Intersection LOS: C
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1560	132	45	1551	49	124	29	82	37	30	64
Future Volume (veh/h)	29	1560	132	45	1551	49	124	29	82	37	30	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	1625	138	47	1616	51	129	30	85	39	31	67
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	139	1999	170	136	2154	68	369	92	222	211	173	331
Arrive On Green	0.02	0.42	0.42	0.03	0.43	0.43	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	4719	400	1753	5005	158	738	210	507	393	395	754
Grp Volume(v), veh/h	30	1153	610	47	1082	585	244	0	0	137	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1769	1753	1675	1812	1454	0	0	1541	0	0
Q Serve(g_s), s	1.2	36.3	36.4	1.8	32.6	32.6	6.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	36.3	36.4	1.8	32.6	32.6	12.4	0.0	0.0	6.0	0.0	0.0
Prop In Lane	1.00		0.23	1.00		0.09	0.53		0.35	0.28		0.49
Lane Grp Cap(c), veh/h	139	1419	749	136	1442	780	684	0	0	714	0	0
V/C Ratio(X)	0.22	0.81	0.81	0.34	0.75	0.75	0.36	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	187	1661	877	172	1661	899	684	0	0	714	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.5	30.4	30.4	25.4	28.7	28.7	22.2	0.0	0.0	20.6	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.4	2.7	0.1	0.2	0.3	1.5	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	14.2	15.3	0.7	12.5	13.6	4.8	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	31.8	33.1	25.6	28.9	29.0	23.7	0.0	0.0	21.2	0.0	0.0
LnGrp LOS	C	C	C	C	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1793			1714			244			137	
Approach Delay, s/veh		32.1			28.8			23.7			21.2	
Approach LOS		C			C			C			C	

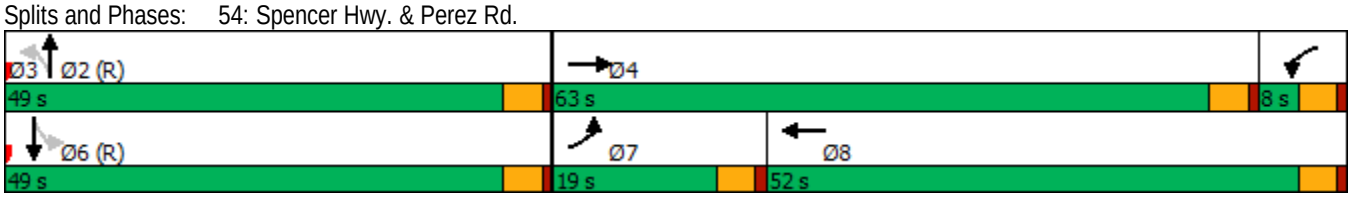
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		57.1	7.5	55.3		57.1	6.7	56.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		41.5	5.5	59.5		41.5	5.5	59.5				
Max Q Clear Time (g_c+I1), s		14.4	3.8	38.4		8.0	3.2	34.6				
Green Ext Time (p_c), s		1.6	0.0	12.4		0.8	0.0	12.8				

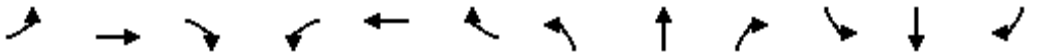
Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	93	1034	7	1245	3	21	184	7
Future Volume (vph)	93	1034	7	1245	3	21	184	7
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	63.0	8.0	52.0	49.0	49.0	49.0	49.0
Total Split (%)	15.8%	52.5%	6.7%	43.3%	40.8%	40.8%	40.8%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.6	55.2	8.5	43.8		51.1		51.1
Actuated g/C Ratio	0.10	0.46	0.07	0.36		0.43		0.43
v/c Ratio	0.58	0.47	0.06	0.78		0.05		0.47
Control Delay	65.0	39.0	39.7	10.7		18.8		27.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	65.0	39.0	39.7	10.7		18.8		27.9
LOS	E	D	D	B		B		C
Approach Delay		41.2		10.8		18.8		27.9
Approach LOS		D		B		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 100 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1034	10	7	1245	114	3	21	9	184	7	71
Future Volume (veh/h)	93	1034	10	7	1245	114	3	21	9	184	7	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	97	1077	10	7	1297	119	3	22	9	192	7	74
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	121	1417	13	218	1552	142	82	566	221	530	26	188
Arrive On Green	0.07	0.28	0.28	0.17	0.44	0.44	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1753	5135	48	1753	4684	430	100	1162	454	983	54	386
Grp Volume(v), veh/h	97	703	384	7	928	488	34	0	0	273	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1832	1753	1675	1763	1717	0	0	1423	0	0
Q Serve(g_s), s	6.5	23.1	23.1	0.4	29.4	29.4	0.0	0.0	0.0	13.1	0.0	0.0
Cycle Q Clear(g_c), s	6.5	23.1	23.1	0.4	29.4	29.4	1.2	0.0	0.0	14.3	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.24	0.09		0.26	0.70		0.27
Lane Grp Cap(c), veh/h	121	924	506	218	1110	584	869	0	0	744	0	0
V/C Ratio(X)	0.80	0.76	0.76	0.03	0.84	0.84	0.04	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	212	1633	893	218	1326	698	869	0	0	744	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	0.38	0.38	0.38	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	55.0	39.8	39.8	44.0	30.7	30.7	16.1	0.0	0.0	19.4	0.0	0.0
Incr Delay (d2), s/veh	7.5	0.8	1.5	0.0	1.6	3.0	0.1	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	9.3	10.3	0.2	10.7	11.5	0.5	0.0	0.0	5.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	40.6	41.3	44.0	32.3	33.7	16.2	0.0	0.0	20.8	0.0	0.0
LnGrp LOS	E	D	D	D	C	C	B	A	A	C	A	A
Approach Vol, veh/h		1184			1423			34			273	
Approach Delay, s/veh		42.7			32.8			16.2			20.8	
Approach LOS		D			C			B			C	

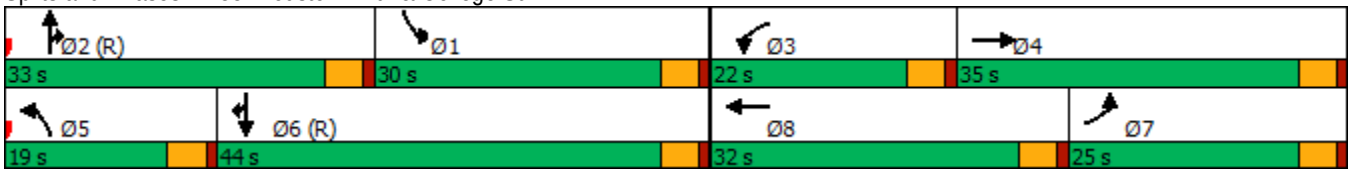
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		63.0	19.4	37.6		63.0	12.8	44.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		44.5	3.5	58.5		44.5	14.5	47.5				
Max Q Clear Time (g_c+I1), s		3.2	2.4	25.1		16.3	8.5	31.4				
Green Ext Time (p_c), s		0.2	0.0	8.0		1.8	0.1	8.3				

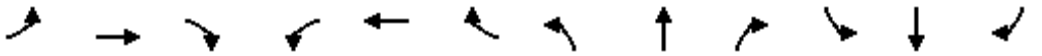
Intersection Summary												
HCM 6th Ctrl Delay			35.5									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	196	814	166	791	102	539	159	254	584	208
Future Volume (vph)	196	814	166	791	102	539	159	254	584	208
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	Prot	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases										
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	25.0	35.0	22.0	32.0	19.0	33.0	33.0	30.0	44.0	44.0
Total Split (%)	20.8%	29.2%	18.3%	26.7%	15.8%	27.5%	27.5%	25.0%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.1	29.6	15.6	27.1	12.0	31.3	31.3	25.5	44.9	44.9
Actuated g/C Ratio	0.15	0.25	0.13	0.23	0.10	0.26	0.26	0.21	0.37	0.37
v/c Ratio	0.77	0.83	0.76	0.88	0.61	0.61	0.31	0.71	0.46	0.32
Control Delay	40.2	20.9	40.1	23.3	66.4	43.3	7.3	55.8	31.1	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	20.9	40.1	23.3	66.4	43.3	7.3	55.8	31.1	12.2
LOS	D	C	D	C	E	D	A	E	C	B
Approach Delay		24.2		25.9		39.0			33.4	
Approach LOS		C		C		D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 51 (43%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 78.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	814	138	166	791	131	102	539	159	254	584	208
Future Volume (veh/h)	196	814	138	166	791	131	102	539	159	254	584	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	202	839	142	171	815	135	105	556	164	262	602	214
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	231	1010	170	199	935	154	130	831	370	466	1501	669
Arrive On Green	0.13	0.23	0.23	0.11	0.22	0.22	0.07	0.24	0.24	0.27	0.43	0.43
Sat Flow, veh/h	1753	4331	729	1753	4347	715	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	202	648	333	171	627	323	105	556	164	262	602	214
Grp Sat Flow(s),veh/h/ln	1753	1675	1710	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	13.6	22.1	22.3	11.5	21.7	21.9	7.1	17.3	8.1	15.5	14.2	7.0
Cycle Q Clear(g_c), s	13.6	22.1	22.3	11.5	21.7	21.9	7.1	17.3	8.1	15.5	14.2	7.0
Prop In Lane	1.00		0.43	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	231	782	399	199	721	368	130	831	370	466	1501	669
V/C Ratio(X)	0.88	0.83	0.84	0.86	0.87	0.88	0.81	0.67	0.44	0.56	0.40	0.32
Avail Cap(c_a), veh/h	299	851	435	256	768	392	212	831	370	466	1501	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	43.7	43.8	52.3	45.5	45.6	54.7	41.5	22.1	38.0	23.6	9.2
Incr Delay (d2), s/veh	19.9	6.4	12.4	20.3	10.1	18.8	11.1	4.3	3.8	1.5	0.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	9.6	10.6	6.1	9.8	11.0	3.5	7.9	3.3	6.9	6.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.1	50.2	56.2	72.5	55.6	64.4	65.8	45.7	25.9	39.6	24.4	10.5
LnGrp LOS	E	D	E	E	E	E	E	D	C	D	C	B
Approach Vol, veh/h		1183			1121			825			1078	
Approach Delay, s/veh		55.4			60.7			44.4			25.3	
Approach LOS		E			E			D			C	

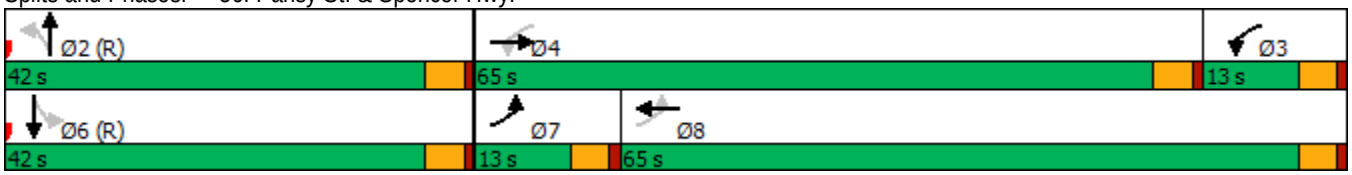
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.4	33.0	18.1	32.5	13.4	56.0	20.3	30.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.5	28.5	17.5	30.5	14.5	39.5	20.5	27.5
Max Q Clear Time (g_c+I1), s	17.5	19.3	13.5	24.3	9.1	16.2	15.6	23.9
Green Ext Time (p_c), s	0.5	2.9	0.2	3.1	0.1	5.1	0.2	1.9

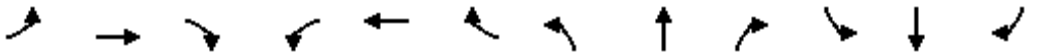
Intersection Summary	
HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	1400	55	1568	33	102	30	131
Future Volume (vph)	53	1400	55	1568	33	102	30	131
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	65.0	13.0	65.0	42.0	42.0	42.0	42.0
Total Split (%)	10.8%	54.2%	10.8%	54.2%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	60.3	51.5	61.4	54.1		47.1		47.1
Actuated g/C Ratio	0.50	0.43	0.51	0.45		0.39		0.39
v/c Ratio	0.35	0.74	0.28	0.75		0.33		0.37
Control Delay	17.2	30.5	10.1	11.3		27.0		28.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	17.2	30.5	10.1	11.3		27.0		28.2
LOS	B	C	B	B		C		C
Approach Delay		30.0		11.2		27.0		28.2
Approach LOS		C		B		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 44 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 60.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1400	55	55	1568	47	33	102	69	30	131	71
Future Volume (veh/h)	53	1400	55	55	1568	47	33	102	69	30	131	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	55	1458	57	57	1633	49	34	106	72	31	136	74
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	1862	73	209	2048	61	128	388	247	105	446	229
Arrive On Green	0.03	0.38	0.38	0.06	0.41	0.41	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1753	4962	194	1753	5013	150	206	863	550	159	993	510
Grp Volume(v), veh/h	55	984	531	57	1091	591	212	0	0	241	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1806	1753	1675	1814	1620	0	0	1662	0	0
Q Serve(g_s), s	2.2	31.2	31.2	0.0	34.3	34.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	31.2	31.2	0.0	34.3	34.3	9.2	0.0	0.0	10.6	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.08	0.16		0.34	0.13		0.31
Lane Grp Cap(c), veh/h	147	1257	678	209	1368	741	763	0	0	781	0	0
V/C Ratio(X)	0.37	0.78	0.78	0.27	0.80	0.80	0.28	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	220	1689	910	223	1689	914	763	0	0	781	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.15	0.15	0.15	0.63	0.63	0.63	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.6	33.2	33.2	48.0	31.1	31.1	20.7	0.0	0.0	21.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.5	0.4	1.4	2.6	0.9	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	12.2	13.2	1.6	13.5	14.9	3.9	0.0	0.0	4.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	33.4	33.7	48.4	32.6	33.8	21.6	0.0	0.0	22.1	0.0	0.0
LnGrp LOS	C	C	C	D	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1570			1739			212			241	
Approach Delay, s/veh		33.2			33.5			21.6			22.1	
Approach LOS		C			C			C			C	

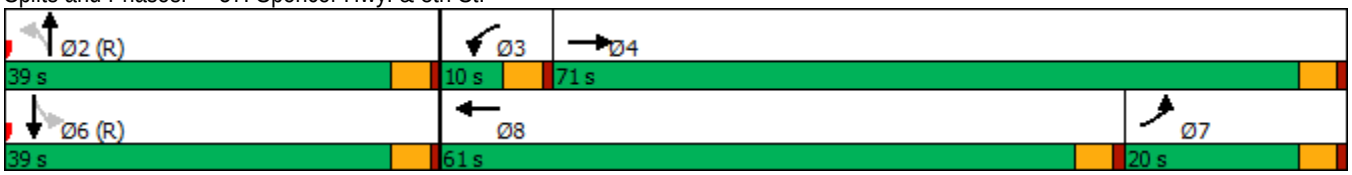
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		58.5	12.0	49.5		58.5	8.0	53.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		37.5	8.5	60.5		37.5	8.5	60.5				
Max Q Clear Time (g_c+I1), s		11.2	2.0	33.2		12.6	4.2	36.3				
Green Ext Time (p_c), s		1.3	0.0	11.8		1.5	0.0	12.7				

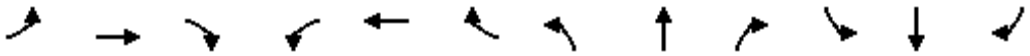
Intersection Summary	
HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	65	1061	9	1184	21	25	32	54
Future Volume (vph)	65	1061	9	1184	21	25	32	54
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	71.0	10.0	61.0	39.0	39.0	39.0	39.0
Total Split (%)	16.7%	59.2%	8.3%	50.8%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.0	52.6	5.5	42.2		56.4		56.4
Actuated g/C Ratio	0.08	0.44	0.05	0.35		0.47		0.47
v/c Ratio	0.47	0.54	0.11	0.74		0.11		0.25
Control Delay	30.9	7.1	48.4	20.7		15.2		17.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	30.9	7.1	48.4	20.7		15.2		17.7
LOS	C	A	D	C		B		B
Approach Delay		8.4		20.9		15.2		17.7
Approach LOS		A		C		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 93 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 55.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	1061	38	9	1184	34	21	25	36	32	54	102
Future Volume (veh/h)	65	1061	38	9	1184	34	21	25	36	32	54	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	1094	39	9	1221	35	22	26	37	33	56	105
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	86	1775	63	13	1580	45	226	268	351	154	264	452
Arrive On Green	0.05	0.36	0.36	0.01	0.31	0.31	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1753	4981	177	1753	5021	144	359	512	671	227	505	863
Grp Volume(v), veh/h	67	736	397	9	815	441	85	0	0	194	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1815	1541	0	0	1595	0	0
Q Serve(g_s), s	4.5	21.7	21.8	0.6	26.4	26.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.5	21.7	21.8	0.6	26.4	26.4	3.0	0.0	0.0	7.5	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.08	0.26		0.44	0.17		0.54
Lane Grp Cap(c), veh/h	86	1193	644	13	1054	571	845	0	0	871	0	0
V/C Ratio(X)	0.78	0.62	0.62	0.68	0.77	0.77	0.10	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	226	1857	1002	80	1577	854	845	0	0	871	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.38	0.38	0.38	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	56.4	31.9	31.9	59.4	37.2	37.2	14.3	0.0	0.0	15.4	0.0	0.0
Incr Delay (d2), s/veh	13.9	0.5	1.0	20.6	0.5	1.0	0.2	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	8.6	9.4	0.3	10.6	11.5	1.2	0.0	0.0	3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	32.4	32.8	80.1	37.8	38.2	14.6	0.0	0.0	16.0	0.0	0.0
LnGrp LOS	E	C	C	F	D	D	B	A	A	B	A	A
Approach Vol, veh/h		1200			1265			85			194	
Approach Delay, s/veh		34.6			38.2			14.6			16.0	
Approach LOS		C			D			B			B	

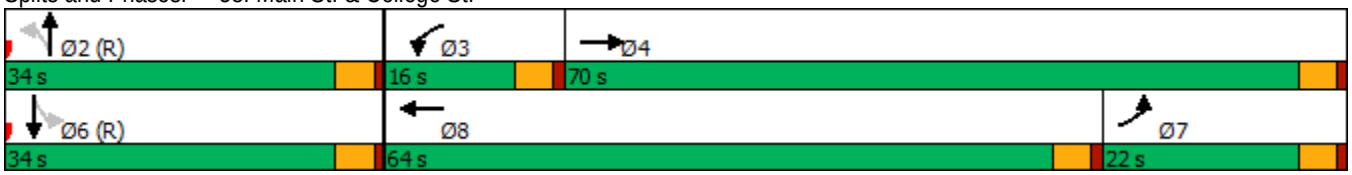
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		67.3	5.4	47.2		67.3	10.4	42.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		34.5	5.5	66.5		34.5	15.5	56.5				
Max Q Clear Time (g_c+I1), s		5.0	2.6	23.8		9.5	6.5	28.4				
Green Ext Time (p_c), s		0.5	0.0	8.9		1.2	0.1	9.3				

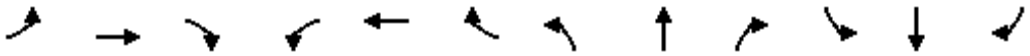
Intersection Summary												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	57	1179	21	1019	47	24	18	24
Future Volume (vph)	57	1179	21	1019	47	24	18	24
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	22.0	70.0	16.0	64.0	34.0	34.0	34.0	34.0
Total Split (%)	18.3%	58.3%	13.3%	53.3%	28.3%	28.3%	28.3%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.7	46.8	7.0	38.8		59.1		59.1
Actuated g/C Ratio	0.09	0.39	0.06	0.32		0.49		0.49
v/c Ratio	0.38	0.66	0.21	0.69		0.13		0.13
Control Delay	56.8	31.1	47.0	37.3		4.2		10.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	56.8	31.1	47.0	37.3		4.2		10.6
LOS	E	C	D	D		A		B
Approach Delay		32.2		37.5		4.2		10.6
Approach LOS		C		D		A		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 43 (36%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 32.5	Intersection LOS: C
Intersection Capacity Utilization 55.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	1179	65	21	1019	36	47	24	26	18	24	64
Future Volume (veh/h)	57	1179	65	21	1019	36	47	24	26	18	24	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	58	1203	66	21	1040	37	48	24	27	18	24	65
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	113	1612	88	26	1398	50	419	210	219	156	215	521
Arrive On Green	0.06	0.33	0.33	0.01	0.28	0.28	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1753	4875	267	1753	4982	177	691	387	404	224	397	961
Grp Volume(v), veh/h	58	827	442	21	699	378	99	0	0	107	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1793	1753	1675	1809	1482	0	0	1582	0	0
Q Serve(g_s), s	3.8	26.3	26.3	1.4	22.8	22.8	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	26.3	26.3	1.4	22.8	22.8	3.3	0.0	0.0	3.8	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.10	0.48		0.27	0.17		0.61
Lane Grp Cap(c), veh/h	113	1108	593	26	940	508	848	0	0	893	0	0
V/C Ratio(X)	0.51	0.75	0.75	0.82	0.74	0.74	0.12	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	256	1829	978	168	1661	897	848	0	0	893	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	54.3	35.7	35.7	59.0	39.2	39.2	13.3	0.0	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	3.5	1.0	1.9	43.8	1.2	2.2	0.3	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	10.8	11.7	1.0	9.5	10.4	1.4	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	36.7	37.6	102.8	40.4	41.4	13.6	0.0	0.0	13.7	0.0	0.0
LnGrp LOS	E	D	D	F	D	D	B	A	A	B	A	A
Approach Vol, veh/h		1327			1098			99			107	
Approach Delay, s/veh		37.9			42.0			13.6			13.7	
Approach LOS		D			D			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		69.5	6.3	44.2		69.5	12.3	38.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	11.5	65.5		29.5	17.5	59.5				
Max Q Clear Time (g_c+I1), s		5.3	3.4	28.3		5.8	5.8	24.8				
Green Ext Time (p_c), s		0.5	0.0	11.4		0.6	0.1	8.9				

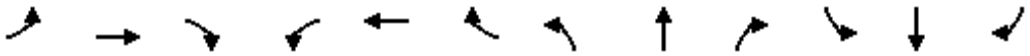
Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	1109	9	1038	36	2	6	3
Future Volume (vph)	20	1109	9	1038	36	2	6	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	16.0	78.0	12.0	74.0	30.0	30.0	30.0	30.0
Total Split (%)	13.3%	65.0%	10.0%	61.7%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.0	45.4	6.6	43.0		62.9		62.9
Actuated g/C Ratio	0.06	0.38	0.06	0.36		0.52		0.52
v/c Ratio	0.21	0.66	0.09	0.72		0.05		0.04
Control Delay	73.4	36.7	30.4	6.5		18.2		10.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	73.4	36.7	30.4	6.5		18.2		10.5
LOS	E	D	C	A		B		B
Approach Delay		37.3		6.6		18.2		10.5
Approach LOS		D		A		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 46 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 41.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1109	60	9	1038	164	36	2	3	6	3	22
Future Volume (veh/h)	20	1109	60	9	1038	164	36	2	3	6	3	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	21	1143	62	9	1070	169	37	2	3	6	3	23
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	26	1513	82	46	1409	222	732	40	55	174	102	617
Arrive On Green	0.01	0.31	0.31	0.03	0.32	0.32	0.55	0.55	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1753	4879	264	1753	4376	690	1226	73	100	252	186	1119
Grp Volume(v), veh/h	21	785	420	9	819	420	42	0	0	32	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1793	1753	1675	1716	1399	0	0	1557	0	0
Q Serve(g_s), s	1.4	25.3	25.3	0.6	26.3	26.4	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	25.3	25.3	0.6	26.3	26.4	1.4	0.0	0.0	1.1	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.40	0.88		0.07	0.19		0.72
Lane Grp Cap(c), veh/h	26	1039	556	46	1079	553	827	0	0	893	0	0
V/C Ratio(X)	0.82	0.76	0.76	0.19	0.76	0.76	0.05	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	168	2052	1098	110	1940	994	827	0	0	893	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	59.0	37.3	37.3	57.2	36.5	36.5	12.4	0.0	0.0	12.3	0.0	0.0
Incr Delay (d2), s/veh	43.8	1.1	2.1	2.0	1.1	2.2	0.1	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	10.2	11.1	0.3	10.6	11.1	0.5	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.8	38.4	39.4	59.2	37.6	38.7	12.5	0.0	0.0	12.4	0.0	0.0
LnGrp LOS	F	D	D	E	D	D	B	A	A	B	A	A
Approach Vol, veh/h		1226			1248			42			32	
Approach Delay, s/veh		39.9			38.1			12.5			12.4	
Approach LOS		D			D			B			B	

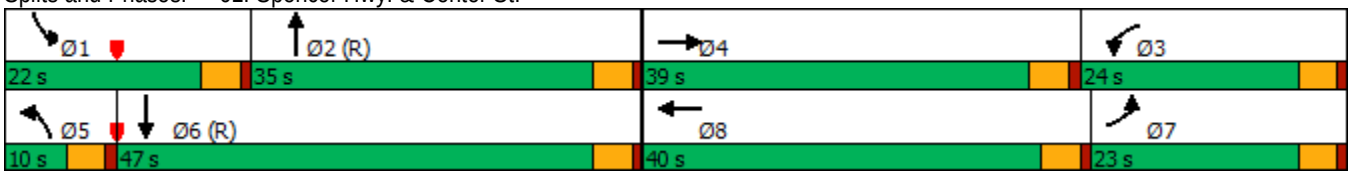
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		70.6	7.7	41.7		70.6	6.3	43.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		25.5	7.5	73.5		25.5	11.5	69.5				
Max Q Clear Time (g_c+I1), s		3.4	2.6	27.3		3.1	3.4	28.4				
Green Ext Time (p_c), s		0.1	0.0	9.9		0.1	0.0	10.3				

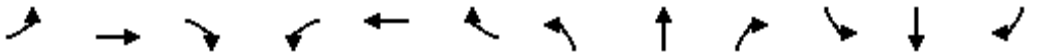
Intersection Summary												
HCM 6th Ctrl Delay			38.2									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	313	1089	255	1249	106	627	301	770
Future Volume (vph)	313	1089	255	1249	106	627	301	770
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	23.0	39.0	24.0	40.0	10.0	35.0	22.0	47.0
Total Split (%)	19.2%	32.5%	20.0%	33.3%	8.3%	29.2%	18.3%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.5	34.0	20.0	35.5	5.5	30.5	17.5	42.5
Actuated g/C Ratio	0.15	0.28	0.17	0.30	0.05	0.25	0.15	0.35
v/c Ratio	1.23	0.87	0.93	1.07	1.42	1.00	1.25	0.94
Control Delay	161.7	21.1	64.2	61.9	260.2	64.5	169.9	39.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	161.7	21.1	64.2	61.9	260.2	64.5	169.9	39.1
LOS	F	C	E	E	F	E	F	D
Approach Delay		50.9		62.3		86.7		67.5
Approach LOS		D		E		F		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 59 (49%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.42	
Intersection Signal Delay: 64.7	Intersection LOS: E
Intersection Capacity Utilization 107.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1089	74	255	1249	240	106	627	206	301	770	316
Future Volume (veh/h)	313	1089	74	255	1249	240	106	627	206	301	770	316
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	329	1146	78	268	1315	253	112	660	217	317	811	333
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	270	1276	87	323	1252	241	80	657	216	256	857	351
Arrive On Green	0.31	0.53	0.53	0.18	0.30	0.30	0.05	0.25	0.25	0.15	0.35	0.35
Sat Flow, veh/h	1753	4805	327	1753	4231	814	1753	2586	850	1753	2420	991
Grp Volume(v), veh/h	329	799	425	268	1041	527	112	446	431	317	586	558
Grp Sat Flow(s),veh/h/ln	1753	1675	1782	1753	1675	1694	1753	1749	1688	1753	1749	1662
Q Serve(g_s), s	18.5	25.6	25.7	17.7	35.5	35.5	5.5	30.5	30.5	17.5	39.0	39.2
Cycle Q Clear(g_c), s	18.5	25.6	25.7	17.7	35.5	35.5	5.5	30.5	30.5	17.5	39.0	39.2
Prop In Lane	1.00		0.18	1.00		0.48	1.00		0.50	1.00		0.60
Lane Grp Cap(c), veh/h	270	890	473	323	991	501	80	444	429	256	619	589
V/C Ratio(X)	1.22	0.90	0.90	0.83	1.05	1.05	1.39	1.00	1.00	1.24	0.95	0.95
Avail Cap(c_a), veh/h	270	963	512	323	991	501	80	444	429	256	619	589
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	0.46	0.46	0.46	1.00	1.00	1.00	0.21	0.21	0.21
Uniform Delay (d), s/veh	41.5	26.7	26.7	47.1	42.3	42.3	57.2	44.8	44.8	51.2	37.6	37.7
Incr Delay (d2), s/veh	113.0	5.5	9.6	8.2	34.3	41.7	236.6	43.6	44.6	115.1	8.0	8.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.2	8.2	9.3	8.4	19.2	20.5	7.7	18.5	17.9	15.8	17.8	17.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	154.5	32.1	36.3	55.3	76.5	84.0	293.9	88.4	89.3	166.4	45.6	46.3
LnGrp LOS	F	C	D	E	F	F	F	F	F	F	D	D
Approach Vol, veh/h		1553			1836			989			1461	
Approach Delay, s/veh		59.2			75.6			112.1			72.1	
Approach LOS		E			E			F			E	

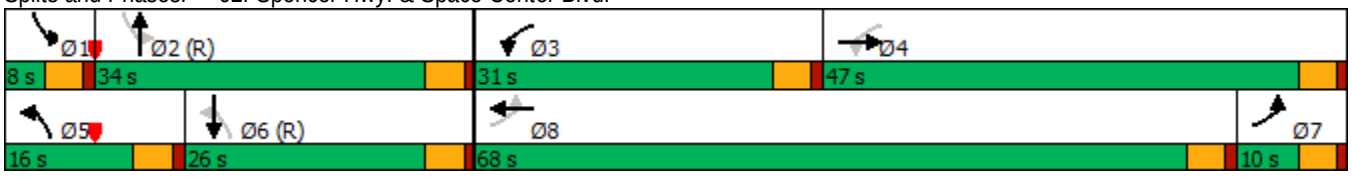
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	35.0	26.6	36.4	10.0	47.0	23.0	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	30.5	19.5	34.5	5.5	42.5	18.5	35.5
Max Q Clear Time (g_c+I1), s	19.5	32.5	19.7	27.7	7.5	41.2	20.5	37.5
Green Ext Time (p_c), s	0.0	0.0	0.0	4.2	0.0	0.9	0.0	0.0

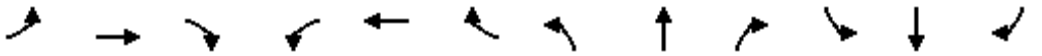
Intersection Summary	
HCM 6th Ctrl Delay	76.5
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	48	1292	379	1659	180	317	50	416
Future Volume (vph)	48	1292	379	1659	180	317	50	416
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	47.0	31.0	68.0	16.0	34.0	8.0	26.0
Total Split (%)	8.3%	39.2%	25.8%	56.7%	13.3%	28.3%	6.7%	21.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	69.6	43.7	68.7	61.8	33.3	31.4	34.2	22.0
Actuated g/C Ratio	0.58	0.36	0.57	0.52	0.28	0.26	0.28	0.18
v/c Ratio	0.26	0.96	0.93	0.71	0.78	0.83	0.44	0.76
Control Delay	13.3	27.5	42.0	20.0	49.0	18.8	42.8	55.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	27.5	42.0	20.0	49.0	18.8	42.8	55.1
LOS	B	C	D	B	D	B	D	E
Approach Delay		27.1		24.0		24.2		53.9
Approach LOS		C		C		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 100 (83%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 27.9	Intersection LOS: C
Intersection Capacity Utilization 103.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	1292	327	379	1659	41	180	317	517	50	416	38
Future Volume (veh/h)	48	1292	327	379	1659	41	180	317	517	50	416	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	49	1332	337	391	1710	42	186	327	533	52	429	39
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	318	1407	355	418	2139	53	301	471	420	111	657	59
Arrive On Green	0.13	0.35	0.35	0.20	0.42	0.42	0.10	0.27	0.27	0.03	0.20	0.20
Sat Flow, veh/h	1753	3999	1010	1753	5045	124	1753	1749	1560	1753	3243	294
Grp Volume(v), veh/h	49	1115	554	391	1135	617	186	327	533	52	230	238
Grp Sat Flow(s),veh/h/ln	1753	1675	1659	1753	1675	1818	1753	1749	1560	1753	1749	1788
Q Serve(g_s), s	0.0	38.8	38.9	21.6	35.4	35.5	10.0	20.2	32.3	2.6	14.5	14.7
Cycle Q Clear(g_c), s	0.0	38.8	38.9	21.6	35.4	35.5	10.0	20.2	32.3	2.6	14.5	14.7
Prop In Lane	1.00		0.61	1.00		0.07	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	318	1179	584	418	1421	771	301	471	420	111	354	362
V/C Ratio(X)	0.15	0.95	0.95	0.94	0.80	0.80	0.62	0.69	1.27	0.47	0.65	0.66
Avail Cap(c_a), veh/h	318	1186	588	455	1773	962	301	471	420	111	354	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	0.20	0.20	0.20	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	37.8	37.8	35.8	30.1	30.1	34.2	39.4	43.8	34.8	43.9	44.0
Incr Delay (d2), s/veh	0.1	10.2	17.5	7.7	0.4	0.8	3.8	8.2	138.6	3.0	8.9	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	16.8	17.8	11.9	13.5	14.8	4.5	9.6	28.4	1.2	7.1	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	48.0	55.4	43.5	30.5	30.9	37.9	47.6	182.5	37.8	52.9	52.9
LnGrp LOS	D	D	E	D	C	C	D	D	F	D	D	D
Approach Vol, veh/h		1718			2143			1046			520	
Approach Delay, s/veh		50.2			33.0			114.6			51.4	
Approach LOS		D			C			F			D	

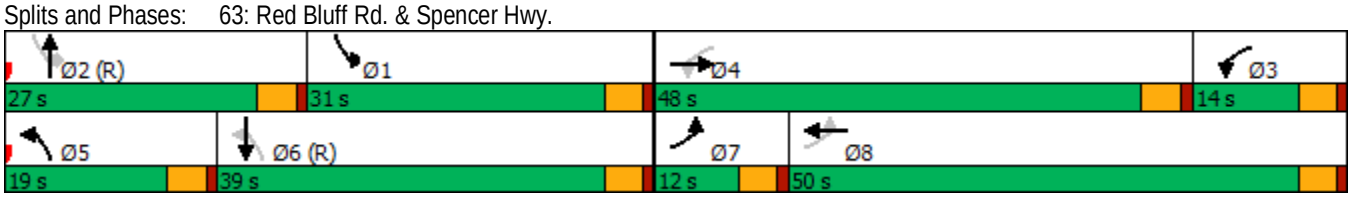
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	36.8	28.5	46.7	16.0	28.8	19.8	55.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	29.5	26.5	42.5	11.5	21.5	5.5	63.5
Max Q Clear Time (g_c+I1), s	4.6	34.3	23.6	40.9	12.0	16.7	2.0	37.5
Green Ext Time (p_c), s	0.0	0.0	0.4	1.3	0.0	1.2	0.0	13.4

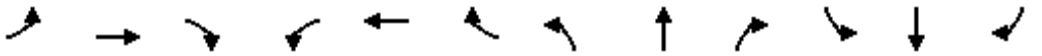
Intersection Summary	
HCM 6th Ctrl Delay	55.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	133	1112	103	1294	241	408	74	393	401
Future Volume (vph)	133	1112	103	1294	241	408	74	393	401
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	12.0	48.0	14.0	50.0	19.0	27.0	27.0	31.0	39.0
Total Split (%)	10.0%	40.0%	11.7%	41.7%	15.8%	22.5%	22.5%	25.8%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	53.0	41.5	53.0	45.5	49.0	22.5	22.5	49.0	34.9
Actuated g/C Ratio	0.44	0.35	0.44	0.38	0.41	0.19	0.19	0.41	0.29
v/c Ratio	0.86	0.83	0.50	0.98	0.76	0.71	0.20	0.91	0.58
Control Delay	48.1	33.9	16.0	19.1	28.2	20.1	2.4	43.0	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	33.9	16.0	19.1	28.2	20.1	2.4	43.0	18.6
LOS	D	C	B	B	C	C	A	D	B
Approach Delay		35.2		18.9		21.0			29.0
Approach LOS		D		B		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 26.0	Intersection LOS: C
Intersection Capacity Utilization 92.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	1112	173	103	1294	325	241	408	74	393	401	129
Future Volume (veh/h)	133	1112	173	103	1294	325	241	408	74	393	401	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	146	1222	190	113	1422	357	265	448	81	432	441	142
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	178	1434	223	282	1510	378	389	656	292	510	756	241
Arrive On Green	0.06	0.33	0.33	0.11	0.38	0.38	0.12	0.19	0.19	0.22	0.29	0.29
Sat Flow, veh/h	1753	4386	682	1753	4008	1002	1753	3497	1560	1753	2607	832
Grp Volume(v), veh/h	146	933	479	113	1188	591	265	448	81	432	294	289
Grp Sat Flow(s),veh/h/ln	1753	1675	1718	1753	1675	1660	1753	1749	1560	1753	1749	1691
Q Serve(g_s), s	6.1	31.2	31.2	1.1	41.1	41.4	12.6	14.3	5.3	19.7	17.3	17.5
Cycle Q Clear(g_c), s	6.1	31.2	31.2	1.1	41.1	41.4	12.6	14.3	5.3	19.7	17.3	17.5
Prop In Lane	1.00		0.40	1.00		0.60	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	178	1096	562	282	1262	626	389	656	292	510	507	490
V/C Ratio(X)	0.82	0.85	0.85	0.40	0.94	0.95	0.68	0.68	0.28	0.85	0.58	0.59
Avail Cap(c_a), veh/h	178	1214	623	282	1270	630	389	656	292	510	507	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.22	0.22	0.22	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	37.7	37.7	46.5	36.1	36.2	26.4	45.4	41.8	40.6	36.4	36.5
Incr Delay (d2), s/veh	6.7	1.3	2.5	0.1	1.7	3.5	4.8	5.7	2.3	12.6	4.8	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	12.4	12.9	3.0	16.7	17.0	5.7	6.7	2.3	13.7	8.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	39.0	40.2	46.5	37.8	39.7	31.2	51.1	44.1	53.2	41.2	41.6
LnGrp LOS	D	D	D	D	D	D	C	D	D	D	D	D
Approach Vol, veh/h		1558			1892			794			1015	
Approach Delay, s/veh		39.0			38.9			43.8			46.4	
Approach LOS		D			D			D			D	

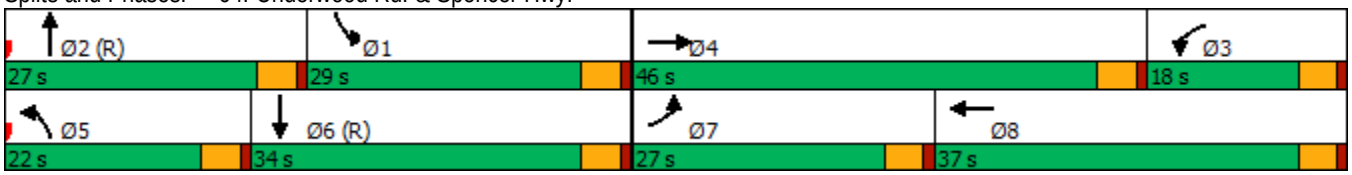
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.3	27.0	18.0	43.7	19.0	39.3	12.0	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	22.5	9.5	43.5	14.5	34.5	7.5	45.5
Max Q Clear Time (g_c+I1), s	21.7	16.3	3.1	33.2	14.6	19.5	8.1	43.4
Green Ext Time (p_c), s	0.7	1.7	0.1	6.1	0.0	3.2	0.0	1.9

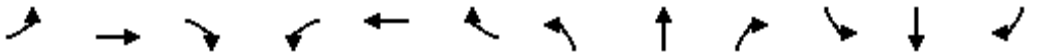
Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	253	972	109	992	180	311	287	403
Future Volume (vph)	253	972	109	992	180	311	287	403
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	27.0	46.0	18.0	37.0	22.0	27.0	29.0	34.0
Total Split (%)	22.5%	38.3%	15.0%	30.8%	18.3%	22.5%	24.2%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.5	38.7	15.5	32.8	16.6	23.3	24.5	31.1
Actuated g/C Ratio	0.18	0.32	0.13	0.27	0.14	0.19	0.20	0.26
v/c Ratio	0.89	0.82	0.53	0.94	0.84	0.65	0.88	0.81
Control Delay	61.1	34.0	45.3	43.2	88.0	68.6	60.5	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	34.0	45.3	43.2	88.0	68.6	60.5	32.7
LOS	E	C	D	D	F	E	E	C
Approach Delay		38.8		43.3		74.6		40.6
Approach LOS		D		D		E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 23 (19%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 45.5	Intersection LOS: D
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	972	197	109	992	139	180	311	87	287	403	313
Future Volume (veh/h)	253	972	197	109	992	139	180	311	87	287	403	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	275	1057	214	118	1078	151	196	338	95	312	438	340
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	302	1262	255	237	1179	165	223	507	140	396	537	415
Arrive On Green	0.17	0.30	0.30	0.14	0.26	0.26	0.13	0.19	0.19	0.23	0.29	0.29
Sat Flow, veh/h	1753	4191	848	1753	4455	623	1753	2705	749	1753	1878	1450
Grp Volume(v), veh/h	275	845	426	118	810	419	196	217	216	312	408	370
Grp Sat Flow(s),veh/h/ln	1753	1675	1688	1753	1675	1729	1753	1749	1706	1753	1749	1580
Q Serve(g_s), s	18.5	28.3	28.3	7.5	28.2	28.2	13.2	13.8	14.2	20.1	26.0	26.2
Cycle Q Clear(g_c), s	18.5	28.3	28.3	7.5	28.2	28.2	13.2	13.8	14.2	20.1	26.0	26.2
Prop In Lane	1.00		0.50	1.00		0.36	1.00		0.44	1.00		0.92
Lane Grp Cap(c), veh/h	302	1009	509	237	886	457	223	328	320	396	500	452
V/C Ratio(X)	0.91	0.84	0.84	0.50	0.91	0.92	0.88	0.66	0.68	0.79	0.81	0.82
Avail Cap(c_a), veh/h	329	1159	584	237	907	468	256	328	320	396	500	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	0.60	0.60	0.60	0.48	0.48	0.48	0.69	0.69	0.69
Uniform Delay (d), s/veh	48.8	39.2	39.2	48.1	42.8	42.8	51.4	45.2	45.4	43.7	39.9	40.0
Incr Delay (d2), s/veh	19.4	3.2	6.1	1.0	8.8	15.2	14.1	5.0	5.4	7.2	9.8	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	11.6	12.1	3.3	12.3	13.5	6.5	6.3	6.3	9.2	12.1	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	42.4	45.3	49.1	51.6	58.1	65.5	50.2	50.8	51.0	49.7	51.0
LnGrp LOS	E	D	D	D	D	E	E	D	D	D	D	D
Approach Vol, veh/h		1546			1347			629			1090	
Approach Delay, s/veh		47.8			53.4			55.2			50.5	
Approach LOS		D			D			E			D	

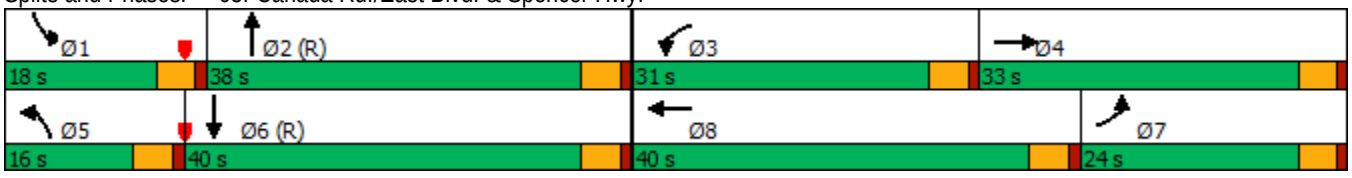
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.6	27.0	20.8	40.6	19.8	38.8	25.1	36.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	24.5	22.5	13.5	41.5	17.5	29.5	22.5	32.5
Max Q Clear Time (g_c+I1), s	22.1	16.2	9.5	30.3	15.2	28.2	20.5	30.2
Green Ext Time (p_c), s	0.2	1.2	0.1	5.8	0.1	0.6	0.2	1.5

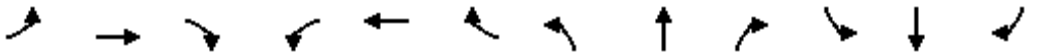
Intersection Summary	
HCM 6th Ctrl Delay	51.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	251	734	227	1119	141	486	282	588
Future Volume (vph)	251	734	227	1119	141	486	282	588
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	24.0	33.0	31.0	40.0	16.0	38.0	18.0	40.0
Total Split (%)	20.0%	27.5%	25.8%	33.3%	13.3%	31.7%	15.0%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.5	33.4	21.6	35.5	11.5	33.7	13.3	35.5
Actuated g/C Ratio	0.16	0.28	0.18	0.30	0.10	0.28	0.11	0.30
v/c Ratio	0.97	0.68	0.79	1.01	0.96	0.67	0.83	0.97
Control Delay	60.4	11.8	48.8	55.5	78.2	39.6	51.8	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	11.8	48.8	55.5	78.2	39.6	51.8	32.0
LOS	E	B	D	E	E	D	D	C
Approach Delay		23.1		54.5		47.0		36.6
Approach LOS		C		D		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 41 (34%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 41.1	Intersection LOS: D
Intersection Capacity Utilization 94.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	734	97	227	1119	196	141	486	113	282	588	340
Future Volume (veh/h)	251	734	97	227	1119	196	141	486	113	282	588	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	273	798	105	247	1216	213	153	528	123	307	639	370
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	285	1348	176	277	1271	223	168	805	187	361	632	366
Arrive On Green	0.16	0.30	0.30	0.16	0.30	0.30	0.10	0.29	0.29	0.11	0.30	0.30
Sat Flow, veh/h	1753	4497	588	1753	4302	753	1753	2818	654	3401	2133	1235
Grp Volume(v), veh/h	273	593	310	247	947	482	153	327	324	307	524	485
Grp Sat Flow(s),veh/h/ln	1753	1675	1735	1753	1675	1705	1753	1749	1723	1700	1749	1618
Q Serve(g_s), s	18.5	18.1	18.3	16.6	33.3	33.3	10.4	19.7	19.9	10.6	35.5	35.5
Cycle Q Clear(g_c), s	18.5	18.1	18.3	16.6	33.3	33.3	10.4	19.7	19.9	10.6	35.5	35.5
Prop In Lane	1.00		0.34	1.00		0.44	1.00		0.38	1.00		0.76
Lane Grp Cap(c), veh/h	285	1005	520	277	990	504	168	500	492	361	518	479
V/C Ratio(X)	0.96	0.59	0.60	0.89	0.96	0.96	0.91	0.65	0.66	0.85	1.01	1.01
Avail Cap(c_a), veh/h	285	1005	520	387	991	504	168	500	492	383	518	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.26	0.26	0.26	0.33	0.33	0.33	0.09	0.09	0.09
Uniform Delay (d), s/veh	49.8	35.7	35.8	49.5	41.5	41.5	53.7	37.6	37.7	52.7	42.2	42.2
Incr Delay (d2), s/veh	28.2	0.5	1.0	5.4	7.1	11.9	20.5	2.2	2.3	1.7	14.9	15.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	7.2	7.6	7.5	14.1	15.0	5.5	8.5	8.5	4.6	17.1	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.0	36.2	36.8	54.9	48.6	53.4	74.3	39.9	40.0	54.4	57.1	57.6
LnGrp LOS	E	D	D	D	D	D	E	D	D	D	F	F
Approach Vol, veh/h		1176			1676			804			1316	
Approach Delay, s/veh		46.1			50.9			46.5			56.7	
Approach LOS		D			D			D			E	

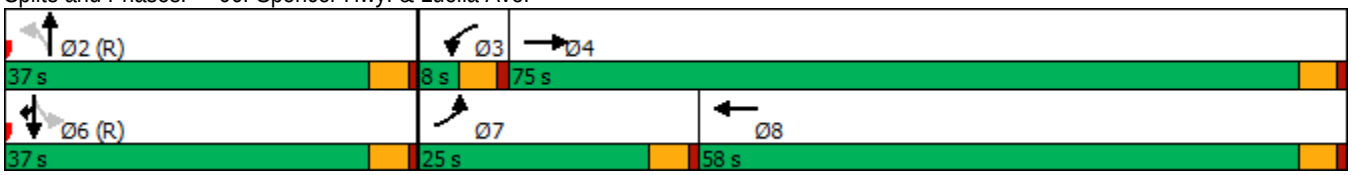
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	38.8	23.5	40.5	16.0	40.0	24.0	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	33.5	26.5	28.5	11.5	35.5	19.5	35.5
Max Q Clear Time (g_c+I1), s	12.6	21.9	18.6	20.3	12.4	37.5	20.5	35.3
Green Ext Time (p_c), s	0.1	2.9	0.4	3.4	0.0	0.0	0.0	0.1

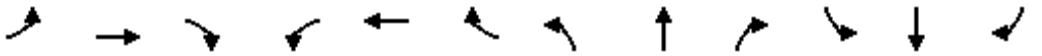
Intersection Summary	
HCM 6th Ctrl Delay	50.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	179	1293	3	1594	6	5	226	0	248
Future Volume (vph)	179	1293	3	1594	6	5	226	0	248
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	75.0	8.0	58.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	20.8%	62.5%	6.7%	48.3%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.6	74.2	3.5	53.7		35.2		35.2	35.2
Actuated g/C Ratio	0.15	0.62	0.03	0.45		0.29		0.29	0.29
v/c Ratio	0.78	0.46	0.06	0.88		0.03		0.62	0.43
Control Delay	67.2	3.4	73.7	11.3		28.1		38.3	10.5
Queue Delay	0.0	0.0	0.0	0.2		0.0		0.0	0.0
Total Delay	67.2	3.4	73.7	11.4		28.1		38.3	10.5
LOS	E	A	E	B		C		D	B
Approach Delay		11.1		11.5		28.1		23.7	
Approach LOS		B		B		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 80.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	1293	3	3	1594	168	6	5	3	226	0	248
Future Volume (veh/h)	179	1293	3	3	1594	168	6	5	3	226	0	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	197	1421	3	3	1752	185	7	5	3	248	0	273
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	226	2755	6	5	1876	197	102	68	31	410	0	550
Arrive On Green	0.13	0.53	0.53	0.01	0.81	0.81	0.35	0.35	0.35	0.35	0.00	0.35
Sat Flow, veh/h	1753	5178	11	1753	4618	486	164	194	89	994	0	1560
Grp Volume(v), veh/h	197	919	505	3	1269	668	15	0	0	248	0	273
Grp Sat Flow(s),veh/h/ln	1753	1675	1839	1753	1675	1753	447	0	0	994	0	1560
Q Serve(g_s), s	13.2	21.2	21.2	0.2	35.2	36.0	0.3	0.0	0.0	0.0	0.0	16.5
Cycle Q Clear(g_c), s	13.2	21.2	21.2	0.2	35.2	36.0	31.7	0.0	0.0	31.4	0.0	16.5
Prop In Lane	1.00		0.01	1.00		0.28	0.47		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	226	1783	979	5	1361	712	201	0	0	410	0	550
V/C Ratio(X)	0.87	0.52	0.52	0.62	0.93	0.94	0.07	0.00	0.00	0.60	0.00	0.50
Avail Cap(c_a), veh/h	299	1968	1080	51	1494	782	201	0	0	410	0	550
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.21	0.21	0.21	0.67	0.67	0.67	1.00	0.00	0.00	0.74	0.00	0.74
Uniform Delay (d), s/veh	51.3	18.1	18.1	59.6	10.0	10.1	28.9	0.0	0.0	35.3	0.0	30.5
Incr Delay (d2), s/veh	4.9	0.0	0.1	63.1	7.5	13.3	0.7	0.0	0.0	4.8	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	7.6	8.4	0.2	5.1	6.5	0.3	0.0	0.0	7.1	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.2	18.1	18.2	122.7	17.5	23.3	29.6	0.0	0.0	40.1	0.0	32.8
LnGrp LOS	E	B	B	F	B	C	C	A	A	D	A	C
Approach Vol, veh/h		1621			1940			15			521	
Approach Delay, s/veh		22.8			19.7			29.6			36.3	
Approach LOS		C			B			C			D	

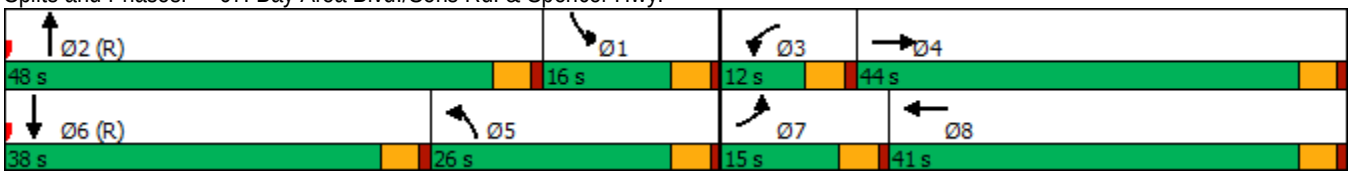
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.8	4.8	68.4		46.8	19.9	53.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		32.5	3.5	70.5		32.5	20.5	53.5				
Max Q Clear Time (g_c+I1), s		33.7	2.2	23.2		33.4	15.2	38.0				
Green Ext Time (p_c), s		0.0	0.0	12.1		0.0	0.2	10.8				

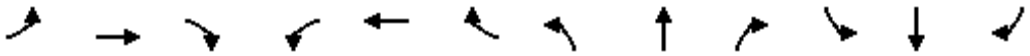
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	75	419	54	757	187	388	120	253
Future Volume (vph)	75	419	54	757	187	388	120	253
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	44.0	12.0	41.0	26.0	48.0	16.0	38.0
Total Split (%)	12.5%	36.7%	10.0%	34.2%	21.7%	40.0%	13.3%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.4	33.1	7.1	31.0	21.1	52.7	11.1	42.7
Actuated g/C Ratio	0.08	0.28	0.06	0.26	0.18	0.44	0.09	0.36
v/c Ratio	0.58	0.42	0.54	0.75	0.68	0.30	0.81	0.40
Control Delay	80.8	11.4	74.4	43.3	70.5	24.0	85.8	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.8	11.4	74.4	43.3	70.5	24.0	85.8	16.1
LOS	F	B	E	D	E	C	F	B
Approach Delay		20.0		45.1		38.1		30.0
Approach LOS		B		D		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 34.7	Intersection LOS: C
Intersection Capacity Utilization 66.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	419	114	54	757	129	187	388	41	120	253	228
Future Volume (veh/h)	75	419	114	54	757	129	187	388	41	120	253	228
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	78	436	119	56	789	134	195	404	43	125	264	238
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	99	983	259	72	1008	170	494	1157	122	347	494	430
Arrive On Green	0.06	0.25	0.25	0.04	0.23	0.23	0.28	0.36	0.36	0.20	0.28	0.28
Sat Flow, veh/h	1753	3958	1045	1753	4330	730	1753	3191	338	1753	1771	1541
Grp Volume(v), veh/h	78	367	188	56	609	314	195	220	227	125	261	241
Grp Sat Flow(s),veh/h/ln	1753	1675	1653	1753	1675	1709	1753	1749	1780	1753	1749	1563
Q Serve(g_s), s	5.3	11.1	11.6	3.8	20.5	20.7	10.8	11.0	11.2	7.4	15.1	15.8
Cycle Q Clear(g_c), s	5.3	11.1	11.6	3.8	20.5	20.7	10.8	11.0	11.2	7.4	15.1	15.8
Prop In Lane	1.00		0.63	1.00		0.43	1.00		0.19	1.00		0.99
Lane Grp Cap(c), veh/h	99	832	411	72	780	398	494	634	645	347	488	436
V/C Ratio(X)	0.79	0.44	0.46	0.78	0.78	0.79	0.40	0.35	0.35	0.36	0.53	0.55
Avail Cap(c_a), veh/h	153	1103	544	110	1019	520	494	634	645	347	488	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	0.47	0.47	0.47	0.98	0.98	0.98
Uniform Delay (d), s/veh	55.9	38.1	38.3	57.0	43.2	43.2	34.8	27.9	27.9	41.5	36.6	36.9
Incr Delay (d2), s/veh	6.4	0.2	0.4	17.7	2.9	6.0	0.2	0.7	0.7	0.6	4.1	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.6	4.7	2.0	8.8	9.4	4.6	4.6	4.8	3.3	7.0	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	38.2	38.6	74.7	46.1	49.2	35.1	28.6	28.6	42.2	40.7	41.8
LnGrp LOS	E	D	D	E	D	D	D	C	C	D	D	D
Approach Vol, veh/h		633			979			642			627	
Approach Delay, s/veh		41.3			48.7			30.6			41.4	
Approach LOS		D			D			C			D	

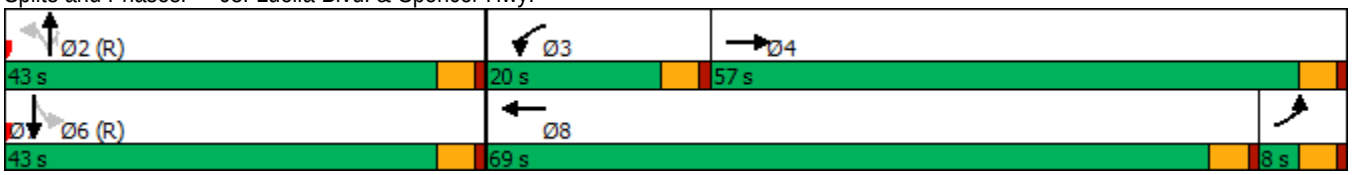
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.3	48.0	9.4	34.3	38.3	38.0	11.3	32.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	43.5	7.5	39.5	21.5	33.5	10.5	36.5
Max Q Clear Time (g_c+I1), s	9.4	13.2	5.8	13.6	12.8	17.8	7.3	22.7
Green Ext Time (p_c), s	0.1	2.6	0.0	3.8	0.3	2.8	0.0	5.2

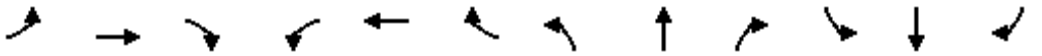
Intersection Summary	
HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	3	1365	114	1703	204	1	92	8
Future Volume (vph)	3	1365	114	1703	204	1	92	8
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		2	
Detector Phase	7	4	3	8	2	2	2	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	57.0	20.0	69.0	43.0	43.0	43.0	43.0
Total Split (%)	6.7%	47.5%	16.7%	57.5%	35.8%	35.8%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.2	50.3	13.0	66.2	43.2	43.2	43.2	43.2
Actuated g/C Ratio	0.04	0.42	0.11	0.55	0.36	0.36	0.36	0.36
v/c Ratio	0.04	0.83	0.66	0.71	0.47	0.00	0.16	0.03
Control Delay	45.3	19.3	74.5	8.5	34.2	41.0	10.3	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.3	19.4	74.5	8.5	34.2	41.0	10.3	18.0
LOS	D	B	E	A	C	D	B	B
Approach Delay		19.4		12.7		26.8		18.0
Approach LOS		B		B		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 88 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 16.6	Intersection LOS: B
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1365	138	114	1703	6	204	1	92	0	8	10
Future Volume (veh/h)	3	1365	138	114	1703	6	204	1	92	0	8	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	3	1500	152	125	1871	7	224	1	101	0	9	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	5	1705	173	151	2332	9	645	798	676	0	327	399
Arrive On Green	0.01	0.74	0.74	0.09	0.45	0.45	0.43	0.43	0.43	0.00	0.43	0.43
Sat Flow, veh/h	1753	4637	470	1753	5168	19	1370	1841	1560	0	754	921
Grp Volume(v), veh/h	3	1084	568	125	1213	665	224	1	101	0	0	20
Grp Sat Flow(s),veh/h/ln	1753	1675	1756	1753	1675	1837	1370	1841	1560	0	0	1675
Q Serve(g_s), s	0.2	29.1	29.2	8.4	37.4	37.4	13.4	0.0	4.7	0.0	0.0	0.8
Cycle Q Clear(g_c), s	0.2	29.1	29.2	8.4	37.4	37.4	14.3	0.0	4.7	0.0	0.0	0.8
Prop In Lane	1.00		0.27	1.00		0.01	1.00		1.00	0.00		0.55
Lane Grp Cap(c), veh/h	5	1232	646	151	1512	829	645	798	676	0	0	726
V/C Ratio(X)	0.62	0.88	0.88	0.83	0.80	0.80	0.35	0.00	0.15	0.00	0.00	0.03
Avail Cap(c_a), veh/h	51	1466	768	226	1801	988	645	798	676	0	0	726
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.09	0.09	0.09	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	59.6	13.9	13.9	53.9	28.3	28.3	23.6	19.3	20.6	0.0	0.0	19.5
Incr Delay (d2), s/veh	78.6	5.1	9.2	1.5	0.2	0.4	1.5	0.0	0.5	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.5	6.5	3.7	14.3	15.7	4.6	0.0	1.8	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	138.2	19.0	23.1	55.4	28.5	28.7	25.1	19.3	21.1	0.0	0.0	19.6
LnGrp LOS	F	B	C	E	C	C	C	B	C	A	A	B
Approach Vol, veh/h		1655			2003			326			20	
Approach Delay, s/veh		20.7			30.3			23.8			19.6	
Approach LOS		C			C			C			B	

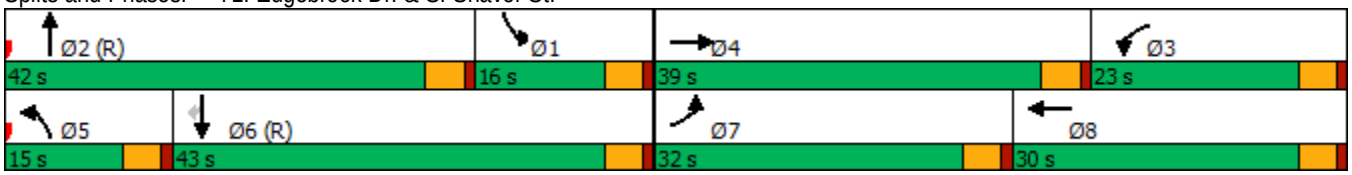
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		56.5	14.9	48.6		56.5	4.8	58.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	15.5	52.5		38.5	3.5	64.5				
Max Q Clear Time (g_c+I1), s		16.3	10.4	31.2		2.8	2.2	39.4				
Green Ext Time (p_c), s		1.0	0.1	11.3		0.1	0.0	14.8				

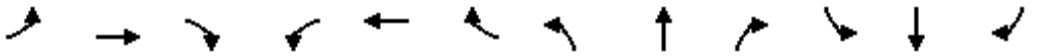
Intersection Summary	
HCM 6th Ctrl Delay	25.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	258	500	151	504	69	624	84	683	318
Future Volume (vph)	258	500	151	504	69	624	84	683	318
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	32.0	39.0	23.0	30.0	15.0	42.0	16.0	43.0	43.0
Total Split (%)	26.7%	32.5%	19.2%	25.0%	12.5%	35.0%	13.3%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.7	20.0	26.7	23.9	9.2	43.9	11.5	48.3	48.3
Actuated g/C Ratio	0.19	0.17	0.22	0.20	0.08	0.37	0.10	0.40	0.40
v/c Ratio	0.81	0.69	0.41	0.82	0.53	0.60	0.52	0.50	0.45
Control Delay	32.7	18.3	19.0	30.8	67.8	34.0	40.8	12.8	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	18.3	19.0	30.8	67.8	34.0	40.8	12.8	3.9
LOS	C	B	B	C	E	C	D	B	A
Approach Delay		22.9		28.3		36.9		12.4	
Approach LOS		C		C		D		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47 (39%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	500	53	151	504	45	69	624	106	84	683	318
Future Volume (veh/h)	258	500	53	151	504	45	69	624	106	84	683	318
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	266	515	55	156	520	46	71	643	109	87	704	328
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	297	712	75	354	608	54	91	935	158	318	1546	689
Arrive On Green	0.17	0.15	0.15	0.07	0.06	0.06	0.05	0.31	0.31	0.36	0.88	0.88
Sat Flow, veh/h	1753	4617	487	1753	3251	287	1753	2992	506	1753	3497	1560
Grp Volume(v), veh/h	266	372	198	156	279	287	71	375	377	87	704	328
Grp Sat Flow(s),veh/h/ln	1753	1675	1753	1753	1749	1789	1753	1749	1750	1753	1749	1560
Q Serve(g_s), s	17.8	12.7	12.9	10.3	19.0	19.1	4.8	22.6	22.6	4.2	4.7	5.1
Cycle Q Clear(g_c), s	17.8	12.7	12.9	10.3	19.0	19.1	4.8	22.6	22.6	4.2	4.7	5.1
Prop In Lane	1.00		0.28	1.00		0.16	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	297	517	270	354	327	335	91	546	547	318	1546	689
V/C Ratio(X)	0.90	0.72	0.73	0.44	0.85	0.86	0.78	0.69	0.69	0.27	0.46	0.48
Avail Cap(c_a), veh/h	402	963	504	354	372	380	153	546	547	318	1546	689
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.56	0.56	0.56	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	48.8	48.3	48.4	49.5	54.7	54.7	56.2	36.1	36.1	32.7	4.2	4.2
Incr Delay (d2), s/veh	17.9	1.9	3.8	0.5	9.5	9.7	13.7	6.9	6.9	0.4	0.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	5.4	5.9	4.9	9.8	10.1	2.5	10.5	10.6	1.8	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	50.2	52.2	50.0	64.2	64.4	69.9	43.0	43.1	33.0	4.9	6.0
LnGrp LOS	E	D	D	D	E	E	E	D	D	C	A	A
Approach Vol, veh/h		836			722			823			1119	
Approach Delay, s/veh		55.9			61.2			45.4			7.4	
Approach LOS		E			E			D			A	

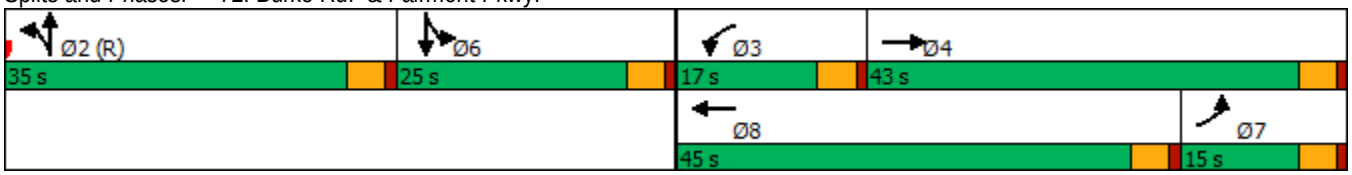
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.2	42.0	28.8	23.0	10.7	57.5	24.8	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	37.5	18.5	34.5	10.5	38.5	27.5	25.5
Max Q Clear Time (g_c+I1), s	6.2	24.6	12.3	14.9	6.8	7.1	19.8	21.1
Green Ext Time (p_c), s	0.1	3.8	0.2	3.6	0.0	7.0	0.5	1.4

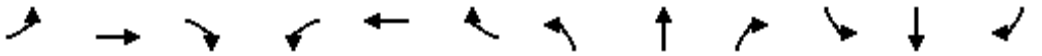
Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	124	845	138	900	390	182	409
Future Volume (vph)	124	845	138	900	390	182	409
Turn Type	Prot	NA	Prot	NA	NA	Split	NA
Protected Phases	7	4	3	8	2	6	6
Permitted Phases							
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	43.0	17.0	45.0	35.0	25.0	25.0
Total Split (%)	12.5%	35.8%	14.2%	37.5%	29.2%	20.8%	20.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	Max	Max
Act Effct Green (s)	10.4	38.6	12.0	40.2	30.9	20.5	20.5
Actuated g/C Ratio	0.09	0.32	0.10	0.34	0.26	0.17	0.17
v/c Ratio	0.84	0.92	0.80	0.95	0.81	0.62	0.89
Control Delay	80.3	40.5	62.3	37.0	44.3	56.3	64.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.3	40.5	62.3	37.0	44.3	56.3	64.1
LOS	F	D	E	D	D	E	E
Approach Delay		44.9		39.8	44.3		62.1
Approach LOS		D		D	D		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 80 (67%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 46.4	Intersection LOS: D
Intersection Capacity Utilization 92.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	845	157	138	900	177	144	390	173	182	409	112
Future Volume (veh/h)	124	845	157	138	900	177	144	390	173	182	409	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	125	854	159	139	909	179	145	394	0	184	413	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	150	955	178	166	972	191	236	685		299	597	
Arrive On Green	0.09	0.32	0.32	0.03	0.11	0.11	0.26	0.26	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1753	2943	548	1753	2913	573	909	2727	0	1753	3589	0
Grp Volume(v), veh/h	125	507	506	139	546	542	286	253	0	184	413	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1742	1753	1749	1738	1795	1749	0	1753	1749	0
Q Serve(g_s), s	8.4	33.1	33.1	9.5	37.1	37.2	16.9	15.0	0.0	11.7	13.3	0.0
Cycle Q Clear(g_c), s	8.4	33.1	33.1	9.5	37.1	37.2	16.9	15.0	0.0	11.7	13.3	0.0
Prop In Lane	1.00		0.31	1.00		0.33	0.51		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	150	567	565	166	584	580	466	454		299	597	
V/C Ratio(X)	0.83	0.89	0.89	0.84	0.93	0.94	0.61	0.56		0.61	0.69	
Avail Cap(c_a), veh/h	153	567	565	183	590	586	466	454		299	597	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.52	0.52	0.52	0.33	0.33	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.0	38.6	38.6	57.2	52.1	52.1	39.1	38.4	0.0	46.1	46.8	0.0
Incr Delay (d2), s/veh	24.7	13.4	13.5	14.9	13.7	13.9	2.0	1.6	0.0	9.1	6.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	16.2	16.1	5.1	19.7	19.6	7.7	6.6	0.0	5.8	6.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.7	52.0	52.1	72.1	65.8	66.0	41.1	40.1	0.0	55.2	53.2	0.0
LnGrp LOS	E	D	D	E	E	E	D	D		E	D	
Approach Vol, veh/h		1138			1227			539	A		597	A
Approach Delay, s/veh		55.0			66.6			40.6			53.8	
Approach LOS		D			E			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.7	15.9	43.4		25.0	14.8	44.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	12.5	38.5		20.5	10.5	40.5				
Max Q Clear Time (g_c+I1), s		18.9	11.5	35.1		15.3	10.4	39.2				
Green Ext Time (p_c), s		2.5	0.0	2.0		1.5	0.0	0.9				

Intersection Summary												
HCM 6th Ctrl Delay			56.6									
HCM 6th LOS			E									

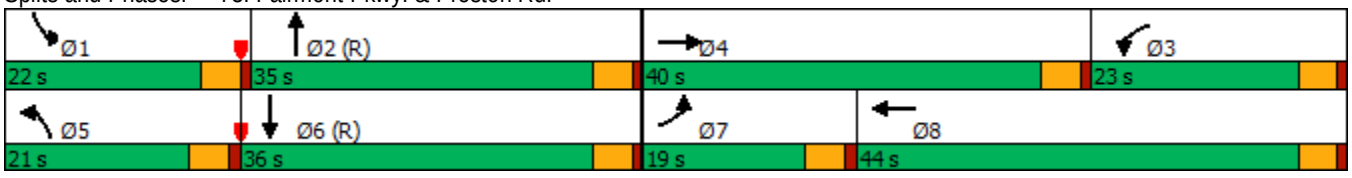
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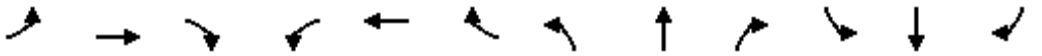
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	130	1048	161	1100	150	450	349	550
Future Volume (vph)	130	1048	161	1100	150	450	349	550
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	19.0	40.0	23.0	44.0	21.0	35.0	22.0	36.0
Total Split (%)	15.8%	33.3%	19.2%	36.7%	17.5%	29.2%	18.3%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.0	34.5	17.9	39.4	14.5	33.2	16.4	35.0
Actuated g/C Ratio	0.11	0.29	0.15	0.33	0.12	0.28	0.14	0.29
v/c Ratio	0.72	0.83	0.64	0.86	0.74	0.63	0.78	0.65
Control Delay	60.3	22.3	60.2	42.8	71.4	40.4	62.6	41.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.3	22.3	60.2	42.8	71.4	40.4	62.6	41.0
LOS	E	C	E	D	E	D	E	D
Approach Delay		26.1		44.6		46.8		48.7
Approach LOS		C		D		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 99 (83%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 40.6	Intersection LOS: D
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	1048	104	161	1100	253	150	450	132	349	550	86
Future Volume (veh/h)	130	1048	104	161	1100	253	150	450	132	349	550	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	134	1080	107	166	1134	261	155	464	136	360	567	89
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	158	1226	121	247	1284	296	183	858	250	421	1033	162
Arrive On Green	0.18	0.53	0.53	0.14	0.31	0.31	0.10	0.32	0.32	0.12	0.34	0.34
Sat Flow, veh/h	1753	4648	460	1753	4082	939	1753	2672	777	3401	3030	474
Grp Volume(v), veh/h	134	778	409	166	931	464	155	302	298	360	327	329
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1675	1672	1753	1749	1701	1700	1749	1755
Q Serve(g_s), s	8.9	24.6	24.7	10.8	31.6	31.6	10.4	17.0	17.3	12.4	18.2	18.3
Cycle Q Clear(g_c), s	8.9	24.6	24.7	10.8	31.6	31.6	10.4	17.0	17.3	12.4	18.2	18.3
Prop In Lane	1.00		0.26	1.00		0.56	1.00		0.46	1.00		0.27
Lane Grp Cap(c), veh/h	158	884	464	247	1054	526	183	562	546	421	596	598
V/C Ratio(X)	0.85	0.88	0.88	0.67	0.88	0.88	0.85	0.54	0.54	0.85	0.55	0.55
Avail Cap(c_a), veh/h	212	991	520	270	1103	550	241	562	546	496	596	598
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	0.45	0.45	0.45	1.00	1.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	48.3	26.7	26.7	48.9	39.0	39.0	52.8	33.4	33.5	51.5	32.0	32.1
Incr Delay (d2), s/veh	14.2	5.8	10.5	2.6	4.1	7.7	19.1	3.7	3.9	9.1	2.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	7.9	9.0	4.9	13.5	14.0	5.6	7.8	7.7	5.8	8.1	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	32.5	37.2	51.5	43.1	46.7	71.9	37.1	37.4	60.6	34.6	34.7
LnGrp LOS	E	C	D	D	D	D	E	D	D	E	C	C
Approach Vol, veh/h		1321			1561			755			1016	
Approach Delay, s/veh		37.0			45.1			44.4			43.9	
Approach LOS		D			D			D			D	

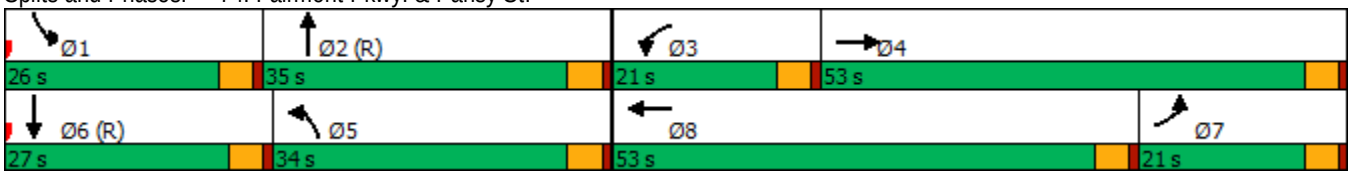
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.4	43.0	21.4	36.2	17.0	45.4	15.3	42.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	30.5	18.5	35.5	16.5	31.5	14.5	39.5
Max Q Clear Time (g_c+I1), s	14.4	19.3	12.8	26.7	12.4	20.3	10.9	33.6
Green Ext Time (p_c), s	0.4	2.9	0.2	5.0	0.1	3.1	0.1	4.1

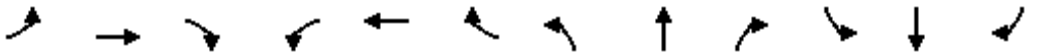
Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	150	1421	139	1229	281	308	165	264
Future Volume (vph)	150	1421	139	1229	281	308	165	264
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	8.0	20.0	9.5	20.0
Total Split (s)	21.0	53.0	21.0	53.0	34.0	35.0	26.0	27.0
Total Split (%)	15.6%	39.3%	15.6%	39.3%	25.2%	25.9%	19.3%	20.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.5	49.0	14.8	47.3	29.5	35.5	17.7	23.7
Actuated g/C Ratio	0.12	0.36	0.11	0.35	0.22	0.26	0.13	0.18
v/c Ratio	0.73	0.90	0.75	0.84	0.77	0.47	0.75	0.64
Control Delay	77.6	48.3	81.7	44.8	63.9	41.8	75.9	51.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	48.3	81.7	44.8	63.9	41.8	75.9	51.1
LOS	E	D	F	D	E	D	E	D
Approach Delay		50.9		48.1		50.7		58.6
Approach LOS		D		D		D		E

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 50.8	Intersection LOS: D
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	1421	145	139	1229	177	281	308	104	165	264	120
Future Volume (veh/h)	150	1421	145	139	1229	177	281	308	104	165	264	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	155	1465	149	143	1267	182	290	318	107	170	272	124
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	198	1618	165	167	1472	211	448	801	265	196	393	174
Arrive On Green	0.11	0.35	0.35	0.10	0.33	0.33	0.26	0.31	0.31	0.11	0.17	0.17
Sat Flow, veh/h	1753	4635	471	1753	4438	638	1753	2582	853	1753	2356	1045
Grp Volume(v), veh/h	155	1059	555	143	956	493	290	213	212	170	200	196
Grp Sat Flow(s),veh/h/ln	1753	1675	1756	1753	1675	1726	1753	1749	1687	1753	1749	1653
Q Serve(g_s), s	11.6	40.6	40.6	10.8	36.0	36.0	19.9	12.9	13.3	12.9	14.5	15.1
Cycle Q Clear(g_c), s	11.6	40.6	40.6	10.8	36.0	36.0	19.9	12.9	13.3	12.9	14.5	15.1
Prop In Lane	1.00		0.27	1.00		0.37	1.00		0.51	1.00		0.63
Lane Grp Cap(c), veh/h	198	1170	613	167	1111	572	448	543	523	196	291	275
V/C Ratio(X)	0.78	0.91	0.91	0.85	0.86	0.86	0.65	0.39	0.40	0.87	0.69	0.71
Avail Cap(c_a), veh/h	214	1204	631	214	1204	620	448	543	523	279	291	275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	41.8	41.8	60.1	42.2	42.2	44.9	36.6	36.7	59.0	52.9	53.2
Incr Delay (d2), s/veh	7.9	4.9	8.7	22.4	6.2	11.2	3.2	2.1	2.3	17.9	12.4	14.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	17.5	19.0	5.9	15.8	17.1	9.1	5.9	5.9	6.7	7.4	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.1	46.7	50.5	82.5	48.4	53.4	48.1	38.7	39.0	76.9	65.3	67.7
LnGrp LOS	E	D	D	F	D	D	D	D	D	E	E	E
Approach Vol, veh/h		1769			1592			715			566	
Approach Delay, s/veh		49.6			53.0			42.6			69.6	
Approach LOS		D			D			D			E	

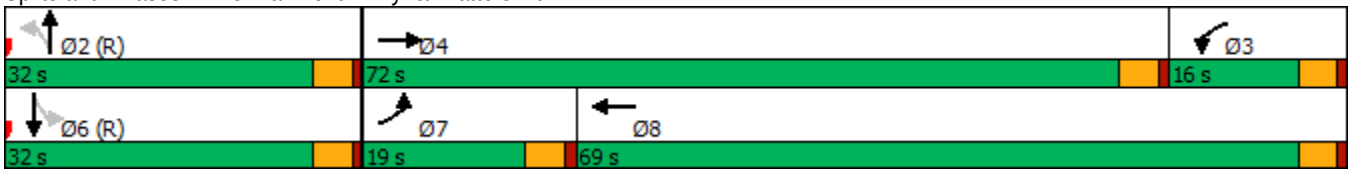
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	46.4	17.4	51.6	39.0	27.0	19.8	49.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	30.5	16.5	48.5	29.5	22.5	16.5	48.5
Max Q Clear Time (g_c+I1), s	14.9	15.3	12.8	42.6	21.9	17.1	13.6	38.0
Green Ext Time (p_c), s	0.2	2.2	0.1	4.5	0.5	1.1	0.1	6.7

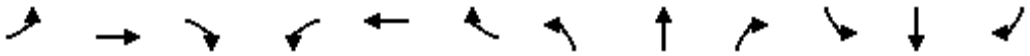
Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	90	1079	67	1233	27	21	56	18
Future Volume (vph)	90	1079	67	1233	27	21	56	18
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	72.0	16.0	69.0	32.0	32.0	32.0	32.0
Total Split (%)	15.8%	60.0%	13.3%	57.5%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.3	55.5	15.5	57.5		37.7		37.7
Actuated g/C Ratio	0.09	0.46	0.13	0.48		0.31		0.31
v/c Ratio	0.56	0.70	0.30	0.79		0.16		0.34
Control Delay	66.7	16.4	29.8	8.6		25.2		27.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	66.7	16.4	29.8	8.6		25.2		27.0
LOS	E	B	C	A		C		C
Approach Delay		20.2		9.6		25.2		27.0
Approach LOS		C		A		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 36 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1079	24	67	1233	49	27	21	30	56	18	93
Future Volume (veh/h)	90	1079	24	67	1233	49	27	21	30	56	18	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	92	1101	24	68	1258	50	28	21	31	57	18	95
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	116	1323	29	208	1476	59	231	176	232	220	81	330
Arrive On Green	0.07	0.38	0.38	0.12	0.43	0.43	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1753	3499	76	1753	3429	136	488	449	593	460	208	845
Grp Volume(v), veh/h	92	550	575	68	641	667	80	0	0	170	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1827	1753	1749	1816	1531	0	0	1513	0	0
Q Serve(g_s), s	6.2	34.3	34.3	4.3	39.5	39.6	0.0	0.0	0.0	4.9	0.0	0.0
Cycle Q Clear(g_c), s	6.2	34.3	34.3	4.3	39.5	39.6	3.6	0.0	0.0	8.8	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.07	0.35		0.39	0.34		0.56
Lane Grp Cap(c), veh/h	116	661	691	208	753	782	639	0	0	631	0	0
V/C Ratio(X)	0.80	0.83	0.83	0.33	0.85	0.85	0.13	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	212	984	1028	208	940	976	639	0	0	631	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	0.37	0.42	0.42	0.42	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	55.2	33.9	33.9	48.5	30.7	30.7	23.3	0.0	0.0	24.9	0.0	0.0
Incr Delay (d2), s/veh	4.6	1.5	1.4	0.4	2.8	2.7	0.4	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	14.6	15.3	1.9	16.9	17.6	1.5	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	35.4	35.3	48.9	33.5	33.4	23.7	0.0	0.0	25.9	0.0	0.0
LnGrp LOS	E	D	D	D	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1217			1376			80			170	
Approach Delay, s/veh		37.2			34.2			23.7			25.9	
Approach LOS		D			C			C			C	

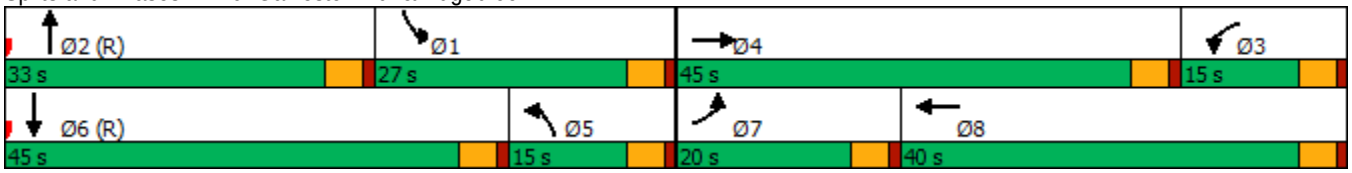
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		51.4	18.7	49.9		51.4	12.4	56.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	11.5	67.5		27.5	14.5	64.5				
Max Q Clear Time (g_c+I1), s		5.6	6.3	36.3		10.8	8.2	41.6				
Green Ext Time (p_c), s		0.4	0.0	9.1		0.8	0.1	10.0				

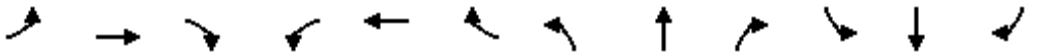
Intersection Summary												
HCM 6th Ctrl Delay			34.7									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	113	659	68	596	70	422	189	428
Future Volume (vph)	113	659	68	596	70	422	189	428
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	45.0	15.0	40.0	15.0	33.0	27.0	45.0
Total Split (%)	16.7%	37.5%	12.5%	33.3%	12.5%	27.5%	22.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.8	35.2	12.4	32.7	9.3	36.5	20.0	49.4
Actuated g/C Ratio	0.11	0.29	0.10	0.27	0.08	0.30	0.17	0.41
v/c Ratio	0.64	0.72	0.40	0.84	0.54	0.50	0.68	0.45
Control Delay	38.8	23.9	46.2	37.5	68.4	37.3	58.8	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	23.9	46.2	37.5	68.4	37.3	58.8	26.5
LOS	D	C	D	D	E	D	E	C
Approach Delay		26.0		38.2		41.1		34.2
Approach LOS		C		D		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 58 (48%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 72.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	659	38	68	596	161	70	422	80	189	428	175
Future Volume (veh/h)	113	659	38	68	596	161	70	422	80	189	428	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	118	686	40	71	621	168	73	440	83	197	446	182
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	144	821	48	171	708	191	298	698	131	474	820	332
Arrive On Green	0.08	0.24	0.24	0.10	0.26	0.26	0.17	0.24	0.24	0.27	0.34	0.34
Sat Flow, veh/h	1753	3358	196	1753	2722	735	1753	2940	551	1753	2430	983
Grp Volume(v), veh/h	118	357	369	71	399	390	73	261	262	197	320	308
Grp Sat Flow(s),veh/h/ln	1753	1749	1805	1753	1749	1708	1753	1749	1742	1753	1749	1664
Q Serve(g_s), s	7.9	23.3	23.3	4.6	26.2	26.3	4.3	16.0	16.2	11.1	17.8	18.1
Cycle Q Clear(g_c), s	7.9	23.3	23.3	4.6	26.2	26.3	4.3	16.0	16.2	11.1	17.8	18.1
Prop In Lane	1.00		0.11	1.00		0.43	1.00		0.32	1.00		0.59
Lane Grp Cap(c), veh/h	144	428	442	171	455	444	298	415	414	474	590	562
V/C Ratio(X)	0.82	0.83	0.84	0.41	0.88	0.88	0.24	0.63	0.63	0.42	0.54	0.55
Avail Cap(c_a), veh/h	226	590	609	171	517	505	298	415	414	474	590	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	43.0	43.0	50.9	42.6	42.6	43.1	41.0	41.1	36.0	32.2	32.3
Incr Delay (d2), s/veh	12.2	7.4	7.2	1.6	14.3	14.9	0.4	7.0	7.2	0.6	3.5	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	10.9	11.2	2.1	13.1	12.9	1.9	7.7	7.8	4.8	8.1	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.4	50.4	50.2	52.5	56.9	57.5	43.5	48.0	48.3	36.6	35.8	36.1
LnGrp LOS	E	D	D	D	E	E	D	D	D	D	D	D
Approach Vol, veh/h		844			860			596			825	
Approach Delay, s/veh		52.6			56.8			47.6			36.1	
Approach LOS		D			E			D			D	

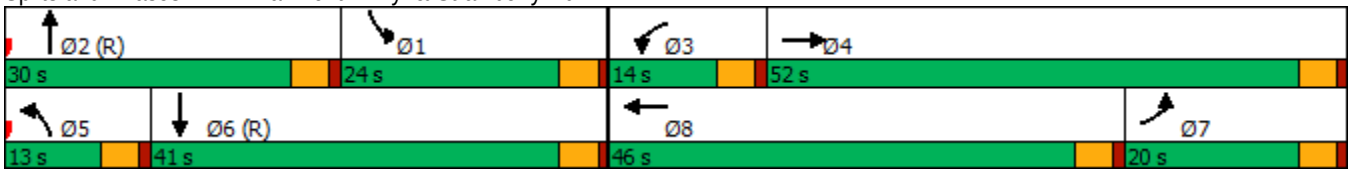
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.9	33.0	16.2	33.8	24.9	45.0	14.4	35.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	28.5	10.5	40.5	10.5	40.5	15.5	35.5
Max Q Clear Time (g_c+I1), s	13.1	18.2	6.6	25.3	6.3	20.1	9.9	28.3
Green Ext Time (p_c), s	0.4	2.3	0.0	4.1	0.0	4.0	0.1	2.9

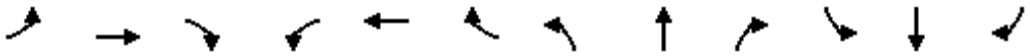
Intersection Summary	
HCM 6th Ctrl Delay	48.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	133	695	57	792	47	435	182	386
Future Volume (vph)	133	695	57	792	47	435	182	386
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	52.0	14.0	46.0	13.0	30.0	24.0	41.0
Total Split (%)	16.7%	43.3%	11.7%	38.3%	10.8%	25.0%	20.0%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.5	46.6	8.4	39.5	7.7	29.5	19.5	43.3
Actuated g/C Ratio	0.11	0.39	0.07	0.33	0.06	0.25	0.16	0.36
v/c Ratio	0.71	0.58	0.49	0.87	0.43	0.62	0.67	0.43
Control Delay	59.5	21.0	69.1	16.4	49.6	29.8	59.8	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	21.0	69.1	16.4	49.6	29.8	59.8	29.9
LOS	E	C	E	B	D	C	E	C
Approach Delay		26.8		19.4		31.5		37.7
Approach LOS		C		B		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 24 (20%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 27.7	Intersection LOS: C
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	695	62	57	792	165	47	435	70	182	386	130
Future Volume (veh/h)	133	695	62	57	792	165	47	435	70	182	386	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	137	716	64	59	816	170	48	448	72	188	398	134
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	164	1158	103	75	881	184	62	642	103	417	1071	356
Arrive On Green	0.09	0.36	0.36	0.09	0.61	0.61	0.04	0.21	0.21	0.24	0.42	0.42
Sat Flow, veh/h	1753	3247	290	1753	2881	600	1753	3020	482	1753	2577	858
Grp Volume(v), veh/h	137	385	395	59	495	491	48	258	262	188	269	263
Grp Sat Flow(s),veh/h/ln	1753	1749	1789	1753	1749	1733	1753	1749	1754	1753	1749	1686
Q Serve(g_s), s	9.2	21.8	21.9	4.0	30.4	30.4	3.3	16.4	16.6	11.0	12.7	13.0
Cycle Q Clear(g_c), s	9.2	21.8	21.9	4.0	30.4	30.4	3.3	16.4	16.6	11.0	12.7	13.0
Prop In Lane	1.00		0.16	1.00		0.35	1.00		0.28	1.00		0.51
Lane Grp Cap(c), veh/h	164	623	638	75	535	530	62	372	373	417	727	701
V/C Ratio(X)	0.84	0.62	0.62	0.78	0.93	0.93	0.78	0.70	0.70	0.45	0.37	0.38
Avail Cap(c_a), veh/h	226	692	708	139	605	599	124	372	373	417	727	701
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.21	0.21	0.21	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	53.5	31.9	31.9	54.3	22.1	22.1	57.4	43.7	43.7	39.0	24.2	24.3
Incr Delay (d2), s/veh	15.9	1.3	1.3	3.8	5.4	5.5	18.8	10.3	10.6	0.6	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	9.4	9.6	1.8	9.0	8.9	1.8	8.1	8.3	4.8	5.5	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.4	33.2	33.1	58.1	27.5	27.6	76.3	53.9	54.3	39.6	25.3	25.5
LnGrp LOS	E	C	C	E	C	C	E	D	D	D	C	C
Approach Vol, veh/h		917			1045			568			720	
Approach Delay, s/veh		38.6			29.3			56.0			29.1	
Approach LOS		D			C			E			C	

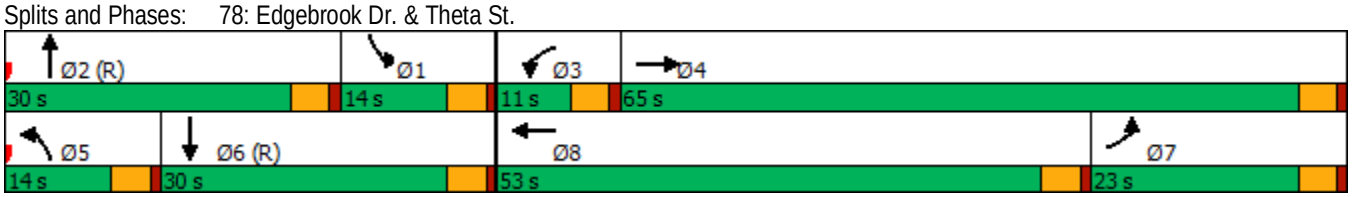
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.1	30.0	9.6	47.3	8.7	54.4	15.7	41.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	25.5	9.5	47.5	8.5	36.5	15.5	41.5
Max Q Clear Time (g_c+I1), s	13.0	18.6	6.0	23.9	5.3	15.0	11.2	32.4
Green Ext Time (p_c), s	0.3	1.8	0.0	5.2	0.0	3.3	0.1	4.3

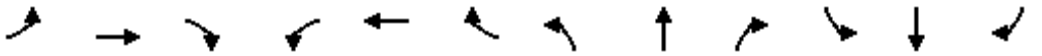
Intersection Summary	
HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	116	974	37	811	54	20	59	43
Future Volume (vph)	116	974	37	811	54	20	59	43
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	23.0	65.0	11.0	53.0	14.0	30.0	14.0	30.0
Total Split (%)	19.2%	54.2%	9.2%	44.2%	11.7%	25.0%	11.7%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.3	52.3	6.3	41.3	8.8	38.7	8.8	38.7
Actuated g/C Ratio	0.13	0.44	0.05	0.34	0.07	0.32	0.07	0.32
v/c Ratio	0.60	0.80	0.46	0.82	0.48	0.14	0.53	0.33
Control Delay	60.5	33.4	58.8	32.3	65.7	14.6	69.8	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	33.4	58.8	32.3	65.7	14.6	69.8	19.3
LOS	E	C	E	C	E	B	E	B
Approach Delay		36.1		33.3		36.4		31.9
Approach LOS		D		C		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 64 (53%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 34.7	Intersection LOS: C
Intersection Capacity Utilization 69.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	974	84	37	811	48	54	20	52	59	43	134
Future Volume (veh/h)	116	974	84	37	811	48	54	20	52	59	43	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	132	1107	95	42	922	55	61	23	59	67	49	152
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	184	1276	109	54	1063	63	78	97	249	378	151	470
Arrive On Green	0.10	0.39	0.39	0.03	0.32	0.32	0.04	0.21	0.21	0.22	0.38	0.38
Sat Flow, veh/h	1753	3260	280	1753	3353	200	1753	457	1173	1753	395	1225
Grp Volume(v), veh/h	132	593	609	42	481	496	61	0	82	67	0	201
Grp Sat Flow(s),veh/h/ln	1753	1749	1790	1753	1749	1805	1753	0	1630	1753	0	1620
Q Serve(g_s), s	8.7	37.5	37.6	2.9	31.1	31.1	4.1	0.0	5.0	3.7	0.0	10.5
Cycle Q Clear(g_c), s	8.7	37.5	37.6	2.9	31.1	31.1	4.1	0.0	5.0	3.7	0.0	10.5
Prop In Lane	1.00		0.16	1.00		0.11	1.00		0.72	1.00		0.76
Lane Grp Cap(c), veh/h	184	684	701	54	554	572	78	0	346	378	0	621
V/C Ratio(X)	0.72	0.87	0.87	0.78	0.87	0.87	0.78	0.00	0.24	0.18	0.00	0.32
Avail Cap(c_a), veh/h	270	882	903	95	707	729	139	0	346	378	0	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.0	33.6	33.7	57.8	38.6	38.6	56.7	0.0	39.2	38.4	0.0	26.0
Incr Delay (d2), s/veh	5.2	7.4	7.4	21.7	9.2	8.9	15.3	0.0	1.6	0.2	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	16.3	16.7	1.6	14.0	14.4	2.1	0.0	2.2	1.6	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	41.1	41.1	79.4	47.8	47.5	72.0	0.0	40.8	38.6	0.0	27.4
LnGrp LOS	E	D	D	E	D	D	E	A	D	D	A	C
Approach Vol, veh/h		1334			1019			143			268	
Approach Delay, s/veh		42.7			49.0			54.1			30.2	
Approach LOS		D			D			D			C	

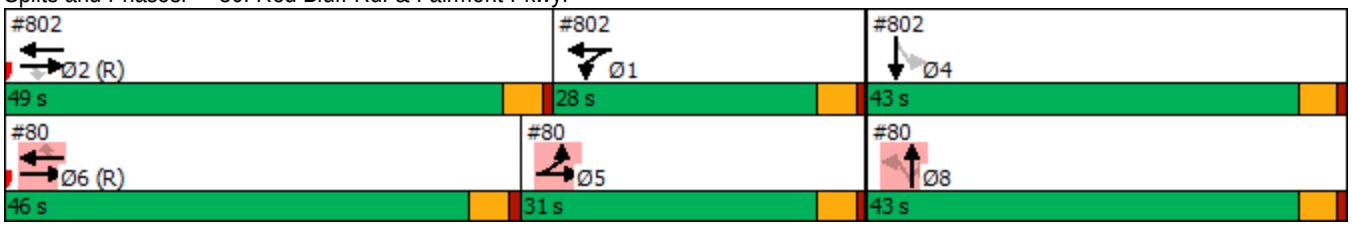
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.4	30.0	8.2	51.5	9.9	50.5	17.1	42.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	25.5	6.5	60.5	9.5	25.5	18.5	48.5
Max Q Clear Time (g_c+I1), s	5.7	7.0	4.9	39.6	6.1	12.5	10.7	33.1
Green Ext Time (p_c), s	0.0	0.3	0.0	7.4	0.0	0.9	0.2	5.0

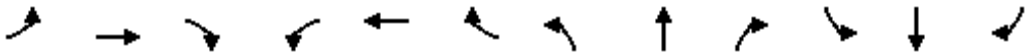
Intersection Summary	
HCM 6th Ctrl Delay	44.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	7	1481	1394	202	133	437	104			
Future Volume (vph)	7	1481	1394	202	133	437	104			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	31.0		46.0	46.0	43.0	43.0	43.0	28.0	49.0	43.0
Total Split (%)	25.8%		38.3%	38.3%	35.8%	35.8%	35.8%	23%	41%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	22.3	81.0	54.2	54.2	30.0	30.0	30.0			
Actuated g/C Ratio	0.19	0.68	0.45	0.45	0.25	0.25	0.25			
v/c Ratio	0.02	0.47	0.45	0.28	0.33	0.54	0.26			
Control Delay	30.4	4.6	10.4	5.1	35.4	38.1	23.0			
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0			
Total Delay	30.4	4.7	10.4	5.1	35.4	38.1	23.0			
LOS	C	A	B	A	D	D	C			
Approach Delay		4.8	9.7			35.2				
Approach LOS		A	A			D				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 39 (33%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 51.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





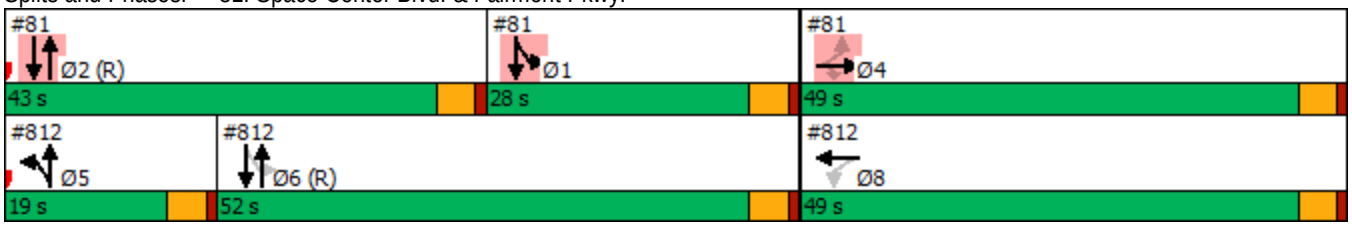
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	1481	0	0	1394	202	133	437	104	0	0	0
Future Volume (vph)	7	1481	0	0	1394	202	133	437	104	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	8	1592	0	0	1499	217	143	470	112	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	73	0	0	41	0	0	0
Lane Group Flow (vph)	8	1592	0	0	1499	144	143	470	71	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	22.3	81.0			54.2	54.2	30.0	30.0	30.0			
Effective Green, g (s)	22.3	81.0			54.2	54.2	30.0	30.0	30.0			
Actuated g/C Ratio	0.19	0.68			0.45	0.45	0.25	0.25	0.25			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	322	3366			3341	701	434	867	388			
v/s Ratio Prot	0.00	c0.32			0.20			c0.14				
v/s Ratio Perm						0.09	0.08		0.05			
v/c Ratio	0.02	0.47			0.45	0.20	0.33	0.54	0.18			
Uniform Delay, d1	40.0	9.3			22.6	19.9	36.8	39.0	35.4			
Progression Factor	0.81	0.41			0.42	0.47	0.94	0.94	1.22			
Incremental Delay, d2	0.0	0.1			0.2	0.4	0.4	0.6	0.2			
Delay (s)	32.5	4.0			9.8	9.7	35.1	37.2	43.4			
Level of Service	C	A			A	A	D	D	D			
Approach Delay (s)		4.1			9.7			37.7			0.0	
Approach LOS		A			A			D			A	

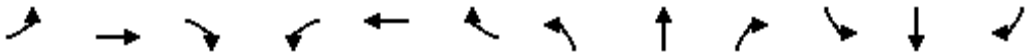
Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	239	1613	386	743	168	1151			
Future Volume (vph)	239	1613	386	743	168	1151			
Turn Type	Perm	NA	Perm	NA	Prot	NA			
Protected Phases		4		2	1	1 2	5	6	8
Permitted Phases	4		4						
Detector Phase	4	4	4	2	1	1 2			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	49.0	49.0	49.0	43.0	28.0		19.0	52.0	49.0
Total Split (%)	40.8%	40.8%	40.8%	35.8%	23.3%		16%	43%	41%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	44.5	44.5	44.5	38.5	23.5	66.5			
Actuated g/C Ratio	0.37	0.37	0.37	0.32	0.20	0.55			
v/c Ratio	0.39	0.72	0.63	0.72	0.52	0.62			
Control Delay	30.0	34.6	28.5	25.8	44.6	16.5			
Queue Delay	0.4	0.0	0.0	0.2	49.6	1.2			
Total Delay	30.3	34.6	28.5	26.0	94.2	17.8			
LOS	C	C	C	C	F	B			
Approach Delay		33.1		26.0		27.5			
Approach LOS		C		C		C			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 29.8	Intersection LOS: C
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	1613	386	0	0	0	0	743	363	168	1151	0
Future Volume (vph)	239	1613	386	0	0	0	0	743	363	168	1151	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91		1.00	0.95	
Frt	1.00	1.00	0.85					0.95		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4742		1736	3471	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4742		1736	3471	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	249	1680	402	0	0	0	0	774	378	175	1199	0
RTOR Reduction (vph)	0	0	60	0	0	0	0	73	0	0	0	0
Lane Group Flow (vph)	249	1680	342	0	0	0	0	1079	0	175	1199	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4									
Actuated Green, G (s)	44.5	44.5	44.5					38.5		23.5	66.5	
Effective Green, g (s)	44.5	44.5	44.5					38.5		23.5	66.5	
Actuated g/C Ratio	0.37	0.37	0.37					0.32		0.20	0.55	
Clearance Time (s)	4.5	4.5	4.5					4.5		4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		
Lane Grp Cap (vph)	643	2330	575					1521		339	1923	
v/s Ratio Prot		c0.27						c0.23		0.10	c0.35	
v/s Ratio Perm	0.14		0.22									
v/c Ratio	0.39	0.72	0.60					0.71		0.52	0.62	
Uniform Delay, d1	27.7	32.4	30.5					35.8		43.2	18.2	
Progression Factor	1.00	1.00	1.00					0.71		0.90	0.82	
Incremental Delay, d2	0.4	1.1	1.7					2.6		1.2	0.6	
Delay (s)	28.1	33.5	32.1					28.0		40.1	15.5	
Level of Service	C	C	C					C		D	B	
Approach Delay (s)		32.7			0.0			28.0			18.6	
Approach LOS		C			A			C			B	

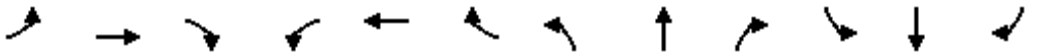
Intersection Summary			
HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	681	1197	13	1646	88	51	73	46	766
Future Volume (vph)	681	1197	13	1646	88	51	73	46	766
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	34.0	75.0	8.0	49.0	14.0	24.0	13.0	23.0	34.0
Total Split (%)	28.3%	62.5%	6.7%	40.8%	11.7%	20.0%	10.8%	19.2%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	28.8	73.9	8.1	44.7	9.5	22.6	8.1	19.0	47.8
Actuated g/C Ratio	0.24	0.62	0.07	0.37	0.08	0.19	0.07	0.16	0.40
v/c Ratio	0.88	0.45	0.12	0.93	0.67	0.09	0.65	0.17	0.70
Control Delay	57.1	13.6	31.2	26.1	77.7	39.1	76.4	53.2	30.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	13.6	31.2	26.1	77.7	39.1	76.4	53.2	30.6
LOS	E	B	C	C	E	D	E	D	C
Approach Delay		28.4		26.2		62.6		35.6	
Approach LOS		C		C		E		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 109 (91%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 30.0	Intersection LOS: C
Intersection Capacity Utilization 80.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	681	1197	116	13	1646	18	88	51	6	73	46	766
Future Volume (veh/h)	681	1197	116	13	1646	18	88	51	6	73	46	766
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	709	1247	121	14	1715	19	92	53	6	76	48	798
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	775	1675	162	392	1819	20	198	672	75	97	284	1049
Arrive On Green	0.23	0.36	0.36	0.45	0.71	0.71	0.11	0.21	0.21	0.02	0.05	0.05
Sat Flow, veh/h	3401	4658	452	1753	5124	57	1753	3173	353	1753	1841	2745
Grp Volume(v), veh/h	709	897	471	14	1121	613	92	29	30	76	48	798
Grp Sat Flow(s),veh/h/ln	1700	1675	1759	1753	1675	1831	1753	1749	1777	1753	1841	1373
Q Serve(g_s), s	24.4	28.1	28.1	0.5	35.2	35.2	5.9	1.6	1.6	5.2	3.0	17.0
Cycle Q Clear(g_c), s	24.4	28.1	28.1	0.5	35.2	35.2	5.9	1.6	1.6	5.2	3.0	17.0
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	775	1205	633	392	1189	650	198	370	376	97	284	1049
V/C Ratio(X)	0.91	0.74	0.74	0.04	0.94	0.94	0.46	0.08	0.08	0.79	0.17	0.76
Avail Cap(c_a), veh/h	836	1968	1034	392	1242	679	198	370	376	124	284	1049
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	45.2	33.6	33.6	25.9	16.3	16.3	49.8	37.9	37.9	58.2	49.6	16.4
Incr Delay (d2), s/veh	13.9	0.9	1.8	0.0	12.8	19.9	1.7	0.4	0.4	16.8	1.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	11.5	12.2	0.2	7.4	9.4	2.6	0.7	0.7	2.8	1.4	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	34.5	35.4	26.0	29.1	36.2	51.5	38.3	38.3	75.0	50.5	20.3
LnGrp LOS	E	C	D	C	C	D	D	D	D	E	D	C
Approach Vol, veh/h		2077			1748			151			922	
Approach Delay, s/veh		43.1			31.6			46.4			26.4	
Approach LOS		D			C			D			C	

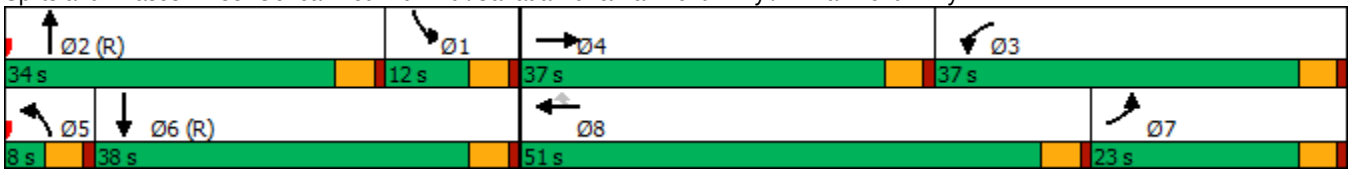
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	29.9	31.3	47.6	18.0	23.0	31.9	47.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	19.5	3.5	70.5	9.5	18.5	29.5	44.5
Max Q Clear Time (g_c+I1), s	7.2	3.6	2.5	30.1	7.9	19.0	26.4	37.2
Green Ext Time (p_c), s	0.0	0.2	0.0	13.0	0.0	0.0	0.9	5.4

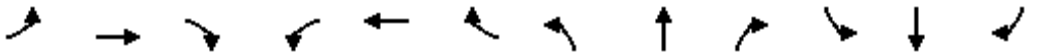
Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	255	735	449	1295	137	42	453	94	544
Future Volume (vph)	255	735	449	1295	137	42	453	94	544
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	23.0	37.0	37.0	51.0	51.0	8.0	34.0	12.0	38.0
Total Split (%)	19.2%	30.8%	30.8%	42.5%	42.5%	6.7%	28.3%	10.0%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.5	30.9	34.1	46.5	46.5	3.5	29.5	7.5	33.5
Actuated g/C Ratio	0.15	0.26	0.28	0.39	0.39	0.03	0.25	0.06	0.28
v/c Ratio	0.99	0.87	0.94	0.99	0.21	0.86	0.97	0.90	0.86
Control Delay	106.5	33.1	32.7	49.0	12.4	129.0	45.7	81.5	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.5	33.1	32.7	49.0	12.4	129.0	45.7	81.5	27.4
LOS	F	C	C	D	B	F	D	F	C
Approach Delay		51.8		42.4			49.4		33.0
Approach LOS		D		D			D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 51 (43%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 44.0	Intersection LOS: D
Intersection Capacity Utilization 101.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	735	15	449	1295	137	42	453	429	94	544	266
Future Volume (veh/h)	255	735	15	449	1295	137	42	453	429	94	544	266
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	263	758	15	463	1335	141	43	467	442	97	561	274
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	270	856	17	522	1355	604	51	430	383	110	636	310
Arrive On Green	0.15	0.24	0.24	0.30	0.39	0.39	0.03	0.25	0.25	0.06	0.28	0.28
Sat Flow, veh/h	1753	3508	69	1753	3497	1560	1753	1749	1560	1753	2278	1111
Grp Volume(v), veh/h	263	378	395	463	1335	141	43	467	442	97	430	405
Grp Sat Flow(s),veh/h/ln	1753	1749	1828	1753	1749	1560	1753	1749	1560	1753	1749	1641
Q Serve(g_s), s	17.9	25.0	25.0	30.3	45.4	7.3	2.9	29.5	29.5	6.6	28.2	28.3
Cycle Q Clear(g_c), s	17.9	25.0	25.0	30.3	45.4	7.3	2.9	29.5	29.5	6.6	28.2	28.3
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	270	427	446	522	1355	604	51	430	383	110	488	458
V/C Ratio(X)	0.97	0.89	0.89	0.89	0.99	0.23	0.84	1.09	1.15	0.89	0.88	0.88
Avail Cap(c_a), veh/h	270	474	495	522	1355	604	51	430	383	110	488	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.09	0.09	0.09	1.00	1.00	1.00	0.24	0.24	0.24
Uniform Delay (d), s/veh	50.5	43.7	43.7	40.2	36.4	24.7	58.0	45.3	45.3	55.8	41.4	41.4
Incr Delay (d2), s/veh	44.2	15.3	14.8	1.9	4.6	0.0	70.4	68.7	94.4	18.4	5.9	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	12.6	13.1	13.2	19.8	2.7	2.3	20.6	21.1	3.5	12.9	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.7	59.0	58.5	42.2	41.0	24.8	128.4	113.9	139.7	74.2	47.3	47.8
LnGrp LOS	F	E	E	D	D	C	F	F	F	E	D	D
Approach Vol, veh/h		1036			1939			952			932	
Approach Delay, s/veh		67.9			40.1			126.5			50.3	
Approach LOS		E			D			F			D	

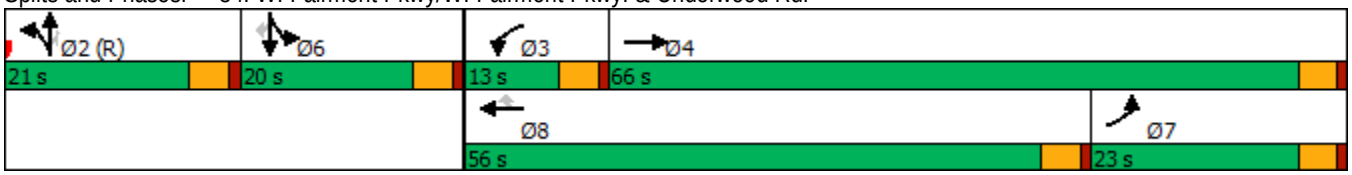
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	34.0	40.2	33.8	8.0	38.0	23.0	51.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	29.5	32.5	32.5	3.5	33.5	18.5	46.5
Max Q Clear Time (g_c+I1), s	8.6	31.5	32.3	27.0	4.9	30.3	19.9	47.4
Green Ext Time (p_c), s	0.0	0.0	0.1	2.3	0.0	1.6	0.0	0.0

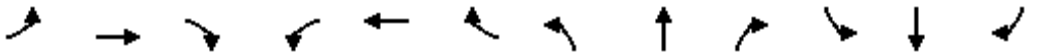
Intersection Summary	
HCM 6th Ctrl Delay	64.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	290	1160	41	1653	197	74	50	175	33	329
Future Volume (vph)	290	1160	41	1653	197	74	50	175	33	329
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Split	NA	Perm
Protected Phases	7	4	3	8		2		6	6	
Permitted Phases					8		2			6
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	66.0	13.0	56.0	56.0	21.0	21.0	20.0	20.0	20.0
Total Split (%)	19.2%	55.0%	10.8%	46.7%	46.7%	17.5%	17.5%	16.7%	16.7%	16.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	18.5	64.4	7.6	51.5	51.5	16.5	16.5	15.5	15.5	15.5
Actuated g/C Ratio	0.15	0.54	0.06	0.43	0.43	0.14	0.14	0.13	0.13	0.13
v/c Ratio	1.18	0.69	0.41	1.21	0.30	0.77	0.16	0.85	0.15	0.74
Control Delay	147.0	18.6	60.8	126.4	6.6	71.3	1.1	85.8	64.2	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	147.0	18.6	60.8	126.4	6.6	71.3	1.1	85.8	64.2	27.3
LOS	F	B	E	F	A	E	A	F	E	C
Approach Delay		43.9		112.5		55.6			48.6	
Approach LOS		D		F		E			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay: 76.7	Intersection LOS: E
Intersection Capacity Utilization 95.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	1160	18	41	1653	197	99	74	50	175	33	329
Future Volume (veh/h)	290	1160	18	41	1653	197	99	74	50	175	33	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	315	1261	20	45	1797	214	108	80	54	190	36	358
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	270	1940	31	58	1501	669	141	105	214	226	238	201
Arrive On Green	0.15	0.55	0.55	0.03	0.43	0.43	0.14	0.14	0.14	0.13	0.13	0.13
Sat Flow, veh/h	1753	3523	56	1753	3497	1560	1028	761	1560	1753	1841	1560
Grp Volume(v), veh/h	315	626	655	45	1797	214	188	0	54	190	36	358
Grp Sat Flow(s),veh/h/ln	1753	1749	1831	1753	1749	1560	1789	0	1560	1753	1841	1560
Q Serve(g_s), s	18.5	30.1	30.1	3.1	51.5	10.9	12.2	0.0	3.7	12.7	2.1	15.5
Cycle Q Clear(g_c), s	18.5	30.1	30.1	3.1	51.5	10.9	12.2	0.0	3.7	12.7	2.1	15.5
Prop In Lane	1.00		0.03	1.00		1.00	0.57		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	270	963	1008	58	1501	669	246	0	214	226	238	201
V/C Ratio(X)	1.17	0.65	0.65	0.78	1.20	0.32	0.76	0.00	0.25	0.84	0.15	1.78
Avail Cap(c_a), veh/h	270	963	1008	124	1501	669	246	0	214	226	238	201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	0.37	0.48	0.48	0.48	1.00	0.00	1.00	0.54	0.54	0.54
Uniform Delay (d), s/veh	50.8	18.9	18.9	57.6	34.3	22.7	49.9	0.0	46.2	51.0	46.4	52.2
Incr Delay (d2), s/veh	89.0	0.6	0.6	10.5	92.1	0.1	20.0	0.0	2.8	17.9	0.7	360.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	11.9	12.5	1.5	40.4	4.0	6.7	0.0	1.6	6.7	1.0	26.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	139.8	19.5	19.4	68.1	126.4	22.8	69.8	0.0	49.0	69.0	47.1	412.5
LnGrp LOS	F	B	B	E	F	C	E	A	D	E	D	F
Approach Vol, veh/h		1596			2056			242			584	
Approach Delay, s/veh		43.2			114.3			65.2			278.2	
Approach LOS		D			F			E			F	

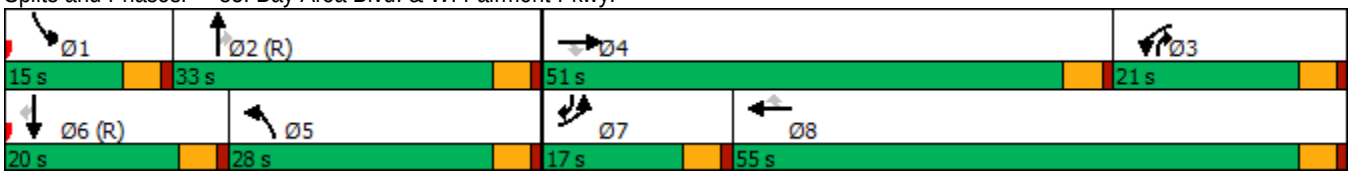
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.0	8.4	70.6		20.0	23.0	56.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.5	8.5	61.5		15.5	18.5	51.5				
Max Q Clear Time (g_c+I1), s		14.2	5.1	32.1		17.5	20.5	53.5				
Green Ext Time (p_c), s		0.2	0.0	10.8		0.0	0.0	0.0				

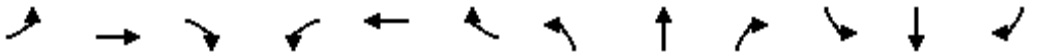
Intersection Summary												
HCM 6th Ctrl Delay			107.7									
HCM 6th LOS			F									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	1163	196	133	1299	203	314	694	527	142	261	200
Future Volume (vph)	156	1163	196	133	1299	203	314	694	527	142	261	200
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	17.0	51.0	51.0	21.0	55.0	55.0	28.0	33.0	21.0	15.0	20.0	17.0
Total Split (%)	14.2%	42.5%	42.5%	17.5%	45.8%	45.8%	23.3%	27.5%	17.5%	12.5%	16.7%	14.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	12.5	46.5	46.5	16.5	50.5	50.5	23.5	28.5	45.0	10.5	15.5	28.0
Actuated g/C Ratio	0.10	0.39	0.39	0.14	0.42	0.42	0.20	0.24	0.38	0.09	0.13	0.23
v/c Ratio	0.96	0.96	0.32	0.62	0.99	0.31	1.03	0.94	0.91	1.05	0.65	0.51
Control Delay	118.7	43.5	8.8	44.9	40.4	2.6	104.2	64.3	43.7	140.3	59.0	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	118.7	43.5	8.8	44.9	40.4	2.6	104.2	64.3	43.7	140.3	59.0	17.6
LOS	F	D	A	D	D	A	F	E	D	F	E	B
Approach Delay		46.7			36.1			65.4			64.5	
Approach LOS		D			D			E			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 36 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 50.9	Intersection LOS: D
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	1163	196	133	1299	203	314	694	527	142	261	200
Future Volume (veh/h)	156	1163	196	133	1299	203	314	694	527	142	261	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	173	1292	0	148	1443	226	349	771	586	158	290	222
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	183	1347		245	1472	656	343	831	589	153	452	364
Arrive On Green	0.10	0.39	0.00	0.14	0.42	0.42	0.20	0.24	0.24	0.09	0.13	0.13
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	173	1292	0	148	1443	226	349	771	586	158	290	222
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	11.8	43.2	0.0	9.5	48.8	11.8	23.5	25.9	22.8	10.5	9.4	9.1
Cycle Q Clear(g_c), s	11.8	43.2	0.0	9.5	48.8	11.8	23.5	25.9	22.8	10.5	9.4	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1347		245	1472	656	343	831	589	153	452	364
V/C Ratio(X)	0.95	0.96		0.60	0.98	0.34	1.02	0.93	1.00	1.03	0.64	0.61
Avail Cap(c_a), veh/h	183	1355		245	1472	656	343	831	589	153	452	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.00	0.67	0.67	0.67	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	53.4	36.0	0.0	48.5	34.3	23.5	48.2	44.7	23.2	54.8	49.6	18.5
Incr Delay (d2), s/veh	47.9	14.5	0.0	2.8	14.8	0.2	52.8	18.0	36.0	77.8	6.3	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	20.7	0.0	4.4	23.2	4.4	15.1	13.0	13.0	7.9	4.5	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.3	50.5	0.0	51.3	49.1	23.7	101.1	62.7	59.2	132.6	55.9	25.4
LnGrp LOS	F	D		D	D	C	F	E	E	F	E	C
Approach Vol, veh/h		1465	A		1817			1706			670	
Approach Delay, s/veh		56.5			46.1			69.4			63.9	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	33.0	21.3	50.7	28.0	20.0	17.0	55.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	28.5	16.5	46.5	23.5	15.5	12.5	50.5
Max Q Clear Time (g_c+I1), s	12.5	27.9	11.5	45.2	25.5	11.4	13.8	50.8
Green Ext Time (p_c), s	0.0	0.4	0.2	1.0	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	57.9
HCM 6th LOS	E

Notes

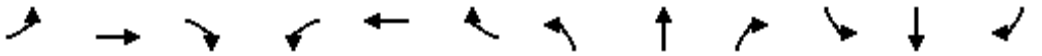
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	1227	15	1853	6	20	0	2	0	53
Future Volume (vph)	40	1227	15	1853	6	20	0	2	0	53
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8			2		6	6
Permitted Phases					8	2		6		
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	90.0	10.0	89.0	89.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	9.2%	75.0%	8.3%	74.2%	74.2%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.3	90.8	6.5	84.5	84.5		17.7		17.7	17.7
Actuated g/C Ratio	0.05	0.76	0.05	0.70	0.70		0.15		0.15	0.15
v/c Ratio	0.48	0.53	0.18	0.84	0.01		0.11		0.01	0.19
Control Delay	88.9	5.2	47.2	6.6	0.0		47.9		46.0	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	88.9	5.2	47.2	6.6	0.0		47.9		46.0	4.2
LOS	F	A	D	A	A		D		D	A
Approach Delay		7.7		6.9			47.9		5.5	
Approach LOS		A		A			D		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 50 (42%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 77.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1227	29	15	1853	6	20	0	0	2	0	53
Future Volume (veh/h)	40	1227	29	15	1853	6	20	0	0	2	0	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	44	1363	32	17	2059	0	22	0	0	2	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	56	1648	39	285	2106		413	0	0	413	0	
Arrive On Green	0.03	0.47	0.47	0.33	1.00	0.00	0.25	0.00	0.00	0.25	0.00	0.00
Sat Flow, veh/h	1753	3493	82	1753	3497	1560	1395	0	0	1395	0	1560
Grp Volume(v), veh/h	44	682	713	17	2059	0	22	0	0	2	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1826	1753	1749	1560	1395	0	0	1395	0	1560
Q Serve(g_s), s	3.0	40.5	40.6	0.8	0.0	0.0	1.4	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	3.0	40.5	40.6	0.8	0.0	0.0	1.4	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	825	861	285	2106		413	0	0	413	0	
V/C Ratio(X)	0.78	0.83	0.83	0.06	0.98		0.05	0.00	0.00	0.00	0.00	
Avail Cap(c_a), veh/h	95	1246	1301	285	2463		413	0	0	413	0	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.49	0.49	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.7	27.4	27.5	34.2	0.0	0.0	34.0	0.0	0.0	33.5	0.0	0.0
Incr Delay (d2), s/veh	20.7	2.9	2.8	0.0	7.7	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	17.1	17.9	0.3	2.2	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.3	30.4	30.3	34.2	7.7	0.0	34.2	0.0	0.0	33.5	0.0	0.0
LnGrp LOS	E	C	C	C	A		C	A	A	C	A	
Approach Vol, veh/h		1439			2076	A		22			2	A
Approach Delay, s/veh		31.8			7.9			34.2			33.5	
Approach LOS		C			A			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		43.9	15.0	61.1		43.9	8.3	67.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	5.5	85.5		15.5	6.5	84.5				
Max Q Clear Time (g_c+I1), s		3.4	2.8	42.6		2.1	5.0	2.0				
Green Ext Time (p_c), s		0.0	0.0	14.0		0.0	0.0	40.1				

Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Notes

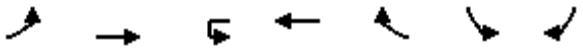
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	141	1094	1285	101	
Future Volume (vph)	141	1094	1285	101	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	23.0	88.0	73.0	24.0	8.0
Total Split (%)	19.2%	73.3%	60.8%	20.0%	7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	15.1	84.3	64.7	26.7	
Actuated g/C Ratio	0.13	0.70	0.54	0.22	
v/c Ratio	0.70	0.48	0.81	0.27	
Control Delay	48.7	8.4	9.8	22.4	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	48.7	8.4	9.8	22.4	
LOS	D	A	A	C	
Approach Delay		13.0	9.8	22.4	
Approach LOS		B	A	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 43 (36%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 12.1	Intersection LOS: B
Intersection Capacity Utilization 67.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	141	1094	0	1285	114	101	97
Future Volume (vph)	141	1094	0	1285	114	101	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.93	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3429		3203	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3429		3203	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	152	1176	0	1382	123	109	104
RTOR Reduction (vph)	0	0	0	6	0	81	0
Lane Group Flow (vph)	152	1176	0	1499	0	132	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	15.1	84.3		64.7		26.7	
Effective Green, g (s)	15.1	84.3		64.7		26.7	
Actuated g/C Ratio	0.13	0.70		0.54		0.22	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	218	2438		1848		712	
v/s Ratio Prot	c0.09	0.34		c0.44			
v/s Ratio Perm						c0.04	
v/c Ratio	0.70	0.48		0.81		0.19	
Uniform Delay, d1	50.3	8.0		22.6		37.8	
Progression Factor	0.73	1.01		0.38		1.00	
Incremental Delay, d2	6.8	0.1		1.0		0.6	
Delay (s)	43.3	8.2		9.5		38.4	
Level of Service	D	A		A		D	
Approach Delay (s)		12.2		9.5		38.4	
Approach LOS		B		A		D	

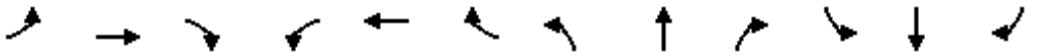
Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	34	1409	52	1110	47	125	23	58	15
Future Volume (vph)	34	1409	52	1110	47	125	23	58	15
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	69.0	11.0	69.0	69.0	18.0	26.0	14.0	22.0
Total Split (%)	9.2%	57.5%	9.2%	57.5%	57.5%	15.0%	21.7%	11.7%	18.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.6	63.9	6.4	63.9	63.9	13.5	27.3	8.6	20.3
Actuated g/C Ratio	0.07	0.53	0.05	0.53	0.53	0.11	0.23	0.07	0.17
v/c Ratio	0.31	0.91	0.63	0.68	0.06	0.73	0.12	0.53	0.16
Control Delay	46.4	15.0	85.1	23.4	0.1	73.3	16.2	69.2	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.4	15.0	85.1	23.4	0.1	73.3	16.2	69.2	15.0
LOS	D	B	F	C	A	E	B	E	B
Approach Delay		15.8		25.1			51.3		37.9
Approach LOS		B		C			D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	1409	66	52	1110	47	125	23	55	58	15	64
Future Volume (veh/h)	34	1409	66	52	1110	47	125	23	55	58	15	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	1601	75	59	1261	53	142	26	62	66	17	73
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	228	1753	82	75	1499	668	256	426	380	84	255	227
Arrive On Green	0.13	0.52	0.52	0.04	0.43	0.43	0.15	0.24	0.24	0.05	0.15	0.15
Sat Flow, veh/h	1753	3402	159	1753	3497	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	39	820	856	59	1261	53	142	26	62	66	17	73
Grp Sat Flow(s),veh/h/ln	1753	1749	1812	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	2.4	51.3	52.1	4.0	38.7	1.9	9.0	1.4	3.8	4.5	1.0	5.0
Cycle Q Clear(g_c), s	2.4	51.3	52.1	4.0	38.7	1.9	9.0	1.4	3.8	4.5	1.0	5.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	901	934	75	1499	668	256	426	380	84	255	227
V/C Ratio(X)	0.17	0.91	0.92	0.78	0.84	0.08	0.56	0.06	0.16	0.78	0.07	0.32
Avail Cap(c_a), veh/h	228	940	974	95	1880	838	256	426	380	139	255	227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.20	0.20	0.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	26.5	26.7	56.9	30.7	12.5	47.6	34.9	35.8	56.5	44.2	45.9
Incr Delay (d2), s/veh	0.1	3.0	3.2	27.2	3.0	0.1	2.6	0.3	0.9	14.4	0.5	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	21.2	22.4	2.3	16.6	0.9	4.1	0.6	1.5	2.3	0.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	29.5	29.9	84.1	33.6	12.5	50.3	35.1	36.7	70.9	44.7	49.6
LnGrp LOS	D	C	C	F	C	B	D	D	D	E	D	D
Approach Vol, veh/h		1715			1373			230			156	
Approach Delay, s/veh		30.1			35.0			44.9			58.1	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	33.7	9.7	66.3	22.0	22.0	20.1	55.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	21.5	6.5	64.5	13.5	17.5	6.5	64.5
Max Q Clear Time (g_c+I1), s	6.5	5.8	6.0	54.1	11.0	7.0	4.4	40.7
Green Ext Time (p_c), s	0.0	0.3	0.0	7.7	0.1	0.3	0.0	10.7

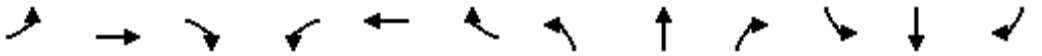
Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	126	900	4	29	1348	2	1	26	14	165
Future Volume (vph)	126	900	4	29	1348	2	1	26	14	165
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	NA	Prot
Protected Phases	7	4	4	3	8		2	1	6	6
Permitted Phases						2				
Detector Phase	7	4	4	3	8	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	22.0	79.0	79.0	11.0	68.0	21.0	21.0	9.0	30.0	30.0
Total Split (%)	18.3%	65.8%	65.8%	9.2%	56.7%	17.5%	17.5%	7.5%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.2	73.7	73.7	6.3	61.7		24.6	5.7	30.7	30.7
Actuated g/C Ratio	0.12	0.61	0.61	0.05	0.51		0.20	0.05	0.26	0.26
v/c Ratio	0.67	0.46	0.00	0.35	0.86		0.02	0.34	0.03	0.34
Control Delay	52.0	13.3	0.0	77.3	6.2		32.1	58.4	24.2	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	52.0	13.3	0.0	77.3	6.2		32.1	58.4	24.2	10.0
LOS	D	B	A	E	A		C	E	C	A
Approach Delay		18.0			7.6		32.1		17.1	
Approach LOS		B			A		C		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 70.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	900	4	29	1348	62	2	1	5	26	14	165
Future Volume (veh/h)	126	900	4	29	1348	62	2	1	5	26	14	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	137	978	4	32	1465	67	2	1	5	28	15	179
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	1938	865	40	1650	75	112	68	238	35	571	484
Arrive On Green	0.19	1.00	1.00	0.02	0.48	0.48	0.25	0.25	0.25	0.02	0.31	0.31
Sat Flow, veh/h	1753	3497	1560	1753	3406	155	295	269	939	1753	1841	1560
Grp Volume(v), veh/h	137	978	4	32	750	782	8	0	0	28	15	179
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1813	1503	0	0	1753	1841	1560
Q Serve(g_s), s	9.1	0.0	0.0	2.2	46.5	46.9	0.0	0.0	0.0	1.9	0.7	10.7
Cycle Q Clear(g_c), s	9.1	0.0	0.0	2.2	46.5	46.9	0.4	0.0	0.0	1.9	0.7	10.7
Prop In Lane	1.00		1.00	1.00		0.09	0.25		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	162	1938	865	40	847	878	418	0	0	35	571	484
V/C Ratio(X)	0.84	0.50	0.00	0.80	0.89	0.89	0.02	0.00	0.00	0.81	0.03	0.37
Avail Cap(c_a), veh/h	256	2171	968	95	925	959	418	0	0	66	571	484
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.12	0.12	0.12	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	0.0	0.0	58.4	27.9	28.0	33.6	0.0	0.0	58.6	28.8	32.2
Incr Delay (d2), s/veh	11.7	0.2	0.0	4.4	1.4	1.4	0.1	0.0	0.0	33.9	0.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	0.0	1.0	19.1	20.0	0.2	0.0	0.0	1.2	0.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	0.2	0.0	62.7	29.3	29.4	33.7	0.0	0.0	92.5	28.9	34.4
LnGrp LOS	E	A	A	E	C	C	C	A	A	F	C	C
Approach Vol, veh/h		1119			1564			8			222	
Approach Delay, s/veh		7.5			30.0			33.7			41.3	
Approach LOS		A			C			C			D	

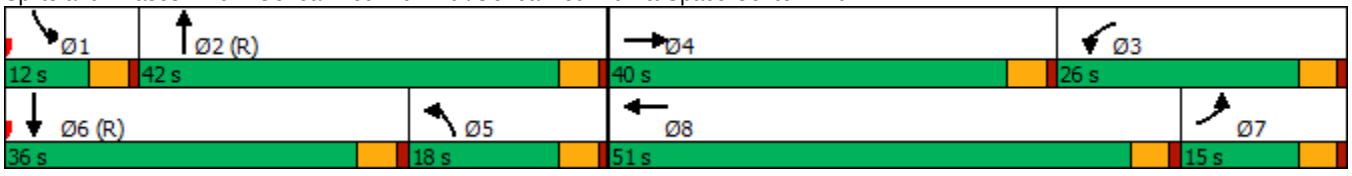
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	6.9	34.9	7.2	71.0		41.8	15.6	62.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.5	16.5	6.5	74.5		25.5	17.5	63.5				
Max Q Clear Time (g_c+I1), s	3.9	2.4	4.2	2.0		12.7	11.1	48.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	9.3		0.5	0.2	9.2				

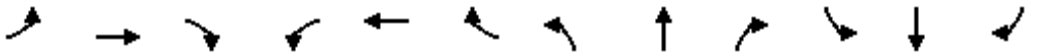
Intersection Summary												
HCM 6th Ctrl Delay			22.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	105	777	323	1109	205	676	96	870
Future Volume (vph)	105	777	323	1109	205	676	96	870
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	40.0	26.0	51.0	18.0	42.0	12.0	36.0
Total Split (%)	12.5%	33.3%	21.7%	42.5%	15.0%	35.0%	10.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.3	35.5	21.5	45.7	13.5	37.5	7.5	31.5
Actuated g/C Ratio	0.09	0.30	0.18	0.38	0.11	0.31	0.06	0.26
v/c Ratio	0.67	1.14	1.08	0.92	1.10	0.90	0.93	1.12
Control Delay	66.2	98.9	103.7	20.9	142.2	50.3	114.4	94.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	98.9	103.7	20.9	142.2	50.3	114.4	94.9
LOS	E	F	F	C	F	D	F	F
Approach Delay		96.1		39.0		66.9		96.7
Approach LOS		F		D		E		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 72.2	Intersection LOS: E
Intersection Capacity Utilization 108.7%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	777	339	323	1109	49	205	676	256	96	870	98
Future Volume (veh/h)	105	777	339	323	1109	49	205	676	256	96	870	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	109	809	353	336	1155	51	214	704	267	100	906	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	185	702	305	314	1261	56	197	775	294	110	832	94
Arrive On Green	0.11	0.30	0.30	0.18	0.37	0.37	0.11	0.31	0.31	0.06	0.26	0.26
Sat Flow, veh/h	1753	2372	1032	1753	3412	151	1753	2480	940	1753	3168	357
Grp Volume(v), veh/h	109	596	566	336	592	614	214	496	475	100	500	508
Grp Sat Flow(s),veh/h/ln	1753	1749	1655	1753	1749	1814	1753	1749	1671	1753	1749	1777
Q Serve(g_s), s	7.1	35.5	35.5	21.5	38.7	38.7	13.5	32.7	32.7	6.8	31.5	31.5
Cycle Q Clear(g_c), s	7.1	35.5	35.5	21.5	38.7	38.7	13.5	32.7	32.7	6.8	31.5	31.5
Prop In Lane	1.00		0.62	1.00		0.08	1.00		0.56	1.00		0.20
Lane Grp Cap(c), veh/h	185	517	490	314	646	670	197	546	522	110	459	466
V/C Ratio(X)	0.59	1.15	1.16	1.07	0.92	0.92	1.09	0.91	0.91	0.91	1.09	1.09
Avail Cap(c_a), veh/h	185	517	490	314	678	703	197	546	522	110	459	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.53	0.53	0.53	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	51.2	42.3	42.3	49.3	36.0	36.1	53.3	39.6	39.6	55.9	44.2	44.3
Incr Delay (d2), s/veh	4.9	88.7	91.3	57.0	10.1	9.9	88.6	21.5	22.2	46.7	61.7	61.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	27.9	26.7	14.3	18.0	18.7	10.8	17.1	16.5	4.4	21.4	21.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	130.9	133.5	106.3	46.2	46.0	141.8	61.1	61.8	102.6	105.9	105.7
LnGrp LOS	E	F	F	F	D	D	F	E	E	F	F	F
Approach Vol, veh/h		1271			1542			1185			1108	
Approach Delay, s/veh		125.7			59.2			76.0			105.5	
Approach LOS		F			E			E			F	

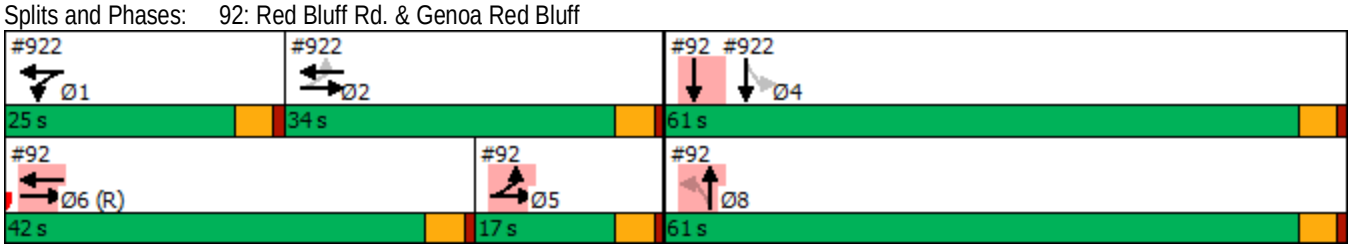
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	42.0	26.0	40.0	18.0	36.0	17.1	48.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	37.5	21.5	35.5	13.5	31.5	10.5	46.5
Max Q Clear Time (g_c+I1), s	8.8	34.7	23.5	37.5	15.5	33.5	9.1	40.7
Green Ext Time (p_c), s	0.0	1.6	0.0	0.0	0.0	0.0	0.0	3.6

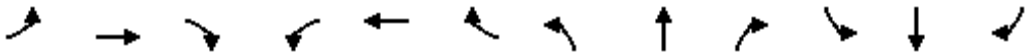
Intersection Summary	
HCM 6th Ctrl Delay	89.7
HCM 6th LOS	F

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	Ø1	Ø2
Lane Configurations								
Traffic Volume (vph)	124	733	1035	635	719	2		
Future Volume (vph)	124	733	1035	635	719	2		
Turn Type	Prot	NA	NA	Perm	NA	NA		
Protected Phases	5	5 6	6		8	4	1	2
Permitted Phases				8				
Detector Phase	5	5 6	6	8	8	4		
Switch Phase								
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	17.0		42.0	61.0	61.0	61.0	25.0	34.0
Total Split (%)	14.2%		35.0%	50.8%	50.8%	50.8%	21%	28%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5			
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None		C-Max	None	None	None	None	None
Act Effct Green (s)	12.5	54.5	37.5	56.5	56.5	0.0		
Actuated g/C Ratio	0.10	0.45	0.31	0.47	0.47	0.00		
v/c Ratio	0.73	0.49	0.73	1.03	0.43	no cap		
Control Delay	46.8	13.0	22.3	74.3	19.6			
Queue Delay	0.2	1.7	0.9	28.0	0.0			
Total Delay	46.9	14.7	23.3	102.3	19.6	Error		
LOS	D	B	C	F	B	F		
Approach Delay		19.4	23.3		52.7	Err		
Approach LOS		B	C		D	F		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 94 (78%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





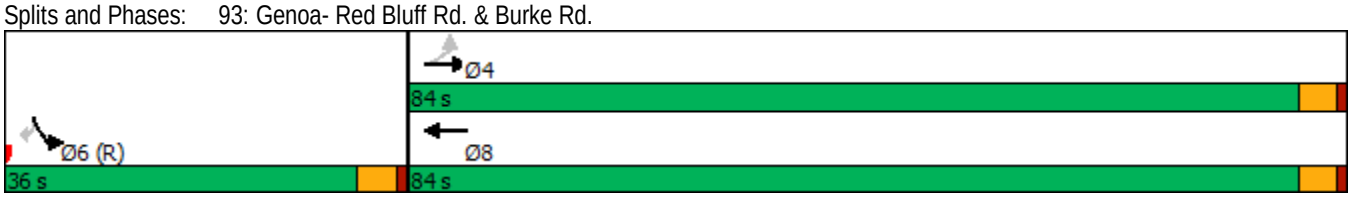
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	733	0	0	1035	36	635	719	232	0	2	0
Future Volume (vph)	124	733	0	0	1035	36	635	719	232	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95			0.91		1.00	0.91			1.00	
Frt	1.00	1.00			0.99		1.00	0.96			1.00	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3471			4962		1736	4805			0	
Flt Permitted	0.95	1.00			1.00		0.76	1.00			1.00	
Satd. Flow (perm)	1736	3471			4962		1382	4805			0	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	131	772	0	0	1089	38	668	757	244	0	2	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	49	0	0	0	0
Lane Group Flow (vph)	131	772	0	0	1124	0	668	952	0	0	2	0
Turn Type	Prot	NA			NA		Perm	NA			NA	
Protected Phases	5	5 6			6			8			4	
Permitted Phases							8					
Actuated Green, G (s)	12.5	54.5			37.5		56.5	56.5			56.5	
Effective Green, g (s)	12.5	54.5			37.5		56.5	56.5			56.5	
Actuated g/C Ratio	0.10	0.45			0.31		0.47	0.47			0.47	
Clearance Time (s)	4.5				4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0				3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	180	1576			1550		650	2262			0	
v/s Ratio Prot	c0.08	0.22			c0.23			0.20				
v/s Ratio Perm							c0.48					
v/c Ratio	0.73	0.49			0.73		1.03	0.42			no cap	
Uniform Delay, d1	52.1	23.0			36.7		31.8	21.0			Error	
Progression Factor	0.55	0.53			0.56		1.00	1.00				
Incremental Delay, d2	9.8	0.2			1.6		42.6	0.1			Error	
Delay (s)	38.4	12.3			22.3		74.3	21.1			Error	
Level of Service	D	B			C		E	C			F	
Approach Delay (s)		16.1			22.3			42.4			Error	
Approach LOS		B			C			D			F	

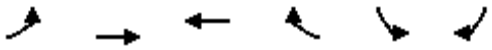
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	249	418	370	280	222
Future Volume (vph)	249	418	370	280	222
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	84.0	84.0	84.0	36.0	36.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	71.1	71.1	71.1	39.9	39.9
Actuated g/C Ratio	0.59	0.59	0.59	0.33	0.33
v/c Ratio	0.89	0.24	0.38	0.58	0.38
Control Delay	55.2	8.9	12.3	21.4	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	8.9	12.3	21.4	1.5
LOS	E	A	B	C	A
Approach Delay		26.1	12.3	12.6	
Approach LOS		C	B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	249	418	370	284	280	222
Future Volume (veh/h)	249	418	370	284	280	222
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	296	498	440	338	333	264
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	378	2068	1116	853	585	520
Arrive On Green	0.59	0.59	0.59	0.59	0.33	0.33
Sat Flow, veh/h	683	3589	1980	1442	1753	1560
Grp Volume(v), veh/h	296	498	407	371	333	264
Grp Sat Flow(s),veh/h/ln	683	1749	1749	1581	1753	1560
Q Serve(g_s), s	49.0	8.1	14.9	15.0	18.8	16.3
Cycle Q Clear(g_c), s	64.0	8.1	14.9	15.0	18.8	16.3
Prop In Lane	1.00			0.91	1.00	1.00
Lane Grp Cap(c), veh/h	378	2068	1034	935	585	520
V/C Ratio(X)	0.78	0.24	0.39	0.40	0.57	0.51
Avail Cap(c_a), veh/h	427	2317	1159	1047	585	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.38	0.38
Uniform Delay (d), s/veh	30.2	11.7	13.1	13.1	32.9	32.1
Incr Delay (d2), s/veh	8.2	0.1	0.2	0.3	1.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	3.1	5.8	5.3	8.2	6.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.3	11.7	13.3	13.4	34.4	33.4
LnGrp LOS	D	B	B	B	C	C
Approach Vol, veh/h		794	778		597	
Approach Delay, s/veh		21.7	13.3		34.0	
Approach LOS		C	B		C	

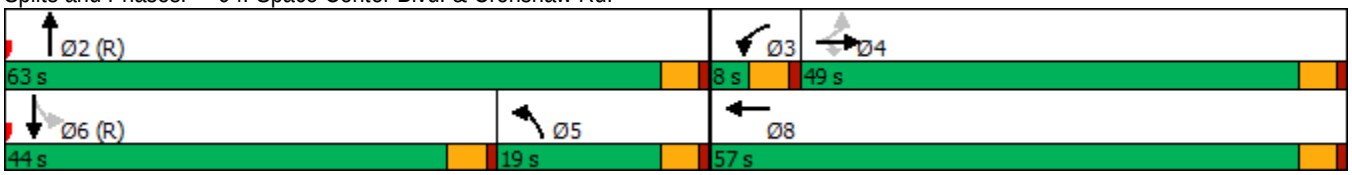
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			75.5		44.5	75.5
Change Period (Y+Rc), s			4.5		4.5	4.5
Max Green Setting (Gmax), s			79.5		31.5	79.5
Max Q Clear Time (g_c+I1), s			66.0		20.8	17.0
Green Ext Time (p_c), s			5.0		1.6	6.2

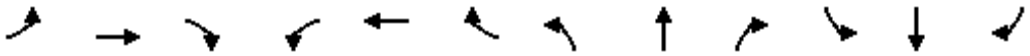
Intersection Summary		
HCM 6th Ctrl Delay		22.1
HCM 6th LOS		C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	334	127	172	8	133	167	567	104	626
Future Volume (vph)	334	127	172	8	133	167	567	104	626
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA
Protected Phases		4		3	8	5	2		6
Permitted Phases	4		4					6	
Detector Phase	4	4	4	3	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	49.0	49.0	49.0	8.0	57.0	19.0	63.0	44.0	44.0
Total Split (%)	40.8%	40.8%	40.8%	6.7%	47.5%	15.8%	52.5%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead		Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	42.7	42.7	42.7	3.5	44.3	14.5	66.7	47.7	47.7
Actuated g/C Ratio	0.36	0.36	0.36	0.03	0.37	0.12	0.56	0.40	0.40
v/c Ratio	0.89	0.21	0.27	0.16	0.18	0.84	0.32	0.44	0.74
Control Delay	60.4	26.5	4.5	64.0	14.5	54.5	4.1	27.9	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	26.5	4.5	64.0	14.5	54.5	4.1	27.9	25.8
LOS	E	C	A	E	B	D	A	C	C
Approach Delay		38.4			16.2		15.3		26.0
Approach LOS		D			B		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 106 (88%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 25.1	Intersection LOS: C
Intersection Capacity Utilization 82.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	334	127	172	8	133	81	167	567	18	104	626	334
Future Volume (veh/h)	334	127	172	8	133	81	167	567	18	104	626	334
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	352	134	181	8	140	85	176	597	19	109	659	352
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	436	612	519	12	808	462	318	1896	60	321	725	387
Arrive On Green	0.33	0.33	0.33	0.01	0.38	0.38	0.36	1.00	1.00	0.33	0.33	0.33
Sat Flow, veh/h	1137	1841	1560	1753	2143	1226	1753	3460	110	794	2202	1176
Grp Volume(v), veh/h	352	134	181	8	113	112	176	302	314	109	523	488
Grp Sat Flow(s),veh/h/ln	1137	1841	1560	1753	1749	1620	1753	1749	1821	794	1749	1629
Q Serve(g_s), s	36.0	6.3	6.5	0.5	5.1	5.6	9.6	0.0	0.0	12.8	34.4	34.4
Cycle Q Clear(g_c), s	36.3	6.3	6.5	0.5	5.1	5.6	9.6	0.0	0.0	12.8	34.4	34.4
Prop In Lane	1.00		1.00	1.00		0.76	1.00		0.06	1.00		0.72
Lane Grp Cap(c), veh/h	436	612	519	12	659	611	318	958	998	321	576	536
V/C Ratio(X)	0.81	0.22	0.35	0.67	0.17	0.18	0.55	0.31	0.32	0.34	0.91	0.91
Avail Cap(c_a), veh/h	479	683	578	51	765	709	318	958	998	321	576	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.35	0.35	0.35	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	28.8	11.5	59.5	24.9	25.0	34.3	0.0	0.0	31.3	38.5	38.5
Incr Delay (d2), s/veh	9.1	0.2	0.4	49.2	0.1	0.1	0.7	0.3	0.3	2.8	20.8	21.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	2.8	3.8	0.4	2.2	2.2	3.7	0.1	0.1	2.7	17.9	16.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	29.0	11.9	108.7	25.0	25.2	35.1	0.3	0.3	34.1	59.3	60.4
LnGrp LOS	D	C	B	F	C	C	D	A	A	C	E	E
Approach Vol, veh/h		667			233			792			1120	
Approach Delay, s/veh		34.4			28.0			8.0			57.4	
Approach LOS		C			C			A			E	

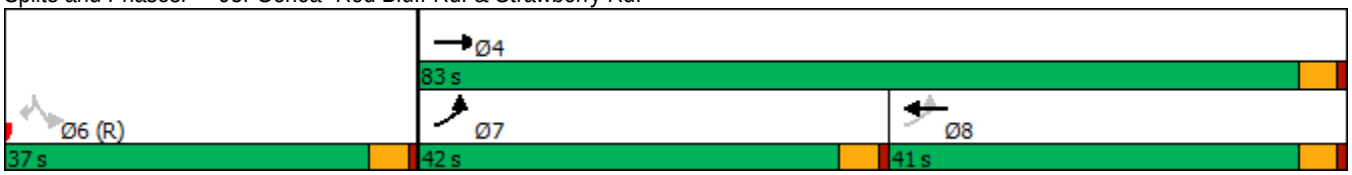
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		70.3	5.3	44.4	26.3	44.0		49.7				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		58.5	3.5	44.5	14.5	39.5		52.5				
Max Q Clear Time (g_c+I1), s		2.0	2.5	38.3	11.6	36.4		7.6				
Green Ext Time (p_c), s		4.3	0.0	1.6	0.1	2.0		1.4				

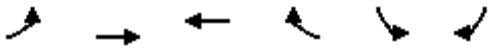
Intersection Summary												
HCM 6th Ctrl Delay			35.6									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	384	864	607	157	352
Future Volume (vph)	384	864	607	157	352
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	42.0	83.0	41.0	37.0	37.0
Total Split (%)	35.0%	69.2%	34.2%	30.8%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	60.9	65.4	32.9	45.6	45.6
Actuated g/C Ratio	0.51	0.54	0.27	0.38	0.38
v/c Ratio	0.86	0.48	0.81	0.25	0.45
Control Delay	37.7	20.0	49.7	19.0	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	20.0	49.7	19.0	3.1
LOS	D	C	D	B	A
Approach Delay		25.4	49.7	8.0	
Approach LOS		C	D	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 107 (89%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 29.0	Intersection LOS: C
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.





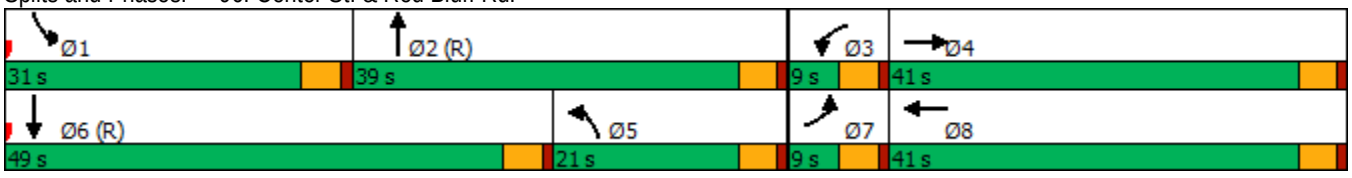
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	384	864	607	120	157	352
Future Volume (vph)	384	864	607	120	157	352
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	3471	3385		1736	1553
Flt Permitted	0.14	1.00	1.00		0.95	1.00
Satd. Flow (perm)	247	3471	3385		1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	404	909	639	126	165	371
RTOR Reduction (vph)	0	0	15	0	0	230
Lane Group Flow (vph)	404	909	750	0	165	141
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	60.9	65.4	32.9		45.6	45.6
Effective Green, g (s)	60.9	65.4	32.9		45.6	45.6
Actuated g/C Ratio	0.51	0.55	0.27		0.38	0.38
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	472	1891	928		659	590
v/s Ratio Prot	c0.20	0.26	0.22			
v/s Ratio Perm	c0.23				c0.10	0.09
v/c Ratio	0.86	0.48	0.81		0.25	0.24
Uniform Delay, d1	30.9	16.8	40.6		25.5	25.4
Progression Factor	0.70	1.18	1.08		0.63	0.41
Incremental Delay, d2	13.7	0.2	5.1		0.8	0.9
Delay (s)	35.2	20.0	49.1		16.8	11.2
Level of Service	D	C	D		B	B
Approach Delay (s)		24.7	49.1		12.9	
Approach LOS		C	D		B	

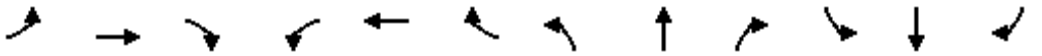
Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	40	548	21	643	119	754	294	814
Future Volume (vph)	40	548	21	643	119	754	294	814
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	41.0	9.0	41.0	21.0	39.0	31.0	49.0
Total Split (%)	7.5%	34.2%	7.5%	34.2%	17.5%	32.5%	25.8%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.5	37.7	4.5	35.9	16.5	38.9	24.6	46.9
Actuated g/C Ratio	0.04	0.31	0.04	0.30	0.14	0.32	0.20	0.39
v/c Ratio	0.66	0.74	0.34	0.93	0.53	0.72	0.88	0.64
Control Delay	104.8	35.0	70.4	54.1	22.6	10.9	51.9	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.8	35.0	70.4	54.1	22.6	10.9	51.9	15.2
LOS	F	C	E	D	C	B	D	B
Approach Delay		38.5		54.5		12.5		24.9
Approach LOS		D		D		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 24 (20%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 32.2	Intersection LOS: C
Intersection Capacity Utilization 78.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	548	202	21	643	254	119	754	9	294	814	0
Future Volume (veh/h)	40	548	202	21	643	254	119	754	9	294	814	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	583	215	22	684	270	127	802	10	313	866	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	55	786	289	27	730	288	263	1154	14	341	1297	0
Arrive On Green	0.03	0.31	0.31	0.02	0.30	0.30	0.05	0.11	0.11	0.19	0.37	0.00
Sat Flow, veh/h	1753	2503	921	1753	2449	967	1753	3537	44	1753	3589	0
Grp Volume(v), veh/h	43	407	391	22	488	466	127	396	416	313	866	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1675	1753	1749	1667	1753	1749	1833	1753	1749	0
Q Serve(g_s), s	2.9	25.0	25.1	1.5	32.7	32.7	8.5	26.2	26.2	21.0	24.8	0.0
Cycle Q Clear(g_c), s	2.9	25.0	25.1	1.5	32.7	32.7	8.5	26.2	26.2	21.0	24.8	0.0
Prop In Lane	1.00		0.55	1.00		0.58	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	55	549	526	27	521	497	263	571	598	341	1297	0
V/C Ratio(X)	0.79	0.74	0.74	0.83	0.94	0.94	0.48	0.69	0.69	0.92	0.67	0.00
Avail Cap(c_a), veh/h	66	549	526	66	532	507	263	571	598	387	1297	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.47	0.47	0.47	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.7	36.8	36.8	58.9	41.0	41.0	52.5	47.8	47.8	47.4	31.6	0.0
Incr Delay (d2), s/veh	39.1	5.3	5.6	44.5	24.2	25.1	0.6	3.3	3.2	24.7	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	11.4	11.0	1.0	17.4	16.7	4.0	12.9	13.5	11.5	10.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.9	42.1	42.5	103.4	65.3	66.1	53.1	51.1	50.9	72.1	34.3	0.0
LnGrp LOS	F	D	D	F	E	E	D	D	D	E	C	A
Approach Vol, veh/h		841			976			939			1179	
Approach Delay, s/veh		45.1			66.5			51.3			44.3	
Approach LOS		D			E			D			D	

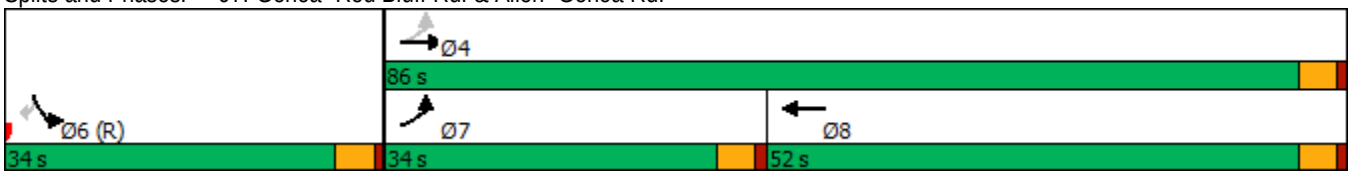
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.8	43.7	6.3	42.2	22.5	49.0	8.2	40.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	34.5	4.5	36.5	16.5	44.5	4.5	36.5
Max Q Clear Time (g_c+I1), s	23.0	28.2	3.5	27.1	10.5	26.8	4.9	34.7
Green Ext Time (p_c), s	0.3	2.6	0.0	3.5	0.1	5.9	0.0	1.1

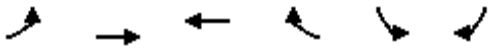
Intersection Summary	
HCM 6th Ctrl Delay	51.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	250	914	700	65	191
Future Volume (vph)	250	914	700	65	191
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	34.0	86.0	52.0	34.0	34.0
Total Split (%)	28.3%	71.7%	43.3%	28.3%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	62.2	62.2	36.9	48.8	48.8
Actuated g/C Ratio	0.52	0.52	0.31	0.41	0.41
v/c Ratio	0.72	0.55	0.79	0.10	0.28
Control Delay	34.7	20.1	22.9	16.7	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	20.1	22.9	16.7	2.5
LOS	C	C	C	B	A
Approach Delay		23.2	22.9	6.1	
Approach LOS		C	C	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38 (32%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 55.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	250	914	700	66	65	191
Future Volume (veh/h)	250	914	700	66	65	191
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	272	993	761	72	71	208
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	323	1564	910	86	838	745
Arrive On Green	0.13	0.45	0.28	0.28	0.48	0.48
Sat Flow, veh/h	1753	3589	3321	305	1753	1560
Grp Volume(v), veh/h	272	993	412	421	71	208
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1786	1753	1560
Q Serve(g_s), s	12.6	26.3	26.6	26.6	2.6	9.6
Cycle Q Clear(g_c), s	12.6	26.3	26.6	26.6	2.6	9.6
Prop In Lane	1.00			0.17	1.00	1.00
Lane Grp Cap(c), veh/h	323	1564	493	504	838	745
V/C Ratio(X)	0.84	0.63	0.84	0.84	0.08	0.28
Avail Cap(c_a), veh/h	530	2375	692	707	838	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	25.6	40.5	40.5	17.1	18.9
Incr Delay (d2), s/veh	6.4	0.4	6.3	6.2	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	10.9	12.2	12.5	1.1	10.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.6	26.0	46.7	46.6	17.3	19.8
LnGrp LOS	C	C	D	D	B	B
Approach Vol, veh/h		1265	833		279	
Approach Delay, s/veh		27.9	46.7		19.2	
Approach LOS		C	D		B	

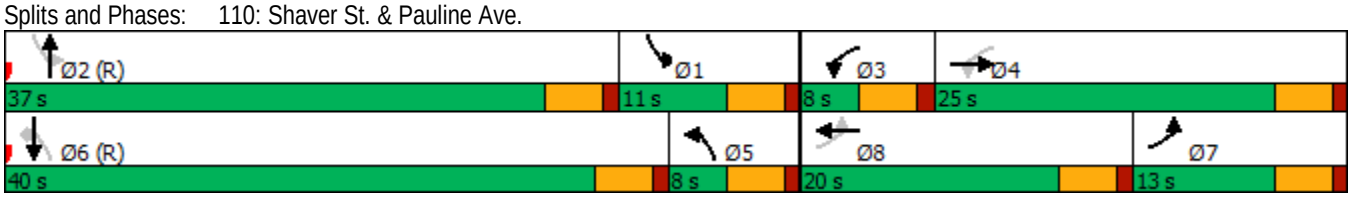
Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		58.2		61.8	19.8	38.3
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		81.5		29.5	29.5	47.5
Max Q Clear Time (g_c+I1), s		28.3		11.6	14.6	28.6
Green Ext Time (p_c), s		9.4		0.8	0.7	5.3

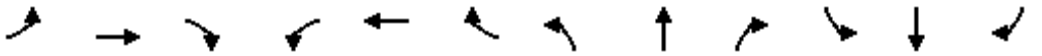
Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	130	144	53	116	46	781	81	936	149
Future Volume (vph)	130	144	53	116	46	781	81	936	149
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	25.0	8.0	20.0	8.0	37.0	11.0	40.0	40.0
Total Split (%)	16.0%	30.9%	9.9%	24.7%	9.9%	45.7%	13.6%	49.4%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.7	18.4	20.5	12.4	47.0	40.2	46.3	44.0	44.0
Actuated g/C Ratio	0.23	0.23	0.25	0.15	0.58	0.50	0.57	0.54	0.54
v/c Ratio	0.54	0.40	0.19	0.67	0.18	0.57	0.31	0.53	0.17
Control Delay	33.2	29.2	21.5	38.3	11.5	17.3	8.5	5.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	29.2	21.5	38.3	11.5	17.3	8.5	5.6	0.9
LOS	C	C	C	D	B	B	A	A	A
Approach Delay		31.0		34.5		17.0		5.2	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 43 (53%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	144	11	53	116	65	46	781	124	81	936	149
Future Volume (veh/h)	130	144	11	53	116	65	46	781	124	81	936	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	140	155	12	57	125	70	49	840	133	87	1006	160
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	196	241	19	222	154	86	468	1213	192	530	1533	684
Arrive On Green	0.04	0.14	0.14	0.04	0.14	0.14	0.16	0.40	0.40	0.20	0.44	0.44
Sat Flow, veh/h	1753	1687	131	1753	1108	621	1753	3024	479	1753	3497	1560
Grp Volume(v), veh/h	140	0	167	57	0	195	49	486	487	87	1006	160
Grp Sat Flow(s),veh/h/ln	1753	0	1817	1753	0	1729	1753	1749	1755	1753	1749	1560
Q Serve(g_s), s	0.5	0.0	7.0	2.2	0.0	8.9	0.0	18.7	18.7	0.0	18.4	5.2
Cycle Q Clear(g_c), s	0.5	0.0	7.0	2.2	0.0	8.9	0.0	18.7	18.7	0.0	18.4	5.2
Prop In Lane	1.00		0.07	1.00		0.36	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	196	0	259	222	0	240	468	702	704	530	1533	684
V/C Ratio(X)	0.71	0.00	0.64	0.26	0.00	0.81	0.10	0.69	0.69	0.16	0.66	0.23
Avail Cap(c_a), veh/h	308	0	460	232	0	331	468	702	704	530	1533	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	0.0	32.8	28.4	0.0	33.8	17.9	20.1	20.1	19.2	17.9	14.2
Incr Delay (d2), s/veh	4.8	0.0	2.7	0.6	0.0	10.2	0.1	5.1	5.0	0.1	2.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	3.2	1.0	0.0	4.3	0.6	8.1	8.1	1.2	7.3	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	0.0	35.4	29.0	0.0	44.0	18.0	25.2	25.2	19.3	20.2	15.0
LnGrp LOS	D	A	D	C	A	D	B	C	C	B	C	B
Approach Vol, veh/h		307			252			1022			1253	
Approach Delay, s/veh		38.3			40.6			24.8			19.4	
Approach LOS		D			D			C			B	

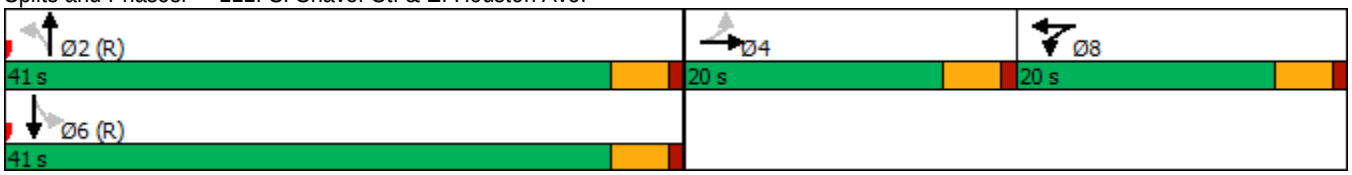
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	37.0	7.6	16.1	17.4	40.0	7.9	15.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	32.5	3.5	20.5	3.5	35.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	20.7	4.2	9.0	2.0	20.4	2.5	10.9
Green Ext Time (p_c), s	0.1	5.0	0.0	0.6	0.0	6.9	0.2	0.4

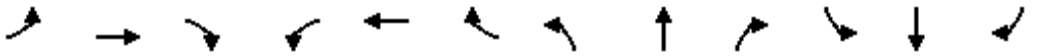
Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	16	93	14	15	818	38	1062
Future Volume (vph)	30	16	93	14	15	818	38	1062
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	41.0	41.0	41.0	41.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	50.6%	50.6%	50.6%	50.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.7	10.7	9.9	9.9	54.3	54.3	54.3	54.3
Actuated g/C Ratio	0.13	0.13	0.12	0.12	0.67	0.67	0.67	0.67
v/c Ratio	0.27	0.13	0.47	0.29	0.07	0.40	0.12	0.50
Control Delay	35.4	20.9	33.2	9.5	8.1	7.2	11.6	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Total Delay	35.4	20.9	33.2	9.5	8.1	7.2	11.6	12.6
LOS	D	C	C	A	A	A	B	B
Approach Delay		28.4		23.3		7.2		12.6
Approach LOS		C		C		A		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 43 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 54.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	16	12	93	14	54	15	818	54	38	1062	20
Future Volume (veh/h)	30	16	12	93	14	54	15	818	54	38	1062	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	17	13	99	15	57	16	870	57	40	1130	21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	81	45	34	145	28	106	360	2346	154	408	2473	46
Arrive On Green	0.05	0.05	0.05	0.08	0.08	0.08	0.47	0.47	0.47	0.70	0.70	0.70
Sat Flow, veh/h	1753	968	740	1753	336	1275	481	3332	218	594	3512	65
Grp Volume(v), veh/h	32	0	30	99	0	72	16	457	470	40	563	588
Grp Sat Flow(s),veh/h/ln	1753	0	1708	1753	0	1611	481	1749	1801	594	1749	1829
Q Serve(g_s), s	1.4	0.0	1.4	4.4	0.0	3.5	1.7	13.5	13.5	2.7	11.4	11.4
Cycle Q Clear(g_c), s	1.4	0.0	1.4	4.4	0.0	3.5	13.1	13.5	13.5	16.2	11.4	11.4
Prop In Lane	1.00		0.43	1.00		0.79	1.00		0.12	1.00		0.04
Lane Grp Cap(c), veh/h	81	0	79	145	0	133	360	1231	1269	408	1231	1288
V/C Ratio(X)	0.39	0.00	0.38	0.68	0.00	0.54	0.04	0.37	0.37	0.10	0.46	0.46
Avail Cap(c_a), veh/h	335	0	327	335	0	308	360	1231	1269	408	1231	1288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.94	0.00	0.94	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	37.5	36.1	0.0	35.7	13.4	9.9	9.9	9.3	5.2	5.2
Incr Delay (d2), s/veh	3.1	0.0	3.0	5.2	0.0	3.2	0.2	0.8	0.7	0.5	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.6	2.1	0.0	1.5	0.2	5.8	5.9	0.4	3.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.0	40.4	41.3	0.0	38.8	13.6	10.7	10.6	9.8	6.4	6.4
LnGrp LOS	D	A	D	D	A	D	B	B	B	A	A	A
Approach Vol, veh/h		62			171			943			1191	
Approach Delay, s/veh		40.5			40.3			10.7			6.5	
Approach LOS		D			D			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.5		8.3		61.5		11.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		36.5		15.5		36.5		15.5				
Max Q Clear Time (g_c+I1), s		15.5		3.4		18.2		6.4				
Green Ext Time (p_c), s		6.4		0.1		8.0		0.4				

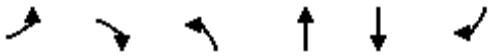
Intersection Summary												
HCM 6th Ctrl Delay			11.5									
HCM 6th LOS			B									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	108	51	1302	1491
Future Volume (vph)	108	51	1302	1491
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	20.0	8.0	61.0	53.0
Total Split (%)	24.7%	9.9%	75.3%	65.4%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	11.8	60.2	60.2	55.4
Actuated g/C Ratio	0.15	0.74	0.74	0.68
v/c Ratio	0.63	0.30	0.54	0.73
Control Delay	37.6	7.7	2.7	5.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.6	7.7	2.7	5.7
LOS	D	A	A	A
Approach Delay	37.6		2.8	5.7
Approach LOS	D		A	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 64 (79%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	108	48	51	1302	1491	101
Future Volume (vph)	108	48	51	1302	1491	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.96		1.00	1.00	0.99	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1692		1736	3471	3438	
Flt Permitted	0.97		0.08	1.00	1.00	
Satd. Flow (perm)	1692		154	3471	3438	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	116	52	55	1400	1603	109
RTOR Reduction (vph)	21	0	0	0	5	0
Lane Group Flow (vph)	147	0	55	1400	1707	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	11.8		60.2	60.2	53.6	
Effective Green, g (s)	11.8		60.2	60.2	53.6	
Actuated g/C Ratio	0.15		0.74	0.74	0.66	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	246		155	2579	2275	
v/s Ratio Prot			0.01	c0.40	c0.50	
v/s Ratio Perm	c0.09		0.25			
v/c Ratio	0.60		0.35	0.54	0.75	
Uniform Delay, d1	32.4		15.1	4.5	9.2	
Progression Factor	1.00		0.41	0.37	0.38	
Incremental Delay, d2	3.8		1.3	0.8	2.2	
Delay (s)	36.2		7.4	2.4	5.7	
Level of Service	D		A	A	A	
Approach Delay (s)	36.2			2.6	5.7	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	5.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	20	756	89	863
Future Volume (vph)	20	756	89	863
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	23.0	58.0	58.0	58.0
Total Split (%)	28.4%	71.6%	71.6%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	8.0	64.0		64.0
Actuated g/C Ratio	0.10	0.79		0.79
v/c Ratio	0.61	0.29		0.45
Control Delay	16.7	2.9		3.9
Queue Delay	0.0	0.0		0.0
Total Delay	16.7	2.9		3.9
LOS	B	A		A
Approach Delay	16.7	2.9		3.9
Approach LOS	B	A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 4.7	Intersection LOS: A
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	20	158	756	23	89	863
Future Volume (veh/h)	20	158	756	23	89	863
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	21	163	779	24	92	890
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	25	195	2593	80	228	2088
Arrive On Green	0.14	0.14	0.75	0.75	0.75	0.75
Sat Flow, veh/h	179	1393	3556	107	233	2873
Grp Volume(v), veh/h	185	0	393	410	467	515
Grp Sat Flow(s),veh/h/ln	1581	0	1749	1822	1431	1591
Q Serve(g_s), s	9.2	0.0	5.9	5.9	0.0	9.7
Cycle Q Clear(g_c), s	9.2	0.0	5.9	5.9	6.9	9.7
Prop In Lane	0.11	0.88		0.06	0.20	
Lane Grp Cap(c), veh/h	222	0	1309	1364	1124	1191
V/C Ratio(X)	0.83	0.00	0.30	0.30	0.42	0.43
Avail Cap(c_a), veh/h	361	0	1309	1364	1124	1191
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.92	0.92
Uniform Delay (d), s/veh	33.9	0.0	3.3	3.3	3.4	3.8
Incr Delay (d2), s/veh	8.6	0.0	0.6	0.6	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	1.5	1.6	1.9	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.5	0.0	3.9	3.9	4.5	4.8
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	185		803			982
Approach Delay, s/veh	42.5		3.9			4.7
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		65.1			65.1	15.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		53.5			53.5	18.5
Max Q Clear Time (g_c+I1), s		7.9			11.7	11.2
Green Ext Time (p_c), s		5.7			8.4	0.3

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

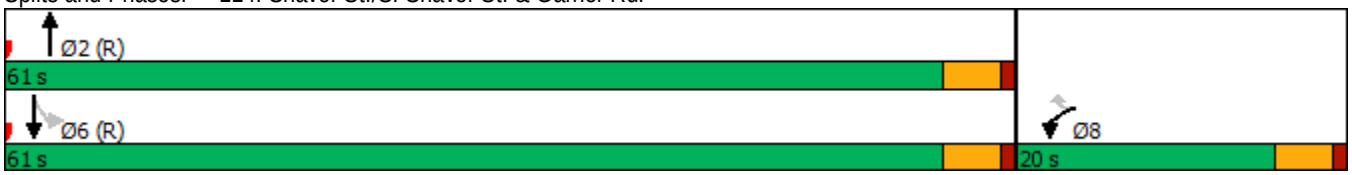
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	130	130	1009	172	1177
Future Volume (vph)	130	130	1009	172	1177
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	61.0	61.0	61.0
Total Split (%)	24.7%	24.7%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	11.5	11.5	60.5	60.5	60.5
Actuated g/C Ratio	0.14	0.14	0.75	0.75	0.75
v/c Ratio	0.56	0.41	0.48	0.67	0.48
Control Delay	39.7	9.3	1.5	21.6	3.4
Queue Delay	0.4	0.0	0.1	0.0	0.0
Total Delay	40.1	9.3	1.6	21.6	3.4
LOS	D	A	A	C	A
Approach Delay	24.7		1.6		5.7
Approach LOS	C		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 68 (84%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 5.8	Intersection LOS: A
Intersection Capacity Utilization 64.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	130	130	1009	147	172	1177
Future Volume (veh/h)	130	130	1009	147	172	1177
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	138	138	1073	156	183	1252
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	203	181	2369	344	434	2703
Arrive On Green	0.12	0.12	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	3157	445	446	3589
Grp Volume(v), veh/h	138	138	611	618	183	1252
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1761	446	1749
Q Serve(g_s), s	6.1	6.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.1	6.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		0.25	1.00	
Lane Grp Cap(c), veh/h	203	181	1352	1361	434	2703
V/C Ratio(X)	0.68	0.76	0.45	0.45	0.42	0.46
Avail Cap(c_a), veh/h	335	299	1352	1361	434	2703
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.81	0.81	0.86	0.86
Uniform Delay (d), s/veh	34.4	34.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.9	6.5	0.9	0.9	2.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.9	0.3	0.3	0.3	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.3	41.2	0.9	0.9	2.6	0.5
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	276		1229			1435
Approach Delay, s/veh	39.8		0.9			0.8
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		67.1			67.1	13.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		56.5			56.5	15.5
Max Q Clear Time (g_c+I1), s		2.0			2.0	8.9
Green Ext Time (p_c), s		11.9			19.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	2	60	68	34	48	70	798	78	858
Future Volume (vph)	2	60	68	34	48	70	798	78	858
Turn Type	D.P+P	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	4	3	8	5	2	1	6
Permitted Phases	8			4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.5	23.5	23.5	8.0	22.0	12.0	47.0	12.0	47.0
Total Split (%)	10.5%	26.0%	26.0%	8.8%	24.3%	13.3%	51.9%	13.3%	51.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		8.8	8.8	10.9	13.6	64.3	58.3	64.3	58.6
Actuated g/C Ratio		0.10	0.10	0.12	0.15	0.71	0.64	0.71	0.65
v/c Ratio		0.40	0.24	0.22	0.44	0.18	0.42	0.19	0.42
Control Delay		44.6	1.8	33.7	19.4	5.3	10.2	6.4	10.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		44.6	1.8	33.7	19.4	5.3	10.2	6.4	10.2
LOS		D	A	C	B	A	B	A	B
Approach Delay		22.1			22.5		9.8		9.9
Approach LOS		C			C		A		A

Intersection Summary	
Cycle Length: 90.5	
Actuated Cycle Length: 90.5	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 54.0%	ICU Level of Service A
Analysis Period (min) 15	

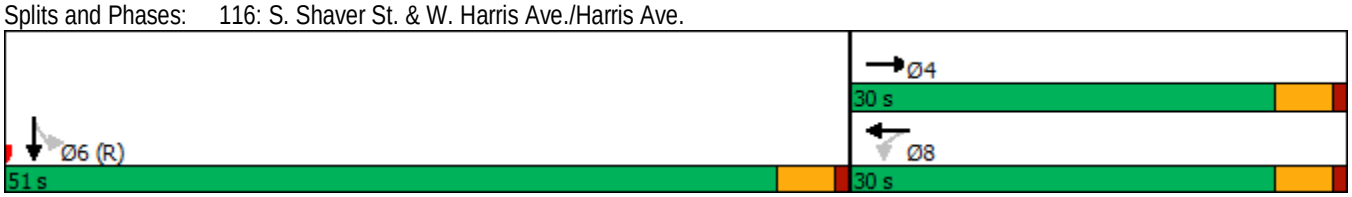
Splits and Phases: 115: Shaver St. & Fresa Rd.

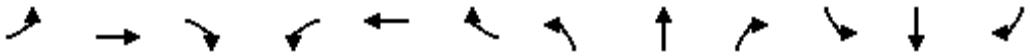


Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	132	98	161	1112
Future Volume (vph)	132	98	161	1112
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	51.0
Total Split (%)	37.0%	37.0%	37.0%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	14.8		14.8	57.2
Actuated g/C Ratio	0.18		0.18	0.71
v/c Ratio	0.41		0.65	0.39
Control Delay	22.9		32.7	3.9
Queue Delay	0.0		0.0	0.0
Total Delay	22.9		32.7	3.9
LOS	C		C	A
Approach Delay	22.9		32.7	3.9
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 70 (86%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 10.7	Intersection LOS: B
Intersection Capacity Utilization 53.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	132	95	98	161	0	0	0	0	95	1112	40
Future Volume (veh/h)	0	132	95	98	161	0	0	0	0	95	1112	40
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	145	104	108	177	0				104	1222	44
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	416	279	211	385	0				258	3236	120
Arrive On Green	0.00	0.21	0.21	0.07	0.07	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	2094	1345	638	1940	0				379	4751	176
Grp Volume(v), veh/h	0	125	124	141	144	0				500	418	452
Grp Sat Flow(s),veh/h/ln	0	1749	1599	903	1591	0				1822	1675	1809
Q Serve(g_s), s	0.0	5.0	5.4	8.3	7.0	0.0				18.9	17.1	17.1
Cycle Q Clear(g_c), s	0.0	5.0	5.4	13.7	7.0	0.0				18.9	17.1	17.1
Prop In Lane	0.00		0.84	0.76		0.00				0.21		0.10
Lane Grp Cap(c), veh/h	0	363	332	266	331	0				1241	1141	1232
V/C Ratio(X)	0.00	0.35	0.37	0.53	0.43	0.00				0.40	0.37	0.37
Avail Cap(c_a), veh/h	0	551	503	397	501	0				1241	1141	1232
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.85	0.85	0.00				0.96	0.96	0.96
Uniform Delay (d), s/veh	0.0	27.4	27.6	38.0	33.2	0.0				17.4	16.6	16.6
Incr Delay (d2), s/veh	0.0	0.6	0.7	1.4	0.8	0.0				0.9	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	2.1	3.1	2.9	0.0				9.4	7.8	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.0	28.2	39.4	33.9	0.0				18.3	17.5	17.4
LnGrp LOS	A	C	C	D	C	A				B	B	B
Approach Vol, veh/h		249			285						1370	
Approach Delay, s/veh		28.1			36.6						17.8	
Approach LOS		C			D						B	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		21.3		59.7		21.3			
Change Period (Y+Rc), s		4.5		4.5		4.5			
Max Green Setting (Gmax), s		25.5		46.5		25.5			
Max Q Clear Time (g_c+I1), s		7.4		20.9		15.7			
Green Ext Time (p_c), s		1.3		9.8		1.2			

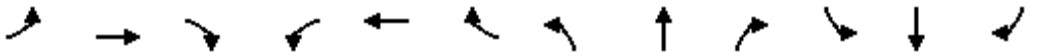
Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	41	195	184	755
Future Volume (vph)	41	195	184	755
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	32.0	32.0	32.0	49.0
Total Split (%)	39.5%	39.5%	39.5%	60.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		12.7	12.7	59.3
Actuated g/C Ratio		0.16	0.16	0.73
v/c Ratio		0.62	0.51	0.29
Control Delay		37.1	24.4	2.2
Queue Delay		0.0	0.0	0.0
Total Delay		37.1	24.4	2.2
LOS		D	C	A
Approach Delay		37.1	24.4	2.2
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 41 (51%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 48.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



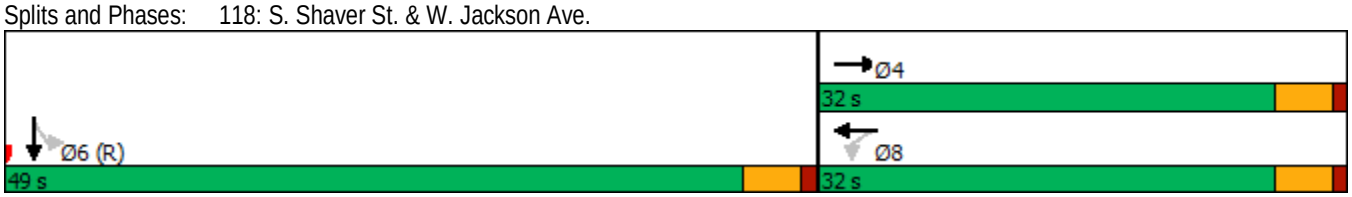


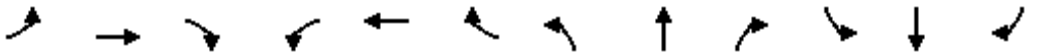
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	195	0	0	184	79	89	755	107	0	0	0
Future Volume (veh/h)	41	195	0	0	184	79	89	755	107	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	44	210	0	0	198	85	96	812	115			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	99	393	0	0	373	155	339	3052	445			
Arrive On Green	0.05	0.05	0.00	0.00	0.15	0.15	0.24	0.24	0.24			
Sat Flow, veh/h	251	2626	0	0	2503	998	462	4157	606			
Grp Volume(v), veh/h	128	126	0	0	142	141	378	316	329			
Grp Sat Flow(s),veh/h/ln	1201	1591	0	0	1749	1661	1818	1675	1732			
Q Serve(g_s), s	2.9	6.3	0.0	0.0	6.0	6.4	13.7	12.4	12.4			
Cycle Q Clear(g_c), s	9.3	6.3	0.0	0.0	6.0	6.4	13.7	12.4	12.4			
Prop In Lane	0.34		0.00	0.00		0.60	0.25		0.35			
Lane Grp Cap(c), veh/h	246	246	0	0	271	257	1334	1230	1271			
V/C Ratio(X)	0.52	0.51	0.00	0.00	0.52	0.55	0.28	0.26	0.26			
Avail Cap(c_a), veh/h	519	540	0	0	594	564	1334	1230	1271			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.92	0.92	0.00	0.00	0.77	0.77	0.89	0.89	0.89			
Uniform Delay (d), s/veh	36.5	35.5	0.0	0.0	31.5	31.6	13.3	12.8	12.9			
Incr Delay (d2), s/veh	1.6	1.5	0.0	0.0	1.2	1.4	0.5	0.5	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	2.6	0.0	0.0	2.6	2.6	6.7	5.6	5.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	37.0	0.0	0.0	32.7	33.0	13.8	13.3	13.3			
LnGrp LOS	D	D	A	A	C	C	B	B	B			
Approach Vol, veh/h		254			283			1023				
Approach Delay, s/veh		37.5			32.9			13.5				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		64.0		17.0				17.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		44.5		27.5				27.5				
Max Q Clear Time (g_c+I1), s		15.7		11.3				8.4				
Green Ext Time (p_c), s		7.0		1.3				1.5				
Intersection Summary												
HCM 6th Ctrl Delay			20.9									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	105	56	193	977
Future Volume (vph)	105	56	193	977
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	32.0	32.0	32.0	49.0
Total Split (%)	39.5%	39.5%	39.5%	60.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	13.2		13.2	58.8
Actuated g/C Ratio	0.16		0.16	0.73
v/c Ratio	0.42		0.62	0.30
Control Delay	20.1		24.4	4.4
Queue Delay	0.0		0.0	0.0
Total Delay	20.1		24.4	4.4
LOS	C		C	A
Approach Delay	20.1		24.4	4.4
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 30 (37%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 10.0	Intersection LOS: B
Intersection Capacity Utilization 48.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	105	119	56	193	0	0	0	0	46	977	19
Future Volume (veh/h)	0	105	119	56	193	0	0	0	0	46	977	19
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	111	125	59	203	0				48	1028	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	289	257	124	391	0				159	3625	73
Arrive On Green	0.00	0.17	0.17	0.05	0.05	0.00				0.72	0.72	0.72
Sat Flow, veh/h	0	1841	1560	359	2452	0				220	5007	100
Grp Volume(v), veh/h	0	111	125	132	130	0				400	333	363
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1136	1591	0				1830	1675	1823
Q Serve(g_s), s	0.0	4.6	5.9	4.2	6.4	0.0				6.3	5.6	5.6
Cycle Q Clear(g_c), s	0.0	4.6	5.9	10.1	6.4	0.0				6.3	5.6	5.6
Prop In Lane	0.00		1.00	0.45		0.00				0.12		0.06
Lane Grp Cap(c), veh/h	0	289	257	252	263	0				1324	1212	1319
V/C Ratio(X)	0.00	0.38	0.49	0.52	0.50	0.00				0.30	0.27	0.27
Avail Cap(c_a), veh/h	0	594	530	502	540	0				1324	1212	1319
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.88	0.88	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	30.1	30.7	36.8	35.0	0.0				4.0	3.9	3.9
Incr Delay (d2), s/veh	0.0	0.8	1.4	1.5	1.3	0.0				0.6	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	2.2	2.9	2.6	0.0				1.8	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.0	32.1	38.3	36.3	0.0				4.5	4.4	4.4
LnGrp LOS	A	C	C	D	D	A				A	A	A
Approach Vol, veh/h		236			262						1096	
Approach Delay, s/veh		31.6			37.3						4.4	
Approach LOS		C			D						A	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		17.9		63.1		17.9						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		27.5		44.5		27.5						
Max Q Clear Time (g_c+I1), s		7.9		8.3		12.1						
Green Ext Time (p_c), s		1.2		7.9		1.2						

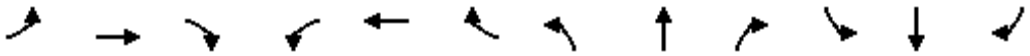
Intersection Summary												
HCM 6th Ctrl Delay		13.9										
HCM 6th LOS		B										

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	16	131	156	558
Future Volume (vph)	16	131	156	558
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	32.0	32.0	32.0	49.0
Total Split (%)	39.5%	39.5%	39.5%	60.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		9.6	9.6	62.4
Actuated g/C Ratio		0.12	0.12	0.77
v/c Ratio		0.45	0.47	0.20
Control Delay		42.6	33.3	1.4
Queue Delay		0.0	0.0	0.0
Total Delay		42.6	33.3	1.4
LOS		D	C	A
Approach Delay		42.6	33.3	1.4
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 12 (15%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 36.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



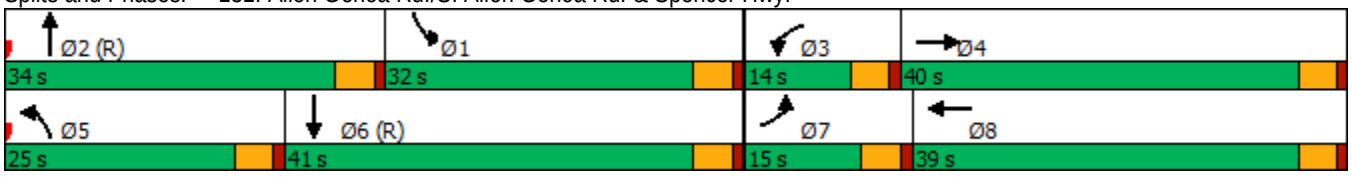


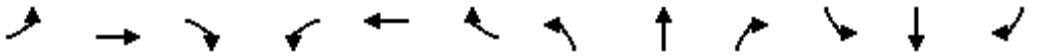
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	131	0	0	156	20	100	558	74	0	0	0
Future Volume (veh/h)	16	131	0	0	156	20	100	558	74	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	17	138	0	0	164	21	105	587	78			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	69	270	0	0	293	37	534	3189	432			
Arrive On Green	0.03	0.03	0.00	0.00	0.09	0.09	0.26	0.26	0.26			
Sat Flow, veh/h	159	2963	0	0	3216	394	671	4010	544			
Grp Volume(v), veh/h	80	75	0	0	91	94	283	237	250			
Grp Sat Flow(s),veh/h/ln	1447	1591	0	0	1749	1770	1807	1675	1743			
Q Serve(g_s), s	0.7	3.7	0.0	0.0	4.0	4.1	9.9	8.9	9.0			
Cycle Q Clear(g_c), s	4.8	3.7	0.0	0.0	4.0	4.1	9.9	8.9	9.0			
Prop In Lane	0.21		0.00	0.00		0.22	0.37		0.31			
Lane Grp Cap(c), veh/h	189	149	0	0	164	166	1437	1332	1386			
V/C Ratio(X)	0.42	0.50	0.00	0.00	0.55	0.57	0.20	0.18	0.18			
Avail Cap(c_a), veh/h	594	540	0	0	594	601	1437	1332	1386			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.91	0.91	0.00	0.00	1.00	1.00	0.97	0.97	0.97			
Uniform Delay (d), s/veh	37.5	37.4	0.0	0.0	35.1	35.1	9.7	9.4	9.4			
Incr Delay (d2), s/veh	1.4	2.4	0.0	0.0	2.9	3.0	0.3	0.3	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	1.6	0.0	0.0	1.8	1.9	3.6	2.7	2.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	39.7	0.0	0.0	38.0	38.2	10.0	9.7	9.7			
LnGrp LOS	D	D	A	A	D	D	B	A	A			
Approach Vol, veh/h		155			185			770				
Approach Delay, s/veh		39.3			38.1			9.8				
Approach LOS		D			D			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		68.9		12.1				12.1				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		44.5		27.5				27.5				
Max Q Clear Time (g_c+I1), s		11.9		6.8				6.1				
Green Ext Time (p_c), s		5.0		0.8				0.9				
Intersection Summary												
HCM 6th Ctrl Delay			18.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	87	835	52	908	208	518	279	566
Future Volume (vph)	87	835	52	908	208	518	279	566
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	40.0	14.0	39.0	25.0	34.0	32.0	41.0
Total Split (%)	12.5%	33.3%	11.7%	32.5%	20.8%	28.3%	26.7%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.7	37.4	8.3	34.0	18.6	30.8	27.5	39.8
Actuated g/C Ratio	0.08	0.31	0.07	0.28	0.16	0.26	0.23	0.33
v/c Ratio	0.65	0.71	0.45	0.88	0.81	0.71	0.73	0.59
Control Delay	100.7	11.3	87.4	14.9	56.7	36.9	29.6	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.7	11.3	87.4	14.9	56.7	36.9	29.6	12.6
LOS	F	B	F	B	E	D	C	B
Approach Delay		18.4		18.1		42.1		17.8
Approach LOS		B		B		D		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 117 (98%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 22.9	Intersection LOS: C
Intersection Capacity Utilization 79.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	835	173	52	908	240	208	518	62	279	566	58
Future Volume (veh/h)	87	835	173	52	908	240	208	518	62	279	566	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	91	870	180	54	946	250	217	540	65	291	590	60
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	115	1257	259	70	1090	287	245	773	93	462	1184	120
Arrive On Green	0.02	0.10	0.10	0.01	0.09	0.09	0.14	0.25	0.25	0.26	0.37	0.37
Sat Flow, veh/h	1753	4177	860	1753	3960	1043	1753	3144	377	1753	3205	325
Grp Volume(v), veh/h	91	697	353	54	800	396	217	300	305	291	321	329
Grp Sat Flow(s),veh/h/ln	1753	1675	1686	1753	1675	1653	1753	1749	1773	1753	1749	1782
Q Serve(g_s), s	6.2	24.1	24.3	3.7	28.3	28.4	14.6	18.7	18.8	17.6	17.0	17.1
Cycle Q Clear(g_c), s	6.2	24.1	24.3	3.7	28.3	28.4	14.6	18.7	18.8	17.6	17.0	17.1
Prop In Lane	1.00		0.51	1.00		0.63	1.00		0.21	1.00		0.18
Lane Grp Cap(c), veh/h	115	1008	507	70	923	455	245	430	436	462	646	658
V/C Ratio(X)	0.79	0.69	0.70	0.78	0.87	0.87	0.88	0.70	0.70	0.63	0.50	0.50
Avail Cap(c_a), veh/h	153	1008	507	139	963	475	299	430	436	462	646	658
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.53	0.53	0.53	0.96	0.96	0.96	0.91	0.91	0.91
Uniform Delay (d), s/veh	57.9	48.6	48.7	58.7	52.4	52.4	50.7	41.2	41.2	39.0	29.2	29.3
Incr Delay (d2), s/veh	15.6	1.7	3.4	9.4	4.6	9.0	21.7	8.7	8.7	2.5	2.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	11.1	11.5	1.8	13.3	13.7	7.9	9.1	9.3	7.9	7.6	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	50.3	52.2	68.0	57.0	61.4	72.3	49.9	49.9	41.5	31.7	31.7
LnGrp LOS	E	D	D	E	E	E	E	D	D	D	C	C
Approach Vol, veh/h		1141			1250			822			941	
Approach Delay, s/veh		52.8			58.9			55.8			34.7	
Approach LOS		D			E			E			C	

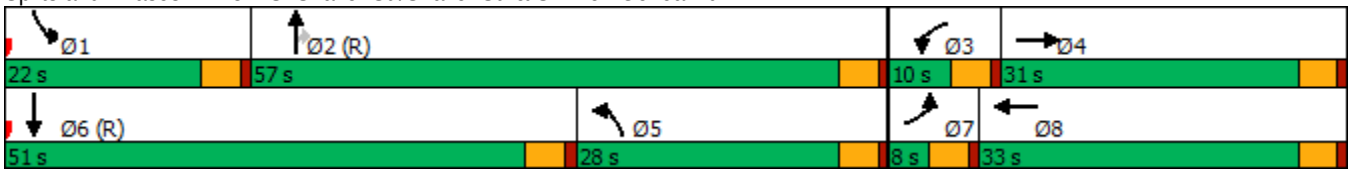
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.1	34.0	9.3	40.6	21.3	48.8	12.3	37.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	29.5	9.5	35.5	20.5	36.5	10.5	34.5
Max Q Clear Time (g_c+I1), s	19.6	20.8	5.7	26.3	16.6	19.1	8.2	30.4
Green Ext Time (p_c), s	0.5	2.4	0.0	4.5	0.2	3.8	0.0	2.7

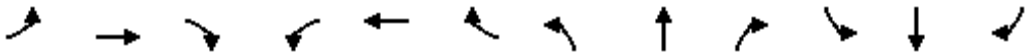
Intersection Summary	
HCM 6th Ctrl Delay	51.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	12	333	16	408	201	770	22	131	888
Future Volume (vph)	12	333	16	408	201	770	22	131	888
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases							2		
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	31.0	10.0	33.0	28.0	57.0	57.0	22.0	51.0
Total Split (%)	6.7%	25.8%	8.3%	27.5%	23.3%	47.5%	47.5%	18.3%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	3.5	24.5	5.5	25.3	23.5	63.8	63.8	14.2	54.5
Actuated g/C Ratio	0.03	0.20	0.05	0.21	0.20	0.53	0.53	0.12	0.45
v/c Ratio	0.26	0.79	0.22	0.82	0.63	0.44	0.03	0.67	0.59
Control Delay	97.2	29.2	64.4	45.6	38.6	11.0	0.0	66.4	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.2	29.2	64.4	45.6	38.6	11.0	0.0	66.4	27.7
LOS	F	C	E	D	D	B	A	E	C
Approach Delay		30.6		46.1		16.3			32.7
Approach LOS		C		D		B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 35 (29%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 29.7	Intersection LOS: C
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	333	252	16	408	162	201	770	22	131	888	2
Future Volume (veh/h)	12	333	252	16	408	162	201	770	22	131	888	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	13	351	265	17	429	171	212	811	0	138	935	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	18	396	294	22	513	202	426	1874		166	1387	3
Arrive On Green	0.01	0.21	0.21	0.01	0.21	0.21	0.24	0.54	0.00	0.09	0.39	0.39
Sat Flow, veh/h	1753	1914	1420	1753	2449	966	1753	3497	1560	1753	3580	8
Grp Volume(v), veh/h	13	320	296	17	305	295	212	811	0	138	457	480
Grp Sat Flow(s),veh/h/ln	1753	1749	1585	1753	1749	1667	1753	1749	1560	1753	1749	1839
Q Serve(g_s), s	0.9	21.3	21.8	1.2	20.0	20.4	12.5	16.8	0.0	9.3	26.0	26.0
Cycle Q Clear(g_c), s	0.9	21.3	21.8	1.2	20.0	20.4	12.5	16.8	0.0	9.3	26.0	26.0
Prop In Lane	1.00		0.90	1.00		0.58	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	18	362	328	22	366	349	426	1874		166	678	713
V/C Ratio(X)	0.72	0.88	0.90	0.77	0.83	0.84	0.50	0.43		0.83	0.67	0.67
Avail Cap(c_a), veh/h	51	386	350	80	415	396	426	1874		256	678	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.00	0.60	0.60	0.60
Uniform Delay (d), s/veh	59.2	46.2	46.4	59.1	45.4	45.6	39.1	16.8	0.0	53.4	30.5	30.5
Incr Delay (d2), s/veh	42.2	20.1	24.4	41.7	12.3	14.0	0.6	0.5	0.0	8.2	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.3	10.8	0.8	9.8	9.7	5.4	6.7	0.0	4.4	11.3	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.4	66.2	70.8	100.8	57.7	59.6	39.8	17.3	0.0	61.6	33.7	33.5
LnGrp LOS	F	E	E	F	E	E	D	B		E	C	C
Approach Vol, veh/h		629			617			1023	A		1075	
Approach Delay, s/veh		69.1			59.8			22.0			37.2	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	68.8	6.0	29.4	33.6	51.0	5.7	29.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	52.5	5.5	26.5	23.5	46.5	3.5	28.5
Max Q Clear Time (g_c+I1), s	11.3	18.8	3.2	23.8	14.5	28.0	2.9	22.4
Green Ext Time (p_c), s	0.2	6.3	0.0	1.0	0.4	5.7	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	42.7
HCM 6th LOS	D

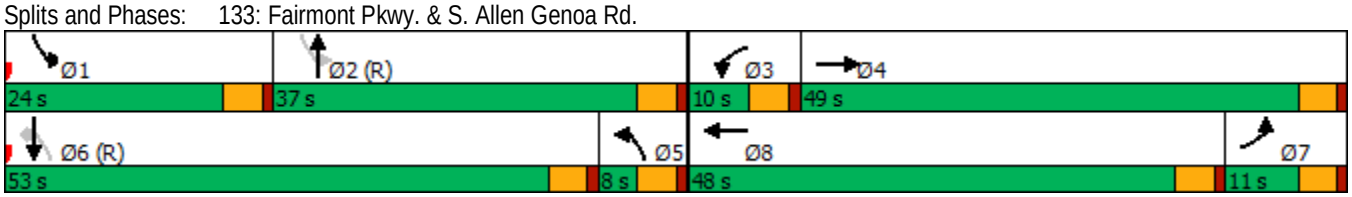
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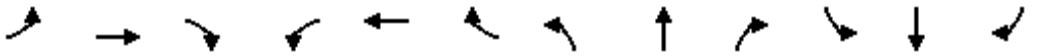
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	32	607	27	613	41	227	237	224	39
Future Volume (vph)	32	607	27	613	41	227	237	224	39
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	11.0	49.0	10.0	48.0	8.0	37.0	24.0	53.0	53.0
Total Split (%)	9.2%	40.8%	8.3%	40.0%	6.7%	30.8%	20.0%	44.2%	44.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.8	39.2	5.5	38.1	62.2	46.8	61.3	59.4	59.4
Actuated g/C Ratio	0.06	0.33	0.05	0.32	0.52	0.39	0.51	0.50	0.50
v/c Ratio	0.32	0.42	0.34	0.82	0.07	0.37	0.43	0.25	0.05
Control Delay	28.5	21.6	37.6	35.2	9.8	17.6	5.9	5.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	21.6	37.6	35.2	9.8	17.6	5.9	5.1	0.1
LOS	C	C	D	D	A	B	A	A	A
Approach Delay		21.9		35.3		16.6		5.1	
Approach LOS		C		D		B		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 22.9	Intersection LOS: C
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	607	69	27	613	283	41	227	32	237	224	39
Future Volume (veh/h)	32	607	69	27	613	283	41	227	32	237	224	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	613	70	27	619	286	41	229	32	239	226	39
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	40	1422	161	33	712	329	616	671	94	588	744	630
Arrive On Green	0.02	0.31	0.31	0.02	0.31	0.31	0.12	0.42	0.42	0.10	0.40	0.40
Sat Flow, veh/h	1753	4580	518	1753	2323	1073	1753	1580	221	1753	1841	1560
Grp Volume(v), veh/h	32	447	236	27	466	439	41	0	261	239	226	39
Grp Sat Flow(s),veh/h/ln	1753	1675	1748	1753	1749	1648	1753	0	1801	1753	1841	1560
Q Serve(g_s), s	2.2	12.7	12.9	1.8	30.2	30.2	0.0	0.0	11.7	9.1	10.0	1.8
Cycle Q Clear(g_c), s	2.2	12.7	12.9	1.8	30.2	30.2	0.0	0.0	11.7	9.1	10.0	1.8
Prop In Lane	1.00		0.30	1.00		0.65	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	40	1040	543	33	536	505	616	0	765	588	744	630
V/C Ratio(X)	0.80	0.43	0.44	0.81	0.87	0.87	0.07	0.00	0.34	0.41	0.30	0.06
Avail Cap(c_a), veh/h	95	1242	648	80	634	597	616	0	765	705	744	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.40	0.40	0.40	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	32.9	33.0	58.6	39.3	39.3	19.7	0.0	23.2	16.7	24.3	21.8
Incr Delay (d2), s/veh	21.6	0.2	0.4	16.7	4.8	5.1	0.0	0.0	1.2	0.5	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	5.2	5.6	1.0	13.6	12.8	0.7	0.0	5.2	3.6	4.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.0	33.1	33.4	75.3	44.1	44.4	19.8	0.0	24.4	17.2	25.3	22.0
LnGrp LOS	E	C	C	E	D	D	B	A	C	B	C	C
Approach Vol, veh/h		715			932			302			504	
Approach Delay, s/veh		35.3			45.2			23.8			21.2	
Approach LOS		D			D			C			C	

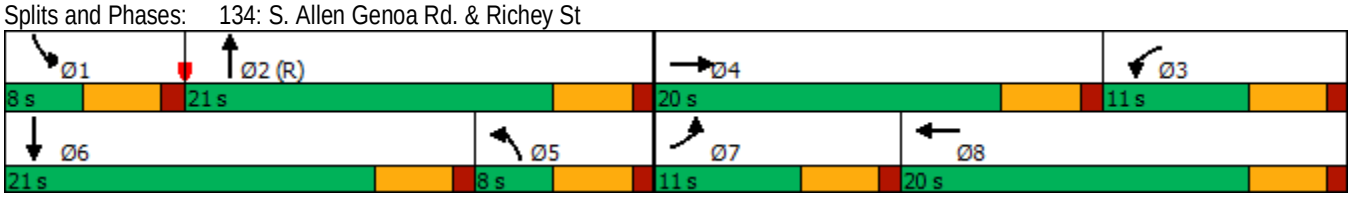
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	55.5	6.8	41.8	18.5	53.0	7.2	41.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	32.5	5.5	44.5	3.5	48.5	6.5	43.5
Max Q Clear Time (g_c+I1), s	11.1	13.7	3.8	14.9	2.0	12.0	4.2	32.2
Green Ext Time (p_c), s	0.4	1.3	0.0	4.9	0.0	1.5	0.0	4.6

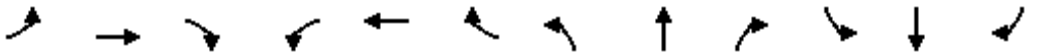
Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	160	520	160	572	43	538	40	705
Future Volume (vph)	160	520	160	572	43	538	40	705
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	20.0	11.0	20.0	8.0	21.0	8.0	21.0
Total Split (%)	18.3%	33.3%	18.3%	33.3%	13.3%	35.0%	13.3%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	6.5	14.6	7.1	15.2	3.6	21.6	3.8	20.0
Actuated g/C Ratio	0.11	0.24	0.12	0.25	0.06	0.36	0.06	0.33
v/c Ratio	0.89	0.74	0.82	0.71	0.44	0.53	0.38	0.78
Control Delay	74.6	26.0	58.2	24.0	38.4	15.0	40.0	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.6	26.0	58.2	24.0	38.4	15.0	40.0	25.1
LOS	E	C	E	C	D	B	D	C
Approach Delay		36.2		31.3		16.5		25.8
Approach LOS		D		C		B		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 27.7	Intersection LOS: C
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	520	78	160	572	23	43	538	91	40	705	147
Future Volume (veh/h)	160	520	78	160	572	23	43	538	91	40	705	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	168	547	82	168	602	24	45	566	96	42	742	155
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	190	682	102	190	766	30	164	1014	172	51	792	165
Arrive On Green	0.11	0.22	0.22	0.11	0.22	0.22	0.09	0.34	0.34	0.03	0.28	0.28
Sat Flow, veh/h	1753	3051	456	1753	3428	137	1753	2992	506	1753	2880	601
Grp Volume(v), veh/h	168	313	316	168	307	319	45	330	332	42	451	446
Grp Sat Flow(s),veh/h/ln	1753	1749	1759	1753	1749	1816	1753	1749	1750	1753	1749	1732
Q Serve(g_s), s	5.7	10.1	10.2	5.7	9.9	9.9	1.4	9.2	9.3	1.4	15.1	15.1
Cycle Q Clear(g_c), s	5.7	10.1	10.2	5.7	9.9	9.9	1.4	9.2	9.3	1.4	15.1	15.1
Prop In Lane	1.00		0.26	1.00		0.08	1.00		0.29	1.00		0.35
Lane Grp Cap(c), veh/h	190	391	393	190	391	406	164	593	593	51	481	476
V/C Ratio(X)	0.88	0.80	0.81	0.88	0.79	0.79	0.28	0.56	0.56	0.82	0.94	0.94
Avail Cap(c_a), veh/h	190	452	454	190	452	469	164	593	593	102	481	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	22.0	22.1	26.4	21.9	22.0	25.3	16.2	16.2	29.0	21.2	21.2
Incr Delay (d2), s/veh	35.4	8.7	9.0	35.4	7.8	7.6	0.9	3.7	3.8	25.6	26.1	26.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.7	4.8	4.0	4.5	4.7	0.6	3.8	3.9	0.9	8.9	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	30.8	31.1	61.8	29.7	29.5	26.2	19.9	20.0	54.5	47.3	47.6
LnGrp LOS	E	C	C	E	C	C	C	B	B	D	D	D
Approach Vol, veh/h		797			794			707			939	
Approach Delay, s/veh		37.4			36.4			20.3			47.8	
Approach LOS		D			D			C			D	

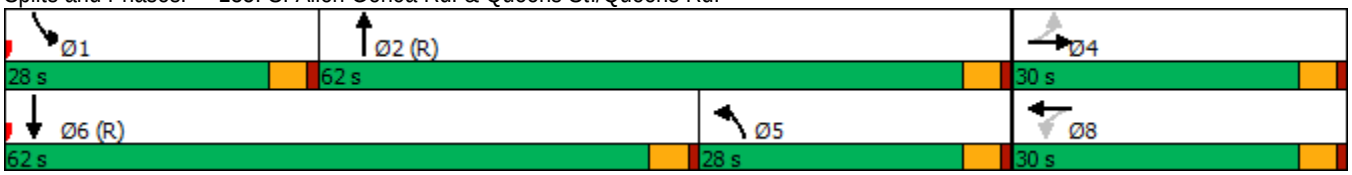
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	24.8	11.0	17.9	10.1	21.0	11.0	17.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	16.5	6.5	15.5	3.5	16.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	3.4	11.3	7.7	12.2	3.4	17.1	7.7	11.9
Green Ext Time (p_c), s	0.0	1.8	0.0	1.2	0.0	0.0	0.0	1.3

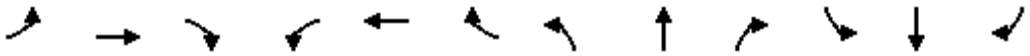
Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	162	2	116	113	509	116	775
Future Volume (vph)	23	162	2	116	113	509	116	775
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	30.0	30.0	30.0	30.0	28.0	62.0	28.0	62.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	23.3%	51.7%	23.3%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		14.7		14.7	23.5	78.1	13.7	68.3
Actuated g/C Ratio		0.12		0.12	0.20	0.65	0.11	0.57
v/c Ratio		0.72		0.49	0.35	0.24	0.61	0.43
Control Delay		47.6		29.7	19.1	1.9	64.1	17.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		47.6		29.7	19.1	1.9	64.1	17.6
LOS		D		C	B	A	E	B
Approach Delay		47.6		29.7		5.0		23.4
Approach LOS		D		C		A		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 31 (26%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	162	98	2	116	97	113	509	3	116	775	35
Future Volume (veh/h)	23	162	98	2	116	97	113	509	3	116	775	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	169	102	2	121	101	118	530	3	121	807	36
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	52	231	141	31	245	185	484	2390	14	149	1634	73
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.28	0.67	0.67	0.08	0.48	0.48
Sat Flow, veh/h	129	1749	1063	7	1853	1399	1753	3566	20	1753	3410	152
Grp Volume(v), veh/h	153	0	142	121	0	103	118	260	273	121	414	429
Grp Sat Flow(s),veh/h/ln	1457	0	1484	1836	0	1423	1753	1749	1837	1753	1749	1813
Q Serve(g_s), s	4.6	0.0	11.1	0.0	0.0	8.1	6.3	6.9	6.9	8.1	19.4	19.4
Cycle Q Clear(g_c), s	12.7	0.0	11.1	7.3	0.0	8.1	6.3	6.9	6.9	8.1	19.4	19.4
Prop In Lane	0.16		0.72	0.02		0.98	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	227	0	196	273	0	188	484	1172	1232	149	838	869
V/C Ratio(X)	0.67	0.00	0.73	0.44	0.00	0.55	0.24	0.22	0.22	0.81	0.49	0.49
Avail Cap(c_a), veh/h	362	0	315	419	0	302	484	1172	1232	343	838	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	0.0	50.0	48.4	0.0	48.7	33.7	7.7	7.7	54.0	21.3	21.3
Incr Delay (d2), s/veh	3.4	0.0	5.0	1.1	0.0	2.5	0.2	0.3	0.3	10.2	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	4.3	3.4	0.0	3.0	2.7	2.5	2.6	4.0	8.2	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	0.0	55.0	49.5	0.0	51.2	33.9	7.9	7.9	64.1	23.4	23.3
LnGrp LOS	D	A	E	D	A	D	C	A	A	E	C	C
Approach Vol, veh/h		295			224			651			964	
Approach Delay, s/veh		54.4			50.3			12.6			28.5	
Approach LOS		D			D			B			C	

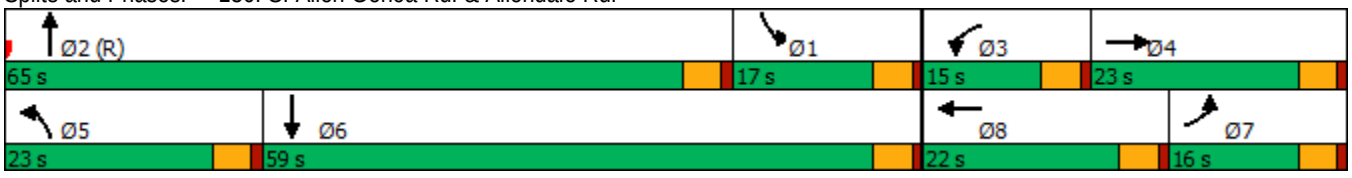
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.7	84.9		20.4	37.6	62.0		20.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	23.5	57.5		25.5	23.5	57.5		25.5				
Max Q Clear Time (g_c+I1), s	10.1	8.9		14.7	8.3	21.4		10.1				
Green Ext Time (p_c), s	0.2	3.4		1.2	0.2	5.9		1.0				

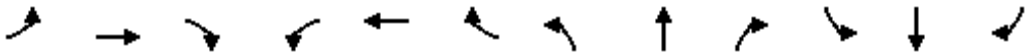
Intersection Summary												
HCM 6th Ctrl Delay			29.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	174	43	155	101	555	69	815
Future Volume (vph)	60	174	43	155	101	555	69	815
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	23.0	15.0	22.0	23.0	65.0	17.0	59.0
Total Split (%)	13.3%	19.2%	12.5%	18.3%	19.2%	54.2%	14.2%	49.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	9.8	13.3	8.4	12.0	12.8	74.5	9.9	69.5
Actuated g/C Ratio	0.08	0.11	0.07	0.10	0.11	0.62	0.08	0.58
v/c Ratio	0.45	0.63	0.39	0.57	0.59	0.31	0.50	0.47
Control Delay	61.7	48.1	57.0	48.7	72.3	9.2	64.2	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	48.1	57.0	48.7	72.3	9.2	64.2	17.5
LOS	E	D	E	D	E	A	E	B
Approach Delay		50.8		50.3		18.0		20.8
Approach LOS		D		D		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 20 (17%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	174	76	43	155	34	101	555	70	69	815	87
Future Volume (veh/h)	60	174	76	43	155	34	101	555	70	69	815	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	62	181	79	45	161	35	105	578	0	72	849	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	96	240	101	58	224	48	135	1763		373	2239	
Arrive On Green	0.05	0.10	0.10	0.03	0.08	0.08	0.08	0.50	0.00	0.21	0.64	0.00
Sat Flow, veh/h	1753	2401	1007	1753	2870	610	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	62	130	130	45	97	99	105	578	0	72	849	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1659	1753	1749	1731	1753	1749	0	1753	1749	0
Q Serve(g_s), s	4.2	8.7	9.2	3.1	6.5	6.7	7.1	11.8	0.0	4.0	13.8	0.0
Cycle Q Clear(g_c), s	4.2	8.7	9.2	3.1	6.5	6.7	7.1	11.8	0.0	4.0	13.8	0.0
Prop In Lane	1.00		0.61	1.00		0.35	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	96	175	166	58	137	135	135	1763		373	2239	
V/C Ratio(X)	0.64	0.74	0.78	0.78	0.71	0.74	0.78	0.33		0.19	0.38	
Avail Cap(c_a), veh/h	168	270	256	153	255	252	270	1763		373	2239	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.6	52.5	52.7	57.6	54.0	54.1	54.4	17.7	0.0	38.8	10.2	0.0
Incr Delay (d2), s/veh	7.0	6.1	8.3	19.6	6.4	7.4	9.4	0.5	0.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.1	4.2	1.7	3.1	3.2	3.5	4.8	0.0	1.8	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	58.6	61.1	77.2	60.4	61.5	63.8	18.2	0.0	39.0	10.4	0.0
LnGrp LOS	E	E	E	E	E	E	E	B		D	B	
Approach Vol, veh/h		322			241			683	A		921	A
Approach Delay, s/veh		60.4			64.0			25.2			12.6	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	65.0	8.4	16.5	13.7	81.3	11.1	13.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	60.5	10.5	18.5	18.5	54.5	11.5	17.5
Max Q Clear Time (g_c+I1), s	6.0	13.8	5.1	11.2	9.1	15.8	6.2	8.7
Green Ext Time (p_c), s	0.1	4.6	0.0	0.8	0.1	7.3	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Notes

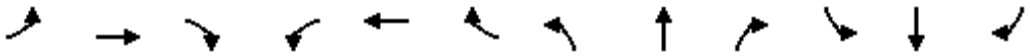
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	116	108	58	82	9	644	67	16	727	118
Future Volume (vph)	116	108	58	82	9	644	67	16	727	118
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	25.0	11.0	21.0	84.0	84.0	84.0	84.0	84.0	84.0
Total Split (%)	12.5%	20.8%	9.2%	17.5%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.3	11.7	15.2	8.6	90.2	90.2	90.2		90.2	90.2
Actuated g/C Ratio	0.15	0.10	0.13	0.07	0.75	0.75	0.75		0.75	0.75
v/c Ratio	0.59	0.47	0.40	0.40	0.02	0.52	0.06		0.35	0.11
Control Delay	43.1	23.9	51.1	52.7	2.2	6.5	0.4		5.8	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	43.1	23.9	51.1	52.7	2.2	6.5	0.4		5.8	1.2
LOS	D	C	D	D	A	A	A		A	A
Approach Delay		31.9		52.1		5.9			5.2	
Approach LOS		C		D		A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 67 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 61.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	108	54	58	82	10	9	644	67	16	727	118
Future Volume (veh/h)	116	108	54	58	82	10	9	644	67	16	727	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	115	0	62	87	0	10	685	71	17	773	126
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	151	184		124	151		515	1484	1258	64	2680	1258
Arrive On Green	0.04	0.05	0.00	0.03	0.04	0.00	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1753	3589	0	1753	3589	0	610	1841	1560	41	3324	1560
Grp Volume(v), veh/h	123	115	0	62	87	0	10	685	71	417	373	126
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	610	1841	1560	1774	1591	1560
Q Serve(g_s), s	2.5	3.9	0.0	0.0	2.9	0.0	0.5	13.8	1.1	0.0	7.1	2.0
Cycle Q Clear(g_c), s	2.5	3.9	0.0	0.0	2.9	0.0	7.6	13.8	1.1	6.8	7.1	2.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.04		1.00
Lane Grp Cap(c), veh/h	151	184		124	151		515	1484	1258	1461	1283	1258
V/C Ratio(X)	0.82	0.62		0.50	0.57		0.02	0.46	0.06	0.29	0.29	0.10
Avail Cap(c_a), veh/h	238	597		169	481		515	1484	1258	1461	1283	1258
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	55.7	0.0	56.5	56.3	0.0	3.9	3.6	2.4	2.9	2.9	2.5
Incr Delay (d2), s/veh	8.8	2.6	0.0	3.1	3.4	0.0	0.1	1.0	0.1	0.5	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.8	0.0	1.9	1.4	0.0	0.1	4.1	0.3	2.0	1.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	58.3	0.0	59.6	59.7	0.0	4.0	4.6	2.4	3.4	3.5	2.6
LnGrp LOS	E	E		E	E		A	A	A	A	A	A
Approach Vol, veh/h		238	A		149	A		766			916	
Approach Delay, s/veh		61.5			59.7			4.4			3.3	
Approach LOS		E			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		101.2	7.9	10.8		101.2	9.1	9.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		79.5	6.5	20.5		79.5	10.5	16.5				
Max Q Clear Time (g_c+I1), s		15.8	2.0	5.9		9.1	4.5	4.9				
Green Ext Time (p_c), s		5.9	0.0	0.5		6.3	0.1	0.3				

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

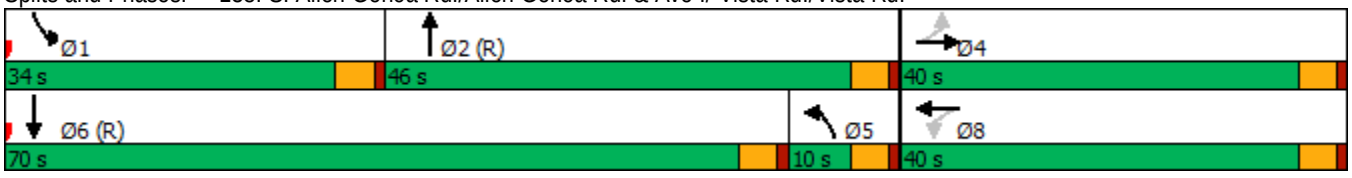
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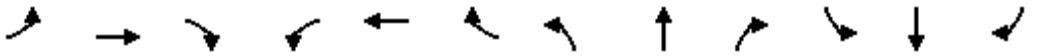
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	11	24	13	38	7	546	180	565
Future Volume (vph)	11	24	13	38	7	546	180	565
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	40.0	40.0	40.0	40.0	10.0	46.0	34.0	70.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	8.3%	38.3%	28.3%	58.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		14.7		14.7	5.5	73.0	18.8	94.3
Actuated g/C Ratio		0.12		0.12	0.05	0.61	0.16	0.79
v/c Ratio		0.33		0.82	0.10	0.30	0.72	0.23
Control Delay		38.8		36.5	31.6	2.8	45.6	2.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		38.8		36.5	31.6	2.8	45.6	2.3
LOS		D		D	C	A	D	A
Approach Delay		38.8		36.5		3.2		12.7
Approach LOS		D		D		A		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 106 (88%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 58.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	24	15	13	38	218	7	546	38	180	565	4
Future Volume (veh/h)	11	24	15	13	38	218	7	546	38	180	565	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	12	26	16	14	41	237	8	593	41	196	614	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	77	156	83	39	54	267	237	1837	127	224	1944	13
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.14	0.55	0.55	0.26	1.00	1.00
Sat Flow, veh/h	196	758	402	37	263	1294	1753	3319	229	1753	3562	23
Grp Volume(v), veh/h	54	0	0	292	0	0	8	312	322	196	301	317
Grp Sat Flow(s),veh/h/ln	1356	0	0	1594	0	0	1753	1749	1799	1753	1749	1837
Q Serve(g_s), s	0.0	0.0	0.0	8.8	0.0	0.0	0.5	11.6	11.7	12.9	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.0	21.3	0.0	0.0	0.5	11.6	11.7	12.9	0.0	0.0
Prop In Lane	0.22		0.30	0.05		0.81	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	316	0	0	360	0	0	237	968	996	224	954	1002
V/C Ratio(X)	0.17	0.00	0.00	0.81	0.00	0.00	0.03	0.32	0.32	0.88	0.32	0.32
Avail Cap(c_a), veh/h	453	0	0	502	0	0	237	968	996	431	954	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	0.85	0.00	0.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	39.0	0.0	0.0	46.2	0.0	0.0	45.1	14.6	14.6	43.8	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	5.8	0.0	0.0	0.1	0.9	0.9	8.5	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	9.0	0.0	0.0	0.2	4.8	4.9	5.4	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	0.0	52.1	0.0	0.0	45.1	15.4	15.4	52.3	0.7	0.7
LnGrp LOS	D	A	A	D	A	A	D	B	B	D	A	A
Approach Vol, veh/h		54			292			642			814	
Approach Delay, s/veh		39.3			52.1			15.8			13.1	
Approach LOS		D			D			B			B	

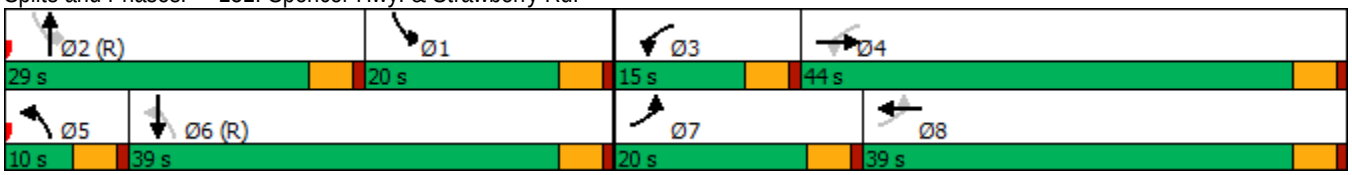
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.8	70.9		29.3	20.7	70.0		29.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	29.5	41.5		35.5	5.5	65.5		35.5				
Max Q Clear Time (g_c+I1), s	14.9	13.7		5.0	2.5	2.0		23.3				
Green Ext Time (p_c), s	0.5	4.2		0.3	0.0	4.3		1.4				

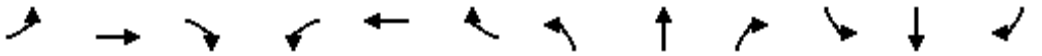
Intersection Summary			
HCM 6th Ctrl Delay		21.2	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	196	1166	111	1115	89	484	152	222	523
Future Volume (vph)	196	1166	111	1115	89	484	152	222	523
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	20.0	44.0	15.0	39.0	10.0	29.0	29.0	20.0	39.0
Total Split (%)	18.5%	40.7%	13.9%	36.1%	9.3%	26.9%	26.9%	18.5%	36.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	47.5	38.5	47.5	34.5	43.4	27.0	27.0	42.5	38.6
Actuated g/C Ratio	0.44	0.36	0.44	0.32	0.40	0.25	0.25	0.39	0.36
v/c Ratio	0.75	0.75	0.53	0.85	0.41	0.59	0.32	0.63	0.60
Control Delay	40.2	33.3	26.0	40.1	25.8	39.8	7.5	26.4	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	33.3	26.0	40.1	25.8	39.8	7.5	26.4	17.9
LOS	D	C	C	D	C	D	A	C	B
Approach Delay		34.3		39.0		31.3			19.9
Approach LOS		C		D		C			B

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 77 (71%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 32.2	Intersection LOS: C
Intersection Capacity Utilization 81.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	1166	88	111	1115	158	89	484	152	222	523	200
Future Volume (veh/h)	196	1166	88	111	1115	158	89	484	152	222	523	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	200	1190	90	113	1138	161	91	494	155	227	534	204
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	262	1604	121	219	1322	187	306	793	354	513	970	369
Arrive On Green	0.10	0.34	0.34	0.06	0.30	0.30	0.05	0.23	0.23	0.21	0.39	0.39
Sat Flow, veh/h	1753	4766	360	1753	4449	629	1753	3497	1560	1753	2477	943
Grp Volume(v), veh/h	200	836	444	113	857	442	91	494	155	227	376	362
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1727	1753	1749	1560	1753	1749	1671
Q Serve(g_s), s	8.4	23.8	23.9	4.5	26.1	26.1	3.3	13.7	7.5	2.5	18.0	18.1
Cycle Q Clear(g_c), s	8.4	23.8	23.9	4.5	26.1	26.1	3.3	13.7	7.5	2.5	18.0	18.1
Prop In Lane	1.00		0.20	1.00		0.36	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	262	1128	598	219	996	514	306	793	354	513	685	655
V/C Ratio(X)	0.76	0.74	0.74	0.52	0.86	0.86	0.30	0.62	0.44	0.44	0.55	0.55
Avail Cap(c_a), veh/h	341	1225	650	286	1070	552	314	793	354	513	685	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.54	0.54	0.54	0.73	0.73	0.73	0.90	0.90	0.90
Uniform Delay (d), s/veh	26.7	31.7	31.7	24.7	35.8	35.8	19.8	37.6	23.9	32.0	25.5	25.5
Incr Delay (d2), s/veh	6.4	2.0	3.7	1.0	3.9	7.2	0.4	2.7	2.9	0.5	2.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	9.5	10.4	1.8	10.7	11.6	1.4	6.1	3.0	4.8	7.8	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	33.6	35.3	25.7	39.7	43.1	20.1	40.3	26.7	32.5	28.3	28.5
LnGrp LOS	C	C	D	C	D	D	C	D	C	C	C	C
Approach Vol, veh/h		1480			1412			740			965	
Approach Delay, s/veh		34.1			39.7			35.0			29.4	
Approach LOS		C			D			C			C	

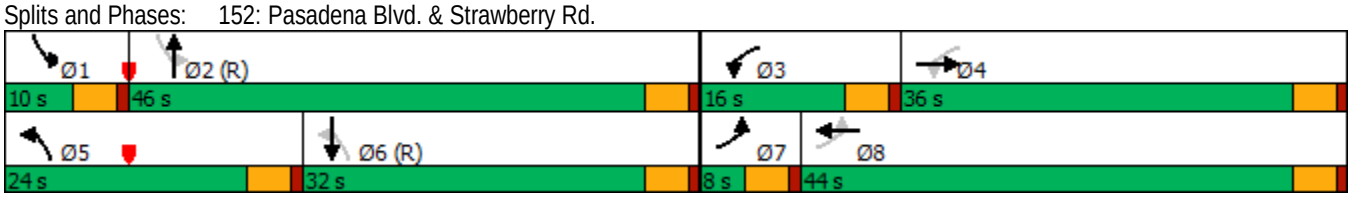
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.3	29.0	10.9	40.9	9.5	46.8	15.1	36.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	24.5	10.5	39.5	5.5	34.5	15.5	34.5
Max Q Clear Time (g_c+I1), s	4.5	15.7	6.5	25.9	5.3	20.1	10.4	28.1
Green Ext Time (p_c), s	0.5	2.5	0.1	6.8	0.0	4.0	0.2	4.0

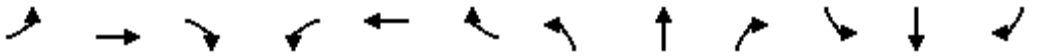
Intersection Summary	
HCM 6th Ctrl Delay	34.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	52	536	174	470	273	512	89	577
Future Volume (vph)	52	536	174	470	273	512	89	577
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	36.0	16.0	44.0	24.0	46.0	10.0	32.0
Total Split (%)	7.4%	33.3%	14.8%	40.7%	22.2%	42.6%	9.3%	29.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	42.4	30.6	41.5	39.6	48.5	44.9	49.4	31.7
Actuated g/C Ratio	0.39	0.28	0.38	0.37	0.45	0.42	0.46	0.29
v/c Ratio	0.19	0.90	0.74	0.44	0.76	0.48	0.29	0.63
Control Delay	19.5	43.2	41.8	26.4	35.5	14.2	13.6	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	43.2	41.8	26.4	35.5	14.2	13.6	33.2
LOS	B	D	D	C	D	B	B	C
Approach Delay		41.9		30.1		20.7		30.8
Approach LOS		D		C		C		C

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 68 (63%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 31.1	Intersection LOS: C
Intersection Capacity Utilization 88.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	536	368	174	470	69	273	512	109	89	577	41
Future Volume (veh/h)	52	536	368	174	470	69	273	512	109	89	577	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	54	553	379	179	485	71	281	528	112	92	595	42
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	311	579	397	234	1073	156	425	1168	247	331	1088	77
Arrive On Green	0.03	0.29	0.29	0.09	0.35	0.35	0.04	0.13	0.13	0.05	0.33	0.33
Sat Flow, veh/h	1753	1985	1360	1753	3063	446	1753	2873	607	1753	3314	234
Grp Volume(v), veh/h	54	487	445	179	276	280	281	320	320	92	314	323
Grp Sat Flow(s),veh/h/ln	1753	1749	1596	1753	1749	1760	1753	1749	1731	1753	1749	1799
Q Serve(g_s), s	2.1	29.5	29.6	7.6	13.1	13.3	11.0	18.2	18.4	3.3	15.9	15.9
Cycle Q Clear(g_c), s	2.1	29.5	29.6	7.6	13.1	13.3	11.0	18.2	18.4	3.3	15.9	15.9
Prop In Lane	1.00		0.85	1.00		0.25	1.00		0.35	1.00		0.13
Lane Grp Cap(c), veh/h	311	510	465	234	613	617	425	711	704	331	574	590
V/C Ratio(X)	0.17	0.96	0.96	0.77	0.45	0.45	0.66	0.45	0.45	0.28	0.55	0.55
Avail Cap(c_a), veh/h	314	510	465	264	640	644	524	711	704	340	574	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.69	0.69	0.69	0.95	0.95	0.95	0.97	0.97	0.97
Uniform Delay (d), s/veh	22.2	37.6	37.6	27.6	27.1	27.1	23.1	35.6	35.7	18.9	29.7	29.7
Incr Delay (d2), s/veh	0.3	28.3	30.0	8.0	0.4	0.4	2.1	2.0	2.0	0.4	3.6	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	16.4	15.2	3.6	5.4	5.5	5.2	8.9	8.9	1.3	7.1	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	65.8	67.6	35.6	27.4	27.5	25.2	37.6	37.7	19.3	33.3	33.2
LnGrp LOS	C	E	E	D	C	C	C	D	D	B	C	C
Approach Vol, veh/h		986			735			921			729	
Approach Delay, s/veh		64.2			29.4			33.9			31.5	
Approach LOS		E			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	48.4	14.1	36.0	17.9	39.9	7.8	42.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	41.5	11.5	31.5	19.5	27.5	3.5	39.5
Max Q Clear Time (g_c+I1), s	5.3	20.4	9.6	31.6	13.0	17.9	4.1	15.3
Green Ext Time (p_c), s	0.0	3.8	0.1	0.0	0.5	2.6	0.0	3.4

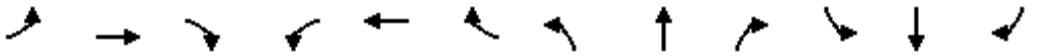
Intersection Summary	
HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	82	2	1	1	111	839	1	1006
Future Volume (vph)	82	2	1	1	111	839	1	1006
Turn Type	Perm	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	24.0	24.0	24.0	24.0	16.0	76.0	8.0	68.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	14.8%	70.4%	7.4%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.1	12.1		12.1	82.4	84.9	86.0	70.9
Actuated g/C Ratio	0.11	0.11		0.11	0.76	0.79	0.80	0.66
v/c Ratio	0.56	0.49		0.01	0.29	0.33	0.00	0.52
Control Delay	58.6	12.9		39.5	3.7	1.1	2.0	8.0
Queue Delay	0.0	0.0		0.0	0.0	0.1	0.0	0.0
Total Delay	58.6	12.9		39.5	3.7	1.2	2.0	8.0
LOS	E	B		D	A	A	A	A
Approach Delay		29.6		39.5		1.5		8.0
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 3 (3%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 7.4	Intersection LOS: A
Intersection Capacity Utilization 60.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	2	140	1	1	0	111	839	2	1	1006	94
Future Volume (veh/h)	82	2	140	1	1	0	111	839	2	1	1006	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	2	149	1	1	0	118	893	2	1	1070	100
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	201	2	183	68	51	0	543	2705	6	531	1901	178
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.00	0.22	1.00	1.00	0.00	0.59	0.59
Sat Flow, veh/h	1394	21	1542	150	434	0	1753	3580	8	1753	3233	302
Grp Volume(v), veh/h	87	0	151	2	0	0	118	436	459	1	578	592
Grp Sat Flow(s),veh/h/ln	1394	0	1563	584	0	0	1753	1749	1839	1753	1749	1786
Q Serve(g_s), s	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	22.0
Cycle Q Clear(g_c), s	8.4	0.0	10.2	10.2	0.0	0.0	0.0	0.0	0.0	0.0	22.0	22.0
Prop In Lane	1.00		0.99	0.50		0.00	1.00		0.00	1.00		0.17
Lane Grp Cap(c), veh/h	201	0	185	119	0	0	543	1321	1390	531	1028	1050
V/C Ratio(X)	0.43	0.00	0.82	0.02	0.00	0.00	0.22	0.33	0.33	0.00	0.56	0.56
Avail Cap(c_a), veh/h	288	0	282	210	0	0	543	1321	1390	586	1028	1050
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.91	0.91	0.91	0.71	0.71	0.71
Uniform Delay (d), s/veh	45.7	0.0	46.4	42.3	0.0	0.0	13.2	0.0	0.0	3.2	13.7	13.7
Incr Delay (d2), s/veh	1.5	0.0	10.3	0.1	0.0	0.0	0.2	0.6	0.6	0.0	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.5	0.0	0.0	0.0	1.5	0.2	0.2	0.0	8.6	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	0.0	56.8	42.4	0.0	0.0	13.3	0.6	0.6	3.2	15.3	15.3
LnGrp LOS	D	A	E	D	A	A	B	A	A	A	B	B
Approach Vol, veh/h		238			2			1013			1171	
Approach Delay, s/veh		53.2			42.4			2.1			15.3	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	86.1		17.3	22.7	68.0		17.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	71.5		19.5	11.5	63.5		19.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		12.2	2.0	24.0		12.2				
Green Ext Time (p_c), s	0.0	6.7		0.6	0.2	10.3		0.0				

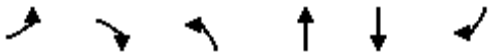
Intersection Summary			
HCM 6th Ctrl Delay		13.5	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	40	70	38	582	649
Future Volume (vph)	40	70	38	582	649
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	29.0	29.0	14.0	79.0	65.0
Total Split (%)	26.9%	26.9%	13.0%	73.1%	60.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.2	8.2	93.7	93.7	85.3
Actuated g/C Ratio	0.08	0.08	0.87	0.87	0.79
v/c Ratio	0.33	0.40	0.06	0.21	0.27
Control Delay	53.2	17.4	0.5	0.4	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	17.4	0.5	0.4	4.9
LOS	D	B	A	A	A
Approach Delay	30.6			0.4	4.9
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 17 (16%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 4.9	Intersection LOS: A
Intersection Capacity Utilization 39.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	70	38	582	649	40
Future Volume (veh/h)	40	70	38	582	649	40
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	74	40	619	690	43
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	115	102	808	2977	1873	117
Arrive On Green	0.07	0.07	0.50	1.00	0.56	0.56
Sat Flow, veh/h	1753	1560	1753	3589	3436	208
Grp Volume(v), veh/h	43	74	40	619	361	372
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1803
Q Serve(g_s), s	2.5	5.0	0.0	0.0	12.3	12.4
Cycle Q Clear(g_c), s	2.5	5.0	0.0	0.0	12.3	12.4
Prop In Lane	1.00	1.00	1.00			0.12
Lane Grp Cap(c), veh/h	115	102	808	2977	980	1010
V/C Ratio(X)	0.37	0.72	0.05	0.21	0.37	0.37
Avail Cap(c_a), veh/h	398	354	808	2977	980	1010
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.89	0.89	0.85	0.85
Uniform Delay (d), s/veh	48.3	49.5	3.9	0.0	13.2	13.2
Incr Delay (d2), s/veh	1.8	8.5	0.0	0.1	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.5	0.2	0.1	4.8	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.2	58.0	3.9	0.1	14.1	14.0
LnGrp LOS	D	E	A	A	B	B
Approach Vol, veh/h	117			659	733	
Approach Delay, s/veh	55.1			0.4	14.1	
Approach LOS	E			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.4		11.6	31.4	65.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		74.5		24.5	9.5	60.5
Max Q Clear Time (g_c+I1), s		2.0		7.0	2.0	14.4
Green Ext Time (p_c), s		4.7		0.3	0.0	5.1

Intersection Summary		
HCM 6th Ctrl Delay		11.3
HCM 6th LOS		B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	201	36	181	61	373	174	708
Future Volume (vph)	23	201	36	181	61	373	174	708
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	28.0	15.0	29.0	20.0	41.0	36.0	57.0
Total Split (%)	11.7%	23.3%	12.5%	24.2%	16.7%	34.2%	30.0%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.2	14.2	8.0	14.8	9.8	66.2	17.8	76.4
Actuated g/C Ratio	0.06	0.12	0.07	0.12	0.08	0.55	0.15	0.64
v/c Ratio	0.23	0.66	0.33	0.63	0.45	0.24	0.70	0.35
Control Delay	58.4	51.7	60.4	33.2	62.0	16.4	62.7	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	51.7	60.4	33.2	62.0	16.4	62.7	13.3
LOS	E	D	E	C	E	B	E	B
Approach Delay		52.3		36.0		22.1		22.7
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	201	66	36	181	136	61	373	59	174	708	25
Future Volume (veh/h)	23	201	66	36	181	136	61	373	59	174	708	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	209	69	38	189	142	64	389	61	181	738	26
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	29	303	97	48	249	177	82	1773	276	212	2271	80
Arrive On Green	0.02	0.12	0.12	0.03	0.13	0.13	0.05	0.58	0.58	0.12	0.66	0.66
Sat Flow, veh/h	1753	2604	835	1753	1951	1388	1753	3033	472	1753	3446	121
Grp Volume(v), veh/h	24	138	140	38	168	163	64	223	227	181	374	390
Grp Sat Flow(s),veh/h/ln	1753	1749	1690	1753	1749	1591	1753	1749	1756	1753	1749	1819
Q Serve(g_s), s	1.6	9.1	9.5	2.6	11.2	11.9	4.3	7.3	7.4	12.1	11.2	11.2
Cycle Q Clear(g_c), s	1.6	9.1	9.5	2.6	11.2	11.9	4.3	7.3	7.4	12.1	11.2	11.2
Prop In Lane	1.00		0.49	1.00		0.87	1.00		0.27	1.00		0.07
Lane Grp Cap(c), veh/h	29	204	197	48	223	203	82	1023	1027	212	1152	1198
V/C Ratio(X)	0.82	0.68	0.71	0.79	0.76	0.80	0.78	0.22	0.22	0.85	0.32	0.33
Avail Cap(c_a), veh/h	139	342	331	153	357	325	226	1023	1027	460	1152	1198
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	50.9	51.0	58.0	50.6	50.9	56.6	11.9	11.9	51.7	8.9	8.9
Incr Delay (d2), s/veh	32.1	3.0	3.5	23.7	5.2	7.3	14.3	0.5	0.5	9.3	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.1	4.2	1.5	5.2	5.1	2.2	2.9	2.9	5.8	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.9	53.8	54.6	81.7	55.7	58.2	70.9	12.3	12.4	60.9	9.6	9.6
LnGrp LOS	F	D	D	F	E	E	E	B	B	E	A	A
Approach Vol, veh/h		302			369			514			945	
Approach Delay, s/veh		57.1			59.5			19.7			19.5	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	74.7	7.8	18.5	10.1	83.6	6.5	19.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	31.5	36.5	10.5	23.5	15.5	52.5	9.5	24.5
Max Q Clear Time (g_c+I1), s	14.1	9.4	4.6	11.5	6.3	13.2	3.6	13.9
Green Ext Time (p_c), s	0.4	2.7	0.0	1.1	0.1	5.3	0.0	1.4

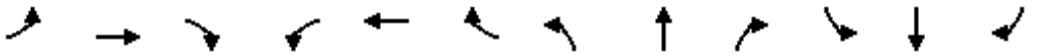
Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	8	92	8	22	855	119	1014
Future Volume (vph)	8	92	8	22	855	119	1014
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	10.0	64.0	18.0	72.0
Total Split (%)	24.1%	24.1%	24.1%	9.3%	59.3%	16.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.3	13.3	13.3	83.9	73.7	81.2	81.7
Actuated g/C Ratio	0.12	0.12	0.12	0.78	0.68	0.75	0.76
v/c Ratio	0.11	0.60	0.39	0.06	0.43	0.31	0.43
Control Delay	24.5	59.1	13.9	1.3	4.0	3.6	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Delay	24.5	59.1	13.9	1.3	4.0	3.7	1.6
LOS	C	E	B	A	A	A	A
Approach Delay	24.5		35.6		4.0		1.8
Approach LOS	C		D		A		A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 7 (6%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	13	92	8	91	22	855	63	119	1014	2
Future Volume (veh/h)	0	8	13	92	8	91	22	855	63	119	1014	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	9	14	101	9	100	24	940	69	131	1114	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	71	110	198	14	158	625	2401	176	475	2239	4
Arrive On Green	0.00	0.11	0.11	0.11	0.11	0.11	0.14	0.73	0.73	0.08	1.00	1.00
Sat Flow, veh/h	0	649	1010	1366	130	1449	1753	3303	242	1753	3582	6
Grp Volume(v), veh/h	0	0	23	101	0	109	24	498	511	131	544	572
Grp Sat Flow(s),veh/h/ln	0	0	1659	1366	0	1580	1753	1749	1797	1753	1749	1840
Q Serve(g_s), s	0.0	0.0	1.4	7.8	0.0	7.1	0.0	11.7	11.7	2.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	9.1	0.0	7.1	0.0	11.7	11.7	2.1	0.0	0.0
Prop In Lane	0.00		0.61	1.00		0.92	1.00		0.13	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	181	198	0	172	625	1271	1306	475	1093	1150
V/C Ratio(X)	0.00	0.00	0.13	0.51	0.00	0.63	0.04	0.39	0.39	0.28	0.50	0.50
Avail Cap(c_a), veh/h	0	0	330	322	0	315	625	1271	1306	626	1093	1150
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.73	0.73	0.73	0.84	0.84	0.84
Uniform Delay (d), s/veh	0.0	0.0	43.5	47.6	0.0	46.1	3.1	5.6	5.6	3.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	2.0	0.0	3.8	0.0	0.7	0.6	0.3	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	2.8	0.0	3.0	0.1	3.8	3.9	0.6	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	43.8	49.6	0.0	49.9	3.1	6.3	6.3	4.1	1.4	1.3
LnGrp LOS	A	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		23			210			1033			1247	
Approach Delay, s/veh		43.8			49.8			6.2			1.6	
Approach LOS		D			D			A			A	

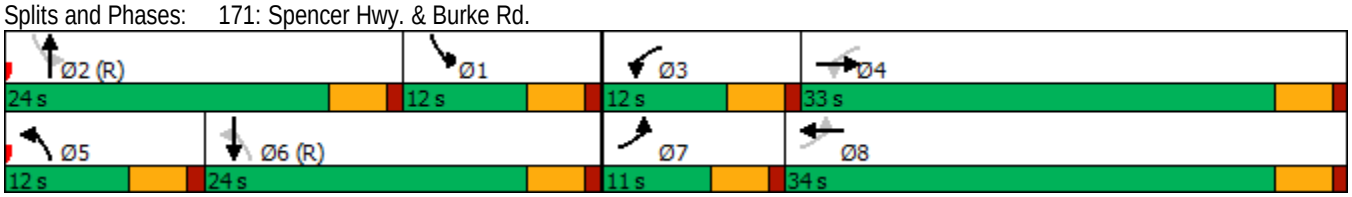
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	83.0		16.3	19.7	72.0		16.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	59.5		21.5	5.5	67.5		21.5				
Max Q Clear Time (g_c+I1), s	4.1	13.7		3.4	2.0	2.0		11.1				
Green Ext Time (p_c), s	0.2	7.9		0.1	0.0	9.4		0.6				

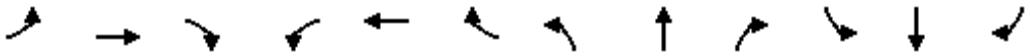
Intersection Summary			
HCM 6th Ctrl Delay		7.9	
HCM 6th LOS		A	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	114	1143	131	1267	150	316	162	283
Future Volume (vph)	114	1143	131	1267	150	316	162	283
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	33.0	12.0	34.0	12.0	24.0	12.0	24.0
Total Split (%)	13.6%	40.7%	14.8%	42.0%	14.8%	29.6%	14.8%	29.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	36.2	28.0	35.3	31.0	27.7	20.2	27.7	20.3
Actuated g/C Ratio	0.45	0.35	0.44	0.38	0.34	0.25	0.34	0.25
v/c Ratio	0.55	0.83	0.58	0.81	0.50	0.55	0.56	0.48
Control Delay	21.6	28.9	22.5	26.9	17.5	22.5	21.1	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	28.9	22.5	26.9	17.5	22.5	21.1	16.4
LOS	C	C	C	C	B	C	C	B
Approach Delay		28.3		26.5		21.2		17.8
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 3 (4%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1143	131	131	1267	111	150	316	118	162	283	97
Future Volume (veh/h)	114	1143	131	131	1267	111	150	316	118	162	283	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	1229	141	141	1362	119	161	340	127	174	304	104
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	230	1528	175	253	1612	141	418	603	221	424	729	245
Arrive On Green	0.07	0.33	0.33	0.07	0.34	0.34	0.09	0.24	0.24	0.13	0.28	0.28
Sat Flow, veh/h	1753	4572	524	1753	4706	411	1753	2504	920	1753	2571	863
Grp Volume(v), veh/h	123	901	469	141	970	511	161	236	231	174	205	203
Grp Sat Flow(s),veh/h/ln	1753	1675	1746	1753	1675	1767	1753	1749	1675	1753	1749	1685
Q Serve(g_s), s	3.6	19.8	19.8	4.2	21.7	21.7	5.2	9.6	9.9	0.0	7.7	8.0
Cycle Q Clear(g_c), s	3.6	19.8	19.8	4.2	21.7	21.7	5.2	9.6	9.9	0.0	7.7	8.0
Prop In Lane	1.00		0.30	1.00		0.23	1.00		0.55	1.00		0.51
Lane Grp Cap(c), veh/h	230	1119	584	253	1148	605	418	421	403	424	496	478
V/C Ratio(X)	0.54	0.80	0.80	0.56	0.84	0.84	0.38	0.56	0.57	0.41	0.41	0.43
Avail Cap(c_a), veh/h	256	1179	614	286	1220	643	430	421	403	424	496	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	24.6	24.6	19.1	24.6	24.6	18.2	27.0	27.1	27.7	23.5	23.6
Incr Delay (d2), s/veh	1.3	2.7	5.0	1.2	3.6	6.5	0.6	5.3	5.8	0.6	2.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	7.6	8.3	1.6	8.4	9.3	2.0	4.4	4.4	2.9	3.4	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	27.2	29.6	20.3	28.2	31.1	18.8	32.3	32.9	28.3	26.1	26.4
LnGrp LOS	C	C	C	C	C	C	B	C	C	C	C	C
Approach Vol, veh/h		1493			1622			628			582	
Approach Delay, s/veh		27.4			28.4			29.0			26.9	
Approach LOS		C			C			C			C	

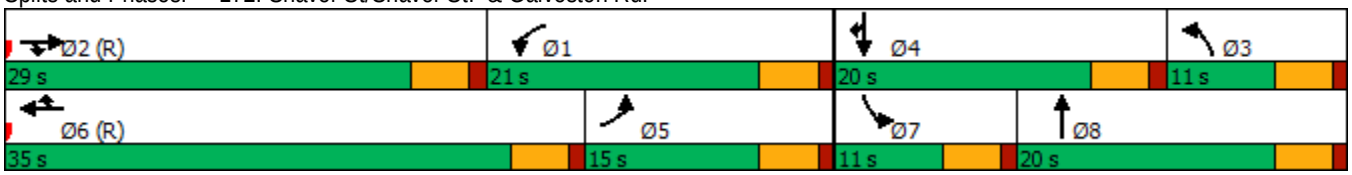
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	24.0	10.5	31.6	11.5	27.5	9.8	32.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	19.5	7.5	28.5	7.5	19.5	6.5	29.5
Max Q Clear Time (g_c+I1), s	2.0	11.9	6.2	21.8	7.2	10.0	5.6	23.7
Green Ext Time (p_c), s	0.2	1.6	0.0	4.3	0.0	1.6	0.0	4.1

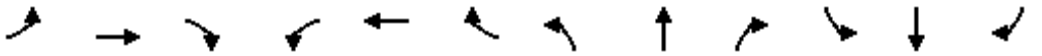
Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	160	900	90	330	811	126	86	472	114	496	191
Future Volume (vph)	160	900	90	330	811	126	86	472	114	496	191
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	Prot	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8	7	4	4
Permitted Phases											
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	15.0	29.0	29.0	21.0	35.0	35.0	11.0	20.0	11.0	20.0	20.0
Total Split (%)	18.5%	35.8%	35.8%	25.9%	43.2%	43.2%	13.6%	24.7%	13.6%	24.7%	24.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	10.5	24.5	24.5	16.5	30.5	30.5	6.4	15.5	6.5	17.7	17.7
Actuated g/C Ratio	0.13	0.30	0.30	0.20	0.38	0.38	0.08	0.19	0.08	0.22	0.22
v/c Ratio	0.73	0.88	0.14	0.96	0.64	0.18	0.64	1.01	0.85	0.67	0.40
Control Delay	54.8	38.8	0.5	74.2	23.5	1.2	59.3	68.0	84.4	35.4	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	38.8	0.5	74.2	23.5	1.2	59.3	68.0	84.4	35.4	7.0
LOS	D	D	A	E	C	A	E	E	F	D	A
Approach Delay		38.0			34.5			67.0		35.6	
Approach LOS		D			C			E		D	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 42.0	Intersection LOS: D
Intersection Capacity Utilization 89.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	900	90	330	811	126	86	472	210	114	496	191
Future Volume (veh/h)	160	900	90	330	811	126	86	472	210	114	496	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	165	928	93	340	836	130	89	487	216	118	511	197
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	227	1058	472	357	1317	587	167	452	199	141	617	275
Arrive On Green	0.13	0.30	0.30	0.20	0.38	0.38	0.10	0.19	0.19	0.08	0.18	0.18
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	2361	1041	1753	3497	1560
Grp Volume(v), veh/h	165	928	93	340	836	130	89	360	343	118	511	197
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1653	1753	1749	1560
Q Serve(g_s), s	7.3	20.4	3.6	15.5	15.9	3.2	3.9	15.5	15.5	5.4	11.4	9.6
Cycle Q Clear(g_c), s	7.3	20.4	3.6	15.5	15.9	3.2	3.9	15.5	15.5	5.4	11.4	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	227	1058	472	357	1317	587	167	335	316	141	617	275
V/C Ratio(X)	0.73	0.88	0.20	0.95	0.63	0.22	0.53	1.08	1.08	0.84	0.83	0.72
Avail Cap(c_a), veh/h	227	1058	472	357	1317	587	167	335	316	141	669	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	26.8	21.0	31.9	20.7	8.2	34.9	32.8	32.8	36.7	32.2	31.4
Incr Delay (d2), s/veh	11.0	10.3	0.9	35.2	2.3	0.9	3.3	70.8	74.9	33.9	8.0	7.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	9.4	1.4	9.8	6.5	1.7	1.8	12.9	12.6	3.6	5.4	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	37.1	21.9	67.1	23.0	9.1	38.2	103.6	107.7	70.6	40.2	38.7
LnGrp LOS	D	D	C	E	C	A	D	F	F	E	D	D
Approach Vol, veh/h		1186			1306			792			826	
Approach Delay, s/veh		37.0			33.1			98.0			44.2	
Approach LOS		D			C			F			D	

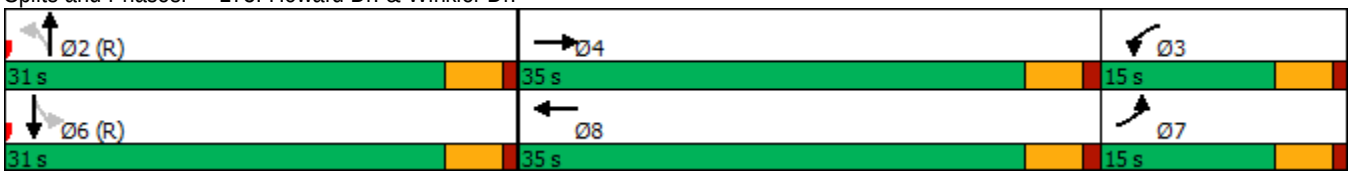
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	29.0	12.2	18.8	15.0	35.0	11.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	24.5	6.5	15.5	10.5	30.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	17.5	22.4	5.9	13.4	9.3	17.9	7.4	17.5
Green Ext Time (p_c), s	0.0	1.3	0.0	0.9	0.0	5.1	0.0	0.0

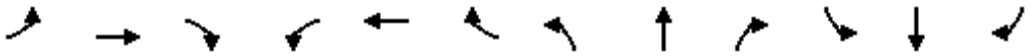
Intersection Summary	
HCM 6th Ctrl Delay	49.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	52	469	61	377	100	209	10	40
Future Volume (vph)	52	469	61	377	100	209	10	40
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	35.0	15.0	35.0	31.0	31.0	31.0	31.0
Total Split (%)	18.5%	43.2%	18.5%	43.2%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.0	21.0	8.3	20.5		40.2		40.2
Actuated g/C Ratio	0.14	0.26	0.10	0.25		0.50		0.50
v/c Ratio	0.22	0.72	0.35	0.56		0.27		0.07
Control Delay	31.4	28.1	34.1	15.1		13.5		8.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	31.4	28.1	34.1	15.1		13.5		8.7
LOS	C	C	C	B		B		A
Approach Delay		28.3		17.2		13.5		8.7
Approach LOS		C		B		B		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 60 (74%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 53.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	469	183	61	377	113	100	209	76	10	40	48
Future Volume (veh/h)	52	469	183	61	377	113	100	209	76	10	40	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	53	479	187	62	385	115	102	213	78	10	41	49
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	615	239	79	522	154	460	926	342	192	753	764
Arrive On Green	0.10	0.25	0.25	0.05	0.20	0.20	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1753	2462	955	1753	2662	786	730	1720	636	257	1398	1420
Grp Volume(v), veh/h	53	339	327	62	251	249	202	0	191	51	0	49
Grp Sat Flow(s),veh/h/ln	1753	1749	1669	1753	1749	1699	1526	0	1561	1656	0	1420
Q Serve(g_s), s	2.3	14.6	14.8	2.8	10.9	11.2	3.3	0.0	5.2	0.0	0.0	1.3
Cycle Q Clear(g_c), s	2.3	14.6	14.8	2.8	10.9	11.2	5.3	0.0	5.2	1.1	0.0	1.3
Prop In Lane	1.00		0.57	1.00		0.46	0.51		0.41	0.20		1.00
Lane Grp Cap(c), veh/h	174	437	417	79	343	333	888	0	840	944	0	764
V/C Ratio(X)	0.31	0.78	0.78	0.78	0.73	0.75	0.23	0.00	0.23	0.05	0.00	0.06
Avail Cap(c_a), veh/h	227	658	628	227	658	640	888	0	840	944	0	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.9	28.3	28.3	38.3	30.6	30.7	9.8	0.0	9.8	8.9	0.0	8.9
Incr Delay (d2), s/veh	1.0	3.3	3.7	15.1	3.0	3.3	0.6	0.0	0.6	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.2	6.0	1.5	4.7	4.7	1.8	0.0	1.7	0.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	31.6	32.1	53.4	33.6	34.0	10.4	0.0	10.5	9.0	0.0	9.1
LnGrp LOS	C	C	C	D	C	C	B	A	B	A	A	A
Approach Vol, veh/h		719			562			393			100	
Approach Delay, s/veh		32.1			36.0			10.4			9.0	
Approach LOS		C			D			B			A	

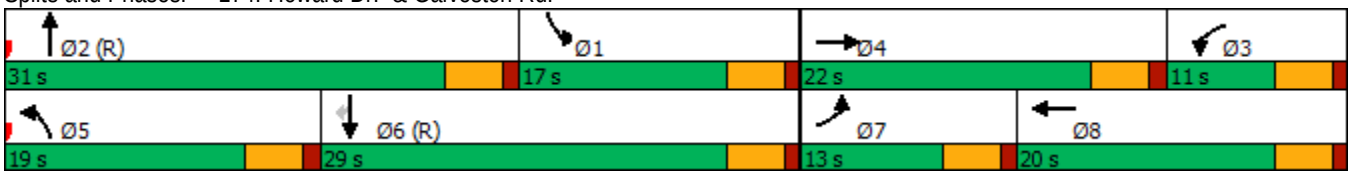
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.1	8.2	24.7		48.1	12.5	20.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	10.5	30.5		26.5	10.5	30.5				
Max Q Clear Time (g_c+I1), s		7.3	4.8	16.8		3.3	4.3	13.2				
Green Ext Time (p_c), s		2.2	0.0	3.4		0.5	0.0	2.7				

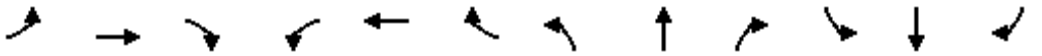
Intersection Summary												
HCM 6th Ctrl Delay			27.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	115	304	42	354	227	638	138	837	274
Future Volume (vph)	115	304	42	354	227	638	138	837	274
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	22.0	11.0	20.0	19.0	31.0	17.0	29.0	29.0
Total Split (%)	16.0%	27.2%	13.6%	24.7%	23.5%	38.3%	21.0%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.2	19.7	6.9	14.2	13.7	28.1	12.5	26.9	26.9
Actuated g/C Ratio	0.10	0.24	0.09	0.18	0.17	0.35	0.15	0.33	0.33
v/c Ratio	0.68	0.57	0.30	0.74	0.80	0.61	0.53	0.75	0.40
Control Delay	44.9	6.2	40.5	36.9	53.5	24.6	37.7	28.2	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	6.2	40.5	36.9	53.5	24.6	37.7	28.2	3.6
LOS	D	A	D	D	D	C	D	C	A
Approach Delay		13.2		37.2		31.6		23.9	
Approach LOS		B		D		C		C	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 72 (89%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 26.0	Intersection LOS: C
Intersection Capacity Utilization 75.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	304	220	42	354	94	227	638	73	138	837	274
Future Volume (veh/h)	115	304	220	42	354	94	227	638	73	138	837	274
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	119	313	227	43	365	97	234	658	75	142	863	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	150	379	268	99	451	118	273	1035	118	352	1303	
Arrive On Green	0.09	0.19	0.19	0.06	0.16	0.16	0.16	0.33	0.33	0.20	0.37	0.00
Sat Flow, veh/h	1753	1956	1384	1753	2741	719	1753	3164	360	1753	3497	1560
Grp Volume(v), veh/h	119	279	261	43	231	231	234	363	370	142	863	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1592	1753	1749	1711	1753	1749	1776	1753	1749	1560
Q Serve(g_s), s	5.4	12.4	12.8	1.9	10.3	10.5	10.5	14.3	14.3	5.7	16.7	0.0
Cycle Q Clear(g_c), s	5.4	12.4	12.8	1.9	10.3	10.5	10.5	14.3	14.3	5.7	16.7	0.0
Prop In Lane	1.00		0.87	1.00		0.42	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	150	338	308	99	288	281	273	572	581	352	1303	
V/C Ratio(X)	0.80	0.82	0.85	0.44	0.80	0.82	0.86	0.63	0.64	0.40	0.66	
Avail Cap(c_a), veh/h	184	378	344	141	335	327	314	572	581	352	1303	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.3	31.3	31.5	37.0	32.6	32.7	33.3	23.1	23.2	28.1	21.2	0.0
Incr Delay (d2), s/veh	17.5	12.7	16.3	3.0	11.7	13.4	18.6	5.3	5.3	0.7	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.2	6.1	0.9	5.1	5.2	5.6	6.3	6.4	2.3	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	44.0	47.8	40.0	44.3	46.1	51.9	28.4	28.4	28.9	23.8	0.0
LnGrp LOS	D	D	D	D	D	D	D	C	C	C	C	
Approach Vol, veh/h		659			505			967			1005	A
Approach Delay, s/veh		47.3			44.8			34.1			24.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	31.0	9.1	20.2	17.1	34.7	11.4	17.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	26.5	6.5	17.5	14.5	24.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	7.7	16.3	3.9	14.8	12.5	18.7	7.4	12.5
Green Ext Time (p_c), s	0.1	3.1	0.0	0.9	0.1	2.7	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

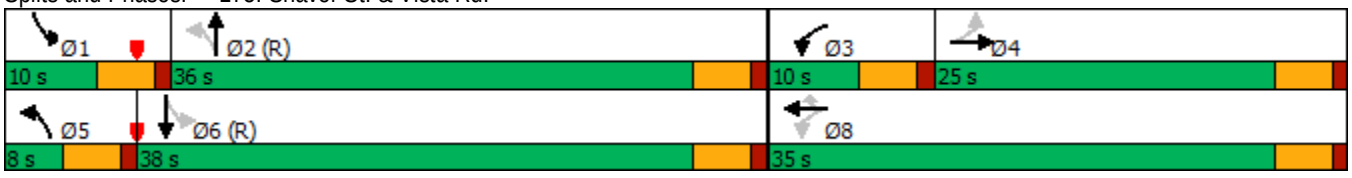
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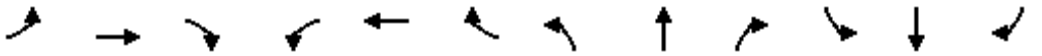
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	22	271	176	313	141	16	999	116	1110
Future Volume (vph)	22	271	176	313	141	16	999	116	1110
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	25.0	25.0	10.0	35.0	35.0	8.0	36.0	10.0	38.0
Total Split (%)	30.9%	30.9%	12.3%	43.2%	43.2%	9.9%	44.4%	12.3%	46.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		18.8	28.8	28.8	28.8	36.9	32.6	42.2	40.0
Actuated g/C Ratio		0.23	0.36	0.36	0.36	0.46	0.40	0.52	0.49
v/c Ratio		0.84	0.78	0.53	0.24	0.10	0.88	0.59	0.73
Control Delay		48.6	36.2	18.1	3.6	11.2	31.7	24.0	21.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		48.6	36.2	18.1	3.6	11.2	31.7	24.0	21.2
LOS		D	D	B	A	B	C	C	C
Approach Delay		48.6		19.9			31.4		21.4
Approach LOS		D		B			C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 57 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 90.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	271	16	176	313	141	16	999	112	116	1110	29
Future Volume (veh/h)	22	271	16	176	313	141	16	999	112	116	1110	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	298	18	193	344	155	18	1098	123	127	1220	32
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	62	349	20	335	630	534	199	1367	153	252	1659	44
Arrive On Green	0.22	0.22	0.22	0.07	0.34	0.34	0.01	0.43	0.43	0.06	0.48	0.48
Sat Flow, veh/h	66	1593	93	1753	1841	1560	1753	3171	355	1753	3482	91
Grp Volume(v), veh/h	340	0	0	193	344	155	18	605	616	127	613	639
Grp Sat Flow(s),veh/h/ln	1752	0	0	1753	1841	1560	1753	1749	1777	1753	1749	1824
Q Serve(g_s), s	7.2	0.0	0.0	5.5	12.2	5.9	0.5	24.4	24.5	3.1	22.9	22.9
Cycle Q Clear(g_c), s	15.1	0.0	0.0	5.5	12.2	5.9	0.5	24.4	24.5	3.1	22.9	22.9
Prop In Lane	0.07		0.05	1.00		1.00	1.00		0.20	1.00		0.05
Lane Grp Cap(c), veh/h	431	0	0	335	630	534	199	754	766	252	833	869
V/C Ratio(X)	0.79	0.00	0.00	0.58	0.55	0.29	0.09	0.80	0.80	0.50	0.73	0.74
Avail Cap(c_a), veh/h	489	0	0	335	693	587	249	754	766	266	833	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.00	0.00	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	0.0	22.1	21.5	19.4	15.0	20.0	20.1	16.3	17.1	17.1
Incr Delay (d2), s/veh	5.6	0.0	0.0	2.4	0.7	0.3	0.2	8.0	8.0	1.6	5.7	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	0.0	2.8	5.0	2.0	0.2	10.6	10.8	1.2	9.5	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	0.0	0.0	24.5	22.3	19.7	15.1	28.0	28.0	17.9	22.8	22.6
LnGrp LOS	D	A	A	C	C	B	B	C	C	B	C	C
Approach Vol, veh/h		340			692			1239			1379	
Approach Delay, s/veh		36.1			22.3			27.8			22.2	
Approach LOS		D			C			C			C	

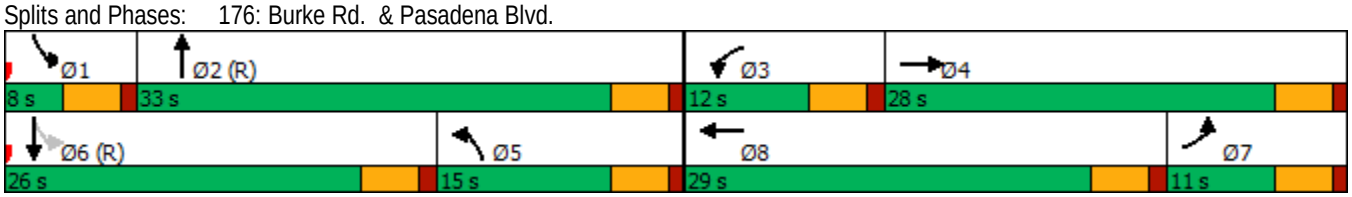
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	39.4	10.0	22.2	5.7	43.1		32.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	31.5	5.5	20.5	3.5	33.5		30.5				
Max Q Clear Time (g_c+I1), s	5.1	26.5	7.5	17.1	2.5	24.9		14.2				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.6	0.0	5.0		2.2				

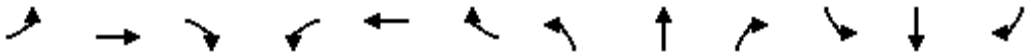
Intersection Summary	
HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	50	492	56	542	91	238	38	225
Future Volume (vph)	50	492	56	542	91	238	38	225
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	28.0	12.0	29.0	15.0	33.0	8.0	26.0
Total Split (%)	13.6%	34.6%	14.8%	35.8%	18.5%	40.7%	9.9%	32.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.6	20.9	7.0	23.5	9.6	41.6		29.6
Actuated g/C Ratio	0.08	0.26	0.09	0.29	0.12	0.51		0.37
v/c Ratio	0.38	0.73	0.42	0.70	0.48	0.20		0.35
Control Delay	43.4	31.1	44.1	29.4	30.6	6.2		14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	43.4	31.1	44.1	29.4	30.6	6.2		14.2
LOS	D	C	D	C	C	A		B
Approach Delay		32.0		30.6		11.5		14.2
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 47 (58%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





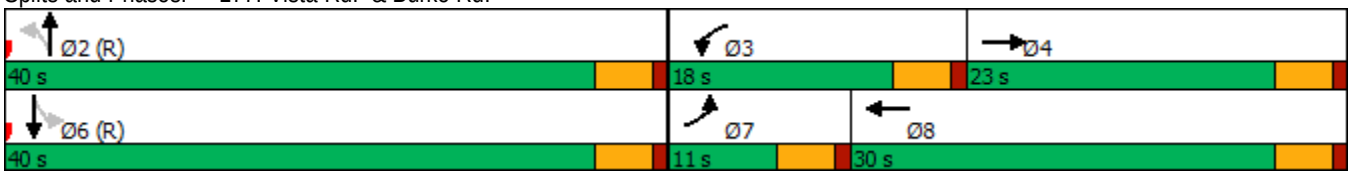
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	492	111	56	542	57	91	238	89	38	225	66
Future Volume (vph)	50	492	111	56	542	57	91	238	89	38	225	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.96			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1736	3375		1678	3193		1736	3329			3124	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.88	
Satd. Flow (perm)	1736	3375		1678	3193		1736	3329			2758	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	535	121	61	589	62	99	259	97	41	245	72
RTOR Reduction (vph)	0	25	0	0	10	0	0	38	0	0	25	0
Lane Group Flow (vph)	54	631	0	61	641	0	99	318	0	0	333	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	4.2	21.8		5.9	23.5		8.4	39.8			26.9	
Effective Green, g (s)	4.2	21.8		5.9	23.5		8.4	39.8			26.9	
Actuated g/C Ratio	0.05	0.27		0.07	0.29		0.10	0.49			0.33	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	90	908		122	926		180	1635			915	
v/s Ratio Prot	0.03	c0.19		0.04	c0.20		c0.06	0.10				
v/s Ratio Perm											c0.12	
v/c Ratio	0.60	0.70		0.50	0.69		0.55	0.19			0.36	
Uniform Delay, d1	37.6	26.6		36.1	25.5		34.5	11.6			20.5	
Progression Factor	1.00	1.00		1.00	1.00		0.73	0.61			0.66	
Incremental Delay, d2	10.3	2.3		3.2	2.3		2.9	0.2			0.2	
Delay (s)	47.9	28.9		39.3	27.8		28.0	7.3			13.8	
Level of Service	D	C		D	C		C	A			B	
Approach Delay (s)		30.4			28.8			11.8			13.8	
Approach LOS		C			C			B			B	

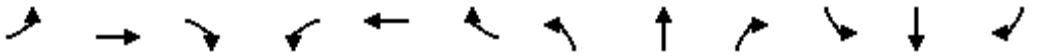
Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	58	339	110	396	94	409	78	480
Future Volume (vph)	58	339	110	396	94	409	78	480
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	23.0	18.0	30.0	40.0	40.0	40.0	40.0
Total Split (%)	13.6%	28.4%	22.2%	37.0%	49.4%	49.4%	49.4%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.3	16.1	10.5	20.1		43.1		43.1
Actuated g/C Ratio	0.08	0.20	0.13	0.25		0.53		0.53
v/c Ratio	0.46	0.69	0.52	0.64		0.45		0.48
Control Delay	49.5	24.9	24.2	22.4		14.6		12.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	49.5	24.9	24.2	22.4		14.6		12.8
LOS	D	C	C	C		B		B
Approach Delay		27.7		22.7		14.6		12.8
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 44 (54%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	339	115	110	396	119	94	409	58	78	480	98
Future Volume (veh/h)	58	339	115	110	396	119	94	409	58	78	480	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	62	365	124	118	426	128	101	440	62	84	516	105
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	79	462	155	150	585	174	263	1169	173	217	1286	265
Arrive On Green	0.05	0.18	0.18	0.09	0.22	0.22	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1753	2573	862	1753	2656	791	355	2058	305	284	2264	466
Grp Volume(v), veh/h	62	246	243	118	279	275	273	0	330	347	0	358
Grp Sat Flow(s),veh/h/ln	1753	1749	1686	1753	1749	1698	1098	0	1620	1424	0	1591
Q Serve(g_s), s	2.8	10.9	11.2	5.3	12.0	12.2	6.3	0.0	8.9	3.4	0.0	10.2
Cycle Q Clear(g_c), s	2.8	10.9	11.2	5.3	12.0	12.2	16.5	0.0	8.9	12.3	0.0	10.2
Prop In Lane	1.00		0.51	1.00		0.47	0.37		0.19	0.24		0.29
Lane Grp Cap(c), veh/h	79	314	303	150	385	374	684	0	920	864	0	904
V/C Ratio(X)	0.79	0.78	0.80	0.78	0.72	0.73	0.40	0.00	0.36	0.40	0.00	0.40
Avail Cap(c_a), veh/h	141	399	385	292	551	535	684	0	920	864	0	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.42	0.42	0.42	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.3	31.7	31.8	36.3	29.3	29.4	11.1	0.0	9.5	9.8	0.0	9.8
Incr Delay (d2), s/veh	15.5	7.7	9.1	3.8	1.2	1.3	1.7	0.0	1.1	1.4	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.1	5.2	2.4	5.0	4.9	3.2	0.0	3.1	3.3	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	39.4	41.0	40.1	30.4	30.7	12.8	0.0	10.6	11.2	0.0	11.1
LnGrp LOS	D	D	D	D	C	C	B	A	B	B	A	B
Approach Vol, veh/h		551			672			603			705	
Approach Delay, s/veh		41.7			32.2			11.6			11.1	
Approach LOS		D			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		50.5	11.4	19.1		50.5	8.1	22.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	13.5	18.5		35.5	6.5	25.5				
Max Q Clear Time (g_c+I1), s		18.5	7.3	13.2		14.3	4.8	14.2				
Green Ext Time (p_c), s		3.9	0.1	1.4		4.8	0.0	2.6				

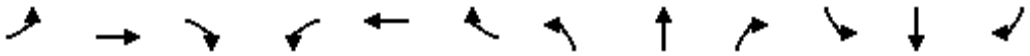
Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	44	3	2	1	128	527	2	805
Future Volume (vph)	44	3	2	1	128	527	2	805
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	23.0	23.0	23.0	58.0	58.0	58.0	58.0
Total Split (%)	28.4%	28.4%	28.4%	28.4%	71.6%	71.6%	71.6%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		7.4		7.4		64.6		64.6
Actuated g/C Ratio		0.09		0.09		0.80		0.80
v/c Ratio		0.52		0.01		0.39		0.35
Control Delay		15.5		0.0		1.6		2.9
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		15.5		0.0		1.6		2.9
LOS		B		A		A		A
Approach Delay		15.5				1.6		2.9
Approach LOS		B				A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 77 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 3.8	Intersection LOS: A
Intersection Capacity Utilization 69.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	3	145	2	1	4	128	527	2	2	805	62
Future Volume (veh/h)	44	3	145	2	1	4	128	527	2	2	805	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	47	3	154	2	1	4	136	561	2	2	856	66
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	264	14	194	103	37	194	373	1570	6	45	2423	186
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1301	104	1420	211	271	1420	406	2088	8	1	3221	248
Grp Volume(v), veh/h	50	0	154	3	0	4	259	0	440	490	0	434
Grp Sat Flow(s),veh/h/ln	1406	0	1420	483	0	1420	828	0	1674	1840	0	1630
Q Serve(g_s), s	2.4	0.0	8.5	0.0	0.0	0.2	6.1	0.0	7.2	0.0	0.0	7.3
Cycle Q Clear(g_c), s	2.6	0.0	8.5	8.5	0.0	0.2	13.4	0.0	7.2	7.3	0.0	7.3
Prop In Lane	0.94		1.00	0.67		1.00	0.53		0.00	0.00		0.15
Lane Grp Cap(c), veh/h	279	0	194	140	0	194	691	0	1259	1428	0	1226
V/C Ratio(X)	0.18	0.00	0.79	0.02	0.00	0.02	0.37	0.00	0.35	0.34	0.00	0.35
Avail Cap(c_a), veh/h	408	0	324	265	0	324	691	0	1259	1428	0	1226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	33.8	30.6	0.0	30.3	4.2	0.0	3.4	3.4	0.0	3.4
Incr Delay (d2), s/veh	0.3	0.0	7.1	0.1	0.0	0.0	1.6	0.0	0.8	0.7	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.2	0.1	0.0	0.1	1.0	0.0	1.6	1.8	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	0.0	41.0	30.6	0.0	30.3	5.7	0.0	4.1	4.0	0.0	4.2
LnGrp LOS	C	A	D	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		204			7			699			924	
Approach Delay, s/veh		38.7			30.4			4.7			4.1	
Approach LOS		D			C			A			A	

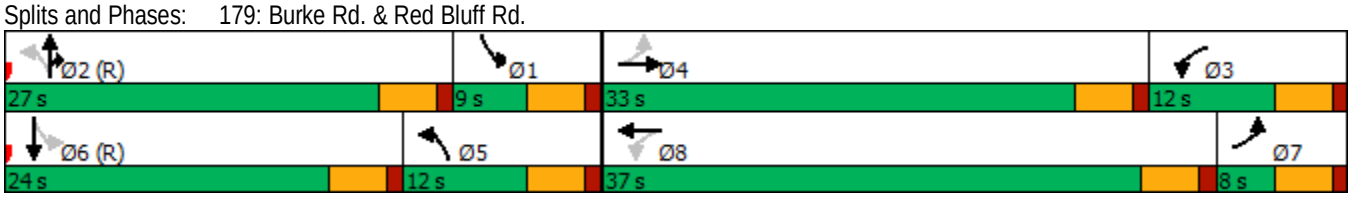
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.4		15.6		65.4		15.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		53.5		18.5		53.5		18.5				
Max Q Clear Time (g_c+I1), s		15.4		10.5		9.3		10.5				
Green Ext Time (p_c), s		5.9		0.7		6.6		0.0				

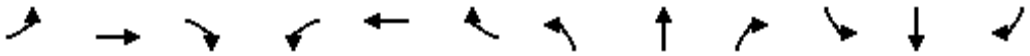
Intersection Summary												
HCM 6th Ctrl Delay			8.3									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	25	672	106	713	193	233	80	96	188
Future Volume (vph)	25	672	106	713	193	233	80	96	188
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	33.0	12.0	37.0	12.0	27.0	27.0	9.0	24.0
Total Split (%)	9.9%	40.7%	14.8%	45.7%	14.8%	33.3%	33.3%	11.1%	29.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	31.6	27.1	36.3	32.2	34.9	28.9	28.9	29.0	24.5
Actuated g/C Ratio	0.39	0.33	0.45	0.40	0.43	0.36	0.36	0.36	0.30
v/c Ratio	0.12	0.84	0.50	0.62	0.46	0.40	0.14	0.29	0.45
Control Delay	14.5	31.0	19.3	6.8	15.2	21.9	2.8	19.7	27.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	31.0	19.3	6.8	15.2	21.9	2.8	19.7	27.1
LOS	B	C	B	A	B	C	A	B	C
Approach Delay		30.6		8.2		16.3			24.9
Approach LOS		C		A		B			C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 75.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	672	250	106	713	105	193	233	80	96	188	40
Future Volume (veh/h)	25	672	250	106	713	105	193	233	80	96	188	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	26	693	258	109	735	108	199	240	82	99	194	41
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	244	799	298	181	919	135	534	511	433	472	355	75
Arrive On Green	0.06	0.32	0.32	0.04	0.30	0.30	0.18	0.28	0.28	0.14	0.24	0.24
Sat Flow, veh/h	1753	2494	928	1753	3059	449	1753	1841	1560	1753	1473	311
Grp Volume(v), veh/h	26	486	465	109	420	423	199	240	82	99	0	235
Grp Sat Flow(s),veh/h/ln	1753	1749	1674	1753	1749	1760	1753	1841	1560	1753	0	1785
Q Serve(g_s), s	0.0	21.2	21.2	0.0	17.9	17.9	0.0	8.8	3.2	0.0	0.0	9.3
Cycle Q Clear(g_c), s	0.0	21.2	21.2	0.0	17.9	17.9	0.0	8.8	3.2	0.0	0.0	9.3
Prop In Lane	1.00		0.55	1.00		0.26	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	244	560	536	181	525	529	534	511	433	472	0	430
V/C Ratio(X)	0.11	0.87	0.87	0.60	0.80	0.80	0.37	0.47	0.19	0.21	0.00	0.55
Avail Cap(c_a), veh/h	244	615	589	274	702	706	534	511	433	472	0	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.46	0.46	0.46	0.95	0.95	0.95	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	25.9	25.9	37.0	26.1	26.1	24.2	24.3	22.3	23.7	0.0	26.9
Incr Delay (d2), s/veh	0.2	11.7	12.2	1.5	2.3	2.3	0.4	2.9	0.9	0.2	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.2	9.8	2.1	7.4	7.5	3.1	4.0	1.3	1.5	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	37.6	38.1	38.5	28.4	28.4	24.6	27.2	23.2	23.9	0.0	31.8
LnGrp LOS	C	D	D	D	C	C	C	C	C	C	A	C
Approach Vol, veh/h		977			952			521			334	
Approach Delay, s/veh		37.7			29.5			25.6			29.5	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	27.0	7.7	30.5	18.8	24.0	9.3	28.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	22.5	7.5	28.5	7.5	19.5	3.5	32.5
Max Q Clear Time (g_c+I1), s	2.0	10.8	2.0	23.2	2.0	11.3	2.0	19.9
Green Ext Time (p_c), s	0.0	1.2	0.1	2.8	0.2	0.8	0.0	4.4

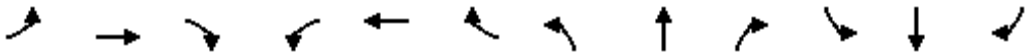
Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	60	4	60	25	250	15	800
Future Volume (vph)	20	60	4	60	25	250	15	800
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	25.0	25.0	25.0	56.0	56.0	56.0	56.0
Total Split (%)	30.9%	30.9%	30.9%	30.9%	69.1%	69.1%	69.1%	69.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	8.6	8.6		66.3		66.3
Actuated g/C Ratio	0.11	0.11	0.11	0.11		0.82		0.82
v/c Ratio	0.16	0.43	0.03	0.35		0.13		0.34
Control Delay	23.8	22.9	31.0	36.1		1.4		0.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	23.8	22.9	31.0	36.1		1.4		0.3
LOS	C	C	C	D		A		A
Approach Delay		23.1		35.8		1.4		0.3
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 64 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 4.1	Intersection LOS: A
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Future Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	22	65	22	4	65	4	27	272	27	16	870	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	106	36	131	138	8	194	2007	210	66	2749	50
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.27	0.27	0.27
Sat Flow, veh/h	1311	1315	445	1289	1716	106	176	2482	260	25	3399	62
Grp Volume(v), veh/h	22	0	87	4	0	69	157	0	169	472	0	430
Grp Sat Flow(s),veh/h/ln	1311	0	1761	1289	0	1822	1290	0	1628	1822	0	1664
Q Serve(g_s), s	1.3	0.0	3.9	0.2	0.0	2.9	0.9	0.0	1.8	0.0	0.0	16.8
Cycle Q Clear(g_c), s	4.3	0.0	3.9	4.1	0.0	2.9	17.7	0.0	1.8	16.6	0.0	16.8
Prop In Lane	1.00		0.25	1.00		0.06	0.17		0.16	0.03		0.04
Lane Grp Cap(c), veh/h	147	0	141	131	0	146	1095	0	1317	1519	0	1345
V/C Ratio(X)	0.15	0.00	0.62	0.03	0.00	0.47	0.14	0.00	0.13	0.31	0.00	0.32
Avail Cap(c_a), veh/h	373	0	446	354	0	461	1095	0	1317	1519	0	1345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.48	0.00	0.48
Uniform Delay (d), s/veh	37.6	0.0	36.0	38.0	0.0	35.6	2.0	0.0	1.7	11.8	0.0	11.8
Incr Delay (d2), s/veh	0.5	0.0	4.3	0.1	0.0	2.3	0.3	0.0	0.2	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.8	0.1	0.0	1.4	0.3	0.0	0.3	8.2	0.0	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	40.3	38.1	0.0	38.0	2.3	0.0	1.9	12.0	0.0	12.1
LnGrp LOS	D	A	D	D	A	D	A	A	A	B	A	B
Approach Vol, veh/h		109			73			326			902	
Approach Delay, s/veh		39.9			38.0			2.1			12.1	
Approach LOS		D			D			A			B	

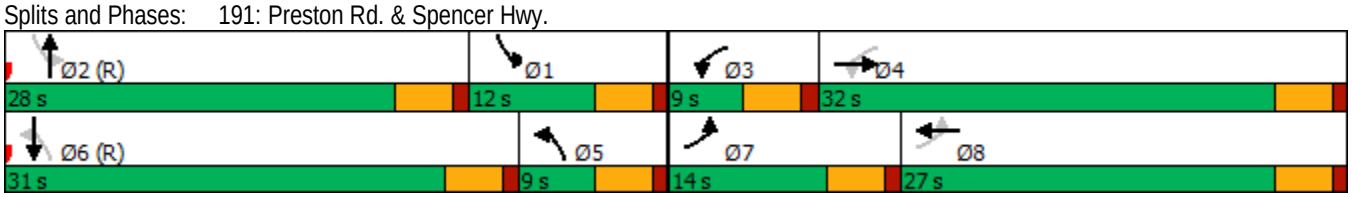
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		11.0		70.0		11.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		51.5		20.5		51.5		20.5				
Max Q Clear Time (g_c+I1), s		19.7		6.3		18.8		6.1				
Green Ext Time (p_c), s		2.2		0.4		6.8		0.2				

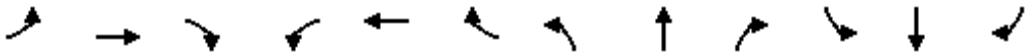
Intersection Summary												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	290	1322	152	1345	152	698	203	826
Future Volume (vph)	290	1322	152	1345	152	698	203	826
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	32.0	9.0	27.0	9.0	28.0	12.0	31.0
Total Split (%)	17.3%	39.5%	11.1%	33.3%	11.1%	34.6%	14.8%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	32.0	27.5	32.0	22.5	31.0	23.5	31.0	26.5
Actuated g/C Ratio	0.40	0.34	0.40	0.28	0.38	0.29	0.38	0.33
v/c Ratio	1.01	0.99	0.83	1.10	0.83	0.83	0.83	1.03
Control Delay	77.6	47.3	53.4	87.3	46.3	21.0	47.1	54.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.6	47.3	53.4	87.3	46.3	21.0	47.1	54.5
LOS	E	D	D	F	D	C	D	D
Approach Delay		52.0		84.1		24.9		53.4
Approach LOS		D		F		C		D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 36 (44%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 56.9	Intersection LOS: E
Intersection Capacity Utilization 106.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	1322	265	152	1345	150	152	698	120	203	826	322
Future Volume (veh/h)	290	1322	265	152	1345	150	152	698	120	203	826	322
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	296	1349	270	155	1372	153	155	712	122	207	843	329
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	294	1426	285	194	1274	142	186	866	148	295	805	313
Arrive On Green	0.12	0.34	0.34	0.06	0.28	0.28	0.06	0.29	0.29	0.09	0.33	0.33
Sat Flow, veh/h	1753	4200	840	1753	4587	512	1753	2986	511	1753	2460	957
Grp Volume(v), veh/h	296	1076	543	155	1002	523	155	417	417	207	599	573
Grp Sat Flow(s),veh/h/ln	1753	1675	1690	1753	1675	1749	1753	1749	1749	1753	1749	1668
Q Serve(g_s), s	9.5	25.3	25.3	4.5	22.5	22.5	2.9	18.0	18.0	2.9	26.5	26.5
Cycle Q Clear(g_c), s	9.5	25.3	25.3	4.5	22.5	22.5	2.9	18.0	18.0	2.9	26.5	26.5
Prop In Lane	1.00		0.50	1.00		0.29	1.00		0.29	1.00		0.57
Lane Grp Cap(c), veh/h	294	1137	574	194	931	486	186	507	507	295	572	546
V/C Ratio(X)	1.01	0.95	0.95	0.80	1.08	1.08	0.83	0.82	0.82	0.70	1.05	1.05
Avail Cap(c_a), veh/h	294	1137	574	194	931	486	186	507	507	295	572	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.58	0.58	0.58	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	21.5	26.0	26.0	21.8	29.2	29.3	36.7	26.8	26.8	33.2	27.3	27.3
Incr Delay (d2), s/veh	40.2	9.9	16.6	12.6	46.3	53.9	26.2	13.9	14.0	6.8	49.0	51.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	10.7	11.9	2.4	14.3	15.9	4.2	9.1	9.1	4.2	18.2	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.6	35.9	42.7	34.4	75.5	83.1	62.9	40.7	40.8	39.9	76.2	78.3
LnGrp LOS	F	D	D	C	F	F	E	D	D	D	F	F
Approach Vol, veh/h		1915			1680			989			1379	
Approach Delay, s/veh		41.8			74.1			44.2			71.7	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	28.0	9.0	32.0	9.0	31.0	14.0	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	23.5	4.5	27.5	4.5	26.5	9.5	22.5
Max Q Clear Time (g_c+I1), s	4.9	20.0	6.5	27.3	4.9	28.5	11.5	24.5
Green Ext Time (p_c), s	0.1	1.7	0.0	0.1	0.0	0.0	0.0	0.0

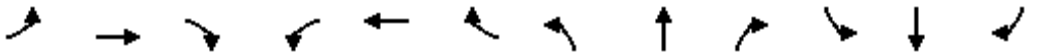
Intersection Summary	
HCM 6th Ctrl Delay	58.2
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	102	360	130	426	124	687	99	794
Future Volume (vph)	102	360	130	426	124	687	99	794
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	14.0	27.0	14.0	27.0	14.0	46.8	12.2	45.0
Total Split (%)	14.0%	27.0%	14.0%	27.0%	14.0%	46.8%	12.2%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	28.5	18.5	27.6	22.0	54.4	49.0	55.3	45.9
Actuated g/C Ratio	0.28	0.18	0.28	0.22	0.54	0.49	0.55	0.46
v/c Ratio	0.46	0.74	0.54	0.71	0.42	0.48	0.28	0.61
Control Delay	37.5	42.3	32.6	40.1	14.6	19.3	12.2	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	42.3	32.6	40.1	14.6	19.3	12.2	22.8
LOS	D	D	C	D	B	B	B	C
Approach Delay		41.5		38.6		18.7		21.8
Approach LOS		D		D		B		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 27.9	Intersection LOS: C
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	360	116	130	426	100	124	687	101	99	794	141
Future Volume (veh/h)	102	360	116	130	426	100	124	687	101	99	794	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	104	367	118	133	435	102	127	701	103	101	810	144
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	220	452	143	244	522	121	357	1592	234	406	1525	271
Arrive On Green	0.07	0.17	0.17	0.08	0.19	0.19	0.05	0.52	0.52	0.05	0.51	0.51
Sat Flow, veh/h	1753	2612	828	1753	2816	655	1753	3059	449	1753	2967	527
Grp Volume(v), veh/h	104	244	241	133	269	268	127	400	404	101	477	477
Grp Sat Flow(s),veh/h/ln	1753	1749	1692	1753	1749	1723	1753	1749	1760	1753	1749	1746
Q Serve(g_s), s	0.0	13.4	13.7	6.1	14.8	15.0	3.4	14.2	14.3	2.6	18.2	18.3
Cycle Q Clear(g_c), s	0.0	13.4	13.7	6.1	14.8	15.0	3.4	14.2	14.3	2.6	18.2	18.3
Prop In Lane	1.00		0.49	1.00		0.38	1.00		0.26	1.00		0.30
Lane Grp Cap(c), veh/h	220	303	293	244	324	319	357	910	916	406	899	897
V/C Ratio(X)	0.47	0.81	0.82	0.55	0.83	0.84	0.36	0.44	0.44	0.25	0.53	0.53
Avail Cap(c_a), veh/h	268	393	381	271	393	388	430	910	916	459	899	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	39.7	39.9	31.3	39.2	39.3	12.2	14.9	14.9	11.1	16.2	16.2
Incr Delay (d2), s/veh	1.6	9.1	10.7	1.9	11.8	13.0	0.5	1.4	1.4	0.3	2.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	6.4	6.4	2.7	7.3	7.4	1.3	5.7	5.7	1.0	7.5	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	48.8	50.6	33.2	51.0	52.3	12.8	16.3	16.3	11.5	18.5	18.5
LnGrp LOS	D	D	D	C	D	D	B	B	B	B	B	B
Approach Vol, veh/h		589			670			931			1055	
Approach Delay, s/veh		48.8			48.0			15.8			17.8	
Approach LOS		D			D			B			B	

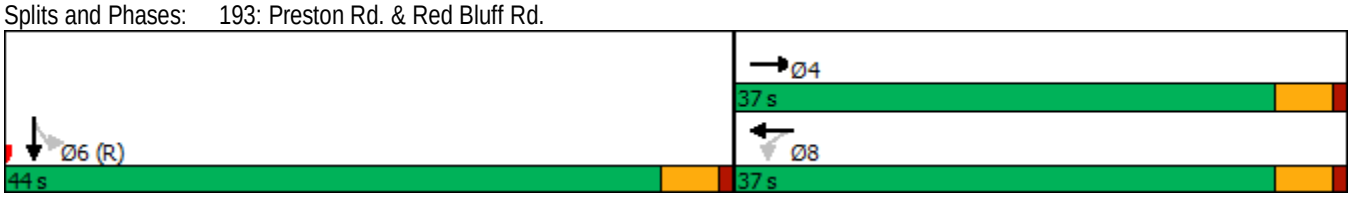
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	56.5	12.5	21.8	9.8	55.9	11.2	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.7	42.3	9.5	22.5	9.5	40.5	9.5	22.5
Max Q Clear Time (g_c+I1), s	4.6	16.3	8.1	15.7	5.4	20.3	2.0	17.0
Green Ext Time (p_c), s	0.1	5.3	0.0	1.6	0.1	6.4	0.1	1.5

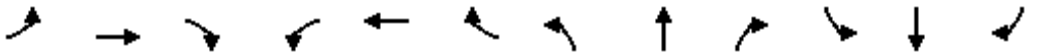
Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	687	53	1041	940
Future Volume (vph)	687	53	1041	940
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	44.0
Total Split (%)	45.7%	45.7%	45.7%	54.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	31.1	31.1	31.1	40.9
Actuated g/C Ratio	0.38	0.38	0.38	0.50
v/c Ratio	0.79	0.62	0.82	0.79
Control Delay	11.8	45.6	21.1	20.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.8	45.6	21.1	20.9
LOS	B	D	C	C
Approach Delay	11.8		22.3	20.9
Approach LOS	B		C	C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 71 (88%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 85.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	687	304	53	1041	0	0	0	0	257	940	91
Future Volume (veh/h)	0	687	304	53	1041	0	0	0	0	257	940	91
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	723	320	56	1096	0				271	989	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	939	415	159	1392	0				358	1386	
Arrive On Green	0.00	0.40	0.40	0.80	0.80	0.00				0.49	0.49	0.00
Sat Flow, veh/h	0	2450	1043	532	3589	0				730	2915	0
Grp Volume(v), veh/h	0	536	507	56	1096	0				670	590	0
Grp Sat Flow(s),veh/h/ln	0	1749	1653	532	1749	0				1804	1749	0
Q Serve(g_s), s	0.0	21.6	21.6	7.9	13.9	0.0				24.4	21.0	0.0
Cycle Q Clear(g_c), s	0.0	21.6	21.6	29.5	13.9	0.0				24.4	21.0	0.0
Prop In Lane	0.00		0.63	1.00		0.00				0.40		0.00
Lane Grp Cap(c), veh/h	0	696	658	159	1392	0				886	858	
V/C Ratio(X)	0.00	0.77	0.77	0.35	0.79	0.00				0.76	0.69	
Avail Cap(c_a), veh/h	0	702	663	161	1403	0				886	858	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.59	0.59	0.75	0.75	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	21.2	21.2	18.0	6.4	0.0				16.7	15.8	0.0
Incr Delay (d2), s/veh	0.0	3.1	3.3	1.0	2.3	0.0				6.0	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.8	8.4	0.8	2.7	0.0				10.6	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.3	24.5	19.0	8.7	0.0				22.7	20.3	0.0
LnGrp LOS	A	C	C	B	A	A				C	C	
Approach Vol, veh/h		1043			1152						1260	A
Approach Delay, s/veh		24.4			9.2						21.6	
Approach LOS		C			A						C	

Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				36.7		44.3		36.7				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				32.5		39.5		32.5				
Max Q Clear Time (g_c+I1), s				23.6		26.4		31.5				
Green Ext Time (p_c), s				4.5		7.0		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			18.3									
HCM 6th LOS			B									

Notes

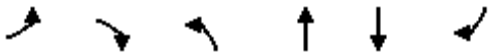
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	96	177	192	1147	1283
Future Volume (vph)	96	177	192	1147	1283
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	14.0	61.0	47.0
Total Split (%)	24.7%	24.7%	17.3%	75.3%	58.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	10.1	10.1	61.9	61.9	47.9
Actuated g/C Ratio	0.12	0.12	0.76	0.76	0.59
v/c Ratio	0.48	0.53	0.62	0.47	0.77
Control Delay	40.0	11.3	18.8	1.8	16.6
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	40.0	11.3	18.8	1.9	16.6
LOS	D	B	B	A	B
Approach Delay	21.4			4.3	16.6
Approach LOS	C			A	B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 17 (21%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	96	177	192	1147	1283	160
Future Volume (veh/h)	96	177	192	1147	1283	160
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	97	179	194	1159	1296	162
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	246	219	442	2618	1642	204
Arrive On Green	0.14	0.14	0.34	1.00	0.52	0.52
Sat Flow, veh/h	1753	1560	1753	3589	3222	389
Grp Volume(v), veh/h	97	179	194	1159	721	737
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1771
Q Serve(g_s), s	4.1	9.0	0.0	0.0	27.0	27.5
Cycle Q Clear(g_c), s	4.1	9.0	0.0	0.0	27.0	27.5
Prop In Lane	1.00	1.00	1.00			0.22
Lane Grp Cap(c), veh/h	246	219	442	2618	918	929
V/C Ratio(X)	0.39	0.82	0.44	0.44	0.79	0.79
Avail Cap(c_a), veh/h	335	299	442	2618	918	929
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	0.77	0.77
Uniform Delay (d), s/veh	31.7	33.8	20.4	0.0	15.6	15.7
Incr Delay (d2), s/veh	1.0	12.0	0.6	0.5	5.3	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	8.2	2.5	0.2	10.6	11.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.7	45.8	21.0	0.5	20.8	21.1
LnGrp LOS	C	D	C	A	C	C
Approach Vol, veh/h	276			1353	1458	
Approach Delay, s/veh	41.2			3.5	21.0	
Approach LOS	D			A	C	

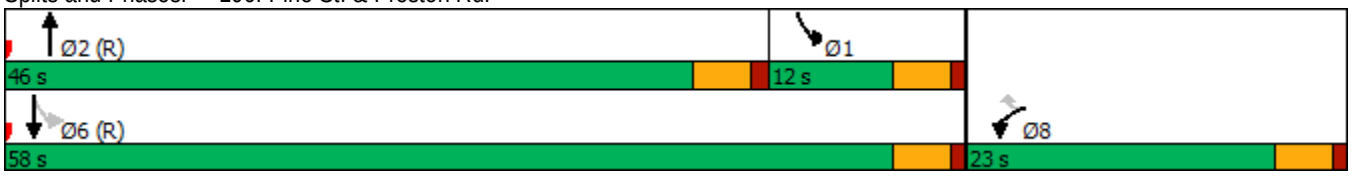
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		65.1		15.9	18.1	47.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		56.5		15.5	9.5	42.5
Max Q Clear Time (g_c+I1), s		2.0		11.0	2.0	29.5
Green Ext Time (p_c), s		11.3		0.4	0.3	7.9

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	34	98	793	95	1094
Future Volume (vph)	34	98	793	95	1094
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	23.0	23.0	46.0	12.0	58.0
Total Split (%)	28.4%	28.4%	56.8%	14.8%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	7.3	58.0	67.6	67.6
Actuated g/C Ratio	0.09	0.09	0.72	0.83	0.83
v/c Ratio	0.22	0.44	0.35	0.17	0.39
Control Delay	36.8	13.8	1.9	0.8	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	36.8	13.8	1.9	0.8	0.7
LOS	D	B	A	A	A
Approach Delay	19.7		1.9		0.7
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 2.3	Intersection LOS: A
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	98	793	43	95	1094
Future Volume (veh/h)	34	98	793	43	95	1094
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	35	101	818	44	98	1128
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	152	136	1729	93	709	2805
Arrive On Green	0.09	0.09	0.51	0.51	0.47	1.00
Sat Flow, veh/h	1753	1560	3467	182	1753	3589
Grp Volume(v), veh/h	35	101	424	438	98	1128
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1808	1753	1749
Q Serve(g_s), s	1.5	5.1	12.6	12.6	0.0	0.0
Cycle Q Clear(g_c), s	1.5	5.1	12.6	12.6	0.0	0.0
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	152	136	896	926	709	2805
V/C Ratio(X)	0.23	0.74	0.47	0.47	0.14	0.40
Avail Cap(c_a), veh/h	400	356	896	926	709	2805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.36	0.36	0.59	0.59
Uniform Delay (d), s/veh	34.5	36.1	12.7	12.7	5.9	0.0
Incr Delay (d2), s/veh	0.8	7.8	0.6	0.6	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.2	4.7	4.8	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.2	43.9	13.4	13.3	6.0	0.3
LnGrp LOS	D	D	B	B	A	A
Approach Vol, veh/h	136		862			1226
Approach Delay, s/veh	41.7		13.3			0.7
Approach LOS	D		B			A

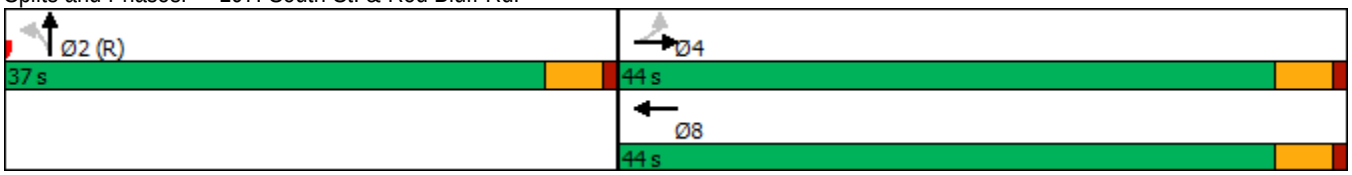
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	23.5	46.0			69.5	11.5
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	7.5	41.5			53.5	18.5
Max Q Clear Time (g_c+I1), s	2.0	14.6			2.0	7.1
Green Ext Time (p_c), s	0.1	6.1			11.4	0.3

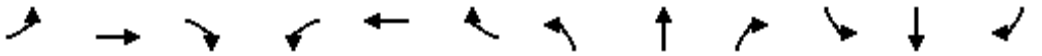
Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	74	728	677	337	511
Future Volume (vph)	74	728	677	337	511
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	44.0	44.0	44.0	37.0	37.0
Total Split (%)	54.3%	54.3%	54.3%	45.7%	45.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	29.8	29.8	29.8	42.2	42.2
Actuated g/C Ratio	0.37	0.37	0.37	0.52	0.52
v/c Ratio	0.69	0.59	0.71	0.39	0.30
Control Delay	40.2	22.7	23.1	9.9	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	22.7	23.1	9.9	8.5
LOS	D	C	C	A	A
Approach Delay		24.3	23.1		9.0
Approach LOS		C	C		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 77 (95%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 85.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	728	0	0	677	194	337	511	13	0	0	0
Future Volume (veh/h)	74	728	0	0	677	194	337	511	13	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	77	758	0	0	705	0	351	532	0			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	220	1204	0	0	1204		955	1904				
Arrive On Green	0.69	0.69	0.00	0.00	0.34	0.00	0.18	0.18	0.00			
Sat Flow, veh/h	731	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	77	758	0	0	705	0	351	532	0			
Grp Sat Flow(s),veh/h/ln	731	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	6.9	9.6	0.0	0.0	13.4	0.0	14.2	10.6	0.0			
Cycle Q Clear(g_c), s	20.4	9.6	0.0	0.0	13.4	0.0	14.2	10.6	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	220	1204	0	0	1204		955	1904				
V/C Ratio(X)	0.35	0.63	0.00	0.00	0.59		0.37	0.28				
Avail Cap(c_a), veh/h	324	1706	0	0	1706		955	1904				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.51	0.51	0.00	0.00	0.94	0.00	0.94	0.94	0.00			
Uniform Delay (d), s/veh	16.9	9.8	0.0	0.0	21.8	0.0	21.0	19.5	0.0			
Incr Delay (d2), s/veh	0.5	0.3	0.0	0.0	0.4	0.0	1.0	0.3	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	2.4	0.0	0.0	5.3	0.0	6.9	4.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	10.0	0.0	0.0	22.2	0.0	22.0	19.8	0.0			
LnGrp LOS	B	B	A	A	C		C	B				
Approach Vol, veh/h		835			705	A		883	A			
Approach Delay, s/veh		10.7			22.2			20.7				
Approach LOS		B			C			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		48.6		32.4				32.4				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		32.5		39.5				39.5				
Max Q Clear Time (g_c+I1), s		16.2		22.4				15.4				
Green Ext Time (p_c), s		4.3		5.5				5.2				

Intersection Summary		
HCM 6th Ctrl Delay		17.7
HCM 6th LOS		B

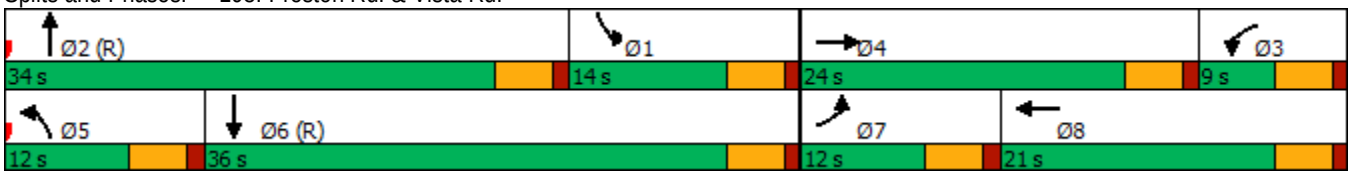
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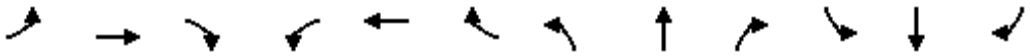
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	104	474	50	408	93	668	137	833
Future Volume (vph)	104	474	50	408	93	668	137	833
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	24.0	9.0	21.0	12.0	34.0	14.0	36.0
Total Split (%)	14.8%	29.6%	11.1%	25.9%	14.8%	42.0%	17.3%	44.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.4	18.7	4.7	16.3	7.3	32.1	9.5	36.5
Actuated g/C Ratio	0.09	0.23	0.06	0.20	0.09	0.40	0.12	0.45
v/c Ratio	0.71	0.85	0.54	0.88	0.66	0.58	0.72	0.65
Control Delay	54.5	34.1	59.3	43.2	57.5	21.7	28.6	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	34.1	59.3	43.2	57.5	21.7	28.6	8.0
LOS	D	C	E	D	E	C	C	A
Approach Delay		36.9		44.5		25.7		10.6
Approach LOS		D		D		C		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 68 (84%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 26.9	Intersection LOS: C
Intersection Capacity Utilization 75.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	474	182	50	408	173	93	668	72	137	833	109
Future Volume (veh/h)	104	474	182	50	408	173	93	668	72	137	833	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	504	194	53	434	184	99	711	77	146	886	116
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	140	570	218	92	487	205	126	1159	125	229	1315	172
Arrive On Green	0.08	0.23	0.23	0.05	0.20	0.20	0.07	0.36	0.36	0.13	0.42	0.42
Sat Flow, veh/h	1753	2472	947	1753	2400	1008	1753	3183	344	1753	3109	407
Grp Volume(v), veh/h	111	356	342	53	315	303	99	390	398	146	498	504
Grp Sat Flow(s),veh/h/ln	1753	1749	1670	1753	1749	1659	1753	1749	1779	1753	1749	1767
Q Serve(g_s), s	5.0	15.9	16.1	2.4	14.2	14.4	4.5	14.8	14.8	6.4	18.6	18.6
Cycle Q Clear(g_c), s	5.0	15.9	16.1	2.4	14.2	14.4	4.5	14.8	14.8	6.4	18.6	18.6
Prop In Lane	1.00		0.57	1.00		0.61	1.00		0.19	1.00		0.23
Lane Grp Cap(c), veh/h	140	403	385	92	355	337	126	637	648	229	740	748
V/C Ratio(X)	0.79	0.88	0.89	0.58	0.89	0.90	0.79	0.61	0.61	0.64	0.67	0.67
Avail Cap(c_a), veh/h	162	421	402	97	356	338	162	637	648	229	740	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	30.1	30.1	37.5	31.4	31.5	37.0	21.1	21.1	33.4	18.9	18.9
Incr Delay (d2), s/veh	14.2	13.3	14.6	7.4	22.6	25.5	13.0	3.2	3.1	5.8	4.9	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	7.7	7.6	1.2	7.8	7.8	2.3	6.1	6.2	3.0	7.7	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	43.4	44.7	44.9	54.0	57.0	50.0	24.2	24.2	39.2	23.7	23.7
LnGrp LOS	D	D	D	D	D	E	D	C	C	D	C	C
Approach Vol, veh/h		809			671			887			1148	
Approach Delay, s/veh		45.0			54.6			27.1			25.7	
Approach LOS		D			D			C			C	

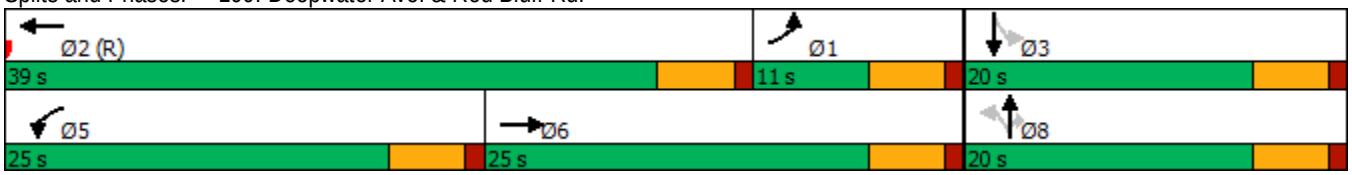
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	34.0	8.7	23.2	10.3	38.8	11.0	21.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	29.5	4.5	19.5	7.5	31.5	7.5	16.5
Max Q Clear Time (g_c+I1), s	8.4	16.8	4.4	18.1	6.5	20.6	7.0	16.4
Green Ext Time (p_c), s	0.0	3.8	0.0	0.6	0.0	4.5	0.0	0.0

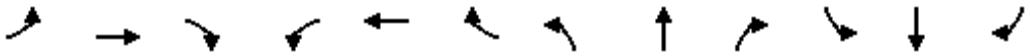
Intersection Summary	
HCM 6th Ctrl Delay	36.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	58	515	255	667	8	113	252	40	155
Future Volume (vph)	58	515	255	667	8	113	252	40	155
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	25.0	25.0	39.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	15.7%	35.7%	35.7%	55.7%	28.6%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lag	Lag	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)	5.9	28.0	15.4	41.8		11.6	11.6		11.6
Actuated g/C Ratio	0.08	0.40	0.22	0.60		0.17	0.17		0.17
v/c Ratio	0.41	0.40	0.69	0.35		0.42	0.55		0.49
Control Delay	39.3	17.4	34.2	9.0		30.4	8.5		24.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	39.3	17.4	34.2	9.0		30.4	8.5		24.0
LOS	D	B	C	A		C	A		C
Approach Delay		19.6		15.7		15.5			24.0
Approach LOS		B		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





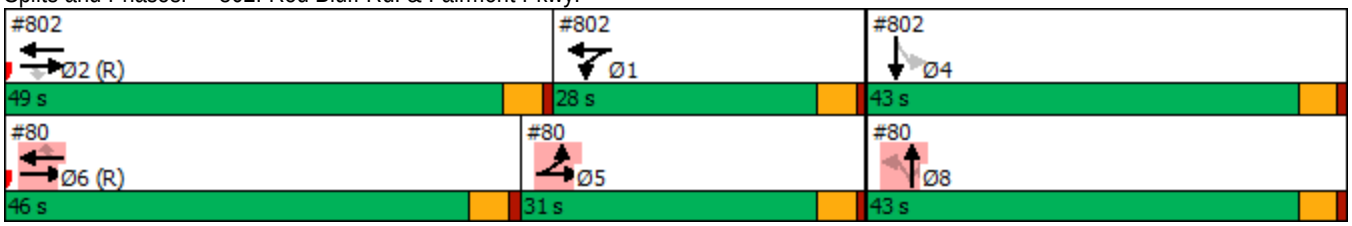
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	515	22	255	667	39	8	113	252	40	155	59
Future Volume (vph)	58	515	22	255	667	39	8	113	252	40	155	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	0.99		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3450		1736	3443			1821	1553		3324	
Flt Permitted	0.95	1.00		0.95	1.00			0.97	1.00		0.88	
Satd. Flow (perm)	1736	3450		1736	3443			1765	1553		2958	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	60	531	23	263	688	40	8	116	260	41	160	61
RTOR Reduction (vph)	0	4	0	0	5	0	0	0	217	0	43	0
Lane Group Flow (vph)	60	550	0	263	723	0	0	124	43	0	219	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	3.6	28.0		15.4	39.8			11.6	11.6		11.6	
Effective Green, g (s)	3.6	28.0		15.4	39.8			11.6	11.6		11.6	
Actuated g/C Ratio	0.05	0.40		0.22	0.57			0.17	0.17		0.17	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	89	1380		381	1957			292	257		490	
v/s Ratio Prot	0.03	c0.16		c0.15	0.21							
v/s Ratio Perm								0.07	0.03		c0.07	
v/c Ratio	0.67	0.40		0.69	0.37			0.42	0.17		0.45	
Uniform Delay, d1	32.6	15.0		25.1	8.2			26.2	25.1		26.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	18.3	0.2		5.3	0.5			1.0	0.3		0.6	
Delay (s)	50.9	15.2		30.4	8.8			27.2	25.4		27.0	
Level of Service	D	B		C	A			C	C		C	
Approach Delay (s)		18.7			14.5			26.0			27.0	
Approach LOS		B			B			C			C	

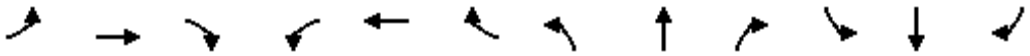
Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	1086	169	152	1318	183	549			
Future Volume (vph)	1086	169	152	1318	183	549			
Turn Type	NA	Perm	Prot	NA	Perm	NA			
Protected Phases	2		1	1 2		4	5	6	8
Permitted Phases		2			4				
Detector Phase	2	2	1	1 2	4	4			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	49.0	49.0	28.0		43.0	43.0	31.0	46.0	43.0
Total Split (%)	40.8%	40.8%	23.3%		35.8%	35.8%	26%	38%	36%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5			
Lead/Lag	Lead	Lead	Lag				Lag	Lead	
Lead-Lag Optimize?							Yes		
Recall Mode	C-Max	C-Max	None		None	None	None	C-Max	None
Act Effct Green (s)	57.2	57.2	19.3	81.0	30.0	30.0			
Actuated g/C Ratio	0.48	0.48	0.16	0.68	0.25	0.25			
v/c Ratio	0.40	0.22	0.31	0.43	0.46	0.74			
Control Delay	17.1	1.8	43.6	4.0	40.8	46.2			
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0			
Total Delay	17.1	1.8	43.6	4.1	40.8	46.2			
LOS	B	A	D	A	D	D			
Approach Delay	15.0			8.2		44.9			
Approach LOS	B			A		D			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 39 (33%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 51.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





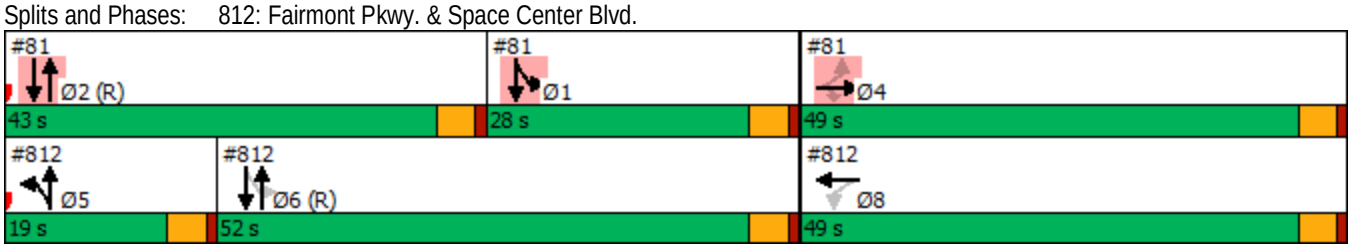
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1086	169	152	1318	0	0	0	0	183	549	34
Future Volume (vph)	0	1086	169	152	1318	0	0	0	0	183	549	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91					1.00	0.95	
Frt		1.00	0.85	1.00	1.00					1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988					1736	3441	
Flt Permitted		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (perm)		6285	1553	3367	4988					1736	3441	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	1193	186	167	1448	0	0	0	0	201	603	37
RTOR Reduction (vph)	0	0	94	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	1193	92	167	1448	0	0	0	0	201	636	0
Turn Type		NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases			2							4		
Actuated Green, G (s)		57.2	57.2	19.3	81.0					30.0	30.0	
Effective Green, g (s)		57.2	57.2	19.3	81.0					30.0	30.0	
Actuated g/C Ratio		0.48	0.48	0.16	0.68					0.25	0.25	
Clearance Time (s)		4.5	4.5	4.5						4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0						3.0	3.0	
Lane Grp Cap (vph)		2995	740	541	3366					434	860	
v/s Ratio Prot		0.19		0.05	c0.29						c0.18	
v/s Ratio Perm			0.06							0.12		
v/c Ratio		0.40	0.12	0.31	0.43					0.46	0.74	
Uniform Delay, d1		20.3	17.5	44.5	8.9					38.2	41.4	
Progression Factor		0.77	0.31	0.97	0.38					1.00	1.00	
Incremental Delay, d2		0.4	0.3	0.3	0.1					0.8	3.4	
Delay (s)		15.9	5.8	43.5	3.4					39.0	44.8	
Level of Service		B	A	D	A					D	D	
Approach Delay (s)		14.5			7.6			0.0			43.4	
Approach LOS		B			A			A			D	

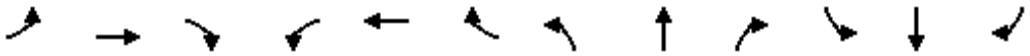
Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	357	1712	241	516	1	705			
Future Volume (vph)	357	1712	241	516	1	705			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	49.0	49.0	19.0		52.0	52.0	28.0	43.0	49.0
Total Split (%)	40.8%	40.8%	15.8%		43.3%	43.3%	23%	36%	41%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	44.5	44.5	14.2	66.5		47.8			
Actuated g/C Ratio	0.37	0.37	0.12	0.55		0.40			
v/c Ratio	0.58	0.84	0.63	0.28		0.50			
Control Delay	34.6	38.2	60.8	9.9		20.7			
Queue Delay	58.6	0.0	49.8	2.6		0.2			
Total Delay	93.2	38.2	110.6	12.5		21.0			
LOS	F	D	F	B		C			
Approach Delay		47.1		43.7		21.0			
Approach LOS		D		D		C			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 95 (79%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 40.5	Intersection LOS: D
Intersection Capacity Utilization 74.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





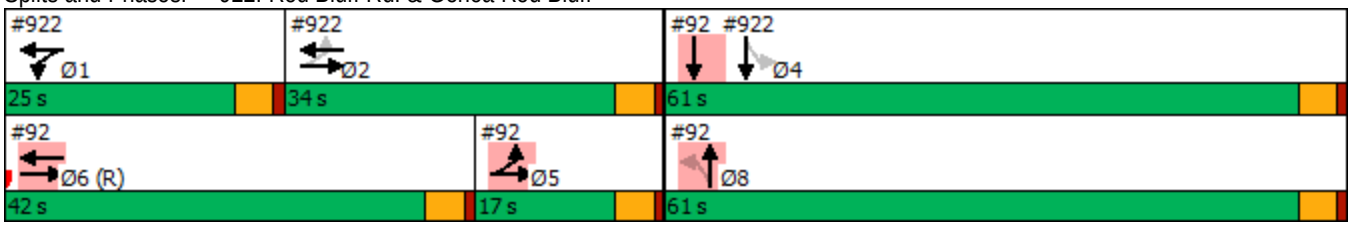
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	357	1712	151	241	516	0	1	705	175
Future Volume (vph)	0	0	0	357	1712	151	241	516	0	1	705	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.99		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6208		3367	3471			4839	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6208		3367	3471			4547	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	372	1783	157	251	538	0	1	734	182
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	11	0
Lane Group Flow (vph)	0	0	0	372	1929	0	251	538	0	0	906	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				44.5	44.5		14.2	66.5			47.8	
Effective Green, g (s)				44.5	44.5		14.2	66.5			47.8	
Actuated g/C Ratio				0.37	0.37		0.12	0.55			0.40	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				643	2302		398	1923			1811	
v/s Ratio Prot					c0.31		c0.07	0.15				
v/s Ratio Perm				0.21							c0.20	
v/c Ratio				0.58	0.84		0.63	0.28			0.50	
Uniform Delay, d1				30.2	34.5		50.4	14.1			27.1	
Progression Factor				1.00	1.00		1.09	0.68			0.76	
Incremental Delay, d2				1.3	2.8		2.5	0.1			0.5	
Delay (s)				31.5	37.3		57.3	9.6			21.0	
Level of Service				C	D		E	A			C	
Approach Delay (s)		0.0			36.4			24.8			21.0	
Approach LOS		A			D			C			C	

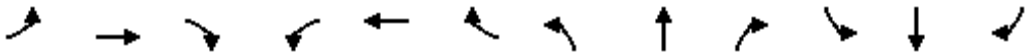
Intersection Summary			
HCM 2000 Control Delay	30.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations								
Traffic Volume (vph)	1	681	278	1153	522			
Future Volume (vph)	1	681	278	1153	522			
Turn Type	Perm	NA	Prot	NA	NA			
Protected Phases		2	1	2 1	4	5	6	8
Permitted Phases	2							
Detector Phase	2	2	1	2 1	4			
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	34.0	34.0	25.0		61.0	17.0	42.0	61.0
Total Split (%)	28.3%	28.3%	20.8%		50.8%	14%	35%	51%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0			
Total Lost Time (s)		4.5	4.5		4.5			
Lead/Lag	Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None		None	None	C-Max	None
Act Effct Green (s)		29.5	20.5	54.5	56.5			
Actuated g/C Ratio		0.25	0.17	0.45	0.47			
v/c Ratio		0.86	1.00	0.78	0.31			
Control Delay		17.8	81.3	22.4	9.3			
Queue Delay		0.4	34.3	16.3	0.0			
Total Delay		18.2	115.6	38.7	9.3			
LOS		B	F	D	A			
Approach Delay		18.2		53.7	9.3			
Approach LOS		B		D	A			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 94 (78%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 32.9	Intersection LOS: C
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	681	252	278	1153	0	0	0	0	44	522	112
Future Volume (vph)	1	681	252	278	1153	0	0	0	0	44	522	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.91		1.00	0.95						0.91	
Frt		0.96		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		4785		1736	3471						4848	
Flt Permitted		0.94		0.95	1.00						1.00	
Satd. Flow (perm)		4494		1736	3471						4848	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1	724	268	296	1227	0	0	0	0	47	555	119
RTOR Reduction (vph)	0	56	0	0	0	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	937	0	296	1227	0	0	0	0	0	706	0
Turn Type	Perm	NA		Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases	2									4		
Actuated Green, G (s)		29.5		20.5	54.5						56.5	
Effective Green, g (s)		29.5		20.5	54.5						56.5	
Actuated g/C Ratio		0.25		0.17	0.45						0.47	
Clearance Time (s)		4.5		4.5							4.5	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		1104		296	1576						2282	
v/s Ratio Prot				c0.17	c0.35							
v/s Ratio Perm		c0.21									0.15	
v/c Ratio		0.85		1.00	0.78						0.31	
Uniform Delay, d1		43.1		49.8	27.7						19.7	
Progression Factor		0.41		0.85	0.72						0.47	
Incremental Delay, d2		0.6		37.5	1.3						0.1	
Delay (s)		18.4		79.9	21.3						9.3	
Level of Service		B		E	C						A	
Approach Delay (s)		18.4			32.7			0.0			9.3	
Approach LOS		B			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

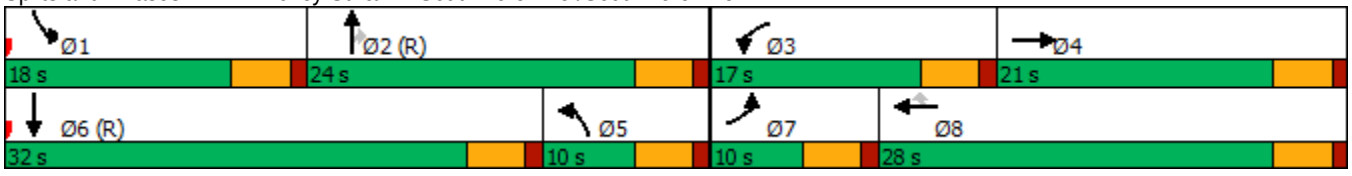
Synchro Report

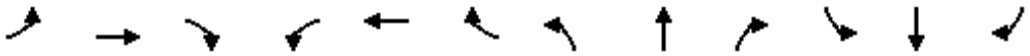
Existing Network 2045 AM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	32	221	244	339	160	37	338	122	117	277
Future Volume (vph)	32	221	244	339	160	37	338	122	117	277
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	21.0	17.0	28.0	28.0	10.0	24.0	24.0	18.0	32.0
Total Split (%)	12.5%	26.3%	21.3%	35.0%	35.0%	12.5%	30.0%	30.0%	22.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	5.5	11.1	10.8	22.4	22.4	5.5	31.5	31.5	10.8	38.6
Actuated g/C Ratio	0.07	0.14	0.14	0.28	0.28	0.07	0.39	0.39	0.14	0.48
v/c Ratio	0.28	0.55	0.55	0.36	0.28	0.32	0.26	0.17	0.52	0.19
Control Delay	38.2	36.2	22.6	14.2	4.5	36.9	16.1	0.8	39.3	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.2	36.2	22.6	14.2	4.5	36.9	16.1	0.8	39.3	13.6
LOS	D	D	C	B	A	D	B	A	D	B
Approach Delay		36.4		14.9			13.9			20.7
Approach LOS		D		B			B			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 5 (6%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 50.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	221	41	244	339	160	37	338	122	117	277	30
Future Volume (veh/h)	32	221	41	244	339	160	37	338	122	117	277	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	33	228	42	252	349	165	38	348	126	121	286	31
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	40	330	60	344	664	296	383	1659	740	154	1095	118
Arrive On Green	0.02	0.11	0.11	0.10	0.19	0.19	0.22	0.47	0.47	0.09	0.34	0.34
Sat Flow, veh/h	1753	2957	536	3401	3497	1560	1753	3497	1560	1753	3185	342
Grp Volume(v), veh/h	33	133	137	252	349	165	38	348	126	121	156	161
Grp Sat Flow(s),veh/h/ln	1753	1749	1744	1700	1749	1560	1753	1749	1560	1753	1749	1779
Q Serve(g_s), s	1.5	5.9	6.0	5.8	7.2	7.7	1.4	4.6	3.7	5.4	5.1	5.2
Cycle Q Clear(g_c), s	1.5	5.9	6.0	5.8	7.2	7.7	1.4	4.6	3.7	5.4	5.1	5.2
Prop In Lane	1.00		0.31	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	40	195	195	344	664	296	383	1659	740	154	601	612
V/C Ratio(X)	0.83	0.68	0.70	0.73	0.53	0.56	0.10	0.21	0.17	0.79	0.26	0.26
Avail Cap(c_a), veh/h	121	361	360	531	1027	458	383	1659	740	296	601	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	34.2	34.3	34.9	29.2	29.4	25.0	12.3	12.0	35.7	18.9	18.9
Incr Delay (d2), s/veh	30.7	3.8	4.2	3.0	0.6	1.6	0.1	0.3	0.5	8.5	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	2.7	2.4	2.9	2.9	0.6	1.7	1.3	2.6	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.6	38.0	38.4	38.0	29.8	31.0	25.1	12.6	12.5	44.3	20.0	20.0
LnGrp LOS	E	D	D	D	C	C	C	B	B	D	B	B
Approach Vol, veh/h		303			766			512			438	
Approach Delay, s/veh		41.6			32.7			13.5			26.7	
Approach LOS		D			C			B			C	

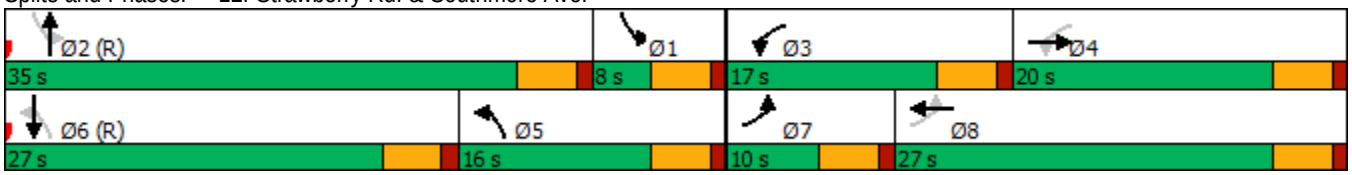
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	42.5	12.6	13.4	22.0	32.0	6.3	19.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	19.5	12.5	16.5	5.5	27.5	5.5	23.5
Max Q Clear Time (g_c+I1), s	7.4	6.6	7.8	8.0	3.4	7.2	3.5	9.7
Green Ext Time (p_c), s	0.1	2.1	0.4	0.9	0.0	1.7	0.0	2.3

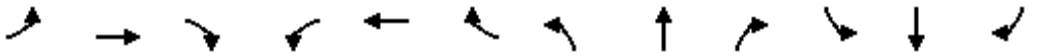
Intersection Summary	
HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	72	325	185	440	173	383	45	397
Future Volume (vph)	72	325	185	440	173	383	45	397
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	17.0	27.0	16.0	35.0	8.0	27.0
Total Split (%)	12.5%	25.0%	21.3%	33.8%	20.0%	43.8%	10.0%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.5	13.3	24.6	20.8	37.4	37.1	40.6	28.2
Actuated g/C Ratio	0.32	0.17	0.31	0.26	0.47	0.46	0.51	0.35
v/c Ratio	0.31	0.64	0.57	0.61	0.46	0.39	0.14	0.46
Control Delay	25.5	44.2	16.1	20.5	17.9	11.8	12.5	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	44.2	16.1	20.5	17.9	11.8	12.5	21.9
LOS	C	D	B	C	B	B	B	C
Approach Delay		40.8		19.3		13.2		21.1
Approach LOS		D		B		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 15 (19%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 21.5	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	325	5	185	440	45	173	383	172	45	397	84
Future Volume (veh/h)	72	325	5	185	440	45	173	383	172	45	397	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	81	365	6	208	494	51	194	430	193	51	446	94
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	235	482	8	346	675	69	623	898	399	567	810	169
Arrive On Green	0.05	0.14	0.14	0.12	0.21	0.21	0.46	0.76	0.76	0.13	0.28	0.28
Sat Flow, veh/h	1753	3521	58	1753	3201	329	1753	2355	1046	1753	2879	602
Grp Volume(v), veh/h	81	181	190	208	269	276	194	318	305	51	270	270
Grp Sat Flow(s),veh/h/ln	1753	1749	1830	1753	1749	1781	1753	1749	1652	1753	1749	1732
Q Serve(g_s), s	2.9	8.0	8.0	8.0	11.5	11.6	0.0	5.4	5.6	0.0	10.5	10.6
Cycle Q Clear(g_c), s	2.9	8.0	8.0	8.0	11.5	11.6	0.0	5.4	5.6	0.0	10.5	10.6
Prop In Lane	1.00		0.03	1.00		0.18	1.00		0.63	1.00		0.35
Lane Grp Cap(c), veh/h	235	239	251	346	369	376	623	667	630	567	492	487
V/C Ratio(X)	0.34	0.76	0.76	0.60	0.73	0.73	0.31	0.48	0.48	0.09	0.55	0.55
Avail Cap(c_a), veh/h	267	339	355	401	492	501	623	667	630	567	492	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	33.2	33.2	25.2	29.4	29.5	12.8	6.5	6.5	13.2	24.4	24.5
Incr Delay (d2), s/veh	0.9	6.0	5.8	1.4	2.7	2.7	0.3	2.4	2.6	0.1	4.4	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.6	3.8	3.3	4.9	5.0	1.8	1.8	1.8	0.5	4.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	39.2	39.0	26.6	32.1	32.2	13.0	8.9	9.1	13.3	28.8	29.0
LnGrp LOS	C	D	D	C	C	C	B	A	A	B	C	C
Approach Vol, veh/h		452			753			817			591	
Approach Delay, s/veh		36.5			30.6			10.0			27.5	
Approach LOS		D			C			A			C	

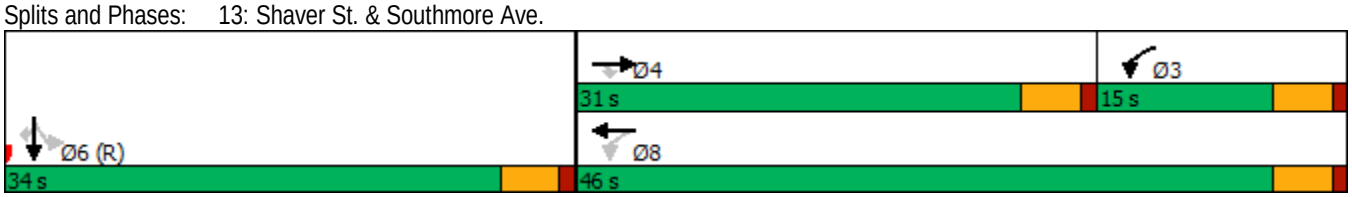
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	35.0	14.5	15.5	23.1	27.0	8.6	21.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	30.5	12.5	15.5	11.5	22.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	2.0	7.6	10.0	10.0	2.0	12.6	4.9	13.6
Green Ext Time (p_c), s	0.0	3.9	0.1	1.0	0.3	2.2	0.0	2.1

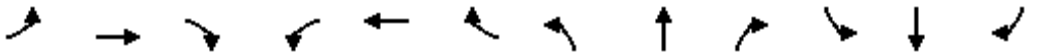
Intersection Summary	
HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	410	97	94	486	120	391	164
Future Volume (vph)	410	97	94	486	120	391	164
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	15.0	46.0	34.0	34.0	34.0
Total Split (%)	38.8%	38.8%	18.8%	57.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	17.7	17.7	26.8	25.7	45.3	45.3	45.3
Actuated g/C Ratio	0.22	0.22	0.34	0.32	0.57	0.57	0.57
v/c Ratio	0.62	0.26	0.37	0.53	0.14	0.23	0.22
Control Delay	30.6	10.0	9.3	9.8	7.4	7.2	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	10.0	9.3	9.8	7.4	7.2	7.8
LOS	C	B	A	A	A	A	A
Approach Delay	26.7			9.7		7.4	
Approach LOS	C			A		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 49.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	410	97	94	486	0	0	0	0	120	391	164
Future Volume (veh/h)	0	410	97	94	486	0	0	0	0	120	391	164
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	477	113	109	565	0				140	455	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	664	296	190	1000	0				1055	2104	
Arrive On Green	0.00	0.19	0.19	0.08	0.57	0.00				0.60	0.60	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	477	113	109	565	0				140	455	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	10.2	5.1	0.0	8.2	0.0				2.8	4.8	0.0
Cycle Q Clear(g_c), s	0.0	10.2	5.1	0.0	8.2	0.0				2.8	4.8	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	664	296	190	1000	0				1055	2104	
V/C Ratio(X)	0.00	0.72	0.38	0.57	0.56	0.00				0.13	0.22	
Avail Cap(c_a), veh/h	0	1159	517	350	1814	0				1055	2104	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.64	0.64	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	30.4	28.3	34.9	14.0	0.0				6.9	7.3	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.8	1.7	0.3	0.0				0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.3	1.9	2.0	2.4	0.0				0.9	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.9	29.1	36.7	14.3	0.0				7.2	7.5	0.0
LnGrp LOS	A	C	C	D	B	A				A	A	
Approach Vol, veh/h		590			674						595	A
Approach Delay, s/veh		31.3			17.9						7.4	
Approach LOS		C			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		7.7	19.7		52.6		27.4					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		10.5	26.5		29.5		41.5					
Max Q Clear Time (g_c+I1), s		2.0	12.2		6.8		10.2					
Green Ext Time (p_c), s		0.1	3.0		3.3		4.0					

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Notes

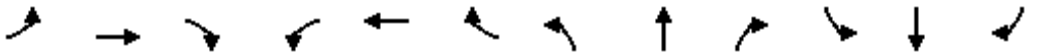
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	75	369	186	45	432	136	229	591	90	359
Future Volume (vph)	75	369	186	45	432	136	229	591	90	359
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	24.0	24.0	11.0	22.0	22.0	24.0	31.0	14.0	21.0
Total Split (%)	16.3%	30.0%	30.0%	13.8%	27.5%	27.5%	30.0%	38.8%	17.5%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.8	18.5	18.5	7.3	15.9	15.9	16.1	33.9	8.7	24.3
Actuated g/C Ratio	0.10	0.23	0.23	0.09	0.20	0.20	0.20	0.42	0.11	0.30
v/c Ratio	0.49	0.51	0.40	0.31	0.70	0.32	0.73	0.48	0.53	0.38
Control Delay	27.9	17.7	5.4	34.3	30.8	9.9	42.0	20.7	34.7	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.9	17.7	5.4	34.3	30.8	9.9	42.0	20.7	34.7	24.0
LOS	C	B	A	C	C	A	D	C	C	C
Approach Delay		15.3			26.4			26.4		26.1
Approach LOS		B			C			C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 59.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	369	186	45	432	136	229	591	35	90	359	3
Future Volume (veh/h)	75	369	186	45	432	136	229	591	35	90	359	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	83	410	207	50	480	151	254	657	39	100	399	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	106	572	255	129	616	275	291	1560	93	128	1324	10
Arrive On Green	0.06	0.16	0.16	0.07	0.18	0.18	0.33	0.93	0.93	0.07	0.37	0.37
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3355	199	1753	3558	27
Grp Volume(v), veh/h	83	410	207	50	480	151	254	342	354	100	196	206
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1805	1753	1749	1836
Q Serve(g_s), s	3.7	8.9	6.8	2.2	10.5	7.1	10.9	1.8	1.8	4.5	6.3	6.3
Cycle Q Clear(g_c), s	3.7	8.9	6.8	2.2	10.5	7.1	10.9	1.8	1.8	4.5	6.3	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	106	572	255	129	616	275	291	813	839	128	651	683
V/C Ratio(X)	0.78	0.72	0.81	0.39	0.78	0.55	0.87	0.42	0.42	0.78	0.30	0.30
Avail Cap(c_a), veh/h	186	852	380	142	765	341	427	813	839	208	651	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	31.7	14.4	35.3	31.5	30.1	26.0	1.6	1.6	36.5	17.8	17.8
Incr Delay (d2), s/veh	11.6	1.7	7.9	1.9	4.1	1.7	12.8	1.6	1.6	9.9	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	3.7	4.1	1.0	4.6	2.7	4.6	0.8	0.8	2.2	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	33.4	22.3	37.3	35.6	31.8	38.7	3.2	3.1	46.4	18.9	18.9
LnGrp LOS	D	C	C	D	D	C	D	A	A	D	B	B
Approach Vol, veh/h		700			681			950			502	
Approach Delay, s/veh		31.9			34.8			12.6			24.4	
Approach LOS		C			C			B			C	

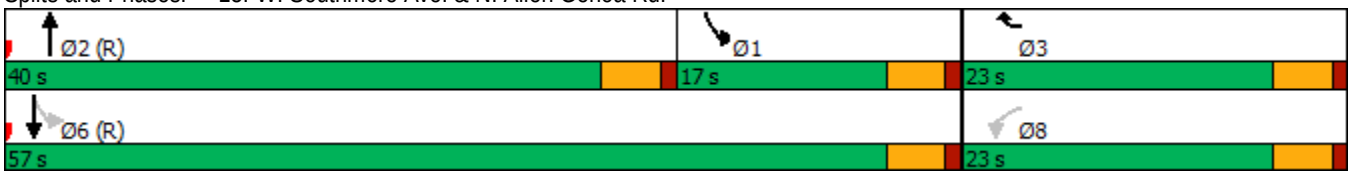
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	41.7	10.4	17.6	17.8	34.3	9.4	18.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	26.5	6.5	19.5	19.5	16.5	8.5	17.5
Max Q Clear Time (g_c+I1), s	6.5	3.8	4.2	10.9	12.9	8.3	5.7	12.5
Green Ext Time (p_c), s	0.1	4.3	0.0	2.2	0.4	1.4	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	71	260	864	192	382
Future Volume (vph)	71	260	864	192	382
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	23.0	23.0	40.0	17.0	57.0
Total Split (%)	28.8%	28.8%	50.0%	21.3%	71.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.3	9.3	44.7	61.7	61.7
Actuated g/C Ratio	0.12	0.12	0.56	0.77	0.77
v/c Ratio	0.38	0.66	0.49	0.40	0.16
Control Delay	17.3	13.4	7.3	9.1	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	13.4	7.3	9.1	2.9
LOS	B	B	A	A	A
Approach Delay	14.2		7.3		5.0
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 7.8	Intersection LOS: A
Intersection Capacity Utilization 55.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	71	260	864	17	192	382	
Future Volume (veh/h)	71	260	864	17	192	382	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	
Adj Flow Rate, veh/h	77	283	939	18	209	415	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	4	4	4	4	4	4	
Cap, veh/h	359	320	1558	30	534	2387	
Arrive On Green	0.20	0.20	0.44	0.44	0.18	0.68	
Sat Flow, veh/h	1753	1560	3602	67	1753	3589	
Grp Volume(v), veh/h	77	283	468	489	209	415	
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1829	1753	1749	
Q Serve(g_s), s	2.9	14.1	16.3	16.3	0.0	3.4	
Cycle Q Clear(g_c), s	2.9	14.1	16.3	16.3	0.0	3.4	
Prop In Lane	1.00	1.00		0.04	1.00		
Lane Grp Cap(c), veh/h	359	320	776	811	534	2387	
V/C Ratio(X)	0.21	0.89	0.60	0.60	0.39	0.17	
Avail Cap(c_a), veh/h	405	361	776	811	534	2387	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.94	0.94	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	26.4	30.9	16.9	16.9	21.6	4.6	
Incr Delay (d2), s/veh	0.3	19.6	3.5	3.3	0.5	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	6.7	6.6	6.9	3.2	1.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	26.7	50.5	20.4	20.2	22.1	4.7	
LnGrp LOS	C	D	C	C	C	A	
Approach Vol, veh/h	360		957			624	
Approach Delay, s/veh	45.4		20.3			10.5	
Approach LOS	D		C			B	

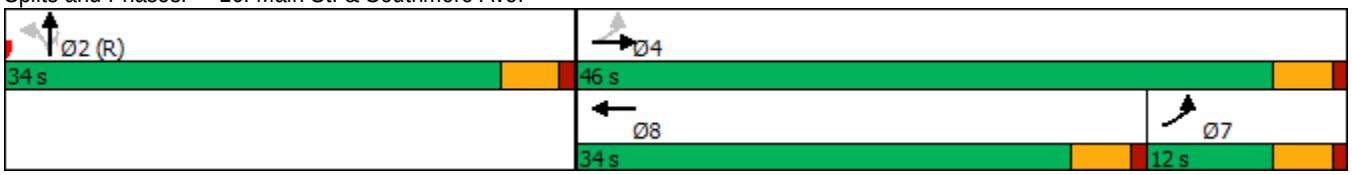
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	19.1	40.0			59.1	20.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	12.5	35.5			52.5	18.5
Max Q Clear Time (g_c+I1), s	2.0	18.3			5.4	16.1
Green Ext Time (p_c), s	0.4	5.7			2.9	0.3

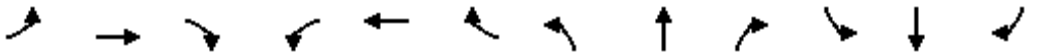
Intersection Summary	
HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	63	444	448	619	121
Future Volume (vph)	63	444	448	619	121
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	46.0	34.0	34.0	34.0
Total Split (%)	15.0%	57.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.6	29.5	21.0	41.5	41.5
Actuated g/C Ratio	0.38	0.37	0.26	0.52	0.52
v/c Ratio	0.26	0.41	0.71	0.33	0.16
Control Delay	7.0	11.8	16.8	13.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	11.8	16.8	13.1	3.3
LOS	A	B	B	B	A
Approach Delay		11.2	16.8	11.8	
Approach LOS		B	B	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 49.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



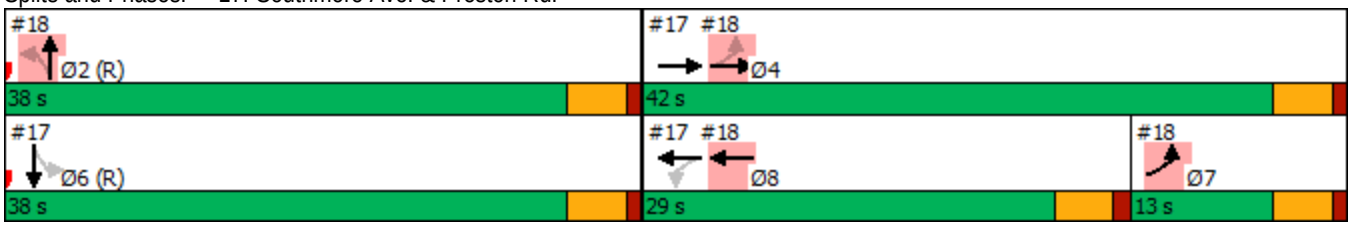


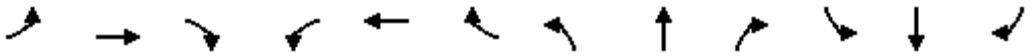
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	444	0	0	448	98	128	619	121	0	0	0
Future Volume (veh/h)	63	444	0	0	448	98	128	619	121	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	72	510	0	0	515	113	147	711	139			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	183	1139	0	0	669	146	466	2427	876			
Arrive On Green	0.07	0.65	0.00	0.00	0.23	0.23	0.56	0.56	0.56			
Sat Flow, veh/h	1753	3589	0	0	2946	623	829	4320	1560			
Grp Volume(v), veh/h	72	510	0	0	315	313	319	539	139			
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1729	1799	1675	1560			
Q Serve(g_s), s	0.0	5.7	0.0	0.0	13.4	13.6	7.6	6.7	3.4			
Cycle Q Clear(g_c), s	0.0	5.7	0.0	0.0	13.4	13.6	7.6	6.7	3.4			
Prop In Lane	1.00		0.00	0.00		0.36	0.46		1.00			
Lane Grp Cap(c), veh/h	183	1139	0	0	410	405	1011	1882	876			
V/C Ratio(X)	0.39	0.45	0.00	0.00	0.77	0.77	0.32	0.29	0.16			
Avail Cap(c_a), veh/h	286	1814	0	0	645	637	1011	1882	876			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	35.2	10.4	0.0	0.0	28.6	28.6	9.3	9.2	8.4			
Incr Delay (d2), s/veh	1.2	0.2	0.0	0.0	3.0	3.2	0.8	0.4	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.3	1.7	0.0	0.0	5.7	5.7	2.8	2.2	1.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	10.6	0.0	0.0	31.6	31.8	10.2	9.5	8.8			
LnGrp LOS	D	B	A	A	C	C	B	A	A			
Approach Vol, veh/h		582			628			997				
Approach Delay, s/veh		13.8			31.7			9.6				
Approach LOS		B			C			A				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		49.4		30.6			7.3	23.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		29.5		41.5			7.5	29.5				
Max Q Clear Time (g_c+I1), s		9.6		7.7			2.0	15.6				
Green Ext Time (p_c), s		5.9		3.6			0.1	3.2				
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	308	88	313	532		
Future Volume (vph)	308	88	313	532		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	42.0	29.0	29.0	38.0	38.0	13.0
Total Split (%)	52.5%	36.3%	36.3%	47.5%	48%	16%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lead	Lead			Lag
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	25.9	17.4	17.4	45.1		
Actuated g/C Ratio	0.32	0.22	0.22	0.56		
v/c Ratio	0.43	0.68	0.49	0.42		
Control Delay	26.8	38.7	21.1	8.2		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	26.8	38.7	21.1	8.2		
LOS	C	D	C	A		
Approach Delay	26.8		24.9	8.2		
Approach LOS	C		C	A		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





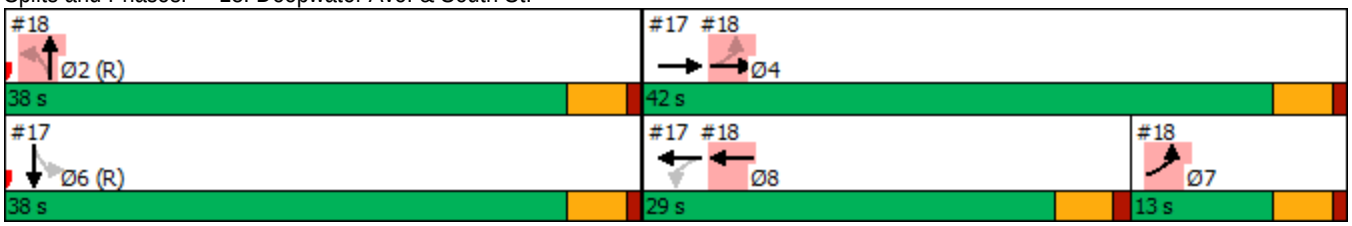
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	308	111	88	313	0	0	0	0	34	532	143
Future Volume (vph)	0	308	111	88	313	0	0	0	0	34	532	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.96		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3222		1736	3355						3358	
Flt Permitted		1.00		0.37	1.00						1.00	
Satd. Flow (perm)		3222		670	3355						3358	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	350	126	100	356	0	0	0	0	39	605	162
RTOR Reduction (vph)	0	57	0	0	0	0	0	0	0	0	21	0
Lane Group Flow (vph)	0	419	0	100	356	0	0	0	0	0	786	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		26.8		17.4	17.4						44.2	
Effective Green, g (s)		26.8		17.4	17.4						44.2	
Actuated g/C Ratio		0.34		0.22	0.22						0.55	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1079		145	729						1855	
v/s Ratio Prot		c0.13			0.11							
v/s Ratio Perm				c0.15							0.23	
v/c Ratio		0.39		0.69	0.49						0.42	
Uniform Delay, d1		20.3		28.8	27.4						10.5	
Progression Factor		1.62		0.58	0.72						0.67	
Incremental Delay, d2		0.2		12.4	0.5						0.6	
Delay (s)		33.1		29.2	20.1						7.7	
Level of Service		C		C	C						A	
Approach Delay (s)		33.1			22.1			0.0			7.7	
Approach LOS		C			C			A			A	

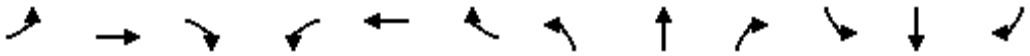
Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	97	228	297	477	
Future Volume (vph)	97	228	297	477	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	42.0	29.0	38.0	38.0
Total Split (%)	16.3%	52.5%	36.3%	47.5%	48%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	27.0	25.9	17.4	45.1	
Actuated g/C Ratio	0.34	0.32	0.22	0.56	
v/c Ratio	0.31	0.24	0.50	0.27	
Control Delay	6.5	8.4	27.9	10.4	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	6.5	8.4	27.9	10.4	
LOS	A	A	C	B	
Approach Delay		7.8	27.9	10.4	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





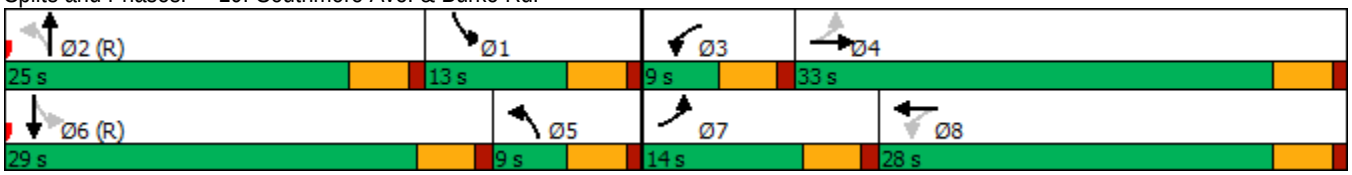
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	228	0	0	297	27	93	477	73	0	0	0
Future Volume (vph)	97	228	0	0	297	27	93	477	73	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.98				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3200			4543				
Flt Permitted	0.47	1.00			1.00			0.99				
Satd. Flow (perm)	809	3240			3200			4543				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	248	0	0	323	29	101	518	79	0	0	0
RTOR Reduction (vph)	0	0	0	0	9	0	0	16	0	0	0	0
Lane Group Flow (vph)	105	248	0	0	343	0	0	682	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	26.8	26.8			17.4			44.2				
Effective Green, g (s)	26.8	26.8			17.4			44.2				
Actuated g/C Ratio	0.34	0.34			0.22			0.55				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	320	1085			696			2510				
v/s Ratio Prot	c0.02	0.08			c0.11							
v/s Ratio Perm	0.09							0.15				
v/c Ratio	0.33	0.23			0.49			0.27				
Uniform Delay, d1	22.0	19.2			27.4			9.4				
Progression Factor	0.23	0.44			1.00			1.00				
Incremental Delay, d2	0.6	0.1			0.6			0.3				
Delay (s)	5.6	8.5			28.0			9.7				
Level of Service	A	A			C			A				
Approach Delay (s)		7.6			28.0			9.7			0.0	
Approach LOS		A			C			A			A	

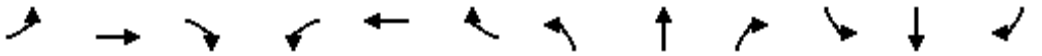
Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	99	278	30	316	38	156	119	170
Future Volume (vph)	99	278	30	316	38	156	119	170
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	33.0	9.0	28.0	9.0	25.0	13.0	29.0
Total Split (%)	17.5%	41.3%	11.3%	35.0%	11.3%	31.3%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	27.9	22.5	20.7	16.8	35.8	31.3	42.8	37.7
Actuated g/C Ratio	0.35	0.28	0.26	0.21	0.45	0.39	0.54	0.47
v/c Ratio	0.43	0.41	0.12	0.69	0.10	0.17	0.22	0.22
Control Delay	11.9	11.0	7.4	20.9	12.6	14.9	13.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	11.0	7.4	20.9	12.6	14.9	13.8	9.1
LOS	B	B	A	C	B	B	B	A
Approach Delay		11.2		20.0		14.5		10.4
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 17 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 50.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	278	35	30	316	103	38	156	27	119	170	121
Future Volume (veh/h)	99	278	35	30	316	103	38	156	27	119	170	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	118	331	42	36	376	123	45	186	32	142	202	144
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	262	746	94	279	496	160	647	767	130	753	610	414
Arrive On Green	0.07	0.24	0.24	0.02	0.19	0.19	0.21	0.26	0.26	0.43	0.51	0.51
Sat Flow, veh/h	1753	3125	393	1753	2599	839	1753	2992	506	1753	1993	1353
Grp Volume(v), veh/h	118	184	189	36	251	248	45	107	111	142	176	170
Grp Sat Flow(s),veh/h/ln	1753	1749	1770	1753	1749	1690	1753	1749	1750	1753	1749	1597
Q Serve(g_s), s	4.2	7.2	7.3	1.3	10.9	11.1	0.0	3.9	4.0	0.0	4.7	5.1
Cycle Q Clear(g_c), s	4.2	7.2	7.3	1.3	10.9	11.1	0.0	3.9	4.0	0.0	4.7	5.1
Prop In Lane	1.00		0.22	1.00		0.50	1.00		0.29	1.00		0.85
Lane Grp Cap(c), veh/h	262	418	423	279	333	322	647	448	448	753	536	489
V/C Ratio(X)	0.45	0.44	0.45	0.13	0.75	0.77	0.07	0.24	0.25	0.19	0.33	0.35
Avail Cap(c_a), veh/h	344	623	631	335	514	496	647	448	448	753	536	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	0.79	0.79	0.79	0.87	0.87	0.87	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	23.4	25.9	25.9	25.3	30.6	30.7	15.1	23.6	23.6	10.6	14.7	14.8
Incr Delay (d2), s/veh	1.0	0.6	0.6	0.2	3.0	3.4	0.0	1.3	1.3	0.1	1.5	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	2.9	3.0	0.5	4.6	4.6	0.5	1.7	1.7	1.1	1.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.3	26.5	26.5	25.4	33.6	34.1	15.2	24.8	24.9	10.7	16.2	16.6
LnGrp LOS	C	C	C	C	C	C	B	C	C	B	B	B
Approach Vol, veh/h		491			535			263			488	
Approach Delay, s/veh		26.0			33.3			23.2			14.7	
Approach LOS		C			C			C			B	

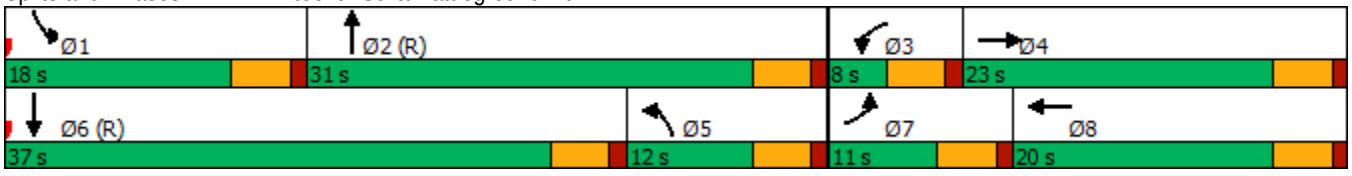
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	25.0	6.4	23.6	21.0	29.0	10.3	19.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	20.5	4.5	28.5	4.5	24.5	9.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	6.0	3.3	9.3	2.0	7.1	6.2	13.1
Green Ext Time (p_c), s	0.2	0.9	0.0	2.0	0.0	1.8	0.1	2.1

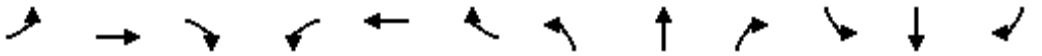
Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	55	12	3	4	63	595	130	524
Future Volume (vph)	55	12	3	4	63	595	130	524
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	23.0	8.0	20.0	12.0	31.0	18.0	37.0
Total Split (%)	13.8%	28.8%	10.0%	25.0%	15.0%	38.8%	22.5%	46.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.3	10.5	3.5	5.5	7.1	46.8	11.6	54.2
Actuated g/C Ratio	0.08	0.13	0.04	0.07	0.09	0.58	0.14	0.68
v/c Ratio	0.43	0.13	0.04	0.05	0.44	0.32	0.55	0.25
Control Delay	39.5	13.1	37.7	0.2	32.4	6.4	39.5	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	13.1	37.7	0.2	32.4	6.4	39.5	8.2
LOS	D	B	D	A	C	A	D	A
Approach Delay		26.6		3.3		8.8		14.1
Approach LOS		C		A		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 55 (69%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	12	41	3	4	27	63	595	14	130	524	30
Future Volume (veh/h)	55	12	41	3	4	27	63	595	14	130	524	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	59	13	44	3	4	29	67	633	15	138	557	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	75	165	147	5	95	85	476	2021	48	173	1366	78
Arrive On Green	0.04	0.09	0.09	0.00	0.05	0.05	0.27	0.58	0.58	0.10	0.41	0.41
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3492	83	1753	3362	193
Grp Volume(v), veh/h	59	13	44	3	4	29	67	317	331	138	289	300
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1826	1753	1749	1806
Q Serve(g_s), s	2.7	0.5	2.1	0.1	0.2	1.4	2.3	7.5	7.5	6.2	9.4	9.5
Cycle Q Clear(g_c), s	2.7	0.5	2.1	0.1	0.2	1.4	2.3	7.5	7.5	6.2	9.4	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.11
Lane Grp Cap(c), veh/h	75	165	147	5	95	85	476	1012	1057	173	710	734
V/C Ratio(X)	0.79	0.08	0.30	0.61	0.04	0.34	0.14	0.31	0.31	0.80	0.41	0.41
Avail Cap(c_a), veh/h	142	404	361	77	339	302	476	1012	1057	296	710	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	33.0	33.7	39.8	35.8	36.4	22.1	8.7	8.7	35.3	16.9	16.9
Incr Delay (d2), s/veh	16.0	0.2	1.1	82.6	0.2	2.3	0.1	0.8	0.8	8.1	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.2	0.8	0.2	0.1	0.6	0.9	2.5	2.6	2.8	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	33.2	34.8	122.5	36.0	38.8	22.2	9.5	9.4	43.3	18.6	18.6
LnGrp LOS	D	C	C	F	D	D	C	A	A	D	B	B
Approach Vol, veh/h		116			36			715			727	
Approach Delay, s/veh		44.4			45.4			10.7			23.3	
Approach LOS		D			D			B			C	

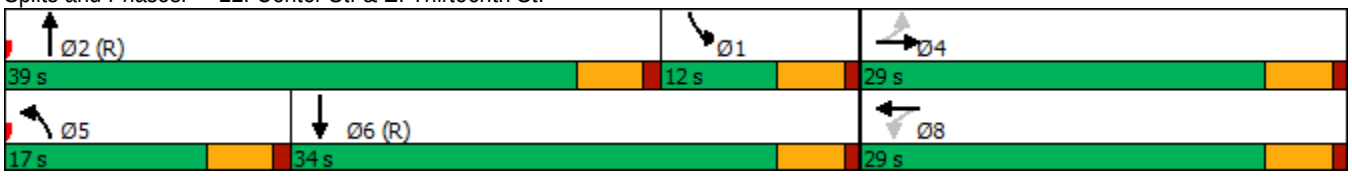
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	50.8	4.7	12.1	26.2	37.0	7.9	8.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	26.5	3.5	18.5	7.5	32.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	8.2	9.5	2.1	4.1	4.3	11.5	4.7	3.4
Green Ext Time (p_c), s	0.1	3.3	0.0	0.1	0.0	3.1	0.0	0.1

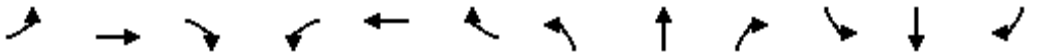
Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	112	114	242	181	188	959	102	747
Future Volume (vph)	112	114	242	181	188	959	102	747
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	29.0	29.0	29.0	29.0	17.0	39.0	12.0	34.0
Total Split (%)	36.3%	36.3%	36.3%	36.3%	21.3%	48.8%	15.0%	42.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.9	21.9	21.9	21.9	11.8	36.1	7.0	31.4
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.15	0.45	0.09	0.39
v/c Ratio	0.47	0.26	0.86	0.35	0.79	0.76	0.73	0.70
Control Delay	30.0	11.6	43.2	7.6	56.4	22.5	64.3	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.0	11.6	43.2	7.6	56.4	22.5	64.3	24.0
LOS	C	B	D	A	E	C	E	C
Approach Delay		17.8		23.1		27.4		28.2
Approach LOS		B		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 53 (66%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	114	109	242	181	131	188	959	135	102	747	132
Future Volume (veh/h)	112	114	109	242	181	131	188	959	135	102	747	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	120	123	117	260	195	141	202	1031	145	110	803	142
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	315	531	462	362	595	408	239	1309	184	153	1116	197
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.14	0.43	0.43	0.09	0.38	0.38
Sat Flow, veh/h	1028	1770	1542	1122	1983	1362	1753	3079	433	1753	2970	525
Grp Volume(v), veh/h	120	121	119	260	171	165	202	585	591	110	473	472
Grp Sat Flow(s),veh/h/ln	1028	1749	1563	1122	1749	1596	1753	1749	1763	1753	1749	1746
Q Serve(g_s), s	8.3	4.2	4.6	18.3	6.1	6.5	9.0	23.1	23.2	4.9	18.5	18.5
Cycle Q Clear(g_c), s	14.7	4.2	4.6	22.9	6.1	6.5	9.0	23.1	23.2	4.9	18.5	18.5
Prop In Lane	1.00		0.99	1.00		0.85	1.00		0.25	1.00		0.30
Lane Grp Cap(c), veh/h	315	525	469	362	525	479	239	743	749	153	657	656
V/C Ratio(X)	0.38	0.23	0.25	0.72	0.33	0.35	0.84	0.79	0.79	0.72	0.72	0.72
Avail Cap(c_a), veh/h	315	525	469	362	525	479	263	743	749	153	657	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.69	0.69	0.69	0.34	0.34	0.34	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	21.1	21.2	29.9	21.7	21.9	33.7	19.9	19.9	35.5	21.4	21.4
Incr Delay (d2), s/veh	0.8	0.2	0.3	4.7	0.2	0.3	7.9	3.0	3.0	14.8	6.7	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.7	1.7	5.2	2.4	2.4	4.1	8.9	9.0	2.6	8.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	21.3	21.5	34.6	22.0	22.2	41.6	22.8	22.9	50.4	28.0	28.0
LnGrp LOS	C	C	C	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		360			596			1378			1055	
Approach Delay, s/veh		23.7			27.5			25.6			30.4	
Approach LOS		C			C			C			C	

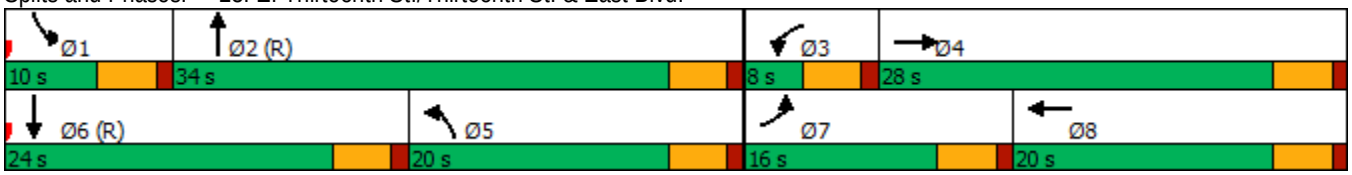
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	39.0		29.0	15.9	35.1		29.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	7.0	34.0		24.0	12.0	29.0		24.0				
Max Q Clear Time (g_c+I1), s	6.9	25.2		16.7	11.0	20.5		24.9				
Green Ext Time (p_c), s	0.0	4.7		1.1	0.1	3.7		0.0				

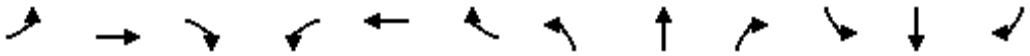
Intersection Summary			
HCM 6th Ctrl Delay		27.2	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	108	76	6	56	151	426	41	278
Future Volume (vph)	108	76	6	56	151	426	41	278
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	28.0	8.0	20.0	20.0	34.0	10.0	24.0
Total Split (%)	20.0%	35.0%	10.0%	25.0%	25.0%	42.5%	12.5%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.9	17.5	3.5	7.0	15.5	44.0	7.6	31.9
Actuated g/C Ratio	0.12	0.22	0.04	0.09	0.19	0.55	0.10	0.40
v/c Ratio	0.56	0.28	0.09	0.24	0.51	0.28	0.27	0.29
Control Delay	35.4	7.2	54.5	11.1	19.1	5.3	37.3	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	7.2	54.5	11.1	19.1	5.3	37.3	16.5
LOS	D	A	D	B	B	A	D	B
Approach Delay		17.1		14.9		8.6		18.6
Approach LOS		B		B		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 3 (4%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 48.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	76	125	6	56	11	151	426	60	41	278	84
Future Volume (veh/h)	108	76	125	6	56	11	151	426	60	41	278	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	119	84	137	7	62	12	166	468	66	45	305	92
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	151	249	222	11	183	35	671	1831	257	56	648	192
Arrive On Green	0.09	0.14	0.14	0.01	0.06	0.06	0.38	0.59	0.59	0.03	0.24	0.24
Sat Flow, veh/h	1753	1749	1560	1753	2937	553	1753	3079	432	1753	2660	788
Grp Volume(v), veh/h	119	84	137	7	36	38	166	265	269	45	199	198
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1741	1753	1749	1763	1753	1749	1699
Q Serve(g_s), s	5.3	3.5	6.6	0.3	1.6	1.7	5.2	5.8	5.8	2.0	7.8	8.0
Cycle Q Clear(g_c), s	5.3	3.5	6.6	0.3	1.6	1.7	5.2	5.8	5.8	2.0	7.8	8.0
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.25	1.00		0.46
Lane Grp Cap(c), veh/h	151	249	222	11	109	109	671	1039	1048	56	426	414
V/C Ratio(X)	0.79	0.34	0.62	0.63	0.33	0.35	0.25	0.25	0.26	0.80	0.47	0.48
Avail Cap(c_a), veh/h	252	514	458	77	339	337	671	1039	1048	121	426	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	30.9	32.3	39.7	35.9	35.9	16.8	7.8	7.8	38.5	25.8	25.9
Incr Delay (d2), s/veh	7.3	0.7	2.3	45.7	1.7	1.8	0.2	0.6	0.6	22.5	3.6	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	1.5	2.6	0.3	0.7	0.7	1.9	1.9	2.0	1.2	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	31.6	34.5	85.4	37.6	37.8	17.0	8.3	8.4	61.0	29.4	29.8
LnGrp LOS	D	C	C	F	D	D	B	A	A	E	C	C
Approach Vol, veh/h		340			81			700			442	
Approach Delay, s/veh		36.8			41.8			10.4			32.8	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	52.1	5.0	15.9	35.1	24.0	11.4	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	29.5	3.5	23.5	15.5	19.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	4.0	7.8	2.3	8.6	7.2	10.0	7.3	3.7
Green Ext Time (p_c), s	0.0	3.0	0.0	1.1	0.3	1.5	0.1	0.2

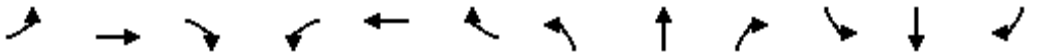
Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	5	230	86	330	246	103	73	94
Future Volume (vph)	5	230	86	330	246	103	73	94
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	26.0	26.0	26.0	26.0	54.0	54.0	54.0	54.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	67.5%	67.5%	67.5%	67.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.9	17.9	17.9	17.9		53.1		53.1
Actuated g/C Ratio	0.22	0.22	0.22	0.22		0.66		0.66
v/c Ratio	0.05	0.54	0.75	0.67		0.64		0.27
Control Delay	27.4	24.3	53.5	24.3		12.2		7.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	27.4	24.3	53.5	24.3		12.2		7.0
LOS	C	C	D	C		B		A
Approach Delay		24.4		29.3		12.2		7.0
Approach LOS		C		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 62 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	230	125	86	330	82	246	103	80	73	94	10
Future Volume (veh/h)	5	230	125	86	330	82	246	103	80	73	94	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	6	291	158	109	418	104	311	130	101	92	119	13
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	201	576	304	224	724	178	578	226	168	415	516	53
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	866	2210	1169	926	2780	686	809	360	268	561	824	85
Grp Volume(v), veh/h	6	229	220	109	261	261	542	0	0	224	0	0
Grp Sat Flow(s),veh/h/ln	866	1749	1630	926	1749	1717	1437	0	0	1470	0	0
Q Serve(g_s), s	0.5	8.9	9.3	9.1	10.4	10.6	12.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.1	8.9	9.3	18.4	10.4	10.6	16.7	0.0	0.0	4.6	0.0	0.0
Prop In Lane	1.00		0.72	1.00		0.40	0.57		0.19	0.41		0.06
Lane Grp Cap(c), veh/h	201	455	425	224	455	447	972	0	0	985	0	0
V/C Ratio(X)	0.03	0.50	0.52	0.49	0.57	0.58	0.56	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	208	470	438	232	470	462	972	0	0	985	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.91	0.91	0.91	0.91	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.6	25.2	25.3	33.2	25.7	25.8	8.4	0.0	0.0	6.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.8	0.9	1.5	1.5	1.6	2.1	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.7	3.6	2.1	4.3	4.4	5.0	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	26.0	26.2	34.6	27.2	27.4	10.5	0.0	0.0	6.9	0.0	0.0
LnGrp LOS	C	C	C	C	C	C	B	A	A	A	A	A
Approach Vol, veh/h		455			631			542			224	
Approach Delay, s/veh		26.2			28.6			10.5			6.9	
Approach LOS		C			C			B			A	

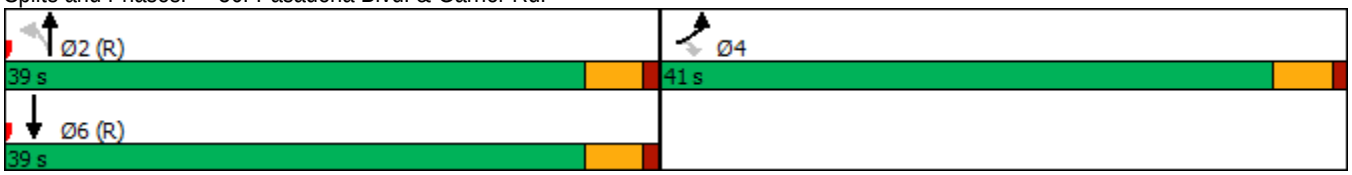
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.7		25.3		54.7		25.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		49.5		21.5		49.5		21.5				
Max Q Clear Time (g_c+I1), s		18.7		13.1		6.6		20.4				
Green Ext Time (p_c), s		4.3		1.8		1.6		0.5				

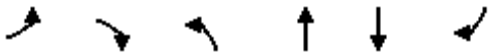
Intersection Summary												
HCM 6th Ctrl Delay			20.1									
HCM 6th LOS			C									

Lane Group	Ø2	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	2	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0
Total Split (%)	49%	51%	49%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	2	2	0	3301	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1560	0	3681	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1560	0	1749	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	2	2	0	3301	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	800	712	0	3301	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0			0	0	
Approach Delay, s/veh	0.0			0.0	0.0	
Approach LOS						

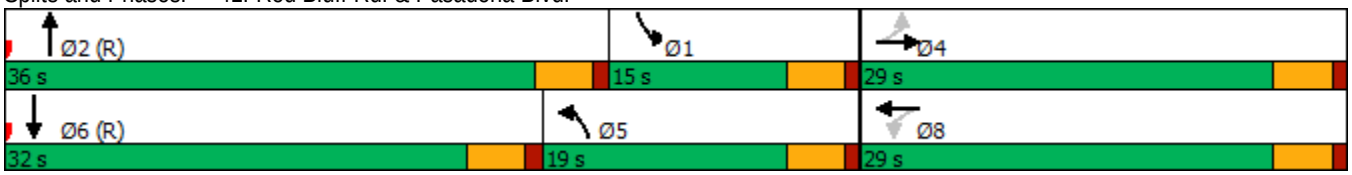
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		34.5		36.5		34.5
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0
Green Ext Time (p_c), s		0.0		0.0		0.0

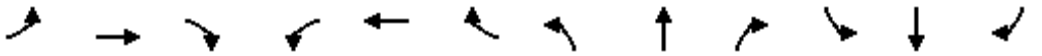
Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	263	11	349	113	658	77	502
Future Volume (vph)	263	11	349	113	658	77	502
Turn Type	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8					
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	29.0	29.0	29.0	19.0	36.0	15.0	32.0
Total Split (%)	36.3%	36.3%	36.3%	23.8%	45.0%	18.8%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lead	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.9		18.9	12.2	40.8	8.8	37.6
Actuated g/C Ratio	0.24		0.24	0.15	0.51	0.11	0.47
v/c Ratio	0.48		0.75	0.49	0.44	0.46	0.35
Control Delay	15.4		28.9	39.3	17.6	40.7	16.7
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	15.4		28.9	39.3	17.6	40.7	16.7
LOS	B		C	D	B	D	B
Approach Delay	15.4		28.9		20.7		19.8
Approach LOS	B		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	263	86	11	349	175	113	658	22	77	502	9
Future Volume (veh/h)	0	263	86	11	349	175	113	658	22	77	502	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	292	96	12	388	194	126	731	0	86	558	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	586	189	53	496	241	460	1377		372	1202	
Arrive On Green	0.00	0.23	0.23	0.23	0.23	0.23	0.26	0.39	0.00	0.21	0.34	0.00
Sat Flow, veh/h	0	2693	838	26	2203	1071	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	0	194	194	325	0	269	126	731	0	86	558	0
Grp Sat Flow(s),veh/h/ln	0	1749	1690	1818	0	1482	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	7.8	8.0	2.6	0.0	13.7	4.6	12.8	0.0	3.3	10.0	0.0
Cycle Q Clear(g_c), s	0.0	7.8	8.0	13.4	0.0	13.7	4.6	12.8	0.0	3.3	10.0	0.0
Prop In Lane	0.00		0.50	0.04		0.72	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	394	381	456	0	334	460	1377		372	1202	
V/C Ratio(X)	0.00	0.49	0.51	0.71	0.00	0.80	0.27	0.53		0.23	0.46	
Avail Cap(c_a), veh/h	0	536	518	600	0	454	460	1377		372	1202	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	27.0	27.1	29.2	0.0	29.3	23.5	18.6	0.0	26.1	20.5	0.0
Incr Delay (d2), s/veh	0.0	1.0	1.1	2.7	0.0	7.3	0.3	1.5	0.0	0.3	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.1	3.1	5.8	0.0	5.2	1.9	5.2	0.0	1.4	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.0	28.2	31.9	0.0	36.7	23.8	20.1	0.0	26.4	21.8	0.0
LnGrp LOS	A	C	C	C	A	D	C	C		C	C	
Approach Vol, veh/h		388			594			857	A		644	A
Approach Delay, s/veh		28.1			34.1			20.6			22.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.5	36.0		22.5	25.5	32.0		22.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	31.5		24.5	14.5	27.5		24.5				
Max Q Clear Time (g_c+I1), s	5.3	14.8		10.0	6.6	12.0		15.7				
Green Ext Time (p_c), s	0.1	4.7		1.8	0.2	3.4		2.3				

Intersection Summary			
HCM 6th Ctrl Delay		25.5	
HCM 6th LOS		C	

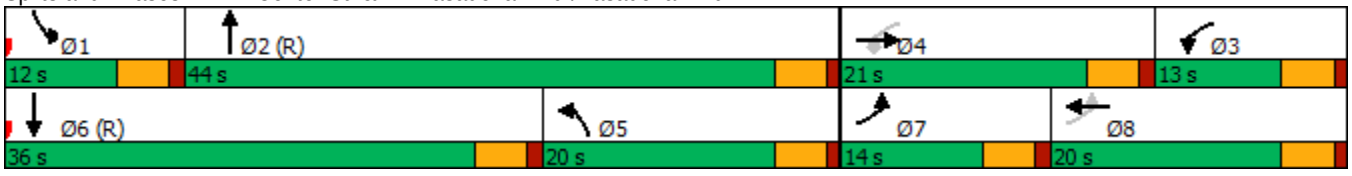
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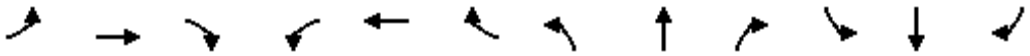
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	195	281	238	207	346	205	1088	129	772
Future Volume (vph)	195	281	238	207	346	205	1088	129	772
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4					
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	21.0	21.0	13.0	20.0	20.0	44.0	12.0	36.0
Total Split (%)	15.6%	23.3%	23.3%	14.4%	22.2%	22.2%	48.9%	13.3%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	24.7	13.4	13.4	24.7	15.2	15.5	39.5	7.8	31.8
Actuated g/C Ratio	0.27	0.15	0.15	0.27	0.17	0.17	0.44	0.09	0.35
v/c Ratio	0.82	0.59	0.57	0.66	0.91	0.76	0.90	0.93	0.72
Control Delay	51.5	40.1	9.9	40.2	46.3	54.3	33.2	101.9	29.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	40.1	9.9	40.2	46.3	54.3	33.2	101.9	29.3
LOS	D	D	A	D	D	D	C	F	C
Approach Delay		33.2			44.7		36.2		39.2
Approach LOS		C			D		D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	281	238	207	346	242	205	1088	134	129	772	49
Future Volume (veh/h)	195	281	238	207	346	242	205	1088	134	129	772	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	210	302	256	223	372	260	220	1170	144	139	830	53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	265	640	285	335	341	235	302	1376	169	146	1168	75
Arrive On Green	0.11	0.18	0.18	0.09	0.17	0.17	0.17	0.44	0.44	0.08	0.35	0.35
Sat Flow, veh/h	1753	3497	1560	1753	1980	1364	1753	3135	385	1753	3338	213
Grp Volume(v), veh/h	210	302	256	223	328	304	220	651	663	139	435	448
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1595	1753	1749	1771	1753	1749	1802
Q Serve(g_s), s	8.8	7.0	14.4	2.0	15.5	15.5	10.7	30.0	30.2	7.1	19.4	19.4
Cycle Q Clear(g_c), s	8.8	7.0	14.4	2.0	15.5	15.5	10.7	30.0	30.2	7.1	19.4	19.4
Prop In Lane	1.00		1.00	1.00		0.85	1.00		0.22	1.00		0.12
Lane Grp Cap(c), veh/h	265	640	285	335	301	275	302	767	777	146	612	631
V/C Ratio(X)	0.79	0.47	0.90	0.67	1.09	1.11	0.73	0.85	0.85	0.95	0.71	0.71
Avail Cap(c_a), veh/h	265	641	286	335	301	275	302	767	777	146	612	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.57	0.57	0.57	0.50	0.50	0.50	0.60	0.60	0.60
Uniform Delay (d), s/veh	28.0	32.9	35.9	35.1	37.3	37.3	35.3	22.6	22.6	41.1	25.3	25.3
Incr Delay (d2), s/veh	15.0	0.5	28.5	2.9	65.5	73.4	4.4	6.0	6.1	44.3	4.2	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	2.9	7.5	4.6	11.8	11.4	4.7	12.4	12.6	4.8	8.3	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	33.4	64.5	38.0	102.7	110.7	39.7	28.6	28.8	85.3	29.5	29.4
LnGrp LOS	D	C	E	D	F	F	D	C	C	F	C	C
Approach Vol, veh/h		768			855			1534			1022	
Approach Delay, s/veh		46.4			88.7			30.3			37.0	
Approach LOS		D			F			C			D	

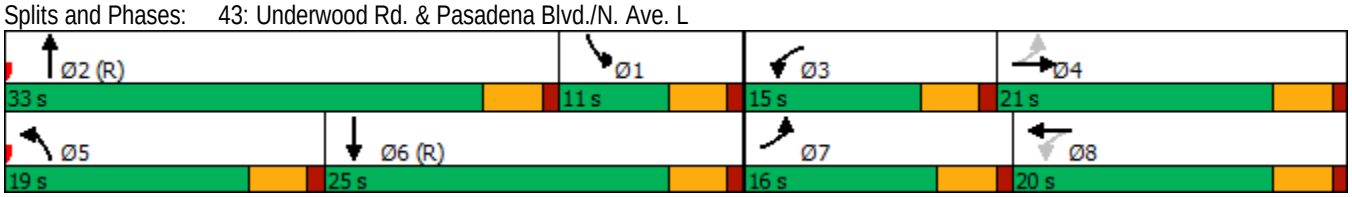
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	44.0	13.0	21.0	20.0	36.0	14.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	39.5	8.5	16.5	15.5	31.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	9.1	32.2	4.0	16.4	12.7	21.4	10.8	17.5
Green Ext Time (p_c), s	0.0	4.5	0.2	0.0	0.2	3.9	0.0	0.0

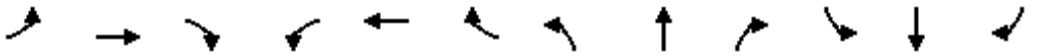
Intersection Summary	
HCM 6th Ctrl Delay	46.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	180	148	156	149	142	595	39	410
Future Volume (vph)	180	148	156	149	142	595	39	410
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	21.0	15.0	20.0	19.0	33.0	11.0	25.0
Total Split (%)	20.0%	26.3%	18.8%	25.0%	23.8%	41.3%	13.8%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.6	10.7	19.7	9.8	12.6	39.2	6.3	28.7
Actuated g/C Ratio	0.27	0.13	0.25	0.12	0.16	0.49	0.08	0.36
v/c Ratio	0.63	0.60	0.60	0.59	0.61	0.49	0.34	0.45
Control Delay	29.5	22.7	26.2	20.7	40.6	16.3	32.3	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	22.7	26.2	20.7	40.6	16.3	32.3	16.3
LOS	C	C	C	C	D	B	C	B
Approach Delay		25.3		22.8		20.4		17.5
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 61.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	148	146	156	149	102	142	595	109	39	410	62
Future Volume (veh/h)	180	148	146	156	149	102	142	595	109	39	410	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	212	174	172	184	175	120	167	700	128	46	482	73
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	358	251	224	326	263	170	205	1052	192	285	1224	184
Arrive On Green	0.13	0.14	0.14	0.11	0.13	0.13	0.12	0.36	0.36	0.16	0.40	0.40
Sat Flow, veh/h	1753	1749	1560	1753	2033	1319	1753	2953	540	1753	3047	459
Grp Volume(v), veh/h	212	174	172	184	149	146	167	414	414	46	276	279
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1603	1753	1749	1744	1753	1749	1758
Q Serve(g_s), s	8.2	7.6	8.5	7.1	6.5	7.0	7.4	16.0	16.0	1.8	9.0	9.0
Cycle Q Clear(g_c), s	8.2	7.6	8.5	7.1	6.5	7.0	7.4	16.0	16.0	1.8	9.0	9.0
Prop In Lane	1.00		1.00	1.00		0.82	1.00		0.31	1.00		0.26
Lane Grp Cap(c), veh/h	358	251	224	326	226	207	205	623	621	285	702	706
V/C Ratio(X)	0.59	0.69	0.77	0.56	0.66	0.70	0.81	0.67	0.67	0.16	0.39	0.40
Avail Cap(c_a), veh/h	387	361	322	358	339	311	318	623	621	285	702	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	32.6	33.0	26.1	33.2	33.4	34.5	21.7	21.7	28.8	17.0	17.0
Incr Delay (d2), s/veh	1.2	1.9	3.8	1.7	3.3	4.3	6.3	3.9	3.9	0.3	1.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.2	3.3	2.9	2.8	2.8	3.3	6.4	6.4	0.7	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	34.5	36.8	27.8	36.4	37.7	40.7	25.6	25.6	29.1	18.7	18.7
LnGrp LOS	C	C	D	C	D	D	D	C	C	C	B	B
Approach Vol, veh/h		558			479			995			601	
Approach Delay, s/veh		32.2			33.5			28.1			19.5	
Approach LOS		C			C			C			B	

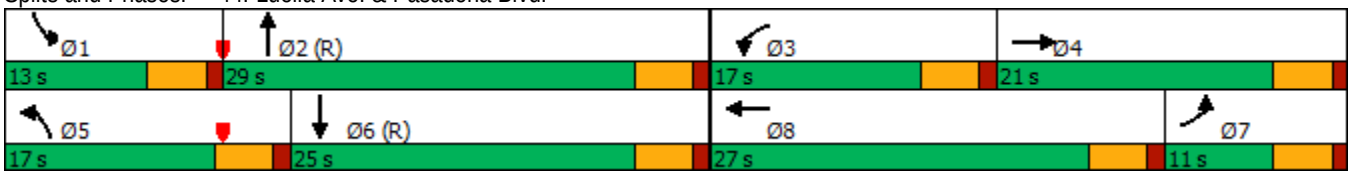
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	33.0	13.5	16.0	13.9	36.6	14.7	14.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	28.5	10.5	16.5	14.5	20.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	3.8	18.0	9.1	10.5	9.4	11.0	10.2	9.0
Green Ext Time (p_c), s	0.0	3.4	0.1	1.0	0.2	2.1	0.1	0.8

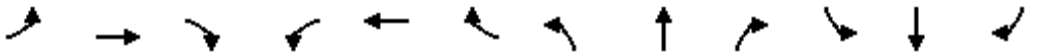
Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	55	381	114	516	111	117	68	104
Future Volume (vph)	55	381	114	516	111	117	68	104
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	11.0	21.0	17.0	27.0	17.0	29.0	13.0	25.0
Total Split (%)	13.8%	26.3%	21.3%	33.8%	21.3%	36.3%	16.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.6	16.7	10.5	20.4	10.5	31.3	7.7	28.8
Actuated g/C Ratio	0.08	0.21	0.13	0.26	0.13	0.39	0.10	0.36
v/c Ratio	0.44	0.70	0.57	0.79	0.57	0.42	0.47	0.35
Control Delay	45.2	33.9	45.0	40.4	32.8	27.7	54.7	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	33.9	45.0	40.4	32.8	27.7	54.7	11.0
LOS	D	C	D	D	C	C	D	B
Approach Delay		35.2		41.1		29.3		22.2
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	381	57	114	516	89	111	117	142	68	104	92
Future Volume (veh/h)	55	381	57	114	516	89	111	117	142	68	104	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	63	438	66	131	593	102	128	134	163	78	120	106
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	80	579	87	165	711	122	162	328	399	100	359	318
Arrive On Green	0.05	0.19	0.19	0.09	0.24	0.24	0.09	0.43	0.43	0.06	0.40	0.40
Sat Flow, veh/h	1753	3050	457	1753	2985	512	1753	756	919	1753	901	796
Grp Volume(v), veh/h	63	250	254	131	347	348	128	0	297	78	0	226
Grp Sat Flow(s),veh/h/ln	1753	1749	1758	1753	1749	1749	1753	0	1675	1753	0	1697
Q Serve(g_s), s	2.8	10.8	10.9	5.9	15.1	15.2	5.7	0.0	9.8	3.5	0.0	7.4
Cycle Q Clear(g_c), s	2.8	10.8	10.9	5.9	15.1	15.2	5.7	0.0	9.8	3.5	0.0	7.4
Prop In Lane	1.00		0.26	1.00		0.29	1.00		0.55	1.00		0.47
Lane Grp Cap(c), veh/h	80	332	334	165	416	416	162	0	727	100	0	677
V/C Ratio(X)	0.79	0.75	0.76	0.79	0.83	0.84	0.79	0.00	0.41	0.78	0.00	0.33
Avail Cap(c_a), veh/h	142	361	363	274	492	492	274	0	727	186	0	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.41	0.41	0.41	0.94	0.00	0.94	0.91	0.00	0.91
Uniform Delay (d), s/veh	37.8	30.6	30.7	35.5	29.0	29.0	35.6	0.0	15.6	37.2	0.0	16.7
Incr Delay (d2), s/veh	10.5	5.4	5.7	3.6	4.5	4.6	7.9	0.0	1.6	11.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.8	4.9	2.5	6.4	6.4	2.7	0.0	3.8	1.7	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	36.1	36.4	39.0	33.4	33.6	43.5	0.0	17.2	48.4	0.0	17.9
LnGrp LOS	D	D	D	D	C	C	D	A	B	D	A	B
Approach Vol, veh/h		567			826			425			304	
Approach Delay, s/veh		37.6			34.4			25.1			25.7	
Approach LOS		D			C			C			C	

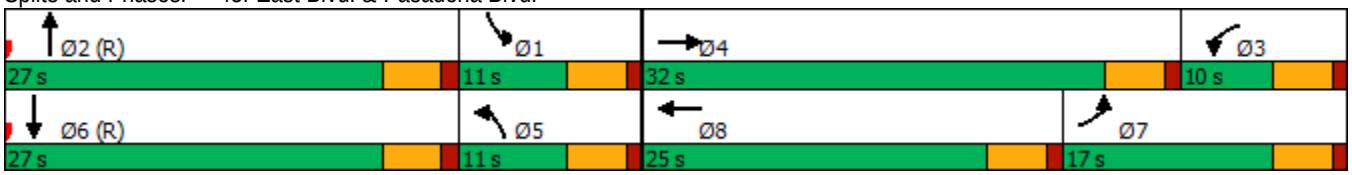
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	39.2	12.0	19.7	11.9	36.4	8.2	23.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	24.5	12.5	16.5	12.5	20.5	6.5	22.5
Max Q Clear Time (g_c+I1), s	5.5	11.8	7.9	12.9	7.7	9.4	4.8	17.2
Green Ext Time (p_c), s	0.0	1.5	0.1	1.0	0.1	0.9	0.0	1.9

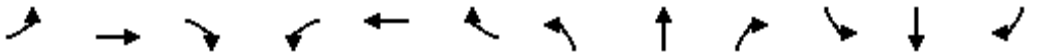
Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	169	264	51	250	92	501	92	577
Future Volume (vph)	169	264	51	250	92	501	92	577
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	9.5	20.0	8.0	20.0	8.0	20.0
Total Split (s)	17.0	32.0	10.0	25.0	11.0	27.0	11.0	27.0
Total Split (%)	21.3%	40.0%	12.5%	31.3%	13.8%	33.8%	13.8%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.8	29.7	5.8	19.4	6.5	24.3	6.5	24.3
Actuated g/C Ratio	0.15	0.37	0.07	0.24	0.08	0.30	0.08	0.30
v/c Ratio	0.76	0.77	0.47	0.88	0.75	0.67	0.75	0.74
Control Delay	57.8	31.1	43.0	38.7	70.2	23.4	64.1	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.8	31.1	43.0	38.7	70.2	23.4	64.1	24.6
LOS	E	C	D	D	E	C	E	C
Approach Delay		38.4		39.3		29.5		29.4
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 33.2	Intersection LOS: C
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	264	182	51	250	86	92	501	109	92	577	102
Future Volume (veh/h)	169	264	182	51	250	86	92	501	109	92	577	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	194	303	209	59	287	99	106	576	125	106	663	117
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	232	327	226	91	317	109	209	804	174	209	836	147
Arrive On Green	0.13	0.32	0.32	0.05	0.24	0.24	0.12	0.28	0.28	0.12	0.28	0.28
Sat Flow, veh/h	1753	1015	700	1753	1308	451	1753	2859	619	1753	2971	524
Grp Volume(v), veh/h	194	0	512	59	0	386	106	352	349	106	390	390
Grp Sat Flow(s),veh/h/ln	1753	0	1715	1753	0	1759	1753	1749	1729	1753	1749	1746
Q Serve(g_s), s	8.6	0.0	23.1	2.6	0.0	17.0	4.5	14.5	14.6	4.5	16.5	16.5
Cycle Q Clear(g_c), s	8.6	0.0	23.1	2.6	0.0	17.0	4.5	14.5	14.6	4.5	16.5	16.5
Prop In Lane	1.00		0.41	1.00		0.26	1.00		0.36	1.00		0.30
Lane Grp Cap(c), veh/h	232	0	553	91	0	426	209	492	486	209	492	491
V/C Ratio(X)	0.84	0.00	0.93	0.65	0.00	0.91	0.51	0.71	0.72	0.51	0.79	0.79
Avail Cap(c_a), veh/h	274	0	589	121	0	451	209	492	486	209	492	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.00	0.70	0.77	0.00	0.77	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	0.0	26.2	37.2	0.0	29.4	33.0	25.9	25.9	33.0	26.6	26.6
Incr Delay (d2), s/veh	12.8	0.0	15.4	5.9	0.0	17.3	1.7	7.5	7.7	2.0	12.4	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	10.7	1.2	0.0	8.6	1.9	6.4	6.4	1.9	7.8	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	0.0	41.5	43.2	0.0	46.7	34.7	33.3	33.6	35.0	38.9	39.1
LnGrp LOS	D	A	D	D	A	D	C	C	C	D	D	D
Approach Vol, veh/h		706			445			807			886	
Approach Delay, s/veh		42.9			46.2			33.6			38.5	
Approach LOS		D			D			C			D	

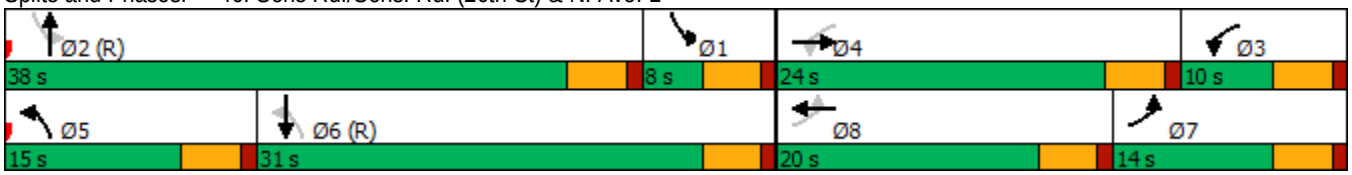
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	27.0	8.6	30.3	14.0	27.0	15.1	23.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.5	5.5	27.5	6.5	22.5	12.5	20.5
Max Q Clear Time (g_c+I1), s	6.5	16.6	4.6	25.1	6.5	18.5	10.6	19.0
Green Ext Time (p_c), s	0.0	2.0	0.0	0.7	0.0	1.6	0.1	0.3

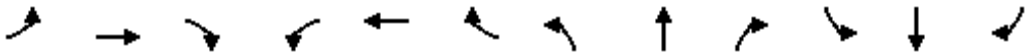
Intersection Summary	
HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	59	2	6	0	94	367	318	
Future Volume (vph)	59	2	6	0	94	367	318	
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	NA	
Protected Phases	7	4	3	8	5	2	6	1
Permitted Phases	8		4		6			
Detector Phase	7	4	3	8	5	2	6	
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0
Total Split (s)	14.0	24.0	10.0	20.0	15.0	38.0	31.0	8.0
Total Split (%)	17.5%	30.0%	12.5%	25.0%	18.8%	47.5%	38.8%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	9.1	8.0	12.4	5.5	59.4	63.9	54.5	
Actuated g/C Ratio	0.11	0.10	0.16	0.07	0.74	0.80	0.68	
v/c Ratio	0.33	0.33	0.03	0.00	0.13	0.15	0.17	
Control Delay	29.9	12.1	24.5	0.0	3.3	2.7	7.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	29.9	12.1	24.5	0.0	3.3	2.7	7.2	
LOS	C	B	C	A	A	A	A	
Approach Delay		20.5		19.1		2.8	7.2	
Approach LOS		C		B		A	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.33	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 42.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	2	65	6	0	2	94	367	7	0	318	30
Future Volume (veh/h)	59	2	65	6	0	2	94	367	7	0	318	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	66	2	72	7	0	2	104	408	8	0	353	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	221	3	108	149	0	82	755	1469	29	890	2094	195
Arrive On Green	0.03	0.07	0.07	0.02	0.00	0.05	0.04	0.42	0.42	0.00	0.65	0.65
Sat Flow, veh/h	1753	42	1524	1753	0	1560	1753	3508	69	1753	3235	301
Grp Volume(v), veh/h	66	0	74	7	0	2	104	203	213	0	190	196
Grp Sat Flow(s),veh/h/ln	1753	0	1566	1753	0	1560	1753	1749	1828	1753	1749	1787
Q Serve(g_s), s	0.0	0.0	3.7	0.0	0.0	0.1	1.6	6.1	6.1	0.0	3.4	3.5
Cycle Q Clear(g_c), s	0.0	0.0	3.7	0.0	0.0	0.1	1.6	6.1	6.1	0.0	3.4	3.5
Prop In Lane	1.00		0.97	1.00		1.00	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	221	0	111	149	0	82	755	732	766	890	1132	1156
V/C Ratio(X)	0.30	0.00	0.67	0.05	0.00	0.02	0.14	0.28	0.28	0.00	0.17	0.17
Avail Cap(c_a), veh/h	370	0	382	243	0	302	913	732	766	890	1132	1156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.00	0.80	1.00	0.00	1.00	0.94	0.94	0.94	0.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	36.2	37.0	0.0	35.9	4.2	15.3	15.3	0.0	5.6	5.6
Incr Delay (d2), s/veh	0.6	0.0	5.4	0.1	0.0	0.1	0.1	0.9	0.8	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.5	0.1	0.0	0.0	0.4	2.4	2.5	0.0	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	0.0	41.7	37.2	0.0	36.1	4.3	16.2	16.1	0.0	5.9	5.9
LnGrp LOS	D	A	D	D	A	D	A	B	B	A	A	A
Approach Vol, veh/h		140			9			520			386	
Approach Delay, s/veh		38.9			36.9			13.8			5.9	
Approach LOS		D			D			B			A	

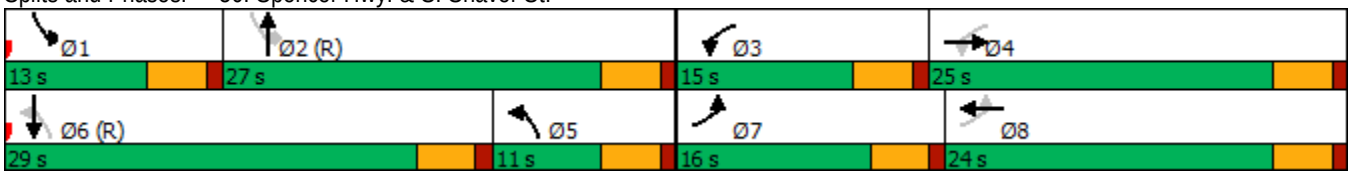
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.1	38.0	5.7	10.2	7.8	56.3	7.2	8.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	33.5	5.5	19.5	10.5	26.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	0.0	8.1	2.0	5.7	3.6	5.5	2.0	2.1
Green Ext Time (p_c), s	0.0	2.3	0.0	0.2	0.1	2.0	0.1	0.0

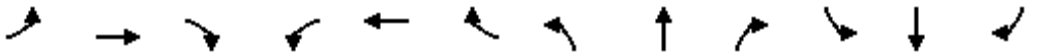
Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	147	662	122	708	86	384	147	125	372
Future Volume (vph)	147	662	122	708	86	384	147	125	372
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	16.0	25.0	15.0	24.0	11.0	27.0	27.0	13.0	29.0
Total Split (%)	20.0%	31.3%	18.8%	30.0%	13.8%	33.8%	33.8%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	29.1	20.0	29.1	19.2	33.8	24.9	24.9	32.9	28.6
Actuated g/C Ratio	0.36	0.25	0.36	0.24	0.42	0.31	0.31	0.41	0.36
v/c Ratio	0.56	0.68	0.50	0.78	0.31	0.43	0.29	0.36	0.51
Control Delay	22.2	29.6	26.6	12.8	36.5	39.8	21.3	11.9	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	29.6	26.6	12.8	36.5	39.8	21.3	11.9	11.4
LOS	C	C	C	B	D	D	C	B	B
Approach Delay		28.4		14.7		34.9			11.5
Approach LOS		C		B		C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 58 (73%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 64.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	662	58	122	708	82	86	384	147	125	372	172
Future Volume (veh/h)	147	662	58	122	708	82	86	384	147	125	372	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	173	779	68	144	833	96	101	452	173	147	438	202
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	290	1135	99	293	1032	118	455	1319	588	443	714	326
Arrive On Green	0.10	0.24	0.24	0.03	0.07	0.07	0.14	0.38	0.38	0.07	0.31	0.31
Sat Flow, veh/h	1753	4708	409	1753	4572	524	1753	3497	1560	1753	2332	1066
Grp Volume(v), veh/h	173	553	294	144	609	320	101	452	173	147	327	313
Grp Sat Flow(s),veh/h/ln	1753	1675	1767	1753	1675	1746	1753	1749	1560	1753	1749	1649
Q Serve(g_s), s	5.9	12.0	12.1	4.8	14.3	14.4	0.0	7.4	6.2	4.0	12.8	13.0
Cycle Q Clear(g_c), s	5.9	12.0	12.1	4.8	14.3	14.4	0.0	7.4	6.2	4.0	12.8	13.0
Prop In Lane	1.00		0.23	1.00		0.30	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	290	807	426	293	756	394	455	1319	588	443	536	505
V/C Ratio(X)	0.60	0.69	0.69	0.49	0.81	0.81	0.22	0.34	0.29	0.33	0.61	0.62
Avail Cap(c_a), veh/h	369	858	453	377	817	426	455	1319	588	500	536	505
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	27.6	27.6	22.4	35.3	35.3	23.3	17.8	17.4	13.6	23.7	23.8
Incr Delay (d2), s/veh	1.7	1.8	3.6	1.0	4.2	8.2	0.2	0.7	1.3	0.4	5.1	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.7	5.2	2.0	6.8	7.5	1.5	3.0	2.2	1.5	5.8	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	29.4	31.2	23.3	39.5	43.5	23.5	18.5	18.7	14.0	28.8	29.4
LnGrp LOS	C	C	C	C	D	D	C	B	B	B	C	C
Approach Vol, veh/h		1020			1073			726			787	
Approach Delay, s/veh		29.0			38.5			19.3			26.3	
Approach LOS		C			D			B			C	

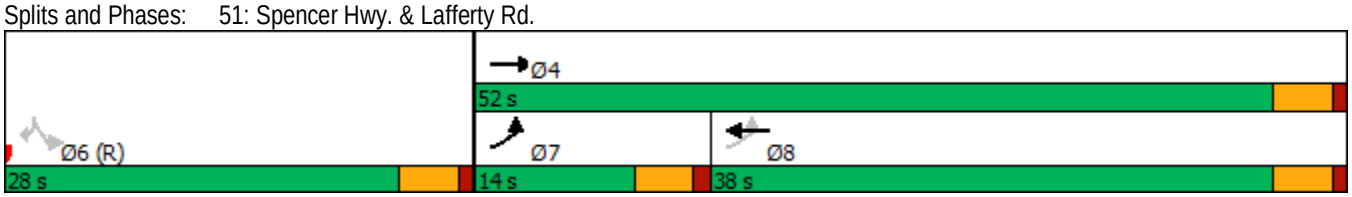
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	34.7	11.2	23.8	16.1	29.0	12.4	22.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	22.5	10.5	20.5	6.5	24.5	11.5	19.5
Max Q Clear Time (g_c+I1), s	6.0	9.4	6.8	14.1	2.0	15.0	7.9	16.4
Green Ext Time (p_c), s	0.1	3.0	0.1	2.7	0.1	2.8	0.1	1.6

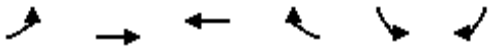
Intersection Summary	
HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	67	877	858	109	79
Future Volume (vph)	67	877	858	109	79
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	52.0	38.0	28.0	28.0
Total Split (%)	17.5%	65.0%	47.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	32.8	36.4	26.5	34.6	34.6
Actuated g/C Ratio	0.41	0.46	0.33	0.43	0.43
v/c Ratio	0.32	0.46	0.69	0.17	0.13
Control Delay	6.9	9.2	23.2	18.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	9.2	23.2	18.0	5.2
LOS	A	A	C	B	A
Approach Delay		9.1	23.2	12.6	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 4 (5%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 44.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





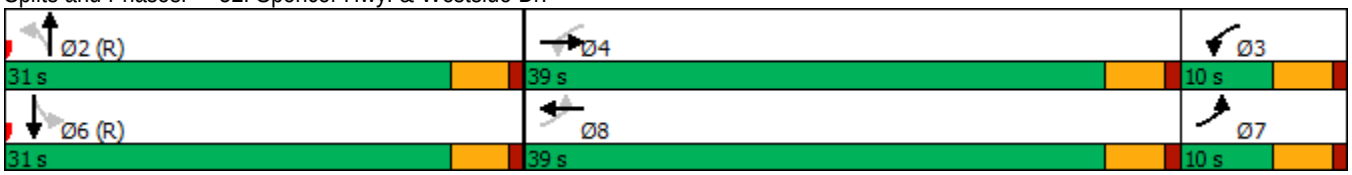
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	67	877	858	101	109	79
Future Volume (vph)	67	877	858	101	109	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4745		1678	1501
Flt Permitted	0.15	1.00	1.00		0.95	1.00
Satd. Flow (perm)	267	4821	4745		1678	1501
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	76	997	975	115	124	90
RTOR Reduction (vph)	0	0	21	0	0	52
Lane Group Flow (vph)	76	997	1069	0	124	38
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	32.8	37.3	26.5		33.7	33.7
Effective Green, g (s)	32.8	37.3	26.5		33.7	33.7
Actuated g/C Ratio	0.41	0.47	0.33		0.42	0.42
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	220	2247	1571		706	632
v/s Ratio Prot	0.03	c0.21	c0.23			
v/s Ratio Perm	0.11				c0.07	0.03
v/c Ratio	0.35	0.44	0.68		0.18	0.06
Uniform Delay, d1	15.5	14.4	23.1		14.5	13.7
Progression Factor	0.37	0.60	0.97		1.00	1.00
Incremental Delay, d2	0.9	0.1	0.9		0.5	0.2
Delay (s)	6.6	8.7	23.3		15.0	13.9
Level of Service	A	A	C		B	B
Approach Delay (s)		8.6	23.3		14.6	
Approach LOS		A	C		B	

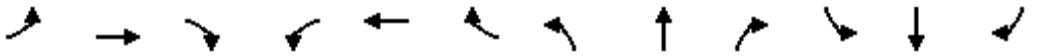
Intersection Summary			
HCM 2000 Control Delay	15.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	8	839	25	861	26	41	67	37
Future Volume (vph)	8	839	25	861	26	41	67	37
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	39.0	10.0	39.0	31.0	31.0	31.0	31.0
Total Split (%)	12.5%	48.8%	12.5%	48.8%	38.8%	38.8%	38.8%	38.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	32.1	25.1	31.2	27.7		41.3		41.3
Actuated g/C Ratio	0.40	0.31	0.39	0.35		0.52		0.52
v/c Ratio	0.04	0.63	0.11	0.62		0.14		0.17
Control Delay	9.5	17.9	2.0	4.9		9.9		18.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	9.5	17.9	2.0	4.9		9.9		18.1
LOS	A	B	A	A		A		B
Approach Delay		17.8		4.9		9.9		18.1
Approach LOS		B		A		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 47 (59%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 11.4	Intersection LOS: B
Intersection Capacity Utilization 41.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	839	30	25	861	70	26	41	42	67	37	9
Future Volume (veh/h)	8	839	30	25	861	70	26	41	42	67	37	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	9	922	33	27	946	77	29	45	46	74	41	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	1373	49	191	1389	113	229	352	326	515	274	62
Arrive On Green	0.00	0.09	0.09	0.02	0.20	0.20	0.53	0.53	0.53	0.53	0.53	0.53
Sat Flow, veh/h	1753	4981	178	1753	4737	385	327	663	615	837	518	118
Grp Volume(v), veh/h	9	620	335	27	668	355	120	0	0	125	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1771	1605	0	0	1472	0	0
Q Serve(g_s), s	0.0	14.3	14.4	0.0	14.8	14.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	14.3	14.4	0.0	14.8	14.9	2.8	0.0	0.0	2.8	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.22	0.24		0.38	0.59		0.08
Lane Grp Cap(c), veh/h	162	923	498	191	983	520	907	0	0	852	0	0
V/C Ratio(X)	0.06	0.67	0.67	0.14	0.68	0.68	0.13	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	269	1445	780	266	1445	764	907	0	0	852	0	0
HCM Platoon Ratio	0.33	0.33	0.33	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.72	0.72	0.72	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.0	32.9	32.9	32.7	28.7	28.7	9.5	0.0	0.0	9.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.7	1.3	0.2	0.6	1.1	0.3	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	6.4	7.0	0.5	6.2	6.7	1.1	0.0	0.0	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	33.5	34.1	32.9	29.3	29.8	9.8	0.0	0.0	9.9	0.0	0.0
LnGrp LOS	C	C	C	C	C	C	A	A	A	A	A	A
Approach Vol, veh/h		964			1050			120			125	
Approach Delay, s/veh		33.7			29.5			9.8			9.9	
Approach LOS		C			C			A			A	

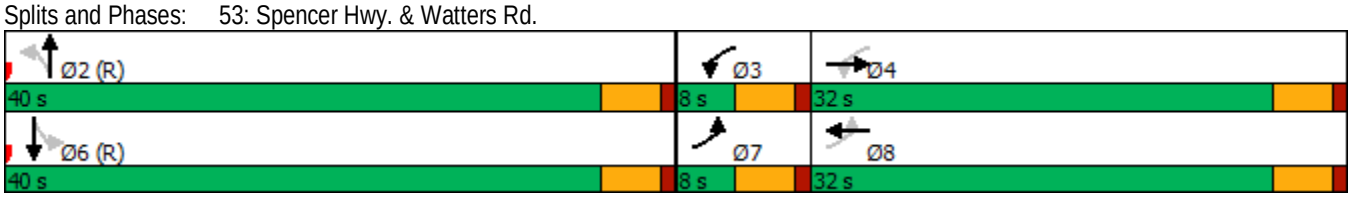
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.9	6.6	26.5		46.9	5.1	28.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	5.5	34.5		26.5	5.5	34.5				
Max Q Clear Time (g_c+I1), s		4.8	2.0	16.4		4.8	2.0	16.9				
Green Ext Time (p_c), s		0.6	0.0	5.7		0.6	0.0	6.6				

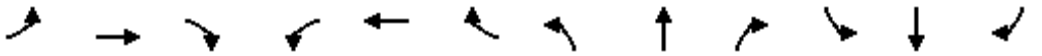
Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	49	1095	64	1106	176	32	51	35
Future Volume (vph)	49	1095	64	1106	176	32	51	35
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	32.0	8.0	32.0	40.0	40.0	40.0	40.0
Total Split (%)	10.0%	40.0%	10.0%	40.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	30.8	27.1	29.9	28.7		37.5		37.5
Actuated g/C Ratio	0.38	0.34	0.37	0.36		0.47		0.47
v/c Ratio	0.33	0.84	0.43	0.71		0.56		0.35
Control Delay	10.5	13.3	12.7	8.5		19.5		8.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	10.5	13.3	12.7	8.5		19.5		8.7
LOS	B	B	B	A		B		A
Approach Delay		13.2		8.7		19.5		8.7
Approach LOS		B		A		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1095	200	64	1106	60	176	32	71	51	35	159
Future Volume (veh/h)	49	1095	200	64	1106	60	176	32	71	51	35	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	53	1190	217	70	1202	65	191	35	77	55	38	173
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	211	1344	245	192	1582	86	448	88	158	177	139	488
Arrive On Green	0.06	0.63	0.63	0.08	0.65	0.65	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1753	4272	779	1753	4880	264	787	185	331	258	293	1026
Grp Volume(v), veh/h	53	933	474	70	825	442	303	0	0	266	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1701	1753	1675	1793	1303	0	0	1577	0	0
Q Serve(g_s), s	1.6	18.7	18.7	2.1	13.6	13.7	4.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	18.7	18.7	2.1	13.6	13.7	12.5	0.0	0.0	8.0	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.15	0.63		0.25	0.21		0.65
Lane Grp Cap(c), veh/h	211	1054	535	192	1086	581	693	0	0	805	0	0
V/C Ratio(X)	0.25	0.89	0.89	0.36	0.76	0.76	0.44	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	233	1152	585	197	1152	616	693	0	0	805	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.34	0.34	0.34	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.9	13.6	13.6	19.1	11.9	11.9	14.2	0.0	0.0	13.1	0.0	0.0
Incr Delay (d2), s/veh	0.4	5.1	9.4	0.4	1.0	1.8	2.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.3	5.0	0.8	3.0	3.4	3.8	0.0	0.0	3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	18.8	23.1	19.5	12.9	13.7	16.2	0.0	0.0	14.2	0.0	0.0
LnGrp LOS	B	B	C	B	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1460			1337			303			266	
Approach Delay, s/veh		20.1			13.5			16.2			14.2	
Approach LOS		C			B			B			B	

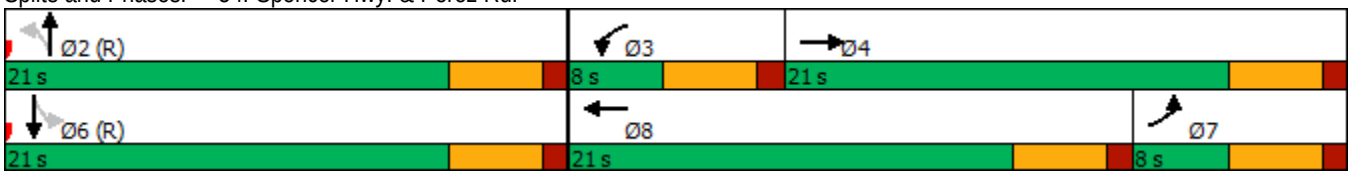
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.6	7.8	29.7		42.6	7.0	30.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	3.5	27.5		35.5	3.5	27.5				
Max Q Clear Time (g_c+I1), s		14.5	4.1	20.7		10.0	3.6	15.7				
Green Ext Time (p_c), s		2.0	0.0	4.5		1.7	0.0	6.1				

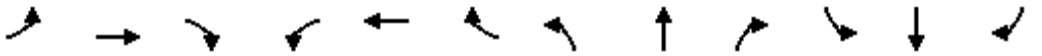
Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	26	725	1	892	7	106	3
Future Volume (vph)	26	725	1	892	7	106	3
Turn Type	Prot	NA	Prot	NA	NA	Perm	NA
Protected Phases	7	4	3	8	2		6
Permitted Phases						6	
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	21.0	8.0	21.0	21.0	21.0	21.0
Total Split (%)	16.0%	42.0%	16.0%	42.0%	42.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	3.9	17.7	3.5	16.1	21.7		21.7
Actuated g/C Ratio	0.08	0.35	0.07	0.32	0.43		0.43
v/c Ratio	0.23	0.49	0.01	0.73	0.02		0.28
Control Delay	26.5	13.6	22.0	17.6	8.3		10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	26.5	13.6	22.0	17.6	8.3		10.4
LOS	C	B	C	B	A		B
Approach Delay		14.0		17.6	8.3		10.4
Approach LOS		B		B	A		B

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	725	0	1	892	95	0	7	8	106	3	39
Future Volume (veh/h)	26	725	0	1	892	95	0	7	8	106	3	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	863	0	1	1062	113	0	8	10	126	4	46
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	43	1624	0	4	1383	147	0	302	377	521	33	153
Arrive On Green	0.02	0.32	0.00	0.00	0.30	0.30	0.00	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1753	5191	0	1753	4612	490	0	744	930	981	82	376
Grp Volume(v), veh/h	31	863	0	1	771	404	0	0	18	176	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	0	1753	1675	1752	0	0	1673	1439	0	0
Q Serve(g_s), s	0.9	7.0	0.0	0.0	10.5	10.5	0.0	0.0	0.3	3.2	0.0	0.0
Cycle Q Clear(g_c), s	0.9	7.0	0.0	0.0	10.5	10.5	0.0	0.0	0.3	4.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.28	0.00		0.56	0.72		0.26
Lane Grp Cap(c), veh/h	43	1624	0	4	1004	525	0	0	679	707	0	0
V/C Ratio(X)	0.72	0.53	0.00	0.29	0.77	0.77	0.00	0.00	0.03	0.25	0.00	0.00
Avail Cap(c_a), veh/h	123	1658	0	123	1106	578	0	0	679	707	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.00	0.60	0.60	0.60	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.2	13.8	0.0	24.9	15.9	15.9	0.0	0.0	8.9	10.0	0.0	0.0
Incr Delay (d2), s/veh	14.0	0.2	0.0	24.7	1.8	3.5	0.0	0.0	0.1	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	0.0	0.0	3.5	3.9	0.0	0.0	0.1	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	14.0	0.0	49.6	17.8	19.4	0.0	0.0	9.0	10.8	0.0	0.0
LnGrp LOS	D	B	A	D	B	B	A	A	A	B	A	A
Approach Vol, veh/h		894			1176			18			176	
Approach Delay, s/veh		14.9			18.4			9.0			10.8	
Approach LOS		B			B			A			B	

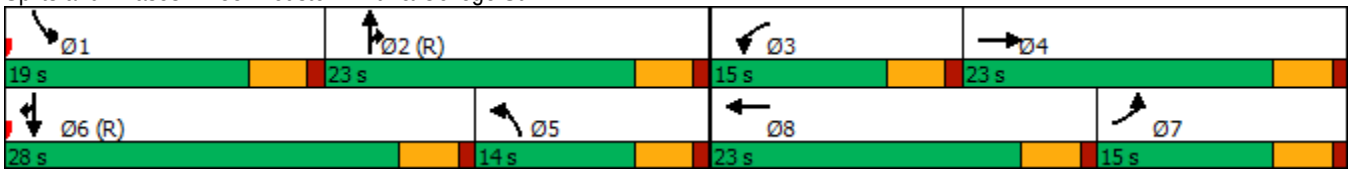
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.8	4.5	20.7		24.8	5.7	19.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.5	3.5	16.5		16.5	3.5	16.5				
Max Q Clear Time (g_c+I1), s		2.3	2.0	9.0		6.0	2.9	12.5				
Green Ext Time (p_c), s		0.0	0.0	3.2		0.6	0.0	2.5				

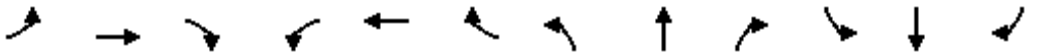
Intersection Summary												
HCM 6th Ctrl Delay			16.3									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	130	447	104	748	96	510	104	180	348	167
Future Volume (vph)	130	447	104	748	96	510	104	180	348	167
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	Prot	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases										
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	15.0	23.0	15.0	23.0	14.0	23.0	23.0	19.0	28.0	28.0
Total Split (%)	18.8%	28.8%	18.8%	28.8%	17.5%	28.8%	28.8%	23.8%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.8	20.9	9.3	18.2	8.8	21.3	21.3	12.7	27.3	27.3
Actuated g/C Ratio	0.12	0.26	0.12	0.23	0.11	0.27	0.27	0.16	0.34	0.34
v/c Ratio	0.66	0.45	0.56	0.85	0.54	0.59	0.20	0.70	0.32	0.27
Control Delay	32.8	9.2	22.4	23.3	44.2	29.7	0.8	45.8	22.0	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	9.2	22.4	23.3	44.2	29.7	0.8	45.8	22.0	3.6
LOS	C	A	C	C	D	C	A	D	C	A
Approach Delay		13.9		23.2		27.4			23.7	
Approach LOS		B		C		C			C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 52 (65%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	447	82	104	748	124	96	510	104	180	348	167
Future Volume (veh/h)	130	447	82	104	748	124	96	510	104	180	348	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	140	481	88	112	804	133	103	548	112	194	374	180
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	1016	182	142	952	156	285	1131	504	234	1027	458
Arrive On Green	0.10	0.24	0.24	0.08	0.22	0.22	0.16	0.32	0.32	0.13	0.29	0.29
Sat Flow, veh/h	1753	4286	767	1753	4348	714	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	140	374	195	112	618	319	103	548	112	194	374	180
Grp Sat Flow(s),veh/h/ln	1753	1675	1703	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	6.3	7.7	7.9	5.0	14.1	14.3	4.2	10.1	4.2	8.6	6.8	7.4
Cycle Q Clear(g_c), s	6.3	7.7	7.9	5.0	14.1	14.3	4.2	10.1	4.2	8.6	6.8	7.4
Prop In Lane	1.00		0.45	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	795	404	142	734	375	285	1131	504	234	1027	458
V/C Ratio(X)	0.80	0.47	0.48	0.79	0.84	0.85	0.36	0.48	0.22	0.83	0.36	0.39
Avail Cap(c_a), veh/h	230	795	404	230	775	396	285	1131	504	318	1027	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	26.2	26.3	36.1	29.9	30.0	29.8	21.7	19.7	33.8	22.3	22.6
Incr Delay (d2), s/veh	14.1	0.4	0.9	9.2	8.1	15.4	0.8	1.5	1.0	12.6	1.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.9	3.1	2.4	6.1	7.1	1.8	4.2	1.6	4.4	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	26.6	27.2	45.2	38.0	45.4	30.6	23.2	20.8	46.3	23.3	25.1
LnGrp LOS	D	C	C	D	D	D	C	C	C	D	C	C
Approach Vol, veh/h		709			1049			763			748	
Approach Delay, s/veh		31.3			41.0			23.8			29.7	
Approach LOS		C			D			C			C	

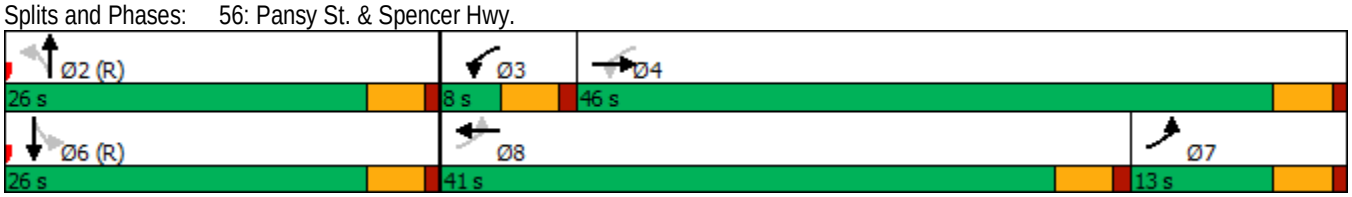
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	30.4	11.0	23.5	17.5	28.0	12.5	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	18.5	10.5	18.5	9.5	23.5	10.5	18.5
Max Q Clear Time (g_c+I1), s	10.6	12.1	7.0	9.9	6.2	9.4	8.3	16.3
Green Ext Time (p_c), s	0.2	2.2	0.1	2.2	0.1	2.6	0.1	1.2

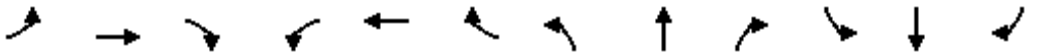
Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	69	921	28	1267	13	64	36	52
Future Volume (vph)	69	921	28	1267	13	64	36	52
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	46.0	8.0	41.0	26.0	26.0	26.0	26.0
Total Split (%)	16.3%	57.5%	10.0%	51.3%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	38.4	37.7	39.1	32.3		30.1		30.1
Actuated g/C Ratio	0.48	0.47	0.49	0.40		0.38		0.38
v/c Ratio	0.34	0.45	0.12	0.70		0.16		0.25
Control Delay	9.5	10.6	8.1	21.8		17.9		16.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	9.5	10.6	8.1	21.8		17.9		16.6
LOS	A	B	A	C		B		B
Approach Delay		10.5		21.5		17.9		16.6
Approach LOS		B		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 16.8	Intersection LOS: B
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	921	25	28	1267	42	13	64	20	36	52	57
Future Volume (veh/h)	69	921	25	28	1267	42	13	64	20	36	52	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	990	27	30	1362	45	14	69	22	39	56	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	1900	52	290	1817	60	114	520	155	196	279	269
Arrive On Green	0.07	0.76	0.76	0.02	0.36	0.36	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1753	5029	137	1753	4996	165	146	1204	358	323	645	621
Grp Volume(v), veh/h	74	659	358	30	913	494	105	0	0	156	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1816	1753	1675	1811	1708	0	0	1589	0	0
Q Serve(g_s), s	0.0	6.3	6.4	0.8	19.1	19.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.3	6.4	0.8	19.1	19.1	2.9	0.0	0.0	4.5	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.09	0.13		0.21	0.25		0.39
Lane Grp Cap(c), veh/h	199	1266	686	290	1219	659	789	0	0	743	0	0
V/C Ratio(X)	0.37	0.52	0.52	0.10	0.75	0.75	0.13	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	323	1738	942	329	1528	826	789	0	0	743	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.72	0.72	0.72	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.7	6.9	6.9	15.0	22.3	22.3	13.7	0.0	0.0	14.2	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.3	0.5	0.1	1.2	2.1	0.3	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.5	1.7	0.3	7.0	7.7	1.2	0.0	0.0	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	7.1	7.3	15.1	23.4	24.4	14.1	0.0	0.0	14.8	0.0	0.0
LnGrp LOS	C	A	A	B	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1091			1437			105			156	
Approach Delay, s/veh		9.0			23.6			14.1			14.8	
Approach LOS		A			C			B			B	

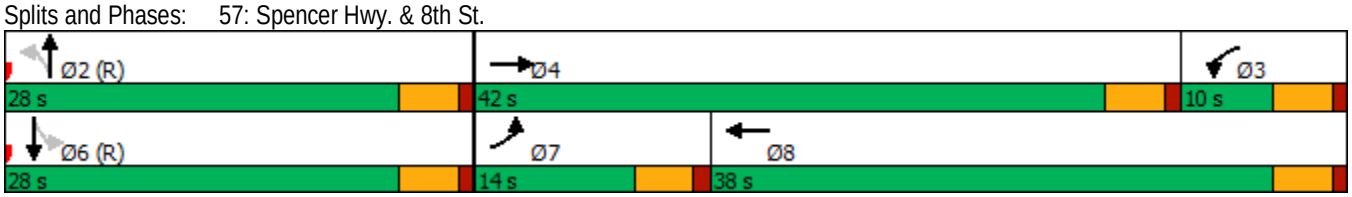
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.1	6.2	34.7		39.1	7.3	33.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	8.5	36.5				
Max Q Clear Time (g_c+I1), s		4.9	2.8	8.4		6.5	2.0	21.1				
Green Ext Time (p_c), s		0.4	0.0	7.4		0.7	0.1	8.0				

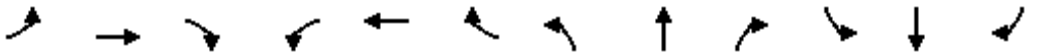
Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	54	683	11	956	16	27	26	15
Future Volume (vph)	54	683	11	956	16	27	26	15
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	42.0	10.0	38.0	28.0	28.0	28.0	28.0
Total Split (%)	17.5%	52.5%	12.5%	47.5%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.8	29.8	8.1	26.1		36.9		36.9
Actuated g/C Ratio	0.10	0.37	0.10	0.33		0.46		0.46
v/c Ratio	0.34	0.42	0.07	0.67		0.11		0.18
Control Delay	17.1	5.9	30.8	24.4		11.3		7.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	17.1	5.9	30.8	24.4		11.3		7.9
LOS	B	A	C	C		B		A
Approach Delay		6.7		24.4		11.3		7.9
Approach LOS		A		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 48.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	683	16	11	956	28	16	27	36	26	15	90
Future Volume (veh/h)	54	683	16	11	956	28	16	27	36	26	15	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	58	734	17	12	1028	30	17	29	39	28	16	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	74	1100	25	194	1436	42	181	307	368	176	121	537
Arrive On Green	0.04	0.22	0.22	0.11	0.29	0.29	0.50	0.50	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1753	5053	117	1753	5018	146	252	610	731	243	240	1067
Grp Volume(v), veh/h	58	486	265	12	686	372	85	0	0	141	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1820	1753	1675	1814	1593	0	0	1551	0	0
Q Serve(g_s), s	2.6	10.6	10.7	0.5	14.7	14.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	10.6	10.7	0.5	14.7	14.7	2.1	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.08	0.20		0.46	0.20		0.69
Lane Grp Cap(c), veh/h	74	730	396	194	958	519	855	0	0	834	0	0
V/C Ratio(X)	0.78	0.67	0.67	0.06	0.72	0.72	0.10	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	208	1570	853	194	1403	760	855	0	0	834	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.0	28.6	28.6	31.9	25.6	25.6	10.4	0.0	0.0	10.8	0.0	0.0
Incr Delay (d2), s/veh	16.4	1.1	2.0	0.1	0.7	1.2	0.2	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.1	4.6	0.2	5.5	6.0	0.8	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.4	29.7	30.6	32.0	26.3	26.9	10.6	0.0	0.0	11.3	0.0	0.0
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		809			1070			85			141	
Approach Delay, s/veh		31.8			26.6			10.6			11.3	
Approach LOS		C			C			B			B	

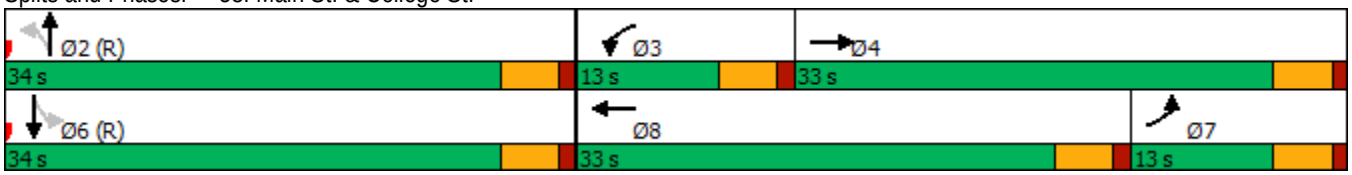
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.7	13.3	21.9		44.7	7.9	27.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.5	37.5		23.5	9.5	33.5				
Max Q Clear Time (g_c+I1), s		4.1	2.5	12.7		5.7	4.6	16.7				
Green Ext Time (p_c), s		0.4	0.0	4.8		0.7	0.0	6.2				

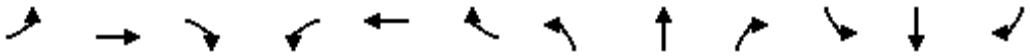
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	668	43	850	78	37	22	38
Future Volume (vph)	43	668	43	850	78	37	22	38
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	33.0	13.0	33.0	34.0	34.0	34.0	34.0
Total Split (%)	16.3%	41.3%	16.3%	41.3%	42.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.3	23.7	7.3	23.7		39.7		39.7
Actuated g/C Ratio	0.09	0.30	0.09	0.30		0.50		0.50
v/c Ratio	0.29	0.58	0.29	0.66		0.25		0.17
Control Delay	38.3	23.5	44.7	7.0		20.9		8.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	38.3	23.5	44.7	7.0		20.9		8.4
LOS	D	C	D	A		C		A
Approach Delay		24.3		8.8		20.9		8.4
Approach LOS		C		A		C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 55.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	668	127	43	850	21	78	37	57	22	38	73
Future Volume (veh/h)	43	668	127	43	850	21	78	37	57	22	38	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	46	718	137	46	914	23	84	40	61	24	41	78
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	58	1081	204	58	1284	32	405	197	264	164	283	472
Arrive On Green	0.03	0.25	0.25	0.03	0.25	0.25	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1753	4245	801	1753	5041	127	624	362	485	204	520	869
Grp Volume(v), veh/h	46	565	290	46	607	330	185	0	0	143	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1696	1753	1675	1818	1471	0	0	1593	0	0
Q Serve(g_s), s	2.1	12.1	12.3	2.1	13.2	13.2	1.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.1	12.1	12.3	2.1	13.2	13.2	4.5	0.0	0.0	3.4	0.0	0.0
Prop In Lane	1.00		0.47	1.00		0.07	0.45		0.33	0.17		0.55
Lane Grp Cap(c), veh/h	58	853	432	58	853	463	865	0	0	919	0	0
V/C Ratio(X)	0.80	0.66	0.67	0.80	0.71	0.71	0.21	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	186	1193	604	186	1193	648	865	0	0	919	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.4	26.7	26.8	38.4	27.1	27.1	9.3	0.0	0.0	9.1	0.0	0.0
Incr Delay (d2), s/veh	21.6	0.9	1.8	21.6	1.2	2.2	0.6	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.8	5.0	1.2	5.2	5.8	1.6	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	27.6	28.6	60.0	28.3	29.3	9.9	0.0	0.0	9.5	0.0	0.0
LnGrp LOS	E	C	C	E	C	C	A	A	A	A	A	A
Approach Vol, veh/h		901			983			185			143	
Approach Delay, s/veh		29.6			30.1			9.9			9.5	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.0	7.1	24.9		48.0	7.1	24.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	8.5	28.5		29.5	8.5	28.5				
Max Q Clear Time (g_c+I1), s		6.5	4.1	14.3		5.4	4.1	15.2				
Green Ext Time (p_c), s		1.1	0.0	4.9		0.8	0.0	5.2				

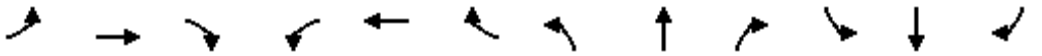
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	678	4	888	67	3	2	0
Future Volume (vph)	4	678	4	888	67	3	2	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	42.0	10.0	42.0	28.0	28.0	28.0	28.0
Total Split (%)	12.5%	52.5%	12.5%	52.5%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.8	26.4	7.6	28.2		40.6		40.6
Actuated g/C Ratio	0.07	0.33	0.10	0.35		0.51		0.51
v/c Ratio	0.03	0.49	0.02	0.68		0.11		0.03
Control Delay	41.8	16.1	14.0	6.0		14.4		0.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	41.8	16.1	14.0	6.0		14.4		0.0
LOS	D	B	B	A		B		A
Approach Delay		16.2		6.0		14.4		
Approach LOS		B		A		B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 43.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	678	30	4	888	168	67	3	0	2	0	21
Future Volume (veh/h)	4	678	30	4	888	168	67	3	0	2	0	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	4	745	33	4	976	185	74	3	0	2	0	23
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	7	1112	49	175	1363	258	761	29	0	82	30	727
Arrive On Green	0.00	0.23	0.23	0.10	0.32	0.32	0.51	0.51	0.00	0.51	0.00	0.51
Sat Flow, veh/h	1753	4934	218	1753	4244	802	1329	58	0	66	58	1436
Grp Volume(v), veh/h	4	505	273	4	770	391	77	0	0	25	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1802	1753	1675	1696	1386	0	0	1561	0	0
Q Serve(g_s), s	0.2	11.0	11.1	0.2	16.2	16.3	1.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	11.0	11.1	0.2	16.2	16.3	2.1	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.47	0.96		0.00	0.08		0.92
Lane Grp Cap(c), veh/h	7	755	406	175	1076	545	790	0	0	839	0	0
V/C Ratio(X)	0.61	0.67	0.67	0.02	0.72	0.72	0.10	0.00	0.00	0.03	0.00	0.00
Avail Cap(c_a), veh/h	121	1570	844	175	1570	795	790	0	0	839	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.8	28.3	28.3	32.5	23.9	24.0	10.2	0.0	0.0	9.9	0.0	0.0
Incr Delay (d2), s/veh	68.0	1.0	1.9	0.1	0.9	1.8	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.2	4.7	0.1	6.0	6.3	0.7	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.8	29.3	30.2	32.6	24.8	25.7	10.5	0.0	0.0	10.0	0.0	0.0
LnGrp LOS	F	C	C	C	C	C	B	A	A	A	A	A
Approach Vol, veh/h		782			1165			77			25	
Approach Delay, s/veh		30.0			25.2			10.5			10.0	
Approach LOS		C			C			B			A	

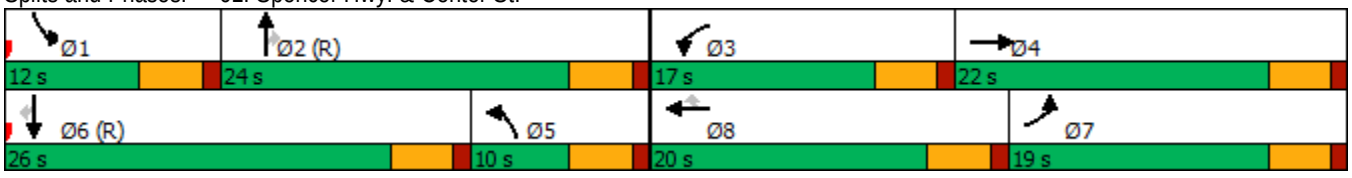
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		45.0	12.5	22.5		45.0	4.8	30.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.5	37.5		23.5	5.5	37.5				
Max Q Clear Time (g_c+I1), s		4.1	2.2	13.1		2.6	2.2	18.3				
Green Ext Time (p_c), s		0.3	0.0	5.0		0.1	0.0	7.4				

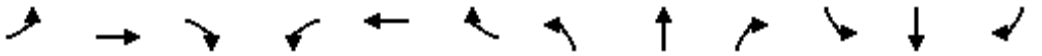
Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	272	641	133	734	187	45	717	81	147	548	285
Future Volume (vph)	272	641	133	734	187	45	717	81	147	548	285
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	19.0	22.0	17.0	20.0	20.0	10.0	24.0	24.0	12.0	26.0	26.0
Total Split (%)	25.3%	29.3%	22.7%	26.7%	26.7%	13.3%	32.0%	32.0%	16.0%	34.7%	34.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.3	18.9	10.6	15.3	15.3	5.5	19.5	19.5	7.9	25.9	25.9
Actuated g/C Ratio	0.19	0.25	0.14	0.20	0.20	0.07	0.26	0.26	0.11	0.35	0.35
v/c Ratio	0.90	0.65	0.59	0.79	0.42	0.39	0.86	0.17	0.87	0.50	0.42
Control Delay	61.2	26.9	39.9	34.8	6.3	42.4	38.3	1.6	77.4	22.5	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	26.9	39.9	34.8	6.3	42.4	38.3	1.6	77.4	22.5	4.8
LOS	E	C	D	C	A	D	D	A	E	C	A
Approach Delay		36.0		30.4			35.0			25.6	
Approach LOS		D		C			D			C	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 31.6	Intersection LOS: C
Intersection Capacity Utilization 77.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	272	641	108	133	734	187	45	717	81	147	548	285
Future Volume (veh/h)	272	641	108	133	734	187	45	717	81	147	548	285
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	296	697	117	145	798	203	49	779	88	160	596	310
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	335	1225	203	182	981	304	153	958	427	175	1003	447
Arrive On Green	0.19	0.28	0.28	0.10	0.20	0.20	0.09	0.27	0.27	0.10	0.29	0.29
Sat Flow, veh/h	1753	4340	721	1753	5025	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	296	536	278	145	798	203	49	779	88	160	596	310
Grp Sat Flow(s),veh/h/ln	1753	1675	1711	1753	1675	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	12.3	10.3	10.4	6.1	11.4	6.6	2.0	15.6	3.3	6.8	11.0	13.3
Cycle Q Clear(g_c), s	12.3	10.3	10.4	6.1	11.4	6.6	2.0	15.6	3.3	6.8	11.0	13.3
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	335	945	483	182	981	304	153	958	427	175	1003	447
V/C Ratio(X)	0.88	0.57	0.58	0.80	0.81	0.67	0.32	0.81	0.21	0.91	0.59	0.69
Avail Cap(c_a), veh/h	339	945	483	292	1039	322	153	958	427	175	1003	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.69	0.69	0.69	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	29.5	23.0	23.1	32.8	28.9	14.7	32.1	25.4	21.0	33.4	23.0	23.8
Incr Delay (d2), s/veh	20.0	0.7	1.4	5.4	3.4	3.3	1.2	7.5	1.1	33.5	1.7	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	3.9	4.2	2.8	4.7	3.4	0.9	7.1	1.3	4.4	4.5	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	23.7	24.5	38.2	32.3	18.1	33.3	32.9	22.0	66.9	24.7	29.7
LnGrp LOS	D	C	C	D	C	B	C	C	C	E	C	C
Approach Vol, veh/h		1110			1146			916			1066	
Approach Delay, s/veh		30.8			30.5			31.9			32.5	
Approach LOS		C			C			C			C	

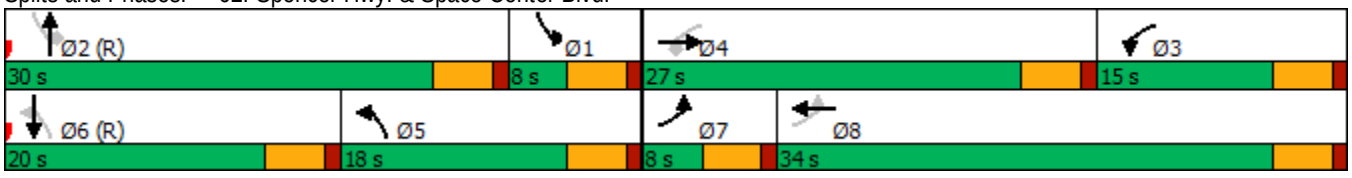
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	25.0	12.3	25.7	11.0	26.0	18.8	19.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	19.5	12.5	17.5	5.5	21.5	14.5	15.5
Max Q Clear Time (g_c+I1), s	8.8	17.6	8.1	12.4	4.0	15.3	14.3	13.4
Green Ext Time (p_c), s	0.0	1.0	0.1	2.3	0.0	2.7	0.0	1.2

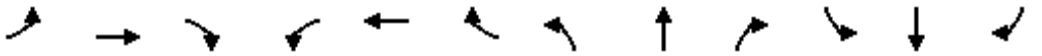
Intersection Summary	
HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	23	863	170	173	1105	278	310	190	27	210
Future Volume (vph)	23	863	170	173	1105	278	310	190	27	210
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases	8		4	4		6		2	2	
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	27.0	27.0	15.0	34.0	18.0	30.0	30.0	8.0	20.0
Total Split (%)	10.0%	33.8%	33.8%	18.8%	42.5%	22.5%	37.5%	37.5%	10.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	32.8	21.4	21.4	30.1	31.4	31.9	33.2	33.2	36.6	21.6
Actuated g/C Ratio	0.41	0.27	0.27	0.38	0.39	0.40	0.42	0.42	0.46	0.27
v/c Ratio	0.13	0.73	0.33	0.67	0.65	0.63	0.24	0.27	0.06	0.32
Control Delay	8.4	18.3	4.0	25.5	14.7	21.8	11.1	2.0	14.0	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	18.3	4.0	25.5	14.7	21.8	11.1	2.0	14.0	23.5
LOS	A	B	A	C	B	C	B	A	B	C
Approach Delay		15.8			16.1		12.7			22.7
Approach LOS		B			B		B			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	863	170	173	1105	30	278	310	190	27	210	55
Future Volume (veh/h)	23	863	170	173	1105	30	278	310	190	27	210	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	25	938	185	188	1201	33	302	337	207	29	228	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	163	1216	377	271	1547	42	665	1115	497	527	533	137
Arrive On Green	0.02	0.24	0.24	0.08	0.31	0.31	0.26	0.32	0.32	0.13	0.19	0.19
Sat Flow, veh/h	1753	5025	1560	1753	5028	138	1753	3497	1560	1753	2753	709
Grp Volume(v), veh/h	25	938	185	188	800	434	302	337	207	29	143	145
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1816	1753	1749	1560	1753	1749	1713
Q Serve(g_s), s	0.8	13.9	8.2	2.5	17.4	17.4	0.4	5.8	8.3	0.0	5.7	6.0
Cycle Q Clear(g_c), s	0.8	13.9	8.2	2.5	17.4	17.4	0.4	5.8	8.3	0.0	5.7	6.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	163	1216	377	271	1030	559	665	1115	497	527	339	332
V/C Ratio(X)	0.15	0.77	0.49	0.69	0.78	0.78	0.45	0.30	0.42	0.06	0.42	0.44
Avail Cap(c_a), veh/h	207	1413	439	354	1235	670	665	1115	497	527	339	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.61	0.61	0.61	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	28.3	26.1	33.4	25.2	25.2	20.2	20.5	21.4	16.1	28.3	28.4
Incr Delay (d2), s/veh	0.4	2.1	0.9	2.4	1.6	3.0	0.5	0.7	2.6	0.0	3.8	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.3	0.1	3.4	6.4	7.2	4.1	2.4	3.1	0.3	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	30.3	27.0	35.8	26.8	28.2	20.7	21.2	24.0	16.2	32.1	32.5
LnGrp LOS	C	C	C	D	C	C	C	C	C	B	C	C
Approach Vol, veh/h		1148			1422			846			317	
Approach Delay, s/veh		29.6			28.4			21.7			30.9	
Approach LOS		C			C			C			C	

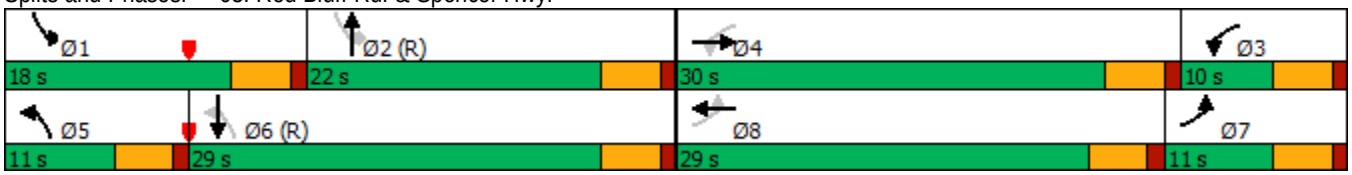
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	30.0	11.2	23.9	24.9	20.0	6.0	29.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	25.5	10.5	22.5	13.5	15.5	3.5	29.5
Max Q Clear Time (g_c+I1), s	2.0	10.3	4.5	15.9	2.4	8.0	2.8	19.4
Green Ext Time (p_c), s	0.0	2.5	0.2	3.4	0.7	0.9	0.0	5.2

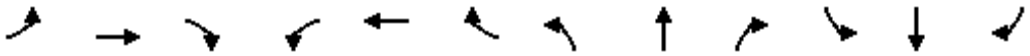
Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	75	665	60	782	130	266	36	247	296
Future Volume (vph)	75	665	60	782	130	266	36	247	296
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	11.0	30.0	10.0	29.0	11.0	22.0	22.0	18.0	29.0
Total Split (%)	13.8%	37.5%	12.5%	36.3%	13.8%	27.5%	27.5%	22.5%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	29.6	24.1	30.1	23.7	34.4	22.5	22.5	34.4	27.6
Actuated g/C Ratio	0.37	0.30	0.38	0.30	0.43	0.28	0.28	0.43	0.34
v/c Ratio	0.37	0.55	0.22	0.78	0.30	0.30	0.07	0.49	0.31
Control Delay	39.8	37.5	18.2	27.2	21.2	32.9	3.0	9.8	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	37.5	18.2	27.2	21.2	32.9	3.0	9.8	7.5
LOS	D	D	B	C	C	C	A	A	A
Approach Delay		37.7		26.7		26.9			8.4
Approach LOS		D		C		C			A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 70 (88%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 26.2	Intersection LOS: C
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	665	106	60	782	281	130	266	36	247	296	50
Future Volume (veh/h)	75	665	106	60	782	281	130	266	36	247	296	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	80	707	113	64	832	299	138	283	38	263	315	53
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	186	977	155	300	1023	365	527	1171	522	595	1171	195
Arrive On Green	0.04	0.22	0.22	0.09	0.28	0.28	0.07	0.33	0.33	0.12	0.39	0.39
Sat Flow, veh/h	1753	4374	692	1753	3652	1304	1753	3497	1560	1753	3000	499
Grp Volume(v), veh/h	80	540	280	64	763	368	138	283	38	263	182	186
Grp Sat Flow(s),veh/h/ln	1753	1675	1716	1753	1675	1606	1753	1749	1560	1753	1749	1751
Q Serve(g_s), s	0.0	11.9	12.1	0.0	17.0	17.1	3.7	4.7	0.9	7.6	5.7	5.8
Cycle Q Clear(g_c), s	0.0	11.9	12.1	0.0	17.0	17.1	3.7	4.7	0.9	7.6	5.7	5.8
Prop In Lane	1.00		0.40	1.00		0.81	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	186	748	383	300	938	450	527	1171	522	595	683	683
V/C Ratio(X)	0.43	0.72	0.73	0.21	0.81	0.82	0.26	0.24	0.07	0.44	0.27	0.27
Avail Cap(c_a), veh/h	265	1068	547	300	1026	492	550	1171	522	674	683	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.69	0.69	0.69	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	28.8	28.8	30.8	26.8	26.9	13.0	19.3	8.7	14.0	16.6	16.6
Incr Delay (d2), s/veh	1.2	1.0	2.2	0.2	3.3	6.9	0.3	0.5	0.3	0.5	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.5	4.8	1.1	6.9	7.1	1.4	1.9	0.5	2.9	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	29.8	31.0	31.0	30.2	33.8	13.2	19.7	8.9	14.5	17.6	17.6
LnGrp LOS	D	C	C	C	C	C	B	B	A	B	B	B
Approach Vol, veh/h		900			1195			459			631	
Approach Delay, s/veh		30.8			31.3			16.9			16.3	
Approach LOS		C			C			B			B	

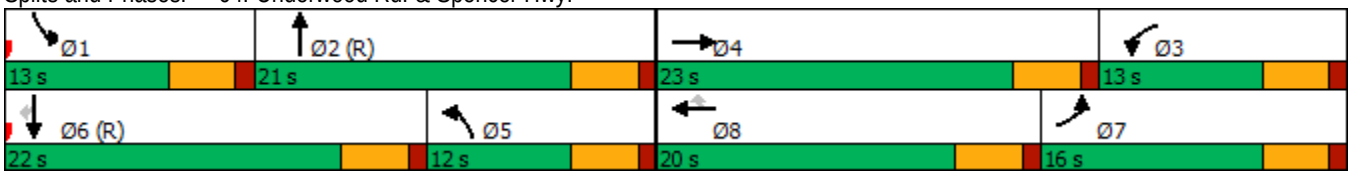
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	31.3	11.9	22.4	10.0	35.7	7.4	26.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	17.5	5.5	25.5	6.5	24.5	6.5	24.5
Max Q Clear Time (g_c+I1), s	9.6	6.7	2.0	14.1	5.7	7.8	2.0	19.1
Green Ext Time (p_c), s	0.3	1.4	0.0	3.8	0.0	1.9	0.1	3.3

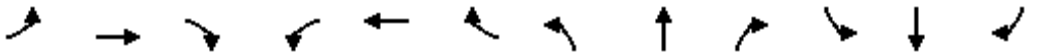
Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	243	472	71	518	288	116	399	175	307	152
Future Volume (vph)	243	472	71	518	288	116	399	175	307	152
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	16.0	23.0	13.0	20.0	20.0	12.0	21.0	13.0	22.0	22.0
Total Split (%)	22.9%	32.9%	18.6%	28.6%	28.6%	17.1%	30.0%	18.6%	31.4%	31.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.4	21.7	8.9	13.9	13.9	7.4	16.8	8.9	20.6	20.6
Actuated g/C Ratio	0.18	0.31	0.13	0.20	0.20	0.11	0.24	0.13	0.29	0.29
v/c Ratio	0.87	0.41	0.35	0.59	0.56	0.72	0.63	0.87	0.33	0.29
Control Delay	58.9	19.8	32.1	28.0	7.5	55.2	26.4	69.4	21.9	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.9	19.8	32.1	28.0	7.5	55.2	26.4	69.4	21.9	5.5
LOS	E	B	C	C	A	E	C	E	C	A
Approach Delay		31.6		21.6			32.0		31.1	
Approach LOS		C		C			C		C	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 28.6	Intersection LOS: C
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	243	472	87	71	518	288	116	399	82	175	307	152
Future Volume (veh/h)	243	472	87	71	518	288	116	399	82	175	307	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	267	519	96	78	569	316	127	438	90	192	337	167
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	288	760	138	299	925	287	253	790	161	213	874	390
Arrive On Green	0.16	0.18	0.18	0.17	0.18	0.18	0.14	0.27	0.27	0.12	0.25	0.25
Sat Flow, veh/h	1753	4276	775	1753	5025	1560	1753	2893	590	1753	3497	1560
Grp Volume(v), veh/h	267	404	211	78	569	316	127	263	265	192	337	167
Grp Sat Flow(s),veh/h/ln	1753	1675	1701	1753	1675	1560	1753	1749	1734	1753	1749	1560
Q Serve(g_s), s	10.5	7.9	8.1	2.7	7.3	8.9	4.7	9.0	9.2	7.6	5.6	6.3
Cycle Q Clear(g_c), s	10.5	7.9	8.1	2.7	7.3	8.9	4.7	9.0	9.2	7.6	5.6	6.3
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	288	595	302	299	925	287	253	478	474	213	874	390
V/C Ratio(X)	0.93	0.68	0.70	0.26	0.62	1.10	0.50	0.55	0.56	0.90	0.39	0.43
Avail Cap(c_a), veh/h	288	885	450	299	1113	345	253	478	474	213	874	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.80	0.80	0.80	0.78	0.78	0.78	0.87	0.87	0.87
Uniform Delay (d), s/veh	28.8	26.9	27.0	25.2	26.3	13.7	27.6	21.8	21.8	30.3	21.8	22.0
Incr Delay (d2), s/veh	30.3	1.1	2.4	0.4	0.6	74.2	1.2	3.6	3.7	32.8	1.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	2.9	3.2	1.1	2.7	9.9	1.9	3.7	3.8	4.9	2.2	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	28.1	29.4	25.6	26.9	88.0	28.8	25.3	25.5	63.2	22.9	25.0
LnGrp LOS	E	C	C	C	C	F	C	C	C	E	C	C
Approach Vol, veh/h		882			963			655			696	
Approach Delay, s/veh		37.8			46.8			26.1			34.5	
Approach LOS		D			D			C			C	

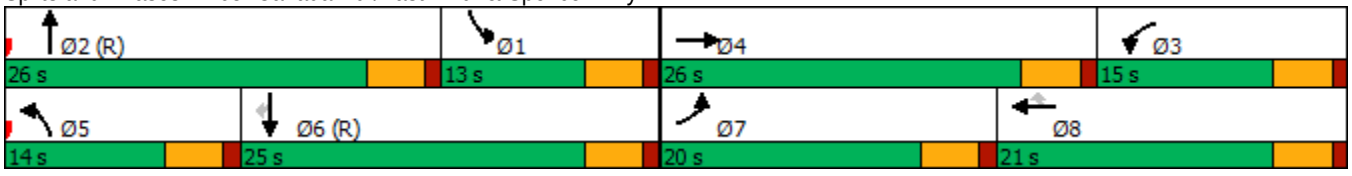
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	23.6	16.5	16.9	14.6	22.0	16.0	17.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	16.5	8.5	18.5	7.5	17.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	9.6	11.2	4.7	10.1	6.7	8.3	12.5	10.9
Green Ext Time (p_c), s	0.0	1.4	0.0	2.3	0.0	1.7	0.0	1.9

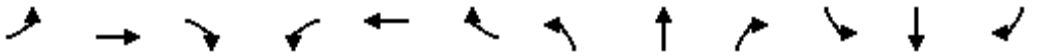
Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	165	471	97	528	170	75	384	180	403	158
Future Volume (vph)	165	471	97	528	170	75	384	180	403	158
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	26.0	15.0	21.0	21.0	14.0	26.0	13.0	25.0	25.0
Total Split (%)	25.0%	32.5%	18.8%	26.3%	26.3%	17.5%	32.5%	16.3%	31.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.7	17.8	11.9	14.8	14.8	8.3	26.0	8.5	28.2	28.2
Actuated g/C Ratio	0.16	0.22	0.15	0.18	0.18	0.10	0.32	0.11	0.35	0.35
v/c Ratio	0.64	0.54	0.40	0.64	0.40	0.47	0.47	0.54	0.35	0.25
Control Delay	21.1	11.9	35.0	33.4	6.2	29.9	18.6	44.9	30.0	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	11.9	35.0	33.4	6.2	29.9	18.6	44.9	30.0	10.0
LOS	C	B	D	C	A	C	B	D	C	B
Approach Delay		14.0		27.8			20.1		29.4	
Approach LOS		B		C			C		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 23.2	Intersection LOS: C
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	471	65	97	528	170	75	384	110	180	403	158
Future Volume (veh/h)	165	471	65	97	528	170	75	384	110	180	403	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	506	70	104	568	183	81	413	118	194	433	170
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	217	736	100	206	797	247	104	723	205	762	1516	676
Arrive On Green	0.12	0.16	0.16	0.12	0.16	0.16	0.06	0.27	0.27	0.22	0.43	0.43
Sat Flow, veh/h	1753	4473	609	1753	5025	1560	1753	2691	761	3401	3497	1560
Grp Volume(v), veh/h	177	377	199	104	568	183	81	267	264	194	433	170
Grp Sat Flow(s),veh/h/ln	1753	1675	1731	1753	1675	1560	1753	1749	1704	1700	1749	1560
Q Serve(g_s), s	7.9	8.5	8.7	4.5	8.6	5.4	3.6	10.5	10.7	3.8	6.4	5.5
Cycle Q Clear(g_c), s	7.9	8.5	8.7	4.5	8.6	5.4	3.6	10.5	10.7	3.8	6.4	5.5
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	217	551	285	206	797	247	104	470	458	762	1516	676
V/C Ratio(X)	0.82	0.68	0.70	0.50	0.71	0.74	0.78	0.57	0.58	0.25	0.29	0.25
Avail Cap(c_a), veh/h	340	900	465	230	1036	322	208	470	458	762	1516	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	0.81	0.81	0.81	0.91	0.91	0.91	0.62	0.62	0.62
Uniform Delay (d), s/veh	34.2	31.5	31.5	33.1	31.9	11.5	37.1	25.2	25.3	25.5	14.6	14.4
Incr Delay (d2), s/veh	6.2	1.1	2.2	1.5	1.3	5.2	10.8	4.5	4.8	0.1	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.3	3.6	1.9	3.3	3.3	1.8	4.6	4.6	1.5	2.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	32.5	33.8	34.7	33.2	16.7	47.9	29.7	30.1	25.6	14.9	15.0
LnGrp LOS	D	C	C	C	C	B	D	C	C	C	B	B
Approach Vol, veh/h		753			855			612			797	
Approach Delay, s/veh		34.7			29.9			32.3			17.6	
Approach LOS		C			C			C			B	

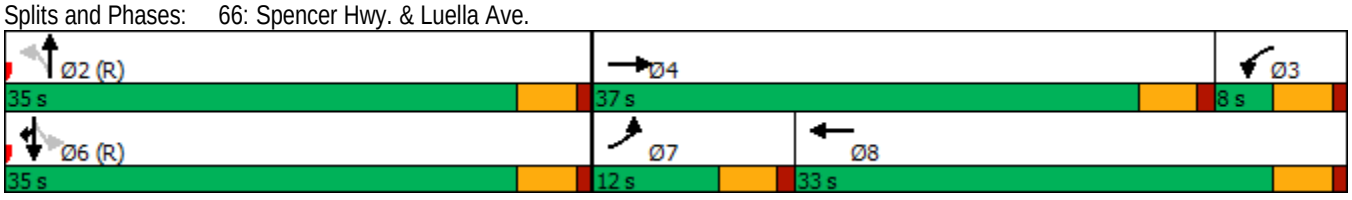
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	26.0	13.9	17.7	9.3	39.2	14.4	17.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	21.5	10.5	21.5	9.5	20.5	15.5	16.5
Max Q Clear Time (g_c+I1), s	5.8	12.7	6.5	10.7	5.6	8.4	9.9	10.6
Green Ext Time (p_c), s	0.2	2.0	0.1	2.5	0.0	2.7	0.2	2.1

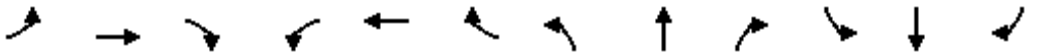
Intersection Summary	
HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	53	711	3	828	4	0	209	4	160
Future Volume (vph)	53	711	3	828	4	0	209	4	160
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	37.0	8.0	33.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	15.0%	46.3%	10.0%	41.3%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.0	30.0	6.7	25.9		37.9		37.9	37.9
Actuated g/C Ratio	0.09	0.38	0.08	0.32		0.47		0.47	0.47
v/c Ratio	0.39	0.43	0.02	0.73		0.01		0.38	0.21
Control Delay	42.2	19.4	22.3	16.7		0.0		22.3	8.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	42.2	19.4	22.3	16.7		0.0		22.3	8.1
LOS	D	B	C	B		A		C	A
Approach Delay		21.0		16.7				16.2	
Approach LOS		C		B				B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 18.1	Intersection LOS: B
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	711	17	3	828	250	4	0	1	209	4	160
Future Volume (veh/h)	53	711	17	3	828	250	4	0	1	209	4	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	59	790	19	3	920	278	4	0	1	232	4	178
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	75	1143	27	185	1107	333	487	9	104	788	13	779
Arrive On Green	0.04	0.23	0.23	0.21	0.58	0.58	0.50	0.00	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1753	5048	121	1753	3830	1154	814	18	208	1399	26	1560
Grp Volume(v), veh/h	59	524	285	3	804	394	5	0	0	236	0	178
Grp Sat Flow(s),veh/h/ln	1753	1675	1819	1753	1675	1633	1040	0	0	1425	0	1560
Q Serve(g_s), s	2.7	11.5	11.5	0.1	15.6	15.7	0.0	0.0	0.0	0.0	0.0	5.2
Cycle Q Clear(g_c), s	2.7	11.5	11.5	0.1	15.6	15.7	7.3	0.0	0.0	7.3	0.0	5.2
Prop In Lane	1.00		0.07	1.00		0.71	0.80		0.20	0.98		1.00
Lane Grp Cap(c), veh/h	75	759	412	185	968	472	600	0	0	801	0	779
V/C Ratio(X)	0.79	0.69	0.69	0.02	0.83	0.83	0.01	0.00	0.00	0.29	0.00	0.23
Avail Cap(c_a), veh/h	164	1361	739	185	1193	582	600	0	0	801	0	779
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	0.83	0.83	0.83	1.00	0.00	0.00	0.90	0.00	0.90
Uniform Delay (d), s/veh	37.9	28.4	28.4	28.3	15.3	15.3	10.3	0.0	0.0	11.8	0.0	11.3
Incr Delay (d2), s/veh	12.2	0.8	1.5	0.0	3.5	7.2	0.0	0.0	0.0	0.8	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.3	4.8	0.0	3.9	4.3	0.0	0.0	0.0	2.5	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	29.2	29.9	28.3	18.8	22.5	10.4	0.0	0.0	12.7	0.0	11.9
LnGrp LOS	D	C	C	C	B	C	B	A	A	B	A	B
Approach Vol, veh/h		868			1201			5			414	
Approach Delay, s/veh		30.8			20.1			10.4			12.4	
Approach LOS		C			C			B			B	

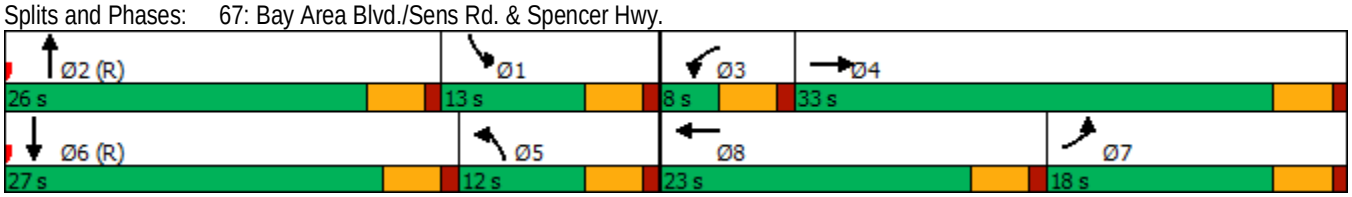
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		44.5	12.9	22.6		44.5	7.9	27.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	3.5	32.5		30.5	7.5	28.5				
Max Q Clear Time (g_c+I1), s		9.3	2.1	13.5		9.3	4.7	17.7				
Green Ext Time (p_c), s		0.0	0.0	4.6		1.9	0.0	5.4				

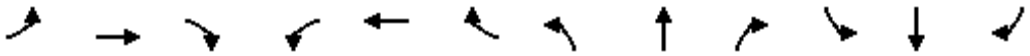
Intersection Summary	
HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	159	462	31	351	66	242	105	229
Future Volume (vph)	159	462	31	351	66	242	105	229
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	33.0	8.0	23.0	12.0	26.0	13.0	27.0
Total Split (%)	22.5%	41.3%	10.0%	28.8%	15.0%	32.5%	16.3%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.3	24.8	3.9	12.8	7.1	31.0	8.1	31.8
Actuated g/C Ratio	0.15	0.31	0.05	0.16	0.09	0.39	0.10	0.40
v/c Ratio	0.63	0.38	0.39	0.58	0.48	0.23	0.65	0.24
Control Delay	42.0	20.4	51.9	27.9	38.9	5.6	53.0	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	20.4	51.9	27.9	38.9	5.6	53.0	11.5
LOS	D	C	D	C	D	A	D	B
Approach Delay		25.3		29.4		11.7		22.0
Approach LOS		C		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 52.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	462	74	31	351	102	66	242	51	105	229	82
Future Volume (veh/h)	159	462	74	31	351	102	66	242	51	105	229	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	167	486	78	33	369	107	69	255	54	111	241	86
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	205	1042	164	40	562	156	408	774	161	430	716	249
Arrive On Green	0.12	0.24	0.24	0.02	0.14	0.14	0.23	0.27	0.27	0.25	0.28	0.28
Sat Flow, veh/h	1753	4378	689	1753	3909	1087	1753	2881	600	1753	2546	885
Grp Volume(v), veh/h	167	370	194	33	314	162	69	153	156	111	164	163
Grp Sat Flow(s),veh/h/ln	1753	1675	1717	1753	1675	1645	1753	1749	1733	1753	1749	1681
Q Serve(g_s), s	7.4	7.6	7.8	1.5	7.1	7.5	2.5	5.6	5.8	4.1	5.9	6.2
Cycle Q Clear(g_c), s	7.4	7.6	7.8	1.5	7.1	7.5	2.5	5.6	5.8	4.1	5.9	6.2
Prop In Lane	1.00		0.40	1.00		0.66	1.00		0.35	1.00		0.53
Lane Grp Cap(c), veh/h	205	798	409	40	482	237	408	470	466	430	492	473
V/C Ratio(X)	0.81	0.46	0.48	0.83	0.65	0.68	0.17	0.33	0.33	0.26	0.33	0.35
Avail Cap(c_a), veh/h	296	1193	612	77	775	380	408	470	466	430	492	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	0.96	0.96	0.96	0.99	0.99	0.99
Uniform Delay (d), s/veh	34.5	26.1	26.2	38.9	32.4	32.5	24.5	23.4	23.5	24.3	22.8	22.9
Incr Delay (d2), s/veh	9.2	0.4	0.7	32.9	1.5	3.5	0.2	1.8	1.9	0.3	1.8	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.0	3.2	1.0	2.9	3.1	1.0	2.4	2.4	1.7	2.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	26.5	26.9	71.9	33.8	36.0	24.7	25.2	25.4	24.6	24.6	24.9
LnGrp LOS	D	C	C	E	C	D	C	C	C	C	C	C
Approach Vol, veh/h		731			509			378			438	
Approach Delay, s/veh		30.5			37.0			25.2			24.7	
Approach LOS		C			D			C			C	

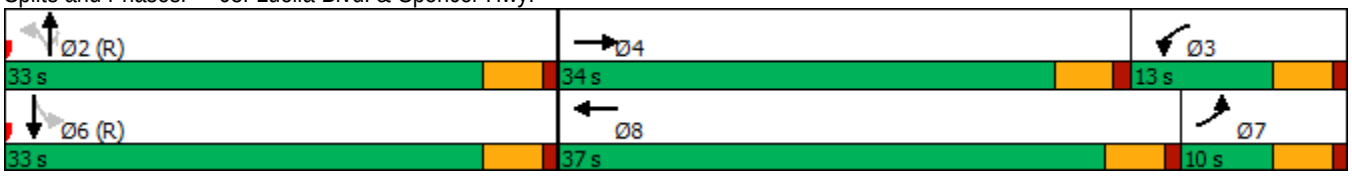
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.1	26.0	6.3	23.5	23.1	27.0	13.9	16.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	21.5	3.5	28.5	7.5	22.5	13.5	18.5
Max Q Clear Time (g_c+I1), s	6.1	7.8	3.5	9.8	4.5	8.2	9.4	9.5
Green Ext Time (p_c), s	0.1	1.3	0.0	3.5	0.0	1.6	0.2	2.0

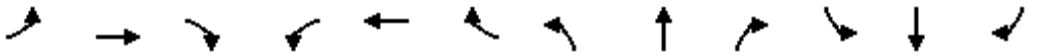
Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	6	805	52	961	148	3	50	3	3
Future Volume (vph)	6	805	52	961	148	3	50	3	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	7	4	3	8		2			6
Permitted Phases					2		2	6	
Detector Phase	7	4	3	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	34.0	13.0	37.0	33.0	33.0	33.0	33.0	33.0
Total Split (%)	12.5%	42.5%	16.3%	46.3%	41.3%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.8	24.9	7.6	30.7	38.3	38.3	38.3		38.3
Actuated g/C Ratio	0.07	0.31	0.10	0.38	0.48	0.48	0.48		0.48
v/c Ratio	0.06	0.68	0.35	0.58	0.26	0.00	0.07		0.01
Control Delay	33.2	13.6	32.6	10.4	22.5	20.7	10.8		13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	33.2	13.6	32.6	10.4	22.5	20.7	10.8		13.8
LOS	C	B	C	B	C	C	B		B
Approach Delay		13.7		11.5		19.5			13.8
Approach LOS		B		B		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	805	108	52	961	4	148	3	50	3	3	3
Future Volume (veh/h)	6	805	108	52	961	4	148	3	50	3	3	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	7	894	120	58	1068	4	164	3	56	3	3	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	19	1144	153	74	1479	6	832	983	833	309	307	278
Arrive On Green	0.02	0.51	0.51	0.04	0.29	0.29	0.53	0.53	0.53	0.53	0.53	0.53
Sat Flow, veh/h	1753	4484	599	1753	5168	19	1388	1841	1560	467	576	521
Grp Volume(v), veh/h	7	667	347	58	692	380	164	3	56	9	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1733	1753	1675	1837	1388	1841	1560	1564	0	0
Q Serve(g_s), s	0.3	13.0	13.1	2.6	14.9	14.9	4.7	0.1	1.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	13.0	13.1	2.6	14.9	14.9	4.9	0.1	1.4	0.2	0.0	0.0
Prop In Lane	1.00		0.35	1.00		0.01	1.00		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	19	855	442	74	959	526	832	983	833	895	0	0
V/C Ratio(X)	0.36	0.78	0.78	0.79	0.72	0.72	0.20	0.00	0.07	0.01	0.00	0.00
Avail Cap(c_a), veh/h	121	1235	639	186	1361	746	832	983	833	895	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.8	17.8	17.8	38.0	25.7	25.7	9.8	8.7	9.0	8.7	0.0	0.0
Incr Delay (d2), s/veh	9.8	1.8	3.6	14.0	0.9	1.7	0.5	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.5	3.8	1.4	5.6	6.2	1.5	0.0	0.4	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	19.6	21.4	52.0	26.6	27.4	10.4	8.7	9.2	8.8	0.0	0.0
LnGrp LOS	D	B	C	D	C	C	B	A	A	A	A	A
Approach Vol, veh/h		1021			1130			223			9	
Approach Delay, s/veh		20.4			28.2			10.0			8.8	
Approach LOS		C			C			B			A	

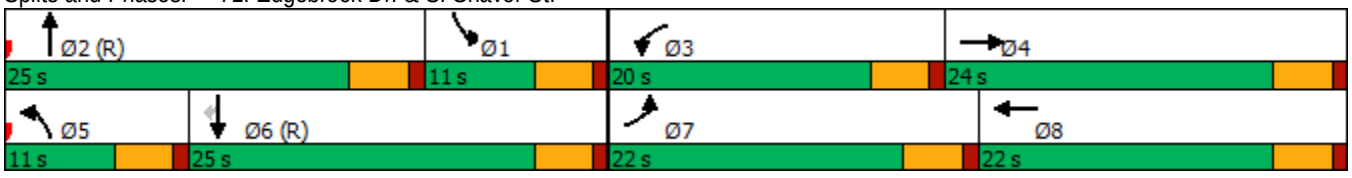
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		47.2	7.9	24.9		47.2	5.4	27.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	8.5	29.5		28.5	5.5	32.5				
Max Q Clear Time (g_c+I1), s		6.9	4.6	15.1		2.2	2.3	16.9				
Green Ext Time (p_c), s		0.6	0.0	5.3		0.0	0.0	6.0				

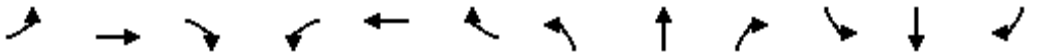
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	184	541	161	446	50	382	57	411	212
Future Volume (vph)	184	541	161	446	50	382	57	411	212
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	22.0	24.0	20.0	22.0	11.0	25.0	11.0	25.0	25.0
Total Split (%)	27.5%	30.0%	25.0%	27.5%	13.8%	31.3%	13.8%	31.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.0	17.6	12.8	16.4	6.6	27.3	6.3	29.2	29.2
Actuated g/C Ratio	0.18	0.22	0.16	0.20	0.08	0.34	0.08	0.36	0.36
v/c Ratio	0.67	0.58	0.65	0.74	0.39	0.48	0.46	0.36	0.33
Control Delay	30.2	20.3	24.4	33.1	32.1	10.9	37.6	15.2	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	20.3	24.4	33.1	32.1	10.9	37.6	15.2	4.2
LOS	C	C	C	C	C	B	D	B	A
Approach Delay		22.7		30.9		12.8		13.6	
Approach LOS		C		C		B		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 75 (94%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	541	30	161	446	30	50	382	130	57	411	212
Future Volume (veh/h)	184	541	30	161	446	30	50	382	130	57	411	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	204	601	33	179	496	33	56	424	144	63	457	236
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	246	976	53	222	620	41	71	659	221	337	1426	636
Arrive On Green	0.14	0.20	0.20	0.04	0.06	0.06	0.04	0.26	0.26	0.06	0.13	0.13
Sat Flow, veh/h	1753	4877	266	1753	3329	221	1753	2570	864	1753	3497	1560
Grp Volume(v), veh/h	204	412	222	179	260	269	56	287	281	63	457	236
Grp Sat Flow(s),veh/h/ln	1753	1675	1793	1753	1749	1801	1753	1749	1685	1753	1749	1560
Q Serve(g_s), s	9.1	9.0	9.1	8.1	11.7	11.8	2.5	11.7	11.9	2.7	9.5	11.0
Cycle Q Clear(g_c), s	9.1	9.0	9.1	8.1	11.7	11.8	2.5	11.7	11.9	2.7	9.5	11.0
Prop In Lane	1.00		0.15	1.00		0.12	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	246	671	359	222	326	336	71	448	432	337	1426	636
V/C Ratio(X)	0.83	0.61	0.62	0.81	0.80	0.80	0.79	0.64	0.65	0.19	0.32	0.37
Avail Cap(c_a), veh/h	383	817	437	340	383	394	142	448	432	337	1426	636
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	33.5	29.2	29.2	37.4	36.1	36.1	38.0	26.5	26.6	31.5	24.6	25.3
Incr Delay (d2), s/veh	8.5	0.9	1.9	5.3	6.5	6.5	17.4	6.9	7.4	0.3	0.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	3.6	4.0	4.0	6.0	6.2	1.4	5.5	5.4	1.2	4.4	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	30.1	31.1	42.6	42.5	42.6	55.4	33.3	34.0	31.8	25.2	26.9
LnGrp LOS	D	C	C	D	D	D	E	C	C	C	C	C
Approach Vol, veh/h		838			708			624			756	
Approach Delay, s/veh		33.2			42.6			35.6			26.2	
Approach LOS		C			D			D			C	

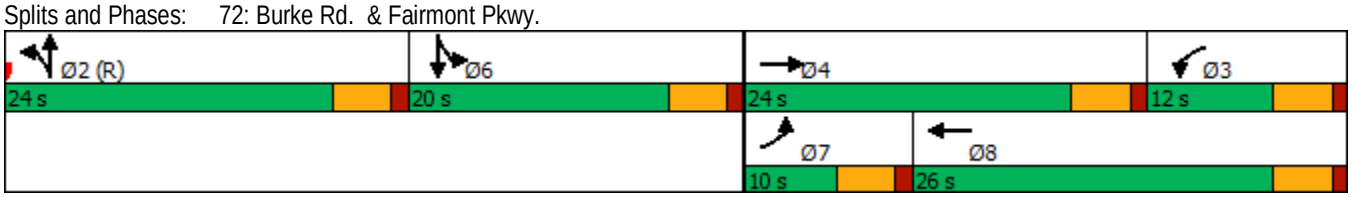
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.9	25.0	14.6	20.5	7.7	37.1	15.7	19.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	20.5	15.5	19.5	6.5	20.5	17.5	17.5
Max Q Clear Time (g_c+I1), s	4.7	13.9	10.1	11.1	4.5	13.0	11.1	13.8
Green Ext Time (p_c), s	0.0	1.8	0.2	2.6	0.0	2.3	0.3	1.1

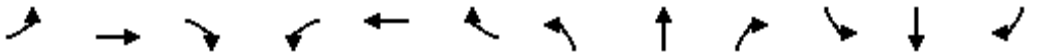
Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	625	95	532	181	317	130	269
Future Volume (vph)	60	625	95	532	181	317	130	269
Turn Type	Prot	NA	Prot	NA	Split	NA	Split	NA
Protected Phases	7	4	3	8	2	2	6	6
Permitted Phases								
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	24.0	12.0	26.0	24.0	24.0	20.0	20.0
Total Split (%)	12.5%	30.0%	15.0%	32.5%	30.0%	30.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	Max	Max
Act Effct Green (s)	5.5	19.5	7.3	21.1	21.9	21.9	15.5	15.5
Actuated g/C Ratio	0.07	0.24	0.09	0.26	0.27	0.27	0.19	0.19
v/c Ratio	0.54	0.91	0.64	0.74	0.41	0.51	0.41	0.52
Control Delay	49.1	39.7	46.6	24.9	19.6	13.7	30.4	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	39.7	46.6	24.9	19.6	13.7	30.4	27.6
LOS	D	D	D	C	B	B	C	C
Approach Delay		40.4		27.7		15.3		28.4
Approach LOS		D		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 71 (89%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 28.5	Intersection LOS: C
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	625	94	95	532	105	181	317	154	130	269	61
Future Volume (veh/h)	60	625	94	95	532	105	181	317	154	130	269	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	64	665	100	101	566	112	193	337	0	138	286	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	81	733	110	129	780	154	468	934		340	678	
Arrive On Green	0.05	0.24	0.24	0.02	0.09	0.09	0.27	0.27	0.00	0.19	0.19	0.00
Sat Flow, veh/h	1753	3049	458	1753	2912	574	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	64	381	384	101	339	339	193	337	0	138	286	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1758	1753	1749	1737	1753	1749	0	1753	1749	0
Q Serve(g_s), s	2.9	16.9	17.0	4.6	15.1	15.2	7.3	6.3	0.0	5.5	5.7	0.0
Cycle Q Clear(g_c), s	2.9	16.9	17.0	4.6	15.1	15.2	7.3	6.3	0.0	5.5	5.7	0.0
Prop In Lane	1.00		0.26	1.00		0.33	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	81	421	423	129	468	465	468	934		340	678	
V/C Ratio(X)	0.79	0.91	0.91	0.78	0.72	0.73	0.41	0.36		0.41	0.42	
Avail Cap(c_a), veh/h	121	426	429	164	470	467	468	934		340	678	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.67	0.67	0.67	0.27	0.27	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.7	29.5	29.5	38.4	33.6	33.6	24.2	23.8	0.0	28.2	28.3	0.0
Incr Delay (d2), s/veh	15.2	19.3	19.5	11.7	3.7	3.8	0.7	0.3	0.0	3.6	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.1	9.2	2.4	7.5	7.5	3.0	2.5	0.0	2.6	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.0	48.8	49.1	50.1	37.3	37.5	24.9	24.1	0.0	31.8	30.2	0.0
LnGrp LOS	D	D	D	D	D	D	C	C		C	C	
Approach Vol, veh/h		829			779			530	A		424	A
Approach Delay, s/veh		49.3			39.0			24.4			30.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		25.9	10.4	23.7		20.0	8.2	25.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	7.5	19.5		15.5	5.5	21.5				
Max Q Clear Time (g_c+I1), s		9.3	6.6	19.0		7.7	4.9	17.2				
Green Ext Time (p_c), s		2.0	0.0	0.3		1.4	0.0	1.7				

Intersection Summary	
HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

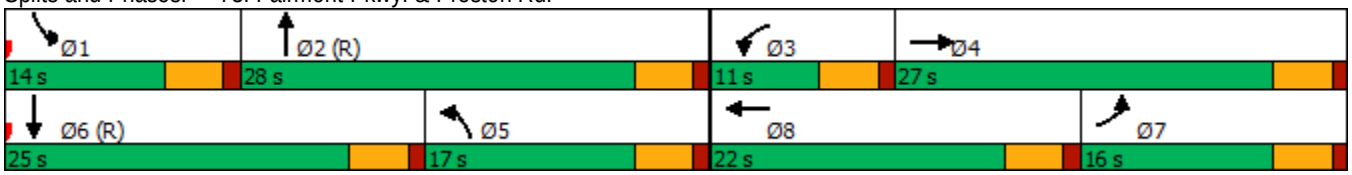
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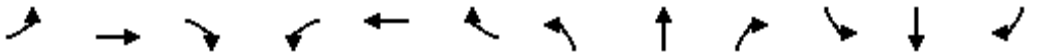
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	131	678	57	625	142	457	211	497
Future Volume (vph)	131	678	57	625	142	457	211	497
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	27.0	11.0	22.0	17.0	28.0	14.0	25.0
Total Split (%)	20.0%	33.8%	13.8%	27.5%	21.3%	35.0%	17.5%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.3	25.1	6.3	16.9	12.5	25.7	9.1	22.3
Actuated g/C Ratio	0.13	0.31	0.08	0.21	0.16	0.32	0.11	0.28
v/c Ratio	0.62	0.54	0.44	0.76	0.55	0.55	0.58	0.61
Control Delay	21.8	4.0	45.6	32.4	39.7	23.7	26.6	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	4.0	45.6	32.4	39.7	23.7	26.6	19.1
LOS	C	A	D	C	D	C	C	B
Approach Delay		6.5		33.3		26.8		21.1
Approach LOS		A		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 64 (80%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 66.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	678	118	57	625	149	142	457	125	211	497	63
Future Volume (veh/h)	131	678	118	57	625	149	142	457	125	211	497	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	138	714	124	60	658	157	149	481	132	222	523	66
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	170	1096	188	76	815	192	388	1052	287	306	801	101
Arrive On Green	0.19	0.51	0.51	0.04	0.20	0.20	0.22	0.39	0.39	0.09	0.26	0.26
Sat Flow, veh/h	1753	4315	742	1753	4064	955	1753	2716	740	3401	3126	393
Grp Volume(v), veh/h	138	553	285	60	541	274	149	309	304	222	292	297
Grp Sat Flow(s),veh/h/ln	1753	1675	1707	1753	1675	1669	1753	1749	1707	1700	1749	1770
Q Serve(g_s), s	6.0	9.7	9.9	2.7	12.3	12.6	5.8	10.5	10.6	5.1	11.9	12.0
Cycle Q Clear(g_c), s	6.0	9.7	9.9	2.7	12.3	12.6	5.8	10.5	10.6	5.1	11.9	12.0
Prop In Lane	1.00		0.43	1.00		0.57	1.00		0.43	1.00		0.22
Lane Grp Cap(c), veh/h	170	851	434	76	672	335	388	678	662	306	448	454
V/C Ratio(X)	0.81	0.65	0.66	0.79	0.80	0.82	0.38	0.46	0.46	0.72	0.65	0.66
Avail Cap(c_a), veh/h	252	942	480	142	733	365	388	678	662	404	448	454
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.38	0.38	0.38	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	31.6	17.1	17.1	37.9	30.5	30.6	26.5	18.2	18.3	35.4	26.6	26.6
Incr Delay (d2), s/veh	8.8	1.0	2.1	6.7	2.4	5.3	0.6	2.2	2.3	3.7	6.1	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.9	3.1	1.3	5.0	5.4	2.4	4.4	4.4	2.2	5.5	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	18.1	19.2	44.6	32.9	35.9	27.1	20.4	20.6	39.1	32.6	32.7
LnGrp LOS	D	B	B	D	C	D	C	C	C	D	C	C
Approach Vol, veh/h		976			875			762			811	
Approach Delay, s/veh		21.6			34.6			21.8			34.4	
Approach LOS		C			C			C			C	

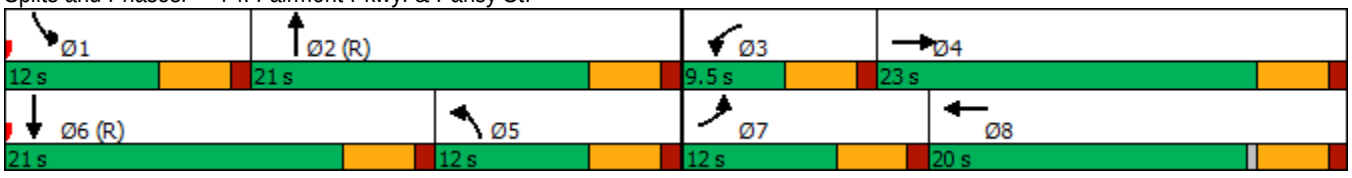
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	35.5	8.0	24.8	22.2	25.0	12.2	20.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	23.5	6.5	22.5	12.5	20.5	11.5	17.5
Max Q Clear Time (g_c+I1), s	7.1	12.6	4.7	11.9	7.8	14.0	8.0	14.6
Green Ext Time (p_c), s	0.2	2.9	0.0	4.1	0.1	1.9	0.1	1.5

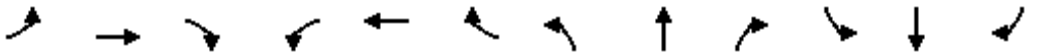
Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	173	904	44	823	174	163	71	171
Future Volume (vph)	173	904	44	823	174	163	71	171
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	8.0	20.0	9.5	20.0
Total Split (s)	12.0	23.0	9.5	20.0	12.0	21.0	12.0	21.0
Total Split (%)	18.3%	35.1%	14.5%	30.5%	18.3%	32.1%	18.3%	32.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	22.3	5.0	16.0	7.5	19.0	7.0	16.5
Actuated g/C Ratio	0.11	0.34	0.08	0.24	0.11	0.29	0.11	0.25
v/c Ratio	0.99	0.72	0.38	0.84	1.00	0.26	0.44	0.32
Control Delay	97.2	22.4	37.4	30.9	98.6	14.2	35.0	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.2	22.4	37.4	30.9	98.6	14.2	35.0	14.2
LOS	F	C	D	C	F	B	C	B
Approach Delay		32.8		31.2		50.2		18.7
Approach LOS		C		C		D		B

Intersection Summary	
Cycle Length: 65.5	
Actuated Cycle Length: 65.5	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 33.1	Intersection LOS: C
Intersection Capacity Utilization 64.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	904	165	44	823	79	174	163	71	71	171	87
Future Volume (veh/h)	173	904	165	44	823	79	174	163	71	71	171	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	197	1027	188	50	935	90	198	185	81	81	194	99
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	1278	234	80	1077	103	232	776	327	104	569	278
Arrive On Green	0.11	0.30	0.30	0.05	0.23	0.23	0.13	0.32	0.32	0.06	0.25	0.25
Sat Flow, veh/h	1753	4270	780	1753	4663	448	1753	2398	1010	1753	2275	1114
Grp Volume(v), veh/h	197	805	410	50	671	354	198	133	133	81	147	146
Grp Sat Flow(s),veh/h/ln	1753	1675	1700	1753	1675	1760	1753	1749	1659	1753	1749	1640
Q Serve(g_s), s	7.4	14.6	14.7	1.8	12.7	12.8	7.3	3.7	3.9	3.0	4.5	4.8
Cycle Q Clear(g_c), s	7.4	14.6	14.7	1.8	12.7	12.8	7.3	3.7	3.9	3.0	4.5	4.8
Prop In Lane	1.00		0.46	1.00		0.25	1.00		0.61	1.00		0.68
Lane Grp Cap(c), veh/h	199	1002	509	80	774	407	232	566	537	104	437	410
V/C Ratio(X)	0.99	0.80	0.81	0.63	0.87	0.87	0.85	0.24	0.25	0.78	0.34	0.36
Avail Cap(c_a), veh/h	199	1002	509	133	787	413	232	566	537	199	437	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	21.3	21.3	31.0	24.4	24.4	28.0	16.3	16.4	30.6	20.3	20.4
Incr Delay (d2), s/veh	54.5	4.0	7.7	7.8	10.0	17.7	24.9	1.0	1.1	12.0	2.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	5.8	6.5	0.9	5.8	7.0	4.5	1.5	1.5	1.6	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.7	25.3	29.0	38.8	34.4	42.1	52.9	17.3	17.5	42.6	22.3	22.8
LnGrp LOS	F	C	C	D	C	D	D	B	B	D	C	C
Approach Vol, veh/h		1412			1075			464			374	
Approach Delay, s/veh		34.5			37.1			32.6			26.9	
Approach LOS		C			D			C			C	

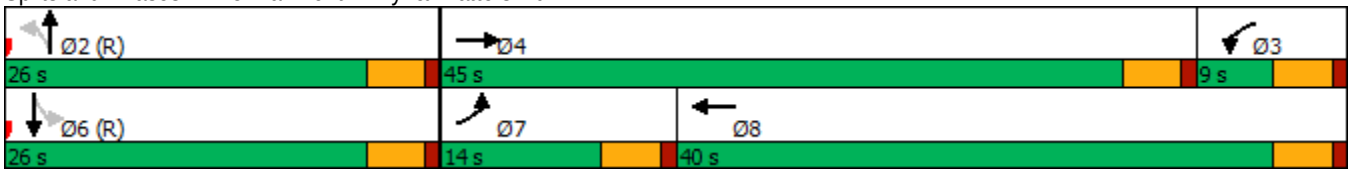
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	25.9	7.5	24.2	13.2	21.0	12.0	19.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	16.5	5.0	18.5	7.5	16.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	5.0	5.9	3.8	16.7	9.3	6.8	9.4	14.8
Green Ext Time (p_c), s	0.0	1.1	0.0	1.3	0.0	1.1	0.0	0.5

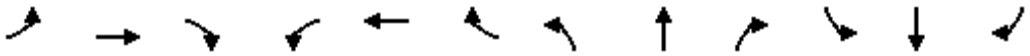
Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	61	913	15	704	13	6	52	8
Future Volume (vph)	61	913	15	704	13	6	52	8
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	45.0	9.0	40.0	26.0	26.0	26.0	26.0
Total Split (%)	17.5%	56.3%	11.3%	50.0%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.0	36.8	5.9	28.3		32.2		32.2
Actuated g/C Ratio	0.10	0.46	0.07	0.35		0.40		0.40
v/c Ratio	0.38	0.63	0.12	0.68		0.05		0.22
Control Delay	51.9	8.5	17.5	12.4		16.0		11.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	51.9	8.5	17.5	12.4		16.0		11.9
LOS	D	A	B	B		B		B
Approach Delay		11.2		12.5		16.0		11.9
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 53.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	913	13	15	704	65	13	6	7	52	8	69
Future Volume (veh/h)	61	913	13	15	704	65	13	6	7	52	8	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	66	992	14	16	765	71	14	7	8	57	9	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	85	1261	18	23	1042	97	378	190	191	319	69	370
Arrive On Green	0.05	0.36	0.36	0.01	0.32	0.32	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1753	3531	50	1753	3235	300	676	412	414	556	151	803
Grp Volume(v), veh/h	66	491	515	16	413	423	29	0	0	141	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1832	1753	1749	1787	1502	0	0	1509	0	0
Q Serve(g_s), s	3.0	20.1	20.1	0.7	16.8	16.8	0.0	0.0	0.0	1.1	0.0	0.0
Cycle Q Clear(g_c), s	3.0	20.1	20.1	0.7	16.8	16.8	0.7	0.0	0.0	4.1	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.17	0.48		0.28	0.40		0.53
Lane Grp Cap(c), veh/h	85	624	654	23	563	575	759	0	0	759	0	0
V/C Ratio(X)	0.78	0.79	0.79	0.70	0.73	0.73	0.04	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	208	885	927	99	776	793	759	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.61	0.61	0.61	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.6	23.0	23.0	39.3	24.1	24.1	11.8	0.0	0.0	12.7	0.0	0.0
Incr Delay (d2), s/veh	6.7	1.4	1.3	20.7	1.4	1.4	0.1	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	8.0	8.4	0.4	6.8	7.0	0.3	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	24.4	24.3	60.0	25.5	25.5	11.9	0.0	0.0	13.2	0.0	0.0
LnGrp LOS	D	C	C	E	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1072			852			29			141	
Approach Delay, s/veh		25.6			26.1			11.9			13.2	
Approach LOS		C			C			B			B	

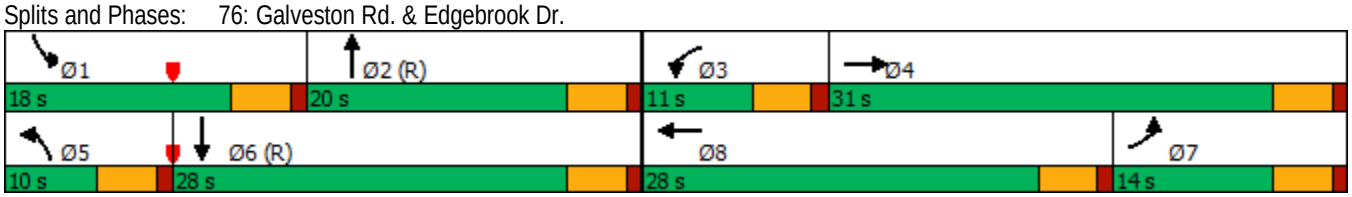
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		41.4	5.5	33.1		41.4	8.4	30.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	4.5	40.5		21.5	9.5	35.5				
Max Q Clear Time (g_c+I1), s		2.7	2.7	22.1		6.1	5.0	18.8				
Green Ext Time (p_c), s		0.1	0.0	6.5		0.6	0.0	5.0				

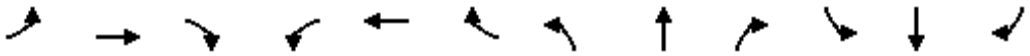
Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	114	575	59	571	41	365	169	298
Future Volume (vph)	114	575	59	571	41	365	169	298
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	31.0	11.0	28.0	10.0	20.0	18.0	28.0
Total Split (%)	17.5%	38.8%	13.8%	35.0%	12.5%	25.0%	22.5%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.8	26.8	6.3	22.4	5.7	21.2	11.9	31.6
Actuated g/C Ratio	0.11	0.34	0.08	0.28	0.07	0.26	0.15	0.40
v/c Ratio	0.61	0.56	0.44	0.84	0.34	0.47	0.67	0.29
Control Delay	32.6	8.9	40.8	23.2	44.0	14.8	45.2	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	8.9	40.8	23.2	44.0	14.8	45.2	17.8
LOS	C	A	D	C	D	B	D	B
Approach Delay		12.5		24.4		17.4		26.1
Approach LOS		B		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 71.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	575	59	59	571	240	41	365	55	169	298	88
Future Volume (veh/h)	114	575	59	59	571	240	41	365	55	169	298	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	116	587	60	60	583	245	42	372	56	172	304	90
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	1013	103	76	662	278	52	901	135	210	1031	300
Arrive On Green	0.08	0.32	0.32	0.04	0.28	0.28	0.03	0.30	0.30	0.12	0.39	0.39
Sat Flow, veh/h	1753	3204	327	1753	2401	1007	1753	3052	456	1753	2672	777
Grp Volume(v), veh/h	116	320	327	60	424	404	42	212	216	172	197	197
Grp Sat Flow(s),veh/h/ln	1753	1749	1782	1753	1749	1659	1753	1749	1759	1753	1749	1701
Q Serve(g_s), s	5.2	12.2	12.3	2.7	18.6	18.6	1.9	7.8	7.9	7.7	6.2	6.4
Cycle Q Clear(g_c), s	5.2	12.2	12.3	2.7	18.6	18.6	1.9	7.8	7.9	7.7	6.2	6.4
Prop In Lane	1.00		0.18	1.00		0.61	1.00		0.26	1.00		0.46
Lane Grp Cap(c), veh/h	147	553	563	76	483	458	52	517	519	210	674	656
V/C Ratio(X)	0.79	0.58	0.58	0.79	0.88	0.88	0.81	0.41	0.42	0.82	0.29	0.30
Avail Cap(c_a), veh/h	208	579	590	142	514	487	121	517	519	296	674	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	22.9	22.9	37.9	27.7	27.7	38.6	22.6	22.6	34.3	17.0	17.1
Incr Delay (d2), s/veh	12.5	1.3	1.3	16.1	15.4	16.3	24.4	2.4	2.4	11.6	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	5.0	5.1	1.5	9.5	9.1	1.2	3.4	3.5	3.9	2.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	24.2	24.2	54.0	43.1	44.1	63.0	25.0	25.1	45.9	18.1	18.2
LnGrp LOS	D	C	C	D	D	D	E	C	C	D	B	B
Approach Vol, veh/h		763			888			470			566	
Approach Delay, s/veh		27.9			44.3			28.4			26.6	
Approach LOS		C			D			C			C	

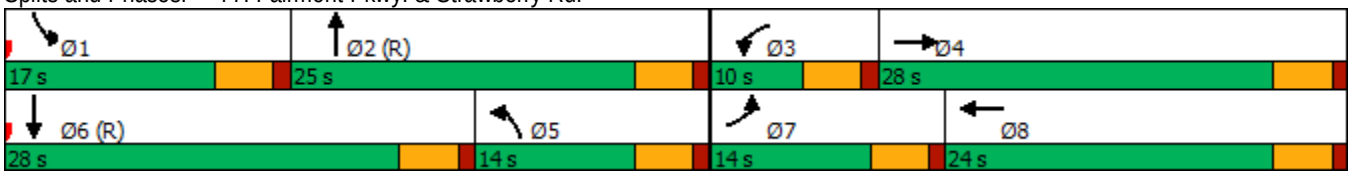
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	28.1	8.0	29.8	6.9	35.4	11.2	26.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	15.5	6.5	26.5	5.5	23.5	9.5	23.5
Max Q Clear Time (g_c+I1), s	9.7	9.9	4.7	14.3	3.9	8.4	7.2	20.6
Green Ext Time (p_c), s	0.2	1.2	0.0	3.2	0.0	2.0	0.1	1.5

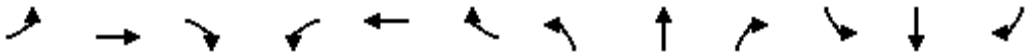
Intersection Summary	
HCM 6th Ctrl Delay	33.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	111	485	26	443	83	448	149	284
Future Volume (vph)	111	485	26	443	83	448	149	284
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	28.0	10.0	24.0	14.0	25.0	17.0	28.0
Total Split (%)	17.5%	35.0%	12.5%	30.0%	17.5%	31.3%	21.3%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.8	25.5	5.5	18.3	8.8	25.9	11.2	30.3
Actuated g/C Ratio	0.11	0.32	0.07	0.23	0.11	0.32	0.14	0.38
v/c Ratio	0.62	0.51	0.24	0.82	0.47	0.50	0.66	0.35
Control Delay	37.6	14.3	35.9	24.8	34.1	18.7	35.1	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.6	14.3	35.9	24.8	34.1	18.7	35.1	11.7
LOS	D	B	D	C	C	B	D	B
Approach Delay		18.4		25.2		20.8		17.8
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 66 (83%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	485	35	26	443	181	83	448	74	149	284	145
Future Volume (veh/h)	111	485	35	26	443	181	83	448	74	149	284	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	119	522	38	28	476	195	89	482	80	160	305	156
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	150	978	71	36	559	227	290	1041	172	197	663	331
Arrive On Green	0.09	0.30	0.30	0.01	0.08	0.08	0.17	0.35	0.35	0.11	0.29	0.29
Sat Flow, veh/h	1753	3306	240	1753	2425	987	1753	3004	496	1753	2259	1128
Grp Volume(v), veh/h	119	276	284	28	342	329	89	280	282	160	234	227
Grp Sat Flow(s),veh/h/ln	1753	1749	1797	1753	1749	1663	1753	1749	1751	1753	1749	1638
Q Serve(g_s), s	5.3	10.5	10.6	1.3	15.5	15.6	3.6	9.9	10.1	7.1	8.7	9.1
Cycle Q Clear(g_c), s	5.3	10.5	10.6	1.3	15.5	15.6	3.6	9.9	10.1	7.1	8.7	9.1
Prop In Lane	1.00		0.13	1.00		0.59	1.00		0.28	1.00		0.69
Lane Grp Cap(c), veh/h	150	517	532	36	403	383	290	606	607	197	514	481
V/C Ratio(X)	0.79	0.53	0.53	0.79	0.85	0.86	0.31	0.46	0.47	0.81	0.46	0.47
Avail Cap(c_a), veh/h	208	517	532	121	426	405	290	606	607	274	514	481
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.69	0.69	0.69	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	35.9	23.5	23.6	39.6	35.6	35.7	29.4	20.3	20.4	34.7	23.0	23.2
Incr Delay (d2), s/veh	10.6	0.8	0.8	22.7	10.4	11.6	0.6	2.5	2.6	10.3	2.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.3	4.4	0.8	8.3	8.1	1.5	4.3	4.3	3.5	3.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	24.4	24.4	62.2	46.0	47.3	30.0	22.8	22.9	45.0	25.5	25.9
LnGrp LOS	D	C	C	E	D	D	C	C	C	D	C	C
Approach Vol, veh/h		679			699			651			621	
Approach Delay, s/veh		28.3			47.3			23.9			30.7	
Approach LOS		C			D			C			C	

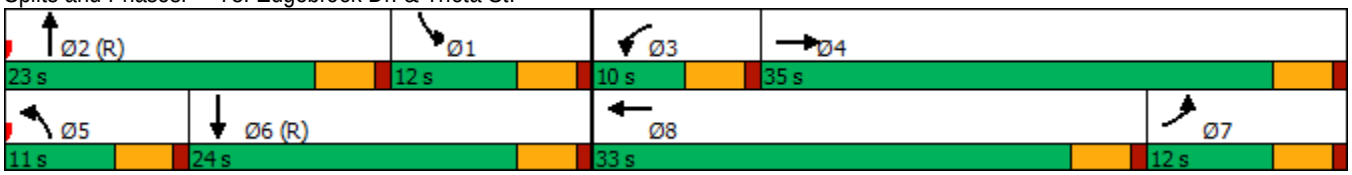
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	32.2	6.1	28.2	17.7	28.0	11.4	22.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	20.5	5.5	23.5	9.5	23.5	9.5	19.5
Max Q Clear Time (g_c+I1), s	9.1	12.1	3.3	12.6	5.6	11.1	7.3	17.6
Green Ext Time (p_c), s	0.1	2.2	0.0	2.6	0.1	2.3	0.1	0.8

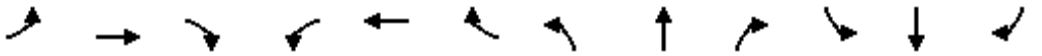
Intersection Summary	
HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	83	699	28	804	48	32	72	32
Future Volume (vph)	83	699	28	804	48	32	72	32
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	35.0	10.0	33.0	11.0	23.0	12.0	24.0
Total Split (%)	15.0%	43.8%	12.5%	41.3%	13.8%	28.8%	15.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.4	32.9	5.5	27.1	6.3	24.5	7.1	27.5
Actuated g/C Ratio	0.09	0.41	0.07	0.34	0.08	0.31	0.09	0.34
v/c Ratio	0.59	0.58	0.27	0.85	0.40	0.20	0.53	0.26
Control Delay	51.0	20.3	54.5	19.4	44.0	11.7	37.4	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	20.3	54.5	19.4	44.0	11.7	37.4	3.7
LOS	D	C	D	B	D	B	D	A
Approach Delay		23.4		20.5		22.6		14.9
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 62.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	699	30	28	804	76	48	32	63	72	32	113
Future Volume (veh/h)	83	699	30	28	804	76	48	32	63	72	32	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	94	794	34	32	914	86	55	36	72	82	36	128
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	120	1263	54	39	1045	98	70	127	253	266	122	433
Arrive On Green	0.07	0.37	0.37	0.02	0.32	0.32	0.04	0.23	0.23	0.15	0.34	0.34
Sat Flow, veh/h	1753	3417	146	1753	3231	304	1753	548	1096	1753	354	1260
Grp Volume(v), veh/h	94	406	422	32	495	505	55	0	108	82	0	164
Grp Sat Flow(s),veh/h/ln	1753	1749	1814	1753	1749	1786	1753	0	1644	1753	0	1614
Q Serve(g_s), s	4.2	15.3	15.3	1.5	21.4	21.4	2.5	0.0	4.3	3.3	0.0	5.9
Cycle Q Clear(g_c), s	4.2	15.3	15.3	1.5	21.4	21.4	2.5	0.0	4.3	3.3	0.0	5.9
Prop In Lane	1.00		0.08	1.00		0.17	1.00		0.67	1.00		0.78
Lane Grp Cap(c), veh/h	120	646	671	39	566	578	70	0	380	266	0	554
V/C Ratio(X)	0.78	0.63	0.63	0.82	0.87	0.87	0.79	0.00	0.28	0.31	0.00	0.30
Avail Cap(c_a), veh/h	164	667	692	121	623	636	142	0	380	266	0	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.7	20.7	20.7	38.9	25.5	25.5	38.1	0.0	25.3	30.2	0.0	19.2
Incr Delay (d2), s/veh	15.5	1.8	1.7	32.4	12.3	12.1	17.7	0.0	1.9	0.6	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.7	5.9	0.9	9.7	9.9	1.4	0.0	1.8	1.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	22.5	22.5	71.3	37.9	37.6	55.8	0.0	27.2	30.8	0.0	20.6
LnGrp LOS	D	C	C	E	D	D	E	A	C	C	A	C
Approach Vol, veh/h		922			1032			163			246	
Approach Delay, s/veh		25.5			38.8			36.8			24.0	
Approach LOS		C			D			D			C	

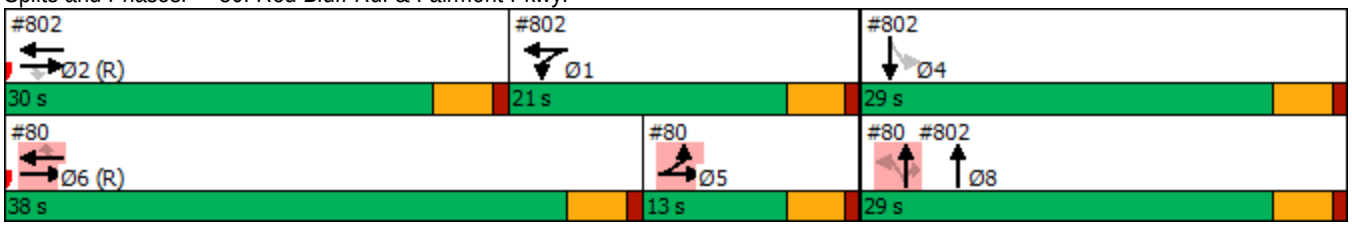
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	23.0	6.3	34.1	7.7	32.0	10.0	30.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	5.5	30.5	6.5	19.5	7.5	28.5
Max Q Clear Time (g_c+I1), s	5.3	6.3	3.5	17.3	4.5	7.9	6.2	23.4
Green Ext Time (p_c), s	0.0	0.4	0.0	3.8	0.0	0.6	0.0	2.5

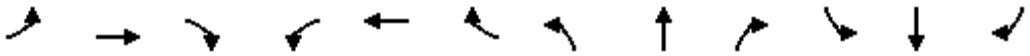
Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	8	653	655	94	111	336	53			
Future Volume (vph)	8	653	655	94	111	336	53			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0		38.0	38.0	29.0	29.0	29.0	21.0	30.0	29.0
Total Split (%)	16.3%		47.5%	47.5%	36.3%	36.3%	36.3%	26%	38%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	7.6	50.8	38.6	38.6	20.2	20.2	20.2			
Actuated g/C Ratio	0.10	0.64	0.48	0.48	0.25	0.25	0.25			
v/c Ratio	0.05	0.22	0.19	0.12	0.27	0.40	0.11			
Control Delay	25.8	1.8	16.3	9.6	11.2	12.5	1.2			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	25.8	1.8	16.3	9.6	11.2	12.5	1.2			
LOS	C	A	B	A	B	B	A			
Approach Delay		2.1	15.5			11.0				
Approach LOS		A	B			B				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 9.7	Intersection LOS: A
Intersection Capacity Utilization 34.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





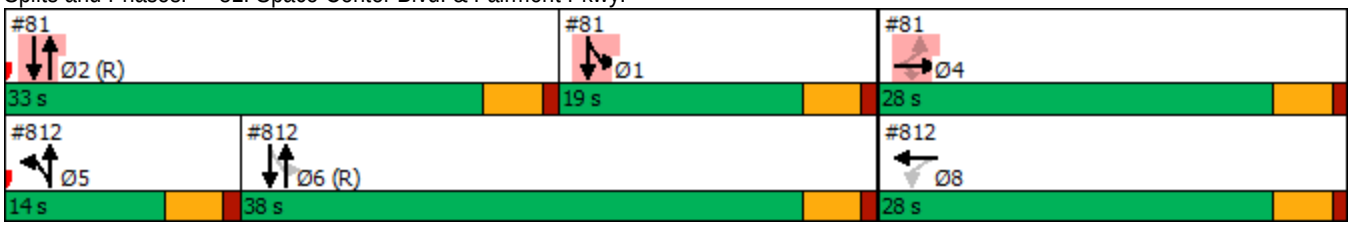
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	653	0	0	655	94	111	336	53	0	0	0
Future Volume (vph)	8	653	0	0	655	94	111	336	53	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	687	0	0	689	99	117	354	56	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	51	0	0	42	0	0	0
Lane Group Flow (vph)	8	687	0	0	689	48	117	354	14	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	7.6	50.8			38.7	38.7	20.2	20.2	20.2			
Effective Green, g (s)	7.6	50.8			38.7	38.7	20.2	20.2	20.2			
Actuated g/C Ratio	0.09	0.63			0.48	0.48	0.25	0.25	0.25			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	164	3167			3579	751	438	876	392			
v/s Ratio Prot	0.00	c0.14			0.09			c0.10				
v/s Ratio Perm						0.03	0.07		0.01			
v/c Ratio	0.05	0.22			0.19	0.06	0.27	0.40	0.04			
Uniform Delay, d1	32.9	6.2			11.8	11.0	24.0	24.9	22.6			
Progression Factor	0.78	0.24			1.26	2.67	0.44	0.47	1.00			
Incremental Delay, d2	0.1	0.0			0.1	0.1	0.3	0.3	0.0			
Delay (s)	25.7	1.5			14.9	29.6	10.8	12.0	22.6			
Level of Service	C	A			B	C	B	B	C			
Approach Delay (s)		1.8			16.7			12.8			0.0	
Approach LOS		A			B			B			A	

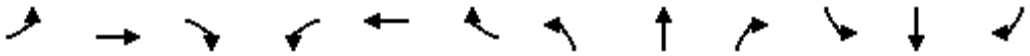
Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	84	1251	137	715	140	568			
Future Volume (vph)	84	1251	137	715	140	568			
Turn Type	Perm	NA	Perm	NA	Prot	NA			
Protected Phases		4		2	1	1 2	5	6	8
Permitted Phases	4		4						
Detector Phase	4	4	4	2	1	1 2			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	28.0	28.0	28.0	33.0	19.0		14.0	38.0	28.0
Total Split (%)	35.0%	35.0%	35.0%	41.3%	23.8%		18%	48%	35%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	23.5	23.5	23.5	28.5	14.5	47.5			
Actuated g/C Ratio	0.29	0.29	0.29	0.36	0.18	0.59			
v/c Ratio	0.19	0.77	0.28	0.68	0.51	0.31			
Control Delay	22.4	29.2	5.3	17.0	35.4	8.5			
Queue Delay	0.0	0.0	0.0	0.0	15.4	1.3			
Total Delay	22.4	29.2	5.3	17.0	50.7	9.8			
LOS	C	C	A	B	D	A			
Approach Delay		26.6		17.0		17.9			
Approach LOS		C		B		B			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 59 (74%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 21.5	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





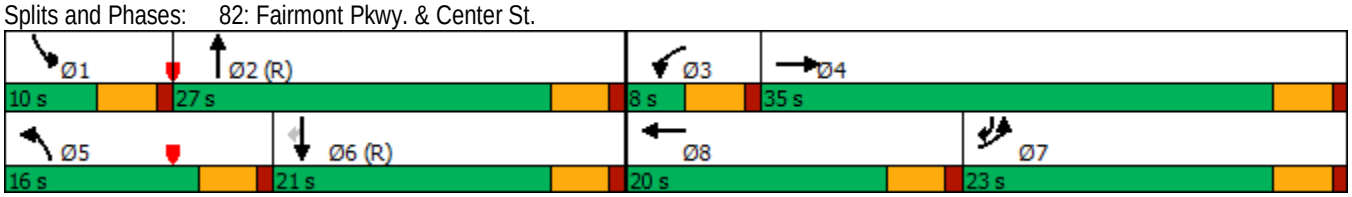
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	1251	137	0	0	0	0	715	352	140	568	0
Future Volume (vph)	84	1251	137	0	0	0	0	715	352	140	568	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91		1.00	0.95	
Frt	1.00	1.00	0.85					0.95		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4741		1736	3471	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4741		1736	3471	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	95	1422	156	0	0	0	0	812	400	159	645	0
RTOR Reduction (vph)	0	0	110	0	0	0	0	86	0	0	0	0
Lane Group Flow (vph)	95	1422	46	0	0	0	0	1127	0	159	645	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4									
Actuated Green, G (s)	23.5	23.5	23.5					28.5		14.5	47.5	
Effective Green, g (s)	23.5	23.5	23.5					28.5		14.5	47.5	
Actuated g/C Ratio	0.29	0.29	0.29					0.36		0.18	0.59	
Clearance Time (s)	4.5	4.5	4.5					4.5		4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		
Lane Grp Cap (vph)	509	1846	456					1688		314	2060	
v/s Ratio Prot		c0.23						c0.24		c0.09	0.19	
v/s Ratio Perm	0.05		0.03									
v/c Ratio	0.19	0.77	0.10					0.67		0.51	0.31	
Uniform Delay, d1	21.1	25.8	20.6					21.7		29.5	8.1	
Progression Factor	1.00	1.00	1.00					0.76		0.98	0.98	
Incremental Delay, d2	0.2	2.0	0.1					2.1		1.3	0.1	
Delay (s)	21.3	27.8	20.7					18.6		30.3	8.1	
Level of Service	C	C	C					B		C	A	
Approach Delay (s)		26.8			0.0			18.6			12.5	
Approach LOS		C			A			B			B	

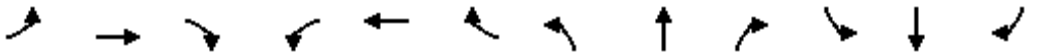
Intersection Summary			
HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	603	991	16	666	177	105	25	32	489
Future Volume (vph)	603	991	16	666	177	105	25	32	489
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	23.0	35.0	8.0	20.0	16.0	27.0	10.0	21.0	23.0
Total Split (%)	28.8%	43.8%	10.0%	25.0%	20.0%	33.8%	12.5%	26.3%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	18.1	36.1	3.5	15.0	11.1	29.3	5.5	17.8	35.9
Actuated g/C Ratio	0.23	0.45	0.04	0.19	0.14	0.37	0.07	0.22	0.45
v/c Ratio	0.85	0.57	0.23	0.77	0.79	0.11	0.23	0.08	0.39
Control Delay	41.8	17.0	37.6	22.9	58.0	16.5	48.4	23.5	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	17.0	37.6	22.9	58.0	16.5	48.4	23.5	6.2
LOS	D	B	D	C	E	B	D	C	A
Approach Delay		25.4		23.2		40.9		9.1	
Approach LOS		C		C		D		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 47 (59%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 63.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	603	991	187	16	666	7	177	105	19	25	32	489
Future Volume (veh/h)	603	991	187	16	666	7	177	105	19	25	32	489
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	648	1066	201	17	716	8	190	113	20	27	34	526
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	745	1619	305	24	902	10	227	1074	186	35	461	1289
Arrive On Green	0.07	0.13	0.13	0.00	0.06	0.06	0.13	0.36	0.36	0.02	0.25	0.25
Sat Flow, veh/h	3401	4247	800	1753	5123	57	1753	2981	516	1753	1841	2745
Grp Volume(v), veh/h	648	841	426	17	468	256	190	65	68	27	34	526
Grp Sat Flow(s),veh/h/ln	1700	1675	1697	1753	1675	1830	1753	1749	1748	1753	1841	1373
Q Serve(g_s), s	15.1	19.1	19.2	0.8	11.0	11.1	8.5	2.0	2.1	1.2	1.1	3.5
Cycle Q Clear(g_c), s	15.1	19.1	19.2	0.8	11.0	11.1	8.5	2.0	2.1	1.2	1.1	3.5
Prop In Lane	1.00		0.47	1.00		0.03	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	745	1277	647	24	590	322	227	630	630	35	461	1289
V/C Ratio(X)	0.87	0.66	0.66	0.70	0.79	0.79	0.84	0.10	0.11	0.78	0.07	0.41
Avail Cap(c_a), veh/h	786	1277	647	77	649	355	252	630	630	121	461	1289
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	36.0	30.0	30.0	39.7	36.2	36.3	34.0	17.0	17.0	39.0	22.9	4.4
Incr Delay (d2), s/veh	10.0	1.2	2.5	29.6	5.8	10.3	19.7	0.3	0.3	27.7	0.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	8.7	9.0	0.5	5.2	6.1	4.7	0.8	0.8	0.8	0.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	31.2	32.5	69.2	42.1	46.6	53.7	17.3	17.4	66.8	23.2	5.2
LnGrp LOS	D	C	C	E	D	D	D	B	B	E	C	A
Approach Vol, veh/h		1915			741			323			587	
Approach Delay, s/veh		36.5			44.3			38.7			9.1	
Approach LOS		D			D			D			A	

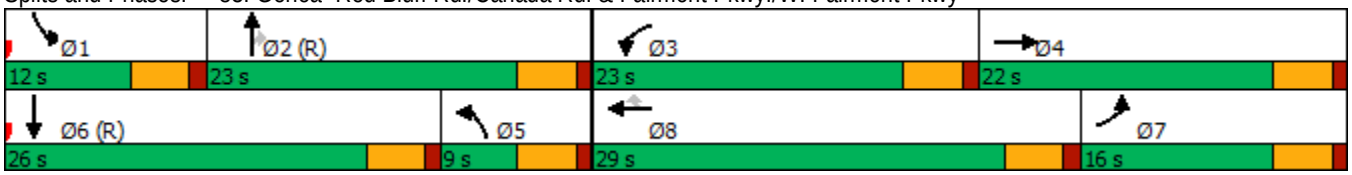
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	33.3	5.6	35.0	14.9	24.5	22.0	18.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	22.5	3.5	30.5	11.5	16.5	18.5	15.5
Max Q Clear Time (g_c+I1), s	3.2	4.1	2.8	21.2	10.5	5.5	17.1	13.1
Green Ext Time (p_c), s	0.0	0.5	0.0	5.5	0.1	1.8	0.4	1.0

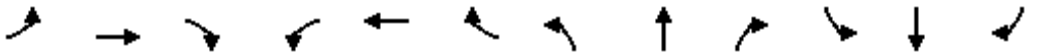
Intersection Summary	
HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	161	662	357	656	145	27	291	475	135	353
Future Volume (vph)	161	662	357	656	145	27	291	475	135	353
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	16.0	22.0	23.0	29.0	29.0	9.0	23.0	23.0	12.0	26.0
Total Split (%)	20.0%	27.5%	28.8%	36.3%	36.3%	11.3%	28.8%	28.8%	15.0%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	13.7	17.5	18.5	22.3	22.3	4.5	18.5	18.5	7.5	26.9
Actuated g/C Ratio	0.17	0.22	0.23	0.28	0.28	0.06	0.23	0.23	0.09	0.34
v/c Ratio	0.60	1.00	0.98	0.75	0.27	0.31	0.40	0.69	0.91	0.47
Control Delay	43.1	65.0	73.0	31.3	2.7	54.9	37.3	17.9	83.1	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	65.0	73.0	31.3	2.7	54.9	37.3	17.9	83.1	16.3
LOS	D	E	E	C	A	D	D	B	F	B
Approach Delay		60.8		40.6			26.3			30.6
Approach LOS		E		D			C			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 40.5	Intersection LOS: D
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	662	29	357	656	145	27	291	475	135	353	142
Future Volume (veh/h)	161	662	29	357	656	145	27	291	475	135	353	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	727	32	392	721	159	30	320	522	148	388	156
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	339	746	33	405	898	400	99	809	361	164	657	261
Arrive On Green	0.19	0.22	0.22	0.23	0.26	0.26	0.06	0.23	0.23	0.09	0.27	0.27
Sat Flow, veh/h	1753	3412	150	1753	3497	1560	1753	3497	1560	1753	2445	970
Grp Volume(v), veh/h	177	372	387	392	721	159	30	320	522	148	276	268
Grp Sat Flow(s),veh/h/ln	1753	1749	1814	1753	1749	1560	1753	1749	1560	1753	1749	1666
Q Serve(g_s), s	7.2	16.9	16.9	17.7	15.4	4.9	1.3	6.2	18.5	6.7	11.0	11.2
Cycle Q Clear(g_c), s	7.2	16.9	16.9	17.7	15.4	4.9	1.3	6.2	18.5	6.7	11.0	11.2
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		0.58
Lane Grp Cap(c), veh/h	339	383	397	405	898	400	99	809	361	164	470	448
V/C Ratio(X)	0.52	0.97	0.97	0.97	0.80	0.40	0.30	0.40	1.45	0.90	0.59	0.60
Avail Cap(c_a), veh/h	339	383	397	405	1071	478	99	809	361	164	470	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.38	0.38	0.38	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	29.0	31.0	31.0	30.4	27.8	12.8	36.2	26.0	30.8	35.9	25.4	25.5
Incr Delay (d2), s/veh	1.2	35.5	34.9	20.0	1.5	0.2	1.7	1.4	216.2	41.0	5.0	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	10.6	11.0	9.4	6.4	2.4	0.6	2.6	28.3	4.7	5.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	66.5	65.9	50.4	29.3	13.1	38.0	27.5	247.0	76.9	30.4	31.0
LnGrp LOS	C	E	E	D	C	B	D	C	F	E	C	C
Approach Vol, veh/h		936			1272			872			692	
Approach Delay, s/veh		59.4			33.8			159.2			40.6	
Approach LOS		E			C			F			D	

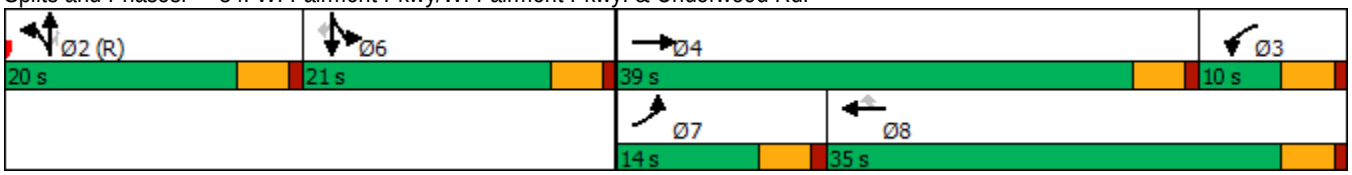
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.0	23.0	22.0	9.0	26.0	20.0	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	18.5	17.5	4.5	21.5	11.5	24.5
Max Q Clear Time (g_c+I1), s	8.7	20.5	19.7	18.9	3.3	13.2	9.2	17.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.1	0.1	3.1

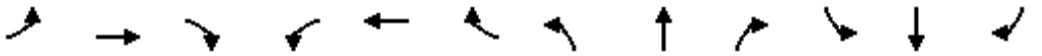
Intersection Summary	
HCM 6th Ctrl Delay	70.4
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	165	1140	87	1024	217	23	30	287	88	199
Future Volume (vph)	165	1140	87	1024	217	23	30	287	88	199
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Split	NA	Perm
Protected Phases	7	4	3	8		2		6	6	
Permitted Phases					8		2			6
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	39.0	10.0	35.0	35.0	20.0	20.0	21.0	21.0	21.0
Total Split (%)	15.6%	43.3%	11.1%	38.9%	38.9%	22.2%	22.2%	23.3%	23.3%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	9.5	34.5	5.5	30.5	30.5	15.5	15.5	16.5	16.5	16.5
Actuated g/C Ratio	0.11	0.38	0.06	0.34	0.34	0.17	0.17	0.18	0.18	0.18
v/c Ratio	0.98	1.01	0.90	0.95	0.39	0.19	0.08	0.98	0.15	0.47
Control Delay	104.0	54.9	107.9	46.2	12.5	33.8	0.4	84.8	31.6	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.0	54.9	107.9	46.2	12.5	33.8	0.4	84.8	31.6	8.4
LOS	F	D	F	D	B	C	A	F	C	A
Approach Delay		60.8		44.7		21.7			50.2	
Approach LOS		E		D		C			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 51.7	Intersection LOS: D
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	1140	85	87	1024	217	30	23	30	287	88	199
Future Volume (veh/h)	165	1140	85	87	1024	217	30	23	30	287	88	199
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	179	1239	92	95	1113	236	33	25	33	312	96	216
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	185	1265	94	107	1185	529	175	133	269	321	641	286
Arrive On Green	0.11	0.38	0.38	0.06	0.34	0.34	0.17	0.17	0.17	0.18	0.18	0.18
Sat Flow, veh/h	1753	3301	245	1753	3497	1560	1018	771	1560	1753	3497	1560
Grp Volume(v), veh/h	179	655	676	95	1113	236	58	0	33	312	96	216
Grp Sat Flow(s),veh/h/ln	1753	1749	1797	1753	1749	1560	1790	0	1560	1753	1749	1560
Q Serve(g_s), s	9.2	33.3	33.4	4.8	27.8	10.6	2.5	0.0	1.6	15.9	2.1	11.8
Cycle Q Clear(g_c), s	9.2	33.3	33.4	4.8	27.8	10.6	2.5	0.0	1.6	15.9	2.1	11.8
Prop In Lane	1.00		0.14	1.00		1.00	0.57		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	670	689	107	1185	529	308	0	269	321	641	286
V/C Ratio(X)	0.97	0.98	0.98	0.89	0.94	0.45	0.19	0.00	0.12	0.97	0.15	0.76
Avail Cap(c_a), veh/h	185	670	689	107	1185	529	308	0	269	321	641	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	0.56	0.56	0.56	1.00	0.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	40.1	27.4	27.4	41.9	28.8	23.2	31.9	0.0	31.5	36.5	30.9	34.8
Incr Delay (d2), s/veh	31.4	15.9	16.2	35.7	8.9	0.3	1.3	0.0	0.9	42.1	0.5	16.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	16.1	16.7	3.1	12.6	3.8	1.1	0.0	0.7	10.4	0.9	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.5	43.2	43.7	77.6	37.8	23.5	33.2	0.0	32.4	78.6	31.3	50.9
LnGrp LOS	E	D	D	E	D	C	C	A	C	E	C	D
Approach Vol, veh/h		1510			1444			91			624	
Approach Delay, s/veh		46.8			38.1			32.9			61.7	
Approach LOS		D			D			C			E	

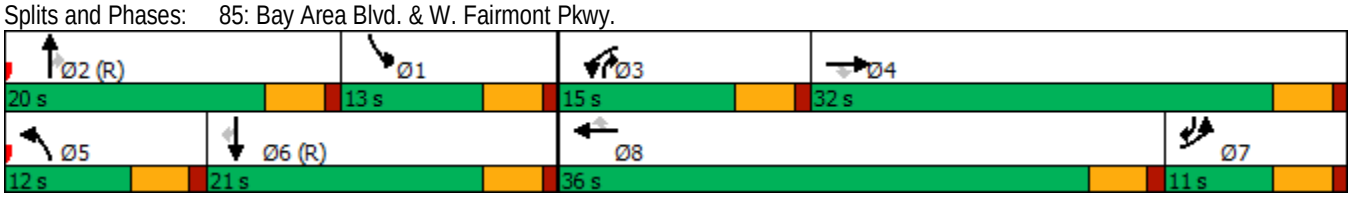
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	10.0	39.0		21.0	14.0	35.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	5.5	34.5		16.5	9.5	30.5				
Max Q Clear Time (g_c+I1), s		4.5	6.8	35.4		17.9	11.2	29.8				
Green Ext Time (p_c), s		0.2	0.0	0.0		0.0	0.0	0.6				

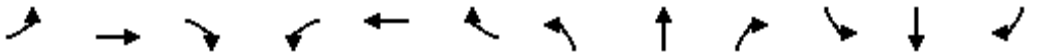
Intersection Summary												
HCM 6th Ctrl Delay			45.6									
HCM 6th LOS			D									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	1041	168	169	1044	98	112	193	116	129	210	170
Future Volume (vph)	88	1041	168	169	1044	98	112	193	116	129	210	170
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	11.0	32.0	32.0	15.0	36.0	36.0	12.0	20.0	15.0	13.0	21.0	11.0
Total Split (%)	13.8%	40.0%	40.0%	18.8%	45.0%	45.0%	15.0%	25.0%	18.8%	16.3%	26.3%	13.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	7.3	27.2	27.2	10.2	30.1	30.1	7.4	16.2	26.3	8.5	19.6	27.7
Actuated g/C Ratio	0.09	0.34	0.34	0.13	0.38	0.38	0.09	0.20	0.33	0.11	0.24	0.35
v/c Ratio	0.56	0.89	0.26	0.78	0.81	0.14	0.71	0.28	0.19	0.71	0.25	0.27
Control Delay	44.5	27.9	1.5	54.7	11.9	0.4	60.7	28.6	2.1	61.2	31.5	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.5	27.9	1.5	54.7	11.9	0.4	60.7	28.6	2.1	61.2	31.5	9.4
LOS	D	C	A	D	B	A	E	C	A	E	C	A
Approach Delay		25.6			16.5			29.9			31.6	
Approach LOS		C			B			C			C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1041	168	169	1044	98	112	193	116	129	210	170
Future Volume (veh/h)	88	1041	168	169	1044	98	112	193	116	129	210	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	89	1052	0	171	1055	99	113	195	117	130	212	172
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	166	1163		207	1245	555	142	678	486	229	850	527
Arrive On Green	0.09	0.33	0.00	0.12	0.36	0.36	0.08	0.19	0.19	0.13	0.24	0.24
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	89	1052	0	171	1055	99	113	195	117	130	212	172
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	3.9	23.0	0.0	7.6	22.3	3.5	5.1	3.8	2.5	5.6	3.9	1.4
Cycle Q Clear(g_c), s	3.9	23.0	0.0	7.6	22.3	3.5	5.1	3.8	2.5	5.6	3.9	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	1163		207	1245	555	142	678	486	229	850	527
V/C Ratio(X)	0.54	0.90		0.83	0.85	0.18	0.79	0.29	0.24	0.57	0.25	0.33
Avail Cap(c_a), veh/h	166	1202		230	1377	614	164	678	486	229	850	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.00	0.55	0.55	0.55	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	34.5	25.5	0.0	34.5	23.8	17.7	36.1	27.5	8.0	32.7	24.4	8.5
Incr Delay (d2), s/veh	3.0	8.7	0.0	11.8	2.7	0.1	20.3	1.1	1.2	3.2	0.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	10.4	0.0	3.8	9.1	1.2	2.9	1.6	1.2	2.5	1.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	34.2	0.0	46.2	26.4	17.8	56.4	28.6	9.2	35.9	25.1	10.1
LnGrp LOS	D	C		D	C	B	E	C	A	D	C	B
Approach Vol, veh/h		1141	A		1325			425			514	
Approach Delay, s/veh		34.4			28.4			30.7			22.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	20.0	13.9	31.1	11.0	23.9	12.1	33.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	15.5	10.5	27.5	7.5	16.5	6.5	31.5
Max Q Clear Time (g_c+I1), s	7.6	5.8	9.6	25.0	7.1	5.9	5.9	24.3
Green Ext Time (p_c), s	0.0	1.0	0.0	1.6	0.0	1.4	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

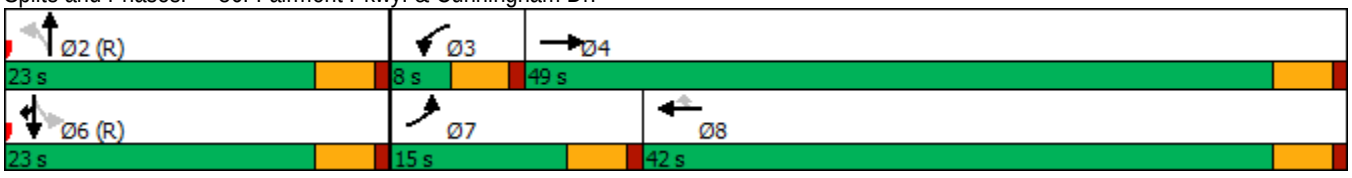
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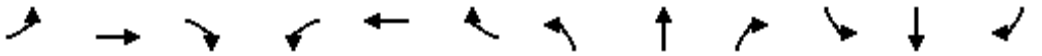
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR	Ø2
Lane Configurations									
Traffic Volume (vph)	64	940	4	841	4	4	0	4	
Future Volume (vph)	64	940	4	841	4	4	0	4	
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Prot	
Protected Phases	7	4	3	8			6	6	2
Permitted Phases					8	6			
Detector Phase	7	4	3	8	8	6	6	6	
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	49.0	8.0	42.0	42.0	23.0	23.0	23.0	23.0
Total Split (%)	18.8%	61.3%	10.0%	52.5%	52.5%	28.8%	28.8%	28.8%	29%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.4	39.9	3.5	30.6	30.6		29.5	29.5	
Actuated g/C Ratio	0.10	0.50	0.04	0.38	0.38		0.37	0.37	
v/c Ratio	0.39	0.60	0.05	0.70	0.01		0.01	0.01	
Control Delay	29.8	14.9	46.2	7.5	0.0		21.8	0.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	29.8	14.9	46.2	7.5	0.0		21.8	0.0	
LOS	C	B	D	A	A		C	A	
Approach Delay		15.9		7.7			10.9		
Approach LOS		B		A			B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 56 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 12.1	Intersection LOS: B
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	940	0	4	841	4	0	0	0	4	0	4
Future Volume (veh/h)	64	940	0	4	841	4	0	0	0	4	0	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	71	1044	0	4	934	0	0	0	0	4	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	91	1390	0	7	1221		0	792	0	690	0	
Arrive On Green	0.05	0.40	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.43	0.00	0.00
Sat Flow, veh/h	1753	3589	0	1753	3497	1560	0	1841	0	1395	0	1560
Grp Volume(v), veh/h	71	1044	0	4	934	0	0	0	0	4	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	1560	0	1841	0	1395	0	1560
Q Serve(g_s), s	3.2	20.5	0.0	0.2	19.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	3.2	20.5	0.0	0.2	19.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	1390	0	7	1221		0	792	0	690	0	
V/C Ratio(X)	0.78	0.75	0.00	0.61	0.77		0.00	0.00	0.00	0.01	0.00	
Avail Cap(c_a), veh/h	230	1945	0	77	1639		0	792	0	690	0	
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.69	0.69	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.5	20.7	0.0	39.8	27.6	0.0	0.0	0.0	0.0	13.0	0.0	0.0
Incr Delay (d2), s/veh	13.1	1.1	0.0	50.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	8.0	0.0	0.2	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	21.8	0.0	90.4	28.7	0.0	0.0	0.0	0.0	13.0	0.0	0.0
LnGrp LOS	D	C	A	F	C		A	A	A	B	A	
Approach Vol, veh/h		1115			938	A		0			4	A
Approach Delay, s/veh		23.6			28.9			0.0			13.0	
Approach LOS		C			C						B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		38.9	4.8	36.3		38.9	8.7	32.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		18.5	3.5	44.5		18.5	10.5	37.5				
Max Q Clear Time (g_c+I1), s		0.0	2.2	22.5		2.1	5.2	21.9				
Green Ext Time (p_c), s		0.0	0.0	8.0		0.0	0.1	6.0				

Intersection Summary	
HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

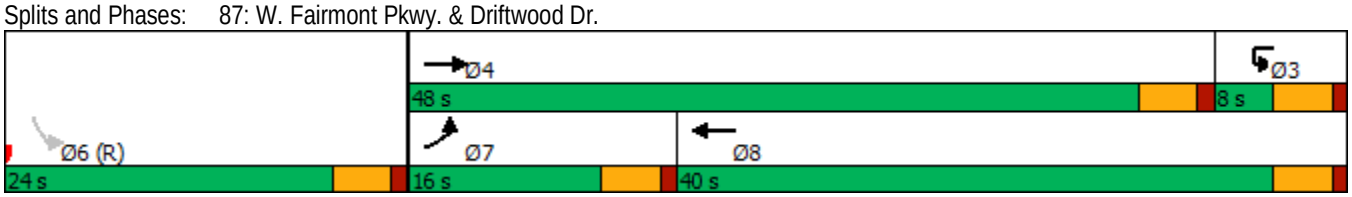
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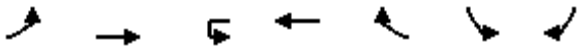
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	79	945	959	104	
Future Volume (vph)	79	945	959	104	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	16.0	48.0	40.0	24.0	8.0
Total Split (%)	20.0%	60.0%	50.0%	30.0%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lead	Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	8.9	43.0	31.7	28.0	
Actuated g/C Ratio	0.11	0.54	0.40	0.35	
v/c Ratio	0.42	0.52	0.76	0.22	
Control Delay	39.3	12.4	13.3	10.3	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	39.3	12.4	13.3	10.3	
LOS	D	B	B	B	
Approach Delay		14.5	13.3	10.3	
Approach LOS		B	B	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





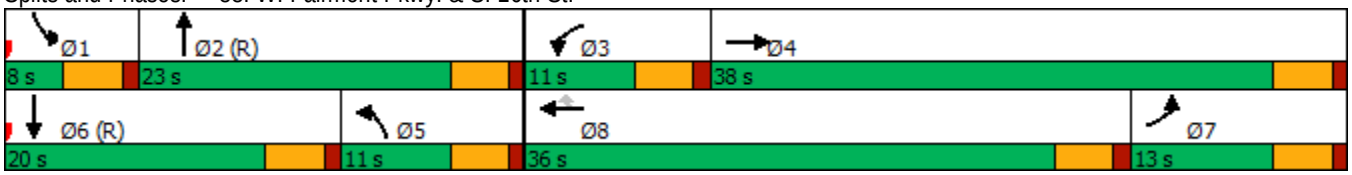
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	79	945	0	959	51	104	149
Future Volume (vph)	79	945	0	959	51	104	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.91	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3445		3166	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3445		3166	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	81	974	0	989	53	107	154
RTOR Reduction (vph)	0	0	0	5	0	102	0
Lane Group Flow (vph)	81	974	0	1037	0	159	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	7.7	43.9		31.7		27.1	
Effective Green, g (s)	7.7	43.9		31.7		27.1	
Actuated g/C Ratio	0.10	0.55		0.40		0.34	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	167	1904		1365		1072	
v/s Ratio Prot	0.05	c0.28		c0.30			
v/s Ratio Perm						c0.05	
v/c Ratio	0.49	0.51		0.76		0.15	
Uniform Delay, d1	34.3	11.3		20.9		18.4	
Progression Factor	1.00	1.00		0.51		1.00	
Incremental Delay, d2	2.2	0.2		1.7		0.3	
Delay (s)	36.5	11.6		12.3		18.7	
Level of Service	D	B		B		B	
Approach Delay (s)		13.5		12.3		18.7	
Approach LOS		B		B		B	

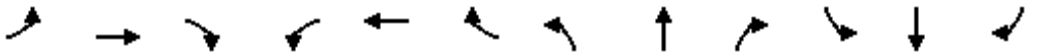
Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	75	824	48	960	78	58	15	16	15
Future Volume (vph)	75	824	48	960	78	58	15	16	15
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	38.0	11.0	36.0	36.0	11.0	23.0	8.0	20.0
Total Split (%)	16.3%	47.5%	13.8%	45.0%	45.0%	13.8%	28.8%	10.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.7	33.0	6.3	29.3	29.3	6.3	29.8	4.3	24.8
Actuated g/C Ratio	0.10	0.41	0.08	0.37	0.37	0.08	0.37	0.05	0.31
v/c Ratio	0.47	0.68	0.36	0.79	0.12	0.44	0.04	0.18	0.04
Control Delay	21.6	8.2	42.8	27.4	0.3	45.6	12.2	41.7	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	8.2	42.8	27.4	0.3	45.6	12.2	41.7	15.3
LOS	C	A	D	C	A	D	B	D	B
Approach Delay		9.2		26.1			31.9		23.0
Approach LOS		A		C			C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	824	104	48	960	78	58	15	25	16	15	24
Future Volume (veh/h)	75	824	104	48	960	78	58	15	25	16	15	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	78	858	108	50	1000	81	60	16	26	17	16	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	100	1142	144	63	1204	537	316	629	562	24	339	302
Arrive On Green	0.06	0.37	0.37	0.04	0.34	0.34	0.18	0.36	0.36	0.01	0.19	0.19
Sat Flow, veh/h	1753	3125	393	1753	3497	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	78	480	486	50	1000	81	60	16	26	17	16	25
Grp Sat Flow(s),veh/h/ln	1753	1749	1770	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	3.5	19.2	19.2	2.3	21.0	2.3	2.3	0.5	0.9	0.8	0.6	1.1
Cycle Q Clear(g_c), s	3.5	19.2	19.2	2.3	21.0	2.3	2.3	0.5	0.9	0.8	0.6	1.1
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	100	639	647	63	1204	537	316	629	562	24	339	302
V/C Ratio(X)	0.78	0.75	0.75	0.80	0.83	0.15	0.19	0.03	0.05	0.70	0.05	0.08
Avail Cap(c_a), veh/h	186	732	741	142	1377	614	316	629	562	77	339	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	22.2	22.2	38.3	24.1	11.8	27.8	16.5	16.7	39.3	26.2	26.4
Incr Delay (d2), s/veh	6.2	1.8	1.8	19.8	4.0	0.1	0.3	0.1	0.2	31.1	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.7	7.8	1.3	8.8	1.0	1.0	0.2	0.3	0.5	0.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	24.1	24.0	58.0	28.1	12.0	28.1	16.6	16.8	70.4	26.5	27.0
LnGrp LOS	D	C	C	E	C	B	C	B	B	E	C	C
Approach Vol, veh/h		1044			1131			102			58	
Approach Delay, s/veh		25.5			28.2			23.4			39.6	
Approach LOS		C			C			C			D	

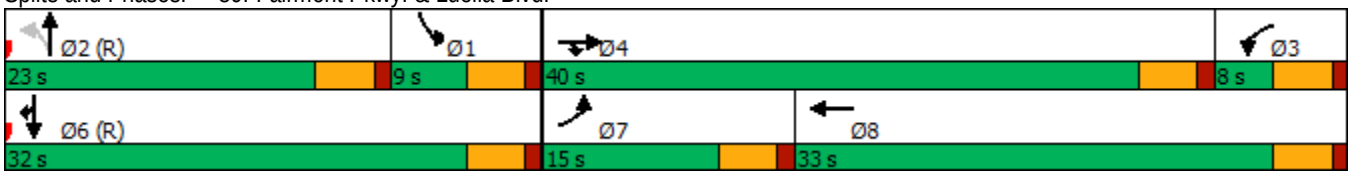
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	33.3	7.4	33.7	18.9	20.0	9.1	32.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	18.5	6.5	33.5	6.5	15.5	8.5	31.5
Max Q Clear Time (g_c+I1), s	2.8	2.9	4.3	21.2	4.3	3.1	5.5	23.0
Green Ext Time (p_c), s	0.0	0.1	0.0	5.0	0.0	0.1	0.0	4.5

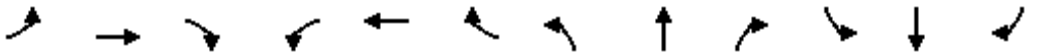
Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBR
Lane Configurations									
Traffic Volume (vph)	93	683	3	4	645	1	0	36	82
Future Volume (vph)	93	683	3	4	645	1	0	36	82
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	Prot
Protected Phases	7	4	4	3	8		2	1	6
Permitted Phases						2			
Detector Phase	7	4	4	3	8	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	15.0	40.0	40.0	8.0	33.0	23.0	23.0	9.0	32.0
Total Split (%)	18.8%	50.0%	50.0%	10.0%	41.3%	28.8%	28.8%	11.3%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.1	33.0	33.0	6.1	24.1		30.0	4.5	35.4
Actuated g/C Ratio	0.11	0.41	0.41	0.08	0.30		0.38	0.06	0.44
v/c Ratio	0.52	0.52	0.00	0.03	0.74		0.00	0.40	0.10
Control Delay	27.0	10.4	0.0	27.8	20.3		0.0	43.0	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	27.0	10.4	0.0	27.8	20.3		0.0	43.0	0.9
LOS	C	B	A	C	C		A	D	A
Approach Delay		12.4			20.3				
Approach LOS		B			C				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 18 (23%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 45.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	683	3	4	645	62	1	0	1	36	0	82
Future Volume (veh/h)	93	683	3	4	645	62	1	0	1	36	0	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	101	742	3	4	701	67	1	0	1	39	0	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	128	921	411	142	876	84	213	21	167	349	896	759
Arrive On Green	0.15	0.53	0.53	0.08	0.27	0.27	0.23	0.00	0.23	0.20	0.00	0.49
Sat Flow, veh/h	1753	3497	1560	1753	3226	308	629	91	720	1753	1841	1560
Grp Volume(v), veh/h	101	742	3	4	380	388	2	0	0	39	0	89
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1785	1441	0	0	1753	1841	1560
Q Serve(g_s), s	4.4	13.9	0.1	0.2	16.2	16.2	0.0	0.0	0.0	1.5	0.0	2.5
Cycle Q Clear(g_c), s	4.4	13.9	0.1	0.2	16.2	16.2	0.1	0.0	0.0	1.5	0.0	2.5
Prop In Lane	1.00		1.00	1.00		0.17	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	128	921	411	142	475	485	401	0	0	349	896	759
V/C Ratio(X)	0.79	0.81	0.01	0.03	0.80	0.80	0.00	0.00	0.00	0.11	0.00	0.12
Avail Cap(c_a), veh/h	230	1552	692	142	623	636	401	0	0	349	896	759
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.61	0.61	0.61	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.6	17.2	14.0	33.9	27.1	27.1	23.7	0.0	0.0	26.2	0.0	11.2
Incr Delay (d2), s/veh	8.1	1.3	0.0	0.0	3.5	3.4	0.0	0.0	0.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.9	0.0	0.1	6.9	7.1	0.0	0.0	0.0	0.6	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	18.6	14.0	33.9	30.6	30.5	23.7	0.0	0.0	26.4	0.0	11.5
LnGrp LOS	D	B	B	C	C	C	C	A	A	C	A	B
Approach Vol, veh/h		846			772			2			128	
Approach Delay, s/veh		21.3			30.6			23.7			16.0	
Approach LOS		C			C			C			B	

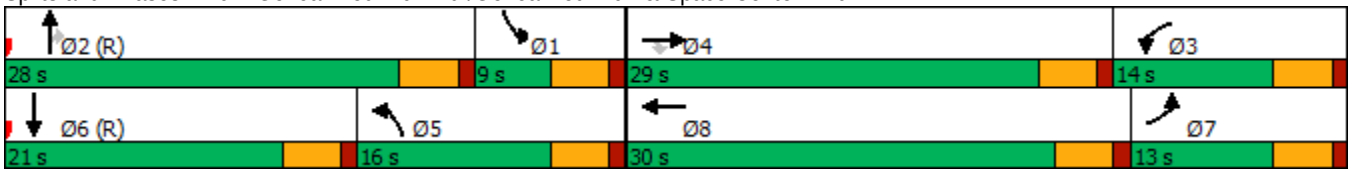
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	20.4	23.0	11.0	25.6		43.4	10.3	26.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.5	18.5	3.5	35.5		27.5	10.5	28.5				
Max Q Clear Time (g_c+I1), s	3.5	2.1	2.2	15.9		4.5	6.4	18.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.1		0.2	0.1	3.5				

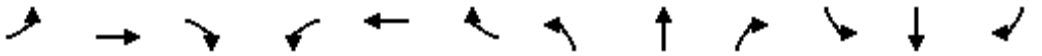
Intersection Summary												
HCM 6th Ctrl Delay			25.0									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	68	805	285	201	632	247	619	280	70	457
Future Volume (vph)	68	805	285	201	632	247	619	280	70	457
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	13.0	29.0	29.0	14.0	30.0	16.0	28.0	28.0	9.0	21.0
Total Split (%)	16.3%	36.3%	36.3%	17.5%	37.5%	20.0%	35.0%	35.0%	11.3%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.4	23.8	23.8	10.2	26.6	11.5	25.3	25.3	4.5	16.5
Actuated g/C Ratio	0.12	0.30	0.30	0.13	0.33	0.14	0.32	0.32	0.06	0.21
v/c Ratio	0.36	0.84	0.46	0.98	0.63	1.07	0.61	0.44	0.77	0.90
Control Delay	39.4	36.1	8.6	86.6	20.5	112.4	26.7	5.8	78.5	37.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	36.1	8.6	86.6	20.5	112.4	26.7	5.8	78.5	37.5
LOS	D	D	A	F	C	F	C	A	E	D
Approach Delay		29.5			35.8		40.1			41.7
Approach LOS		C			D		D			D

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 70 (88%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 36.2	Intersection LOS: D
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	805	285	201	632	37	247	619	280	70	457	154
Future Volume (veh/h)	68	805	285	201	632	37	247	619	280	70	457	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	73	866	306	216	680	40	266	666	301	75	491	166
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	274	1008	450	208	843	50	283	1027	458	130	530	178
Arrive On Green	0.16	0.29	0.29	0.12	0.25	0.25	0.16	0.29	0.29	0.15	0.41	0.41
Sat Flow, veh/h	1753	3497	1560	1753	3357	197	1753	3497	1560	1753	2570	864
Grp Volume(v), veh/h	73	866	306	216	354	366	266	666	301	75	333	324
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1805	1753	1749	1560	1753	1749	1685
Q Serve(g_s), s	2.9	18.7	13.9	9.5	15.2	15.2	12.0	13.3	13.5	3.2	14.5	14.7
Cycle Q Clear(g_c), s	2.9	18.7	13.9	9.5	15.2	15.2	12.0	13.3	13.5	3.2	14.5	14.7
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	1.00		0.51
Lane Grp Cap(c), veh/h	274	1008	450	208	439	453	283	1027	458	130	361	348
V/C Ratio(X)	0.27	0.86	0.68	1.04	0.81	0.81	0.94	0.65	0.66	0.58	0.92	0.93
Avail Cap(c_a), veh/h	274	1071	478	208	557	575	283	1027	458	130	361	348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	29.7	26.9	25.2	35.3	28.1	28.1	33.1	24.6	24.7	32.9	22.9	23.0
Incr Delay (d2), s/veh	0.5	6.9	3.6	71.6	6.6	6.5	37.3	3.2	7.2	5.7	30.0	32.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.4	5.4	8.1	6.9	7.1	7.9	5.7	5.7	1.5	7.2	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	33.8	28.8	106.9	34.7	34.6	70.4	27.8	31.9	38.6	52.9	55.1
LnGrp LOS	C	C	C	F	C	C	E	C	C	D	D	E
Approach Vol, veh/h		1245			936			1233			732	
Approach Delay, s/veh		32.4			51.3			38.0			52.4	
Approach LOS		C			D			D			D	

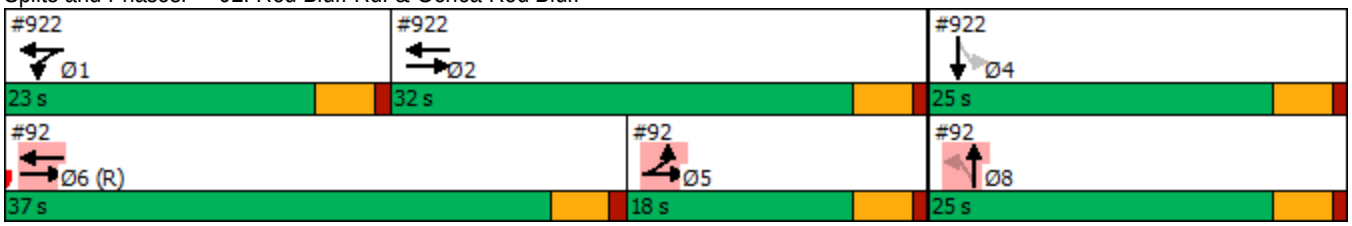
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	28.0	14.0	27.6	17.4	21.0	17.0	24.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	23.5	9.5	24.5	11.5	16.5	8.5	25.5
Max Q Clear Time (g_c+I1), s	5.2	15.5	11.5	20.7	14.0	16.7	4.9	17.2
Green Ext Time (p_c), s	0.0	3.5	0.0	2.3	0.0	0.0	0.0	2.8

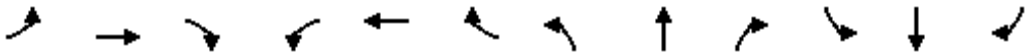
Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	132	745	605	225	426	0			
Future Volume (vph)	132	745	605	225	426	0			
Turn Type	Prot	NA	NA	Perm	NA				
Protected Phases	5	5 6	6		8		1	2	4
Permitted Phases				8					
Detector Phase	5	5 6	6	8	8				
Switch Phase									
Minimum Initial (s)	3.5		5.0	5.0	5.0		3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0		8.0	20.0	20.0
Total Split (s)	18.0		37.0	25.0	25.0		23.0	32.0	25.0
Total Split (%)	22.5%		46.3%	31.3%	31.3%		29%	40%	31%
Yellow Time (s)	3.5		3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0				
Total Lost Time (s)	4.5		4.5	4.5	4.5				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None		C-Max	None	None		None	None	None
Act Effct Green (s)	12.2	53.7	36.9	17.3	17.3	0.0			
Actuated g/C Ratio	0.15	0.67	0.46	0.22	0.22	0.00			
v/c Ratio	0.53	0.34	0.28	0.64	0.57	0.01			
Control Delay	23.9	2.8	9.1	36.0	23.7	0.0			
Queue Delay	0.3	0.2	0.0	0.0	0.0	0.0			
Total Delay	24.2	3.0	9.1	36.0	23.7	0.0			
LOS	C	A	A	D	C	A			
Approach Delay		6.2	9.1		27.0				
Approach LOS		A	A		C				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 22 (28%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 56.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





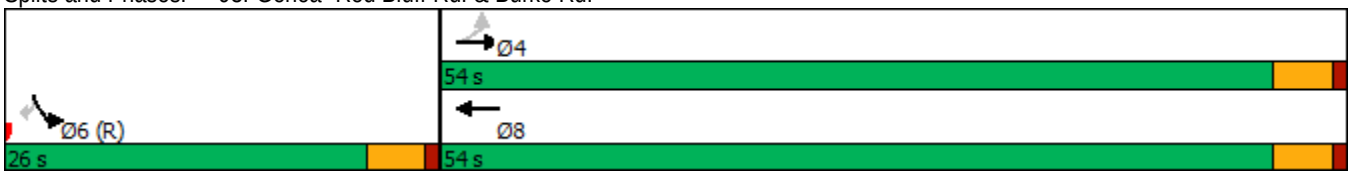
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	745	0	0	605	8	225	426	183	0	0	2
Future Volume (vph)	132	745	0	0	605	8	225	426	183	0	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5			4.0	
Lane Util. Factor	1.00	0.95			0.91		1.00	0.91			1.00	
Frt	1.00	1.00			1.00		1.00	0.95			0.85	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3471			4977		1736	4762			0	
Flt Permitted	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1736	3471			4977		1736	4762			0	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	140	793	0	0	644	9	239	453	195	0	0	2
RTOR Reduction (vph)	0	0	0	0	2	0	0	103	0	0	2	0
Lane Group Flow (vph)	140	793	0	0	651	0	239	545	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	5 6			6			8				
Permitted Phases							8					
Actuated Green, G (s)	12.3	53.7			36.9		17.3	17.3			0.0	
Effective Green, g (s)	12.3	53.7			36.9		17.3	17.3			0.0	
Actuated g/C Ratio	0.15	0.67			0.46		0.22	0.22			0.00	
Clearance Time (s)	4.5				4.5		4.5	4.5				
Vehicle Extension (s)	3.0				3.0		3.0	3.0				
Lane Grp Cap (vph)	266	2329			2295		375	1029			0	
v/s Ratio Prot	c0.08	c0.23			0.13			0.11				
v/s Ratio Perm							c0.14					
v/c Ratio	0.53	0.34			0.28		0.64	0.53			0.00	
Uniform Delay, d1	31.2	5.6			13.4		28.5	27.8			40.0	
Progression Factor	0.55	0.40			0.62		1.00	1.00			1.00	
Incremental Delay, d2	1.7	0.1			0.2		3.5	0.5			0.0	
Delay (s)	18.8	2.3			8.5		32.0	28.2			40.0	
Level of Service	B	A			A		C	C			D	
Approach Delay (s)		4.8			8.5			29.3			40.0	
Approach LOS		A			A			C			D	

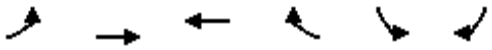
Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	300	466	373	303	183
Future Volume (vph)	300	466	373	303	183
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	54.0	54.0	54.0	26.0	26.0
Total Split (%)	67.5%	67.5%	67.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	44.7	44.7	44.7	26.3	26.3
Actuated g/C Ratio	0.56	0.56	0.56	0.33	0.33
v/c Ratio	0.92	0.26	0.35	0.58	0.31
Control Delay	42.5	6.9	1.3	21.9	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	6.9	1.3	21.9	3.2
LOS	D	A	A	C	A
Approach Delay		20.9	1.3	14.9	
Approach LOS		C	A	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	300	466	373	253	303	183
Future Volume (veh/h)	300	466	373	253	303	183
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	330	512	410	278	333	201
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	444	2046	1172	787	530	472
Arrive On Green	0.58	0.58	0.58	0.58	0.30	0.30
Sat Flow, veh/h	743	3589	2095	1345	1753	1560
Grp Volume(v), veh/h	330	512	357	331	333	201
Grp Sat Flow(s),veh/h/ln	743	1749	1749	1599	1753	1560
Q Serve(g_s), s	33.5	5.7	8.5	8.7	13.1	8.3
Cycle Q Clear(g_c), s	42.1	5.7	8.5	8.7	13.1	8.3
Prop In Lane	1.00			0.84	1.00	1.00
Lane Grp Cap(c), veh/h	444	2046	1023	935	530	472
V/C Ratio(X)	0.74	0.25	0.35	0.35	0.63	0.43
Avail Cap(c_a), veh/h	469	2164	1082	989	530	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.82	0.82
Uniform Delay (d), s/veh	19.7	8.1	8.7	8.7	24.0	22.3
Incr Delay (d2), s/veh	6.0	0.1	0.2	0.2	4.6	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	1.9	2.9	2.7	5.9	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.7	8.1	8.9	8.9	28.6	24.6
LnGrp LOS	C	A	A	A	C	C
Approach Vol, veh/h		842	688		534	
Approach Delay, s/veh		15.0	8.9		27.1	
Approach LOS		B	A		C	

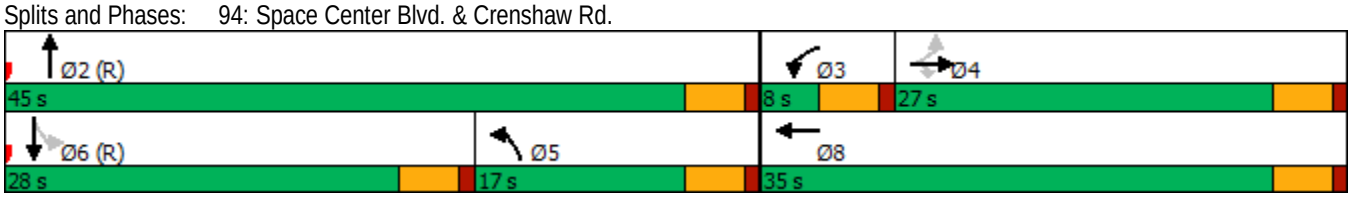
Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	51.3	28.7	51.3
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	49.5	21.5	49.5
Max Q Clear Time (g_c+I1), s	44.1	15.1	10.7
Green Ext Time (p_c), s	2.7	1.0	5.1

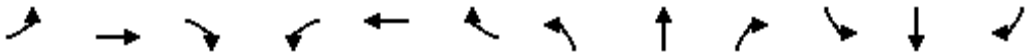
Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	157	85	111	15	81	113	502	80	414
Future Volume (vph)	157	85	111	15	81	113	502	80	414
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA
Protected Phases		4		3	8	5	2		6
Permitted Phases	4		4					6	
Detector Phase	4	4	4	3	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	27.0	8.0	35.0	17.0	45.0	28.0	28.0
Total Split (%)	33.8%	33.8%	33.8%	10.0%	43.8%	21.3%	56.3%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead		Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	17.3	17.3	17.3	3.5	18.9	11.4	52.1	38.5	38.5
Actuated g/C Ratio	0.22	0.22	0.22	0.04	0.24	0.14	0.65	0.48	0.48
v/c Ratio	0.73	0.24	0.28	0.23	0.27	0.52	0.26	0.25	0.41
Control Delay	46.5	25.7	5.0	44.3	9.7	16.7	1.0	12.7	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	25.7	5.0	44.3	9.7	16.7	1.0	12.7	7.9
LOS	D	C	A	D	A	B	A	B	A
Approach Delay		28.4			12.0		3.8		8.5
Approach LOS		C			B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 23 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	85	111	15	81	123	113	502	23	80	414	190
Future Volume (veh/h)	157	85	111	15	81	123	113	502	23	80	414	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	176	96	125	17	91	138	127	564	26	90	465	213
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	303	349	296	24	454	405	487	2137	98	329	686	312
Arrive On Green	0.19	0.19	0.19	0.01	0.26	0.26	0.56	1.00	1.00	0.29	0.29	0.29
Sat Flow, veh/h	1133	1841	1560	1753	1749	1560	1753	3404	157	813	2336	1062
Grp Volume(v), veh/h	176	96	125	17	91	138	127	289	301	90	347	331
Grp Sat Flow(s),veh/h/ln	1133	1841	1560	1753	1749	1560	1753	1749	1813	813	1749	1650
Q Serve(g_s), s	11.9	3.6	2.9	0.8	3.3	5.7	3.0	0.0	0.0	7.0	14.0	14.2
Cycle Q Clear(g_c), s	12.1	3.6	2.9	0.8	3.3	5.7	3.0	0.0	0.0	7.0	14.0	14.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.64
Lane Grp Cap(c), veh/h	303	349	296	24	454	405	487	1098	1138	329	514	485
V/C Ratio(X)	0.58	0.27	0.42	0.70	0.20	0.34	0.26	0.26	0.26	0.27	0.68	0.68
Avail Cap(c_a), veh/h	407	518	439	77	667	595	487	1098	1138	329	514	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	27.7	7.7	39.3	23.1	24.0	13.5	0.0	0.0	22.4	24.9	25.0
Incr Delay (d2), s/veh	1.8	0.4	1.0	31.1	0.2	0.5	0.2	0.5	0.4	2.0	7.0	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.6	2.0	0.5	1.3	2.1	1.1	0.1	0.1	1.5	6.5	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	28.1	8.6	70.4	23.3	24.5	13.7	0.5	0.4	24.5	31.9	32.5
LnGrp LOS	C	C	A	E	C	C	B	A	A	C	C	C
Approach Vol, veh/h		397			246			717			768	
Approach Delay, s/veh		24.1			27.3			2.8			31.3	
Approach LOS		C			C			A			C	

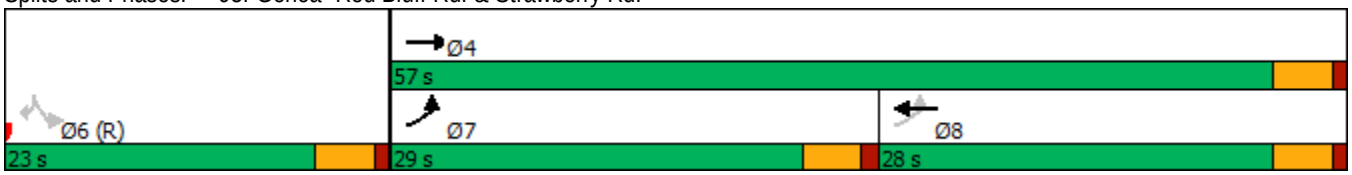
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		54.7	5.6	19.7	26.7	28.0		25.3				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		40.5	3.5	22.5	12.5	23.5		30.5				
Max Q Clear Time (g_c+I1), s		2.0	2.8	14.1	5.0	16.2		7.7				
Green Ext Time (p_c), s		4.0	0.0	1.1	0.2	2.9		1.3				

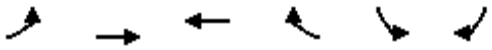
Intersection Summary	
HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	391	798	570	177	262
Future Volume (vph)	391	798	570	177	262
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	29.0	57.0	28.0	23.0	23.0
Total Split (%)	36.3%	71.3%	35.0%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	41.4	45.9	22.5	25.1	25.1
Actuated g/C Ratio	0.52	0.57	0.28	0.31	0.31
v/c Ratio	0.80	0.41	0.78	0.33	0.40
Control Delay	23.9	5.2	23.8	32.1	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	5.2	23.8	32.1	15.0
LOS	C	A	C	C	B
Approach Delay		11.3	23.8	21.9	
Approach LOS		B	C	C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 69 (86%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.





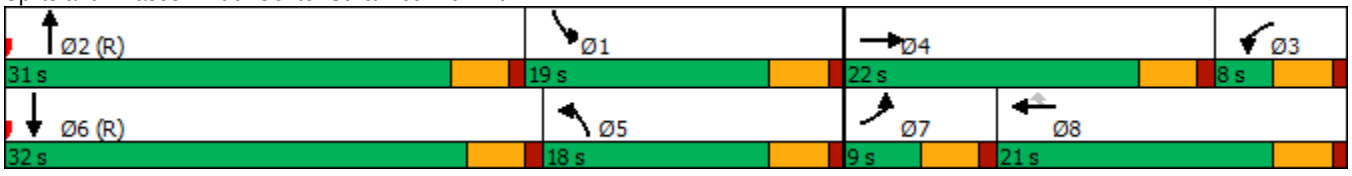
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	391	798	570	164	177	262
Future Volume (vph)	391	798	570	164	177	262
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.97		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	3471	3355		1736	1553
Flt Permitted	0.18	1.00	1.00		0.95	1.00
Satd. Flow (perm)	325	3471	3355		1736	1553
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	403	823	588	169	182	270
RTOR Reduction (vph)	0	0	34	0	0	186
Lane Group Flow (vph)	403	823	723	0	182	84
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	41.5	46.0	22.5		25.0	25.0
Effective Green, g (s)	41.5	46.0	22.5		25.0	25.0
Actuated g/C Ratio	0.52	0.58	0.28		0.31	0.31
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	503	1995	943		542	485
v/s Ratio Prot	c0.19	0.24	0.22			
v/s Ratio Perm	c0.23				c0.10	0.05
v/c Ratio	0.80	0.41	0.77		0.34	0.17
Uniform Delay, d1	16.8	9.5	26.3		21.1	20.0
Progression Factor	0.70	0.51	0.73		1.26	3.48
Incremental Delay, d2	8.7	0.1	3.7		1.6	0.8
Delay (s)	20.5	4.9	22.9		28.3	70.3
Level of Service	C	A	C		C	E
Approach Delay (s)		10.0	22.9		53.4	
Approach LOS		B	C		D	

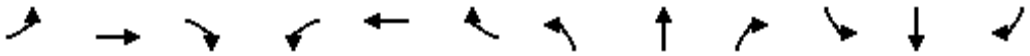
Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	45	419	3	345	244	131	720	190	571
Future Volume (vph)	45	419	3	345	244	131	720	190	571
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	22.0	8.0	21.0	21.0	18.0	31.0	19.0	32.0
Total Split (%)	11.3%	27.5%	10.0%	26.3%	26.3%	22.5%	38.8%	23.8%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	19.9	4.2	16.1	16.1	12.2	31.8	13.2	32.8
Actuated g/C Ratio	0.06	0.25	0.05	0.20	0.20	0.15	0.40	0.16	0.41
v/c Ratio	0.47	0.70	0.03	0.56	0.52	0.56	0.59	0.74	0.45
Control Delay	55.1	26.2	37.7	32.1	7.6	28.8	11.8	48.5	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.1	26.2	37.7	32.1	7.6	28.8	11.8	48.5	19.8
LOS	E	C	D	C	A	C	B	D	B
Approach Delay		28.5		22.0			14.4		27.0
Approach LOS		C		C			B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 37 (46%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 22.4	Intersection LOS: C
Intersection Capacity Utilization 70.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	419	118	3	345	244	131	720	6	190	571	0
Future Volume (veh/h)	45	419	118	3	345	244	131	720	6	190	571	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	51	471	133	3	388	274	147	809	7	213	642	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	64	550	154	5	596	266	393	1177	10	415	1202	0
Arrive On Green	0.04	0.20	0.20	0.00	0.17	0.17	0.07	0.11	0.11	0.24	0.34	0.00
Sat Flow, veh/h	1753	2697	756	1753	3497	1560	1753	3553	31	1753	3589	0
Grp Volume(v), veh/h	51	304	300	3	388	274	147	398	418	213	642	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1705	1753	1749	1560	1753	1749	1835	1753	1749	0
Q Serve(g_s), s	2.3	13.4	13.6	0.1	8.3	7.9	6.4	17.5	17.5	8.4	11.8	0.0
Cycle Q Clear(g_c), s	2.3	13.4	13.6	0.1	8.3	7.9	6.4	17.5	17.5	8.4	11.8	0.0
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	64	357	348	5	596	266	393	579	608	415	1202	0
V/C Ratio(X)	0.80	0.85	0.86	0.61	0.65	1.03	0.37	0.69	0.69	0.51	0.53	0.00
Avail Cap(c_a), veh/h	99	383	373	77	721	322	393	579	608	415	1202	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.62	0.62	0.62	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.2	30.7	30.8	39.8	31.0	11.1	31.7	31.6	31.6	26.5	21.1	0.0
Incr Delay (d2), s/veh	21.6	16.0	17.5	82.6	1.5	56.7	0.4	4.1	3.9	1.1	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	7.0	7.1	0.2	3.5	6.7	2.8	8.8	9.2	3.5	4.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	46.7	48.2	122.5	32.5	67.9	32.0	35.8	35.6	27.6	22.8	0.0
LnGrp LOS	E	D	D	F	C	F	C	D	D	C	C	A
Approach Vol, veh/h		655			665			963			855	
Approach Delay, s/veh		48.4			47.5			35.1			24.0	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.5	31.0	4.7	20.8	22.5	32.0	7.4	18.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	26.5	3.5	17.5	13.5	27.5	4.5	16.5
Max Q Clear Time (g_c+I1), s	10.4	19.5	2.1	15.6	8.4	13.8	4.3	10.3
Green Ext Time (p_c), s	0.2	2.9	0.0	0.7	0.2	3.7	0.0	1.9

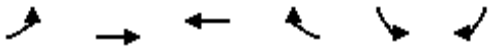
Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	209	778	588	105	230
Future Volume (vph)	209	778	588	105	230
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	21.0	53.0	32.0	27.0	27.0
Total Split (%)	26.3%	66.3%	40.0%	33.8%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	41.2	41.2	23.2	29.8	29.8
Actuated g/C Ratio	0.52	0.52	0.29	0.37	0.37
v/c Ratio	0.57	0.47	0.73	0.18	0.34
Control Delay	16.6	12.8	15.9	11.1	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.6	12.8	15.9	11.1	2.8
LOS	B	B	B	B	A
Approach Delay		13.6	15.9	5.4	
Approach LOS		B	B	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 51.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	209	778	588	83	105	230
Future Volume (veh/h)	209	778	588	83	105	230
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	227	846	639	90	114	250
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	344	1518	801	113	795	707
Arrive On Green	0.12	0.43	0.26	0.26	0.45	0.45
Sat Flow, veh/h	1753	3589	3171	433	1753	1560
Grp Volume(v), veh/h	227	846	363	366	114	250
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1763	1753	1560
Q Serve(g_s), s	7.1	14.4	15.5	15.5	3.0	8.3
Cycle Q Clear(g_c), s	7.1	14.4	15.5	15.5	3.0	8.3
Prop In Lane	1.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	344	1518	455	459	795	707
V/C Ratio(X)	0.66	0.56	0.80	0.80	0.14	0.35
Avail Cap(c_a), veh/h	499	2120	601	606	795	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	16.9	27.6	27.6	12.8	14.2
Incr Delay (d2), s/veh	2.2	0.3	5.5	5.6	0.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.5	6.9	7.0	1.2	8.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.3	17.2	33.2	33.2	13.2	15.6
LnGrp LOS	C	B	C	C	B	B
Approach Vol, veh/h		1073	729		364	
Approach Delay, s/veh		18.1	33.2		14.8	
Approach LOS		B	C		B	

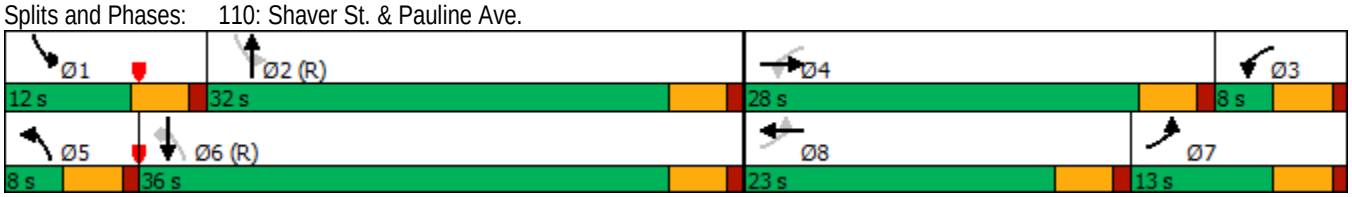
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			39.2		40.8	13.9	25.3
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			48.5		22.5	16.5	27.5
Max Q Clear Time (g_c+I1), s			16.4		10.3	9.1	17.5
Green Ext Time (p_c), s			7.0		1.0	0.4	3.3

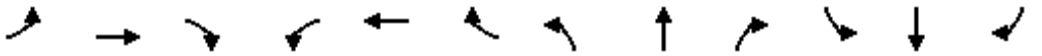
Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	105	81	57	105	35	525	45	489	74
Future Volume (vph)	105	81	57	105	35	525	45	489	74
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	28.0	8.0	23.0	8.0	32.0	12.0	36.0	36.0
Total Split (%)	16.3%	35.0%	10.0%	28.8%	10.0%	40.0%	15.0%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.4	10.2	17.3	12.6	47.4	43.1	47.4	43.6	43.6
Actuated g/C Ratio	0.23	0.13	0.22	0.16	0.59	0.54	0.59	0.54	0.54
v/c Ratio	0.46	0.49	0.20	0.64	0.07	0.33	0.11	0.29	0.09
Control Delay	24.2	19.6	21.7	34.5	3.6	12.1	5.0	6.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	19.6	21.7	34.5	3.6	12.1	5.0	6.1	0.2
LOS	C	B	C	C	A	B	A	A	A
Approach Delay		21.9		31.3		11.6		5.3	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 55.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	81	24	57	105	65	35	525	26	45	489	74
Future Volume (veh/h)	105	81	24	57	105	65	35	525	26	45	489	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	118	91	27	64	118	73	39	590	29	51	549	83
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	131	39	277	149	92	517	1917	94	470	1991	888
Arrive On Green	0.04	0.10	0.10	0.08	0.14	0.14	0.01	0.19	0.19	0.03	0.57	0.57
Sat Flow, veh/h	1753	1363	405	1753	1064	658	1753	3393	167	1753	3497	1560
Grp Volume(v), veh/h	118	0	118	64	0	191	39	304	315	51	549	83
Grp Sat Flow(s),veh/h/ln	1753	0	1768	1753	0	1722	1753	1749	1811	1753	1749	1560
Q Serve(g_s), s	0.0	0.0	5.2	0.0	0.0	8.6	0.7	12.0	12.0	1.0	6.4	1.2
Cycle Q Clear(g_c), s	0.0	0.0	5.2	0.0	0.0	8.6	0.7	12.0	12.0	1.0	6.4	1.2
Prop In Lane	1.00		0.23	1.00		0.38	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	199	0	169	277	0	241	517	988	1023	470	1991	888
V/C Ratio(X)	0.59	0.00	0.70	0.23	0.00	0.79	0.08	0.31	0.31	0.11	0.28	0.09
Avail Cap(c_a), veh/h	314	0	519	277	0	398	549	988	1023	583	1991	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	35.0	32.8	0.0	33.3	7.1	19.0	19.0	7.7	8.8	3.3
Incr Delay (d2), s/veh	2.8	0.0	5.1	0.4	0.0	5.9	0.1	0.8	0.8	0.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	2.4	1.2	0.0	3.9	0.3	5.7	5.9	0.3	2.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	40.1	33.2	0.0	39.2	7.2	19.8	19.8	7.8	9.1	3.5
LnGrp LOS	D	A	D	C	A	D	A	B	B	A	A	A
Approach Vol, veh/h		236			255			658			683	
Approach Delay, s/veh		39.7			37.7			19.1			8.4	
Approach LOS		D			D			B			A	

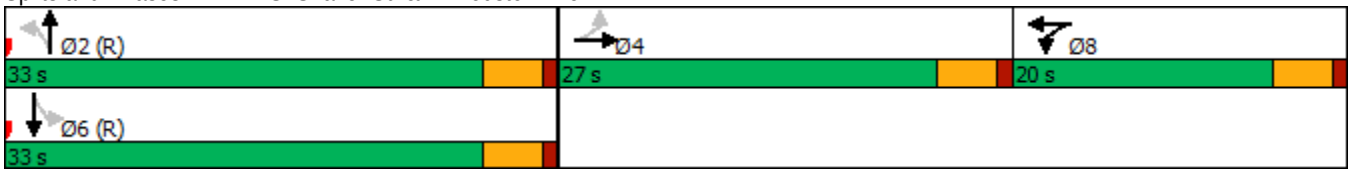
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	49.7	11.3	12.2	6.5	50.0	7.7	15.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	27.5	3.5	23.5	3.5	31.5	8.5	18.5
Max Q Clear Time (g_c+I1), s	3.0	14.0	2.0	7.2	2.7	8.4	2.0	10.6
Green Ext Time (p_c), s	0.0	3.2	0.0	0.5	0.0	4.1	0.1	0.6

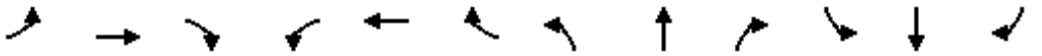
Intersection Summary	
HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	31	20	45	18	5	733	18	471
Future Volume (vph)	31	20	45	18	5	733	18	471
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	20.0	20.0	33.0	33.0	33.0	33.0
Total Split (%)	33.8%	33.8%	25.0%	25.0%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	13.8	13.8	7.7	7.7	52.5	52.5	52.5	52.5
Actuated g/C Ratio	0.17	0.17	0.10	0.10	0.66	0.66	0.66	0.66
v/c Ratio	0.30	0.12	0.29	0.34	0.01	0.38	0.06	0.23
Control Delay	32.4	16.9	37.4	19.6	7.8	8.8	12.5	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	32.4	16.9	37.4	19.6	7.8	8.8	12.5	10.1
LOS	C	B	D	B	A	A	B	B
Approach Delay		24.2		27.0		8.8		10.2
Approach LOS		C		C		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 11.3	Intersection LOS: B
Intersection Capacity Utilization 43.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	20	15	45	18	45	5	733	54	18	471	11
Future Volume (veh/h)	31	20	15	45	18	45	5	733	54	18	471	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	34	22	16	49	20	49	5	805	59	20	518	12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	87	49	36	114	31	75	664	2367	173	414	2504	58
Arrive On Green	0.05	0.05	0.05	0.06	0.06	0.06	0.24	0.24	0.24	0.72	0.72	0.72
Sat Flow, veh/h	1753	991	720	1753	473	1159	860	3304	242	630	3494	81
Grp Volume(v), veh/h	34	0	38	49	0	69	5	426	438	20	259	271
Grp Sat Flow(s),veh/h/ln	1753	0	1711	1753	0	1632	860	1749	1797	630	1749	1826
Q Serve(g_s), s	1.5	0.0	1.7	2.2	0.0	3.3	0.4	16.2	16.2	1.3	3.9	4.0
Cycle Q Clear(g_c), s	1.5	0.0	1.7	2.2	0.0	3.3	4.3	16.2	16.2	17.5	3.9	4.0
Prop In Lane	1.00		0.42	1.00		0.71	1.00		0.13	1.00		0.04
Lane Grp Cap(c), veh/h	87	0	85	114	0	106	664	1253	1288	414	1253	1308
V/C Ratio(X)	0.39	0.00	0.45	0.43	0.00	0.65	0.01	0.34	0.34	0.05	0.21	0.21
Avail Cap(c_a), veh/h	493	0	481	340	0	316	664	1253	1288	414	1253	1308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	0.0	36.9	36.0	0.0	36.5	11.8	14.8	14.8	9.8	3.8	3.8
Incr Delay (d2), s/veh	2.8	0.0	3.6	2.6	0.0	6.6	0.0	0.7	0.6	0.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.8	1.0	0.0	1.5	0.1	7.7	7.9	0.2	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	40.5	38.6	0.0	43.1	11.9	15.5	15.5	10.0	4.1	4.1
LnGrp LOS	D	A	D	D	A	D	B	B	B	A	A	A
Approach Vol, veh/h		72			118			869			550	
Approach Delay, s/veh		40.1			41.2			15.5			4.4	
Approach LOS		D			D			B			A	

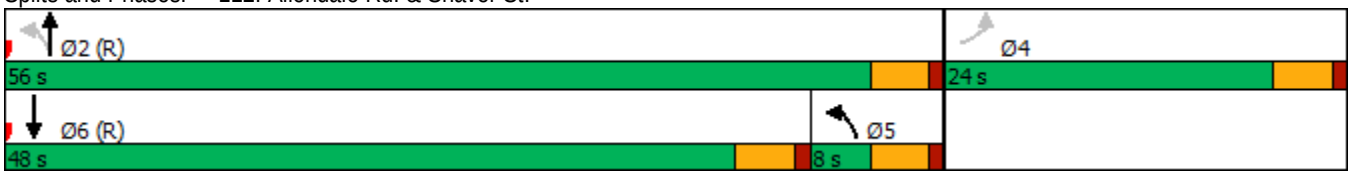
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.8		8.5		61.8		9.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		28.5		22.5		28.5		15.5				
Max Q Clear Time (g_c+I1), s		18.2		3.7		19.5		5.3				
Green Ext Time (p_c), s		4.0		0.2		2.3		0.3				

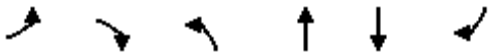
Intersection Summary												
HCM 6th Ctrl Delay			14.7									
HCM 6th LOS			B									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	116	20	981	843
Future Volume (vph)	116	20	981	843
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	24.0	8.0	56.0	48.0
Total Split (%)	30.0%	10.0%	70.0%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	12.4	58.6	58.6	55.4
Actuated g/C Ratio	0.16	0.73	0.73	0.69
v/c Ratio	0.60	0.06	0.44	0.46
Control Delay	26.4	2.8	3.6	4.5
Queue Delay	0.0	0.0	0.0	0.4
Total Delay	26.4	2.8	3.6	4.9
LOS	C	A	A	A
Approach Delay	26.4		3.6	4.9
Approach LOS	C		A	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 59 (74%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 5.8	Intersection LOS: A
Intersection Capacity Utilization 45.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	116	30	20	981	843	114
Future Volume (vph)	116	30	20	981	843	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.97		1.00	1.00	0.98	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1709		1736	3471	3409	
Flt Permitted	0.96		0.22	1.00	1.00	
Satd. Flow (perm)	1709		404	3471	3409	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	133	34	23	1128	969	131
RTOR Reduction (vph)	13	0	0	0	10	0
Lane Group Flow (vph)	154	0	23	1128	1090	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	12.4		58.6	58.6	52.7	
Effective Green, g (s)	12.4		58.6	58.6	52.7	
Actuated g/C Ratio	0.16		0.73	0.73	0.66	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	264		319	2542	2245	
v/s Ratio Prot			0.00	c0.32	c0.32	
v/s Ratio Perm	c0.09		0.05			
v/c Ratio	0.58		0.07	0.44	0.49	
Uniform Delay, d1	31.4		5.9	4.2	6.8	
Progression Factor	0.61		0.57	0.62	0.57	
Incremental Delay, d2	3.3		0.1	0.6	0.7	
Delay (s)	22.5		3.4	3.2	4.6	
Level of Service	C		A	A	A	
Approach Delay (s)	22.5			3.2	4.6	
Approach LOS	C			A	A	

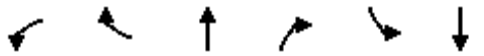
Intersection Summary			
HCM 2000 Control Delay	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	11	518	70	578
Future Volume (vph)	11	518	70	578
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	26.0	54.0	54.0	54.0
Total Split (%)	32.5%	67.5%	67.5%	67.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	63.6		63.6
Actuated g/C Ratio	0.09	0.80		0.80
v/c Ratio	0.53	0.23		0.34
Control Delay	19.0	0.8		2.0
Queue Delay	0.0	0.0		0.0
Total Delay	19.0	0.8		2.0
LOS	B	A		A
Approach Delay	19.0	0.8		2.0
Approach LOS	B	A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 50 (63%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 3.1	Intersection LOS: A
Intersection Capacity Utilization 54.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	11	106	518	12	70	578
Future Volume (veh/h)	11	106	518	12	70	578
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	13	126	617	14	83	688
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	16	157	2717	62	272	2157
Arrive On Green	0.11	0.11	0.78	0.78	1.00	1.00
Sat Flow, veh/h	147	1420	3588	79	280	2859
Grp Volume(v), veh/h	140	0	308	323	373	398
Grp Sat Flow(s),veh/h/ln	1578	0	1749	1826	1463	1591
Q Serve(g_s), s	6.9	0.0	3.8	3.8	0.0	0.0
Cycle Q Clear(g_c), s	6.9	0.0	3.8	3.8	0.0	0.0
Prop In Lane	0.09	0.90		0.04	0.22	
Lane Grp Cap(c), veh/h	174	0	1359	1420	1192	1237
V/C Ratio(X)	0.80	0.00	0.23	0.23	0.31	0.32
Avail Cap(c_a), veh/h	424	0	1359	1420	1192	1237
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.96	0.96
Uniform Delay (d), s/veh	34.7	0.0	2.4	2.4	0.0	0.0
Incr Delay (d2), s/veh	8.4	0.0	0.4	0.4	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.8	0.9	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.1	0.0	2.8	2.8	0.7	0.7
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	140		631			771
Approach Delay, s/veh	43.1		2.8			0.7
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		66.7			66.7	13.3
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		49.5			49.5	21.5
Max Q Clear Time (g_c+I1), s		5.8			2.0	8.9
Green Ext Time (p_c), s		4.2			5.9	0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

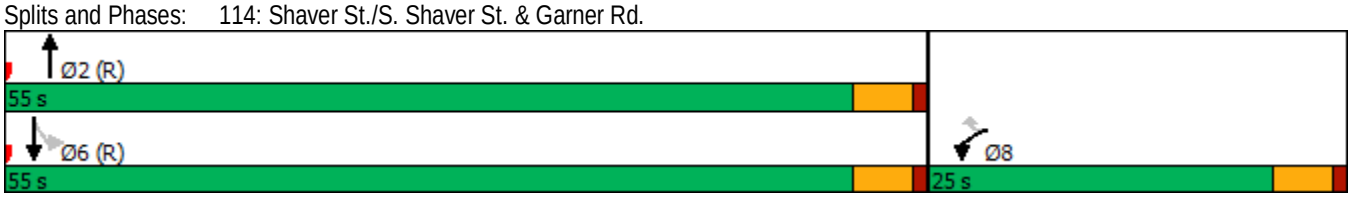
Notes

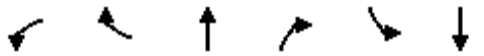
User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	183	164	772	83	617
Future Volume (vph)	183	164	772	83	617
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	25.0	55.0	55.0	55.0
Total Split (%)	31.3%	31.3%	68.8%	68.8%	68.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	14.8	14.8	56.2	56.2	56.2
Actuated g/C Ratio	0.18	0.18	0.70	0.70	0.70
v/c Ratio	0.65	0.44	0.44	0.30	0.29
Control Delay	39.3	9.1	2.9	9.5	5.3
Queue Delay	0.6	0.0	0.1	0.0	0.0
Total Delay	39.9	9.1	3.0	9.5	5.3
LOS	D	A	A	A	A
Approach Delay	25.3		3.0		5.8
Approach LOS	C		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 64 (80%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	183	164	772	138	83	617
Future Volume (veh/h)	183	164	772	138	83	617
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	210	189	887	159	95	709
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	268	239	2176	390	480	2569
Arrive On Green	0.15	0.15	1.00	1.00	0.98	0.98
Sat Flow, veh/h	1753	1560	3055	531	531	3589
Grp Volume(v), veh/h	210	189	523	523	95	709
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1745	531	1749
Q Serve(g_s), s	9.2	9.3	0.0	0.0	0.4	0.5
Cycle Q Clear(g_c), s	9.2	9.3	0.0	0.0	0.4	0.5
Prop In Lane	1.00	1.00		0.30	1.00	
Lane Grp Cap(c), veh/h	268	239	1284	1282	480	2569
V/C Ratio(X)	0.78	0.79	0.41	0.41	0.20	0.28
Avail Cap(c_a), veh/h	449	400	1284	1282	480	2569
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.88	0.88	0.98	0.98
Uniform Delay (d), s/veh	32.6	32.6	0.0	0.0	0.3	0.3
Incr Delay (d2), s/veh	5.0	5.8	0.8	0.8	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	3.8	0.3	0.3	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.6	38.5	0.8	0.8	1.2	0.5
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	399		1046			804
Approach Delay, s/veh	38.0		0.8			0.6
Approach LOS	D		A			A

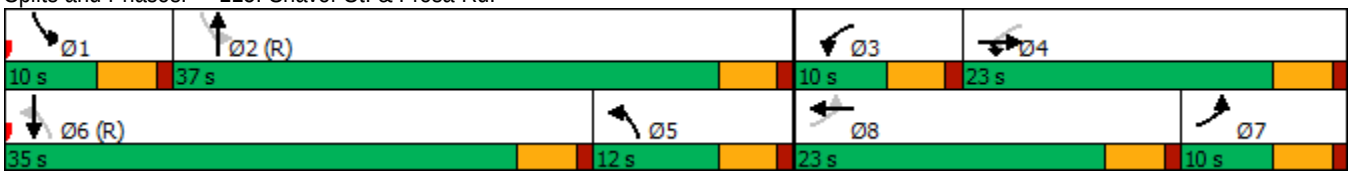
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		63.3			63.3	16.7
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		50.5			50.5	20.5
Max Q Clear Time (g_c+I1), s		2.0			2.5	11.3
Green Ext Time (p_c), s		9.0			7.5	0.9

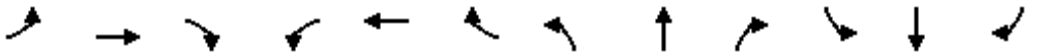
Intersection Summary	
HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	Ø7
Lane Configurations									
Traffic Volume (vph)	26	98	33	44	67	530	41	497	
Future Volume (vph)	26	98	33	44	67	530	41	497	
Turn Type	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA	
Protected Phases	4	4	3	8	5	2	1	6	7
Permitted Phases			4		6		2		
Detector Phase	4	4	3	8	5	2	1	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	9.5
Total Split (s)	23.0	23.0	10.0	23.0	12.0	37.0	10.0	35.0	10.0
Total Split (%)	28.8%	28.8%	12.5%	28.8%	15.0%	46.3%	12.5%	43.8%	13%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	7.1	7.1	10.4	13.1	54.3	51.2	55.2	48.3	
Actuated g/C Ratio	0.09	0.09	0.13	0.16	0.68	0.64	0.69	0.60	
v/c Ratio	0.21	0.37	0.21	0.41	0.14	0.30	0.09	0.29	
Control Delay	36.5	3.4	28.4	16.1	3.2	5.0	5.5	7.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.5	3.4	28.4	16.1	3.2	5.0	5.5	7.9	
LOS	D	A	C	B	A	A	A	A	
Approach Delay	10.4			18.9		4.8		7.7	
Approach LOS	B			B		A		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 60 (75%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 7.8	Intersection LOS: A
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 115: Shaver St. & Fresa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	26	98	33	44	68	67	530	22	41	497	1
Future Volume (veh/h)	0	26	98	33	44	68	67	530	22	41	497	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	31	115	39	52	80	79	624	26	48	585	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	0	0	0	0	0	0	0	0	0	0	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Change Period (Y+Rc), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Green Setting (Gmax), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

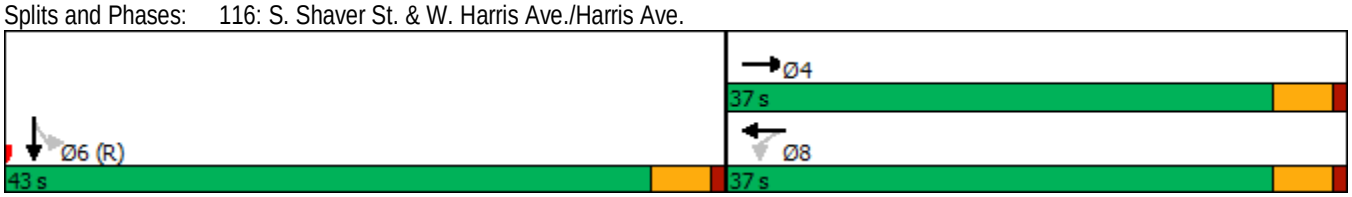
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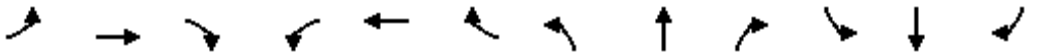
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	206	49	221	549
Future Volume (vph)	206	49	221	549
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	15.6		15.6	55.4
Actuated g/C Ratio	0.20		0.20	0.69
v/c Ratio	0.56		0.73	0.25
Control Delay	20.6		36.1	4.2
Queue Delay	0.0		0.0	0.0
Total Delay	20.6		36.1	4.2
LOS	C		D	A
Approach Delay	20.6		36.1	4.2
Approach LOS	C		D	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 1 (1%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 45.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	206	120	49	221	0	0	0	0	67	549	79
Future Volume (veh/h)	0	206	120	49	221	0	0	0	0	67	549	79
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	254	148	60	273	0				83	678	98
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	467	263	117	515	0				319	2774	411
Arrive On Green	0.00	0.22	0.22	0.07	0.07	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	2248	1215	255	2460	0				476	4134	613
Grp Volume(v), veh/h	0	204	198	162	171	0				317	265	277
Grp Sat Flow(s),veh/h/ln	0	1749	1622	1040	1591	0				1817	1675	1730
Q Serve(g_s), s	0.0	8.3	8.7	4.8	8.3	0.0				11.5	10.4	10.5
Cycle Q Clear(g_c), s	0.0	8.3	8.7	13.5	8.3	0.0				11.5	10.4	10.5
Prop In Lane	0.00		0.75	0.37		0.00				0.26		0.35
Lane Grp Cap(c), veh/h	0	379	351	287	345	0				1219	1124	1161
V/C Ratio(X)	0.00	0.54	0.56	0.56	0.50	0.00				0.26	0.24	0.24
Avail Cap(c_a), veh/h	0	710	659	549	646	0				1219	1124	1161
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.91	0.91	0.00				0.99	0.99	0.99
Uniform Delay (d), s/veh	0.0	27.8	28.0	35.2	32.9	0.0				14.7	14.3	14.3
Incr Delay (d2), s/veh	0.0	1.2	1.4	1.6	1.0	0.0				0.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	3.4	3.5	3.5	0.0				5.5	4.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.0	29.4	36.7	34.0	0.0				15.2	14.8	14.8
LnGrp LOS	A	C	C	D	C	A				B	B	B
Approach Vol, veh/h		402			333						859	
Approach Delay, s/veh		29.2			35.3						15.0	
Approach LOS		C			D						B	

Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				21.8		58.2		21.8				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				32.5		38.5		32.5				
Max Q Clear Time (g_c+I1), s				10.7		13.5		15.5				
Green Ext Time (p_c), s				2.4		5.5		1.8				

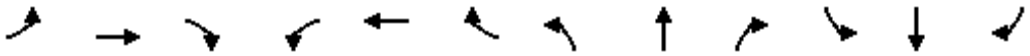
Intersection Summary												
HCM 6th Ctrl Delay			22.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	46	219	155	670
Future Volume (vph)	46	219	155	670
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	34.0	34.0	34.0	46.0
Total Split (%)	42.5%	42.5%	42.5%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		14.1	14.1	56.9
Actuated g/C Ratio		0.18	0.18	0.71
v/c Ratio		0.64	0.42	0.28
Control Delay		36.8	17.5	3.2
Queue Delay		0.0	0.0	0.0
Total Delay		36.8	17.5	3.2
LOS		D	B	A
Approach Delay		36.8	17.5	3.2
Approach LOS		D	B	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 47 (59%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 45.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



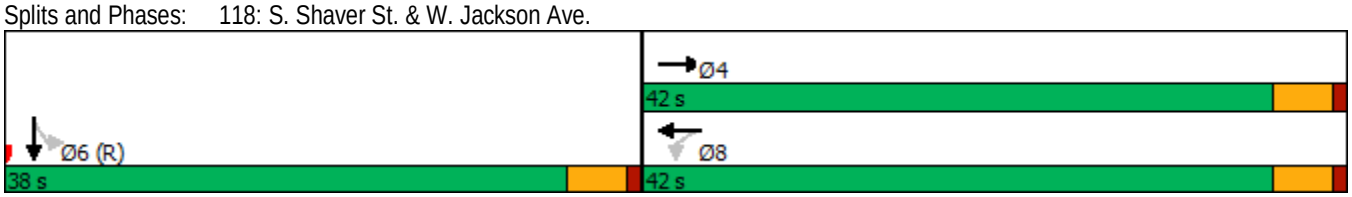


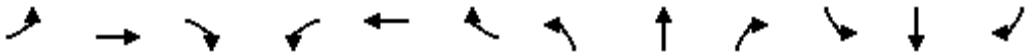
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	219	0	0	155	67	110	670	72	0	0	0
Future Volume (veh/h)	46	219	0	0	155	67	110	670	72	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	53	252	0	0	178	77	126	770	83			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	112	441	0	0	410	170	456	2976	329			
Arrive On Green	0.06	0.06	0.00	0.00	0.17	0.17	0.24	0.24	0.24			
Sat Flow, veh/h	303	2676	0	0	2500	1001	635	4149	458			
Grp Volume(v), veh/h	156	149	0	0	127	128	359	302	318			
Grp Sat Flow(s),veh/h/ln	1304	1591	0	0	1749	1660	1809	1675	1758			
Q Serve(g_s), s	4.5	7.3	0.0	0.0	5.2	5.5	13.0	11.7	11.8			
Cycle Q Clear(g_c), s	10.0	7.3	0.0	0.0	5.2	5.5	13.0	11.7	11.8			
Prop In Lane	0.34		0.00	0.00		0.60	0.35		0.26			
Lane Grp Cap(c), veh/h	282	271	0	0	298	283	1298	1202	1261			
V/C Ratio(X)	0.55	0.55	0.00	0.00	0.43	0.45	0.28	0.25	0.25			
Avail Cap(c_a), veh/h	581	587	0	0	645	612	1298	1202	1261			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.81	0.81	0.00	0.00	0.72	0.72	0.95	0.95	0.95			
Uniform Delay (d), s/veh	36.0	34.8	0.0	0.0	29.7	29.8	13.6	13.1	13.1			
Incr Delay (d2), s/veh	1.4	1.4	0.0	0.0	0.7	0.8	0.5	0.5	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.3	3.1	0.0	0.0	2.2	2.2	6.3	5.2	5.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	36.2	0.0	0.0	30.4	30.7	14.1	13.6	13.6			
LnGrp LOS	D	D	A	A	C	C	B	B	B			
Approach Vol, veh/h		305			255			979				
Approach Delay, s/veh		36.8			30.5			13.8				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		61.9		18.1				18.1				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		41.5		29.5				29.5				
Max Q Clear Time (g_c+I1), s		15.0		12.0				7.5				
Green Ext Time (p_c), s		6.5		1.6				1.4				
Intersection Summary												
HCM 6th Ctrl Delay			21.1									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	142	43	325	434
Future Volume (vph)	142	43	325	434
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	38.0
Total Split (%)	52.5%	52.5%	52.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	17.2		17.2	53.8
Actuated g/C Ratio	0.22		0.22	0.67
v/c Ratio	0.38		0.67	0.20
Control Delay	15.0		22.9	5.4
Queue Delay	0.0		0.0	0.0
Total Delay	15.0		22.9	5.4
LOS	B		C	A
Approach Delay	15.0		22.9	5.4
Approach LOS	B		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 44.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	142	118	43	325	0	0	0	0	97	434	49
Future Volume (veh/h)	0	142	118	43	325	0	0	0	0	97	434	49
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	158	131	48	361	0				108	482	54
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	377	292	99	571	0				567	2716	309
Arrive On Green	0.00	0.20	0.20	0.07	0.07	0.00				0.69	0.69	0.69
Sat Flow, veh/h	0	1967	1453	218	2920	0				826	3957	451
Grp Volume(v), veh/h	0	147	142	212	197	0				235	198	211
Grp Sat Flow(s),veh/h/ln	0	1749	1579	1463	1591	0				1799	1675	1760
Q Serve(g_s), s	0.0	5.8	6.3	5.4	9.7	0.0				3.8	3.4	3.4
Cycle Q Clear(g_c), s	0.0	5.8	6.3	11.7	9.7	0.0				3.8	3.4	3.4
Prop In Lane	0.00		0.92	0.23		0.00				0.46		0.26
Lane Grp Cap(c), veh/h	0	352	318	350	320	0				1235	1149	1207
V/C Ratio(X)	0.00	0.42	0.45	0.60	0.62	0.00				0.19	0.17	0.17
Avail Cap(c_a), veh/h	0	820	740	773	746	0				1235	1149	1207
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.77	0.77	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	27.9	28.0	35.1	34.3	0.0				4.5	4.5	4.5
Incr Delay (d2), s/veh	0.0	0.8	1.0	1.3	1.5	0.0				0.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	2.4	4.5	4.1	0.0				1.2	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.6	29.0	36.4	35.8	0.0				4.9	4.8	4.8
LnGrp LOS	A	C	C	D	D	A				A	A	A
Approach Vol, veh/h		289			409						644	
Approach Delay, s/veh		28.8			36.1						4.8	
Approach LOS		C			D						A	

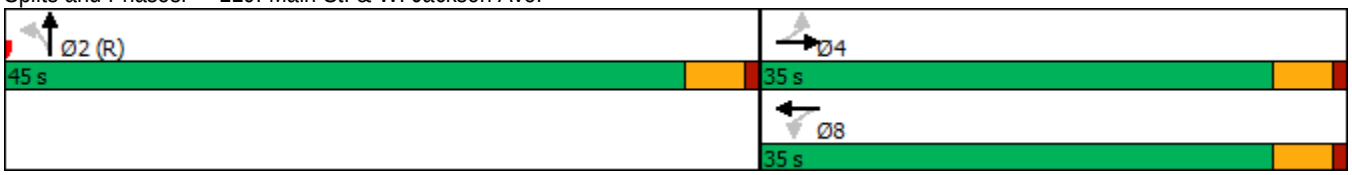
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				20.6		59.4		20.6				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				37.5		33.5		37.5				
Max Q Clear Time (g_c+I1), s				8.3		5.8		13.7				
Green Ext Time (p_c), s				1.7		4.0		2.4				

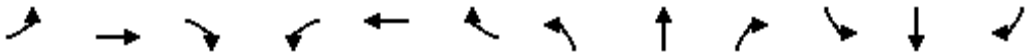
Intersection Summary												
HCM 6th Ctrl Delay			19.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Configurations					
Traffic Volume (vph)	63	185	1	235	631
Future Volume (vph)	63	185	1	235	631
Turn Type	Perm	NA	Perm	NA	NA
Protected Phases		4		8	2
Permitted Phases	4		8		
Detector Phase	4	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	35.0	35.0	35.0	35.0	45.0
Total Split (%)	43.8%	43.8%	43.8%	43.8%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)		13.6		13.6	57.4
Actuated g/C Ratio		0.17		0.17	0.72
v/c Ratio		0.69		0.60	0.24
Control Delay		44.0		28.3	2.3
Queue Delay		0.0		0.0	0.0
Total Delay		44.0		28.3	2.3
LOS		D		C	A
Approach Delay		44.0		28.3	2.3
Approach LOS		D		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 46.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



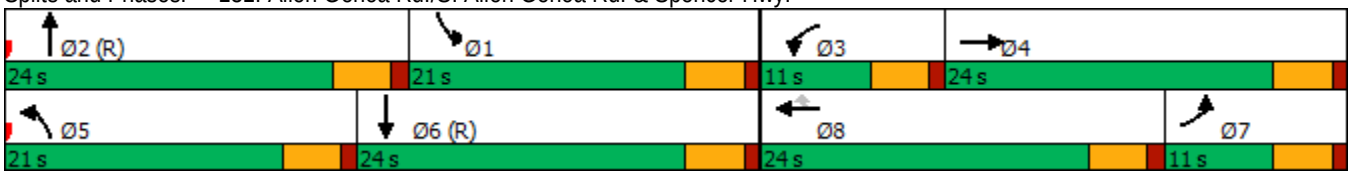


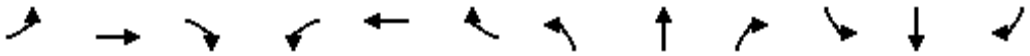
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	185	0	1	235	83	132	631	40	0	0	0
Future Volume (veh/h)	63	185	0	1	235	83	132	631	40	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	1841	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	67	197	0	1	250	88	140	671	43			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	4	4	0	4	4	4	4	4	4			
Cap, veh/h	142	423	0	46	498	170	559	2879	188			
Arrive On Green	0.07	0.07	0.00	0.20	0.20	0.20	0.23	0.23	0.23			
Sat Flow, veh/h	369	2209	0	2	2505	854	812	4181	274			
Grp Volume(v), veh/h	127	137	0	182	0	157	311	262	281			
Grp Sat Flow(s),veh/h/ln	902	1591	0	1840	0	1521	1800	1675	1791			
Q Serve(g_s), s	5.2	6.6	0.0	0.0	0.0	7.4	11.3	10.2	10.2			
Cycle Q Clear(g_c), s	12.5	6.6	0.0	7.0	0.0	7.4	11.3	10.2	10.2			
Prop In Lane	0.53		0.00	0.01		0.56	0.45		0.15			
Lane Grp Cap(c), veh/h	248	317	0	411	0	303	1239	1153	1233			
V/C Ratio(X)	0.51	0.43	0.00	0.44	0.00	0.52	0.25	0.23	0.23			
Avail Cap(c_a), veh/h	485	607	0	746	0	580	1239	1153	1233			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.93	0.93	0.00	1.00	0.00	1.00	0.97	0.97	0.97			
Uniform Delay (d), s/veh	36.5	33.0	0.0	28.5	0.0	28.6	14.0	13.6	13.6			
Incr Delay (d2), s/veh	1.5	0.9	0.0	0.8	0.0	1.4	0.5	0.4	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	2.7	0.0	3.1	0.0	2.7	5.3	4.2	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	33.9	0.0	29.2	0.0	30.0	14.5	14.0	14.0			
LnGrp LOS	D	C	A	C	A	C	B	B	B			
Approach Vol, veh/h		264			339			854				
Approach Delay, s/veh		35.9			29.6			14.2				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		59.6		20.4				20.4				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		40.5		30.5				30.5				
Max Q Clear Time (g_c+I1), s		13.3		14.5				9.4				
Green Ext Time (p_c), s		5.5		1.4				2.0				
Intersection Summary												
HCM 6th Ctrl Delay			21.7									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	64	568	54	687	176	174	413	202	305
Future Volume (vph)	64	568	54	687	176	174	413	202	305
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	24.0	11.0	24.0	24.0	21.0	24.0	21.0	24.0
Total Split (%)	13.8%	30.0%	13.8%	30.0%	30.0%	26.3%	30.0%	26.3%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.4	18.6	6.3	18.6	18.6	13.7	22.6	16.5	25.4
Actuated g/C Ratio	0.08	0.23	0.08	0.23	0.23	0.17	0.28	0.21	0.32
v/c Ratio	0.54	0.71	0.45	0.71	0.39	0.67	0.53	0.65	0.38
Control Delay	30.4	10.9	46.2	32.0	6.4	27.9	18.0	30.8	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	10.9	46.2	32.0	6.4	27.9	18.0	30.8	15.9
LOS	C	B	D	C	A	C	B	C	B
Approach Delay		12.5		27.9			20.8		21.3
Approach LOS		B		C			C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 44 (55%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	568	137	54	687	176	174	413	18	202	305	42
Future Volume (veh/h)	64	568	137	54	687	176	174	413	18	202	305	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	653	157	62	790	202	200	475	21	232	351	48
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	94	879	208	79	1046	325	241	832	37	473	1162	158
Arrive On Green	0.11	0.43	0.43	0.05	0.21	0.21	0.14	0.24	0.24	0.27	0.38	0.38
Sat Flow, veh/h	1753	4057	961	1753	5025	1560	1753	3412	151	1753	3094	420
Grp Volume(v), veh/h	74	537	273	62	790	202	200	243	253	232	197	202
Grp Sat Flow(s),veh/h/ln	1753	1675	1668	1753	1675	1560	1753	1749	1814	1753	1749	1765
Q Serve(g_s), s	3.3	10.7	11.0	2.8	11.8	9.4	8.9	9.8	9.8	8.9	6.3	6.4
Cycle Q Clear(g_c), s	3.3	10.7	11.0	2.8	11.8	9.4	8.9	9.8	9.8	8.9	6.3	6.4
Prop In Lane	1.00		0.58	1.00		1.00	1.00		0.08	1.00		0.24
Lane Grp Cap(c), veh/h	94	726	361	79	1046	325	241	426	442	473	657	663
V/C Ratio(X)	0.79	0.74	0.75	0.79	0.76	0.62	0.83	0.57	0.57	0.49	0.30	0.30
Avail Cap(c_a), veh/h	142	817	407	142	1225	380	362	426	442	473	657	663
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.61	0.61	0.61	0.98	0.98	0.98	0.97	0.97	0.97
Uniform Delay (d), s/veh	35.3	20.8	20.9	37.8	29.8	28.8	33.6	26.6	26.6	24.6	17.6	17.6
Incr Delay (d2), s/veh	14.0	2.9	6.4	10.0	1.4	1.5	9.4	5.3	5.2	0.8	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.4	3.8	1.4	4.7	3.5	4.3	4.6	4.7	3.7	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	23.7	27.2	47.8	31.2	30.3	43.0	31.9	31.8	25.4	18.7	18.8
LnGrp LOS	D	C	C	D	C	C	D	C	C	C	B	B
Approach Vol, veh/h		884			1054			696			631	
Approach Delay, s/veh		26.9			32.0			35.1			21.2	
Approach LOS		C			C			D			C	

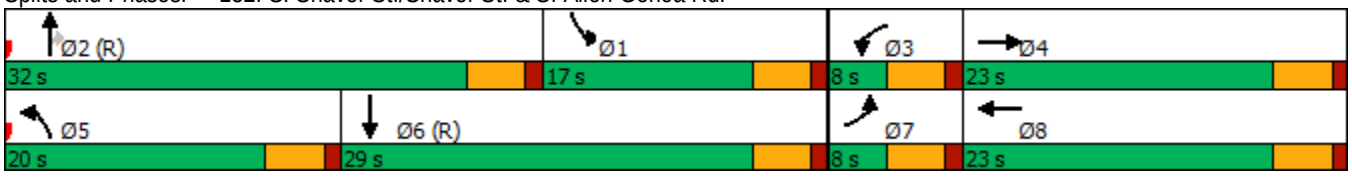
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.1	24.0	8.1	21.8	15.5	34.6	8.8	21.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	19.5	6.5	19.5	16.5	19.5	6.5	19.5
Max Q Clear Time (g_c+I1), s	10.9	11.8	4.8	13.0	10.9	8.4	5.3	13.8
Green Ext Time (p_c), s	0.3	1.8	0.0	2.7	0.3	1.7	0.0	2.8

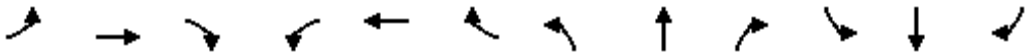
Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	8	268	11	294	139	462	6	99	482
Future Volume (vph)	8	268	11	294	139	462	6	99	482
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases							2		
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	23.0	8.0	23.0	20.0	32.0	32.0	17.0	29.0
Total Split (%)	10.0%	28.8%	10.0%	28.8%	25.0%	40.0%	40.0%	21.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	3.5	14.4	3.5	14.4	11.7	41.4	41.4	11.2	38.8
Actuated g/C Ratio	0.04	0.18	0.04	0.18	0.15	0.52	0.52	0.14	0.48
v/c Ratio	0.11	0.64	0.16	0.68	0.57	0.27	0.01	0.43	0.30
Control Delay	54.6	15.1	52.7	25.4	35.8	11.6	0.0	26.6	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	15.1	52.7	25.4	35.8	11.6	0.0	26.6	10.8
LOS	D	B	D	C	D	B	A	C	B
Approach Delay		15.7		26.1		17.0			13.5
Approach LOS		B		C		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	268	175	11	294	141	139	462	6	99	482	3
Future Volume (veh/h)	8	268	175	11	294	141	139	462	6	99	482	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	8	282	184	12	309	148	146	486	0	104	507	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	12	365	231	18	418	196	183	1202		426	1720	10
Arrive On Green	0.01	0.18	0.18	0.01	0.18	0.18	0.10	0.34	0.00	0.49	0.96	0.96
Sat Flow, veh/h	1753	2054	1301	1753	2312	1082	1753	3497	1560	1753	3565	21
Grp Volume(v), veh/h	8	239	227	12	232	225	146	486	0	104	249	261
Grp Sat Flow(s),veh/h/ln	1753	1749	1607	1753	1749	1646	1753	1749	1560	1753	1749	1837
Q Serve(g_s), s	0.4	10.4	10.8	0.5	10.0	10.4	6.5	8.5	0.0	2.8	0.6	0.6
Cycle Q Clear(g_c), s	0.4	10.4	10.8	0.5	10.0	10.4	6.5	8.5	0.0	2.8	0.6	0.6
Prop In Lane	1.00		0.81	1.00		0.66	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	12	311	286	18	316	298	183	1202		426	844	886
V/C Ratio(X)	0.64	0.77	0.80	0.67	0.73	0.76	0.80	0.40		0.24	0.29	0.29
Avail Cap(c_a), veh/h	77	404	372	77	404	381	340	1202		426	844	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	39.6	31.3	31.5	39.5	30.9	31.1	35.0	20.0	0.0	16.3	0.7	0.7
Incr Delay (d2), s/veh	43.7	6.5	8.8	35.3	5.0	6.3	6.5	0.8	0.0	0.3	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.8	4.8	0.4	4.5	4.5	3.0	3.4	0.0	1.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.3	37.8	40.2	74.8	35.9	37.4	41.5	20.8	0.0	16.5	1.6	1.5
LnGrp LOS	F	D	D	E	D	D	D	C		B	A	A
Approach Vol, veh/h		474			469			632	A		614	
Approach Delay, s/veh		39.7			37.6			25.6			4.1	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	32.0	5.3	18.7	12.9	43.1	5.1	19.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	27.5	3.5	18.5	15.5	24.5	3.5	18.5
Max Q Clear Time (g_c+I1), s	4.8	10.5	2.5	12.8	8.5	2.6	2.4	12.4
Green Ext Time (p_c), s	0.1	2.9	0.0	1.4	0.2	2.9	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

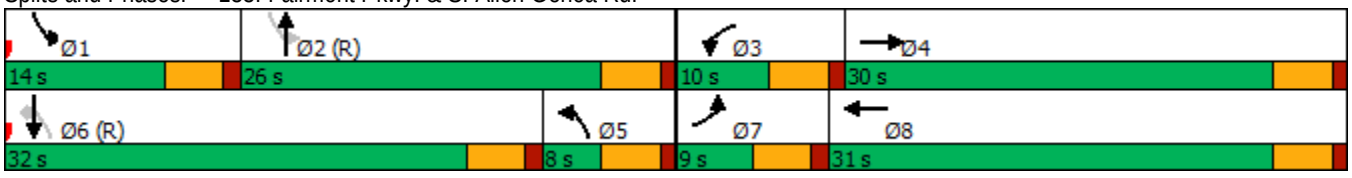
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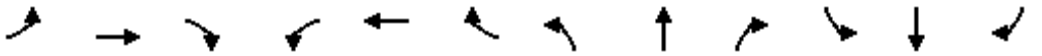
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	26	679	31	551	63	193	177	207	45
Future Volume (vph)	26	679	31	551	63	193	177	207	45
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	9.0	30.0	10.0	31.0	8.0	26.0	14.0	32.0	32.0
Total Split (%)	11.3%	37.5%	12.5%	38.8%	10.0%	32.5%	17.5%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	4.5	23.5	5.5	25.9	37.9	27.8	37.0	35.1	35.1
Actuated g/C Ratio	0.06	0.29	0.07	0.32	0.47	0.35	0.46	0.44	0.44
v/c Ratio	0.32	0.61	0.31	0.79	0.15	0.44	0.43	0.31	0.07
Control Delay	46.0	15.9	38.9	22.8	5.8	13.9	13.7	13.7	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.0	15.9	38.9	22.8	5.8	13.9	13.7	13.7	0.8
LOS	D	B	D	C	A	B	B	B	A
Approach Delay		16.9		23.5		12.2		12.3	
Approach LOS		B		C		B		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	679	67	31	551	195	63	193	37	177	207	45
Future Volume (veh/h)	26	679	67	31	551	195	63	193	37	177	207	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	808	80	37	656	232	75	230	44	211	246	54
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	38	1378	136	45	761	269	539	530	101	522	633	536
Arrive On Green	0.02	0.30	0.30	0.03	0.30	0.30	0.11	0.35	0.35	0.10	0.34	0.34
Sat Flow, veh/h	1753	4650	458	1753	2533	895	1753	1502	287	1753	1841	1560
Grp Volume(v), veh/h	31	581	307	37	453	435	75	0	274	211	246	54
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1749	1680	1753	0	1789	1753	1841	1560
Q Serve(g_s), s	1.4	11.8	11.9	1.7	19.6	19.6	0.0	0.0	9.4	6.0	8.1	1.5
Cycle Q Clear(g_c), s	1.4	11.8	11.9	1.7	19.6	19.6	0.0	0.0	9.4	6.0	8.1	1.5
Prop In Lane	1.00		0.26	1.00		0.53	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	38	992	521	45	525	504	539	0	631	522	633	536
V/C Ratio(X)	0.81	0.59	0.59	0.82	0.86	0.86	0.14	0.00	0.43	0.40	0.39	0.10
Avail Cap(c_a), veh/h	99	1068	560	121	579	556	539	0	631	555	633	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.53	0.53	0.53	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	24.0	24.0	38.8	26.4	26.4	18.1	0.0	19.8	14.3	19.9	11.3
Incr Delay (d2), s/veh	26.7	0.6	1.1	16.9	6.7	7.0	0.1	0.0	2.2	0.5	1.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.6	4.9	0.9	8.7	8.4	0.9	0.0	4.0	2.2	3.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	24.6	25.2	55.6	33.2	33.5	18.2	0.0	21.9	14.8	21.7	11.7
LnGrp LOS	E	C	C	E	C	C	B	A	C	B	C	B
Approach Vol, veh/h		919			925			349			511	
Approach Delay, s/veh		26.1			34.2			21.1			17.8	
Approach LOS		C			C			C			B	

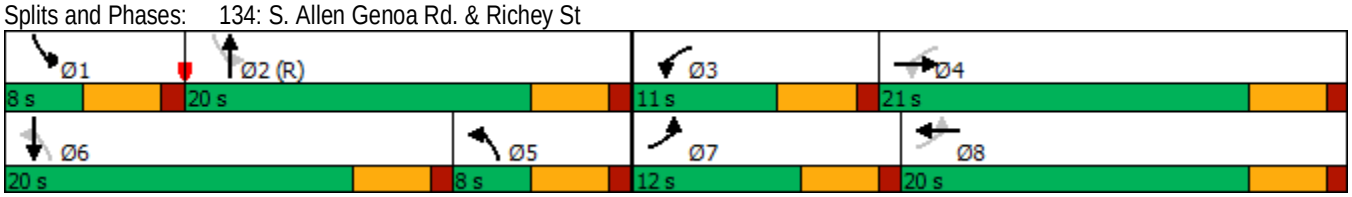
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	32.7	6.6	28.2	13.2	32.0	6.2	28.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	21.5	5.5	25.5	3.5	27.5	4.5	26.5
Max Q Clear Time (g_c+I1), s	8.0	11.4	3.7	13.9	2.0	10.1	3.4	21.6
Green Ext Time (p_c), s	0.1	1.1	0.0	4.5	0.0	1.4	0.0	2.4

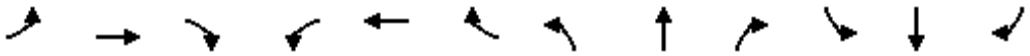
Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	122	299	72	367	32	547	17	337
Future Volume (vph)	122	299	72	367	32	547	17	337
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	21.0	11.0	20.0	8.0	20.0	8.0	20.0
Total Split (%)	20.0%	35.0%	18.3%	33.3%	13.3%	33.3%	13.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	18.8	13.6	18.8	12.8	26.8	27.0	27.7	25.4
Actuated g/C Ratio	0.31	0.23	0.31	0.21	0.45	0.45	0.46	0.42
v/c Ratio	0.41	0.49	0.24	0.60	0.09	0.46	0.06	0.36
Control Delay	14.9	21.1	11.9	24.4	12.4	15.5	11.4	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	21.1	11.9	24.4	12.4	15.5	11.4	13.8
LOS	B	C	B	C	B	B	B	B
Approach Delay		19.4		22.3		15.3		13.7
Approach LOS		B		C		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 52.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	299	25	72	367	4	32	547	50	17	337	107
Future Volume (veh/h)	122	299	25	72	367	4	32	547	50	17	337	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	145	356	30	86	437	5	38	651	60	20	401	127
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	332	627	53	337	610	7	579	1359	125	348	528	165
Arrive On Green	0.09	0.19	0.19	0.07	0.17	0.17	0.23	0.42	0.42	0.02	0.20	0.20
Sat Flow, veh/h	1753	3266	274	1753	3542	40	1753	3238	298	1753	2621	821
Grp Volume(v), veh/h	145	190	196	86	216	226	38	351	360	20	266	262
Grp Sat Flow(s),veh/h/ln	1753	1749	1791	1753	1749	1833	1753	1749	1787	1753	1749	1693
Q Serve(g_s), s	4.0	5.9	6.0	2.3	7.0	7.0	0.0	8.8	8.8	0.4	8.6	8.8
Cycle Q Clear(g_c), s	4.0	5.9	6.0	2.3	7.0	7.0	0.0	8.8	8.8	0.4	8.6	8.8
Prop In Lane	1.00		0.15	1.00		0.02	1.00		0.17	1.00		0.48
Lane Grp Cap(c), veh/h	332	336	344	337	301	316	579	734	750	348	353	341
V/C Ratio(X)	0.44	0.57	0.57	0.26	0.72	0.72	0.07	0.48	0.48	0.06	0.75	0.77
Avail Cap(c_a), veh/h	391	481	493	401	452	474	579	734	750	421	452	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	22.0	22.0	17.4	23.4	23.5	15.8	12.6	12.7	10.3	22.6	22.6
Incr Delay (d2), s/veh	0.9	1.5	1.5	0.4	3.2	3.0	0.0	2.2	2.2	0.1	5.3	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.3	2.4	0.9	2.9	3.0	0.4	3.3	3.4	0.1	3.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	23.5	23.5	17.8	26.6	26.5	15.9	14.9	14.8	10.4	27.9	28.7
LnGrp LOS	B	C	C	B	C	C	B	B	B	B	C	C
Approach Vol, veh/h		531			528			749			548	
Approach Delay, s/veh		22.3			25.1			14.9			27.6	
Approach LOS		C			C			B			C	

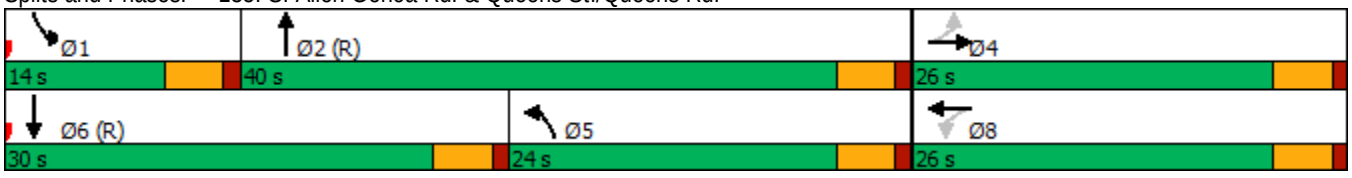
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	29.7	8.8	16.0	18.6	16.6	10.0	14.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	15.5	6.5	16.5	3.5	15.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	2.4	10.8	4.3	8.0	2.0	10.8	6.0	9.0
Green Ext Time (p_c), s	0.0	1.8	0.0	1.4	0.0	1.3	0.1	1.3

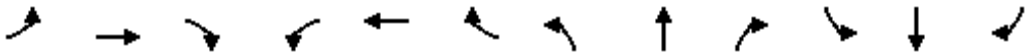
Intersection Summary	
HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	22	195	210	144	464	39	339
Future Volume (vph)	22	195	210	144	464	39	339
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	24.0	40.0	14.0	30.0
Total Split (%)	32.5%	32.5%	32.5%	30.0%	50.0%	17.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		12.1	12.1	19.5	51.1	7.4	34.9
Actuated g/C Ratio		0.15	0.15	0.24	0.64	0.09	0.44
v/c Ratio		0.67	0.59	0.37	0.23	0.26	0.29
Control Delay		27.6	17.5	11.4	2.1	37.1	14.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		27.6	17.5	11.4	2.1	37.1	14.9
LOS		C	B	B	A	D	B
Approach Delay		27.6	17.5		4.3		16.8
Approach LOS		C	B		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 55.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	195	113	0	210	99	144	464	14	39	339	64
Future Volume (veh/h)	22	195	113	0	210	99	144	464	14	39	339	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	210	122	0	226	106	155	499	15	42	365	69
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	66	302	177	0	387	175	608	2204	66	52	937	175
Arrive On Green	0.17	0.17	0.17	0.00	0.17	0.17	0.35	0.64	0.64	0.03	0.32	0.32
Sat Flow, veh/h	94	1824	1070	0	2431	1060	1753	3467	104	1753	2940	550
Grp Volume(v), veh/h	187	0	169	0	167	165	155	251	263	42	216	218
Grp Sat Flow(s),veh/h/ln	1507	0	1482	0	1749	1650	1753	1749	1822	1753	1749	1742
Q Serve(g_s), s	2.5	0.0	8.6	0.0	7.0	7.4	5.1	4.9	4.9	1.9	7.7	7.8
Cycle Q Clear(g_c), s	9.9	0.0	8.6	0.0	7.0	7.4	5.1	4.9	4.9	1.9	7.7	7.8
Prop In Lane	0.13		0.72	0.00		0.64	1.00		0.06	1.00		0.32
Lane Grp Cap(c), veh/h	300	0	245	0	289	273	608	1112	1159	52	557	555
V/C Ratio(X)	0.62	0.00	0.69	0.00	0.58	0.60	0.25	0.23	0.23	0.80	0.39	0.39
Avail Cap(c_a), veh/h	473	0	398	0	470	443	608	1112	1159	208	557	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.5	0.0	31.4	0.0	30.8	30.9	18.7	6.2	6.2	38.6	21.2	21.2
Incr Delay (d2), s/veh	2.1	0.0	3.4	0.0	1.8	2.1	0.2	0.4	0.4	24.0	2.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	3.1	0.0	2.9	2.9	2.0	1.6	1.7	1.1	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	0.0	34.9	0.0	32.6	33.1	18.9	6.6	6.6	62.6	23.2	23.3
LnGrp LOS	C	A	C	A	C	C	B	A	A	E	C	C
Approach Vol, veh/h		356			332			669			476	
Approach Delay, s/veh		34.2			32.9			9.4			26.7	
Approach LOS		C			C			A			C	

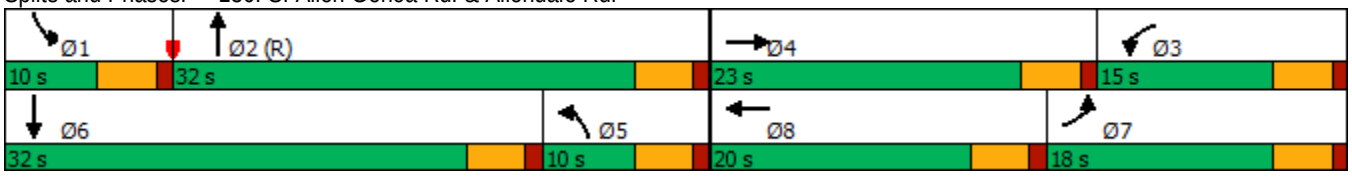
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	55.4		17.7	32.3	30.0		17.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	35.5		21.5	19.5	25.5		21.5				
Max Q Clear Time (g_c+I1), s	3.9	6.9		11.9	7.1	9.8		9.4				
Green Ext Time (p_c), s	0.0	3.1		1.4	0.3	2.2		1.4				

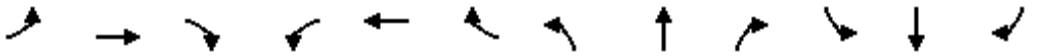
Intersection Summary			
HCM 6th Ctrl Delay		23.0	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	130	113	87	101	27	574	22	330
Future Volume (vph)	130	113	87	101	27	574	22	330
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	23.0	15.0	20.0	10.0	32.0	10.0	32.0
Total Split (%)	22.5%	28.8%	18.8%	25.0%	12.5%	40.0%	12.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	12.2	11.0	11.8	8.4	9.6	41.3	6.3	38.2
Actuated g/C Ratio	0.15	0.14	0.15	0.10	0.12	0.52	0.08	0.48
v/c Ratio	0.58	0.38	0.41	0.47	0.16	0.44	0.19	0.26
Control Delay	28.6	14.8	33.7	17.3	31.3	15.2	37.2	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	14.8	33.7	17.3	31.3	15.2	37.2	18.8
LOS	C	B	C	B	C	B	D	B
Approach Delay		20.9		23.1		15.9		19.8
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 46.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	113	51	87	101	57	27	574	82	22	330	33
Future Volume (veh/h)	130	113	51	87	101	57	27	574	82	22	330	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	153	133	60	102	119	67	32	675	0	26	388	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	190	217	93	185	195	103	736	1956		34	556	
Arrive On Green	0.11	0.09	0.09	0.11	0.09	0.09	0.42	0.56	0.00	0.02	0.16	0.00
Sat Flow, veh/h	1753	2382	1024	1753	2209	1170	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	153	96	97	102	93	93	32	675	0	26	388	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1656	1753	1749	1630	1753	1749	0	1753	1749	0
Q Serve(g_s), s	6.8	4.2	4.5	4.4	4.1	4.4	0.9	8.4	0.0	1.2	8.4	0.0
Cycle Q Clear(g_c), s	6.8	4.2	4.5	4.4	4.1	4.4	0.9	8.4	0.0	1.2	8.4	0.0
Prop In Lane	1.00		0.62	1.00		0.72	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	190	159	151	185	154	144	736	1956		34	556	
V/C Ratio(X)	0.80	0.60	0.64	0.55	0.60	0.65	0.04	0.35		0.77	0.70	
Avail Cap(c_a), veh/h	296	404	383	230	339	316	736	1956		121	1202	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.8	35.0	35.1	34.0	35.1	35.3	13.7	9.6	0.0	39.1	31.8	0.0
Incr Delay (d2), s/veh	8.6	3.6	4.5	2.5	3.7	4.8	0.0	0.5	0.0	30.3	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.9	2.0	2.0	1.9	1.9	0.3	3.0	0.0	0.8	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	38.6	39.6	36.5	38.8	40.1	13.7	10.1	0.0	69.3	33.4	0.0
LnGrp LOS	D	D	D	D	D	D	B	B		E	C	
Approach Vol, veh/h		346			288			707	A		414	A
Approach Delay, s/veh		41.0			38.4			10.3			35.7	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	49.2	12.9	11.8	38.1	17.2	13.2	11.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	27.5	10.5	18.5	5.5	27.5	13.5	15.5
Max Q Clear Time (g_c+I1), s	3.2	10.4	6.4	6.5	2.9	10.4	8.8	6.4
Green Ext Time (p_c), s	0.0	4.3	0.1	0.8	0.0	2.3	0.2	0.6

Intersection Summary	
HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

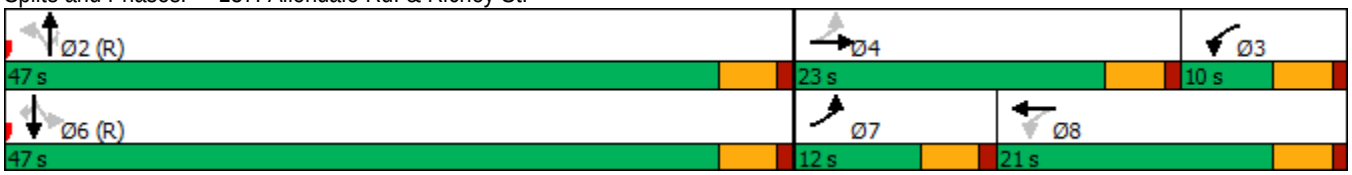
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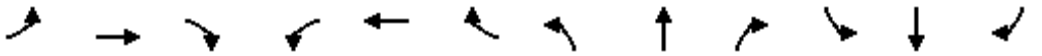
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	66	94	47	102	386	50	8	441	49
Future Volume (vph)	66	94	47	102	386	50	8	441	49
Turn Type	pm+pt	NA	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8	2			6	
Permitted Phases	4		8			2	6		6
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	23.0	10.0	21.0	47.0	47.0	47.0	47.0	47.0
Total Split (%)	15.0%	28.8%	12.5%	26.3%	58.8%	58.8%	58.8%	58.8%	58.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.3	10.3	9.5	8.2	53.2	53.2		53.2	53.2
Actuated g/C Ratio	0.13	0.13	0.12	0.10	0.66	0.66		0.66	0.66
v/c Ratio	0.33	0.32	0.25	0.31	0.34	0.05		0.23	0.05
Control Delay	25.2	14.6	22.5	21.8	7.9	0.1		2.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	25.2	14.6	22.5	21.8	7.9	0.1		2.8	0.1
LOS	C	B	C	C	A	A		A	A
Approach Delay		18.0		22.0	7.0			2.5	
Approach LOS		B		C	A			A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 40 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.34	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 45.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	94	45	47	102	2	0	386	50	8	441	49
Future Volume (veh/h)	66	94	45	47	102	2	0	386	50	8	441	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	68	97	0	48	105	0	0	398	52	8	455	51
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	177	218		177	218		90	1324	1122	62	2439	1122
Arrive On Green	0.05	0.06	0.00	0.05	0.06	0.00	0.00	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1753	3589	0	1753	3589	0	879	1841	1560	21	3390	1560
Grp Volume(v), veh/h	68	97	0	48	105	0	0	398	52	247	216	51
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	879	1841	1560	1820	1591	1560
Q Serve(g_s), s	3.1	2.1	0.0	0.0	2.3	0.0	0.0	6.2	0.8	0.0	3.5	0.8
Cycle Q Clear(g_c), s	3.1	2.1	0.0	0.0	2.3	0.0	0.0	6.2	0.8	3.5	3.5	0.8
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.03		1.00
Lane Grp Cap(c), veh/h	177	218		177	218		90	1324	1122	1356	1145	1122
V/C Ratio(X)	0.38	0.44		0.27	0.48		0.00	0.30	0.05	0.18	0.19	0.05
Avail Cap(c_a), veh/h	254	809		211	721		90	1324	1122	1356	1145	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	36.2	0.0	36.1	36.3	0.0	0.0	4.0	3.3	3.6	3.6	3.3
Incr Delay (d2), s/veh	1.3	1.3	0.0	0.8	1.7	0.0	0.0	0.6	0.1	0.3	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.9	0.0	0.9	1.0	0.0	0.0	1.8	0.2	1.0	0.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	37.5	0.0	37.0	37.9	0.0	0.0	4.6	3.3	3.9	4.0	3.3
LnGrp LOS	D	D		D	D		A	A	A	A	A	A
Approach Vol, veh/h		165	A		153	A		450			514	
Approach Delay, s/veh		38.0			37.6			4.5			3.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		62.1	8.5	9.5		62.1	8.5	9.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		42.5	5.5	18.5		42.5	7.5	16.5				
Max Q Clear Time (g_c+I1), s		8.2	2.0	4.1		5.5	5.1	4.3				
Green Ext Time (p_c), s		2.7	0.0	0.4		3.0	0.0	0.4				

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

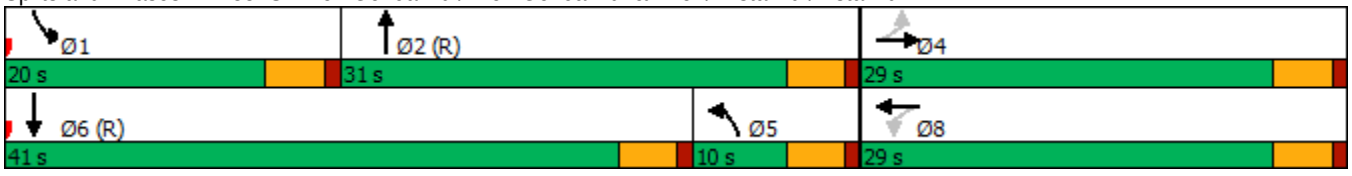
Notes

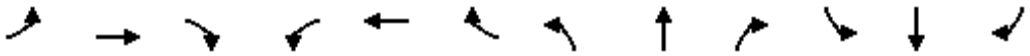
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	3	27	5	27	3	453	96	389
Future Volume (vph)	3	27	5	27	3	453	96	389
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	29.0	29.0	29.0	29.0	10.0	31.0	20.0	41.0
Total Split (%)	36.3%	36.3%	36.3%	36.3%	12.5%	38.8%	25.0%	51.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		8.6		8.6	5.5	50.1	10.0	60.4
Actuated g/C Ratio		0.11		0.11	0.07	0.63	0.12	0.76
v/c Ratio		0.21		0.64	0.03	0.23	0.47	0.16
Control Delay		29.6		13.9	48.3	15.7	30.4	1.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		29.6		13.9	48.3	15.7	30.4	1.2
LOS		C		B	D	B	C	A
Approach Delay		29.6		13.9		15.9		7.0
Approach LOS		C		B		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 46.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	27	6	5	27	172	3	453	26	96	389	2
Future Volume (veh/h)	3	27	6	5	27	172	3	453	26	96	389	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	3	28	6	5	28	181	3	477	27	101	409	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	56	239	48	48	39	223	367	1992	113	129	1628	8
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.21	0.59	0.59	0.15	0.91	0.91
Sat Flow, veh/h	42	1445	288	13	233	1348	1753	3365	190	1753	3569	17
Grp Volume(v), veh/h	37	0	0	214	0	0	3	247	257	101	200	211
Grp Sat Flow(s),veh/h/ln	1774	0	0	1594	0	0	1753	1749	1807	1753	1749	1838
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	0.0	0.1	5.4	5.4	4.4	1.0	1.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	10.3	0.0	0.0	0.1	5.4	5.4	4.4	1.0	1.0
Prop In Lane	0.08		0.16	0.02		0.85	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	343	0	0	310	0	0	367	1035	1069	129	798	838
V/C Ratio(X)	0.11	0.00	0.00	0.69	0.00	0.00	0.01	0.24	0.24	0.78	0.25	0.25
Avail Cap(c_a), veh/h	583	0	0	533	0	0	367	1035	1069	340	798	838
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	0.89	0.00	0.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	28.4	0.0	0.0	32.2	0.0	0.0	25.1	7.8	7.8	33.5	1.9	1.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.4	0.0	0.0	0.0	0.5	0.5	9.3	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	4.1	0.0	0.0	0.0	1.9	2.0	2.1	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	0.0	34.6	0.0	0.0	25.1	8.3	8.3	42.8	2.7	2.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		37			214			507			512	
Approach Delay, s/veh		28.6			34.6			8.4			10.6	
Approach LOS		C			C			A			B	

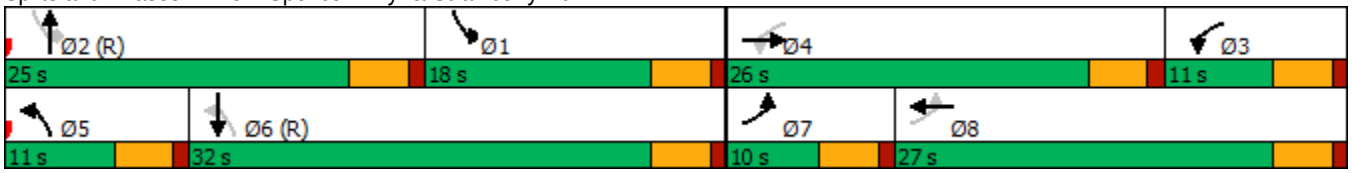
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	51.9		17.8	21.2	41.0		17.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	15.5	26.5		24.5	5.5	36.5		24.5				
Max Q Clear Time (g_c+I1), s	6.4	7.4		3.4	2.1	3.0		12.3				
Green Ext Time (p_c), s	0.1	2.9		0.1	0.0	2.6		1.0				

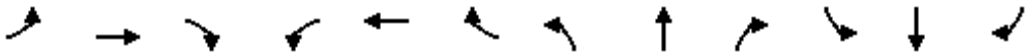
Intersection Summary												
HCM 6th Ctrl Delay			14.3									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	111	925	122	742	101	526	145	252	426
Future Volume (vph)	111	925	122	742	101	526	145	252	426
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	26.0	11.0	27.0	11.0	25.0	25.0	18.0	32.0
Total Split (%)	12.5%	32.5%	13.8%	33.8%	13.8%	31.3%	31.3%	22.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.4	21.3	27.5	24.0	35.4	21.0	21.0	34.5	30.1
Actuated g/C Ratio	0.36	0.27	0.34	0.30	0.44	0.26	0.26	0.43	0.38
v/c Ratio	0.61	0.85	0.59	0.71	0.36	0.66	0.30	0.71	0.50
Control Delay	28.6	16.9	24.5	16.7	11.8	22.4	2.0	27.0	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	16.9	24.5	16.7	11.8	22.4	2.0	27.0	11.7
LOS	C	B	C	B	B	C	A	C	B
Approach Delay		18.0		17.6		17.2			16.3
Approach LOS		B		B		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 16 (20%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	925	70	122	742	204	101	526	145	252	426	170
Future Volume (veh/h)	111	925	70	122	742	204	101	526	145	252	426	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	122	1016	77	134	815	224	111	578	159	277	468	187
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	239	1194	90	252	1018	278	377	896	400	502	952	378
Arrive On Green	0.09	0.33	0.33	0.03	0.09	0.09	0.06	0.26	0.26	0.19	0.39	0.39
Sat Flow, veh/h	1753	4765	361	1753	3927	1071	1753	3497	1560	1753	2445	970
Grp Volume(v), veh/h	122	714	379	134	694	345	111	578	159	277	334	321
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1648	1753	1749	1560	1753	1749	1666
Q Serve(g_s), s	4.0	15.9	15.9	0.7	16.3	16.4	3.0	11.8	6.8	3.1	11.5	11.7
Cycle Q Clear(g_c), s	4.0	15.9	15.9	0.7	16.3	16.4	3.0	11.8	6.8	3.1	11.5	11.7
Prop In Lane	1.00		0.20	1.00		0.65	1.00		1.00	1.00		0.58
Lane Grp Cap(c), veh/h	239	840	445	252	868	427	377	896	400	502	681	649
V/C Ratio(X)	0.51	0.85	0.85	0.53	0.80	0.81	0.29	0.64	0.40	0.55	0.49	0.49
Avail Cap(c_a), veh/h	239	900	477	259	942	463	419	896	400	502	681	649
HCM Platoon Ratio	1.33	1.33	1.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.73	0.73	0.73	0.84	0.84	0.84	0.92	0.92	0.92
Uniform Delay (d), s/veh	21.1	25.3	25.3	35.6	34.5	34.6	14.1	26.5	24.6	25.3	18.4	18.5
Incr Delay (d2), s/veh	1.6	6.8	12.2	1.4	3.4	7.1	0.4	3.0	2.5	1.2	2.3	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.0	7.0	2.5	7.6	8.0	1.1	5.0	2.6	4.4	4.7	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	32.1	37.4	37.0	38.0	41.7	14.4	29.5	27.1	26.5	20.7	20.9
LnGrp LOS	C	C	D	D	D	D	B	C	C	C	C	C
Approach Vol, veh/h		1215			1173			848			932	
Approach Delay, s/veh		32.8			38.9			27.1			22.5	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	25.0	10.7	24.5	9.1	35.7	10.0	25.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	20.5	6.5	21.5	6.5	27.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	5.1	13.8	2.7	17.9	5.0	13.7	6.0	18.4
Green Ext Time (p_c), s	0.5	2.4	0.1	2.1	0.0	3.4	0.0	2.3

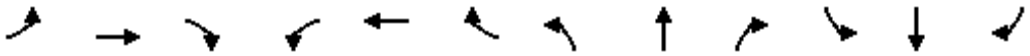
Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	38	329	355	130	426	354	546	91	472
Future Volume (vph)	38	329	355	130	426	354	546	91	472
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	20.0	8.0	20.0	17.0	27.0	10.0	20.0
Total Split (%)	12.3%	30.8%	30.8%	12.3%	30.8%	26.2%	41.5%	15.4%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.0	13.6	13.6	18.2	15.9	30.8	27.3	31.7	18.1
Actuated g/C Ratio	0.28	0.21	0.21	0.28	0.24	0.47	0.42	0.49	0.28
v/c Ratio	0.20	0.51	0.62	0.48	0.69	0.84	0.51	0.28	0.56
Control Delay	16.3	25.1	7.5	22.9	25.3	31.6	17.0	13.1	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	25.1	7.5	22.9	25.3	31.6	17.0	13.1	23.7
LOS	B	C	A	C	C	C	B	B	C
Approach Delay		16.0			24.9		22.3		22.1
Approach LOS		B			C		C		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	329	355	130	426	107	354	546	77	91	472	17
Future Volume (veh/h)	38	329	355	130	426	107	354	546	77	91	472	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	42	366	394	144	473	119	393	607	86	101	524	19
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	198	591	264	282	582	145	580	1065	151	490	1044	38
Arrive On Green	0.03	0.17	0.17	0.07	0.21	0.21	0.18	0.35	0.35	0.14	0.30	0.30
Sat Flow, veh/h	1753	3497	1560	1753	2772	693	1753	3076	435	1753	3442	125
Grp Volume(v), veh/h	42	366	394	144	297	295	393	345	348	101	266	277
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1716	1753	1749	1762	1753	1749	1818
Q Serve(g_s), s	1.2	6.3	6.8	0.0	10.5	10.7	9.7	10.4	10.5	0.0	8.1	8.1
Cycle Q Clear(g_c), s	1.2	6.3	6.8	0.0	10.5	10.7	9.7	10.4	10.5	0.0	8.1	8.1
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	198	591	264	282	367	360	580	605	610	490	530	551
V/C Ratio(X)	0.21	0.62	1.50	0.51	0.81	0.82	0.68	0.57	0.57	0.21	0.50	0.50
Avail Cap(c_a), veh/h	242	834	372	282	417	409	599	605	610	490	530	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.82	0.82	0.91	0.91	0.91	0.95	0.95	0.95
Uniform Delay (d), s/veh	20.2	25.1	10.2	27.3	24.4	24.5	12.1	17.3	17.3	17.2	18.6	18.6
Incr Delay (d2), s/veh	0.5	1.1	241.8	1.2	8.6	9.3	2.7	3.5	3.5	0.2	3.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.6	21.2	2.1	4.9	4.9	3.6	4.3	4.4	1.1	3.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	26.1	252.0	28.6	33.0	33.8	14.8	20.8	20.8	17.4	21.8	21.7
LnGrp LOS	C	C	F	C	C	C	B	C	C	B	C	C
Approach Vol, veh/h		802			736			1086			644	
Approach Delay, s/veh		136.8			32.5			18.6			21.1	
Approach LOS		F			C			B			C	

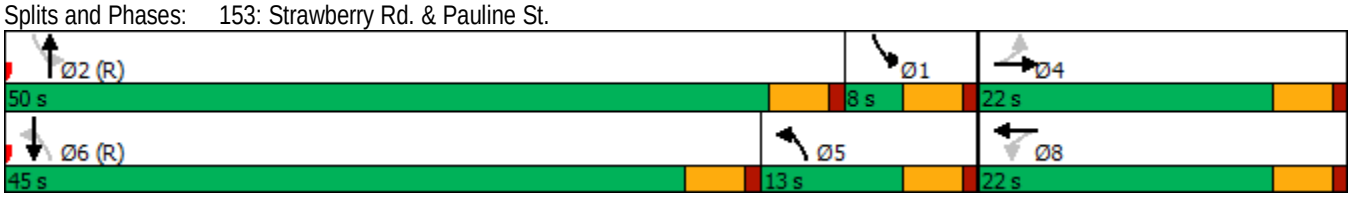
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	27.0	9.0	15.5	16.3	24.2	6.4	18.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	22.5	3.5	15.5	12.5	15.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	12.5	2.0	8.8	11.7	10.1	3.2	12.7
Green Ext Time (p_c), s	0.1	3.0	0.0	2.2	0.1	1.5	0.0	1.0

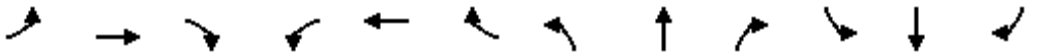
Intersection Summary	
HCM 6th Ctrl Delay	51.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	93	9	1	95	889	10	850
Future Volume (vph)	93	9	1	95	889	10	850
Turn Type	Perm	NA	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4			6		2	
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	22.0	13.0	50.0	8.0	45.0
Total Split (%)	27.5%	27.5%	27.5%	16.3%	62.5%	10.0%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lead	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.6	11.6	11.6	56.8	57.8	60.8	50.6
Actuated g/C Ratio	0.14	0.14	0.14	0.71	0.72	0.76	0.63
v/c Ratio	0.54	0.48	0.01	0.29	0.42	0.03	0.49
Control Delay	40.4	10.3	22.5	4.5	1.3	3.9	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay	40.4	10.3	22.5	4.5	1.4	3.9	10.2
LOS	D	B	C	A	A	A	B
Approach Delay		21.6	22.5		1.7		10.1
Approach LOS		C	C		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 17 (21%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 7.6	Intersection LOS: A
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	9	148	0	1	1	95	889	18	10	850	82
Future Volume (veh/h)	93	9	148	0	1	1	95	889	18	10	850	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	107	10	170	0	1	1	109	1022	21	11	977	94
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	290	13	215	0	122	122	557	1993	41	599	1632	157
Arrive On Green	0.14	0.14	0.14	0.00	0.14	0.14	0.36	1.00	1.00	0.12	0.51	0.51
Sat Flow, veh/h	1393	87	1486	0	844	844	1753	3504	72	1753	3223	310
Grp Volume(v), veh/h	107	0	180	0	0	2	109	510	533	11	530	541
Grp Sat Flow(s),veh/h/ln	1393	0	1573	0	0	1689	1753	1749	1828	1753	1749	1785
Q Serve(g_s), s	5.7	0.0	8.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	17.2	17.2
Cycle Q Clear(g_c), s	5.8	0.0	8.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	17.2	17.2
Prop In Lane	1.00		0.94	0.00		0.50	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	290	0	227	0	0	244	557	995	1040	599	885	904
V/C Ratio(X)	0.37	0.00	0.79	0.00	0.00	0.01	0.20	0.51	0.51	0.02	0.60	0.60
Avail Cap(c_a), veh/h	393	0	344	0	0	369	557	995	1040	599	885	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.83	0.83	0.83	0.80	0.80	0.80
Uniform Delay (d), s/veh	31.8	0.0	33.0	0.0	0.0	29.3	10.4	0.0	0.0	4.0	14.0	14.0
Incr Delay (d2), s/veh	0.8	0.0	7.0	0.0	0.0	0.0	0.1	1.6	1.5	0.0	2.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	3.7	0.0	0.0	0.0	0.9	0.4	0.4	0.0	6.7	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	0.0	40.1	0.0	0.0	29.3	10.5	1.6	1.5	4.0	16.4	16.3
LnGrp LOS	C	A	D	A	A	C	B	A	A	A	B	B
Approach Vol, veh/h		287			2			1152			1082	
Approach Delay, s/veh		37.3			29.3			2.4			16.2	
Approach LOS		D			C			A			B	

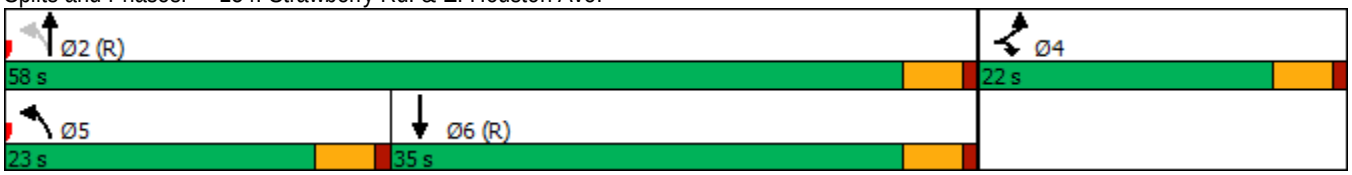
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.9	50.0		16.1	18.9	45.0		16.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	45.5		17.5	8.5	40.5		17.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		10.8	2.0	19.2		2.1				
Green Ext Time (p_c), s	0.0	8.2		0.7	0.1	7.5		0.0				

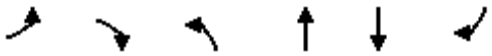
Intersection Summary			
HCM 6th Ctrl Delay		12.3	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	58	91	212	591	506
Future Volume (vph)	58	91	212	591	506
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	22.0	22.0	23.0	58.0	35.0
Total Split (%)	27.5%	27.5%	28.8%	72.5%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.5	8.5	64.5	65.4	51.5
Actuated g/C Ratio	0.11	0.11	0.81	0.82	0.64
v/c Ratio	0.37	0.41	0.41	0.25	0.32
Control Delay	38.1	12.0	4.5	2.6	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.1	12.0	4.5	2.6	6.0
LOS	D	B	A	A	A
Approach Delay	22.1			3.1	6.0
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 10 (13%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	58	91	212	591	506	87
Future Volume (veh/h)	58	91	212	591	506	87
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	68	107	249	695	595	102
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	165	147	705	2775	1989	340
Arrive On Green	0.09	0.09	0.07	0.79	1.00	1.00
Sat Flow, veh/h	1753	1560	1753	3589	3079	511
Grp Volume(v), veh/h	68	107	249	695	348	349
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1749
Q Serve(g_s), s	2.9	5.3	3.1	4.1	0.0	0.0
Cycle Q Clear(g_c), s	2.9	5.3	3.1	4.1	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.29
Lane Grp Cap(c), veh/h	165	147	705	2775	1164	1165
V/C Ratio(X)	0.41	0.73	0.35	0.25	0.30	0.30
Avail Cap(c_a), veh/h	383	341	986	2775	1164	1165
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	0.86	0.86
Uniform Delay (d), s/veh	34.2	35.2	2.7	2.1	0.0	0.0
Incr Delay (d2), s/veh	1.6	6.8	0.3	0.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.8	0.7	0.7	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.8	42.0	2.9	2.3	0.6	0.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	175			944	697	
Approach Delay, s/veh	39.6			2.5	0.6	
Approach LOS	D			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		68.0		12.0	10.2	57.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		53.5		17.5	18.5	30.5
Max Q Clear Time (g_c+I1), s		6.1		7.3	5.1	2.0
Green Ext Time (p_c), s		5.4		0.3	0.6	4.6

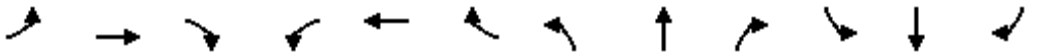
Intersection Summary	
HCM 6th Ctrl Delay	5.3
HCM 6th LOS	A

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	183	64	184	49	582	118	359
Future Volume (vph)	76	183	64	184	49	582	118	359
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	21.0	13.0	20.0	11.0	29.0	17.0	35.0
Total Split (%)	17.5%	26.3%	16.3%	25.0%	13.8%	36.3%	21.3%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.3	10.6	8.8	11.0	7.1	35.6	11.4	41.8
Actuated g/C Ratio	0.10	0.13	0.11	0.14	0.09	0.44	0.14	0.52
v/c Ratio	0.46	0.55	0.37	0.68	0.35	0.47	0.53	0.25
Control Delay	21.2	12.8	38.0	20.4	29.1	14.5	39.7	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	12.8	38.0	20.4	29.1	14.5	39.7	13.5
LOS	C	B	D	C	C	B	D	B
Approach Delay		14.8		22.9		15.6		19.5
Approach LOS		B		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 18.1	Intersection LOS: B
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	183	53	64	184	205	49	582	70	118	359	40
Future Volume (veh/h)	76	183	53	64	184	205	49	582	70	118	359	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	84	203	59	71	204	228	54	647	78	131	399	44
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	108	297	84	218	303	271	68	963	116	410	1592	175
Arrive On Green	0.06	0.11	0.11	0.12	0.17	0.17	0.04	0.31	0.31	0.23	0.50	0.50
Sat Flow, veh/h	1753	2691	762	1753	1749	1560	1753	3143	378	1753	3178	349
Grp Volume(v), veh/h	84	130	132	71	204	228	54	360	365	131	219	224
Grp Sat Flow(s),veh/h/ln	1753	1749	1704	1753	1749	1560	1753	1749	1773	1753	1749	1778
Q Serve(g_s), s	3.8	5.7	6.0	3.0	8.7	11.3	2.4	14.4	14.4	5.0	5.7	5.8
Cycle Q Clear(g_c), s	3.8	5.7	6.0	3.0	8.7	11.3	2.4	14.4	14.4	5.0	5.7	5.8
Prop In Lane	1.00		0.45	1.00		1.00	1.00		0.21	1.00		0.20
Lane Grp Cap(c), veh/h	108	193	188	218	303	271	68	536	543	410	876	891
V/C Ratio(X)	0.78	0.67	0.70	0.33	0.67	0.84	0.79	0.67	0.67	0.32	0.25	0.25
Avail Cap(c_a), veh/h	208	361	351	218	339	302	142	536	543	410	876	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	34.2	34.3	31.9	30.9	32.0	38.1	24.2	24.3	25.4	11.4	11.4
Incr Delay (d2), s/veh	8.5	3.0	3.4	0.9	4.4	17.5	18.1	6.6	6.5	0.4	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.5	2.6	1.3	3.9	5.4	1.4	6.5	6.6	2.0	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	37.2	37.7	32.8	35.4	49.5	56.2	30.8	30.8	25.8	12.1	12.1
LnGrp LOS	D	D	D	C	D	D	E	C	C	C	B	B
Approach Vol, veh/h		346			503			779			574	
Approach Delay, s/veh		39.4			41.4			32.6			15.2	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	29.0	14.5	13.3	7.6	44.6	9.4	18.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	24.5	8.5	16.5	6.5	30.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	7.0	16.4	5.0	8.0	4.4	7.8	5.8	13.3
Green Ext Time (p_c), s	0.1	2.7	0.0	0.9	0.0	2.5	0.0	0.6

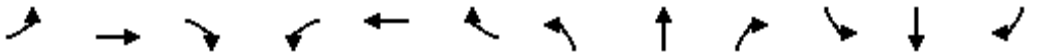
Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	6	68	3	24	909	118	885
Future Volume (vph)	6	68	3	24	909	118	885
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	20.0	8.0	47.0	13.0	52.0
Total Split (%)	25.0%	25.0%	25.0%	10.0%	58.8%	16.3%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.9	9.9	9.9	61.3	50.1	58.6	60.1
Actuated g/C Ratio	0.12	0.12	0.12	0.77	0.63	0.73	0.75
v/c Ratio	0.14	0.47	0.38	0.06	0.53	0.35	0.39
Control Delay	16.1	40.8	11.1	2.6	6.7	6.0	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	16.1	40.8	11.1	2.6	6.7	6.0	2.0
LOS	B	D	B	A	A	A	A
Approach Delay	16.1		23.5		6.6		2.5
Approach LOS	B		C		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 12 (15%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 62.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	6	21	68	3	92	24	909	88	118	885	1
Future Volume (veh/h)	0	6	21	68	3	92	24	909	88	118	885	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	7	24	78	3	106	28	1045	101	136	1017	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	38	129	206	4	157	511	1712	165	583	2537	2
Arrive On Green	0.00	0.10	0.10	0.10	0.10	0.10	0.02	0.53	0.53	0.39	1.00	1.00
Sat Flow, veh/h	0	365	1251	1357	43	1523	1753	3222	311	1753	3585	4
Grp Volume(v), veh/h	0	0	31	78	0	109	28	567	579	136	496	522
Grp Sat Flow(s),veh/h/ln	0	0	1616	1357	0	1567	1753	1749	1785	1753	1749	1840
Q Serve(g_s), s	0.0	0.0	1.4	4.5	0.0	5.4	0.4	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	5.9	0.0	5.4	0.4	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00		0.77	1.00		0.97	1.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	167	206	0	162	511	929	948	583	1238	1302
V/C Ratio(X)	0.00	0.00	0.19	0.38	0.00	0.67	0.05	0.61	0.61	0.23	0.40	0.40
Avail Cap(c_a), veh/h	0	0	313	329	0	304	552	929	948	583	1238	1302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.71	0.71	0.71	0.86	0.86	0.86
Uniform Delay (d), s/veh	0.0	0.0	32.8	35.5	0.0	34.6	3.0	13.0	13.0	9.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	1.1	0.0	4.8	0.0	2.1	2.1	0.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	1.5	0.0	2.2	0.1	6.7	6.8	1.1	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	33.3	36.6	0.0	39.4	3.0	15.1	15.1	9.7	0.8	0.8
LnGrp LOS	A	A	C	D	A	D	A	B	B	A	A	A
Approach Vol, veh/h		31			187			1174			1154	
Approach Delay, s/veh		33.3			38.2			14.8			1.9	
Approach LOS		C			D			B			A	

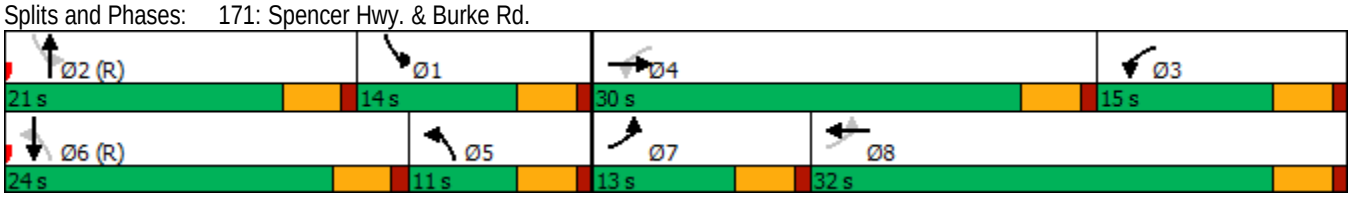
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.2	47.0		12.8	6.1	61.1		12.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	42.5		15.5	3.5	47.5		15.5				
Max Q Clear Time (g_c+I1), s	2.0	20.0		3.4	2.4	2.0		7.9				
Green Ext Time (p_c), s	0.2	8.0		0.1	0.0	7.9		0.5				

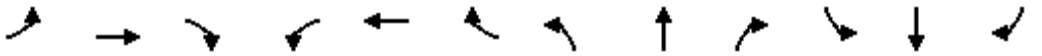
Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	97	949	132	901	110	136	143	181
Future Volume (vph)	97	949	132	901	110	136	143	181
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	30.0	15.0	32.0	11.0	21.0	14.0	24.0
Total Split (%)	16.3%	37.5%	18.8%	40.0%	13.8%	26.3%	17.5%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	33.9	24.9	33.0	27.2	30.4	20.7	29.0	25.2
Actuated g/C Ratio	0.42	0.31	0.41	0.34	0.38	0.26	0.36	0.32
v/c Ratio	0.41	0.78	0.55	0.67	0.30	0.30	0.37	0.27
Control Delay	15.5	10.5	22.3	17.6	12.9	9.5	11.1	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	10.5	22.3	17.6	12.9	9.5	11.1	10.6
LOS	B	B	C	B	B	A	B	B
Approach Delay		10.9		18.1		10.5		10.8
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 52 (65%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 63.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	949	101	132	901	82	110	136	111	143	181	73
Future Volume (veh/h)	97	949	101	132	901	82	110	136	111	143	181	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	108	1054	112	147	1001	91	122	151	123	159	201	81
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	240	1255	133	265	1350	123	595	390	297	617	599	233
Arrive On Green	0.12	0.54	0.54	0.03	0.10	0.10	0.18	0.21	0.21	0.22	0.24	0.24
Sat Flow, veh/h	1753	4613	490	1753	4689	425	1753	1892	1438	1753	2459	958
Grp Volume(v), veh/h	108	765	401	147	715	377	122	139	135	159	141	141
Grp Sat Flow(s),veh/h/ln	1753	1675	1753	1753	1675	1764	1753	1749	1582	1753	1749	1668
Q Serve(g_s), s	3.4	15.3	15.4	0.7	16.6	16.7	0.0	5.5	5.9	0.0	5.3	5.6
Cycle Q Clear(g_c), s	3.4	15.3	15.4	0.7	16.6	16.7	0.0	5.5	5.9	0.0	5.3	5.6
Prop In Lane	1.00		0.28	1.00		0.24	1.00		0.91	1.00		0.57
Lane Grp Cap(c), veh/h	240	911	477	265	965	508	595	361	326	617	426	407
V/C Ratio(X)	0.45	0.84	0.84	0.56	0.74	0.74	0.20	0.38	0.41	0.26	0.33	0.35
Avail Cap(c_a), veh/h	317	1068	559	358	1152	606	595	361	326	617	426	407
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	16.8	16.8	35.1	33.3	33.3	18.8	27.4	27.6	19.8	24.9	25.0
Incr Delay (d2), s/veh	0.7	3.0	5.7	1.1	1.3	2.6	0.2	3.1	3.9	0.2	2.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.0	4.5	2.8	7.5	8.1	1.6	2.5	2.5	2.1	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	19.8	22.5	36.3	34.6	35.9	18.9	30.5	31.4	20.0	27.0	27.3
LnGrp LOS	B	B	C	D	C	D	B	C	C	B	C	C
Approach Vol, veh/h		1274			1239			396			441	
Approach Delay, s/veh		20.6			35.2			27.2			24.6	
Approach LOS		C			D			C			C	

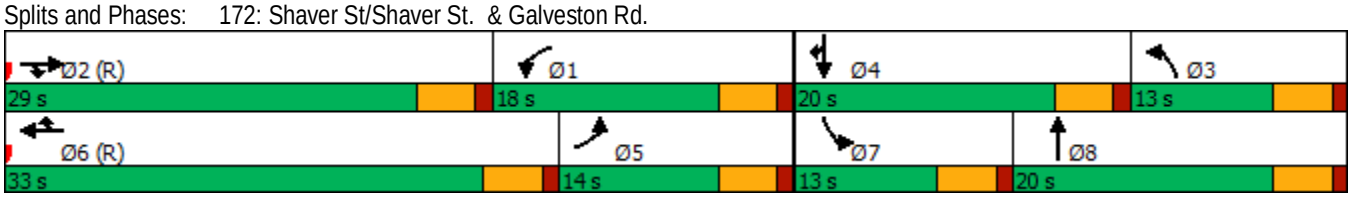
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	21.0	10.7	26.3	19.0	24.0	9.5	27.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	16.5	10.5	25.5	6.5	19.5	8.5	27.5
Max Q Clear Time (g_c+I1), s	2.0	7.9	2.7	17.4	2.0	7.6	5.4	18.7
Green Ext Time (p_c), s	0.2	0.9	0.2	4.4	0.1	1.2	0.1	4.4

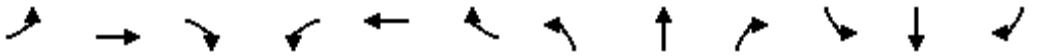
Intersection Summary	
HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	145	734	101	208	740	131	76	341	117	372	139
Future Volume (vph)	145	734	101	208	740	131	76	341	117	372	139
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	Prot	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8	7	4	4
Permitted Phases											
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	29.0	29.0	18.0	33.0	33.0	13.0	20.0	13.0	20.0	20.0
Total Split (%)	17.5%	36.3%	36.3%	22.5%	41.3%	41.3%	16.3%	25.0%	16.3%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	9.3	25.9	25.9	13.3	29.9	29.9	8.3	14.6	8.2	16.5	16.5
Actuated g/C Ratio	0.12	0.32	0.32	0.17	0.37	0.37	0.10	0.18	0.10	0.21	0.21
v/c Ratio	0.78	0.70	0.17	0.78	0.61	0.20	0.46	0.81	0.71	0.56	0.34
Control Delay	61.1	28.2	0.6	47.0	19.1	1.3	42.1	36.3	51.8	27.9	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	28.2	0.6	47.0	19.1	1.3	42.1	36.3	51.8	27.9	4.6
LOS	E	C	A	D	B	A	D	D	D	C	A
Approach Delay		30.2			22.3			37.0		27.2	
Approach LOS		C			C			D		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 28.3	Intersection LOS: C
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	734	101	208	740	131	76	341	168	117	372	139
Future Volume (veh/h)	145	734	101	208	740	131	76	341	168	117	372	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	156	789	109	224	796	141	82	367	181	126	400	149
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	248	1071	478	336	1246	556	221	428	208	158	530	236
Arrive On Green	0.14	0.31	0.31	0.19	0.36	0.36	0.13	0.19	0.19	0.09	0.15	0.15
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	2282	1108	1753	3497	1560
Grp Volume(v), veh/h	156	789	109	224	796	141	82	280	268	126	400	149
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1641	1753	1749	1560
Q Serve(g_s), s	6.7	16.2	4.2	9.5	15.2	3.5	3.4	12.4	12.7	5.6	8.8	7.2
Cycle Q Clear(g_c), s	6.7	16.2	4.2	9.5	15.2	3.5	3.4	12.4	12.7	5.6	8.8	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	248	1071	478	336	1246	556	221	328	308	158	530	236
V/C Ratio(X)	0.63	0.74	0.23	0.67	0.64	0.25	0.37	0.85	0.87	0.80	0.76	0.63
Avail Cap(c_a), veh/h	248	1071	478	336	1246	556	221	339	318	186	678	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	24.9	20.7	30.0	21.5	8.6	32.1	31.4	31.6	35.7	32.5	31.8
Incr Delay (d2), s/veh	5.0	4.5	1.1	5.0	2.5	1.1	1.0	18.3	21.8	18.6	3.6	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.9	1.6	4.3	6.3	1.9	1.5	6.7	6.7	3.2	3.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	29.4	21.8	35.0	24.0	9.7	33.1	49.7	53.4	54.2	36.2	34.6
LnGrp LOS	D	C	C	C	C	A	C	D	D	D	D	C
Approach Vol, veh/h		1054			1161			630			675	
Approach Delay, s/veh		29.8			24.4			49.1			39.2	
Approach LOS		C			C			D			D	

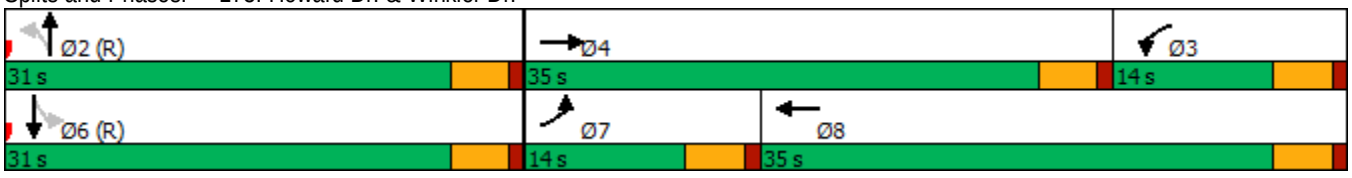
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	29.0	14.6	16.6	15.8	33.0	11.7	19.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	24.5	8.5	15.5	9.5	28.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	11.5	18.2	5.4	10.8	8.7	17.2	7.6	14.7
Green Ext Time (p_c), s	0.1	2.9	0.0	1.3	0.0	4.6	0.0	0.3

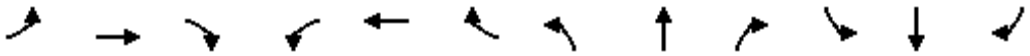
Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	346	32	325	54	176	10	37
Future Volume (vph)	30	346	32	325	54	176	10	37
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	35.0	14.0	35.0	31.0	31.0	31.0	31.0
Total Split (%)	17.5%	43.8%	17.5%	43.8%	38.8%	38.8%	38.8%	38.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.0	15.9	7.2	18.4		47.5		47.5
Actuated g/C Ratio	0.09	0.20	0.09	0.23		0.59		0.59
v/c Ratio	0.21	0.67	0.22	0.63		0.15		0.05
Control Delay	36.6	30.6	22.2	9.6		9.2		6.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	36.6	30.6	22.2	9.6		9.2		6.8
LOS	D	C	C	A		A		A
Approach Delay		30.9		10.3		9.2		6.8
Approach LOS		C		B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 41.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	346	99	32	325	226	54	176	26	10	37	37
Future Volume (veh/h)	30	346	99	32	325	226	54	176	26	10	37	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	368	105	34	346	240	57	187	28	11	39	39
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	39	506	142	114	458	312	410	1310	199	243	823	772
Arrive On Green	0.02	0.19	0.19	0.06	0.23	0.23	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	1753	2694	759	1753	1990	1355	599	2263	343	324	1422	1334
Grp Volume(v), veh/h	32	237	236	34	303	283	140	0	132	47	0	42
Grp Sat Flow(s),veh/h/ln	1753	1749	1704	1753	1749	1597	1592	0	1613	1645	0	1435
Q Serve(g_s), s	1.5	10.2	10.4	1.5	12.9	13.3	0.0	0.0	3.0	0.0	0.0	1.0
Cycle Q Clear(g_c), s	1.5	10.2	10.4	1.5	12.9	13.3	2.8	0.0	3.0	0.9	0.0	1.0
Prop In Lane	1.00		0.45	1.00		0.85	0.41		0.21	0.23		0.93
Lane Grp Cap(c), veh/h	39	328	320	114	403	368	984	0	934	1008	0	830
V/C Ratio(X)	0.82	0.72	0.74	0.30	0.75	0.77	0.14	0.00	0.14	0.05	0.00	0.05
Avail Cap(c_a), veh/h	208	667	650	208	667	609	984	0	934	1008	0	830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.9	30.5	30.6	35.7	28.7	28.8	7.7	0.0	7.7	7.3	0.0	7.3
Incr Delay (d2), s/veh	32.4	3.0	3.3	1.5	2.9	3.4	0.3	0.0	0.3	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.4	4.4	0.7	5.5	5.2	1.0	0.0	1.0	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.3	33.5	33.9	37.1	31.5	32.2	8.0	0.0	8.0	7.4	0.0	7.4
LnGrp LOS	E	C	C	D	C	C	A	A	A	A	A	A
Approach Vol, veh/h		505			620			272			89	
Approach Delay, s/veh		36.1			32.2			8.0			7.4	
Approach LOS		D			C			A			A	

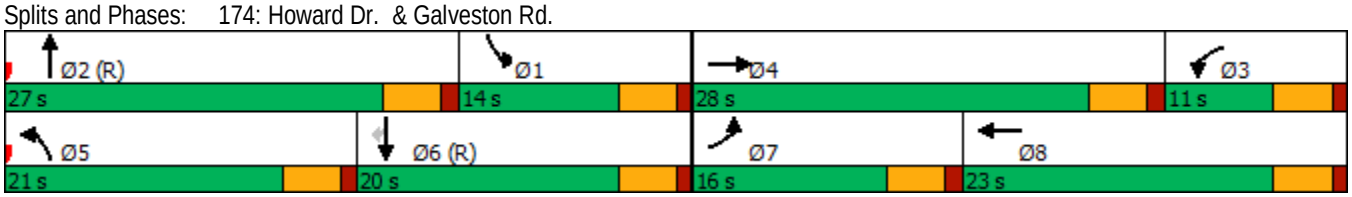
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		50.8	9.7	19.5		50.8	6.3	22.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	9.5	30.5		26.5	9.5	30.5				
Max Q Clear Time (g_c+I1), s		5.0	3.5	12.4		3.0	3.5	15.3				
Green Ext Time (p_c), s		1.4	0.0	2.6		0.4	0.0	3.2				

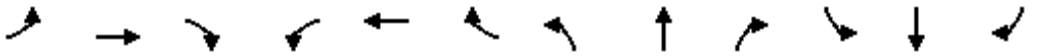
Intersection Summary												
HCM 6th Ctrl Delay			27.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	106	271	47	369	181	529	92	346	89
Future Volume (vph)	106	271	47	369	181	529	92	346	89
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	16.0	28.0	11.0	23.0	21.0	27.0	14.0	20.0	20.0
Total Split (%)	20.0%	35.0%	13.8%	28.8%	26.3%	33.8%	17.5%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.8	17.9	10.5	16.5	13.7	31.2	8.8	24.2	24.2
Actuated g/C Ratio	0.12	0.22	0.13	0.21	0.17	0.39	0.11	0.30	0.30
v/c Ratio	0.55	0.56	0.24	0.76	0.67	0.47	0.53	0.36	0.16
Control Delay	27.7	9.2	32.7	33.3	44.5	20.3	42.6	25.2	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	9.2	32.7	33.3	44.5	20.3	42.6	25.2	1.3
LOS	C	A	C	C	D	C	D	C	A
Approach Delay		12.8		33.2		26.1		24.2	
Approach LOS		B		C		C		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 24.3	Intersection LOS: C
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	271	169	47	369	138	181	529	42	92	346	89
Future Volume (veh/h)	106	271	169	47	369	138	181	529	42	92	346	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	116	298	186	52	405	152	199	581	46	101	380	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	397	241	161	493	183	240	923	73	372	1246	
Arrive On Green	0.08	0.19	0.19	0.09	0.20	0.20	0.14	0.28	0.28	0.21	0.36	0.00
Sat Flow, veh/h	1753	2090	1270	1753	2497	926	1753	3283	259	1753	3497	1560
Grp Volume(v), veh/h	116	248	236	52	282	275	199	309	318	101	380	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1612	1753	1749	1674	1753	1749	1794	1753	1749	1560
Q Serve(g_s), s	5.2	10.7	11.1	2.2	12.4	12.6	8.8	12.3	12.4	3.9	6.3	0.0
Cycle Q Clear(g_c), s	5.2	10.7	11.1	2.2	12.4	12.6	8.8	12.3	12.4	3.9	6.3	0.0
Prop In Lane	1.00		0.79	1.00		0.55	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	147	332	306	161	346	331	240	492	505	372	1246	
V/C Ratio(X)	0.79	0.75	0.77	0.32	0.82	0.83	0.83	0.63	0.63	0.27	0.31	
Avail Cap(c_a), veh/h	252	514	474	161	404	387	362	492	505	372	1246	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.9	30.6	30.7	34.0	30.7	30.8	33.6	25.1	25.1	26.4	18.6	0.0
Incr Delay (d2), s/veh	8.9	3.3	4.1	1.2	10.8	12.5	9.5	6.0	5.9	0.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.6	4.5	1.0	6.0	6.0	4.2	5.6	5.7	1.6	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	33.9	34.8	35.2	41.5	43.3	43.1	31.1	31.0	26.7	19.2	0.0
LnGrp LOS	D	C	C	D	D	D	D	C	C	C	B	
Approach Vol, veh/h		600			609			826			481	A
Approach Delay, s/veh		36.4			41.8			33.9			20.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	27.0	11.8	19.7	15.5	33.0	11.2	20.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	22.5	6.5	23.5	16.5	15.5	11.5	18.5
Max Q Clear Time (g_c+I1), s	5.9	14.4	4.2	13.1	10.8	8.3	7.2	14.6
Green Ext Time (p_c), s	0.1	2.3	0.0	2.1	0.2	1.3	0.1	1.2

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

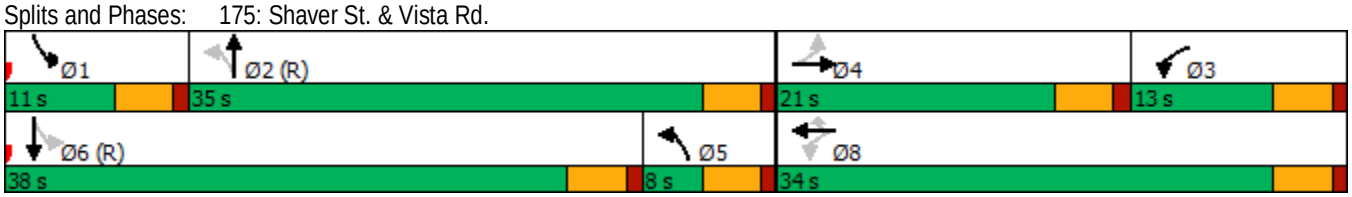
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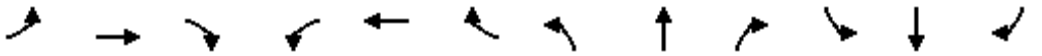
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	18	156	147	230	116	8	581	86	556
Future Volume (vph)	18	156	147	230	116	8	581	86	556
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	13.0	34.0	34.0	8.0	35.0	11.0	38.0
Total Split (%)	26.3%	26.3%	16.3%	42.5%	42.5%	10.0%	43.8%	13.8%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		13.7	23.9	23.9	23.9	37.3	37.3	45.5	45.5
Actuated g/C Ratio		0.17	0.30	0.30	0.30	0.47	0.47	0.57	0.57
v/c Ratio		0.75	0.52	0.47	0.23	0.02	0.51	0.28	0.33
Control Delay		43.6	34.2	29.1	9.4	6.4	8.8	11.3	12.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		43.6	34.2	29.1	9.4	6.4	8.8	11.3	12.8
LOS		D	C	C	A	A	A	B	B
Approach Delay		43.6		26.0			8.8		12.6
Approach LOS		D		C			A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 34 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	156	8	147	230	116	8	581	148	86	556	20
Future Volume (veh/h)	18	156	8	147	230	116	8	581	148	86	556	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	20	175	9	165	258	130	9	653	166	97	625	22
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	59	225	11	261	507	430	534	1385	352	388	1443	51
Arrive On Green	0.18	0.18	0.18	0.04	0.28	0.28	0.27	1.00	1.00	0.05	0.42	0.42
Sat Flow, veh/h	55	1273	61	1753	1841	1560	1753	2762	701	1753	3446	121
Grp Volume(v), veh/h	204	0	0	165	258	130	9	413	406	97	317	330
Grp Sat Flow(s),veh/h/ln	1389	0	0	1753	1841	1560	1753	1749	1714	1753	1749	1819
Q Serve(g_s), s	2.4	0.0	0.0	0.0	9.4	5.3	0.0	0.0	0.0	2.9	10.3	10.3
Cycle Q Clear(g_c), s	11.9	0.0	0.0	0.0	9.4	5.3	0.0	0.0	0.0	2.9	10.3	10.3
Prop In Lane	0.10		0.04	1.00		1.00	1.00		0.41	1.00		0.07
Lane Grp Cap(c), veh/h	295	0	0	261	507	430	534	877	860	388	732	762
V/C Ratio(X)	0.69	0.00	0.00	0.63	0.51	0.30	0.02	0.47	0.47	0.25	0.43	0.43
Avail Cap(c_a), veh/h	345	0	0	373	679	575	534	877	860	435	732	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.00	0.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	0.0	0.0	33.2	24.4	22.9	12.2	0.0	0.0	15.9	16.5	16.5
Incr Delay (d2), s/veh	4.4	0.0	0.0	2.5	0.8	0.4	0.0	1.8	1.8	0.3	1.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.0	3.1	3.9	1.9	0.1	0.4	0.4	1.1	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	0.0	0.0	35.7	25.2	23.3	12.2	1.8	1.8	16.2	18.4	18.3
LnGrp LOS	D	A	A	D	C	C	B	A	A	B	B	B
Approach Vol, veh/h		204			553			828			744	
Approach Delay, s/veh		35.6			27.9			1.9			18.1	
Approach LOS		D			C			A			B	

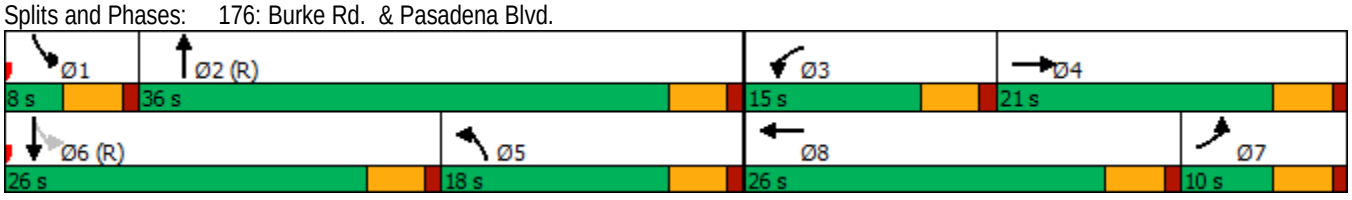
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	44.6	7.9	18.6	15.5	38.0		26.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	30.5	8.5	16.5	3.5	33.5		29.5				
Max Q Clear Time (g_c+I1), s	4.9	2.0	2.0	13.9	2.0	12.3		11.4				
Green Ext Time (p_c), s	0.0	5.6	0.2	0.2	0.0	3.8		1.7				

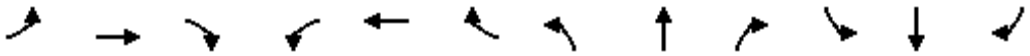
Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	34	294	92	346	143	192	27	260
Future Volume (vph)	34	294	92	346	143	192	27	260
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	21.0	15.0	26.0	18.0	36.0	8.0	26.0
Total Split (%)	12.5%	26.3%	18.8%	32.5%	22.5%	45.0%	10.0%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	13.9	9.0	17.4	13.5	45.7		27.7
Actuated g/C Ratio	0.09	0.17	0.11	0.22	0.17	0.57		0.35
v/c Ratio	0.22	0.68	0.51	0.56	0.52	0.16		0.37
Control Delay	36.6	31.8	30.7	21.6	30.9	3.7		14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	36.6	31.8	30.7	21.6	30.9	3.7		14.3
LOS	D	C	C	C	C	A		B
Approach Delay		32.2		23.4		12.7		14.3
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 7 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





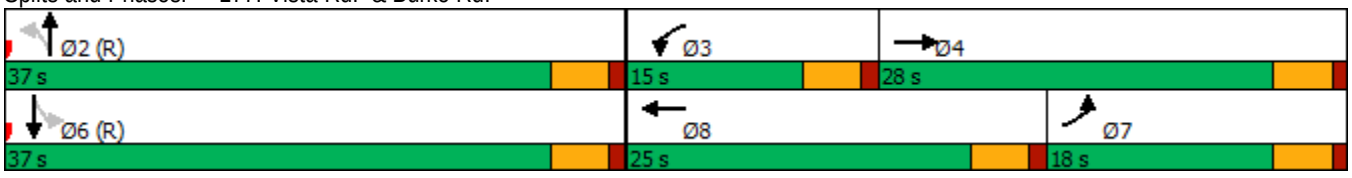
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	294	114	92	346	29	143	192	98	27	260	67
Future Volume (vph)	34	294	114	92	346	29	143	192	98	27	260	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.96		1.00	0.99		1.00	0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3326		1678	3202		1736	3295			3135	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.91	
Satd. Flow (perm)	1736	3326		1678	3202		1736	3295			2874	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	36	309	120	97	364	31	151	202	103	28	274	71
RTOR Reduction (vph)	0	52	0	0	9	0	0	46	0	0	24	0
Lane Group Flow (vph)	36	377	0	97	386	0	151	259	0	0	349	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	5.2	14.8		7.8	17.4		13.5	43.9			25.9	
Effective Green, g (s)	5.2	14.8		7.8	17.4		13.5	43.9			25.9	
Actuated g/C Ratio	0.07	0.19		0.10	0.22		0.17	0.55			0.32	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	112	615		163	696		292	1808			930	
v/s Ratio Prot	0.02	c0.11		0.06	c0.12		c0.09	0.08				
v/s Ratio Perm											c0.12	
v/c Ratio	0.32	0.61		0.60	0.56		0.52	0.14			0.38	
Uniform Delay, d1	35.7	30.0		34.6	27.9		30.3	8.8			20.8	
Progression Factor	1.00	1.00		0.67	0.69		0.80	0.54			0.67	
Incremental Delay, d2	1.7	1.8		5.1	0.8		1.5	0.2			0.3	
Delay (s)	37.4	31.8		28.1	20.2		25.7	4.9			14.1	
Level of Service	D	C		C	C		C	A			B	
Approach Delay (s)		32.2			21.7			11.8			14.1	
Approach LOS		C			C			B			B	

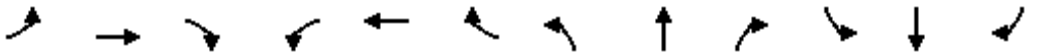
Intersection Summary			
HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	82	304	48	241	77	283	85	241
Future Volume (vph)	82	304	48	241	77	283	85	241
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	18.0	28.0	15.0	25.0	37.0	37.0	37.0	37.0
Total Split (%)	22.5%	35.0%	18.8%	31.3%	46.3%	46.3%	46.3%	46.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	9.3	16.2	7.8	12.5		46.7		46.7
Actuated g/C Ratio	0.12	0.20	0.10	0.16		0.58		0.58
v/c Ratio	0.43	0.53	0.30	0.58		0.30		0.26
Control Delay	42.5	33.8	33.2	19.2		13.2		6.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	42.5	33.8	33.2	19.2		13.2		6.3
LOS	D	C	C	B		B		A
Approach Delay		35.4		21.1		13.2		6.3
Approach LOS		D		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 14 (18%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	304	47	48	241	62	77	283	105	85	241	46
Future Volume (veh/h)	82	304	47	48	241	62	77	283	105	85	241	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	323	50	51	256	66	82	301	112	90	256	49
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	113	487	75	65	367	93	342	1204	448	414	1203	240
Arrive On Green	0.06	0.16	0.16	0.04	0.13	0.13	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	1753	3040	466	1753	2765	699	444	1899	707	547	1896	378
Grp Volume(v), veh/h	87	184	189	51	160	162	250	0	245	187	0	208
Grp Sat Flow(s),veh/h/ln	1753	1749	1757	1753	1749	1715	1502	0	1548	1214	0	1607
Q Serve(g_s), s	3.9	7.9	8.1	2.3	7.0	7.2	0.7	0.0	5.5	2.3	0.0	4.4
Cycle Q Clear(g_c), s	3.9	7.9	8.1	2.3	7.0	7.2	5.1	0.0	5.5	7.8	0.0	4.4
Prop In Lane	1.00		0.27	1.00		0.41	0.33		0.46	0.48		0.24
Lane Grp Cap(c), veh/h	113	280	281	65	232	228	1013	0	982	837	0	1019
V/C Ratio(X)	0.77	0.66	0.67	0.79	0.69	0.71	0.25	0.00	0.25	0.22	0.00	0.20
Avail Cap(c_a), veh/h	296	514	516	230	448	439	1013	0	982	837	0	1019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	31.5	31.6	38.2	33.1	33.2	6.2	0.0	6.4	6.6	0.0	6.1
Incr Delay (d2), s/veh	10.6	2.6	2.8	13.8	2.6	2.9	0.6	0.0	0.6	0.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.5	3.5	1.2	3.1	3.1	1.7	0.0	1.7	1.2	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	34.2	34.4	52.1	35.7	36.1	6.8	0.0	7.0	7.2	0.0	6.6
LnGrp LOS	D	C	C	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		460			373			495			395	
Approach Delay, s/veh		36.8			38.1			6.9			6.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		55.2	7.4	17.3		55.2	9.6	15.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		32.5	10.5	23.5		32.5	13.5	20.5				
Max Q Clear Time (g_c+I1), s		7.5	4.3	10.1		9.8	5.9	9.2				
Green Ext Time (p_c), s		3.3	0.0	1.8		2.6	0.1	1.4				

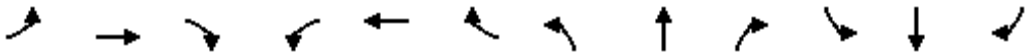
Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	28	1	0	96	487	3	291
Future Volume (vph)	28	1	0	96	487	3	291
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA
Protected Phases		4	8		2		6
Permitted Phases	4			2		6	
Detector Phase	4	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	26.0	26.0	26.0	54.0	54.0	54.0	54.0
Total Split (%)	32.5%	32.5%	32.5%	67.5%	67.5%	67.5%	67.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0
Total Lost Time (s)		4.5	4.5		4.5		4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		7.0	7.0		64.0		64.0
Actuated g/C Ratio		0.09	0.09		0.80		0.80
v/c Ratio		0.47	0.01		0.28		0.13
Control Delay		14.2	0.0		0.5		1.9
Queue Delay		0.0	0.0		0.0		0.0
Total Delay		14.2	0.0		0.5		1.9
LOS		B	A		A		A
Approach Delay		14.2			0.5		1.9
Approach LOS		B			A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 79 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 2.9	Intersection LOS: A
Intersection Capacity Utilization 50.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1	124	0	0	3	96	487	1	3	291	21
Future Volume (veh/h)	28	1	124	0	0	3	96	487	1	3	291	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	1	138	0	0	3	107	541	1	3	323	23
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	256	7	178	0	219	195	416	2032	4	51	2465	173
Arrive On Green	0.13	0.13	0.13	0.00	0.00	0.13	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1340	55	1420	0	1841	1560	467	2666	5	6	3233	228
Grp Volume(v), veh/h	32	0	138	0	0	3	309	0	340	184	0	165
Grp Sat Flow(s),veh/h/ln	1395	0	1420	0	1749	1560	1464	0	1674	1833	0	1634
Q Serve(g_s), s	1.6	0.0	7.5	0.0	0.0	0.1	0.1	0.0	4.8	0.0	0.0	2.1
Cycle Q Clear(g_c), s	1.7	0.0	7.5	0.0	0.0	0.1	3.9	0.0	4.8	2.1	0.0	2.1
Prop In Lane	0.97		1.00	0.00		1.00	0.35		0.00	0.02		0.14
Lane Grp Cap(c), veh/h	263	0	178	0	219	195	1176	0	1276	1443	0	1246
V/C Ratio(X)	0.12	0.00	0.78	0.00	0.00	0.02	0.26	0.00	0.27	0.13	0.00	0.13
Avail Cap(c_a), veh/h	465	0	382	0	470	419	1176	0	1276	1443	0	1246
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	33.9	0.0	0.0	30.7	2.7	0.0	2.8	2.5	0.0	2.5
Incr Delay (d2), s/veh	0.2	0.0	7.1	0.0	0.0	0.0	0.5	0.0	0.5	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.9	0.0	0.0	0.1	0.9	0.0	1.0	0.5	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	0.0	41.0	0.0	0.0	30.7	3.3	0.0	3.3	2.7	0.0	2.7
LnGrp LOS	C	A	D	A	A	C	A	A	A	A	A	A
Approach Vol, veh/h		170			3			649			349	
Approach Delay, s/veh		39.2			30.7			3.3			2.7	
Approach LOS		D			C			A			A	

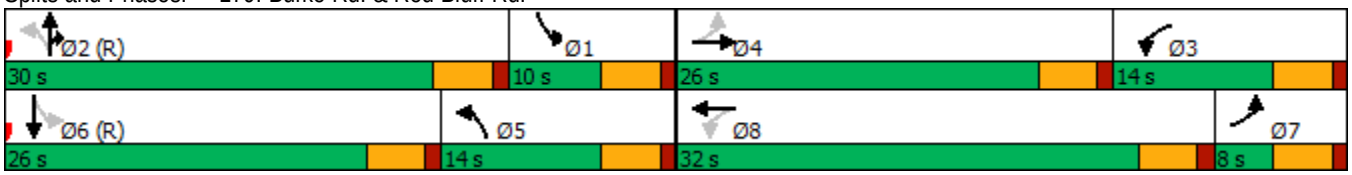
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.5		14.5		65.5		14.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		49.5		21.5		49.5		21.5				
Max Q Clear Time (g_c+I1), s		6.8		9.5		4.1		2.1				
Green Ext Time (p_c), s		4.4		0.7		2.0		0.0				

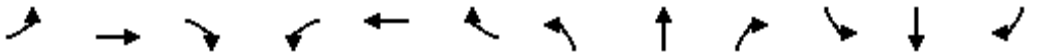
Intersection Summary												
HCM 6th Ctrl Delay			8.4									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	23	428	120	473	176	146	60	100	170
Future Volume (vph)	23	428	120	473	176	146	60	100	170
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	26.0	14.0	32.0	14.0	30.0	30.0	10.0	26.0
Total Split (%)	10.0%	32.5%	17.5%	40.0%	17.5%	37.5%	37.5%	12.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	25.1	19.0	28.1	23.6	42.4	34.8	34.8	35.1	29.6
Actuated g/C Ratio	0.31	0.24	0.35	0.30	0.53	0.44	0.44	0.44	0.37
v/c Ratio	0.10	0.76	0.51	0.56	0.34	0.21	0.09	0.21	0.37
Control Delay	16.4	32.3	17.4	9.7	8.8	17.7	1.6	13.8	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	32.3	17.4	9.7	8.8	17.7	1.6	13.8	22.0
LOS	B	C	B	A	A	B	A	B	C
Approach Delay		31.7		11.2		11.1			19.4
Approach LOS		C		B		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 43 (54%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 64.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	428	134	120	473	47	176	146	60	100	170	48
Future Volume (veh/h)	23	428	134	120	473	47	176	146	60	100	170	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	25	465	146	130	514	51	191	159	65	109	185	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	226	574	179	196	680	67	676	587	497	667	371	104
Arrive On Green	0.05	0.22	0.22	0.04	0.21	0.21	0.25	0.32	0.32	0.20	0.27	0.27
Sat Flow, veh/h	1753	2624	818	1753	3214	318	1753	1841	1560	1753	1382	389
Grp Volume(v), veh/h	25	309	302	130	279	286	191	159	65	109	0	237
Grp Sat Flow(s),veh/h/ln	1753	1749	1693	1753	1749	1783	1753	1841	1560	1753	0	1771
Q Serve(g_s), s	0.0	13.4	13.6	0.1	12.0	12.0	0.0	5.2	2.4	0.0	0.0	9.0
Cycle Q Clear(g_c), s	0.0	13.4	13.6	0.1	12.0	12.0	0.0	5.2	2.4	0.0	0.0	9.0
Prop In Lane	1.00		0.48	1.00		0.18	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	226	382	370	196	370	378	676	587	497	667	0	476
V/C Ratio(X)	0.11	0.81	0.82	0.66	0.75	0.76	0.28	0.27	0.13	0.16	0.00	0.50
Avail Cap(c_a), veh/h	226	470	455	332	601	613	676	587	497	667	0	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.74	0.74	0.74	0.98	0.98	0.98	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	29.6	29.7	36.3	29.6	29.6	18.3	20.3	19.4	15.9	0.0	24.7
Incr Delay (d2), s/veh	0.2	8.3	9.2	2.8	2.3	2.3	0.2	1.1	0.5	0.1	0.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	6.3	6.3	2.5	5.1	5.2	2.5	2.3	0.9	1.3	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	38.0	38.9	39.2	31.9	31.9	18.6	21.4	19.9	16.0	0.0	28.4
LnGrp LOS	C	D	D	D	C	C	B	C	B	B	A	C
Approach Vol, veh/h		636			695			415			346	
Approach Delay, s/veh		38.2			33.3			19.9			24.5	
Approach LOS		D			C			B			C	

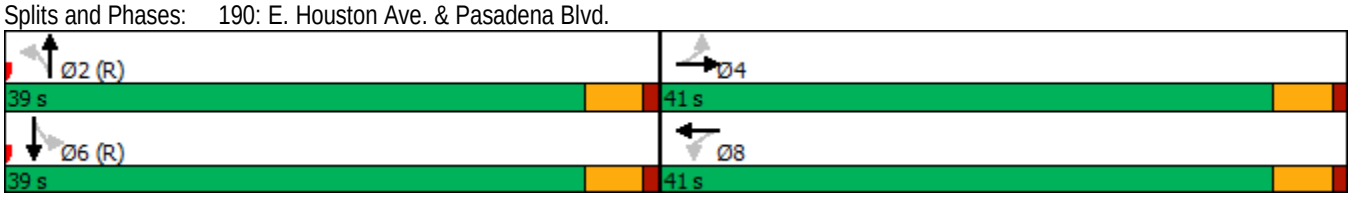
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	30.0	7.8	22.0	24.2	26.0	8.4	21.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	25.5	9.5	21.5	9.5	21.5	3.5	27.5
Max Q Clear Time (g_c+I1), s	2.0	7.2	2.1	15.6	2.0	11.0	2.0	14.0
Green Ext Time (p_c), s	0.1	0.9	0.2	1.9	0.3	0.9	0.0	2.9

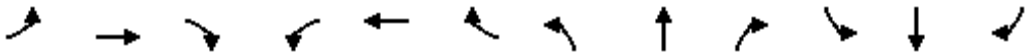
Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Lane Group	Ø2	Ø4	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	2	4	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0	41.0
Total Split (%)	49%	51%	49%	51%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1841	0	1753	1841	0	0	3681	0	0	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1841	0	1753	1841	0	0	1749	0	0	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	988	840	0	988	840	0	0	3301	0	0	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

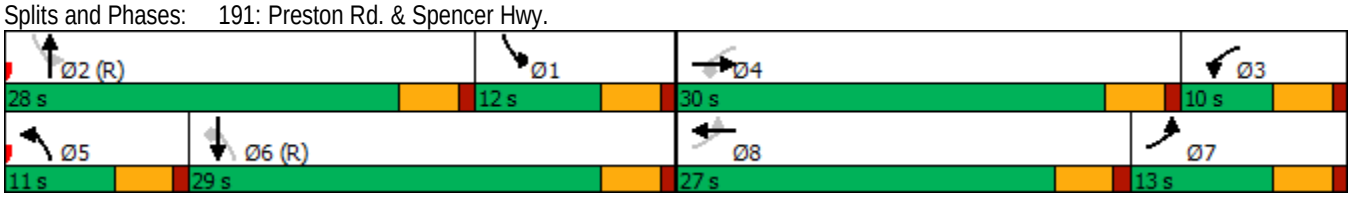
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0		0.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		34.5		36.5		34.5		36.5				
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0		0.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

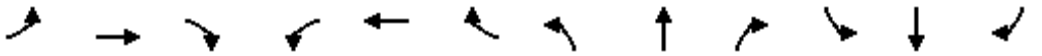
Intersection Summary												
HCM 6th Ctrl Delay			0.0									
HCM 6th LOS			A									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	222	888	154	69	1146	181	520	158	610	229
Future Volume (vph)	222	888	154	69	1146	181	520	158	610	229
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	8		4	4		6		2		6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	30.0	30.0	10.0	27.0	11.0	28.0	12.0	29.0	29.0
Total Split (%)	16.3%	37.5%	37.5%	12.5%	33.8%	13.8%	35.0%	15.0%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	30.9	26.3	26.3	31.8	22.5	31.1	23.6	31.1	24.5	24.5
Actuated g/C Ratio	0.39	0.33	0.33	0.40	0.28	0.39	0.30	0.39	0.31	0.31
v/c Ratio	0.88	0.60	0.26	0.29	1.00	0.69	0.60	0.55	0.62	0.39
Control Delay	42.1	7.6	0.8	8.7	32.1	28.3	25.9	22.3	20.6	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	7.6	0.8	8.7	32.1	28.3	25.9	22.3	20.6	4.5
LOS	D	A	A	A	C	C	C	C	C	A
Approach Delay		12.8			30.9		26.5		17.2	
Approach LOS		B			C		C		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	888	154	69	1146	156	181	520	53	158	610	229
Future Volume (veh/h)	222	888	154	69	1146	156	181	520	53	158	610	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	239	955	166	74	1232	168	195	559	57	170	656	246
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	278	1310	407	350	1258	171	322	941	96	372	1077	480
Arrive On Green	0.07	0.17	0.17	0.25	0.56	0.56	0.08	0.29	0.29	0.10	0.31	0.31
Sat Flow, veh/h	1753	5025	1560	1753	4471	610	1753	3205	326	1753	3497	1560
Grp Volume(v), veh/h	239	955	166	74	923	477	195	304	312	170	656	246
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1731	1753	1749	1782	1753	1749	1560
Q Serve(g_s), s	6.4	14.4	5.6	0.0	21.5	21.5	6.1	11.9	12.0	0.0	12.8	7.1
Cycle Q Clear(g_c), s	6.4	14.4	5.6	0.0	21.5	21.5	6.1	11.9	12.0	0.0	12.8	7.1
Prop In Lane	1.00		1.00	1.00		0.35	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	278	1310	407	350	942	487	322	514	523	372	1077	480
V/C Ratio(X)	0.86	0.73	0.41	0.21	0.98	0.98	0.60	0.59	0.60	0.46	0.61	0.51
Avail Cap(c_a), veh/h	281	1602	497	350	942	487	322	514	523	372	1077	480
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.65	0.65	0.65	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	35.0	30.3	15.0	24.5	17.3	17.3	18.3	24.2	24.2	28.9	23.6	10.7
Incr Delay (d2), s/veh	11.3	0.6	0.3	0.2	18.9	27.8	3.2	5.0	4.9	0.9	2.5	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	5.9	2.7	1.0	6.7	8.2	2.6	5.4	5.5	3.0	5.4	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	30.9	15.3	24.7	36.2	45.1	21.5	29.1	29.1	29.7	26.1	14.5
LnGrp LOS	D	C	B	C	D	D	C	C	C	C	C	B
Approach Vol, veh/h		1360			1474			811			1072	
Approach Delay, s/veh		31.7			38.5			27.3			24.0	
Approach LOS		C			D			C			C	

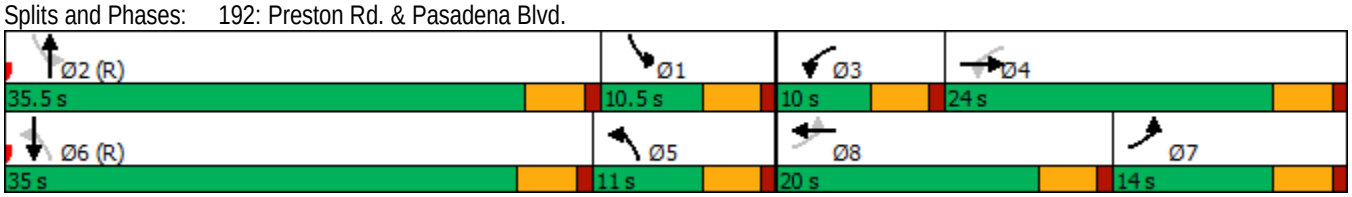
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	28.0	14.5	25.3	11.0	29.1	12.9	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	23.5	5.5	25.5	6.5	24.5	8.5	22.5
Max Q Clear Time (g_c+I1), s	2.0	14.0	2.0	16.4	8.1	14.8	8.4	23.5
Green Ext Time (p_c), s	0.2	2.6	0.0	4.5	0.0	3.8	0.0	0.0

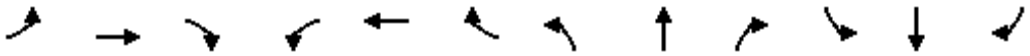
Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	113	230	75	274	79	560	69	668
Future Volume (vph)	113	230	75	274	79	560	69	668
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	14.0	24.0	10.0	20.0	11.0	35.5	10.5	35.0
Total Split (%)	17.5%	30.0%	12.5%	25.0%	13.8%	44.4%	13.1%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.6	13.9	18.5	13.1	46.4	40.7	46.4	40.3
Actuated g/C Ratio	0.24	0.17	0.23	0.16	0.58	0.51	0.58	0.50
v/c Ratio	0.50	0.58	0.35	0.66	0.25	0.40	0.18	0.51
Control Delay	20.8	13.5	15.3	17.3	13.5	11.1	10.7	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	13.5	15.3	17.3	13.5	11.1	10.7	16.3
LOS	C	B	B	B	B	B	B	B
Approach Delay		15.3		16.9		11.4		15.9
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 16 (20%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 14.7	Intersection LOS: B
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	230	122	75	274	78	79	560	75	69	668	135
Future Volume (veh/h)	113	230	122	75	274	78	79	560	75	69	668	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	124	253	134	82	301	86	87	615	82	76	734	148
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	235	346	177	226	394	110	521	1202	160	553	1106	223
Arrive On Green	0.06	0.15	0.15	0.05	0.15	0.15	0.06	0.13	0.13	0.18	0.38	0.38
Sat Flow, veh/h	1753	2236	1147	1753	2696	757	1753	3102	413	1753	2900	585
Grp Volume(v), veh/h	124	196	191	82	193	194	87	346	351	76	443	439
Grp Sat Flow(s),veh/h/ln	1753	1749	1634	1753	1749	1704	1753	1749	1766	1753	1749	1736
Q Serve(g_s), s	0.0	8.5	8.9	3.1	8.5	8.8	0.0	14.8	14.8	0.0	16.8	16.8
Cycle Q Clear(g_c), s	0.0	8.5	8.9	3.1	8.5	8.8	0.0	14.8	14.8	0.0	16.8	16.8
Prop In Lane	1.00		0.70	1.00		0.44	1.00		0.23	1.00		0.34
Lane Grp Cap(c), veh/h	235	270	253	226	255	249	521	678	684	553	667	662
V/C Ratio(X)	0.53	0.72	0.76	0.36	0.76	0.78	0.17	0.51	0.51	0.14	0.66	0.66
Avail Cap(c_a), veh/h	334	426	398	252	339	330	521	678	684	553	667	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	32.2	32.4	26.9	32.8	32.9	22.7	27.8	27.8	17.1	20.5	20.5
Incr Delay (d2), s/veh	1.8	3.7	4.6	1.0	6.8	8.2	0.1	2.6	2.5	0.1	5.2	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.7	3.7	1.3	3.9	4.0	1.4	7.3	7.4	0.9	7.4	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	35.9	36.9	27.8	39.6	41.2	22.9	30.4	30.4	17.2	25.7	25.7
LnGrp LOS	D	D	D	C	D	D	C	C	C	B	C	C
Approach Vol, veh/h		511			469			784			958	
Approach Delay, s/veh		36.4			38.2			29.5			25.0	
Approach LOS		D			D			C			C	

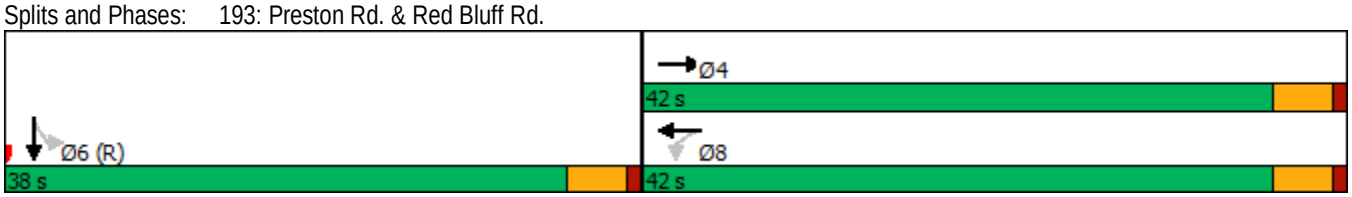
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	35.5	8.8	16.9	19.3	35.0	9.5	16.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.0	31.0	5.5	19.5	6.5	30.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	16.8	5.1	10.9	2.0	18.8	2.0	10.8
Green Ext Time (p_c), s	0.0	3.6	0.0	1.4	0.1	4.5	0.2	0.9

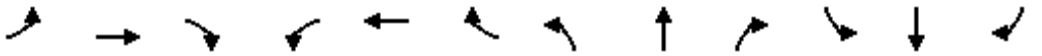
Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	574	37	709	519
Future Volume (vph)	574	37	709	519
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	38.0
Total Split (%)	52.5%	52.5%	52.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	29.5	29.5	29.5	41.5
Actuated g/C Ratio	0.37	0.37	0.37	0.52
v/c Ratio	0.74	0.44	0.63	0.48
Control Delay	12.7	26.3	18.5	14.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	12.7	26.3	18.5	14.4
LOS	B	C	B	B
Approach Delay	12.7		18.9	14.4
Approach LOS	B		B	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	574	279	37	709	0	0	0	0	169	519	56
Future Volume (veh/h)	0	574	279	37	709	0	0	0	0	169	519	56
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	652	317	42	806	0				192	590	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	884	430	171	1356	0				416	1357	
Arrive On Green	0.00	0.39	0.39	0.78	0.78	0.00				0.50	0.50	0.00
Sat Flow, veh/h	0	2373	1109	571	3589	0				832	2808	0
Grp Volume(v), veh/h	0	500	469	42	806	0				415	367	0
Grp Sat Flow(s),veh/h/ln	0	1749	1641	571	1749	0				1799	1749	0
Q Serve(g_s), s	0.0	19.6	19.6	4.9	7.7	0.0				12.0	10.6	0.0
Cycle Q Clear(g_c), s	0.0	19.6	19.6	24.5	7.7	0.0				12.0	10.6	0.0
Prop In Lane	0.00		0.68	1.00		0.00				0.46		0.00
Lane Grp Cap(c), veh/h	0	678	636	171	1356	0				899	874	
V/C Ratio(X)	0.00	0.74	0.74	0.25	0.59	0.00				0.46	0.42	
Avail Cap(c_a), veh/h	0	820	769	218	1639	0				899	874	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.74	0.74	0.86	0.86	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	21.0	21.0	16.5	6.4	0.0				13.0	12.7	0.0
Incr Delay (d2), s/veh	0.0	2.1	2.2	0.6	0.4	0.0				1.7	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.9	7.4	0.5	1.8	0.0				4.9	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.1	23.2	17.1	6.7	0.0				14.7	14.1	0.0
LnGrp LOS	A	C	C	B	A	A				B	B	
Approach Vol, veh/h		969			848						782	A
Approach Delay, s/veh		23.2			7.2						14.4	
Approach LOS		C			A						B	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		35.5		44.5		35.5						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		37.5		33.5		37.5						
Max Q Clear Time (g_c+I1), s		21.6		14.0		26.5						
Green Ext Time (p_c), s		6.0		4.9		4.5						

Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Notes

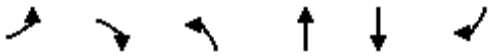
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	143	195	165	806	941
Future Volume (vph)	143	195	165	806	941
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	17.0	60.0	43.0
Total Split (%)	25.0%	25.0%	21.3%	75.0%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	12.1	12.1	58.9	58.9	45.7
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.57
v/c Ratio	0.61	0.52	0.50	0.35	0.64
Control Delay	41.9	9.7	12.2	1.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	9.7	12.2	1.4	7.3
LOS	D	A	B	A	A
Approach Delay	23.3			3.2	7.3
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 23 (29%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 7.9	Intersection LOS: A
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	143	195	165	806	941	172
Future Volume (veh/h)	143	195	165	806	941	172
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	149	203	172	840	980	179
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	274	243	490	2558	1814	331
Arrive On Green	0.16	0.16	0.12	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	1753	3589	3046	539
Grp Volume(v), veh/h	149	203	172	840	580	579
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1744
Q Serve(g_s), s	6.3	10.1	2.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.3	10.1	2.7	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.31
Lane Grp Cap(c), veh/h	274	243	490	2558	1074	1071
V/C Ratio(X)	0.54	0.83	0.35	0.33	0.54	0.54
Avail Cap(c_a), veh/h	340	302	657	2558	1074	1071
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.95	0.95	0.86	0.86
Uniform Delay (d), s/veh	31.1	32.8	3.8	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.7	15.0	0.4	0.3	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	9.3	0.7	0.1	0.5	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.8	47.7	4.2	0.3	1.7	1.7
LnGrp LOS	C	D	A	A	A	A
Approach Vol, veh/h	352			1012	1159	
Approach Delay, s/veh	41.4			1.0	1.7	
Approach LOS	D			A	A	

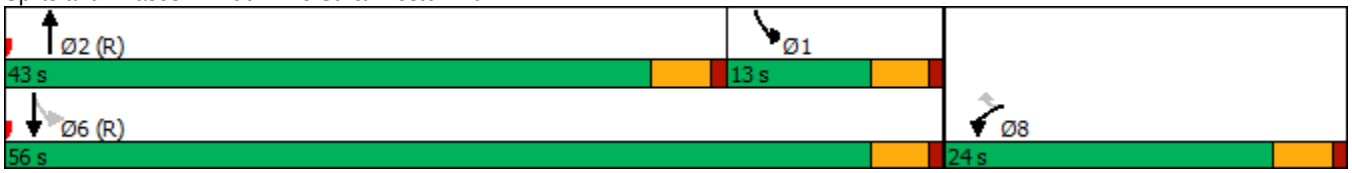
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		63.0		17.0	9.4	53.6
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		15.5	12.5	38.5
Max Q Clear Time (g_c+I1), s		2.0		12.1	4.7	2.0
Green Ext Time (p_c), s		7.0		0.4	0.3	9.6

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	21	71	683	73	682
Future Volume (vph)	21	71	683	73	682
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	24.0	24.0	43.0	13.0	56.0
Total Split (%)	30.0%	30.0%	53.8%	16.3%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.9	6.9	56.6	67.0	67.0
Actuated g/C Ratio	0.09	0.09	0.71	0.84	0.84
v/c Ratio	0.15	0.39	0.32	0.13	0.26
Control Delay	35.4	14.3	0.9	1.7	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	14.3	0.9	1.7	1.3
LOS	D	B	A	A	A
Approach Delay	19.1		0.9		1.3
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 2.2	Intersection LOS: A
Intersection Capacity Utilization 44.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	71	683	27	73	682
Future Volume (veh/h)	21	71	683	27	73	682
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	23	79	759	30	81	758
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	121	108	1650	65	791	2862
Arrive On Green	0.07	0.07	0.48	0.48	0.37	1.00
Sat Flow, veh/h	1753	1560	3522	136	1753	3589
Grp Volume(v), veh/h	23	79	387	402	81	758
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1816	1753	1749
Q Serve(g_s), s	1.0	4.0	11.8	11.8	0.0	0.0
Cycle Q Clear(g_c), s	1.0	4.0	11.8	11.8	0.0	0.0
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	121	108	842	874	791	2862
V/C Ratio(X)	0.19	0.73	0.46	0.46	0.10	0.26
Avail Cap(c_a), veh/h	427	380	842	874	791	2862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.68	0.68	0.75	0.75
Uniform Delay (d), s/veh	35.1	36.5	13.8	13.8	6.6	0.0
Incr Delay (d2), s/veh	0.7	9.2	1.2	1.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	4.6	4.7	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.9	45.7	15.1	15.0	6.6	0.2
LnGrp LOS	D	D	B	B	A	A
Approach Vol, veh/h	102		789			839
Approach Delay, s/veh	43.5		15.0			0.8
Approach LOS	D		B			A

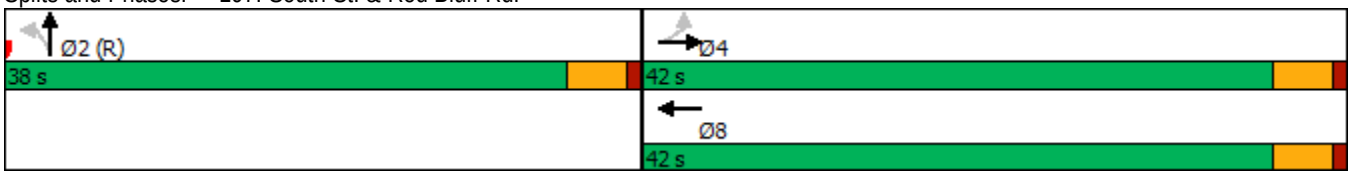
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	27.0	43.0			70.0	10.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	38.5			51.5	19.5
Max Q Clear Time (g_c+I1), s	2.0	13.8			2.0	6.0
Green Ext Time (p_c), s	0.1	5.3			6.4	0.2

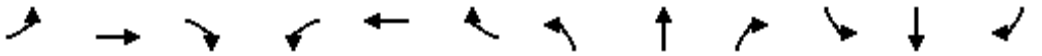
Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	87	578	424	223	496
Future Volume (vph)	87	578	424	223	496
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	38.0	38.0
Total Split (%)	52.5%	52.5%	52.5%	47.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	22.0	22.0	22.0	49.0	49.0
Actuated g/C Ratio	0.28	0.28	0.28	0.61	0.61
v/c Ratio	0.66	0.66	0.60	0.23	0.26
Control Delay	44.4	31.8	24.7	6.6	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	31.8	24.7	6.6	6.2
LOS	D	C	C	A	A
Approach Delay		33.5	24.7		6.3
Approach LOS		C	C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	578	0	0	424	111	223	496	4	0	0	0
Future Volume (veh/h)	87	578	0	0	424	111	223	496	4	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	95	628	0	0	461	0	242	539	0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	247	981	0	0	981		1064	2123				
Arrive On Green	0.56	0.56	0.00	0.00	0.28	0.00	0.20	0.20	0.00			
Sat Flow, veh/h	916	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	95	628	0	0	461	0	242	539	0			
Grp Sat Flow(s),veh/h/ln	916	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	6.9	9.8	0.0	0.0	8.7	0.0	9.3	10.4	0.0			
Cycle Q Clear(g_c), s	15.6	9.8	0.0	0.0	8.7	0.0	9.3	10.4	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	247	981	0	0	981		1064	2123				
V/C Ratio(X)	0.38	0.64	0.00	0.00	0.47		0.23	0.25				
Avail Cap(c_a), veh/h	419	1639	0	0	1639		1064	2123				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.59	0.59	0.00	0.00	0.99	0.00	0.97	0.97	0.00			
Uniform Delay (d), s/veh	19.7	14.8	0.0	0.0	23.9	0.0	16.3	16.7	0.0			
Incr Delay (d2), s/veh	0.6	0.4	0.0	0.0	0.3	0.0	0.5	0.3	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	2.9	0.0	0.0	3.5	0.0	4.2	4.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	15.2	0.0	0.0	24.2	0.0	16.7	17.0	0.0			
LnGrp LOS	C	B	A	A	C		B	B				
Approach Vol, veh/h		723			461	A		781	A			
Approach Delay, s/veh		15.9			24.2			16.9				
Approach LOS		B			C			B				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		53.1		26.9				26.9				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		33.5		37.5				37.5				
Max Q Clear Time (g_c+I1), s		12.4		17.6				10.7				
Green Ext Time (p_c), s		4.4		4.8				3.2				

Intersection Summary		
HCM 6th Ctrl Delay		18.2
HCM 6th LOS		B

Notes

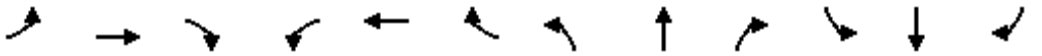
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	67	217	34	245	169	522	88	610
Future Volume (vph)	67	217	34	245	169	522	88	610
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	22.0	10.0	20.0	20.0	34.0	14.0	28.0
Total Split (%)	15.0%	27.5%	12.5%	25.0%	25.0%	42.5%	17.5%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.1	14.1	7.5	12.5	13.0	37.8	8.7	31.5
Actuated g/C Ratio	0.09	0.18	0.09	0.16	0.16	0.47	0.11	0.39
v/c Ratio	0.46	0.52	0.23	0.66	0.65	0.35	0.49	0.54
Control Delay	35.7	16.0	36.7	30.1	49.4	11.2	30.9	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	16.0	36.7	30.1	49.4	11.2	30.9	18.6
LOS	D	B	D	C	D	B	C	B
Approach Delay		19.3		30.7		20.2		20.0
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	217	123	34	245	114	169	522	28	88	610	80
Future Volume (veh/h)	67	217	123	34	245	114	169	522	28	88	610	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	71	228	129	36	258	120	178	549	29	93	642	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	91	313	170	95	340	154	218	1723	91	119	1411	184
Arrive On Green	0.05	0.14	0.14	0.05	0.15	0.15	0.12	0.51	0.51	0.07	0.45	0.45
Sat Flow, veh/h	1753	2185	1190	1753	2341	1058	1753	3379	178	1753	3110	406
Grp Volume(v), veh/h	71	181	176	36	191	187	178	284	294	93	361	365
Grp Sat Flow(s),veh/h/ln	1753	1749	1626	1753	1749	1650	1753	1749	1809	1753	1749	1768
Q Serve(g_s), s	3.2	7.9	8.3	1.6	8.4	8.8	7.9	7.6	7.6	4.2	11.4	11.4
Cycle Q Clear(g_c), s	3.2	7.9	8.3	1.6	8.4	8.8	7.9	7.6	7.6	4.2	11.4	11.4
Prop In Lane	1.00		0.73	1.00		0.64	1.00		0.10	1.00		0.23
Lane Grp Cap(c), veh/h	91	250	233	95	254	240	218	892	922	119	793	802
V/C Ratio(X)	0.78	0.72	0.76	0.38	0.75	0.78	0.82	0.32	0.32	0.78	0.45	0.46
Avail Cap(c_a), veh/h	164	383	356	121	339	320	340	892	922	208	793	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	32.8	32.9	36.5	32.8	33.0	34.1	11.5	11.5	36.7	15.0	15.1
Incr Delay (d2), s/veh	11.5	3.3	4.2	2.5	6.4	8.6	6.9	0.8	0.7	10.5	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.4	3.4	0.7	3.8	3.9	3.6	2.7	2.8	2.1	4.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	36.1	37.2	39.0	39.2	41.6	41.1	12.2	12.2	47.2	16.9	16.9
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		428			414			756			819	
Approach Delay, s/veh		38.7			40.2			19.0			20.4	
Approach LOS		D			D			B			C	

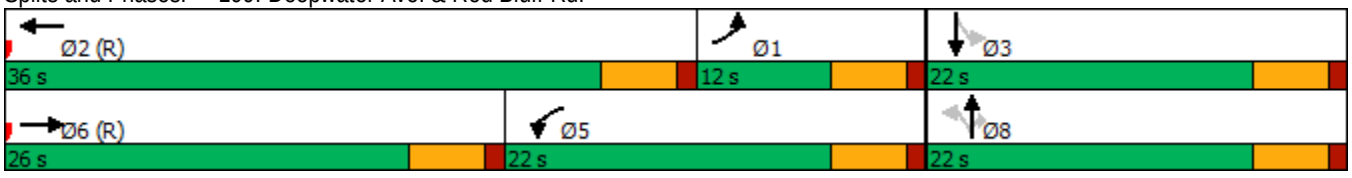
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	45.3	8.8	15.9	14.4	40.8	8.6	16.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	29.5	5.5	17.5	15.5	23.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	6.2	9.6	3.6	10.3	9.9	13.4	5.2	10.8
Green Ext Time (p_c), s	0.1	3.1	0.0	1.1	0.2	3.1	0.0	0.9

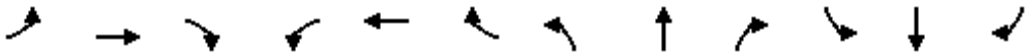
Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	27	436	161	397	1	93	155	30	162
Future Volume (vph)	27	436	161	397	1	93	155	30	162
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	26.0	22.0	36.0	22.0	22.0	22.0	22.0	22.0
Total Split (%)	17.1%	37.1%	31.4%	51.4%	31.4%	31.4%	31.4%	31.4%	31.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lag	Lead	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	6.4	30.8	12.9	43.9		11.3	11.3		11.3
Actuated g/C Ratio	0.09	0.44	0.18	0.63		0.16	0.16		0.16
v/c Ratio	0.19	0.32	0.56	0.21		0.35	0.42		0.51
Control Delay	32.1	14.7	32.0	7.2		29.3	7.2		25.6
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	32.1	14.7	32.0	7.2		29.3	7.2		25.6
LOS	C	B	C	A		C	A		C
Approach Delay		15.7		14.2		15.5			25.6
Approach LOS		B		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 51.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





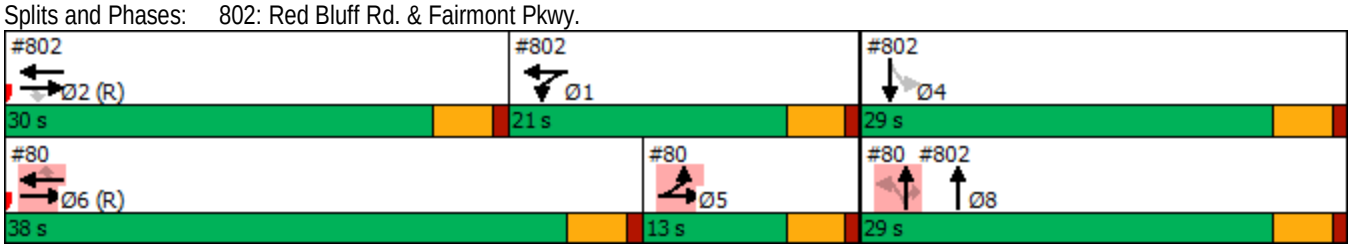
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	436	8	161	397	16	1	93	155	30	162	51
Future Volume (vph)	27	436	8	161	397	16	1	93	155	30	162	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	1.00		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3462		1736	3451			1826	1553		3341	
Flt Permitted	0.95	1.00		0.95	1.00			1.00	1.00		0.90	
Satd. Flow (perm)	1736	3462		1736	3451			1819	1553		3036	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	30	484	9	179	441	18	1	103	172	33	180	57
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	144	0	39	0
Lane Group Flow (vph)	30	491	0	179	456	0	0	104	28	0	231	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	2.8	27.8		15.9	40.9			11.3	11.3		11.3	
Effective Green, g (s)	2.8	27.8		15.9	40.9			11.3	11.3		11.3	
Actuated g/C Ratio	0.04	0.40		0.23	0.58			0.16	0.16		0.16	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	69	1374		394	2016			293	250		490	
v/s Ratio Prot	0.02	c0.14		c0.10	0.13							
v/s Ratio Perm								0.06	0.02		c0.08	
v/c Ratio	0.43	0.36		0.45	0.23			0.35	0.11		0.47	
Uniform Delay, d1	32.8	14.8		23.3	7.0			26.1	25.1		26.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	4.3	0.7		0.8	0.3			0.7	0.2		0.7	
Delay (s)	37.2	15.6		24.1	7.2			26.8	25.3		27.4	
Level of Service	D	B		C	A			C	C		C	
Approach Delay (s)		16.8			12.0			25.9			27.4	
Approach LOS		B			B			C			C	

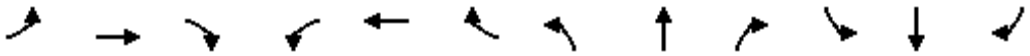
Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	Ø5	Ø6
Lane Configurations									
Traffic Volume (vph)	843	203	93	1020	1	138	419		
Future Volume (vph)	843	203	93	1020	1	138	419		
Turn Type	NA	Perm	Prot	NA	NA	Perm	NA		
Protected Phases	2		1	1 2	8		4	5	6
Permitted Phases		2				4			
Detector Phase	2	2	1	1 2	8	4	4		
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	20.0	8.0	20.0
Total Split (s)	30.0	30.0	21.0		29.0	29.0	29.0	13.0	38.0
Total Split (%)	37.5%	37.5%	26.3%		36.3%	36.3%	36.3%	16%	48%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5			4.5	4.5		
Lead/Lag	Lead	Lead	Lag					Lag	Lead
Lead-Lag Optimize?								Yes	
Recall Mode	C-Max	C-Max	None		None	None	None	None	C-Max
Act Effct Green (s)	30.6	30.6	15.6	50.8	0.0	20.2	20.2		
Actuated g/C Ratio	0.38	0.38	0.20	0.64	0.00	0.25	0.25		
v/c Ratio	0.39	0.31	0.16	0.36	no cap	0.44	0.55		
Control Delay	7.4	2.0	21.7	4.7		28.0	27.5		
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		
Total Delay	7.4	2.0	21.7	4.7	Error	28.0	27.5		
LOS	A	A	C	A	F	C	C		
Approach Delay	6.3			6.1	Err		27.6		
Approach LOS	A			A	F		C		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





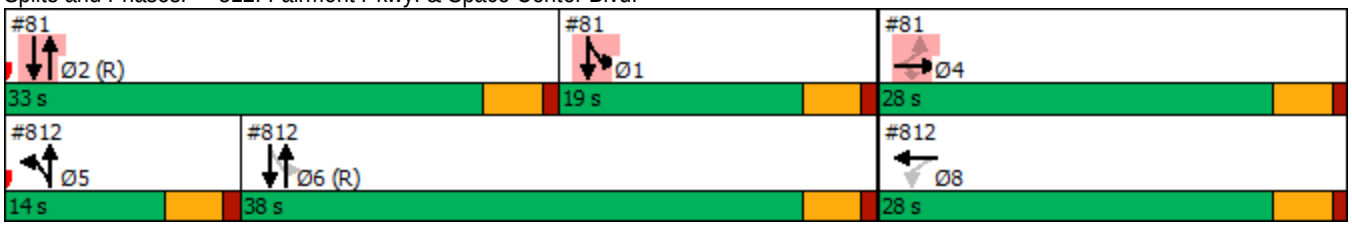
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	843	203	93	1020	0	0	1	0	138	419	9
Future Volume (vph)	0	843	203	93	1020	0	0	1	0	138	419	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5			4.5		4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91			1.00		1.00	0.95	
Frt		1.00	0.85	1.00	1.00			1.00		1.00	1.00	
Flt Protected		1.00	1.00	0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988			0		1736	3460	
Flt Permitted		1.00	1.00	0.95	1.00			1.00		0.76	1.00	
Satd. Flow (perm)		6285	1553	3367	4988			0		1383	3460	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	947	228	104	1146	0	0	1	0	155	471	10
RTOR Reduction (vph)	0	0	141	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	947	87	104	1146	0	0	1	0	155	479	0
Turn Type		NA	Perm	Prot	NA			NA		Perm	NA	
Protected Phases		2		1	1 2			8			4	
Permitted Phases			2							4		
Actuated Green, G (s)		30.7	30.7	15.6	50.8			20.2		20.2	20.2	
Effective Green, g (s)		30.7	30.7	15.6	50.8			20.2		20.2	20.2	
Actuated g/C Ratio		0.38	0.38	0.19	0.63			0.25		0.25	0.25	
Clearance Time (s)		4.5	4.5	4.5				4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0				3.0		3.0	3.0	
Lane Grp Cap (vph)		2411	595	656	3167			0		349	873	
v/s Ratio Prot		c0.15		0.03	c0.23						c0.14	
v/s Ratio Perm			0.06							0.11		
v/c Ratio		0.39	0.15	0.16	0.36			no cap		0.44	0.55	
Uniform Delay, d1		17.9	16.1	26.7	6.9			Error		25.2	25.9	
Progression Factor		0.36	0.33	0.80	0.57					1.00	1.00	
Incremental Delay, d2		0.4	0.4	0.1	0.1			Error		0.9	0.7	
Delay (s)		6.9	5.7	21.4	4.0			Error		26.1	26.7	
Level of Service		A	A	C	A			F		C	C	
Approach Delay (s)		6.6			5.4			Error			26.5	
Approach LOS		A			A			F			C	

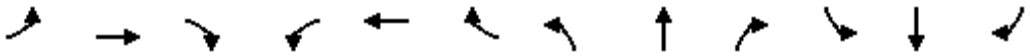
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	217	920	207	395	1	377			
Future Volume (vph)	217	920	207	395	1	377			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	28.0	28.0	14.0		38.0	38.0	19.0	33.0	28.0
Total Split (%)	35.0%	35.0%	17.5%		47.5%	47.5%	24%	41%	35%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	23.5	23.5	9.2	47.5		33.8			
Actuated g/C Ratio	0.29	0.29	0.12	0.59		0.42			
v/c Ratio	0.45	0.59	0.56	0.20		0.26			
Control Delay	26.4	24.8	47.4	3.0		14.0			
Queue Delay	0.3	0.0	2.9	0.8		0.0			
Total Delay	26.7	24.8	50.3	3.8		14.0			
LOS	C	C	D	A		B			
Approach Delay		25.1		19.8		14.0			
Approach LOS		C		B		B			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 59 (74%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 21.5	Intersection LOS: C
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





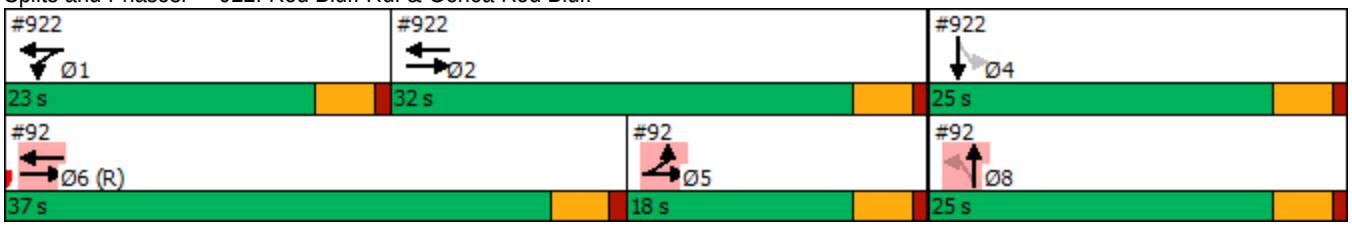
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	217	920	118	207	395	0	1	377	97
Future Volume (vph)	0	0	0	217	920	118	207	395	0	1	377	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.98		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6178		3367	3471			4834	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6178		3367	3471			4543	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	228	968	124	218	416	0	1	397	102
RTOR Reduction (vph)	0	0	0	0	29	0	0	0	0	0	21	0
Lane Group Flow (vph)	0	0	0	228	1063	0	218	416	0	0	479	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				23.5	23.5		9.2	47.5			33.8	
Effective Green, g (s)				23.5	23.5		9.2	47.5			33.8	
Actuated g/C Ratio				0.29	0.29		0.11	0.59			0.42	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				509	1814		387	2060			1919	
v/s Ratio Prot					c0.17		c0.06	0.12				
v/s Ratio Perm				0.13							c0.11	
v/c Ratio				0.45	0.59		0.56	0.20			0.25	
Uniform Delay, d1				23.0	24.1		33.5	7.5			14.9	
Progression Factor				1.00	1.00		1.27	0.37			0.98	
Incremental Delay, d2				0.6	0.5		1.5	0.0			0.3	
Delay (s)				23.6	24.6		44.0	2.8			14.8	
Level of Service				C	C		D	A			B	
Approach Delay (s)		0.0			24.4			17.0			14.8	
Approach LOS		A			C			B			B	

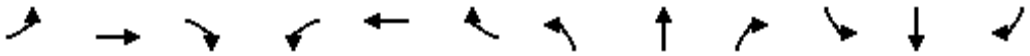
Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	658	180	627	413			
Future Volume (vph)	658	180	627	413			
Turn Type	NA	Prot	NA	NA			
Protected Phases	2	1	2 1	4	5	6	8
Permitted Phases							
Detector Phase	2	1	2 1	4			
Switch Phase							
Minimum Initial (s)	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	32.0	23.0		25.0	18.0	37.0	25.0
Total Split (%)	40.0%	28.8%		31.3%	23%	46%	31%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0			
Total Lost Time (s)	4.5	4.5		4.5			
Lead/Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?							
Recall Mode	None	None		None	None	C-Max	None
Act Effct Green (s)	33.8	15.4	53.7	17.3			
Actuated g/C Ratio	0.42	0.19	0.67	0.22			
v/c Ratio	0.50	0.57	0.29	0.55			
Control Delay	6.7	30.4	3.9	24.1			
Queue Delay	0.0	0.8	0.3	0.0			
Total Delay	6.7	31.2	4.2	24.1			
LOS	A	C	A	C			
Approach Delay	6.7		10.2	24.1			
Approach LOS	A		B	C			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 22 (28%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 56.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	658	337	180	627	0	0	0	0	68	413	74
Future Volume (vph)	0	658	337	180	627	0	0	0	0	68	413	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.91		1.00	0.95						0.91	
Frt		0.95		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		4734		1736	3471						4858	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		4734		1736	3471						4858	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	700	359	191	667	0	0	0	0	72	439	79
RTOR Reduction (vph)	0	102	0	0	0	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	957	0	191	667	0	0	0	0	0	563	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases										4		
Actuated Green, G (s)		33.8		15.4	53.7						17.3	
Effective Green, g (s)		33.8		15.4	53.7						17.3	
Actuated g/C Ratio		0.42		0.19	0.67						0.22	
Clearance Time (s)		4.5		4.5							4.5	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		2000		334	2329						1050	
v/s Ratio Prot		c0.20		c0.11	0.19							
v/s Ratio Perm											0.12	
v/c Ratio		0.48		0.57	0.29						0.54	
Uniform Delay, d1		16.7		29.3	5.4						27.8	
Progression Factor		0.40		0.82	0.61						0.87	
Incremental Delay, d2		0.1		2.3	0.1						0.5	
Delay (s)		6.8		26.4	3.4						24.6	
Level of Service		A		C	A						C	
Approach Delay (s)		6.8			8.5			0.0			24.6	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

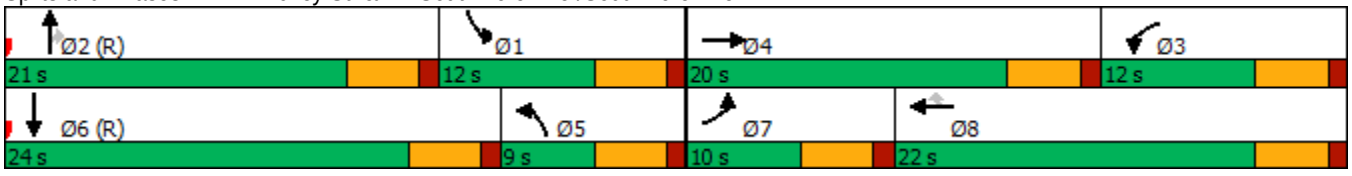
Synchro Report

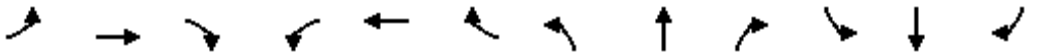
Existing Network 2045 PM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	52	400	352	383	225	35	428	332	192	585
Future Volume (vph)	52	400	352	383	225	35	428	332	192	585
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	12.0	22.0	22.0	9.0	21.0	21.0	12.0	24.0
Total Split (%)	15.4%	30.8%	18.5%	33.8%	33.8%	13.8%	32.3%	32.3%	18.5%	36.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	5.5	13.2	9.2	20.9	20.9	4.5	17.1	17.1	7.5	25.5
Actuated g/C Ratio	0.08	0.20	0.14	0.32	0.32	0.07	0.26	0.26	0.12	0.39
v/c Ratio	0.36	0.64	0.76	0.35	0.35	0.30	0.48	0.52	0.98	0.47
Control Delay	35.5	26.9	41.4	19.1	4.9	35.6	22.6	5.9	92.8	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	26.9	41.4	19.1	4.9	35.6	22.6	5.9	92.8	17.2
LOS	D	C	D	B	A	D	C	A	F	B
Approach Delay		27.8		23.9			16.2			34.9
Approach LOS		C		C			B			C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 25.5	Intersection LOS: C
Intersection Capacity Utilization 65.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	400	45	352	383	225	35	428	332	192	585	43
Future Volume (veh/h)	52	400	45	352	383	225	35	428	332	192	585	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	53	408	46	359	391	230	36	437	339	196	597	44
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	66	548	61	392	876	391	237	888	396	318	991	73
Arrive On Green	0.04	0.17	0.17	0.12	0.25	0.25	0.13	0.25	0.25	0.18	0.30	0.30
Sat Flow, veh/h	1753	3170	355	3401	3497	1560	1753	3497	1560	1753	3303	243
Grp Volume(v), veh/h	53	224	230	359	391	230	36	437	339	196	316	325
Grp Sat Flow(s),veh/h/ln	1753	1749	1777	1700	1749	1560	1753	1749	1560	1753	1749	1797
Q Serve(g_s), s	2.0	7.9	8.0	6.8	6.1	4.8	1.2	6.9	13.5	6.7	10.0	10.1
Cycle Q Clear(g_c), s	2.0	7.9	8.0	6.8	6.1	4.8	1.2	6.9	13.5	6.7	10.0	10.1
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	66	302	307	392	876	391	237	888	396	318	525	539
V/C Ratio(X)	0.81	0.74	0.75	0.91	0.45	0.59	0.15	0.49	0.86	0.62	0.60	0.60
Avail Cap(c_a), veh/h	148	417	424	392	942	420	237	888	396	318	525	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	25.5	25.5	28.4	20.6	7.0	24.8	20.7	23.1	24.5	19.4	19.4
Incr Delay (d2), s/veh	16.8	3.7	3.9	25.6	0.4	1.9	0.3	1.9	20.5	3.6	5.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.4	3.5	4.0	2.3	2.8	0.5	2.8	6.7	2.9	4.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	29.2	29.5	54.0	20.9	8.9	25.1	22.6	43.7	28.1	24.5	24.4
LnGrp LOS	D	C	C	D	C	A	C	C	D	C	C	C
Approach Vol, veh/h		507			980			812			837	
Approach Delay, s/veh		31.3			30.2			31.5			25.3	
Approach LOS		C			C			C			C	

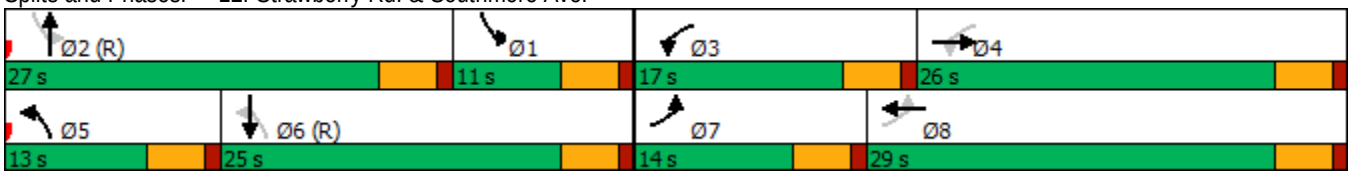
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	21.0	12.0	15.7	13.3	24.0	6.9	20.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	16.5	7.5	15.5	4.5	19.5	5.5	17.5
Max Q Clear Time (g_c+I1), s	8.7	15.5	8.8	10.0	3.2	12.1	4.0	8.1
Green Ext Time (p_c), s	0.0	0.5	0.0	1.2	0.0	2.3	0.0	2.3

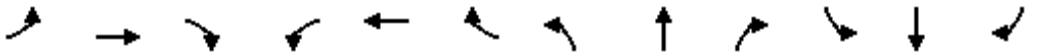
Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	156	622	194	569	135	372	101	381
Future Volume (vph)	156	622	194	569	135	372	101	381
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	26.0	17.0	29.0	13.0	27.0	11.0	25.0
Total Split (%)	17.3%	32.1%	21.0%	35.8%	16.0%	33.3%	13.6%	30.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	30.5	19.6	30.5	21.6	32.5	28.2	33.4	24.4
Actuated g/C Ratio	0.38	0.24	0.38	0.27	0.40	0.35	0.41	0.30
v/c Ratio	0.51	0.78	0.61	0.67	0.35	0.48	0.31	0.47
Control Delay	19.6	35.3	19.4	20.1	17.2	18.9	20.2	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.6	35.3	19.4	20.1	17.2	18.9	20.2	24.6
LOS	B	D	B	C	B	B	C	C
Approach Delay		32.2		19.9		18.6		23.8
Approach LOS		C		B		B		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 49 (60%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	622	16	194	569	33	135	372	212	101	381	79
Future Volume (veh/h)	156	622	16	194	569	33	135	372	212	101	381	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	159	635	16	198	581	34	138	380	216	103	389	81
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	312	770	19	319	812	47	464	600	336	482	1087	224
Arrive On Green	0.09	0.22	0.22	0.11	0.24	0.24	0.07	0.28	0.28	0.17	0.38	0.38
Sat Flow, veh/h	1753	3486	88	1753	3358	196	1753	2161	1211	1753	2887	595
Grp Volume(v), veh/h	159	318	333	198	302	313	138	306	290	103	234	236
Grp Sat Flow(s),veh/h/ln	1753	1749	1825	1753	1749	1805	1753	1749	1623	1753	1749	1734
Q Serve(g_s), s	5.4	14.0	14.1	6.9	12.8	12.9	3.8	12.4	12.7	0.0	7.8	8.0
Cycle Q Clear(g_c), s	5.4	14.0	14.1	6.9	12.8	12.9	3.8	12.4	12.7	0.0	7.8	8.0
Prop In Lane	1.00		0.05	1.00		0.11	1.00		0.75	1.00		0.34
Lane Grp Cap(c), veh/h	312	386	403	319	423	437	464	486	451	482	658	653
V/C Ratio(X)	0.51	0.82	0.83	0.62	0.71	0.72	0.30	0.63	0.64	0.21	0.36	0.36
Avail Cap(c_a), veh/h	360	464	484	396	529	546	526	486	451	482	658	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.67	0.67	0.67	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	30.1	30.1	22.0	28.1	28.2	13.9	25.6	25.7	23.4	18.2	18.2
Incr Delay (d2), s/veh	1.3	9.9	9.6	1.3	2.3	2.3	0.4	6.1	6.8	0.2	1.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	6.7	6.9	2.8	5.4	5.6	1.4	5.7	5.5	1.5	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	39.9	39.6	23.4	30.5	30.4	14.3	31.7	32.5	23.7	19.7	19.8
LnGrp LOS	C	D	D	C	C	C	B	C	C	C	B	B
Approach Vol, veh/h		810			813			734			573	
Approach Delay, s/veh		36.4			28.7			28.7			20.4	
Approach LOS		D			C			C			C	

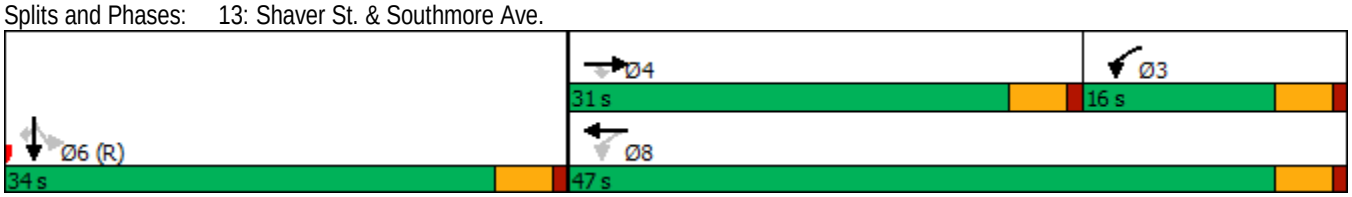
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	27.0	13.5	22.4	10.1	35.0	11.8	24.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.5	12.5	21.5	8.5	20.5	9.5	24.5
Max Q Clear Time (g_c+I1), s	2.0	14.7	8.9	16.1	5.8	10.0	7.4	14.9
Green Ext Time (p_c), s	0.1	2.2	0.2	1.8	0.1	2.0	0.1	2.5

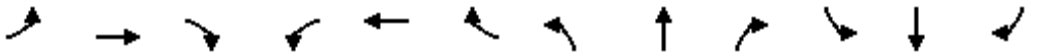
Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	744	169	202	778	230	809	224
Future Volume (vph)	744	169	202	778	230	809	224
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	16.0	47.0	34.0	34.0	34.0
Total Split (%)	38.3%	38.3%	19.8%	58.0%	42.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	24.3	24.3	37.2	37.2	34.8	34.8	34.8
Actuated g/C Ratio	0.30	0.30	0.46	0.46	0.43	0.43	0.43
v/c Ratio	0.77	0.33	0.71	0.54	0.33	0.58	0.36
Control Delay	31.1	10.1	27.1	7.4	13.5	14.5	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	10.1	27.1	7.4	13.5	14.5	13.9
LOS	C	B	C	A	B	B	B
Approach Delay	27.2			11.5		14.2	
Approach LOS	C			B		B	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 23 (28%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	744	169	202	778	0	0	0	0	230	809	224
Future Volume (veh/h)	0	744	169	202	778	0	0	0	0	230	809	224
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	800	182	217	837	0				247	870	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	979	437	253	1454	0				829	1654	
Arrive On Green	0.00	0.28	0.28	0.16	0.83	0.00				0.47	0.47	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	800	182	217	837	0				247	870	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	17.3	7.7	4.3	6.3	0.0				7.0	14.1	0.0
Cycle Q Clear(g_c), s	0.0	17.3	7.7	4.3	6.3	0.0				7.0	14.1	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	979	437	253	1454	0				829	1654	
V/C Ratio(X)	0.00	0.82	0.42	0.86	0.58	0.00				0.30	0.53	
Avail Cap(c_a), veh/h	0	1144	510	361	1835	0				829	1654	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.55	0.55	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	27.2	23.8	31.8	4.5	0.0				13.1	15.0	0.0
Incr Delay (d2), s/veh	0.0	4.1	0.6	7.8	0.2	0.0				0.9	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.3	2.8	4.2	1.3	0.0				2.7	5.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.3	24.4	39.6	4.7	0.0				14.0	16.2	0.0
LnGrp LOS	A	C	C	D	A	A				B	B	
Approach Vol, veh/h		982			1054						1117	A
Approach Delay, s/veh		30.1			11.9						15.7	
Approach LOS		C			B						B	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		11.0	27.2		42.8		38.2					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		11.5	26.5		29.5		42.5					
Max Q Clear Time (g_c+I1), s		6.3	19.3		16.1		8.3					
Green Ext Time (p_c), s		0.3	3.4		5.6		6.6					

Intersection Summary	
HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Notes

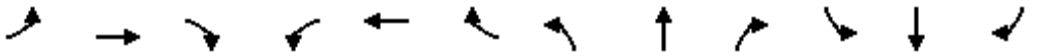
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	86	688	334	67	637	124	304	436	195	572
Future Volume (vph)	86	688	334	67	637	124	304	436	195	572
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	28.0	28.0	11.0	27.0	27.0	26.0	28.0	23.0	25.0
Total Split (%)	13.3%	31.1%	31.1%	12.2%	30.0%	30.0%	28.9%	31.1%	25.6%	27.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	23.0	23.0	6.4	22.2	22.2	20.1	26.2	18.5	24.6
Actuated g/C Ratio	0.08	0.26	0.26	0.07	0.25	0.25	0.22	0.29	0.21	0.27
v/c Ratio	0.67	0.85	0.55	0.60	0.82	0.28	0.87	0.56	0.60	0.67
Control Delay	64.7	42.5	6.5	62.1	41.0	7.8	56.4	29.5	40.5	35.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.7	42.5	6.5	62.1	41.0	7.8	56.4	29.5	40.5	35.0
LOS	E	D	A	E	D	A	E	C	D	C
Approach Delay		33.4			37.8			39.6		36.3
Approach LOS		C			D			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 36.5	Intersection LOS: D
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	688	334	67	637	124	304	436	72	195	572	5
Future Volume (veh/h)	86	688	334	67	637	124	304	436	72	195	572	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	95	756	367	74	700	136	334	479	79	214	629	5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	120	868	387	95	817	364	370	785	129	415	1019	8
Arrive On Green	0.07	0.25	0.25	0.05	0.23	0.23	0.21	0.26	0.26	0.24	0.29	0.29
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3007	493	1753	3556	28
Grp Volume(v), veh/h	95	756	367	74	700	136	334	278	280	214	309	325
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1752	1753	1749	1836
Q Serve(g_s), s	4.8	18.7	12.2	3.8	17.3	3.7	16.7	12.5	12.7	9.6	13.8	13.8
Cycle Q Clear(g_c), s	4.8	18.7	12.2	3.8	17.3	3.7	16.7	12.5	12.7	9.6	13.8	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.02
Lane Grp Cap(c), veh/h	120	868	387	95	817	364	370	457	457	415	501	526
V/C Ratio(X)	0.79	0.87	0.95	0.78	0.86	0.37	0.90	0.61	0.61	0.52	0.62	0.62
Avail Cap(c_a), veh/h	146	913	407	127	874	390	419	457	457	415	501	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	32.4	11.4	42.1	33.0	9.1	34.6	29.2	29.3	29.9	27.8	27.8
Incr Delay (d2), s/veh	20.7	8.8	30.8	19.8	8.1	0.6	20.8	5.9	6.0	1.1	5.6	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	8.6	7.1	2.1	7.9	2.3	9.0	5.8	5.9	4.0	6.3	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.0	41.3	42.2	61.9	41.1	9.7	55.4	35.1	35.3	31.0	33.4	33.2
LnGrp LOS	E	D	D	E	D	A	E	D	D	C	C	C
Approach Vol, veh/h		1218			910			892			848	
Approach Delay, s/veh		43.2			38.1			42.8			32.7	
Approach LOS		D			D			D			C	

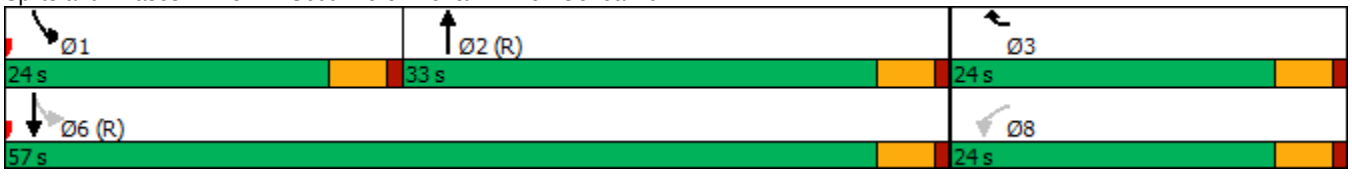
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.8	28.0	9.4	26.8	23.5	30.3	10.7	25.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	23.5	6.5	23.5	21.5	20.5	7.5	22.5
Max Q Clear Time (g_c+I1), s	11.6	14.7	5.8	20.7	18.7	15.8	6.8	19.3
Green Ext Time (p_c), s	0.3	2.2	0.0	1.7	0.3	1.6	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	39.6
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	127	278	642	294	1048
Future Volume (vph)	127	278	642	294	1048
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	24.0	24.0	33.0	24.0	57.0
Total Split (%)	29.6%	29.6%	40.7%	29.6%	70.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.4	11.4	45.2	60.6	60.6
Actuated g/C Ratio	0.14	0.14	0.56	0.75	0.75
v/c Ratio	0.54	0.62	0.37	0.55	0.44
Control Delay	39.8	10.3	11.8	7.5	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	10.3	11.8	7.5	4.8
LOS	D	B	B	A	A
Approach Delay	19.5		11.8		5.4
Approach LOS	B		B		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 53 (65%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 9.6	Intersection LOS: A
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.





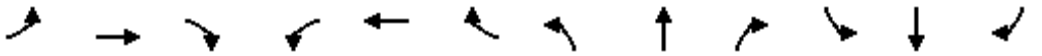
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	127	278	642	40	294	1048		
Future Volume (veh/h)	127	278	642	40	294	1048		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No		No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841		
Adj Flow Rate, veh/h	132	290	669	42	306	1092		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	4	4	4	4	4	4		
Cap, veh/h	369	328	1722	108	564	2373		
Arrive On Green	0.21	0.21	0.52	0.52	0.11	0.68		
Sat Flow, veh/h	1753	1560	3434	210	1753	3589		
Grp Volume(v), veh/h	132	290	350	361	306	1092		
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1803	1753	1749		
Q Serve(g_s), s	5.2	14.6	9.8	9.8	6.0	11.8		
Cycle Q Clear(g_c), s	5.2	14.6	9.8	9.8	6.0	11.8		
Prop In Lane	1.00	1.00		0.12	1.00			
Lane Grp Cap(c), veh/h	369	328	901	929	564	2373		
V/C Ratio(X)	0.36	0.88	0.39	0.39	0.54	0.46		
Avail Cap(c_a), veh/h	422	376	901	929	797	2373		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.95	0.95	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	27.3	31.0	11.9	11.9	7.6	6.1		
Incr Delay (d2), s/veh	0.6	18.7	1.3	1.2	0.8	0.6		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.1	6.8	3.7	3.8	1.9	3.5		
Unsig. Movement Delay, s/veh								
LnGrp Delay(d),s/veh	27.9	49.8	13.2	13.1	8.4	6.7		
LnGrp LOS	C	D	B	B	A	A		
Approach Vol, veh/h	422		711			1398		
Approach Delay, s/veh	42.9		13.1			7.1		
Approach LOS	D		B			A		
Timer - Assigned Phs	1	2				6	8	
Phs Duration (G+Y+Rc), s	13.2	46.2				59.5	21.5	
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5	
Max Green Setting (Gmax), s	19.5	28.5				52.5	19.5	
Max Q Clear Time (g_c+I1), s	8.0	11.8				13.8	16.6	
Green Ext Time (p_c), s	0.7	3.9				9.8	0.4	
Intersection Summary								
HCM 6th Ctrl Delay			14.8					
HCM 6th LOS			B					

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	109	820	788	635	202
Future Volume (vph)	109	820	788	635	202
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	52.0	41.0	29.0	29.0
Total Split (%)	13.6%	64.2%	50.6%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	41.6	40.5	31.6	31.5	31.5
Actuated g/C Ratio	0.51	0.50	0.39	0.39	0.39
v/c Ratio	0.43	0.51	0.77	0.45	0.30
Control Delay	9.0	9.4	24.7	21.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	9.4	24.7	21.1	7.6
LOS	A	A	C	C	A
Approach Delay		9.4	24.7	18.4	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 17 (21%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 64.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



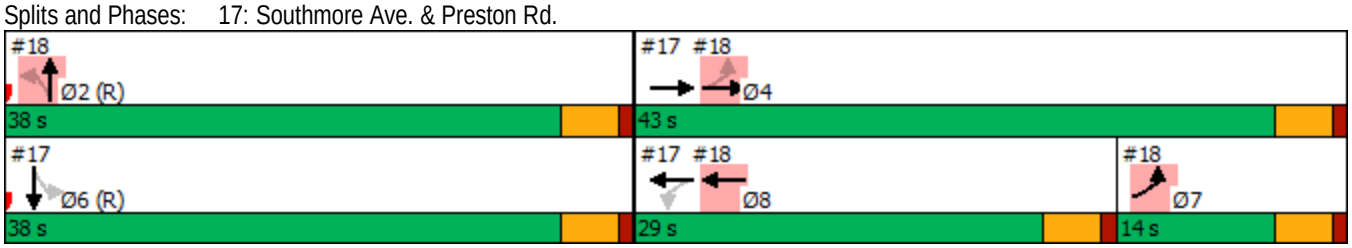


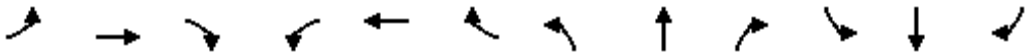
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	820	1	0	788	174	196	635	202	0	0	0
Future Volume (veh/h)	109	820	1	0	788	174	196	635	202	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	114	854	1	0	821	181	204	661	210			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	4	0	4	4	4	4	4			
Cap, veh/h	195	1606	2	0	1004	221	502	1761	688			
Arrive On Green	0.08	0.90	0.90	0.00	0.35	0.35	0.44	0.44	0.44			
Sat Flow, veh/h	1753	3584	4	0	2940	628	1138	3996	1560			
Grp Volume(v), veh/h	114	417	438	0	504	498	320	545	210			
Grp Sat Flow(s),veh/h/ln	1753	1749	1840	0	1749	1728	1784	1675	1560			
Q Serve(g_s), s	0.0	3.8	3.8	0.0	21.2	21.2	9.9	8.8	7.0			
Cycle Q Clear(g_c), s	0.0	3.8	3.8	0.0	21.2	21.2	9.9	8.8	7.0			
Prop In Lane	1.00		0.00	0.00		0.36	0.64		1.00			
Lane Grp Cap(c), veh/h	195	784	824	0	617	609	786	1477	688			
V/C Ratio(X)	0.58	0.53	0.53	0.00	0.82	0.82	0.41	0.37	0.31			
Avail Cap(c_a), veh/h	266	1025	1079	0	788	779	786	1477	688			
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.70	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	34.9	2.5	2.5	0.0	23.8	23.8	15.4	15.1	14.6			
Incr Delay (d2), s/veh	1.9	0.4	0.4	0.0	5.3	5.4	1.6	0.7	1.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	0.8	0.9	0.0	9.0	8.9	4.0	3.2	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	2.9	2.9	0.0	29.2	29.2	17.0	15.8	15.8			
LnGrp LOS	D	A	A	A	C	C	B	B	B			
Approach Vol, veh/h		969			1002			1075				
Approach Delay, s/veh		6.9			29.2			16.2				
Approach LOS		A			C			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		40.2		40.8			7.7	33.1				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		24.5		47.5			6.5	36.5				
Max Q Clear Time (g_c+I1), s		11.9		5.8			2.0	23.2				
Green Ext Time (p_c), s		5.1		6.1			0.1	5.3				
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	515	86	442	789		
Future Volume (vph)	515	86	442	789		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	43.0	29.0	29.0	38.0	38.0	14.0
Total Split (%)	53.1%	35.8%	35.8%	46.9%	47%	17%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lead	Lead			Lag
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	30.0	19.5	19.5	42.0		
Actuated g/C Ratio	0.37	0.24	0.24	0.52		
v/c Ratio	0.51	0.74	0.55	0.58		
Control Delay	35.8	49.3	17.7	11.0		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	35.8	49.3	17.7	11.0		
LOS	D	D	B	B		
Approach Delay	35.8		22.9	11.0		
Approach LOS	D		C	B		

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





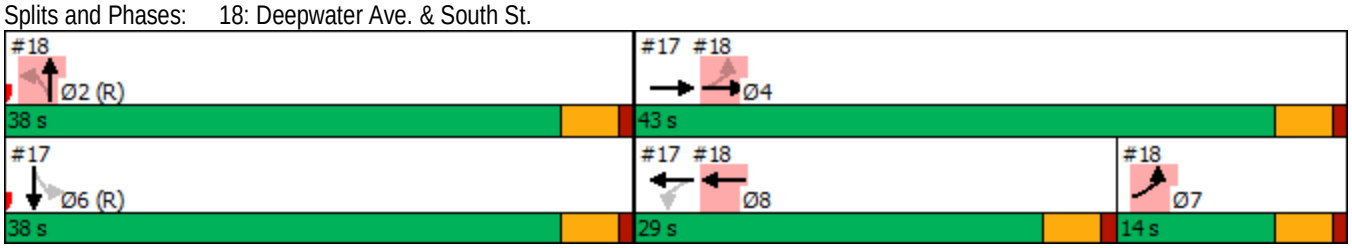
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	515	108	86	442	0	0	0	0	19	789	207
Future Volume (vph)	0	515	108	86	442	0	0	0	0	19	789	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.97		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3268		1736	3355						3362	
Flt Permitted		1.00		0.27	1.00						1.00	
Satd. Flow (perm)		3268		485	3355						3362	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	520	109	87	446	0	0	0	0	19	797	209
RTOR Reduction (vph)	0	26	0	0	0	0	0	0	0	0	23	0
Lane Group Flow (vph)	0	603	0	87	446	0	0	0	0	0	1002	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		30.1		19.5	19.5						41.9	
Effective Green, g (s)		30.1		19.5	19.5						41.9	
Actuated g/C Ratio		0.37		0.24	0.24						0.52	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1214		116	807						1739	
v/s Ratio Prot		c0.18			0.13							
v/s Ratio Perm				c0.18							0.30	
v/c Ratio		0.50		0.75	0.55						0.58	
Uniform Delay, d1		19.6		28.5	26.9						13.4	
Progression Factor		1.94		0.52	0.58						0.72	
Incremental Delay, d2		0.3		22.0	0.8						0.9	
Delay (s)		38.4		36.9	16.4						10.6	
Level of Service		D		D	B						B	
Approach Delay (s)		38.4			19.7			0.0			10.6	
Approach LOS		D			B			A			B	

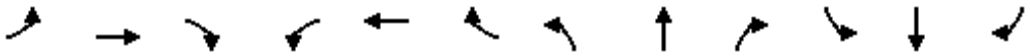
Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	177	362	392	504	
Future Volume (vph)	177	362	392	504	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	43.0	29.0	38.0	38.0
Total Split (%)	17.3%	53.1%	35.8%	46.9%	47%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.0	30.0	19.5	42.0	
Actuated g/C Ratio	0.37	0.37	0.24	0.52	
v/c Ratio	0.57	0.31	0.56	0.30	
Control Delay	12.3	4.1	28.6	12.2	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	12.3	4.1	28.6	12.2	
LOS	B	A	C	B	
Approach Delay		6.8	28.6	12.2	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





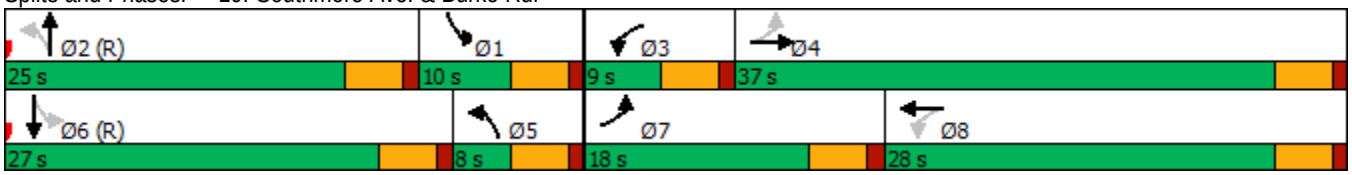
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	177	362	0	0	392	30	132	504	48	0	0	0
Future Volume (vph)	177	362	0	0	392	30	132	504	48	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.99				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3205			4562				
Flt Permitted	0.40	1.00			1.00			0.99				
Satd. Flow (perm)	687	3240			3205			4562				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	184	377	0	0	408	31	138	525	50	0	0	0
RTOR Reduction (vph)	0	0	0	0	8	0	0	9	0	0	0	0
Lane Group Flow (vph)	184	377	0	0	431	0	0	704	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	30.1	30.1			19.5			41.9				
Effective Green, g (s)	30.1	30.1			19.5			41.9				
Actuated g/C Ratio	0.37	0.37			0.24			0.52				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	325	1204			771			2359				
v/s Ratio Prot	c0.04	0.12			0.13							
v/s Ratio Perm	c0.17							0.15				
v/c Ratio	0.57	0.31			0.56			0.30				
Uniform Delay, d1	24.2	18.1			27.0			11.2				
Progression Factor	0.26	0.20			1.00			1.00				
Incremental Delay, d2	2.1	0.1			0.9			0.3				
Delay (s)	8.4	3.8			27.9			11.5				
Level of Service	A	A			C			B				
Approach Delay (s)		5.3			27.9			11.5			0.0	
Approach LOS		A			C			B			A	

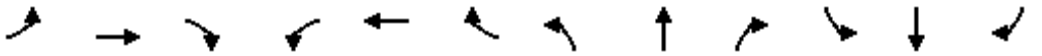
Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	166	481	64	424	52	184	107	218
Future Volume (vph)	166	481	64	424	52	184	107	218
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	37.0	9.0	28.0	8.0	25.0	10.0	27.0
Total Split (%)	22.2%	45.7%	11.1%	34.6%	9.9%	30.9%	12.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	35.0	27.8	23.7	19.0	32.5	29.0	36.6	32.2
Actuated g/C Ratio	0.43	0.34	0.29	0.23	0.40	0.36	0.45	0.40
v/c Ratio	0.53	0.51	0.24	0.74	0.15	0.21	0.22	0.30
Control Delay	9.9	9.2	6.7	19.6	15.7	14.2	13.2	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	9.2	6.7	19.6	15.7	14.2	13.2	9.6
LOS	A	A	A	B	B	B	B	A
Approach Delay		9.4		18.2		14.5		10.4
Approach LOS		A		B		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 52 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 60.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	481	53	64	424	128	52	184	52	107	218	169
Future Volume (veh/h)	166	481	53	64	424	128	52	184	52	107	218	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	512	56	68	451	136	55	196	55	114	232	180
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	306	864	94	273	570	170	574	687	188	672	531	395
Arrive On Green	0.10	0.27	0.27	0.04	0.21	0.21	0.19	0.25	0.25	0.35	0.46	0.46
Sat Flow, veh/h	1753	3180	347	1753	2653	794	1753	2714	742	1753	1912	1421
Grp Volume(v), veh/h	177	281	287	68	296	291	55	124	127	114	211	201
Grp Sat Flow(s),veh/h/ln	1753	1749	1778	1753	1749	1698	1753	1749	1707	1753	1749	1585
Q Serve(g_s), s	6.0	11.3	11.4	2.4	13.0	13.2	0.0	4.6	4.8	0.0	6.6	7.0
Cycle Q Clear(g_c), s	6.0	11.3	11.4	2.4	13.0	13.2	0.0	4.6	4.8	0.0	6.6	7.0
Prop In Lane	1.00		0.19	1.00		0.47	1.00		0.43	1.00		0.90
Lane Grp Cap(c), veh/h	306	475	483	273	376	365	574	443	432	672	486	440
V/C Ratio(X)	0.58	0.59	0.59	0.25	0.79	0.80	0.10	0.28	0.29	0.17	0.43	0.46
Avail Cap(c_a), veh/h	424	702	714	295	507	493	574	443	432	672	486	440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	0.63	0.63	0.63	0.81	0.81	0.81	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	21.5	25.6	25.6	23.5	30.1	30.1	18.0	24.3	24.4	12.9	17.4	17.6
Incr Delay (d2), s/veh	1.1	0.7	0.7	0.4	4.8	5.3	0.1	1.6	1.7	0.1	2.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.5	4.7	1.0	5.7	5.7	0.7	2.0	2.1	1.1	2.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.6	26.3	26.4	23.9	34.8	35.5	18.1	25.9	26.1	13.0	19.9	20.5
LnGrp LOS	C	C	C	C	C	D	B	C	C	B	B	C
Approach Vol, veh/h		745			655			306			526	
Approach Delay, s/veh		25.5			34.0			24.6			18.7	
Approach LOS		C			C			C			B	

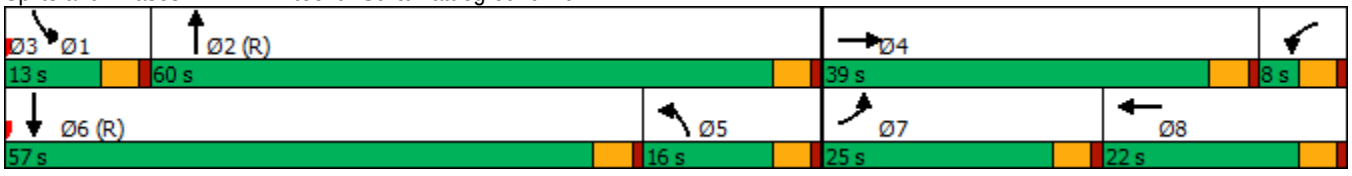
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	25.0	8.0	26.5	19.5	27.0	12.6	21.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	20.5	4.5	32.5	3.5	22.5	13.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	6.8	4.4	13.4	2.0	9.0	8.0	15.2
Green Ext Time (p_c), s	0.1	1.1	0.0	3.2	0.0	2.0	0.2	2.2

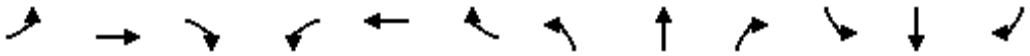
Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	119	16	13	50	50	443	28	787
Future Volume (vph)	119	16	13	50	50	443	28	787
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	25.0	39.0	8.0	22.0	16.0	60.0	13.0	57.0
Total Split (%)	20.8%	32.5%	6.7%	18.3%	13.3%	50.0%	10.8%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.1	16.7	11.4	7.8	10.3	76.7	7.6	71.8
Actuated g/C Ratio	0.12	0.14	0.10	0.06	0.09	0.64	0.06	0.60
v/c Ratio	0.63	0.20	0.09	0.53	0.36	0.22	0.28	0.44
Control Delay	60.7	13.3	45.9	26.7	58.1	11.2	59.1	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	13.3	45.9	26.7	58.1	11.2	59.1	15.7
LOS	E	B	D	C	E	B	E	B
Approach Delay		39.8		28.3		16.0		17.1
Approach LOS		D		C		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	16	78	13	50	97	50	443	4	28	787	64
Future Volume (veh/h)	119	16	78	13	50	97	50	443	4	28	787	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	128	17	84	14	54	104	54	476	4	30	846	69
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	156	128	114	177	149	133	418	2327	20	37	1433	117
Arrive On Green	0.09	0.07	0.07	0.10	0.09	0.09	0.24	0.65	0.65	0.02	0.44	0.44
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3554	30	1753	3274	267
Grp Volume(v), veh/h	128	17	84	14	54	104	54	234	246	30	452	463
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1835	1753	1749	1793
Q Serve(g_s), s	8.6	1.1	6.3	0.9	3.5	7.8	2.9	6.4	6.4	2.0	23.5	23.5
Cycle Q Clear(g_c), s	8.6	1.1	6.3	0.9	3.5	7.8	2.9	6.4	6.4	2.0	23.5	23.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.15
Lane Grp Cap(c), veh/h	156	128	114	177	149	133	418	1145	1201	37	765	784
V/C Ratio(X)	0.82	0.13	0.74	0.08	0.36	0.78	0.13	0.20	0.20	0.80	0.59	0.59
Avail Cap(c_a), veh/h	299	503	448	177	255	227	418	1145	1201	124	765	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	52.0	54.5	48.9	51.8	53.8	35.9	8.3	8.3	58.5	25.6	25.6
Incr Delay (d2), s/veh	8.6	0.4	7.3	0.2	1.5	9.6	0.1	0.4	0.4	31.1	3.3	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.5	2.6	0.4	1.5	3.3	1.2	2.3	2.4	1.2	10.0	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	52.4	61.8	49.1	53.3	63.3	36.0	8.7	8.6	89.5	28.9	28.9
LnGrp LOS	E	D	E	D	D	E	D	A	A	F	C	C
Approach Vol, veh/h		229			172			534			945	
Approach Delay, s/veh		61.4			59.0			11.4			30.8	
Approach LOS		E			E			B			C	

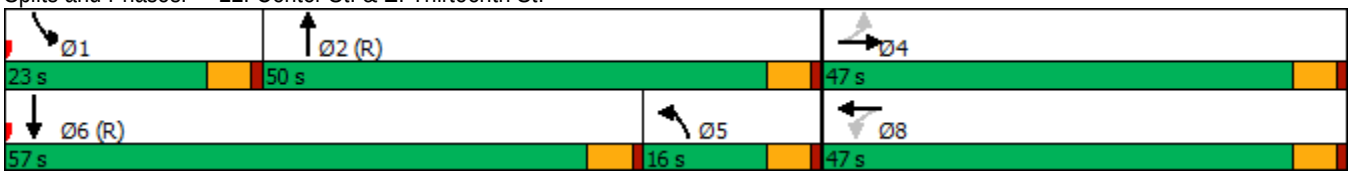
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	83.1	16.6	13.3	33.1	57.0	15.2	14.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	55.5	3.5	34.5	11.5	52.5	20.5	17.5
Max Q Clear Time (g_c+I1), s	4.0	8.4	2.9	8.3	4.9	25.5	10.6	9.8
Green Ext Time (p_c), s	0.0	2.7	0.0	0.5	0.0	5.7	0.2	0.4

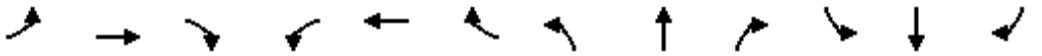
Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	135	124	197	129	88	737	156	794
Future Volume (vph)	135	124	197	129	88	737	156	794
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	47.0	47.0	47.0	47.0	16.0	50.0	23.0	57.0
Total Split (%)	39.2%	39.2%	39.2%	39.2%	13.3%	41.7%	19.2%	47.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	36.8	36.8	36.8	36.8	11.0	51.2	16.9	57.2
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.09	0.43	0.14	0.48
v/c Ratio	0.70	0.32	0.92	0.36	0.70	0.73	0.80	0.77
Control Delay	51.1	13.9	72.6	7.2	76.1	33.5	74.0	30.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.1	13.9	72.6	7.2	76.1	33.5	74.0	30.6
LOS	D	B	E	A	E	C	E	C
Approach Delay		26.3		32.7		37.5		36.5
Approach LOS		C		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 57 (48%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 34.8	Intersection LOS: C
Intersection Capacity Utilization 74.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	124	147	197	129	180	88	737	109	156	794	196
Future Volume (veh/h)	135	124	147	197	129	180	88	737	109	156	794	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	171	157	186	249	163	228	111	933	138	197	1005	248
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	289	606	541	324	606	541	167	1223	181	224	1206	296
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.10	0.40	0.40	0.13	0.43	0.43
Sat Flow, veh/h	977	1749	1560	1021	1749	1560	1753	3056	452	1753	2782	684
Grp Volume(v), veh/h	171	157	186	249	163	228	111	534	537	197	630	623
Grp Sat Flow(s),veh/h/ln	977	1749	1560	1021	1749	1560	1753	1749	1759	1753	1749	1718
Q Serve(g_s), s	19.5	7.7	10.6	28.7	8.1	13.4	7.3	31.6	31.6	13.2	38.3	38.7
Cycle Q Clear(g_c), s	32.9	7.7	10.6	39.3	8.1	13.4	7.3	31.6	31.6	13.2	38.3	38.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.40
Lane Grp Cap(c), veh/h	289	606	541	324	606	541	167	700	704	224	758	744
V/C Ratio(X)	0.59	0.26	0.34	0.77	0.27	0.42	0.67	0.76	0.76	0.88	0.83	0.84
Avail Cap(c_a), veh/h	293	612	546	327	612	546	167	700	704	263	758	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.77	0.77	0.77	0.22	0.22	0.22	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	28.1	29.1	43.7	28.2	30.0	52.5	31.1	31.1	51.4	30.1	30.2
Incr Delay (d2), s/veh	3.1	0.2	0.4	8.3	0.2	0.4	2.2	1.8	1.8	24.3	10.3	10.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	3.3	4.1	7.9	3.4	5.1	3.3	13.1	13.2	7.2	17.5	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	28.4	29.5	51.9	28.4	30.4	54.7	32.8	32.8	75.7	40.5	41.0
LnGrp LOS	D	C	C	D	C	C	D	C	C	E	D	D
Approach Vol, veh/h		514			640			1182			1450	
Approach Delay, s/veh		34.5			38.3			34.9			45.5	
Approach LOS		C			D			C			D	

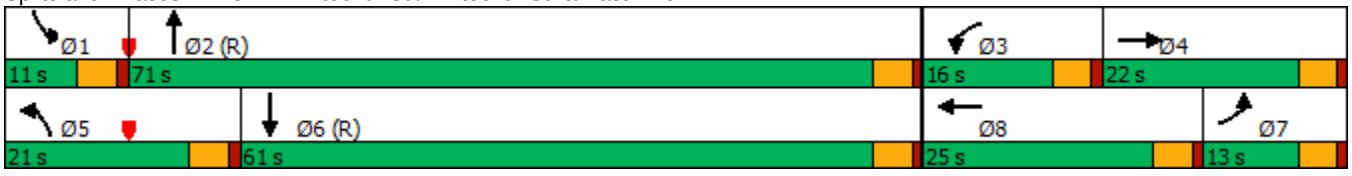
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.4	53.0		46.6	16.4	57.0		46.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	18.0	45.0		42.0	11.0	52.0		42.0				
Max Q Clear Time (g_c+I1), s	15.2	33.6		34.9	9.3	40.7		41.3				
Green Ext Time (p_c), s	0.1	5.0		1.7	0.0	6.0		0.3				

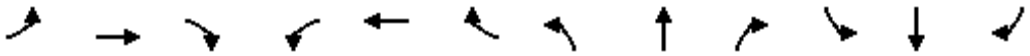
Intersection Summary												
HCM 6th Ctrl Delay			39.5									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	76	62	94	89	163	15	832
Future Volume (vph)	29	76	62	94	89	163	15	832
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	22.0	16.0	25.0	21.0	71.0	11.0	61.0
Total Split (%)	10.8%	18.3%	13.3%	20.8%	17.5%	59.2%	9.2%	50.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.8	8.7	9.4	11.3	11.9	85.7	6.6	74.2
Actuated g/C Ratio	0.07	0.07	0.08	0.09	0.10	0.71	0.06	0.62
v/c Ratio	0.24	0.57	0.47	0.42	0.56	0.07	0.16	0.46
Control Delay	50.6	24.9	54.8	28.5	63.6	7.0	57.1	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.6	24.9	54.8	28.5	63.6	7.0	57.1	14.6
LOS	D	C	D	C	E	A	E	B
Approach Delay		28.4		36.4		26.1		15.3
Approach LOS		C		D		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 99 (83%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 21.4	Intersection LOS: C
Intersection Capacity Utilization 61.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	76	109	62	94	51	89	163	13	15	832	106
Future Volume (veh/h)	29	76	109	62	94	51	89	163	13	15	832	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	78	112	64	97	53	92	168	13	15	858	109
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	125	160	143	82	149	77	116	2305	177	20	2015	256
Arrive On Green	0.07	0.09	0.09	0.05	0.07	0.07	0.07	0.70	0.70	0.01	0.65	0.65
Sat Flow, veh/h	1753	1749	1560	1753	2237	1146	1753	3291	252	1753	3121	397
Grp Volume(v), veh/h	30	78	112	64	74	76	92	89	92	15	481	486
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1634	1753	1749	1795	1753	1749	1769
Q Serve(g_s), s	1.9	5.1	8.4	4.3	5.0	5.4	6.2	1.9	2.0	1.0	16.1	16.1
Cycle Q Clear(g_c), s	1.9	5.1	8.4	4.3	5.0	5.4	6.2	1.9	2.0	1.0	16.1	16.1
Prop In Lane	1.00		1.00	1.00		0.70	1.00		0.14	1.00		0.22
Lane Grp Cap(c), veh/h	125	160	143	82	117	109	116	1224	1257	20	1129	1142
V/C Ratio(X)	0.24	0.49	0.78	0.78	0.64	0.69	0.79	0.07	0.07	0.75	0.43	0.43
Avail Cap(c_a), veh/h	125	255	227	168	299	279	241	1224	1257	95	1129	1142
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	51.8	53.4	56.6	54.6	54.8	55.2	5.7	5.7	59.1	10.4	10.4
Incr Delay (d2), s/veh	0.7	1.8	7.1	12.9	4.9	6.7	11.5	0.1	0.1	41.6	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.3	3.6	2.2	2.4	2.4	3.1	0.7	0.7	0.7	6.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	53.6	60.5	69.4	59.5	61.4	66.8	5.8	5.8	100.7	11.6	11.6
LnGrp LOS	D	D	E	E	E	E	E	A	A	F	B	B
Approach Vol, veh/h		220			214			273			982	
Approach Delay, s/veh		57.1			63.2			26.3			12.9	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	88.5	10.1	15.5	12.4	82.0	13.1	12.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	66.5	11.5	17.5	16.5	56.5	8.5	20.5
Max Q Clear Time (g_c+I1), s	3.0	4.0	6.3	10.4	8.2	18.1	3.9	7.4
Green Ext Time (p_c), s	0.0	1.0	0.0	0.5	0.1	7.0	0.0	0.6

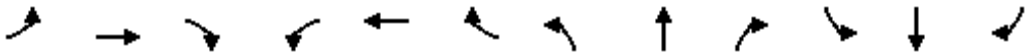
Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	128	50	160	64	82	50	184
Future Volume (vph)	23	128	50	160	64	82	50	184
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	42.0	78.0	78.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	14.5	14.5	14.5	14.5		96.5		96.5
Actuated g/C Ratio	0.12	0.12	0.12	0.12		0.80		0.80
v/c Ratio	0.30	0.59	0.86	0.60		0.20		0.23
Control Delay	48.4	25.1	113.8	38.5		3.4		3.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	48.4	25.1	113.8	38.5		3.4		3.7
LOS	D	C	F	D		A		A
Approach Delay		27.1		53.0		3.4		3.7
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 91 (76%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 44.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	128	124	50	160	50	64	82	42	50	184	12
Future Volume (veh/h)	23	128	124	50	160	50	64	82	42	50	184	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	28	158	153	62	198	62	79	101	52	62	227	15
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	179	309	276	152	467	142	399	502	249	266	956	62
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1102	1749	1560	1052	2641	804	479	672	332	308	1277	82
Grp Volume(v), veh/h	28	158	153	62	129	131	232	0	0	304	0	0
Grp Sat Flow(s),veh/h/ln	1102	1749	1560	1052	1749	1696	1483	0	0	1667	0	0
Q Serve(g_s), s	2.8	9.8	10.7	6.9	7.9	8.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.0	9.8	10.7	17.6	7.9	8.3	4.5	0.0	0.0	6.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.47	0.34		0.22	0.20		0.05
Lane Grp Cap(c), veh/h	179	309	276	152	309	300	1150	0	0	1283	0	0
V/C Ratio(X)	0.16	0.51	0.55	0.41	0.42	0.44	0.20	0.00	0.00	0.24	0.00	0.00
Avail Cap(c_a), veh/h	328	546	487	294	546	530	1150	0	0	1283	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.88	0.88	0.88	0.83	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	49.0	44.7	45.1	53.1	43.9	44.0	4.4	0.0	0.0	4.6	0.0	0.0
Incr Delay (d2), s/veh	0.3	1.1	1.5	1.5	0.8	0.9	0.3	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.4	4.3	1.9	3.5	3.6	1.6	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	45.8	46.6	54.6	44.7	44.9	4.7	0.0	0.0	5.0	0.0	0.0
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		339			322			232			304	
Approach Delay, s/veh		46.4			46.7			4.7			5.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		94.3		25.7		94.3		25.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		73.5		37.5		73.5		37.5				
Max Q Clear Time (g_c+I1), s		6.5		13.0		8.0		19.6				
Green Ext Time (p_c), s		1.7		2.0		2.1		1.6				

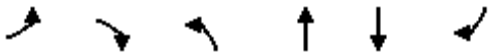
Intersection Summary												
HCM 6th Ctrl Delay			27.9									
HCM 6th LOS			C									

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	31	100	300	800
Future Volume (vph)	1	31	100	300	800
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	4			2	6
Permitted Phases		4	2		
Detector Phase	4	4	2	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	23.0	58.0	58.0	58.0
Total Split (%)	28.4%	28.4%	71.6%	71.6%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	6.2	6.2		71.6	71.6
Actuated g/C Ratio	0.08	0.08		0.88	0.88
v/c Ratio	0.01	0.23		0.22	0.29
Control Delay	43.0	20.2		1.7	1.2
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	43.0	20.2		1.7	1.2
LOS	D	C		A	A
Approach Delay	20.9			1.7	1.2
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 24 (30%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 1.9	Intersection LOS: A
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	31	100	300	800	11
Future Volume (veh/h)	1	31	100	300	800	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	34	109	326	870	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	59	52	491	1630	3021	42
Arrive On Green	0.03	0.03	0.86	0.86	0.86	0.86
Sat Flow, veh/h	1753	1560	490	1990	3624	49
Grp Volume(v), veh/h	1	34	172	263	431	451
Grp Sat Flow(s),veh/h/ln	1753	1560	804	1591	1749	1832
Q Serve(g_s), s	0.0	1.7	0.8	2.3	3.8	3.8
Cycle Q Clear(g_c), s	0.0	1.7	4.7	2.3	3.8	3.8
Prop In Lane	1.00	1.00	0.63			0.03
Lane Grp Cap(c), veh/h	59	52	761	1361	1496	1567
V/C Ratio(X)	0.02	0.65	0.23	0.19	0.29	0.29
Avail Cap(c_a), veh/h	400	356	761	1361	1496	1567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.74	0.74	1.00	1.00
Uniform Delay (d), s/veh	37.8	38.7	1.0	1.0	1.1	1.1
Incr Delay (d2), s/veh	0.1	8.9	0.5	0.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.2	0.2	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.9	47.6	1.5	1.3	1.6	1.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	35			435	882	
Approach Delay, s/veh	47.3			1.4	1.6	
Approach LOS	D			A	A	

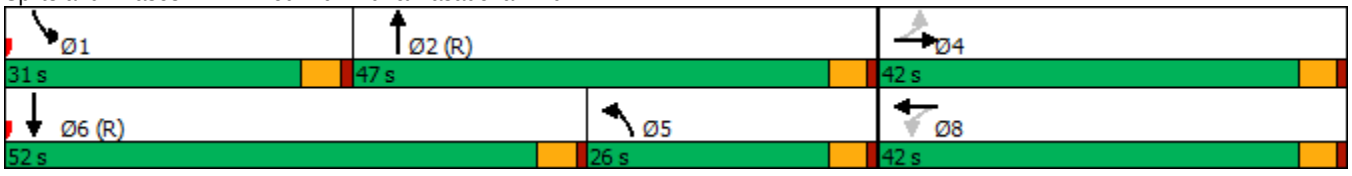
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		73.8		7.2		73.8
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		53.5		18.5		53.5
Max Q Clear Time (g_c+I1), s		6.7		3.7		5.8
Green Ext Time (p_c), s		3.9		0.0		6.9

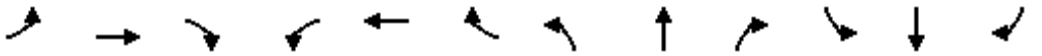
Intersection Summary	
HCM 6th Ctrl Delay	2.7
HCM 6th LOS	A

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	416	6	462	176	715	223	903
Future Volume (vph)	1	416	6	462	176	715	223	903
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	42.0	42.0	42.0	42.0	26.0	47.0	31.0	52.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	21.7%	39.2%	25.8%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		31.2		31.2	21.5	54.3	21.1	53.8
Actuated g/C Ratio		0.26		0.26	0.18	0.45	0.18	0.45
v/c Ratio		0.81		0.82	0.62	0.52	0.78	0.62
Control Delay		43.5		47.6	27.5	7.9	64.3	28.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		43.5		47.6	27.5	7.9	64.3	28.3
LOS		D		D	C	A	E	C
Approach Delay		43.5		47.6		11.7		35.4
Approach LOS		D		D		B		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 13 (11%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	416	236	6	462	173	176	715	27	223	903	2
Future Volume (veh/h)	1	416	236	6	462	173	176	715	27	223	903	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	443	251	6	491	184	187	761	0	237	961	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	30	542	304	32	584	229	413	1674		268	1384	
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.24	0.48	0.00	0.15	0.40	0.00
Sat Flow, veh/h	1	2115	1186	6	2281	895	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	386	0	309	370	0	311	187	761	0	237	961	0
Grp Sat Flow(s),veh/h/ln	1840	0	1462	1669	0	1514	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	0.0	24.0	1.9	0.0	23.1	11.0	17.4	0.0	15.9	27.5	0.0
Cycle Q Clear(g_c), s	23.7	0.0	24.0	25.9	0.0	23.1	11.0	17.4	0.0	15.9	27.5	0.0
Prop In Lane	0.00		0.81	0.02		0.59	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	501	0	374	458	0	388	413	1674		268	1384	
V/C Ratio(X)	0.77	0.00	0.83	0.81	0.00	0.80	0.45	0.45		0.89	0.69	
Avail Cap(c_a), veh/h	605	0	457	559	0	473	413	1674		387	1384	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.0	0.0	42.1	41.7	0.0	41.8	39.2	20.8	0.0	49.8	30.2	0.0
Incr Delay (d2), s/veh	4.9	0.0	10.1	7.2	0.0	8.0	0.8	0.9	0.0	15.6	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	0.0	9.5	10.8	0.0	9.3	4.8	7.3	0.0	8.1	12.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	0.0	52.2	48.9	0.0	49.8	40.0	21.7	0.0	65.4	33.1	0.0
LnGrp LOS	D	A	D	D	A	D	D	C		E	C	
Approach Vol, veh/h		695			681			948	A		1198	A
Approach Delay, s/veh		49.3			49.3			25.3			39.5	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.8	61.9		35.2	32.8	52.0		35.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	26.5	42.5		37.5	21.5	47.5		37.5				
Max Q Clear Time (g_c+I1), s	17.9	19.4		26.0	13.0	29.5		27.9				
Green Ext Time (p_c), s	0.4	5.6		3.2	0.3	6.7		2.8				

Intersection Summary			
HCM 6th Ctrl Delay		39.5	
HCM 6th LOS		D	

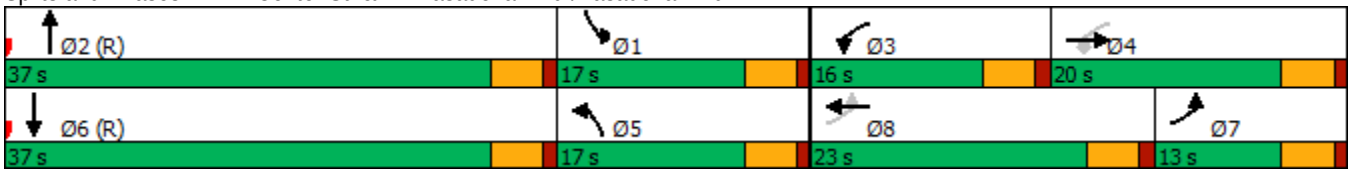
Notes

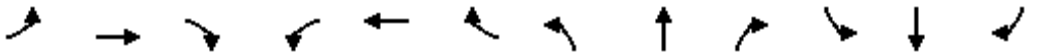
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	186	441	385	286	482	216	906	215	972
Future Volume (vph)	186	441	385	286	482	216	906	215	972
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4					
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	20.0	20.0	16.0	23.0	17.0	37.0	17.0	37.0
Total Split (%)	14.4%	22.2%	22.2%	17.8%	25.6%	18.9%	41.1%	18.9%	41.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	26.5	15.0	15.0	26.5	18.3	12.5	33.0	12.5	33.0
Actuated g/C Ratio	0.29	0.17	0.17	0.29	0.20	0.14	0.37	0.14	0.37
v/c Ratio	0.84	0.80	0.82	0.99	0.91	0.97	0.96	0.93	0.86
Control Delay	63.5	47.3	26.4	76.4	51.7	76.0	28.8	82.9	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	47.3	26.4	76.4	51.7	76.0	28.8	82.9	34.6
LOS	E	D	C	E	D	E	C	F	C
Approach Delay		42.3			59.5		36.4		42.9
Approach LOS		D			E		D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 44.2	Intersection LOS: D
Intersection Capacity Utilization 92.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	441	385	286	482	138	216	906	221	215	972	69
Future Volume (veh/h)	186	441	385	286	482	138	216	906	221	215	972	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	194	459	401	298	502	144	225	944	230	224	1012	72
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	240	559	249	325	552	157	265	1007	245	265	1196	85
Arrive On Green	0.08	0.16	0.16	0.13	0.21	0.21	0.15	0.36	0.36	0.15	0.36	0.36
Sat Flow, veh/h	1753	3497	1560	1753	2685	766	1753	2789	678	1753	3311	236
Grp Volume(v), veh/h	194	459	401	298	326	320	225	591	583	224	534	550
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1703	1753	1749	1719	1753	1749	1798
Q Serve(g_s), s	4.7	11.4	10.1	11.5	16.4	16.6	11.2	29.4	29.5	11.2	25.3	25.3
Cycle Q Clear(g_c), s	4.7	11.4	10.1	11.5	16.4	16.6	11.2	29.4	29.5	11.2	25.3	25.3
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.39	1.00		0.13
Lane Grp Cap(c), veh/h	240	559	249	325	359	350	265	631	621	265	631	649
V/C Ratio(X)	0.81	0.82	1.61	0.92	0.91	0.91	0.85	0.94	0.94	0.84	0.85	0.85
Avail Cap(c_a), veh/h	262	602	269	325	359	350	265	631	621	265	631	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.27	0.27	0.27	0.37	0.37	0.37	0.50	0.50	0.50
Uniform Delay (d), s/veh	38.8	36.6	18.6	29.8	34.9	35.0	37.2	27.8	27.8	37.2	26.5	26.5
Incr Delay (d2), s/veh	15.7	8.4	292.1	11.2	9.2	10.2	9.4	11.2	11.6	11.9	7.1	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	5.3	23.6	6.2	7.5	7.5	5.3	13.2	13.1	5.5	11.1	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	45.0	310.7	40.9	44.1	45.1	46.5	38.9	39.4	49.0	33.6	33.4
LnGrp LOS	D	D	F	D	D	D	D	D	D	D	C	C
Approach Vol, veh/h		1054			944			1399			1308	
Approach Delay, s/veh		147.8			43.5			40.3			36.1	
Approach LOS		F			D			D			D	

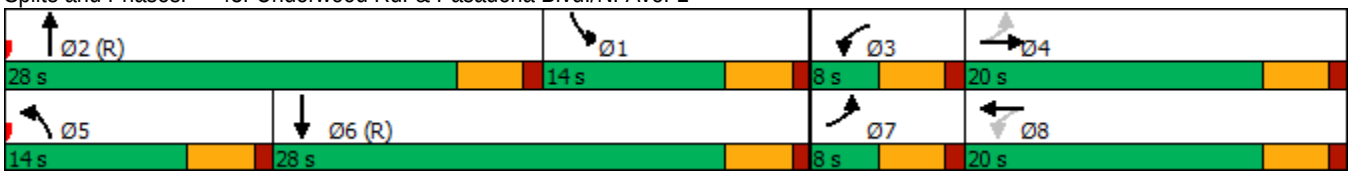
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	37.0	16.0	18.9	18.1	37.0	11.9	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	32.5	11.5	15.5	12.5	32.5	8.5	18.5
Max Q Clear Time (g_c+I1), s	13.2	31.5	13.5	13.4	13.2	27.3	6.7	18.6
Green Ext Time (p_c), s	0.0	0.7	0.0	1.0	0.0	2.9	0.1	0.0

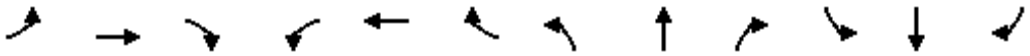
Intersection Summary	
HCM 6th Ctrl Delay	63.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	116	211	99	252	194	420	87	759
Future Volume (vph)	116	211	99	252	194	420	87	759
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	14.0	28.0	14.0	28.0
Total Split (%)	11.4%	28.6%	11.4%	28.6%	20.0%	40.0%	20.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.6	11.8	14.6	11.8	12.1	31.6	8.7	26.2
Actuated g/C Ratio	0.21	0.17	0.21	0.17	0.17	0.45	0.12	0.37
v/c Ratio	0.58	0.63	0.60	0.56	0.73	0.35	0.45	0.84
Control Delay	31.6	17.6	34.2	28.0	45.5	15.1	35.2	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	17.6	34.2	28.0	45.5	15.1	35.2	28.6
LOS	C	B	C	C	D	B	D	C
Approach Delay		20.7		29.5		23.9		29.2
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 26.2	Intersection LOS: C
Intersection Capacity Utilization 75.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	211	192	99	252	41	194	420	58	87	759	211
Future Volume (veh/h)	116	211	192	99	252	41	194	420	58	87	759	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	130	237	216	111	283	46	218	472	65	98	853	237
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	284	313	273	230	534	86	238	1037	142	316	1028	285
Arrive On Green	0.05	0.18	0.18	0.05	0.18	0.18	0.14	0.34	0.34	0.18	0.38	0.38
Sat Flow, veh/h	1753	1769	1543	1753	3018	485	1753	3090	423	1753	2704	751
Grp Volume(v), veh/h	130	234	219	111	163	166	218	266	271	98	552	538
Grp Sat Flow(s),veh/h/ln	1753	1749	1563	1753	1749	1753	1753	1749	1764	1753	1749	1706
Q Serve(g_s), s	3.5	8.9	9.4	3.5	5.9	6.0	8.6	8.3	8.4	3.4	20.0	20.0
Cycle Q Clear(g_c), s	3.5	8.9	9.4	3.5	5.9	6.0	8.6	8.3	8.4	3.4	20.0	20.0
Prop In Lane	1.00		0.99	1.00		0.28	1.00		0.24	1.00		0.44
Lane Grp Cap(c), veh/h	284	310	277	230	310	311	238	587	592	316	665	648
V/C Ratio(X)	0.46	0.76	0.79	0.48	0.52	0.54	0.92	0.45	0.46	0.31	0.83	0.83
Avail Cap(c_a), veh/h	284	387	346	230	387	388	238	587	592	316	665	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.12	0.12	0.12	0.98	0.98	0.98	0.69	0.69	0.69	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	27.4	27.6	23.4	26.1	26.2	29.9	18.2	18.2	24.9	19.6	19.7
Incr Delay (d2), s/veh	0.1	0.8	1.2	1.5	1.4	1.4	28.3	1.7	1.8	0.6	11.5	11.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.6	3.4	1.5	2.3	2.4	5.1	3.2	3.2	1.3	9.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	28.2	28.8	24.9	27.5	27.6	58.2	20.0	20.0	25.5	31.1	31.5
LnGrp LOS	C	C	C	C	C	C	E	B	B	C	C	C
Approach Vol, veh/h		583			440			755			1188	
Approach Delay, s/veh		27.5			26.9			31.0			30.8	
Approach LOS		C			C			C			C	

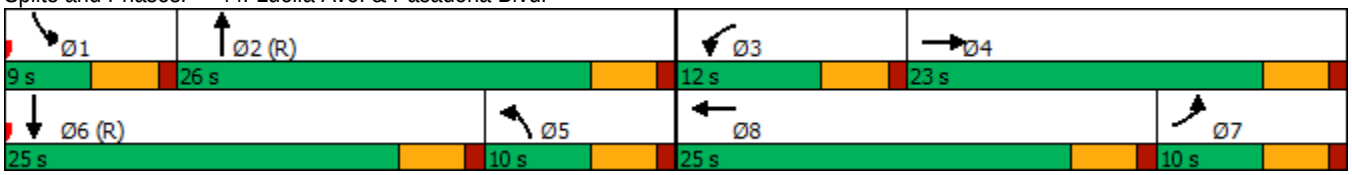
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	28.0	8.0	16.9	14.0	31.1	8.0	16.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	23.5	3.5	15.5	9.5	23.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	5.4	10.4	5.5	11.4	10.6	22.0	5.5	8.0
Green Ext Time (p_c), s	0.1	2.3	0.0	1.0	0.0	0.9	0.0	1.0

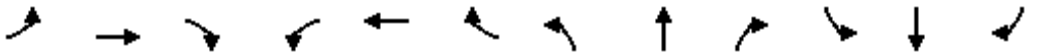
Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	103	611	142	769	76	150	48	204
Future Volume (vph)	103	611	142	769	76	150	48	204
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	10.0	23.0	12.0	25.0	10.0	26.0	9.0	25.0
Total Split (%)	14.3%	32.9%	17.1%	35.7%	14.3%	37.1%	12.9%	35.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.5	18.5	7.5	20.5	5.5	25.1	4.5	22.5
Actuated g/C Ratio	0.08	0.26	0.11	0.29	0.08	0.36	0.06	0.32
v/c Ratio	0.85	0.90	0.86	0.95	0.62	0.39	0.49	0.64
Control Delay	82.2	38.9	72.2	43.8	53.7	17.7	47.7	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.2	38.9	72.2	43.8	53.7	17.7	47.7	24.9
LOS	F	D	E	D	D	B	D	C
Approach Delay		44.2		47.9		26.8		27.8
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 41.1	Intersection LOS: D
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	611	124	142	769	85	76	150	75	48	204	130
Future Volume (veh/h)	103	611	124	142	769	85	76	150	75	48	204	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	116	687	139	160	864	96	85	169	84	54	229	146
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	138	766	155	188	929	103	138	386	192	67	308	196
Arrive On Green	0.08	0.26	0.26	0.11	0.29	0.29	0.08	0.33	0.33	0.04	0.29	0.29
Sat Flow, veh/h	1753	2898	586	1753	3173	353	1753	1160	577	1753	1050	670
Grp Volume(v), veh/h	116	414	412	160	476	484	85	0	253	54	0	375
Grp Sat Flow(s),veh/h/ln	1753	1749	1735	1753	1749	1777	1753	0	1737	1753	0	1720
Q Serve(g_s), s	4.6	16.0	16.0	6.3	18.5	18.5	3.3	0.0	8.0	2.1	0.0	13.8
Cycle Q Clear(g_c), s	4.6	16.0	16.0	6.3	18.5	18.5	3.3	0.0	8.0	2.1	0.0	13.8
Prop In Lane	1.00		0.34	1.00		0.20	1.00		0.33	1.00		0.39
Lane Grp Cap(c), veh/h	138	462	459	188	512	520	138	0	578	67	0	504
V/C Ratio(X)	0.84	0.90	0.90	0.85	0.93	0.93	0.62	0.00	0.44	0.80	0.00	0.74
Avail Cap(c_a), veh/h	138	462	459	188	512	520	138	0	578	113	0	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.43	0.43	0.43	0.09	0.09	0.09	0.62	0.00	0.62	0.95	0.00	0.95
Uniform Delay (d), s/veh	31.8	24.8	24.8	30.7	24.0	24.0	31.2	0.0	18.2	33.4	0.0	22.4
Incr Delay (d2), s/veh	18.0	10.0	10.2	3.6	3.4	3.3	5.1	0.0	1.5	18.3	0.0	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	7.2	7.2	2.7	7.3	7.4	1.5	0.0	3.2	1.2	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.8	34.8	35.0	34.3	27.4	27.4	36.3	0.0	19.7	51.7	0.0	31.5
LnGrp LOS	D	C	D	C	C	C	D	A	B	D	A	C
Approach Vol, veh/h		942			1120			338			429	
Approach Delay, s/veh		36.8			28.4			23.9			34.1	
Approach LOS		D			C			C			C	

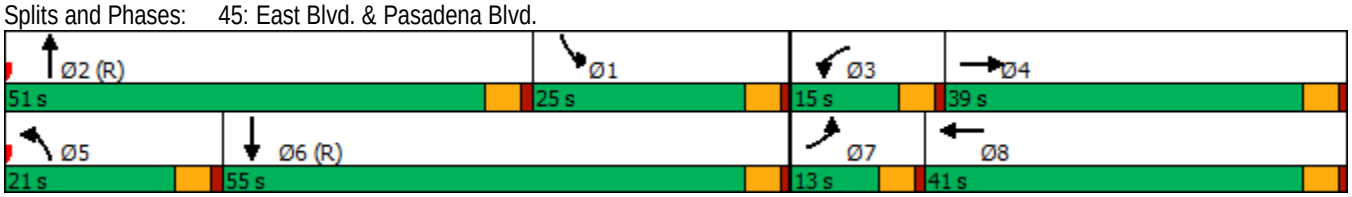
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	27.8	12.0	23.0	10.0	25.0	10.0	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	21.5	7.5	18.5	5.5	20.5	5.5	20.5
Max Q Clear Time (g_c+I1), s	4.1	10.0	8.3	18.0	5.3	15.8	6.6	20.5
Green Ext Time (p_c), s	0.0	1.1	0.0	0.3	0.0	0.9	0.0	0.0

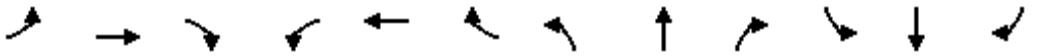
Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	114	284	140	444	232	664	148	1037
Future Volume (vph)	114	284	140	444	232	664	148	1037
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	9.5	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	39.0	15.0	41.0	21.0	51.0	25.0	55.0
Total Split (%)	10.0%	30.0%	11.5%	31.5%	16.2%	39.2%	19.2%	42.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.5	34.5	10.5	36.5	16.5	46.5	20.5	50.5
Actuated g/C Ratio	0.07	0.27	0.08	0.28	0.13	0.36	0.16	0.39
v/c Ratio	1.07	1.11	1.06	1.15	1.12	0.67	0.58	1.05
Control Delay	161.2	116.5	150.1	130.0	148.3	37.9	60.0	75.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	161.2	116.5	150.1	130.0	148.3	37.9	60.0	75.7
LOS	F	F	F	F	F	D	E	E
Approach Delay		124.9		134.1		63.3		74.1
Approach LOS		F		F		E		E

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 90.4	Intersection LOS: F
Intersection Capacity Utilization 105.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	284	211	140	444	102	232	664	110	148	1037	265
Future Volume (veh/h)	114	284	211	140	444	102	232	664	110	148	1037	265
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	121	302	224	149	472	109	247	706	117	157	1103	282
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	115	261	193	142	406	94	223	1074	178	276	1073	272
Arrive On Green	0.07	0.27	0.27	0.08	0.28	0.28	0.13	0.36	0.36	0.16	0.39	0.39
Sat Flow, veh/h	1753	982	728	1753	1447	334	1753	3003	497	1753	2762	701
Grp Volume(v), veh/h	121	0	526	149	0	581	247	411	412	157	695	690
Grp Sat Flow(s),veh/h/ln	1753	0	1710	1753	0	1781	1753	1749	1751	1753	1749	1715
Q Serve(g_s), s	8.5	0.0	34.5	10.5	0.0	36.5	16.5	25.7	25.7	10.8	50.5	50.5
Cycle Q Clear(g_c), s	8.5	0.0	34.5	10.5	0.0	36.5	16.5	25.7	25.7	10.8	50.5	50.5
Prop In Lane	1.00		0.43	1.00		0.19	1.00		0.28	1.00		0.41
Lane Grp Cap(c), veh/h	115	0	454	142	0	500	223	625	626	276	679	666
V/C Ratio(X)	1.06	0.00	1.16	1.05	0.00	1.16	1.11	0.66	0.66	0.57	1.02	1.04
Avail Cap(c_a), veh/h	115	0	454	142	0	500	223	625	626	276	679	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.00	0.36	0.74	0.00	0.74	0.59	0.59	0.59	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.7	0.0	47.8	59.8	0.0	46.8	56.7	35.1	35.1	50.7	39.8	39.8
Incr Delay (d2), s/veh	65.8	0.0	80.9	79.5	0.0	88.7	79.5	3.2	3.2	2.7	40.5	44.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.0	24.4	7.7	0.0	27.9	12.0	11.0	11.0	4.8	28.0	28.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	126.6	0.0	128.6	139.3	0.0	135.4	136.3	38.2	38.3	53.4	80.3	84.2
LnGrp LOS	F	A	F	F	A	F	F	D	D	D	F	F
Approach Vol, veh/h		647			730			1070			1542	
Approach Delay, s/veh		128.3			136.2			60.9			79.3	
Approach LOS		F			F			E			E	

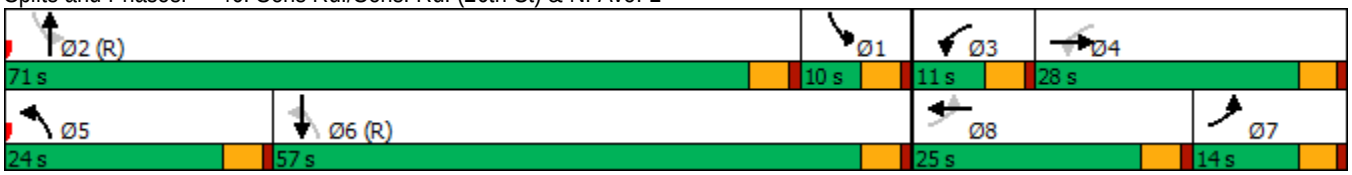
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	51.0	15.0	39.0	21.0	55.0	13.0	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	46.5	10.5	34.5	16.5	50.5	8.5	36.5
Max Q Clear Time (g_c+I1), s	12.8	27.7	12.5	36.5	18.5	52.5	10.5	38.5
Green Ext Time (p_c), s	0.2	4.4	0.0	0.0	0.0	0.0	0.0	0.0

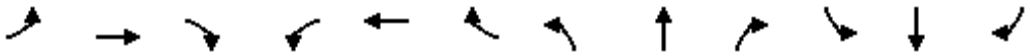
Intersection Summary	
HCM 6th Ctrl Delay	92.7
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	42	4	7	1	125	477	5	430
Future Volume (vph)	42	4	7	1	125	477	5	430
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	28.0	11.0	25.0	24.0	71.0	10.0	57.0
Total Split (%)	11.7%	23.3%	9.2%	20.8%	20.0%	59.2%	8.3%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.0	8.7	10.0	6.0	95.6	98.1	99.2	88.1
Actuated g/C Ratio	0.08	0.07	0.08	0.05	0.80	0.82	0.83	0.73
v/c Ratio	0.34	0.51	0.07	0.11	0.22	0.20	0.01	0.24
Control Delay	54.5	20.2	46.4	32.2	3.9	3.3	3.0	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	20.2	46.4	32.2	3.9	3.3	3.0	6.1
LOS	D	C	D	C	A	A	A	A
Approach Delay		31.1		38.6		3.4		6.0
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 7.7	Intersection LOS: A
Intersection Capacity Utilization 47.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	4	85	7	1	8	125	477	8	5	430	84
Future Volume (veh/h)	42	4	85	7	1	8	125	477	8	5	430	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	49	5	100	8	1	9	147	561	9	6	506	99
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	6	127	97	6	58	659	1952	31	807	2093	408
Arrive On Green	0.05	0.08	0.08	0.01	0.04	0.04	0.04	0.55	0.55	0.20	0.72	0.72
Sat Flow, veh/h	1753	75	1497	1753	158	1426	1753	3523	56	1753	2919	568
Grp Volume(v), veh/h	49	0	105	8	0	10	147	278	292	6	302	303
Grp Sat Flow(s),veh/h/ln	1753	0	1571	1753	0	1584	1753	1749	1831	1753	1749	1738
Q Serve(g_s), s	0.0	0.0	7.9	0.5	0.0	0.7	2.7	10.1	10.1	0.0	7.1	7.2
Cycle Q Clear(g_c), s	0.0	0.0	7.9	0.5	0.0	0.7	2.7	10.1	10.1	0.0	7.1	7.2
Prop In Lane	1.00		0.95	1.00		0.90	1.00		0.03	1.00		0.33
Lane Grp Cap(c), veh/h	197	0	133	97	0	65	659	969	1014	807	1254	1247
V/C Ratio(X)	0.25	0.00	0.79	0.08	0.00	0.15	0.22	0.29	0.29	0.01	0.24	0.24
Avail Cap(c_a), veh/h	247	0	308	180	0	271	872	969	1014	807	1254	1247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.00	0.77	1.00	0.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	53.8	50.0	0.0	55.5	4.1	14.2	14.2	6.4	5.8	5.8
Incr Delay (d2), s/veh	0.5	0.0	7.7	0.4	0.0	1.1	0.2	0.7	0.6	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	3.3	0.2	0.0	0.3	0.8	4.0	4.2	0.0	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	0.0	61.5	50.3	0.0	56.6	4.2	14.9	14.8	6.4	6.3	6.3
LnGrp LOS	D	A	E	D	A	E	A	B	B	A	A	A
Approach Vol, veh/h		154			18			717			611	
Approach Delay, s/veh		58.6			53.8			12.7			6.3	
Approach LOS		E			D			B			A	

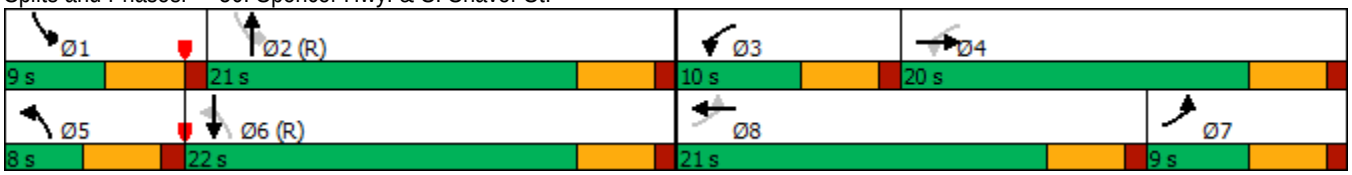
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	71.0	5.3	14.7	9.4	90.6	10.6	9.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	66.5	6.5	23.5	19.5	52.5	9.5	20.5
Max Q Clear Time (g_c+I1), s	2.0	12.1	2.5	9.9	4.7	9.2	2.0	2.7
Green Ext Time (p_c), s	0.0	3.5	0.0	0.4	0.3	3.8	0.0	0.0

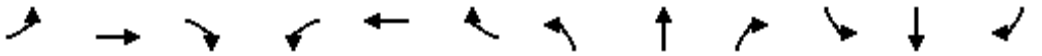
Intersection Summary	
HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	209	987	280	1128	152	550	240	208	622
Future Volume (vph)	209	987	280	1128	152	550	240	208	622
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	9.0	20.0	10.0	21.0	8.0	21.0	21.0	9.0	22.0
Total Split (%)	15.0%	33.3%	16.7%	35.0%	13.3%	35.0%	35.0%	15.0%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.0	15.5	21.0	16.5	21.0	16.5	16.5	21.0	17.5
Actuated g/C Ratio	0.35	0.26	0.35	0.28	0.35	0.28	0.28	0.35	0.29
v/c Ratio	0.88	0.92	1.05	0.99	0.72	0.63	0.40	0.76	0.81
Control Delay	56.4	34.1	90.8	50.4	34.5	22.7	4.5	33.2	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	34.1	90.8	50.4	34.5	22.7	4.5	33.2	26.6
LOS	E	C	F	D	C	C	A	C	C
Approach Delay		37.6		57.6		19.9			28.0
Approach LOS		D		E		B			C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 38.7	Intersection LOS: D
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	987	141	280	1128	162	152	550	240	208	622	167
Future Volume (veh/h)	209	987	141	280	1128	162	152	550	240	208	622	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	220	1039	148	295	1187	171	160	579	253	219	655	176
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	255	1148	163	295	1220	176	266	962	429	337	795	213
Arrive On Green	0.08	0.26	0.26	0.06	0.18	0.18	0.06	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1753	4445	632	1753	4437	639	1753	3497	1560	1753	2726	732
Grp Volume(v), veh/h	220	783	404	295	896	462	160	579	253	219	420	411
Grp Sat Flow(s),veh/h/ln	1753	1675	1727	1753	1675	1726	1753	1749	1560	1753	1749	1709
Q Serve(g_s), s	3.1	13.6	13.6	5.5	16.0	16.0	3.5	8.6	8.4	4.5	13.4	13.5
Cycle Q Clear(g_c), s	3.1	13.6	13.6	5.5	16.0	16.0	3.5	8.6	8.4	4.5	13.4	13.5
Prop In Lane	1.00		0.37	1.00		0.37	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	255	865	446	295	921	475	266	962	429	337	510	498
V/C Ratio(X)	0.86	0.90	0.91	1.00	0.97	0.97	0.60	0.60	0.59	0.65	0.82	0.82
Avail Cap(c_a), veh/h	255	865	446	295	921	475	266	962	429	337	510	498
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	21.5	21.5	20.4	24.2	24.3	17.1	18.9	18.8	17.2	19.8	19.8
Incr Delay (d2), s/veh	22.2	11.5	19.7	41.5	17.6	26.4	3.8	2.8	5.8	4.4	14.0	14.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	6.0	7.2	4.6	8.4	9.9	1.7	3.6	0.7	2.4	6.9	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	33.0	41.3	61.9	41.8	50.7	20.9	21.7	24.7	21.6	33.8	34.2
LnGrp LOS	D	C	D	E	D	D	C	C	C	C	C	C
Approach Vol, veh/h		1407			1653			992			1050	
Approach Delay, s/veh		37.8			47.9			22.3			31.4	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	21.0	10.0	20.0	8.0	22.0	9.0	21.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	16.5	5.5	15.5	3.5	17.5	4.5	16.5
Max Q Clear Time (g_c+I1), s	6.5	10.6	7.5	15.6	5.5	15.5	5.1	18.0
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.0	1.1	0.0	0.0

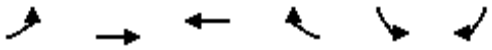
Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	92	1320	1423	104	89
Future Volume (vph)	92	1320	1423	104	89
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	90.0	71.0	30.0	30.0
Total Split (%)	15.8%	75.0%	59.2%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	62.1	66.6	54.9	44.4	44.4
Actuated g/C Ratio	0.52	0.56	0.46	0.37	0.37
v/c Ratio	0.60	0.51	0.73	0.17	0.15
Control Delay	29.5	11.0	28.0	29.3	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	11.0	28.0	29.3	7.0
LOS	C	B	C	C	A
Approach Delay		12.2	28.0	19.0	
Approach LOS		B	C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 59 (49%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





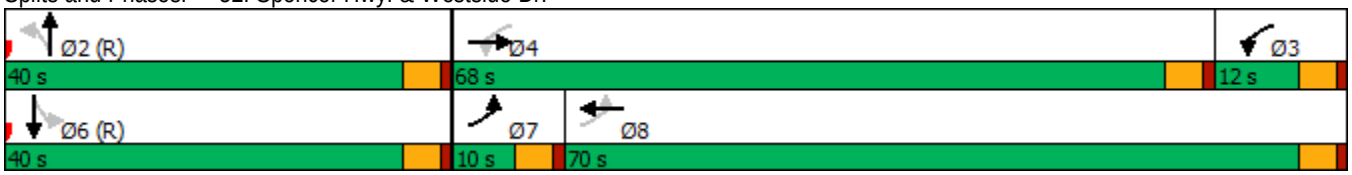
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	92	1320	1423	136	104	89
Future Volume (vph)	92	1320	1423	136	104	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4758		1678	1501
Flt Permitted	0.07	1.00	1.00		0.95	1.00
Satd. Flow (perm)	129	4821	4758		1678	1501
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	95	1361	1467	140	107	92
RTOR Reduction (vph)	0	0	11	0	0	58
Lane Group Flow (vph)	95	1361	1596	0	107	34
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	62.1	66.6	54.9		44.4	44.4
Effective Green, g (s)	62.1	66.6	54.9		44.4	44.4
Actuated g/C Ratio	0.52	0.55	0.46		0.37	0.37
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	159	2675	2176		620	555
v/s Ratio Prot	0.04	c0.28	c0.34			
v/s Ratio Perm	0.27				c0.06	0.02
v/c Ratio	0.60	0.51	0.73		0.17	0.06
Uniform Delay, d1	40.4	16.6	26.6		25.4	24.4
Progression Factor	0.45	0.64	1.00		1.00	1.00
Incremental Delay, d2	5.3	0.1	1.3		0.6	0.2
Delay (s)	23.6	10.8	27.9		26.0	24.6
Level of Service	C	B	C		C	C
Approach Delay (s)		11.6	27.9		25.4	
Approach LOS		B	C		C	

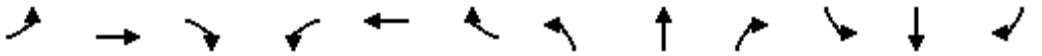
Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	1233	47	1408	28	61	94	40
Future Volume (vph)	18	1233	47	1408	28	61	94	40
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	68.0	12.0	70.0	40.0	40.0	40.0	40.0
Total Split (%)	8.3%	56.7%	10.0%	58.3%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	58.1	46.6	56.3	55.9		51.1		51.1
Actuated g/C Ratio	0.48	0.39	0.47	0.47		0.43		0.43
v/c Ratio	0.13	0.70	0.21	0.71		0.18		0.27
Control Delay	15.3	25.2	10.4	13.6		23.0		26.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	15.3	25.2	10.4	13.6		23.0		26.4
LOS	B	C	B	B		C		C
Approach Delay		25.1		13.5		23.0		26.4
Approach LOS		C		B		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	1233	32	47	1408	128	28	61	33	94	40	22
Future Volume (veh/h)	18	1233	32	47	1408	128	28	61	33	94	40	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	19	1271	33	48	1452	132	29	63	34	97	41	23
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	131	1534	40	236	1717	156	205	436	223	481	200	105
Arrive On Green	0.03	0.61	0.61	0.15	0.73	0.73	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1753	5037	131	1753	4688	426	331	859	440	852	393	208
Grp Volume(v), veh/h	19	845	459	48	1038	546	126	0	0	161	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1817	1753	1675	1764	1630	0	0	1453	0	0
Q Serve(g_s), s	0.8	23.9	23.9	0.0	26.1	26.2	0.0	0.0	0.0	1.6	0.0	0.0
Cycle Q Clear(g_c), s	0.8	23.9	23.9	0.0	26.1	26.2	4.6	0.0	0.0	6.2	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.24	0.23		0.27	0.60		0.14
Lane Grp Cap(c), veh/h	131	1021	554	236	1227	646	864	0	0	786	0	0
V/C Ratio(X)	0.14	0.83	0.83	0.20	0.85	0.85	0.15	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	187	1773	962	236	1829	963	864	0	0	786	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	0.65	0.65	0.65	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.0	21.0	21.0	41.4	13.7	13.7	15.7	0.0	0.0	16.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.9	1.6	0.3	1.6	3.1	0.4	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.6	6.2	1.2	4.9	5.4	1.9	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	21.8	22.5	41.7	15.3	16.7	16.0	0.0	0.0	16.6	0.0	0.0
LnGrp LOS	C	C	C	D	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1323			1632			126			161	
Approach Delay, s/veh		22.1			16.6			16.0			16.6	
Approach LOS		C			B			B			B	

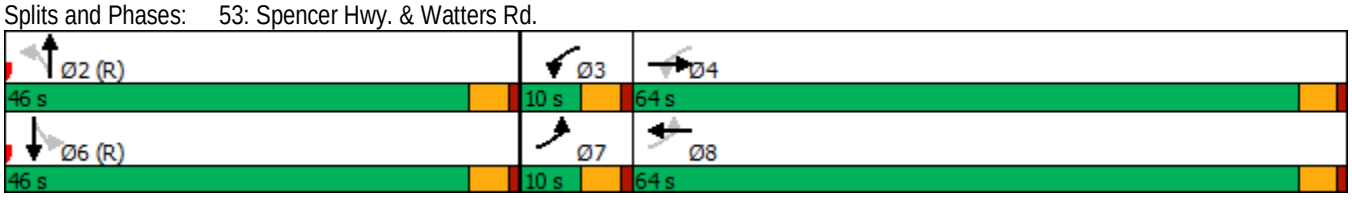
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		65.4	13.5	41.1		65.4	6.1	48.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	7.5	63.5		35.5	5.5	65.5				
Max Q Clear Time (g_c+I1), s		6.6	2.0	25.9		8.2	2.8	28.2				
Green Ext Time (p_c), s		0.7	0.0	10.7		0.9	0.0	15.8				

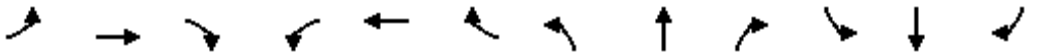
Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	1560	45	1551	124	29	37	30
Future Volume (vph)	29	1560	45	1551	124	29	37	30
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	64.0	10.0	64.0	46.0	46.0	46.0	46.0
Total Split (%)	8.3%	53.3%	8.3%	53.3%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	60.8	55.5	59.9	57.5		47.5		47.5
Actuated g/C Ratio	0.51	0.46	0.50	0.48		0.40		0.40
v/c Ratio	0.22	0.77	0.34	0.70		0.45		0.22
Control Delay	15.1	29.1	18.4	26.2		29.0		19.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	15.1	29.1	18.4	26.2		29.0		19.2
LOS	B	C	B	C		C		B
Approach Delay		28.9		26.0		29.0		19.2
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 27.3	Intersection LOS: C
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1560	132	45	1551	49	124	29	82	37	30	64
Future Volume (veh/h)	29	1560	132	45	1551	49	124	29	82	37	30	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	1625	138	47	1616	51	129	30	85	39	31	67
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	139	1999	170	136	2154	68	369	92	222	211	173	331
Arrive On Green	0.02	0.42	0.42	0.03	0.43	0.43	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	4719	400	1753	5005	158	738	210	507	393	395	754
Grp Volume(v), veh/h	30	1153	610	47	1082	585	244	0	0	137	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1769	1753	1675	1812	1454	0	0	1541	0	0
Q Serve(g_s), s	1.2	36.3	36.4	1.8	32.6	32.6	6.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	36.3	36.4	1.8	32.6	32.6	12.4	0.0	0.0	6.0	0.0	0.0
Prop In Lane	1.00		0.23	1.00		0.09	0.53		0.35	0.28		0.49
Lane Grp Cap(c), veh/h	139	1419	749	136	1442	780	684	0	0	714	0	0
V/C Ratio(X)	0.22	0.81	0.81	0.34	0.75	0.75	0.36	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	187	1661	877	172	1661	899	684	0	0	714	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.28	0.28	0.28	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.5	30.4	30.4	25.4	28.7	28.7	22.2	0.0	0.0	20.6	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.4	2.7	0.4	0.5	0.9	1.5	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	14.2	15.3	0.7	12.6	13.7	4.8	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	31.8	33.1	25.8	29.2	29.6	23.7	0.0	0.0	21.2	0.0	0.0
LnGrp LOS	C	C	C	C	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1793			1714			244			137	
Approach Delay, s/veh		32.1			29.3			23.7			21.2	
Approach LOS		C			C			C			C	

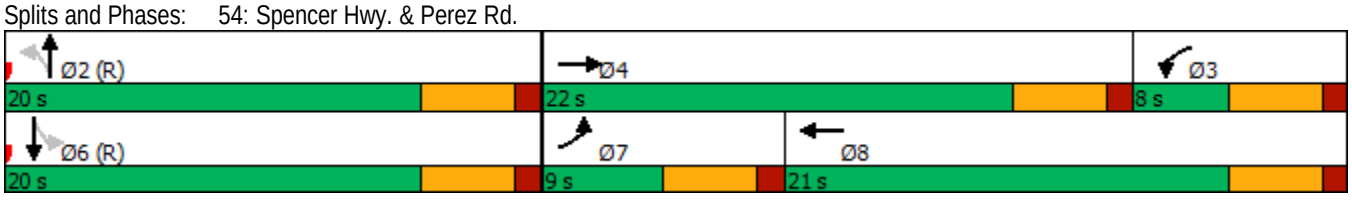
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		57.1	7.5	55.3		57.1	6.7	56.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		41.5	5.5	59.5		41.5	5.5	59.5				
Max Q Clear Time (g_c+I1), s		14.4	3.8	38.4		8.0	3.2	34.6				
Green Ext Time (p_c), s		1.6	0.0	12.4		0.8	0.0	12.8				

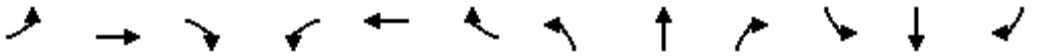
Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	93	1034	7	1245	3	21	184	7
Future Volume (vph)	93	1034	7	1245	3	21	184	7
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	22.0	8.0	21.0	20.0	20.0	20.0	20.0
Total Split (%)	18.0%	44.0%	16.0%	42.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	4.5	22.3	4.4	16.7		17.1		17.1
Actuated g/C Ratio	0.09	0.45	0.09	0.33		0.34		0.34
v/c Ratio	0.62	0.49	0.05	0.85		0.06		0.56
Control Delay	43.2	11.0	22.4	22.0		10.4		17.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	43.2	11.0	22.4	22.0		10.4		17.9
LOS	D	B	C	C		B		B
Approach Delay		13.6		22.0		10.4		17.9
Approach LOS		B		C		B		B

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1034	10	7	1245	114	3	21	9	184	7	71
Future Volume (veh/h)	93	1034	10	7	1245	114	3	21	9	184	7	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	97	1077	10	7	1297	119	3	22	9	192	7	74
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	123	1507	14	174	1512	139	95	414	155	442	33	131
Arrive On Green	0.07	0.29	0.29	0.10	0.32	0.32	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1753	5135	48	1753	4684	430	50	1227	460	946	98	388
Grp Volume(v), veh/h	97	703	384	7	928	488	34	0	0	273	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1832	1753	1675	1763	1737	0	0	1433	0	0
Q Serve(g_s), s	2.7	9.4	9.4	0.2	13.0	13.0	0.0	0.0	0.0	6.8	0.0	0.0
Cycle Q Clear(g_c), s	2.7	9.4	9.4	0.2	13.0	13.0	0.7	0.0	0.0	7.7	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.24	0.09		0.26	0.70		0.27
Lane Grp Cap(c), veh/h	123	983	538	174	1081	569	664	0	0	606	0	0
V/C Ratio(X)	0.79	0.71	0.71	0.04	0.86	0.86	0.05	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	158	1173	641	174	1106	582	664	0	0	606	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.19	0.19	0.19	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.9	15.8	15.8	20.4	15.9	15.9	11.2	0.0	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	10.2	0.9	1.6	0.0	1.4	2.6	0.1	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.0	3.4	0.1	4.1	4.5	0.2	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	16.7	17.4	20.4	17.3	18.5	11.3	0.0	0.0	15.9	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1184			1423			34			273	
Approach Delay, s/veh		18.2			17.7			11.3			15.9	
Approach LOS		B			B			B			B	

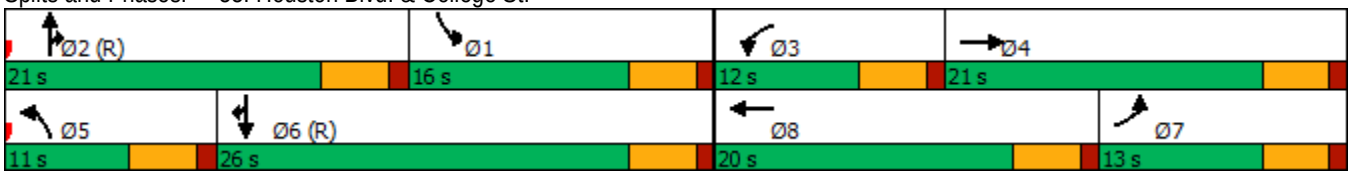
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.4	9.5	19.2		21.4	8.0	20.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	17.5		15.5	4.5	16.5				
Max Q Clear Time (g_c+I1), s		2.7	2.2	11.4		9.7	4.7	15.0				
Green Ext Time (p_c), s		0.1	0.0	3.3		0.8	0.0	1.2				

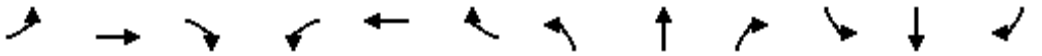
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	196	814	166	791	102	539	159	254	584	208
Future Volume (vph)	196	814	166	791	102	539	159	254	584	208
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	Prot	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases										
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	21.0	12.0	20.0	11.0	21.0	21.0	16.0	26.0	26.0
Total Split (%)	18.6%	30.0%	17.1%	28.6%	15.7%	30.0%	30.0%	22.9%	37.1%	37.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.5	16.5	7.5	15.5	6.5	16.5	16.5	11.5	23.7	23.7
Actuated g/C Ratio	0.12	0.24	0.11	0.22	0.09	0.24	0.24	0.16	0.34	0.34
v/c Ratio	0.96	0.86	0.92	0.88	0.66	0.68	0.30	0.92	0.51	0.31
Control Delay	88.2	33.7	83.2	36.7	52.3	29.3	2.7	68.5	21.3	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.2	33.7	83.2	36.7	52.3	29.3	2.7	68.5	21.3	3.7
LOS	F	C	F	D	D	C	A	E	C	A
Approach Delay		43.0		43.8		26.9			29.3	
Approach LOS		D		D		C			C	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 36.5	Intersection LOS: D
Intersection Capacity Utilization 78.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	814	138	166	791	131	102	539	159	254	584	208
Future Volume (veh/h)	196	814	138	166	791	131	102	539	159	254	584	208
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	202	839	142	171	815	135	105	556	164	262	602	214
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	213	1002	169	188	944	155	134	824	368	296	1148	512
Arrive On Green	0.12	0.23	0.23	0.11	0.22	0.22	0.08	0.24	0.24	0.17	0.33	0.33
Sat Flow, veh/h	1753	4331	729	1753	4347	715	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	202	648	333	171	627	323	105	556	164	262	602	214
Grp Sat Flow(s),veh/h/ln	1753	1675	1710	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	8.0	12.9	13.0	6.8	12.6	12.7	4.1	10.1	4.3	10.2	9.8	4.7
Cycle Q Clear(g_c), s	8.0	12.9	13.0	6.8	12.6	12.7	4.1	10.1	4.3	10.2	9.8	4.7
Prop In Lane	1.00		0.43	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	775	396	188	727	372	134	824	368	296	1148	512
V/C Ratio(X)	0.95	0.84	0.84	0.91	0.86	0.87	0.79	0.67	0.45	0.89	0.52	0.42
Avail Cap(c_a), veh/h	213	790	403	188	742	379	163	824	368	296	1148	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	25.6	25.7	30.9	26.4	26.4	31.8	24.3	10.9	28.4	19.1	7.2
Incr Delay (d2), s/veh	47.3	7.7	14.7	41.3	10.1	18.8	18.4	4.4	3.9	25.9	1.7	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	5.5	6.4	4.8	5.6	6.7	2.4	4.5	2.4	6.2	4.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	33.3	40.3	72.2	36.5	45.2	50.2	28.7	14.8	54.4	20.8	9.7
LnGrp LOS	E	C	D	E	D	D	D	C	B	D	C	A
Approach Vol, veh/h		1183			1121			825			1078	
Approach Delay, s/veh		42.9			44.4			28.7			26.8	
Approach LOS		D			D			C			C	

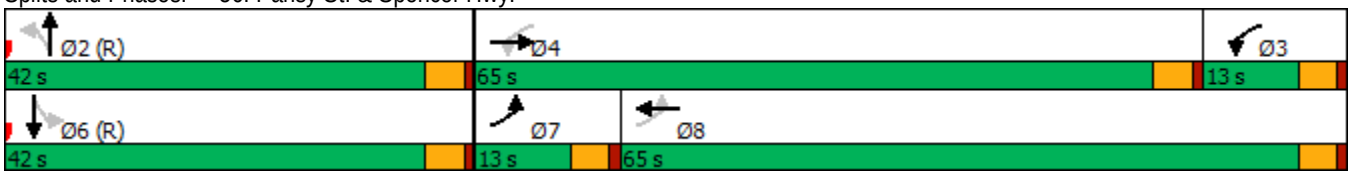
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	21.0	12.0	20.7	9.8	27.5	13.0	19.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	16.5	7.5	16.5	6.5	21.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	12.2	12.1	8.8	15.0	6.1	11.8	10.0	14.7
Green Ext Time (p_c), s	0.0	1.7	0.0	0.9	0.0	3.4	0.0	0.4

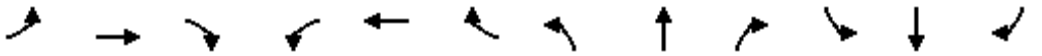
Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	1400	55	1568	33	102	30	131
Future Volume (vph)	53	1400	55	1568	33	102	30	131
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	65.0	13.0	65.0	42.0	42.0	42.0	42.0
Total Split (%)	10.8%	54.2%	10.8%	54.2%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	60.3	51.5	61.4	54.1		47.1		47.1
Actuated g/C Ratio	0.50	0.43	0.51	0.45		0.39		0.39
v/c Ratio	0.35	0.74	0.28	0.75		0.33		0.37
Control Delay	17.2	30.5	27.2	29.3		27.0		28.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	17.2	30.5	27.2	29.3		27.0		28.2
LOS	B	C	C	C		C		C
Approach Delay		30.0		29.2		27.0		28.2
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 44 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 60.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	1400	55	55	1568	47	33	102	69	30	131	71
Future Volume (veh/h)	53	1400	55	55	1568	47	33	102	69	30	131	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	55	1458	57	57	1633	49	34	106	72	31	136	74
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	1862	73	209	2048	61	128	388	247	105	446	229
Arrive On Green	0.03	0.38	0.38	0.06	0.41	0.41	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1753	4962	194	1753	5013	150	206	863	550	159	993	510
Grp Volume(v), veh/h	55	984	531	57	1091	591	212	0	0	241	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1806	1753	1675	1814	1620	0	0	1662	0	0
Q Serve(g_s), s	2.2	31.2	31.2	0.0	34.3	34.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	31.2	31.2	0.0	34.3	34.3	9.2	0.0	0.0	10.6	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.08	0.16		0.34	0.13		0.31
Lane Grp Cap(c), veh/h	147	1257	678	209	1368	741	763	0	0	781	0	0
V/C Ratio(X)	0.37	0.78	0.78	0.27	0.80	0.80	0.28	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	220	1689	910	223	1689	914	763	0	0	781	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.54	0.54	0.54	0.55	0.55	0.55	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.6	33.2	33.2	48.0	31.1	31.1	20.7	0.0	0.0	21.1	0.0	0.0
Incr Delay (d2), s/veh	0.9	1.0	1.8	0.4	1.3	2.3	0.9	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	12.3	13.5	1.6	13.5	14.8	3.9	0.0	0.0	4.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	34.1	34.9	48.4	32.4	33.4	21.6	0.0	0.0	22.1	0.0	0.0
LnGrp LOS	C	C	C	D	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1570			1739			212			241	
Approach Delay, s/veh		34.1			33.3			21.6			22.1	
Approach LOS		C			C			C			C	

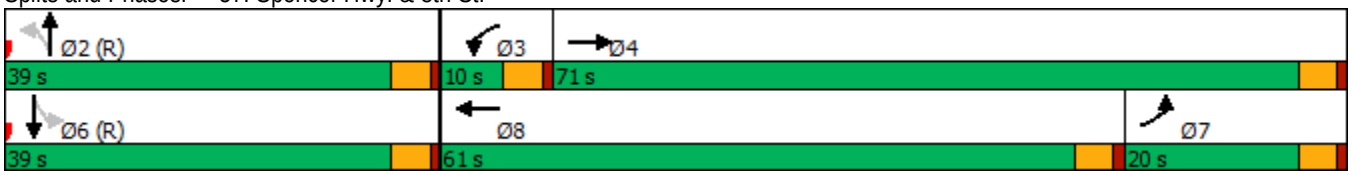
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		58.5	12.0	49.5		58.5	8.0	53.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		37.5	8.5	60.5		37.5	8.5	60.5				
Max Q Clear Time (g_c+I1), s		11.2	2.0	33.2		12.6	4.2	36.3				
Green Ext Time (p_c), s		1.3	0.0	11.8		1.5	0.0	12.7				

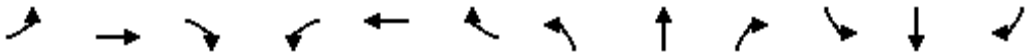
Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	65	1061	9	1184	21	25	32	54
Future Volume (vph)	65	1061	9	1184	21	25	32	54
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	71.0	10.0	61.0	39.0	39.0	39.0	39.0
Total Split (%)	16.7%	59.2%	8.3%	50.8%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.0	52.6	5.5	42.2		56.4		56.4
Actuated g/C Ratio	0.08	0.44	0.05	0.35		0.47		0.47
v/c Ratio	0.47	0.54	0.11	0.74		0.11		0.25
Control Delay	62.1	25.1	58.2	36.6		15.2		17.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	62.1	25.1	58.2	36.6		15.2		17.7
LOS	E	C	E	D		B		B
Approach Delay		27.2		36.7		15.2		17.7
Approach LOS		C		D		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 93 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 55.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	1061	38	9	1184	34	21	25	36	32	54	102
Future Volume (veh/h)	65	1061	38	9	1184	34	21	25	36	32	54	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	1094	39	9	1221	35	22	26	37	33	56	105
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	86	1775	63	13	1580	45	226	268	351	154	264	452
Arrive On Green	0.05	0.36	0.36	0.01	0.31	0.31	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1753	4981	177	1753	5021	144	359	512	671	227	505	863
Grp Volume(v), veh/h	67	736	397	9	815	441	85	0	0	194	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1815	1541	0	0	1595	0	0
Q Serve(g_s), s	4.5	21.7	21.8	0.6	26.4	26.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.5	21.7	21.8	0.6	26.4	26.4	3.0	0.0	0.0	7.5	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.08	0.26		0.44	0.17		0.54
Lane Grp Cap(c), veh/h	86	1193	644	13	1054	571	845	0	0	871	0	0
V/C Ratio(X)	0.78	0.62	0.62	0.68	0.77	0.77	0.10	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	226	1857	1002	80	1577	854	845	0	0	871	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.49	0.49	0.49	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	56.4	31.9	31.9	59.4	37.2	37.2	14.3	0.0	0.0	15.4	0.0	0.0
Incr Delay (d2), s/veh	13.9	0.5	1.0	25.8	0.7	1.3	0.2	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	8.6	9.4	0.4	10.6	11.6	1.2	0.0	0.0	3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.3	32.4	32.8	85.2	37.9	38.5	14.6	0.0	0.0	16.0	0.0	0.0
LnGrp LOS	E	C	C	F	D	D	B	A	A	B	A	A
Approach Vol, veh/h		1200			1265			85			194	
Approach Delay, s/veh		34.6			38.5			14.6			16.0	
Approach LOS		C			D			B			B	

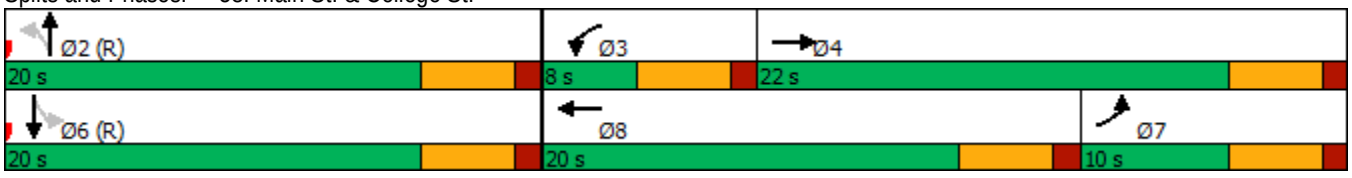
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		67.3	5.4	47.2		67.3	10.4	42.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		34.5	5.5	66.5		34.5	15.5	56.5				
Max Q Clear Time (g_c+I1), s		5.0	2.6	23.8		9.5	6.5	28.4				
Green Ext Time (p_c), s		0.5	0.0	8.9		1.2	0.1	9.3				

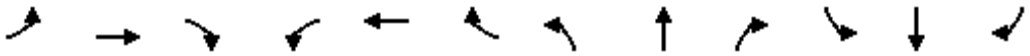
Intersection Summary												
HCM 6th Ctrl Delay			34.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	57	1179	21	1019	47	24	18	24
Future Volume (vph)	57	1179	21	1019	47	24	18	24
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	22.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	20.0%	44.0%	16.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.5	21.0	3.5	16.6		18.4		18.4
Actuated g/C Ratio	0.11	0.42	0.07	0.33		0.37		0.37
v/c Ratio	0.31	0.61	0.17	0.67		0.18		0.17
Control Delay	25.1	12.7	25.4	17.0		10.8		7.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	25.1	12.7	25.4	17.0		10.8		7.4
LOS	C	B	C	B		B		A
Approach Delay		13.2		17.1		10.8		7.4
Approach LOS		B		B		B		A

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 55.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	1179	65	21	1019	36	47	24	26	18	24	64
Future Volume (veh/h)	57	1179	65	21	1019	36	47	24	26	18	24	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	58	1203	66	21	1040	37	48	24	27	18	24	65
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	107	1568	86	31	1388	49	354	178	159	144	187	381
Arrive On Green	0.06	0.32	0.32	0.02	0.28	0.28	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1753	4875	267	1753	4982	177	633	455	408	152	478	976
Grp Volume(v), veh/h	58	827	442	21	699	378	99	0	0	107	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1793	1753	1675	1809	1495	0	0	1607	0	0
Q Serve(g_s), s	1.6	11.1	11.1	0.6	9.5	9.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	11.1	11.1	0.6	9.5	9.5	1.8	0.0	0.0	2.1	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.10	0.48		0.27	0.17		0.61
Lane Grp Cap(c), veh/h	107	1078	577	31	933	504	691	0	0	712	0	0
V/C Ratio(X)	0.54	0.77	0.77	0.68	0.75	0.75	0.14	0.00	0.00	0.15	0.00	0.00
Avail Cap(c_a), veh/h	193	1173	627	123	1039	561	691	0	0	712	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.8	15.3	15.3	24.4	16.4	16.4	9.8	0.0	0.0	9.9	0.0	0.0
Incr Delay (d2), s/veh	4.3	2.9	5.3	22.7	2.7	5.0	0.4	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.0	4.7	0.4	3.5	4.1	0.7	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	18.1	20.5	47.1	19.2	21.5	10.3	0.0	0.0	10.4	0.0	0.0
LnGrp LOS	C	B	C	D	B	C	B	A	A	B	A	A
Approach Vol, veh/h		1327			1098			99			107	
Approach Delay, s/veh		19.3			20.5			10.3			10.4	
Approach LOS		B			C			B			B	

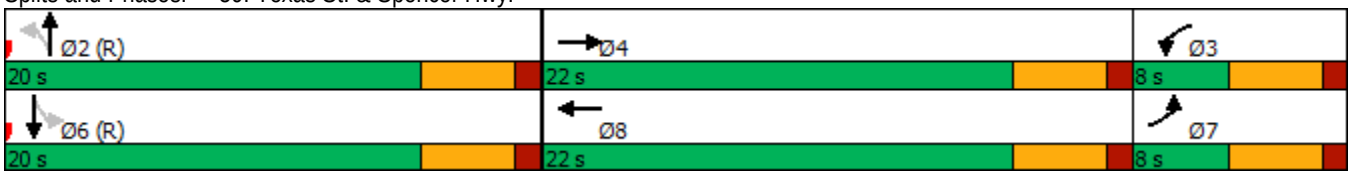
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0	5.4	20.6		24.0	7.5	18.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	17.5		15.5	5.5	15.5				
Max Q Clear Time (g_c+I1), s		3.8	2.6	13.1		4.1	3.6	11.5				
Green Ext Time (p_c), s		0.3	0.0	3.0		0.4	0.0	2.4				

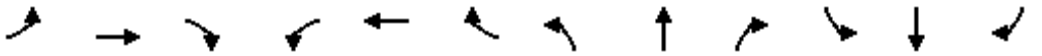
Intersection Summary												
HCM 6th Ctrl Delay			19.1									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	1109	9	1038	36	2	6	3
Future Volume (vph)	20	1109	9	1038	36	2	6	3
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	22.0	8.0	22.0	20.0	20.0	20.0	20.0
Total Split (%)	16.0%	44.0%	16.0%	44.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	3.9	17.0	3.9	17.0		22.4		22.4
Actuated g/C Ratio	0.08	0.34	0.08	0.34		0.45		0.45
v/c Ratio	0.16	0.73	0.07	0.75		0.06		0.04
Control Delay	24.8	17.3	23.0	17.1		9.6		6.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	24.8	17.3	23.0	17.1		9.6		6.4
LOS	C	B	C	B		A		A
Approach Delay		17.5		17.1		9.6		6.4
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 41.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1109	60	9	1038	164	36	2	3	6	3	22
Future Volume (veh/h)	20	1109	60	9	1038	164	36	2	3	6	3	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	21	1143	62	9	1070	169	37	2	3	6	3	23
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	31	1520	82	42	1392	220	615	35	40	156	104	447
Arrive On Green	0.02	0.31	0.31	0.02	0.32	0.32	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1753	4879	264	1753	4376	690	1215	89	100	179	265	1134
Grp Volume(v), veh/h	21	785	420	9	819	420	42	0	0	32	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1793	1753	1675	1716	1405	0	0	1578	0	0
Q Serve(g_s), s	0.6	10.5	10.5	0.3	11.0	11.1	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	10.5	10.5	0.3	11.0	11.1	0.8	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.40	0.88		0.07	0.19		0.72
Lane Grp Cap(c), veh/h	31	1044	559	42	1066	546	689	0	0	708	0	0
V/C Ratio(X)	0.68	0.75	0.75	0.21	0.77	0.77	0.06	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	123	1173	628	123	1173	601	689	0	0	708	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.4	15.5	15.5	23.9	15.4	15.4	9.4	0.0	0.0	9.4	0.0	0.0
Incr Delay (d2), s/veh	22.7	2.5	4.5	2.5	2.9	5.5	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.5	4.1	0.1	3.7	4.2	0.3	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	17.9	20.0	26.4	18.3	20.9	9.6	0.0	0.0	9.5	0.0	0.0
LnGrp LOS	D	B	C	C	B	C	A	A	A	A	A	A
Approach Vol, veh/h		1226			1248			42			32	
Approach Delay, s/veh		19.1			19.2			9.6			9.5	
Approach LOS		B			B			A			A	

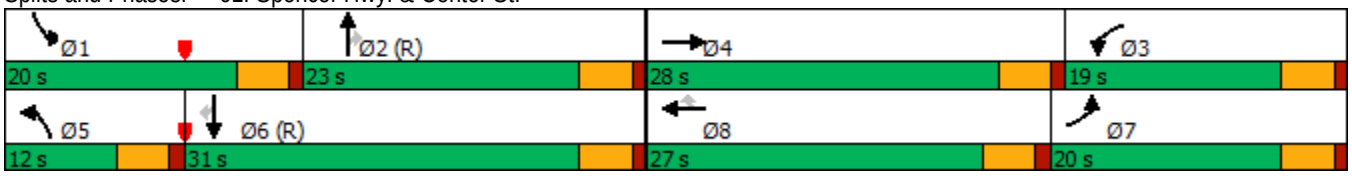
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.2	5.7	20.1		24.2	5.4	20.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	17.5		15.5	3.5	17.5				
Max Q Clear Time (g_c+I1), s		2.8	2.3	12.5		2.6	2.6	13.1				
Green Ext Time (p_c), s		0.1	0.0	3.0		0.1	0.0	2.9				

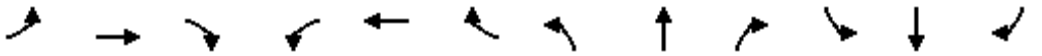
Intersection Summary												
HCM 6th Ctrl Delay			18.9									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	313	1089	255	1249	240	106	627	206	301	770	316
Future Volume (vph)	313	1089	255	1249	240	106	627	206	301	770	316
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	28.0	19.0	27.0	27.0	12.0	23.0	23.0	20.0	31.0	31.0
Total Split (%)	22.2%	31.1%	21.1%	30.0%	30.0%	13.3%	25.6%	25.6%	22.2%	34.4%	34.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.5	23.5	14.5	22.5	22.5	7.5	18.5	18.5	15.5	26.5	26.5
Actuated g/C Ratio	0.17	0.26	0.16	0.25	0.25	0.08	0.21	0.21	0.17	0.29	0.29
v/c Ratio	1.10	0.94	0.96	1.05	0.44	0.78	0.93	0.44	1.06	0.79	0.48
Control Delay	120.1	47.9	84.5	75.1	6.4	75.5	56.0	7.6	95.4	39.2	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	120.1	47.9	84.5	75.1	6.4	75.5	56.0	7.6	95.4	39.2	11.3
LOS	F	D	F	E	A	E	E	A	F	D	B
Approach Delay		63.2		67.0			47.6			45.1	
Approach LOS		E		E			D			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 57.2	Intersection LOS: E
Intersection Capacity Utilization 95.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	1089	74	255	1249	240	106	627	206	301	770	316
Future Volume (veh/h)	313	1089	74	255	1249	240	106	627	206	301	770	316
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	329	1146	78	268	1315	253	112	660	217	317	811	333
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	302	1246	85	286	1256	390	140	719	321	302	1042	465
Arrive On Green	0.17	0.26	0.26	0.16	0.25	0.25	0.08	0.21	0.21	0.17	0.30	0.30
Sat Flow, veh/h	1753	4805	327	1753	5025	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	329	799	425	268	1315	253	112	660	217	317	811	333
Grp Sat Flow(s),veh/h/ln	1753	1675	1782	1753	1675	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	15.5	20.9	20.9	13.6	22.5	8.3	5.7	16.6	7.7	15.5	19.1	10.5
Cycle Q Clear(g_c), s	15.5	20.9	20.9	13.6	22.5	8.3	5.7	16.6	7.7	15.5	19.1	10.5
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	302	869	462	286	1256	390	140	719	321	302	1042	465
V/C Ratio(X)	1.09	0.92	0.92	0.94	1.05	0.65	0.80	0.92	0.68	1.05	0.78	0.72
Avail Cap(c_a), veh/h	302	875	465	286	1256	390	146	719	321	302	1042	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	0.46	0.46	0.46	1.00	1.00	1.00	0.37	0.37	0.37
Uniform Delay (d), s/veh	37.3	32.4	32.4	37.2	33.8	12.3	40.7	35.0	14.8	37.3	28.9	10.6
Incr Delay (d2), s/veh	62.4	7.9	13.3	22.2	31.0	1.7	25.4	18.6	10.9	45.4	2.2	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	9.1	10.4	7.5	12.5	2.9	3.4	8.8	3.6	10.3	8.1	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.6	40.3	45.7	59.5	64.8	14.0	66.1	53.6	25.7	82.7	31.1	14.1
LnGrp LOS	F	D	D	E	F	B	E	D	C	F	C	B
Approach Vol, veh/h		1553			1836			989			1461	
Approach Delay, s/veh		54.4			57.0			48.9			38.4	
Approach LOS		D			E			D			D	

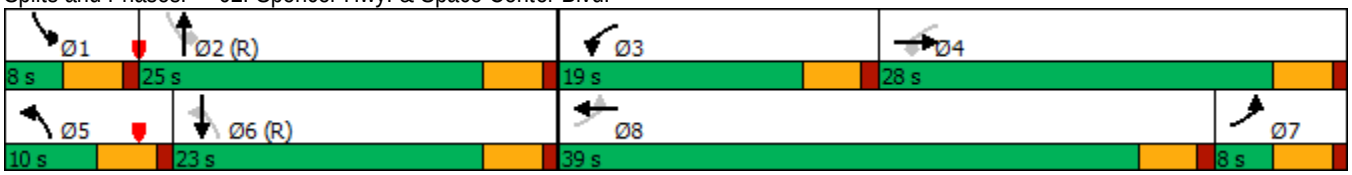
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	23.0	19.2	27.8	11.7	31.3	20.0	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	18.5	14.5	23.5	7.5	26.5	15.5	22.5
Max Q Clear Time (g_c+I1), s	17.5	18.6	15.6	22.9	7.7	21.1	17.5	24.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	3.1	0.0	0.0

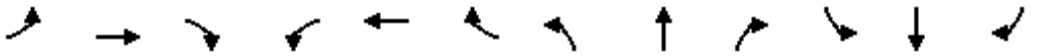
Intersection Summary	
HCM 6th Ctrl Delay	50.3
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	48	1292	327	379	1659	180	317	517	50	416
Future Volume (vph)	48	1292	327	379	1659	180	317	517	50	416
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases	8		4	4		6		2	2	
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	28.0	28.0	19.0	39.0	10.0	25.0	25.0	8.0	23.0
Total Split (%)	10.0%	35.0%	35.0%	23.8%	48.8%	12.5%	31.3%	31.3%	10.0%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	39.8	23.5	23.5	38.0	37.7	24.0	23.7	23.7	25.8	18.5
Actuated g/C Ratio	0.50	0.29	0.29	0.48	0.47	0.30	0.30	0.30	0.32	0.23
v/c Ratio	0.29	0.94	0.57	0.98	0.77	0.73	0.33	0.66	0.16	0.60
Control Delay	20.0	42.1	14.0	63.6	21.3	39.4	24.1	7.9	18.6	30.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	42.1	14.0	63.6	21.3	39.4	24.1	7.9	18.6	30.6
LOS	C	D	B	E	C	D	C	A	B	C
Approach Delay		35.9			29.0		18.6			29.4
Approach LOS		D			C		B			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 29.2	Intersection LOS: C
Intersection Capacity Utilization 88.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	1292	327	379	1659	41	180	317	517	50	416	38
Future Volume (veh/h)	48	1292	327	379	1659	41	180	317	517	50	416	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	49	1332	337	391	1710	42	186	327	533	52	429	39
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	236	1464	454	418	2040	50	316	947	422	269	758	69
Arrive On Green	0.07	0.29	0.29	0.18	0.40	0.40	0.07	0.27	0.27	0.03	0.23	0.23
Sat Flow, veh/h	1753	5025	1560	1753	5045	124	1753	3497	1560	1753	3243	294
Grp Volume(v), veh/h	49	1332	337	391	1135	617	186	327	533	52	230	238
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1818	1753	1749	1560	1753	1749	1788
Q Serve(g_s), s	0.0	20.4	15.6	12.9	24.4	24.4	5.5	6.0	21.7	1.7	9.3	9.4
Cycle Q Clear(g_c), s	0.0	20.4	15.6	12.9	24.4	24.4	5.5	6.0	21.7	1.7	9.3	9.4
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	236	1464	454	418	1354	735	316	947	422	269	409	418
V/C Ratio(X)	0.21	0.91	0.74	0.93	0.84	0.84	0.59	0.35	1.26	0.19	0.56	0.57
Avail Cap(c_a), veh/h	236	1476	458	418	1445	784	316	947	422	290	409	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	0.20	0.20	0.20	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	27.3	25.6	19.6	21.5	21.5	23.9	23.5	29.2	20.3	27.1	27.1
Incr Delay (d2), s/veh	0.3	5.5	3.9	8.6	0.9	1.7	2.8	1.0	135.8	0.3	5.5	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	8.1	5.7	5.5	8.5	9.4	2.8	2.5	23.3	0.7	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	32.9	29.5	28.2	22.4	23.1	26.8	24.5	165.0	20.7	32.6	32.6
LnGrp LOS	C	C	C	C	C	C	C	C	F	C	C	C
Approach Vol, veh/h		1718			2143			1046			520	
Approach Delay, s/veh		32.2			23.6			96.5			31.4	
Approach LOS		C			C			F			C	

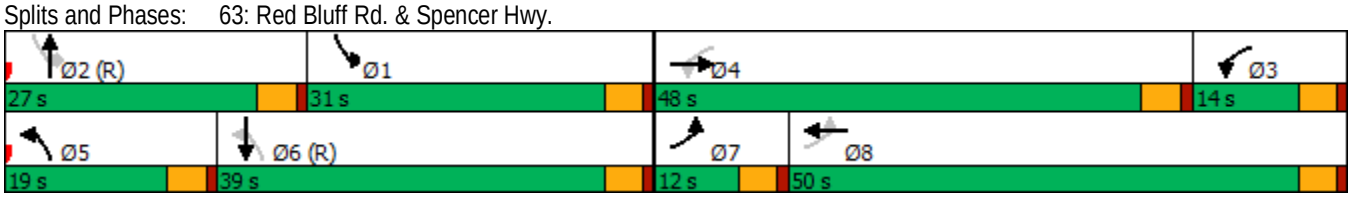
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	26.2	19.0	27.8	10.0	23.2	10.0	36.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	20.5	14.5	23.5	5.5	18.5	3.5	34.5
Max Q Clear Time (g_c+I1), s	3.7	23.7	14.9	22.4	7.5	11.4	2.0	26.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	1.5	0.0	5.9

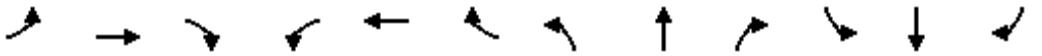
Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	133	1112	103	1294	241	408	74	393	401
Future Volume (vph)	133	1112	103	1294	241	408	74	393	401
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	12.0	48.0	14.0	50.0	19.0	27.0	27.0	31.0	39.0
Total Split (%)	10.0%	40.0%	11.7%	41.7%	15.8%	22.5%	22.5%	25.8%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	53.0	41.5	53.0	45.5	49.0	22.5	22.5	49.0	34.9
Actuated g/C Ratio	0.44	0.35	0.44	0.38	0.41	0.19	0.19	0.41	0.29
v/c Ratio	0.86	0.83	0.50	0.98	0.76	0.71	0.20	0.91	0.58
Control Delay	65.7	39.9	46.0	53.5	42.9	58.3	10.3	43.0	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.7	39.9	46.0	53.5	42.9	58.3	10.3	43.0	18.6
LOS	E	D	D	D	D	E	B	D	B
Approach Delay		42.3		53.0		48.2			29.0
Approach LOS		D		D		D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 44.5	Intersection LOS: D
Intersection Capacity Utilization 92.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	1112	173	103	1294	325	241	408	74	393	401	129
Future Volume (veh/h)	133	1112	173	103	1294	325	241	408	74	393	401	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	146	1222	190	113	1422	357	265	448	81	432	441	142
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	178	1434	223	282	1510	378	389	656	292	510	756	241
Arrive On Green	0.06	0.33	0.33	0.11	0.38	0.38	0.12	0.19	0.19	0.22	0.29	0.29
Sat Flow, veh/h	1753	4386	682	1753	4008	1002	1753	3497	1560	1753	2607	832
Grp Volume(v), veh/h	146	933	479	113	1188	591	265	448	81	432	294	289
Grp Sat Flow(s),veh/h/ln	1753	1675	1718	1753	1675	1660	1753	1749	1560	1753	1749	1691
Q Serve(g_s), s	6.1	31.2	31.2	1.1	41.1	41.4	12.6	14.3	5.3	19.7	17.3	17.5
Cycle Q Clear(g_c), s	6.1	31.2	31.2	1.1	41.1	41.4	12.6	14.3	5.3	19.7	17.3	17.5
Prop In Lane	1.00		0.40	1.00		0.60	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	178	1096	562	282	1262	626	389	656	292	510	507	490
V/C Ratio(X)	0.82	0.85	0.85	0.40	0.94	0.95	0.68	0.68	0.28	0.85	0.58	0.59
Avail Cap(c_a), veh/h	178	1214	623	282	1270	630	389	656	292	510	507	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.43	0.43	0.43	0.25	0.25	0.25	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	37.7	37.7	46.5	36.1	36.2	26.4	45.4	41.8	40.6	36.4	36.5
Incr Delay (d2), s/veh	12.4	2.5	4.7	0.2	4.4	8.4	4.8	5.7	2.3	12.6	4.8	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	12.6	13.3	3.0	17.2	17.9	5.7	6.7	2.3	13.7	8.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	40.2	42.4	46.7	40.5	44.6	31.2	51.1	44.1	53.2	41.2	41.6
LnGrp LOS	D	D	D	D	D	D	C	D	D	D	D	D
Approach Vol, veh/h		1558			1892			794			1015	
Approach Delay, s/veh		41.0			42.1			43.8			46.4	
Approach LOS		D			D			D			D	

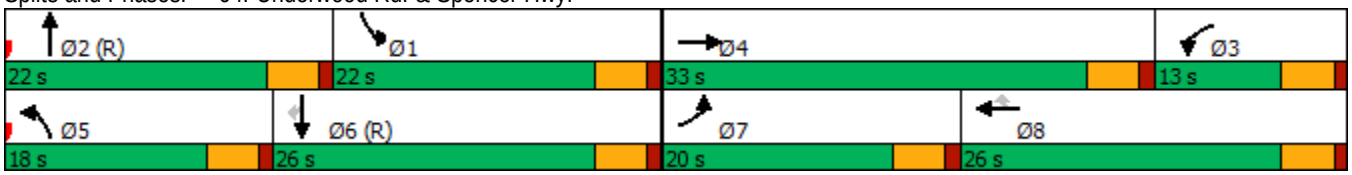
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.3	27.0	18.0	43.7	19.0	39.3	12.0	49.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	22.5	9.5	43.5	14.5	34.5	7.5	45.5
Max Q Clear Time (g_c+I1), s	21.7	16.3	3.1	33.2	14.6	19.5	8.1	43.4
Green Ext Time (p_c), s	0.7	1.7	0.1	6.1	0.0	3.2	0.0	1.9

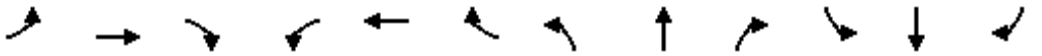
Intersection Summary	
HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	253	972	109	992	139	180	311	287	403	313
Future Volume (vph)	253	972	109	992	139	180	311	287	403	313
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	33.0	13.0	26.0	26.0	18.0	22.0	22.0	26.0	26.0
Total Split (%)	22.2%	36.7%	14.4%	28.9%	28.9%	20.0%	24.4%	24.4%	28.9%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.5	27.9	9.1	21.5	21.5	12.9	17.5	17.5	22.1	22.1
Actuated g/C Ratio	0.17	0.31	0.10	0.24	0.24	0.14	0.19	0.19	0.25	0.25
v/c Ratio	0.92	0.85	0.68	0.94	0.31	0.82	0.64	0.93	0.51	0.53
Control Delay	74.4	34.4	60.6	49.6	6.8	64.1	35.4	71.0	32.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.4	34.4	60.6	49.6	6.8	64.1	35.4	71.0	32.1	6.8
LOS	E	C	E	D	A	E	D	E	C	A
Approach Delay		41.6		45.7			44.3		35.3	
Approach LOS		D		D			D		D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 41.7	Intersection LOS: D
Intersection Capacity Utilization 80.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	972	197	109	992	139	180	311	87	287	403	313
Future Volume (veh/h)	253	972	197	109	992	139	180	311	87	287	403	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	275	1057	214	118	1078	151	196	338	95	312	438	340
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	302	1239	251	198	1188	369	231	526	146	345	909	405
Arrive On Green	0.17	0.30	0.30	0.11	0.24	0.24	0.13	0.19	0.19	0.20	0.26	0.26
Sat Flow, veh/h	1753	4191	848	1753	5025	1560	1753	2705	749	1753	3497	1560
Grp Volume(v), veh/h	275	845	426	118	1078	151	196	217	216	312	438	340
Grp Sat Flow(s),veh/h/ln	1753	1675	1688	1753	1675	1560	1753	1749	1706	1753	1749	1560
Q Serve(g_s), s	13.9	21.4	21.4	5.8	18.8	4.5	9.8	10.3	10.5	15.6	9.5	18.6
Cycle Q Clear(g_c), s	13.9	21.4	21.4	5.8	18.8	4.5	9.8	10.3	10.5	15.6	9.5	18.6
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	302	991	499	198	1188	369	231	340	332	345	909	405
V/C Ratio(X)	0.91	0.85	0.85	0.60	0.91	0.41	0.85	0.64	0.65	0.90	0.48	0.84
Avail Cap(c_a), veh/h	302	1061	535	198	1200	373	263	340	332	345	909	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	0.51	0.51	0.51	0.50	0.50	0.50	0.46	0.46	0.46
Uniform Delay (d), s/veh	36.6	29.8	29.9	38.0	33.4	10.9	38.2	33.3	33.4	35.3	28.2	31.5
Incr Delay (d2), s/veh	20.2	3.9	7.5	2.5	5.6	0.4	11.4	4.5	4.9	14.4	0.8	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	8.5	9.0	2.5	7.7	2.5	4.7	4.5	4.6	7.6	3.9	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	33.8	37.3	40.4	39.0	11.2	49.6	37.9	38.4	49.7	29.0	40.9
LnGrp LOS	E	C	D	D	D	B	D	D	D	D	C	D
Approach Vol, veh/h		1546			1347			629			1090	
Approach Delay, s/veh		38.8			36.0			41.7			38.7	
Approach LOS		D			D			D			D	

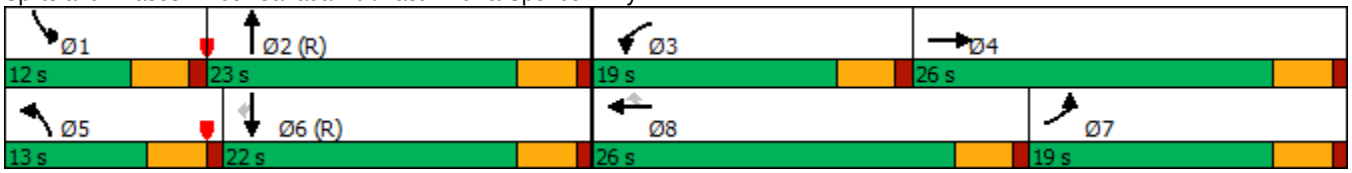
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.2	22.0	14.7	31.1	16.3	27.9	20.0	25.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	17.5	8.5	28.5	13.5	21.5	15.5	21.5
Max Q Clear Time (g_c+I1), s	17.6	12.5	7.8	23.4	11.8	20.6	15.9	20.8
Green Ext Time (p_c), s	0.0	1.0	0.0	3.2	0.1	0.4	0.0	0.5

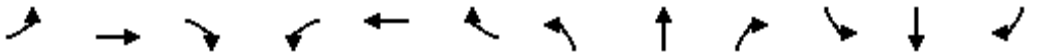
Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	251	734	227	1119	196	141	486	282	588	340
Future Volume (vph)	251	734	227	1119	196	141	486	282	588	340
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	19.0	26.0	19.0	26.0	26.0	13.0	23.0	12.0	22.0	22.0
Total Split (%)	23.8%	32.5%	23.8%	32.5%	32.5%	16.3%	28.8%	15.0%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.2	21.9	13.9	21.5	21.5	8.7	18.5	7.8	17.6	17.6
Actuated g/C Ratio	0.18	0.27	0.17	0.27	0.27	0.11	0.23	0.10	0.22	0.22
v/c Ratio	0.89	0.69	0.82	0.94	0.37	0.84	0.81	0.94	0.84	0.59
Control Delay	63.4	28.4	55.2	43.8	5.7	73.5	36.9	75.3	41.4	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	28.4	55.2	43.8	5.7	73.5	36.9	75.3	41.4	7.5
LOS	E	C	E	D	A	E	D	E	D	A
Approach Delay		36.5		40.7			43.9		39.8	
Approach LOS		D		D			D		D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 80.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	734	97	227	1119	196	141	486	113	282	588	340
Future Volume (veh/h)	251	734	97	227	1119	196	141	486	113	282	588	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	273	798	105	247	1216	213	153	528	123	307	639	370
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	310	1261	165	286	1339	416	186	671	156	319	788	352
Arrive On Green	0.18	0.28	0.28	0.16	0.27	0.27	0.11	0.24	0.24	0.09	0.23	0.23
Sat Flow, veh/h	1753	4497	588	1753	5025	1560	1753	2818	654	3401	3497	1560
Grp Volume(v), veh/h	273	593	310	247	1216	213	153	327	324	307	639	370
Grp Sat Flow(s),veh/h/ln	1753	1675	1735	1753	1675	1560	1753	1749	1723	1700	1749	1560
Q Serve(g_s), s	12.1	12.4	12.5	11.0	18.7	6.7	6.8	14.0	14.1	7.2	13.9	11.3
Cycle Q Clear(g_c), s	12.1	12.4	12.5	11.0	18.7	6.7	6.8	14.0	14.1	7.2	13.9	11.3
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	310	939	486	286	1339	416	186	416	410	319	788	352
V/C Ratio(X)	0.88	0.63	0.64	0.86	0.91	0.51	0.82	0.79	0.79	0.96	0.81	1.05
Avail Cap(c_a), veh/h	318	939	486	318	1351	419	186	416	410	319	788	352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.43	0.43	0.43	0.74	0.74	0.74	0.09	0.09	0.09
Uniform Delay (d), s/veh	32.1	25.2	25.2	32.6	28.4	12.9	35.0	28.6	28.6	36.1	29.4	12.2
Incr Delay (d2), s/veh	13.8	0.7	1.4	9.7	4.4	0.4	19.1	10.6	11.0	8.3	0.9	30.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	4.6	4.9	5.1	7.3	3.0	3.8	6.7	6.7	3.2	5.6	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	25.9	26.7	42.3	32.7	13.3	54.1	39.1	39.6	44.4	30.2	42.8
LnGrp LOS	D	C	C	D	C	B	D	D	D	D	C	F
Approach Vol, veh/h		1176			1676			804			1316	
Approach Delay, s/veh		30.7			31.7			42.2			37.1	
Approach LOS		C			C			D			D	

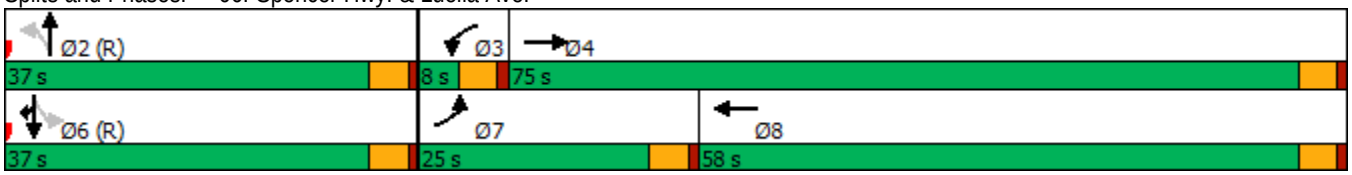
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.5	17.5	26.9	13.0	22.5	18.6	25.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	14.5	21.5	8.5	17.5	14.5	21.5
Max Q Clear Time (g_c+I1), s	9.2	16.1	13.0	14.5	8.8	15.9	14.1	20.7
Green Ext Time (p_c), s	0.0	0.9	0.1	3.0	0.0	0.9	0.0	0.6

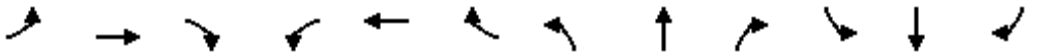
Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	179	1293	3	1594	6	5	226	0	248
Future Volume (vph)	179	1293	3	1594	6	5	226	0	248
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	75.0	8.0	58.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	20.8%	62.5%	6.7%	48.3%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.6	74.2	3.5	53.7		35.2		35.2	35.2
Actuated g/C Ratio	0.15	0.62	0.03	0.45		0.29		0.29	0.29
v/c Ratio	0.78	0.46	0.06	0.88		0.03		0.62	0.43
Control Delay	69.4	12.8	70.3	18.8		28.1		45.7	7.7
Queue Delay	0.0	0.0	0.0	0.2		0.0		0.0	0.0
Total Delay	69.4	12.8	70.3	18.9		28.1		45.7	7.7
LOS	E	B	E	B		C		D	A
Approach Delay		19.7		19.0		28.1		25.8	
Approach LOS		B		B		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 80.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	1293	3	3	1594	168	6	5	3	226	0	248
Future Volume (veh/h)	179	1293	3	3	1594	168	6	5	3	226	0	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	197	1421	3	3	1752	185	7	5	3	248	0	273
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	226	2755	6	5	1876	197	102	68	31	410	0	550
Arrive On Green	0.13	0.53	0.53	0.01	0.81	0.81	0.35	0.35	0.35	0.35	0.00	0.35
Sat Flow, veh/h	1753	5178	11	1753	4618	486	164	194	89	994	0	1560
Grp Volume(v), veh/h	197	919	505	3	1269	668	15	0	0	248	0	273
Grp Sat Flow(s),veh/h/ln	1753	1675	1839	1753	1675	1753	447	0	0	994	0	1560
Q Serve(g_s), s	13.2	21.2	21.2	0.2	35.2	36.0	0.3	0.0	0.0	0.0	0.0	16.5
Cycle Q Clear(g_c), s	13.2	21.2	21.2	0.2	35.2	36.0	31.7	0.0	0.0	31.4	0.0	16.5
Prop In Lane	1.00		0.01	1.00		0.28	0.47		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	226	1783	979	5	1361	712	201	0	0	410	0	550
V/C Ratio(X)	0.87	0.52	0.52	0.62	0.93	0.94	0.07	0.00	0.00	0.60	0.00	0.50
Avail Cap(c_a), veh/h	299	1968	1080	51	1494	782	201	0	0	410	0	550
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.31	0.31	0.31	0.67	0.67	0.67	1.00	0.00	0.00	0.64	0.00	0.64
Uniform Delay (d), s/veh	51.3	18.1	18.1	59.6	10.0	10.1	28.9	0.0	0.0	35.3	0.0	30.5
Incr Delay (d2), s/veh	7.0	0.1	0.1	63.1	7.5	13.3	0.7	0.0	0.0	4.2	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	7.7	8.4	0.2	5.1	6.5	0.3	0.0	0.0	7.0	0.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	18.2	18.2	122.7	17.5	23.3	29.6	0.0	0.0	39.5	0.0	32.5
LnGrp LOS	E	B	B	F	B	C	C	A	A	D	A	C
Approach Vol, veh/h		1621			1940			15			521	
Approach Delay, s/veh		23.1			19.7			29.6			35.8	
Approach LOS		C			B			C			D	

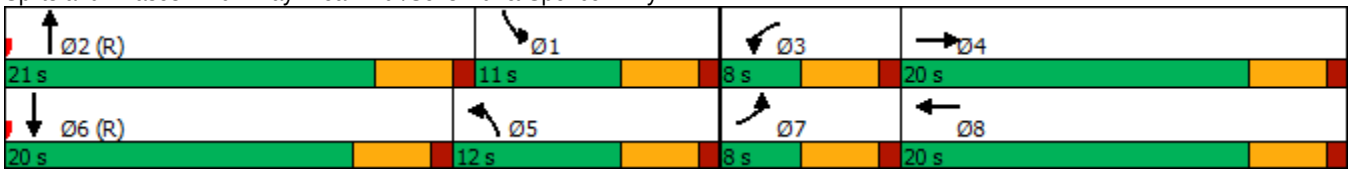
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.8	4.8	68.4		46.8	19.9	53.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		32.5	3.5	70.5		32.5	20.5	53.5				
Max Q Clear Time (g_c+I1), s		33.7	2.2	23.2		33.4	15.2	38.0				
Green Ext Time (p_c), s		0.0	0.0	12.1		0.0	0.2	10.8				

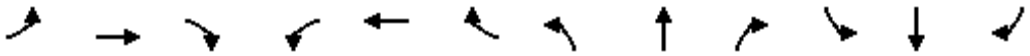
Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	75	419	54	757	187	388	120	253
Future Volume (vph)	75	419	54	757	187	388	120	253
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	12.0	21.0	11.0	20.0
Total Split (%)	13.3%	33.3%	13.3%	33.3%	20.0%	35.0%	18.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	3.5	16.7	3.5	15.1	7.5	20.7	6.5	17.5
Actuated g/C Ratio	0.06	0.28	0.06	0.25	0.12	0.34	0.11	0.29
v/c Ratio	0.77	0.40	0.55	0.75	0.97	0.37	0.69	0.46
Control Delay	76.9	15.1	51.1	24.0	76.4	27.3	47.2	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	15.1	51.1	24.0	76.4	27.3	47.2	9.6
LOS	E	B	D	C	E	C	D	A
Approach Delay		22.7		25.6		42.2		17.1
Approach LOS		C		C		D		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 26.8	Intersection LOS: C
Intersection Capacity Utilization 66.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	419	114	54	757	129	187	388	41	120	253	228
Future Volume (veh/h)	75	419	114	54	757	129	187	388	41	120	253	228
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	78	436	119	56	789	134	195	404	43	125	264	238
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	99	995	263	69	1016	171	264	877	93	235	458	398
Arrive On Green	0.06	0.25	0.25	0.04	0.23	0.23	0.15	0.28	0.28	0.13	0.26	0.26
Sat Flow, veh/h	1753	3958	1045	1753	4330	730	1753	3191	338	1753	1771	1541
Grp Volume(v), veh/h	78	367	188	56	609	314	195	220	227	125	261	241
Grp Sat Flow(s),veh/h/ln	1753	1675	1653	1753	1675	1709	1753	1749	1780	1753	1749	1563
Q Serve(g_s), s	2.6	5.5	5.8	1.9	10.2	10.3	6.4	6.3	6.3	4.0	7.8	8.1
Cycle Q Clear(g_c), s	2.6	5.5	5.8	1.9	10.2	10.3	6.4	6.3	6.3	4.0	7.8	8.1
Prop In Lane	1.00		0.63	1.00		0.43	1.00		0.19	1.00		0.99
Lane Grp Cap(c), veh/h	99	842	416	69	786	401	264	481	489	235	452	404
V/C Ratio(X)	0.79	0.44	0.45	0.81	0.77	0.78	0.74	0.46	0.46	0.53	0.58	0.60
Avail Cap(c_a), veh/h	102	865	427	102	865	442	264	481	489	235	452	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	1.00	1.00	1.00	0.47	0.47	0.47	0.98	0.98	0.98
Uniform Delay (d), s/veh	28.0	18.9	19.0	28.6	21.5	21.5	24.3	18.0	18.1	24.2	19.4	19.5
Incr Delay (d2), s/veh	14.3	0.1	0.3	24.9	4.1	8.1	5.1	1.5	1.5	2.2	5.2	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.0	2.1	1.2	4.1	4.7	2.7	2.4	2.5	1.7	3.5	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	19.0	19.3	53.5	25.5	29.7	29.4	19.5	19.5	26.5	24.6	25.8
LnGrp LOS	D	B	B	D	C	C	C	B	B	C	C	C
Approach Vol, veh/h		633			979			642			627	
Approach Delay, s/veh		22.0			28.5			22.5			25.4	
Approach LOS		C			C			C			C	

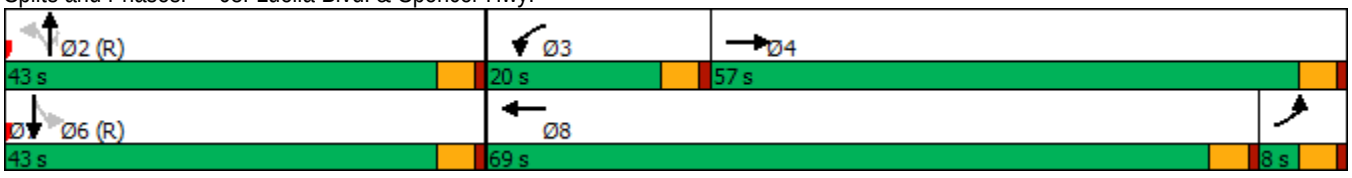
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	21.0	6.9	19.6	13.5	20.0	7.9	18.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	16.5	3.5	15.5	7.5	15.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	6.0	8.3	3.9	7.8	8.4	10.1	4.6	12.3
Green Ext Time (p_c), s	0.0	1.5	0.0	2.2	0.0	1.5	0.0	1.8

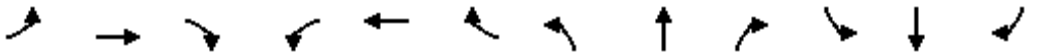
Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	3	1365	114	1703	204	1	92	8
Future Volume (vph)	3	1365	114	1703	204	1	92	8
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		2	
Detector Phase	7	4	3	8	2	2	2	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	57.0	20.0	69.0	43.0	43.0	43.0	43.0
Total Split (%)	6.7%	47.5%	16.7%	57.5%	35.8%	35.8%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.2	50.3	13.0	66.2	43.2	43.2	43.2	43.2
Actuated g/C Ratio	0.04	0.42	0.11	0.55	0.36	0.36	0.36	0.36
v/c Ratio	0.04	0.83	0.66	0.71	0.47	0.00	0.16	0.03
Control Delay	51.3	29.6	68.0	21.4	34.2	41.0	10.3	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	29.7	68.0	21.5	34.2	41.0	10.3	18.0
LOS	D	C	E	C	C	D	B	B
Approach Delay		29.7		24.4		26.8		18.0
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 88 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 26.7	Intersection LOS: C
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1365	138	114	1703	6	204	1	92	0	8	10
Future Volume (veh/h)	3	1365	138	114	1703	6	204	1	92	0	8	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	3	1500	152	125	1871	7	224	1	101	0	9	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	5	1705	173	151	2332	9	645	798	676	0	327	399
Arrive On Green	0.01	0.74	0.74	0.09	0.45	0.45	0.43	0.43	0.43	0.00	0.43	0.43
Sat Flow, veh/h	1753	4637	470	1753	5168	19	1370	1841	1560	0	754	921
Grp Volume(v), veh/h	3	1084	568	125	1213	665	224	1	101	0	0	20
Grp Sat Flow(s),veh/h/ln	1753	1675	1756	1753	1675	1837	1370	1841	1560	0	0	1675
Q Serve(g_s), s	0.2	29.1	29.2	8.4	37.4	37.4	13.4	0.0	4.7	0.0	0.0	0.8
Cycle Q Clear(g_c), s	0.2	29.1	29.2	8.4	37.4	37.4	14.3	0.0	4.7	0.0	0.0	0.8
Prop In Lane	1.00		0.27	1.00		0.01	1.00		1.00	0.00		0.55
Lane Grp Cap(c), veh/h	5	1232	646	151	1512	829	645	798	676	0	0	726
V/C Ratio(X)	0.62	0.88	0.88	0.83	0.80	0.80	0.35	0.00	0.15	0.00	0.00	0.03
Avail Cap(c_a), veh/h	51	1466	768	226	1801	988	645	798	676	0	0	726
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.40	0.40	0.40	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	59.6	13.9	13.9	53.9	28.3	28.3	23.6	19.3	20.6	0.0	0.0	19.5
Incr Delay (d2), s/veh	78.6	5.1	9.2	6.2	0.9	1.7	1.5	0.0	0.5	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.5	6.5	3.9	14.4	16.0	4.6	0.0	1.8	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	138.2	19.0	23.1	60.1	29.3	30.0	25.1	19.3	21.1	0.0	0.0	19.6
LnGrp LOS	F	B	C	E	C	C	C	B	C	A	A	B
Approach Vol, veh/h		1655			2003			326			20	
Approach Delay, s/veh		20.7			31.4			23.8			19.6	
Approach LOS		C			C			C			B	

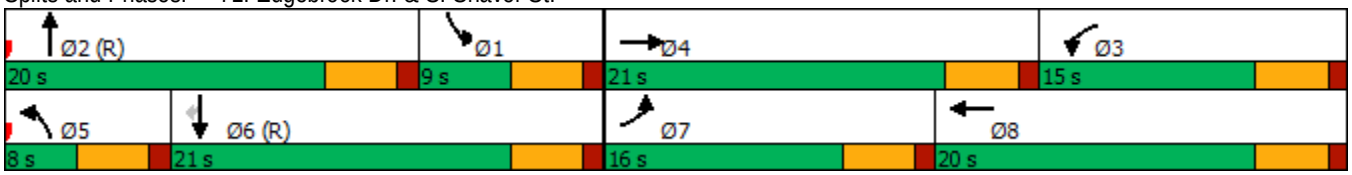
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		56.5	14.9	48.6		56.5	4.8	58.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	15.5	52.5		38.5	3.5	64.5				
Max Q Clear Time (g_c+I1), s		16.3	10.4	31.2		2.8	2.2	39.4				
Green Ext Time (p_c), s		1.0	0.1	11.3		0.1	0.0	14.8				

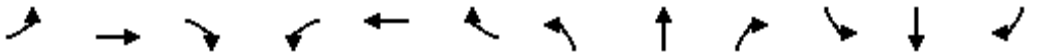
Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	258	500	151	504	69	624	84	683	318
Future Volume (vph)	258	500	151	504	69	624	84	683	318
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	16.0	21.0	15.0	20.0	8.0	20.0	9.0	21.0	21.0
Total Split (%)	24.6%	32.3%	23.1%	30.8%	12.3%	30.8%	13.8%	32.3%	32.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.4	16.9	11.4	14.5	4.2	18.3	4.5	19.0	19.0
Actuated g/C Ratio	0.18	0.26	0.18	0.22	0.06	0.28	0.07	0.29	0.29
v/c Ratio	0.87	0.44	0.51	0.73	0.63	0.77	0.72	0.69	0.51
Control Delay	56.6	21.2	30.8	28.9	60.1	29.5	68.9	35.3	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.6	21.2	30.8	28.9	60.1	29.5	68.9	35.3	17.9
LOS	E	C	C	C	E	C	E	D	B
Approach Delay		32.5		29.3		32.1		32.8	
Approach LOS		C		C		C		C	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	500	53	151	504	45	69	624	106	84	683	318
Future Volume (veh/h)	258	500	53	151	504	45	69	624	106	84	683	318
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	266	515	55	156	520	46	71	643	109	87	704	328
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	310	785	83	364	654	58	90	713	121	187	1028	459
Arrive On Green	0.18	0.17	0.17	0.21	0.20	0.20	0.05	0.24	0.24	0.04	0.10	0.10
Sat Flow, veh/h	1753	4617	487	1753	3251	287	1753	2992	506	1753	3497	1560
Grp Volume(v), veh/h	266	372	198	156	279	287	71	375	377	87	704	328
Grp Sat Flow(s),veh/h/ln	1753	1675	1753	1753	1749	1789	1753	1749	1750	1753	1749	1560
Q Serve(g_s), s	9.6	6.7	6.9	5.0	9.9	9.9	2.6	13.5	13.6	3.2	12.7	13.3
Cycle Q Clear(g_c), s	9.6	6.7	6.9	5.0	9.9	9.9	2.6	13.5	13.6	3.2	12.7	13.3
Prop In Lane	1.00		0.28	1.00		0.16	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	310	570	298	364	352	360	90	417	417	187	1028	459
V/C Ratio(X)	0.86	0.65	0.66	0.43	0.79	0.80	0.79	0.90	0.90	0.47	0.68	0.72
Avail Cap(c_a), veh/h	310	850	445	364	417	427	94	417	417	187	1028	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.56	0.56	0.56	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	26.0	25.2	25.2	22.4	24.7	24.7	30.5	24.0	24.0	29.5	26.4	26.7
Incr Delay (d2), s/veh	20.8	1.3	2.5	0.4	5.0	5.1	34.2	25.0	25.3	1.3	2.6	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.6	2.9	2.0	4.3	4.5	1.9	8.0	8.0	1.4	6.2	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	26.5	27.8	22.8	29.7	29.8	64.6	49.0	49.4	30.8	29.1	33.4
LnGrp LOS	D	C	C	C	C	C	E	D	D	C	C	C
Approach Vol, veh/h		836			722			823			1119	
Approach Delay, s/veh		33.2			28.2			50.5			30.5	
Approach LOS		C			C			D			C	

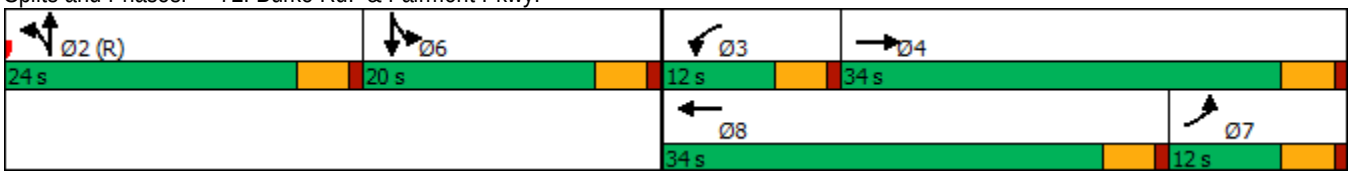
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	20.0	18.0	15.6	7.8	23.6	16.0	17.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	15.5	10.5	16.5	3.5	16.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	5.2	15.6	7.0	8.9	4.6	15.3	11.6	11.9
Green Ext Time (p_c), s	0.0	0.0	0.1	2.2	0.0	0.8	0.0	1.2

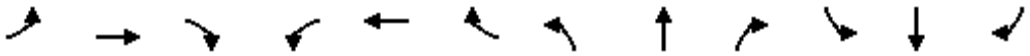
Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	124	845	138	900	144	390	182	409
Future Volume (vph)	124	845	138	900	144	390	182	409
Turn Type	Prot	NA	Prot	NA	Split	NA	Split	NA
Protected Phases	7	4	3	8	2	2	6	6
Permitted Phases								
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	34.0	12.0	34.0	24.0	24.0	20.0	20.0
Total Split (%)	13.3%	37.8%	13.3%	37.8%	26.7%	26.7%	22.2%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	Max	Max
Act Effct Green (s)	7.5	29.5	7.5	29.5	19.5	19.5	15.5	15.5
Actuated g/C Ratio	0.08	0.33	0.08	0.33	0.22	0.22	0.17	0.17
v/c Ratio	0.87	0.90	0.97	0.97	0.39	0.74	0.62	0.87
Control Delay	89.7	40.3	110.5	49.8	33.7	35.1	44.5	50.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.7	40.3	110.5	49.8	33.7	35.1	44.5	50.5
LOS	F	D	F	D	C	D	D	D
Approach Delay		45.7		56.7		34.8		49.0
Approach LOS		D		E		C		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 47.8	Intersection LOS: D
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	845	157	138	900	177	144	390	173	182	409	112
Future Volume (veh/h)	124	845	157	138	900	177	144	390	173	182	409	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	125	854	159	139	909	179	145	394	0	184	413	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	146	964	180	146	954	188	380	758		302	602	
Arrive On Green	0.08	0.33	0.33	0.08	0.33	0.33	0.22	0.22	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1753	2943	548	1753	2913	573	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	125	507	506	139	546	542	145	394	0	184	413	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1742	1753	1749	1738	1753	1749	0	1753	1749	0
Q Serve(g_s), s	6.3	24.7	24.7	7.1	27.4	27.5	6.4	8.9	0.0	8.7	10.0	0.0
Cycle Q Clear(g_c), s	6.3	24.7	24.7	7.1	27.4	27.5	6.4	8.9	0.0	8.7	10.0	0.0
Prop In Lane	1.00		0.31	1.00		0.33	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	146	573	571	146	573	569	380	758		302	602	
V/C Ratio(X)	0.86	0.89	0.89	0.95	0.95	0.95	0.38	0.52		0.61	0.69	
Avail Cap(c_a), veh/h	146	573	571	146	573	570	380	758		302	602	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.52	0.52	0.52	0.33	0.33	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.7	28.7	28.7	41.1	29.6	29.6	30.1	31.1	0.0	34.5	35.0	0.0
Incr Delay (d2), s/veh	26.5	10.9	10.9	40.6	16.8	17.0	1.0	0.8	0.0	8.9	6.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	11.7	11.7	4.7	13.7	13.7	2.7	3.8	0.0	4.4	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.2	39.5	39.6	81.7	46.4	46.6	31.1	32.0	0.0	43.3	41.2	0.0
LnGrp LOS	E	D	D	F	D	D	C	C		D	D	
Approach Vol, veh/h		1138			1227			539	A		597	A
Approach Delay, s/veh		42.6			50.5			31.7			41.9	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	24.0	12.0	34.0	20.0	12.0	34.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	7.5	29.5	15.5	7.5	29.5
Max Q Clear Time (g_c+I1), s	10.9	9.1	26.7	12.0	8.3	29.5
Green Ext Time (p_c), s	2.0	0.0	1.7	1.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

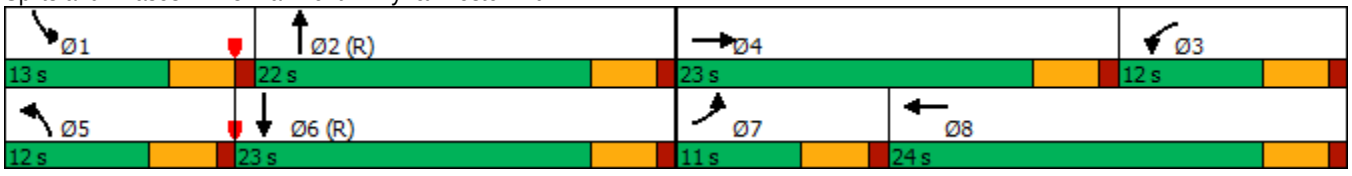
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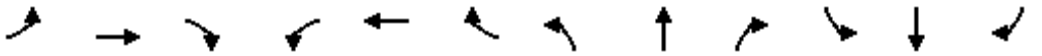
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	130	1048	161	1100	150	450	349	550
Future Volume (vph)	130	1048	161	1100	150	450	349	550
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	23.0	12.0	24.0	12.0	22.0	13.0	23.0
Total Split (%)	15.7%	32.9%	17.1%	34.3%	17.1%	31.4%	18.6%	32.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	18.5	7.5	19.5	7.5	17.5	8.5	18.5
Actuated g/C Ratio	0.09	0.26	0.11	0.28	0.11	0.25	0.12	0.26
v/c Ratio	0.83	0.90	0.89	0.99	0.83	0.68	0.88	0.72
Control Delay	72.5	35.6	77.9	48.4	67.9	26.3	55.7	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.5	35.6	77.9	48.4	67.9	26.3	55.7	27.6
LOS	E	D	E	D	E	C	E	C
Approach Delay		39.4		51.5		34.8		37.6
Approach LOS		D		D		C		D

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 42.3	Intersection LOS: D
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	1048	104	161	1100	253	150	450	132	349	550	86
Future Volume (veh/h)	130	1048	104	161	1100	253	150	450	132	349	550	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	134	1080	107	166	1134	261	155	464	136	360	567	89
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	163	1213	120	194	1137	262	188	668	194	413	801	125
Arrive On Green	0.09	0.26	0.26	0.11	0.28	0.28	0.11	0.25	0.25	0.12	0.26	0.26
Sat Flow, veh/h	1753	4648	460	1753	4082	939	1753	2672	777	3401	3030	474
Grp Volume(v), veh/h	134	778	409	166	931	464	155	302	298	360	327	329
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1675	1672	1753	1749	1701	1700	1749	1755
Q Serve(g_s), s	5.3	15.6	15.7	6.5	19.4	19.4	6.1	11.0	11.1	7.3	11.8	11.9
Cycle Q Clear(g_c), s	5.3	15.6	15.7	6.5	19.4	19.4	6.1	11.0	11.1	7.3	11.8	11.9
Prop In Lane	1.00		0.26	1.00		0.56	1.00		0.46	1.00		0.27
Lane Grp Cap(c), veh/h	163	875	459	194	933	466	188	437	425	413	462	464
V/C Ratio(X)	0.82	0.89	0.89	0.86	1.00	1.00	0.83	0.69	0.70	0.87	0.71	0.71
Avail Cap(c_a), veh/h	163	885	465	194	933	466	188	437	425	413	462	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	0.30	0.30	0.30	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	31.2	24.9	24.9	30.6	25.2	25.2	30.6	23.8	23.9	30.2	23.3	23.3
Incr Delay (d2), s/veh	19.4	7.6	13.3	11.1	15.4	22.2	24.9	8.7	9.2	9.7	4.4	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.7	7.8	3.2	9.2	10.0	3.8	5.3	5.3	3.4	5.1	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	32.5	38.2	41.7	40.7	47.4	55.5	32.5	33.1	39.9	27.7	27.7
LnGrp LOS	D	C	D	D	D	D	E	C	C	D	C	C
Approach Vol, veh/h		1321			1561			755			1016	
Approach Delay, s/veh		36.1			42.8			37.5			32.0	
Approach LOS		D			D			D			C	

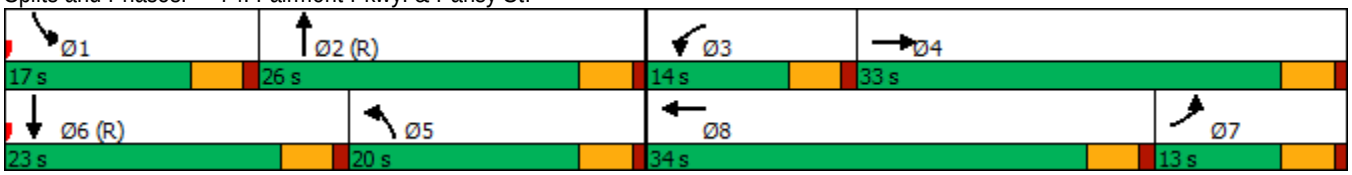
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.0	12.2	22.8	12.0	23.0	11.0	24.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	17.5	7.5	18.5	7.5	18.5	6.5	19.5
Max Q Clear Time (g_c+I1), s	9.3	13.1	8.5	17.7	8.1	13.9	7.3	21.4
Green Ext Time (p_c), s	0.0	1.5	0.0	0.6	0.0	1.7	0.0	0.0

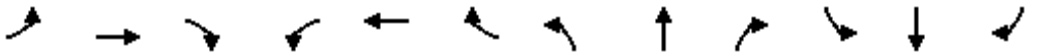
Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	150	1421	139	1229	281	308	165	264
Future Volume (vph)	150	1421	139	1229	281	308	165	264
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	8.0	20.0	9.5	20.0
Total Split (s)	13.0	33.0	14.0	34.0	20.0	26.0	17.0	23.0
Total Split (%)	14.4%	36.7%	15.6%	37.8%	22.2%	28.9%	18.9%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.5	28.7	9.3	29.5	15.5	22.2	11.8	18.5
Actuated g/C Ratio	0.09	0.32	0.10	0.33	0.17	0.25	0.13	0.21
v/c Ratio	0.95	1.02	0.79	0.89	0.97	0.49	0.75	0.54
Control Delay	102.0	59.5	70.6	36.6	85.1	28.2	58.7	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.0	59.5	70.6	36.6	85.1	28.2	58.7	28.8
LOS	F	E	E	D	F	C	E	C
Approach Delay		63.2		39.6		51.3		37.8
Approach LOS		E		D		D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 50.2	Intersection LOS: D
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	1421	145	139	1229	177	281	308	104	165	264	120
Future Volume (veh/h)	150	1421	145	139	1229	177	281	308	104	165	264	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	155	1465	149	143	1267	182	290	318	107	170	272	124
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	169	1468	149	174	1420	204	313	691	228	204	484	215
Arrive On Green	0.10	0.32	0.32	0.10	0.32	0.32	0.18	0.27	0.27	0.12	0.21	0.21
Sat Flow, veh/h	1753	4635	471	1753	4438	638	1753	2582	853	1753	2356	1045
Grp Volume(v), veh/h	155	1059	555	143	956	493	290	213	212	170	200	196
Grp Sat Flow(s),veh/h/ln	1753	1675	1756	1753	1675	1726	1753	1749	1687	1753	1749	1653
Q Serve(g_s), s	7.9	28.4	28.4	7.2	24.5	24.5	14.7	9.2	9.5	8.5	9.2	9.6
Cycle Q Clear(g_c), s	7.9	28.4	28.4	7.2	24.5	24.5	14.7	9.2	9.5	8.5	9.2	9.6
Prop In Lane	1.00		0.27	1.00		0.37	1.00		0.51	1.00		0.63
Lane Grp Cap(c), veh/h	169	1061	556	174	1072	552	313	468	451	204	359	340
V/C Ratio(X)	0.92	1.00	1.00	0.82	0.89	0.89	0.93	0.46	0.47	0.83	0.56	0.58
Avail Cap(c_a), veh/h	169	1061	556	185	1098	566	313	468	451	243	359	340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.32	0.32	0.32	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	30.7	30.7	39.7	29.1	29.1	36.4	27.5	27.6	38.9	32.1	32.2
Incr Delay (d2), s/veh	21.3	15.2	21.2	23.5	9.3	16.2	32.7	3.2	3.5	18.6	6.1	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	13.2	14.8	4.2	10.8	12.2	9.0	4.2	4.2	4.7	4.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	45.9	52.0	63.2	38.4	45.3	69.1	30.7	31.1	57.5	38.2	39.2
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	D	D
Approach Vol, veh/h		1769			1592			715			566	
Approach Delay, s/veh		49.2			42.8			46.4			44.3	
Approach LOS		D			D			D			D	

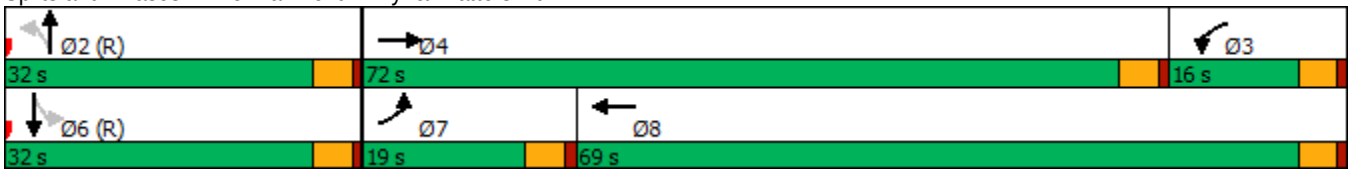
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	28.6	13.5	33.0	20.5	23.0	13.2	33.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	21.5	9.5	28.5	15.5	18.5	8.5	29.5
Max Q Clear Time (g_c+I1), s	10.5	11.5	9.2	30.4	16.7	11.6	9.9	26.5
Green Ext Time (p_c), s	0.1	1.8	0.0	0.0	0.0	1.3	0.0	2.3

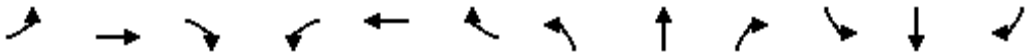
Intersection Summary	
HCM 6th Ctrl Delay	46.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	90	1079	67	1233	27	21	56	18
Future Volume (vph)	90	1079	67	1233	27	21	56	18
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	72.0	16.0	69.0	32.0	32.0	32.0	32.0
Total Split (%)	15.8%	60.0%	13.3%	57.5%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.3	55.5	15.5	57.5		37.7		37.7
Actuated g/C Ratio	0.09	0.46	0.13	0.48		0.31		0.31
v/c Ratio	0.56	0.70	0.30	0.79		0.16		0.34
Control Delay	64.8	28.5	49.5	29.6		25.2		27.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	64.8	28.5	49.5	29.6		25.2		27.0
LOS	E	C	D	C		C		C
Approach Delay		31.2		30.6		25.2		27.0
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 36 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1079	24	67	1233	49	27	21	30	56	18	93
Future Volume (veh/h)	90	1079	24	67	1233	49	27	21	30	56	18	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	92	1101	24	68	1258	50	28	21	31	57	18	95
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	116	1323	29	208	1476	59	231	176	232	220	81	330
Arrive On Green	0.07	0.38	0.38	0.12	0.43	0.43	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1753	3499	76	1753	3429	136	488	449	593	460	208	845
Grp Volume(v), veh/h	92	550	575	68	641	667	80	0	0	170	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1827	1753	1749	1816	1531	0	0	1513	0	0
Q Serve(g_s), s	6.2	34.3	34.3	4.3	39.5	39.6	0.0	0.0	0.0	4.9	0.0	0.0
Cycle Q Clear(g_c), s	6.2	34.3	34.3	4.3	39.5	39.6	3.6	0.0	0.0	8.8	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.07	0.35		0.39	0.34		0.56
Lane Grp Cap(c), veh/h	116	661	691	208	753	782	639	0	0	631	0	0
V/C Ratio(X)	0.80	0.83	0.83	0.33	0.85	0.85	0.13	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	212	984	1028	208	940	976	639	0	0	631	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.40	0.14	0.14	0.14	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	55.2	33.9	33.9	48.5	30.7	30.7	23.3	0.0	0.0	24.9	0.0	0.0
Incr Delay (d2), s/veh	5.0	1.6	1.6	0.1	0.9	0.9	0.4	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	14.6	15.3	1.9	16.5	17.2	1.5	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	35.5	35.4	48.6	31.7	31.7	23.7	0.0	0.0	25.9	0.0	0.0
LnGrp LOS	E	D	D	D	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1217			1376			80			170	
Approach Delay, s/veh		37.3			32.5			23.7			25.9	
Approach LOS		D			C			C			C	

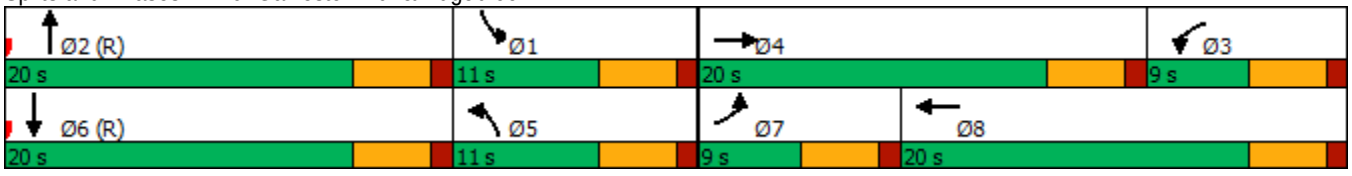
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		51.4	18.7	49.9		51.4	12.4	56.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	11.5	67.5		27.5	14.5	64.5				
Max Q Clear Time (g_c+I1), s		5.6	6.3	36.3		10.8	8.2	41.6				
Green Ext Time (p_c), s		0.4	0.0	9.1		0.8	0.1	10.0				

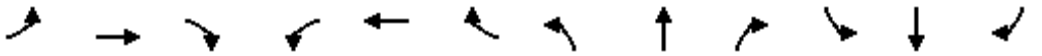
Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	113	659	68	596	70	422	189	428
Future Volume (vph)	113	659	68	596	70	422	189	428
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	20.0	9.0	20.0	11.0	20.0	11.0	20.0
Total Split (%)	15.0%	33.3%	15.0%	33.3%	18.3%	33.3%	18.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.5	19.0	4.8	15.4	6.3	15.6	6.5	20.0
Actuated g/C Ratio	0.08	0.32	0.08	0.26	0.10	0.26	0.11	0.33
v/c Ratio	0.91	0.66	0.51	0.87	0.40	0.58	1.05	0.54
Control Delay	91.8	22.9	42.2	32.8	32.0	21.0	111.3	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.8	22.9	42.2	32.8	32.0	21.0	111.3	16.9
LOS	F	C	D	C	C	C	F	B
Approach Delay		32.5		33.6		22.4		39.5
Approach LOS		C		C		C		D

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 32.7	Intersection LOS: C
Intersection Capacity Utilization 72.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	659	38	68	596	161	70	422	80	189	428	175
Future Volume (veh/h)	113	659	38	68	596	161	70	422	80	189	428	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	118	686	40	71	621	168	73	440	83	197	446	182
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	131	813	47	156	697	188	194	759	142	194	628	254
Arrive On Green	0.08	0.24	0.24	0.09	0.26	0.26	0.11	0.26	0.26	0.11	0.26	0.26
Sat Flow, veh/h	1753	3358	196	1753	2722	735	1753	2940	551	1753	2430	983
Grp Volume(v), veh/h	118	357	369	71	399	390	73	261	262	197	320	308
Grp Sat Flow(s),veh/h/ln	1753	1749	1805	1753	1749	1708	1753	1749	1742	1753	1749	1664
Q Serve(g_s), s	4.0	11.7	11.7	2.3	13.2	13.2	2.3	7.8	7.9	6.6	10.0	10.1
Cycle Q Clear(g_c), s	4.0	11.7	11.7	2.3	13.2	13.2	2.3	7.8	7.9	6.6	10.0	10.1
Prop In Lane	1.00		0.11	1.00		0.43	1.00		0.32	1.00		0.59
Lane Grp Cap(c), veh/h	131	423	437	156	448	438	194	452	450	194	452	430
V/C Ratio(X)	0.90	0.84	0.84	0.45	0.89	0.89	0.38	0.58	0.58	1.02	0.71	0.72
Avail Cap(c_a), veh/h	131	452	466	156	452	441	194	452	450	194	452	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	21.7	21.7	25.9	21.5	21.5	24.8	19.4	19.4	26.7	20.2	20.3
Incr Delay (d2), s/veh	48.9	13.0	12.8	2.0	19.1	19.8	1.2	5.3	5.4	69.2	9.0	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	5.9	6.1	1.0	7.3	7.2	1.0	3.6	3.6	6.3	4.8	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.4	34.7	34.4	28.0	40.6	41.3	26.0	24.7	24.9	95.8	29.2	30.1
LnGrp LOS	E	C	C	C	D	D	C	C	C	F	C	C
Approach Vol, veh/h		844			860			596			825	
Approach Delay, s/veh		40.4			39.9			24.9			45.5	
Approach LOS		D			D			C			D	

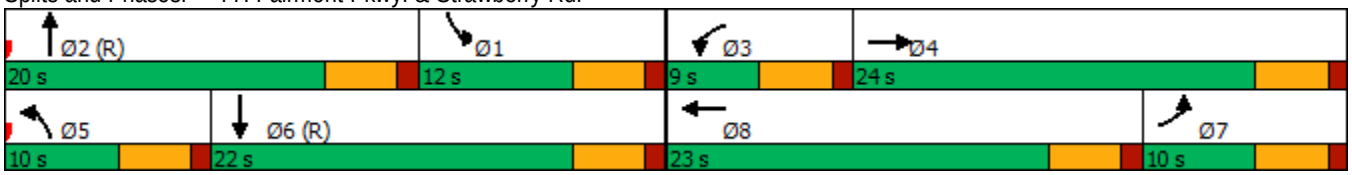
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	20.0	9.9	19.0	11.1	20.0	9.0	19.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	15.5	4.5	15.5	6.5	15.5	4.5	15.5
Max Q Clear Time (g_c+I1), s	8.6	9.9	4.3	13.7	4.3	12.1	6.0	15.2
Green Ext Time (p_c), s	0.0	1.5	0.0	0.8	0.0	1.3	0.0	0.2

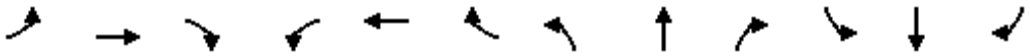
Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	133	695	57	792	47	435	182	386
Future Volume (vph)	133	695	57	792	47	435	182	386
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	24.0	9.0	23.0	10.0	20.0	12.0	22.0
Total Split (%)	15.4%	36.9%	13.8%	35.4%	15.4%	30.8%	18.5%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.5	23.1	4.5	18.5	5.5	15.5	7.5	21.5
Actuated g/C Ratio	0.08	0.36	0.07	0.28	0.08	0.24	0.12	0.33
v/c Ratio	0.94	0.64	0.49	1.00	0.33	0.63	0.94	0.46
Control Delay	95.2	21.1	44.5	52.8	34.5	24.9	83.4	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.2	21.1	44.5	52.8	34.5	24.9	83.4	17.6
LOS	F	C	D	D	C	C	F	B
Approach Delay		32.1		52.3		25.7		34.7
Approach LOS		C		D		C		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	695	62	57	792	165	47	435	70	182	386	130
Future Volume (veh/h)	133	695	62	57	792	165	47	435	70	182	386	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	137	716	64	59	816	170	48	448	72	188	398	134
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	148	1062	95	74	820	171	59	720	115	202	825	275
Arrive On Green	0.08	0.33	0.33	0.04	0.28	0.28	0.03	0.24	0.24	0.12	0.32	0.32
Sat Flow, veh/h	1753	3247	290	1753	2881	600	1753	3020	482	1753	2577	858
Grp Volume(v), veh/h	137	385	395	59	495	491	48	258	262	188	269	263
Grp Sat Flow(s),veh/h/ln	1753	1749	1789	1753	1749	1733	1753	1749	1754	1753	1749	1686
Q Serve(g_s), s	5.0	12.4	12.4	2.2	18.4	18.4	1.8	8.6	8.7	6.9	8.0	8.2
Cycle Q Clear(g_c), s	5.0	12.4	12.4	2.2	18.4	18.4	1.8	8.6	8.7	6.9	8.0	8.2
Prop In Lane	1.00		0.16	1.00		0.35	1.00		0.28	1.00		0.51
Lane Grp Cap(c), veh/h	148	572	585	74	498	493	59	417	418	202	560	540
V/C Ratio(X)	0.92	0.67	0.67	0.80	1.00	1.00	0.81	0.62	0.63	0.93	0.48	0.49
Avail Cap(c_a), veh/h	148	572	585	121	498	493	148	417	418	202	560	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.32	0.32	0.32	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	29.5	18.9	18.9	30.9	23.2	23.2	31.2	22.1	22.2	28.5	17.7	17.8
Incr Delay (d2), s/veh	48.6	2.8	2.8	6.3	21.6	21.7	22.5	6.8	6.9	37.0	2.3	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	5.0	5.1	1.0	9.9	9.8	1.1	4.1	4.1	4.8	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.2	21.7	21.7	37.2	44.8	44.9	53.7	28.9	29.1	65.5	20.0	20.2
LnGrp LOS	E	C	C	D	D	D	D	C	C	E	C	C
Approach Vol, veh/h		917			1045			568			720	
Approach Delay, s/veh		30.1			44.4			31.1			32.0	
Approach LOS		C			D			C			C	

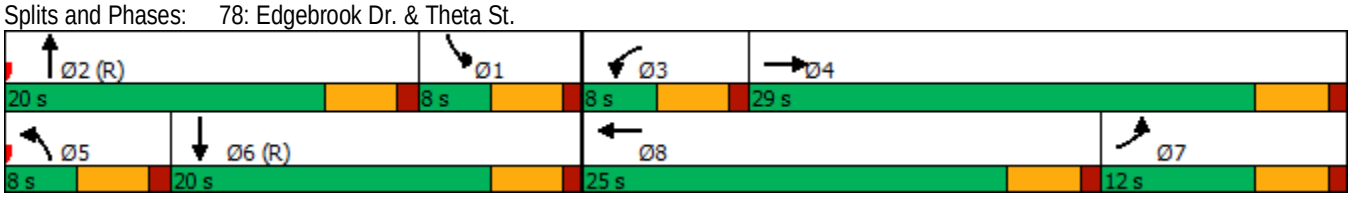
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	20.0	7.2	25.8	6.7	25.3	10.0	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	15.5	4.5	19.5	5.5	17.5	5.5	18.5
Max Q Clear Time (g_c+I1), s	8.9	10.7	4.2	14.4	3.8	10.2	7.0	20.4
Green Ext Time (p_c), s	0.0	1.4	0.0	2.2	0.0	1.9	0.0	0.0

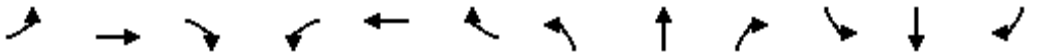
Intersection Summary	
HCM 6th Ctrl Delay	35.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	116	974	37	811	54	20	59	43
Future Volume (vph)	116	974	37	811	54	20	59	43
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	29.0	8.0	25.0	8.0	20.0	8.0	20.0
Total Split (%)	18.5%	44.6%	12.3%	38.5%	12.3%	30.8%	12.3%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	26.0	3.5	21.2	4.0	18.8	3.5	18.8
Actuated g/C Ratio	0.11	0.40	0.05	0.33	0.06	0.29	0.05	0.29
v/c Ratio	0.68	0.87	0.45	0.86	0.58	0.16	0.72	0.35
Control Delay	47.2	27.3	46.7	30.9	55.0	9.8	73.7	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	27.3	46.7	30.9	55.0	9.8	73.7	8.7
LOS	D	C	D	C	D	A	E	A
Approach Delay		29.2		31.5		29.1		24.9
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 29.6	Intersection LOS: C
Intersection Capacity Utilization 69.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	974	84	37	811	48	54	20	52	59	43	134
Future Volume (veh/h)	116	974	84	37	811	48	54	20	52	59	43	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	132	1107	95	42	922	55	61	23	59	67	49	152
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	167	1213	104	51	1026	61	76	109	280	146	110	341
Arrive On Green	0.10	0.37	0.37	0.03	0.31	0.31	0.04	0.24	0.24	0.08	0.28	0.28
Sat Flow, veh/h	1753	3260	280	1753	3353	200	1753	457	1173	1753	395	1225
Grp Volume(v), veh/h	132	593	609	42	481	496	61	0	82	67	0	201
Grp Sat Flow(s),veh/h/ln	1753	1749	1790	1753	1749	1805	1753	0	1630	1753	0	1620
Q Serve(g_s), s	4.8	21.0	21.0	1.5	17.1	17.1	2.2	0.0	2.6	2.4	0.0	6.6
Cycle Q Clear(g_c), s	4.8	21.0	21.0	1.5	17.1	17.1	2.2	0.0	2.6	2.4	0.0	6.6
Prop In Lane	1.00		0.16	1.00		0.11	1.00		0.72	1.00		0.76
Lane Grp Cap(c), veh/h	167	651	666	51	535	552	76	0	389	146	0	451
V/C Ratio(X)	0.79	0.91	0.91	0.83	0.90	0.90	0.80	0.00	0.21	0.46	0.00	0.45
Avail Cap(c_a), veh/h	202	659	675	94	552	569	94	0	389	146	0	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	19.4	19.4	31.4	21.6	21.6	30.8	0.0	19.8	28.4	0.0	19.3
Incr Delay (d2), s/veh	16.0	17.0	16.8	26.9	17.3	16.8	31.0	0.0	1.2	2.2	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	9.9	10.1	1.0	8.4	8.6	1.6	0.0	1.1	1.0	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	36.3	36.3	58.3	38.8	38.4	61.8	0.0	21.1	30.6	0.0	22.5
LnGrp LOS	D	D	D	E	D	D	E	A	C	C	A	C
Approach Vol, veh/h		1334			1019			143			268	
Approach Delay, s/veh		37.1			39.4			38.5			24.5	
Approach LOS		D			D			D			C	

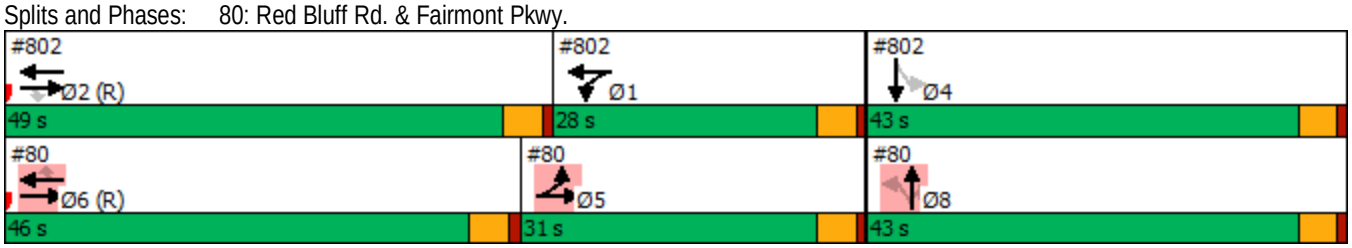
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	20.0	6.4	28.7	7.3	22.6	10.7	24.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	15.5	3.5	24.5	3.5	15.5	7.5	20.5
Max Q Clear Time (g_c+I1), s	4.4	4.6	3.5	23.0	4.2	8.6	6.8	19.1
Green Ext Time (p_c), s	0.0	0.2	0.0	1.0	0.0	0.6	0.0	0.8

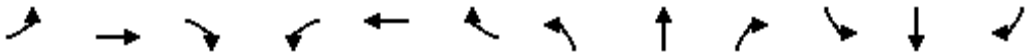
Intersection Summary	
HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	7	1481	1394	202	133	437	104			
Future Volume (vph)	7	1481	1394	202	133	437	104			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	31.0		46.0	46.0	43.0	43.0	43.0	28.0	49.0	43.0
Total Split (%)	25.8%		38.3%	38.3%	35.8%	35.8%	35.8%	23%	41%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	22.3	81.0	54.2	54.2	30.0	30.0	30.0			
Actuated g/C Ratio	0.19	0.68	0.45	0.45	0.25	0.25	0.25			
v/c Ratio	0.02	0.47	0.45	0.28	0.33	0.54	0.26			
Control Delay	30.4	4.6	10.4	5.1	22.1	25.3	8.0			
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0			
Total Delay	30.4	4.7	10.4	5.1	22.1	25.3	8.0			
LOS	C	A	B	A	C	C	A			
Approach Delay		4.8	9.7			22.0				
Approach LOS		A	A			C				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 39 (33%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 10.0	Intersection LOS: A
Intersection Capacity Utilization 51.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





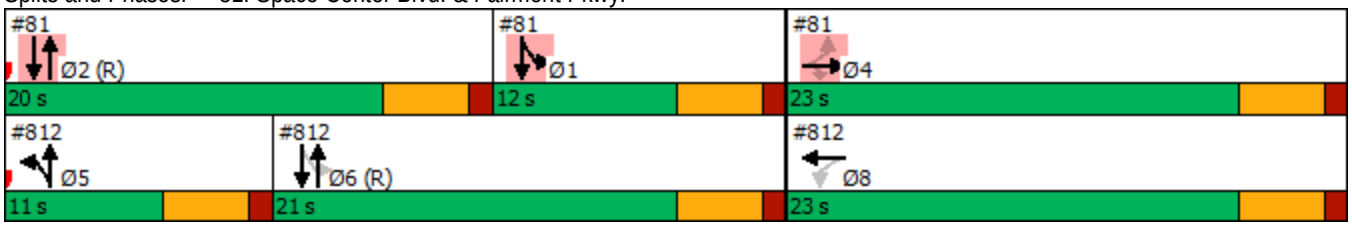
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	1481	0	0	1394	202	133	437	104	0	0	0
Future Volume (vph)	7	1481	0	0	1394	202	133	437	104	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	8	1592	0	0	1499	217	143	470	112	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	73	0	0	41	0	0	0
Lane Group Flow (vph)	8	1592	0	0	1499	144	143	470	71	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	22.3	81.0			54.2	54.2	30.0	30.0	30.0			
Effective Green, g (s)	22.3	81.0			54.2	54.2	30.0	30.0	30.0			
Actuated g/C Ratio	0.19	0.68			0.45	0.45	0.25	0.25	0.25			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	322	3366			3341	701	434	867	388			
v/s Ratio Prot	0.00	c0.32			0.20			c0.14				
v/s Ratio Perm						0.09	0.08		0.05			
v/c Ratio	0.02	0.47			0.45	0.20	0.33	0.54	0.18			
Uniform Delay, d1	40.0	9.3			22.6	19.9	36.8	39.0	35.4			
Progression Factor	0.81	0.41			0.42	0.47	0.57	0.60	0.38			
Incremental Delay, d2	0.0	0.1			0.2	0.4	0.4	0.6	0.2			
Delay (s)	32.5	4.0			9.8	9.7	21.4	24.2	13.6			
Level of Service	C	A			A	A	C	C	B			
Approach Delay (s)		4.1			9.7			22.0			0.0	
Approach LOS		A			A			C			A	

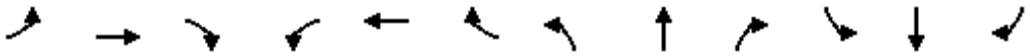
Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	239	1613	386	743	168	1151			
Future Volume (vph)	239	1613	386	743	168	1151			
Turn Type	Perm	NA	Perm	NA	Prot	NA			
Protected Phases		4		2	1	1 2	5	6	8
Permitted Phases	4		4						
Detector Phase	4	4	4	2	1	1 2			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	23.0	23.0	23.0	20.0	12.0		11.0	21.0	23.0
Total Split (%)	41.8%	41.8%	41.8%	36.4%	21.8%		20%	38%	42%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	18.5	18.5	18.5	15.5	7.5	27.5			
Actuated g/C Ratio	0.34	0.34	0.34	0.28	0.14	0.50			
v/c Ratio	0.43	0.79	0.61	0.84	0.74	0.69			
Control Delay	17.0	20.0	11.8	24.7	38.0	9.8			
Queue Delay	0.0	0.0	0.0	0.2	5.6	10.2			
Total Delay	17.0	20.0	11.8	24.8	43.6	20.0			
LOS	B	B	B	C	D	C			
Approach Delay		18.2		24.8		23.0			
Approach LOS		B		C		C			

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 55	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	1613	386	0	0	0	0	743	363	168	1151	0
Future Volume (vph)	239	1613	386	0	0	0	0	743	363	168	1151	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91		1.00	0.95	
Frt	1.00	1.00	0.85					0.95		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4742		1736	3471	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4742		1736	3471	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	249	1680	402	0	0	0	0	774	378	175	1199	0
RTOR Reduction (vph)	0	0	138	0	0	0	0	42	0	0	0	0
Lane Group Flow (vph)	249	1680	264	0	0	0	0	1110	0	175	1199	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4									
Actuated Green, G (s)	18.5	18.5	18.5					15.5		7.5	27.5	
Effective Green, g (s)	18.5	18.5	18.5					15.5		7.5	27.5	
Actuated g/C Ratio	0.34	0.34	0.34					0.28		0.14	0.50	
Clearance Time (s)	4.5	4.5	4.5					4.5		4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		
Lane Grp Cap (vph)	583	2114	522					1336		236	1735	
v/s Ratio Prot		c0.27						c0.23		0.10	c0.35	
v/s Ratio Perm	0.14		0.17									
v/c Ratio	0.43	0.79	0.51					0.83		0.74	0.69	
Uniform Delay, d1	14.1	16.5	14.6					18.5		22.8	10.5	
Progression Factor	1.00	1.00	1.00					1.00		0.77	0.72	
Incremental Delay, d2	0.5	2.1	0.8					6.1		10.3	1.0	
Delay (s)	14.6	18.7	15.4					24.6		27.9	8.6	
Level of Service	B	B	B					C		C	A	
Approach Delay (s)		17.7			0.0			24.6			11.1	
Approach LOS		B			A			C			B	

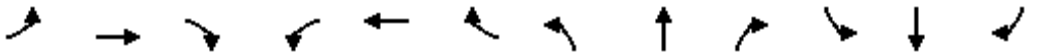
Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	681	1197	13	1646	88	51	73	46	766
Future Volume (vph)	681	1197	13	1646	88	51	73	46	766
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	34.0	75.0	8.0	49.0	14.0	24.0	13.0	23.0	34.0
Total Split (%)	28.3%	62.5%	6.7%	40.8%	11.7%	20.0%	10.8%	19.2%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	28.8	73.9	8.1	44.7	9.5	22.6	8.1	19.0	47.8
Actuated g/C Ratio	0.24	0.62	0.07	0.37	0.08	0.19	0.07	0.16	0.40
v/c Ratio	0.88	0.45	0.12	0.93	0.67	0.09	0.65	0.17	0.70
Control Delay	57.1	13.6	31.5	26.1	77.7	39.1	76.2	50.5	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	13.6	31.5	26.1	77.7	39.1	76.2	50.5	19.8
LOS	E	B	C	C	E	D	E	D	B
Approach Delay		28.4		26.2		62.6		26.1	
Approach LOS		C		C		E		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 109 (91%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 28.2	Intersection LOS: C
Intersection Capacity Utilization 80.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	681	1197	116	13	1646	18	88	51	6	73	46	766
Future Volume (veh/h)	681	1197	116	13	1646	18	88	51	6	73	46	766
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	709	1247	121	14	1715	19	92	53	6	76	48	798
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	775	1675	162	392	1819	20	198	673	75	96	284	1049
Arrive On Green	0.23	0.36	0.36	0.45	0.71	0.71	0.11	0.21	0.21	0.05	0.15	0.15
Sat Flow, veh/h	3401	4658	452	1753	5124	57	1753	3173	353	1753	1841	2745
Grp Volume(v), veh/h	709	897	471	14	1121	613	92	29	30	76	48	798
Grp Sat Flow(s),veh/h/ln	1700	1675	1759	1753	1675	1831	1753	1749	1777	1753	1841	1373
Q Serve(g_s), s	24.4	28.1	28.1	0.5	35.2	35.2	5.9	1.6	1.6	5.1	2.7	18.5
Cycle Q Clear(g_c), s	24.4	28.1	28.1	0.5	35.2	35.2	5.9	1.6	1.6	5.1	2.7	18.5
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	775	1205	633	392	1189	650	198	371	377	96	284	1049
V/C Ratio(X)	0.91	0.74	0.74	0.04	0.94	0.94	0.46	0.08	0.08	0.79	0.17	0.76
Avail Cap(c_a), veh/h	836	1968	1034	392	1242	679	198	371	377	124	284	1049
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	45.2	33.6	33.6	25.9	16.3	16.3	49.8	37.9	37.9	56.0	44.1	15.4
Incr Delay (d2), s/veh	13.9	0.9	1.8	0.0	12.8	19.9	1.7	0.4	0.4	17.8	1.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	11.5	12.2	0.2	7.4	9.4	2.6	0.7	0.7	2.7	1.3	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	34.5	35.4	26.0	29.1	36.2	51.5	38.3	38.3	73.9	45.1	19.4
LnGrp LOS	E	C	D	C	C	D	D	D	D	E	D	B
Approach Vol, veh/h		2077			1748			151			922	
Approach Delay, s/veh		43.1			31.6			46.4			25.2	
Approach LOS		D			C			D			C	

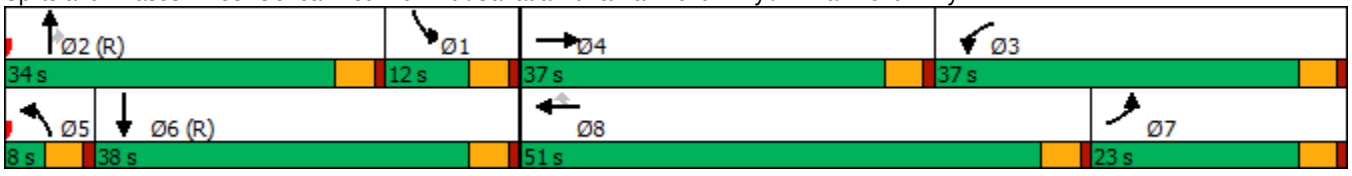
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	30.0	31.3	47.6	18.0	23.0	31.9	47.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	19.5	3.5	70.5	9.5	18.5	29.5	44.5
Max Q Clear Time (g_c+I1), s	7.1	3.6	2.5	30.1	7.9	20.5	26.4	37.2
Green Ext Time (p_c), s	0.0	0.2	0.0	13.0	0.0	0.0	0.9	5.4

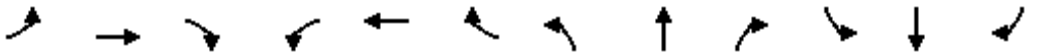
Intersection Summary	
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	255	735	449	1295	137	42	453	429	94	544
Future Volume (vph)	255	735	449	1295	137	42	453	429	94	544
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	23.0	37.0	37.0	51.0	51.0	8.0	34.0	34.0	12.0	38.0
Total Split (%)	19.2%	30.8%	30.8%	42.5%	42.5%	6.7%	28.3%	28.3%	10.0%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.5	30.9	34.1	46.5	46.5	3.5	29.5	29.5	7.5	33.5
Actuated g/C Ratio	0.15	0.26	0.28	0.39	0.39	0.03	0.25	0.25	0.06	0.28
v/c Ratio	0.99	0.87	0.94	0.99	0.21	0.86	0.55	0.62	0.90	0.86
Control Delay	106.5	33.1	71.1	59.7	5.1	157.0	25.4	5.7	118.7	47.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.5	33.1	71.1	59.7	5.1	157.0	25.4	5.7	118.7	47.8
LOS	F	C	E	E	A	F	C	A	F	D
Approach Delay		51.7		58.5			22.2			55.2
Approach LOS		D		E			C			E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 51 (43%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 49.3	Intersection LOS: D
Intersection Capacity Utilization 97.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	735	15	449	1295	137	42	453	429	94	544	266
Future Volume (veh/h)	255	735	15	449	1295	137	42	453	429	94	544	266
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	263	758	15	463	1335	141	43	467	442	97	561	274
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	270	856	17	522	1355	604	51	860	383	110	636	310
Arrive On Green	0.15	0.24	0.24	0.30	0.39	0.39	0.03	0.25	0.25	0.06	0.28	0.28
Sat Flow, veh/h	1753	3508	69	1753	3497	1560	1753	3497	1560	1753	2278	1111
Grp Volume(v), veh/h	263	378	395	463	1335	141	43	467	442	97	430	405
Grp Sat Flow(s),veh/h/ln	1753	1749	1828	1753	1749	1560	1753	1749	1560	1753	1749	1641
Q Serve(g_s), s	17.9	25.0	25.0	30.3	45.4	7.3	2.9	13.9	29.5	6.6	28.2	28.3
Cycle Q Clear(g_c), s	17.9	25.0	25.0	30.3	45.4	7.3	2.9	13.9	29.5	6.6	28.2	28.3
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	270	427	446	522	1355	604	51	860	383	110	488	458
V/C Ratio(X)	0.97	0.89	0.89	0.89	0.99	0.23	0.84	0.54	1.15	0.89	0.88	0.88
Avail Cap(c_a), veh/h	270	474	495	522	1355	604	51	860	383	110	488	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.09	0.09	0.09	1.00	1.00	1.00	0.44	0.44	0.44
Uniform Delay (d), s/veh	50.5	43.7	43.7	40.2	36.4	24.7	58.0	39.4	45.2	55.8	41.4	41.4
Incr Delay (d2), s/veh	44.2	15.3	14.8	1.9	4.6	0.0	70.4	2.5	94.4	29.2	10.1	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	12.6	13.1	13.2	19.8	2.7	2.3	6.2	21.4	3.8	13.4	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.7	59.0	58.5	42.2	41.0	24.8	128.4	41.8	139.7	85.0	51.5	52.2
LnGrp LOS	F	E	E	D	D	C	F	D	F	F	D	D
Approach Vol, veh/h		1036			1939			952			932	
Approach Delay, s/veh		67.9			40.1			91.2			55.3	
Approach LOS		E			D			F			E	

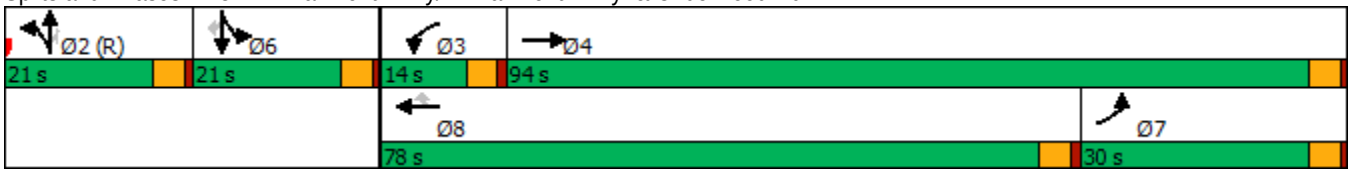
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	34.0	40.2	33.8	8.0	38.0	23.0	51.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	29.5	32.5	32.5	3.5	33.5	18.5	46.5
Max Q Clear Time (g_c+I1), s	8.6	31.5	32.3	27.0	4.9	30.3	19.9	47.4
Green Ext Time (p_c), s	0.0	0.0	0.1	2.3	0.0	1.6	0.0	0.0

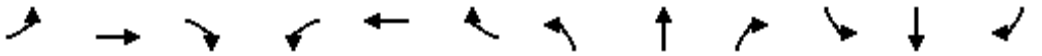
Intersection Summary	
HCM 6th Ctrl Delay	58.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	290	1160	41	1653	197	74	50	175	33	329
Future Volume (vph)	290	1160	41	1653	197	74	50	175	33	329
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Split	NA	Perm
Protected Phases	7	4	3	8		2		6	6	
Permitted Phases					8		2			6
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	30.0	94.0	14.0	78.0	78.0	21.0	21.0	21.0	21.0	21.0
Total Split (%)	20.0%	62.7%	9.3%	52.0%	52.0%	14.0%	14.0%	14.0%	14.0%	14.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	25.5	92.7	8.4	73.5	73.5	16.5	16.5	16.5	16.5	16.5
Actuated g/C Ratio	0.17	0.62	0.06	0.49	0.49	0.11	0.11	0.11	0.11	0.11
v/c Ratio	1.07	0.60	0.47	1.06	0.27	0.96	0.20	1.00	0.09	0.82
Control Delay	128.9	19.4	84.1	75.8	15.0	120.9	1.7	130.5	60.8	28.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.9	19.4	84.1	75.8	15.0	120.9	1.7	130.5	60.8	28.3
LOS	F	B	F	E	B	F	A	F	E	C
Approach Delay		41.0		69.7		94.3			63.6	
Approach LOS		D		E		F			E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 60.0	Intersection LOS: E
Intersection Capacity Utilization 95.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	1160	18	41	1653	197	99	74	50	175	33	329
Future Volume (veh/h)	290	1160	18	41	1653	197	99	74	50	175	33	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	315	1261	20	45	1797	214	108	80	54	190	36	358
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	298	2209	35	58	1714	764	113	84	172	193	385	172
Arrive On Green	0.17	0.63	0.63	0.03	0.49	0.49	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1753	3523	56	1753	3497	1560	1028	761	1560	1753	3497	1560
Grp Volume(v), veh/h	315	626	655	45	1797	214	188	0	54	190	36	358
Grp Sat Flow(s),veh/h/ln	1753	1749	1831	1753	1749	1560	1789	0	1560	1753	1749	1560
Q Serve(g_s), s	25.5	31.2	31.2	3.8	73.5	12.2	15.7	0.0	4.8	16.2	1.4	16.5
Cycle Q Clear(g_c), s	25.5	31.2	31.2	3.8	73.5	12.2	15.7	0.0	4.8	16.2	1.4	16.5
Prop In Lane	1.00		0.03	1.00		1.00	0.57		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	1096	1148	58	1714	764	197	0	172	193	385	172
V/C Ratio(X)	1.06	0.57	0.57	0.78	1.05	0.28	0.96	0.00	0.31	0.99	0.09	2.09
Avail Cap(c_a), veh/h	298	1096	1148	111	1714	764	197	0	172	193	385	172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.48	0.48	0.48	1.00	0.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	62.3	16.2	16.2	72.0	38.3	22.6	66.4	0.0	61.5	66.6	60.0	66.8
Incr Delay (d2), s/veh	53.5	0.4	0.4	10.3	29.8	0.1	53.4	0.0	4.7	55.0	0.4	504.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	12.5	13.0	1.9	38.0	4.6	10.0	0.0	2.1	10.2	0.6	30.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	115.8	16.6	16.6	82.3	68.1	22.7	119.8	0.0	66.3	121.7	60.4	571.6
LnGrp LOS	F	B	B	F	F	C	F	A	E	F	E	F
Approach Vol, veh/h		1596			2056			242			584	
Approach Delay, s/veh		36.2			63.7			107.9			393.7	
Approach LOS		D			E			F			F	

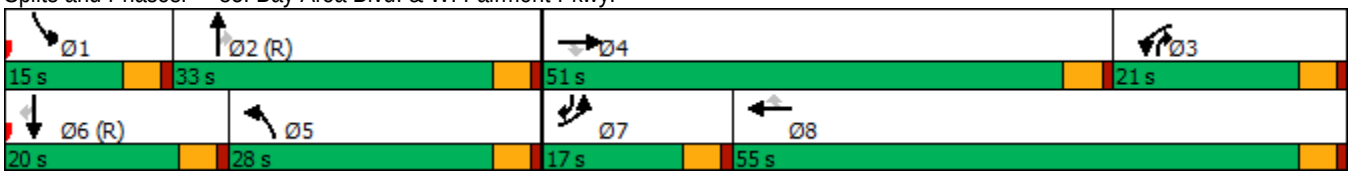
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.0	9.4	98.6		21.0	30.0	78.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.5	9.5	89.5		16.5	25.5	73.5				
Max Q Clear Time (g_c+I1), s		17.7	5.8	33.2		18.5	27.5	75.5				
Green Ext Time (p_c), s		0.0	0.0	12.6		0.0	0.0	0.0				

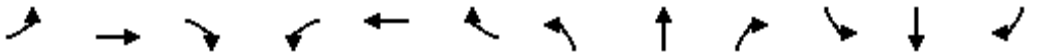
Intersection Summary	
HCM 6th Ctrl Delay	99.3
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	1163	196	133	1299	203	314	694	527	142	261	200
Future Volume (vph)	156	1163	196	133	1299	203	314	694	527	142	261	200
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	17.0	51.0	51.0	21.0	55.0	55.0	28.0	33.0	21.0	15.0	20.0	17.0
Total Split (%)	14.2%	42.5%	42.5%	17.5%	45.8%	45.8%	23.3%	27.5%	17.5%	12.5%	16.7%	14.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	12.5	46.5	46.5	16.5	50.5	50.5	23.5	28.5	45.0	10.5	15.5	28.0
Actuated g/C Ratio	0.10	0.39	0.39	0.14	0.42	0.42	0.20	0.24	0.38	0.09	0.13	0.23
v/c Ratio	0.96	0.96	0.32	0.62	0.99	0.31	1.03	0.94	0.91	1.05	0.65	0.51
Control Delay	106.2	50.2	11.0	44.9	40.4	2.6	104.2	64.3	43.7	138.8	59.6	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.2	50.2	11.0	44.9	40.4	2.6	104.2	64.3	43.7	138.8	59.6	17.9
LOS	F	D	B	D	D	A	F	E	D	F	E	B
Approach Delay		50.9			36.1			65.4			64.5	
Approach LOS		D			D			E			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 36 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 52.1	Intersection LOS: D
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	1163	196	133	1299	203	314	694	527	142	261	200
Future Volume (veh/h)	156	1163	196	133	1299	203	314	694	527	142	261	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	173	1292	0	148	1443	226	349	771	586	158	290	222
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	183	1347		245	1472	656	343	831	589	153	452	364
Arrive On Green	0.10	0.39	0.00	0.14	0.42	0.42	0.20	0.24	0.24	0.09	0.13	0.13
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	173	1292	0	148	1443	226	349	771	586	158	290	222
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	11.8	43.2	0.0	9.5	48.8	11.8	23.5	25.9	22.8	10.5	9.4	9.1
Cycle Q Clear(g_c), s	11.8	43.2	0.0	9.5	48.8	11.8	23.5	25.9	22.8	10.5	9.4	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1347		245	1472	656	343	831	589	153	452	364
V/C Ratio(X)	0.95	0.96		0.60	0.98	0.34	1.02	0.93	1.00	1.03	0.64	0.61
Avail Cap(c_a), veh/h	183	1355		245	1472	656	343	831	589	153	452	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.00	0.67	0.67	0.67	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	53.4	36.0	0.0	48.5	34.3	23.5	48.2	44.7	23.2	54.8	49.6	18.5
Incr Delay (d2), s/veh	47.9	14.5	0.0	2.8	14.8	0.2	52.8	18.0	36.0	76.3	6.1	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	20.7	0.0	4.4	23.2	4.4	15.1	13.0	13.0	7.9	4.5	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.3	50.5	0.0	51.3	49.1	23.7	101.1	62.7	59.2	131.0	55.7	25.1
LnGrp LOS	F	D		D	D	C	F	E	E	F	E	C
Approach Vol, veh/h		1465	A		1817			1706			670	
Approach Delay, s/veh		56.5			46.1			69.4			63.3	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	33.0	21.3	50.7	28.0	20.0	17.0	55.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	28.5	16.5	46.5	23.5	15.5	12.5	50.5
Max Q Clear Time (g_c+I1), s	12.5	27.9	11.5	45.2	25.5	11.4	13.8	50.8
Green Ext Time (p_c), s	0.0	0.4	0.2	1.0	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	57.8
HCM 6th LOS	E

Notes

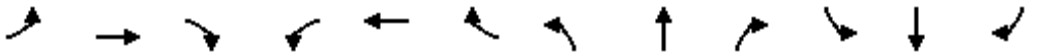
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	1227	15	1853	6	20	0	2	0	53
Future Volume (vph)	40	1227	15	1853	6	20	0	2	0	53
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8			2		6	6
Permitted Phases					8	2		6		
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	90.0	10.0	89.0	89.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	9.2%	75.0%	8.3%	74.2%	74.2%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.3	90.8	6.5	84.5	84.5		17.7		17.7	17.7
Actuated g/C Ratio	0.05	0.76	0.05	0.70	0.70		0.15		0.15	0.15
v/c Ratio	0.48	0.53	0.18	0.84	0.01		0.11		0.01	0.19
Control Delay	88.6	5.4	47.2	6.7	0.0		47.9		46.0	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	88.6	5.4	47.2	6.7	0.0		47.9		46.0	4.2
LOS	F	A	D	A	A		D		D	A
Approach Delay		7.9		7.0			47.9		5.5	
Approach LOS		A		A			D		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 50 (42%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 7.6	Intersection LOS: A
Intersection Capacity Utilization 77.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1227	29	15	1853	6	20	0	0	2	0	53
Future Volume (veh/h)	40	1227	29	15	1853	6	20	0	0	2	0	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	44	1363	32	17	2059	0	22	0	0	2	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	56	1648	39	285	2106		413	0	0	413	0	
Arrive On Green	0.03	0.47	0.47	0.33	1.00	0.00	0.25	0.00	0.00	0.25	0.00	0.00
Sat Flow, veh/h	1753	3493	82	1753	3497	1560	1395	0	0	1395	0	1560
Grp Volume(v), veh/h	44	682	713	17	2059	0	22	0	0	2	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1826	1753	1749	1560	1395	0	0	1395	0	1560
Q Serve(g_s), s	3.0	40.5	40.6	0.8	0.0	0.0	1.4	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	3.0	40.5	40.6	0.8	0.0	0.0	1.4	0.0	0.0	0.1	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	56	825	861	285	2106		413	0	0	413	0	
V/C Ratio(X)	0.78	0.83	0.83	0.06	0.98		0.05	0.00	0.00	0.00	0.00	
Avail Cap(c_a), veh/h	95	1246	1301	285	2463		413	0	0	413	0	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.49	0.49	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.7	27.4	27.5	34.2	0.0	0.0	34.0	0.0	0.0	33.5	0.0	0.0
Incr Delay (d2), s/veh	20.7	2.9	2.8	0.0	7.7	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	17.1	17.9	0.3	2.2	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.3	30.4	30.3	34.2	7.7	0.0	34.2	0.0	0.0	33.5	0.0	0.0
LnGrp LOS	E	C	C	C	A		C	A	A	C	A	
Approach Vol, veh/h		1439			2076	A		22			2	A
Approach Delay, s/veh		31.8			7.9			34.2			33.5	
Approach LOS		C			A			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		43.9	15.0	61.1		43.9	8.3	67.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	5.5	85.5		15.5	6.5	84.5				
Max Q Clear Time (g_c+I1), s		3.4	2.8	42.6		2.1	5.0	2.0				
Green Ext Time (p_c), s		0.0	0.0	14.0		0.0	0.0	40.1				

Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Notes

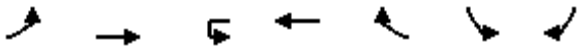
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	141	1094	1285	101	
Future Volume (vph)	141	1094	1285	101	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	23.0	88.0	73.0	24.0	8.0
Total Split (%)	19.2%	73.3%	60.8%	20.0%	7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	15.1	84.3	64.7	26.7	
Actuated g/C Ratio	0.13	0.70	0.54	0.22	
v/c Ratio	0.70	0.48	0.81	0.27	
Control Delay	66.8	8.5	9.6	22.4	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	66.8	8.5	9.6	22.4	
LOS	E	A	A	C	
Approach Delay		15.2	9.6	22.4	
Approach LOS		B	A	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 43 (36%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 67.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	141	1094	0	1285	114	101	97
Future Volume (vph)	141	1094	0	1285	114	101	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.93	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3429		3203	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3429		3203	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	152	1176	0	1382	123	109	104
RTOR Reduction (vph)	0	0	0	6	0	81	0
Lane Group Flow (vph)	152	1176	0	1499	0	132	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	15.1	84.3		64.7		26.7	
Effective Green, g (s)	15.1	84.3		64.7		26.7	
Actuated g/C Ratio	0.13	0.70		0.54		0.22	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	218	2438		1848		712	
v/s Ratio Prot	c0.09	0.34		c0.44			
v/s Ratio Perm						c0.04	
v/c Ratio	0.70	0.48		0.81		0.19	
Uniform Delay, d1	50.3	8.0		22.6		37.8	
Progression Factor	1.00	1.00		0.37		1.00	
Incremental Delay, d2	9.3	0.2		1.0		0.6	
Delay (s)	59.6	8.2		9.3		38.4	
Level of Service	E	A		A		D	
Approach Delay (s)		14.1		9.3		38.4	
Approach LOS		B		A		D	

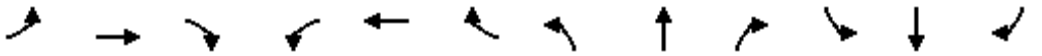
Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	34	1409	52	1110	47	125	23	58	15
Future Volume (vph)	34	1409	52	1110	47	125	23	58	15
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	69.0	11.0	69.0	69.0	18.0	26.0	14.0	22.0
Total Split (%)	9.2%	57.5%	9.2%	57.5%	57.5%	15.0%	21.7%	11.7%	18.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.6	63.9	6.4	63.9	63.9	13.5	27.3	8.6	20.3
Actuated g/C Ratio	0.07	0.53	0.05	0.53	0.53	0.11	0.23	0.07	0.17
v/c Ratio	0.31	0.91	0.63	0.68	0.06	0.73	0.12	0.53	0.16
Control Delay	46.4	15.0	85.1	23.4	0.1	73.3	16.2	69.2	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.4	15.0	85.1	23.4	0.1	73.3	16.2	69.2	15.0
LOS	D	B	F	C	A	E	B	E	B
Approach Delay		15.7		25.1			51.3		37.9
Approach LOS		B		C			D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	1409	66	52	1110	47	125	23	55	58	15	64
Future Volume (veh/h)	34	1409	66	52	1110	47	125	23	55	58	15	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	1601	75	59	1261	53	142	26	62	66	17	73
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	228	1753	82	75	1499	668	256	426	380	84	255	227
Arrive On Green	0.13	0.52	0.52	0.04	0.43	0.43	0.15	0.24	0.24	0.05	0.15	0.15
Sat Flow, veh/h	1753	3402	159	1753	3497	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	39	820	856	59	1261	53	142	26	62	66	17	73
Grp Sat Flow(s),veh/h/ln	1753	1749	1812	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	2.4	51.3	52.1	4.0	38.7	1.9	9.0	1.4	3.8	4.5	1.0	5.0
Cycle Q Clear(g_c), s	2.4	51.3	52.1	4.0	38.7	1.9	9.0	1.4	3.8	4.5	1.0	5.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	228	901	934	75	1499	668	256	426	380	84	255	227
V/C Ratio(X)	0.17	0.91	0.92	0.78	0.84	0.08	0.56	0.06	0.16	0.78	0.07	0.32
Avail Cap(c_a), veh/h	228	940	974	95	1880	838	256	426	380	139	255	227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.20	0.20	0.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	26.5	26.7	56.9	30.7	12.5	47.6	34.9	35.8	56.5	44.2	45.9
Incr Delay (d2), s/veh	0.1	3.0	3.2	27.2	3.0	0.1	2.6	0.3	0.9	14.4	0.5	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	21.2	22.4	2.3	16.6	0.9	4.1	0.6	1.5	2.3	0.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	29.5	29.9	84.1	33.6	12.5	50.3	35.1	36.7	70.9	44.7	49.6
LnGrp LOS	D	C	C	F	C	B	D	D	D	E	D	D
Approach Vol, veh/h		1715			1373			230			156	
Approach Delay, s/veh		30.1			35.0			44.9			58.1	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	33.7	9.7	66.3	22.0	22.0	20.1	55.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	21.5	6.5	64.5	13.5	17.5	6.5	64.5
Max Q Clear Time (g_c+I1), s	6.5	5.8	6.0	54.1	11.0	7.0	4.4	40.7
Green Ext Time (p_c), s	0.0	0.3	0.0	7.7	0.1	0.3	0.0	10.7

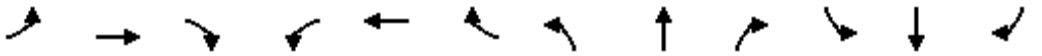
Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	126	900	4	29	1348	2	1	26	14	165
Future Volume (vph)	126	900	4	29	1348	2	1	26	14	165
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	NA	Prot
Protected Phases	7	4	4	3	8		2	1	6	6
Permitted Phases						2				
Detector Phase	7	4	4	3	8	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	22.0	79.0	79.0	11.0	68.0	21.0	21.0	9.0	30.0	30.0
Total Split (%)	18.3%	65.8%	65.8%	9.2%	56.7%	17.5%	17.5%	7.5%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.2	73.7	73.7	6.3	61.7		24.6	5.7	30.7	30.7
Actuated g/C Ratio	0.12	0.61	0.61	0.05	0.51		0.20	0.05	0.26	0.26
v/c Ratio	0.67	0.46	0.00	0.35	0.86		0.02	0.34	0.03	0.34
Control Delay	51.7	13.1	0.0	77.1	6.0		32.1	58.3	23.6	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	51.7	13.1	0.0	77.1	6.0		32.1	58.3	23.6	9.9
LOS	D	B	A	E	A		C	E	C	A
Approach Delay		17.8			7.4		32.1		16.9	
Approach LOS		B			A		C		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 70.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	900	4	29	1348	62	2	1	5	26	14	165
Future Volume (veh/h)	126	900	4	29	1348	62	2	1	5	26	14	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	137	978	4	32	1465	67	2	1	5	28	15	179
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	1938	865	40	1650	75	112	68	238	35	571	484
Arrive On Green	0.19	1.00	1.00	0.02	0.48	0.48	0.25	0.25	0.25	0.02	0.31	0.31
Sat Flow, veh/h	1753	3497	1560	1753	3406	155	295	269	939	1753	1841	1560
Grp Volume(v), veh/h	137	978	4	32	750	782	8	0	0	28	15	179
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1813	1503	0	0	1753	1841	1560
Q Serve(g_s), s	9.1	0.0	0.0	2.2	46.5	46.9	0.0	0.0	0.0	1.9	0.7	10.7
Cycle Q Clear(g_c), s	9.1	0.0	0.0	2.2	46.5	46.9	0.4	0.0	0.0	1.9	0.7	10.7
Prop In Lane	1.00		1.00	1.00		0.09	0.25		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	162	1938	865	40	847	878	418	0	0	35	571	484
V/C Ratio(X)	0.84	0.50	0.00	0.80	0.89	0.89	0.02	0.00	0.00	0.81	0.03	0.37
Avail Cap(c_a), veh/h	256	2171	968	95	925	959	418	0	0	66	571	484
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.12	0.12	0.12	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	0.0	0.0	58.4	27.9	28.0	33.6	0.0	0.0	58.6	28.8	32.2
Incr Delay (d2), s/veh	11.7	0.2	0.0	4.4	1.4	1.4	0.1	0.0	0.0	33.9	0.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	0.0	1.0	19.1	20.0	0.2	0.0	0.0	1.2	0.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	0.2	0.0	62.7	29.3	29.4	33.7	0.0	0.0	92.5	28.9	34.4
LnGrp LOS	E	A	A	E	C	C	C	A	A	F	C	C
Approach Vol, veh/h		1119			1564			8			222	
Approach Delay, s/veh		7.5			30.0			33.7			41.3	
Approach LOS		A			C			C			D	

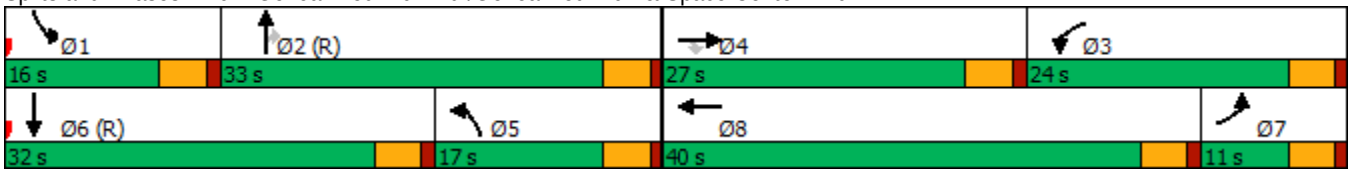
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	6.9	34.9	7.2	71.0		41.8	15.6	62.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.5	16.5	6.5	74.5		25.5	17.5	63.5				
Max Q Clear Time (g_c+I1), s	3.9	2.4	4.2	2.0		12.7	11.1	48.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	9.3		0.5	0.2	9.2				

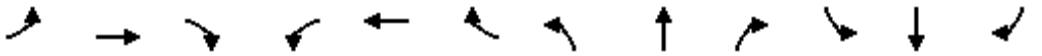
Intersection Summary												
HCM 6th Ctrl Delay			22.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	105	777	339	323	1109	205	676	256	96	870
Future Volume (vph)	105	777	339	323	1109	205	676	256	96	870
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	11.0	27.0	27.0	24.0	40.0	17.0	33.0	33.0	16.0	32.0
Total Split (%)	11.0%	27.0%	27.0%	24.0%	40.0%	17.0%	33.0%	33.0%	16.0%	32.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	6.5	22.5	22.5	19.5	35.5	12.5	32.2	32.2	10.0	27.5
Actuated g/C Ratio	0.06	0.22	0.22	0.20	0.36	0.12	0.32	0.32	0.10	0.28
v/c Ratio	0.97	1.04	0.60	0.99	0.98	0.99	0.63	0.39	0.58	1.06
Control Delay	127.1	81.1	11.0	89.3	54.6	103.2	33.0	5.4	56.2	83.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.1	81.1	11.0	89.3	54.6	103.2	33.0	5.4	56.2	83.1
LOS	F	F	B	F	D	F	C	A	E	F
Approach Delay		65.6			62.1		39.5			80.7
Approach LOS		E			E		D			F

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 61.8	Intersection LOS: E
Intersection Capacity Utilization 97.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	777	339	323	1109	49	205	676	256	96	870	98
Future Volume (veh/h)	105	777	339	323	1109	49	205	676	256	96	870	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	109	809	353	336	1155	51	214	704	267	100	906	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	116	787	351	342	1208	53	219	1147	512	126	871	98
Arrive On Green	0.07	0.22	0.22	0.20	0.35	0.35	0.13	0.33	0.33	0.07	0.28	0.28
Sat Flow, veh/h	1753	3497	1560	1753	3412	151	1753	3497	1560	1753	3168	357
Grp Volume(v), veh/h	109	809	353	336	592	614	214	704	267	100	500	508
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1814	1753	1749	1560	1753	1749	1777
Q Serve(g_s), s	6.2	22.5	22.5	19.1	33.0	33.1	12.2	16.9	8.0	5.6	27.5	27.5
Cycle Q Clear(g_c), s	6.2	22.5	22.5	19.1	33.0	33.1	12.2	16.9	8.0	5.6	27.5	27.5
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	116	787	351	342	619	642	219	1147	512	126	481	489
V/C Ratio(X)	0.94	1.03	1.01	0.98	0.96	0.96	0.98	0.61	0.52	0.79	1.04	1.04
Avail Cap(c_a), veh/h	116	787	351	342	621	644	219	1147	512	202	481	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.53	0.53	0.53	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	46.5	38.8	38.8	40.1	31.5	31.6	43.6	28.3	9.0	45.7	36.3	36.3
Incr Delay (d2), s/veh	65.1	39.5	49.5	31.0	16.8	16.5	53.9	2.5	3.8	6.7	42.8	42.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	13.8	13.3	11.0	16.4	17.0	8.5	7.4	3.1	2.7	17.2	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.7	78.2	88.2	71.1	48.4	48.1	97.5	30.7	12.8	52.3	79.1	78.9
LnGrp LOS	F	F	F	E	D	D	F	C	B	D	F	F
Approach Vol, veh/h		1271			1542			1185			1108	
Approach Delay, s/veh		83.9			53.2			38.8			76.6	
Approach LOS		F			D			D			E	

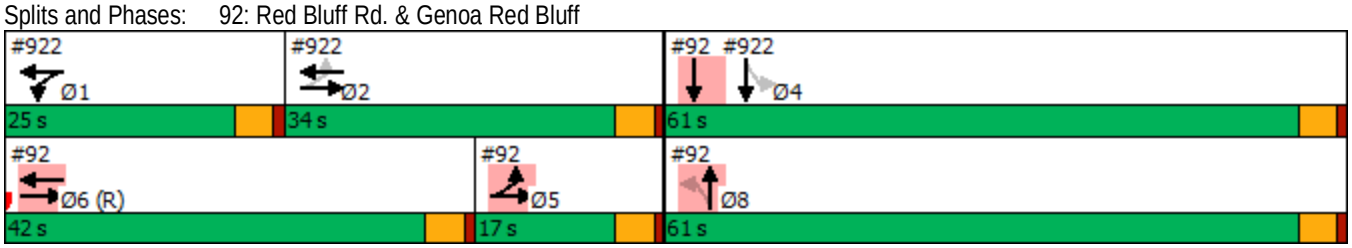
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	37.3	24.0	27.0	17.0	32.0	11.1	39.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	28.5	19.5	22.5	12.5	27.5	6.5	35.5
Max Q Clear Time (g_c+I1), s	7.6	18.9	21.1	24.5	14.2	29.5	8.2	35.1
Green Ext Time (p_c), s	0.1	4.0	0.0	0.0	0.0	0.0	0.0	0.3

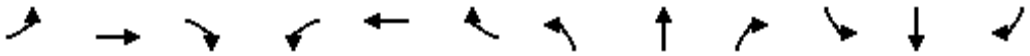
Intersection Summary	
HCM 6th Ctrl Delay	62.6
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	Ø1	Ø2
Lane Configurations								
Traffic Volume (vph)	124	733	1035	635	719	2		
Future Volume (vph)	124	733	1035	635	719	2		
Turn Type	Prot	NA	NA	Perm	NA	NA		
Protected Phases	5	5 6	6		8	4	1	2
Permitted Phases				8				
Detector Phase	5	5 6	6	8	8	4		
Switch Phase								
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	17.0		42.0	61.0	61.0	61.0	25.0	34.0
Total Split (%)	14.2%		35.0%	50.8%	50.8%	50.8%	21%	28%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5			
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None		C-Max	None	None	None	None	None
Act Effct Green (s)	12.5	54.5	37.5	56.5	56.5	0.0		
Actuated g/C Ratio	0.10	0.45	0.31	0.47	0.47	0.00		
v/c Ratio	0.73	0.49	0.73	1.03	0.43	no cap		
Control Delay	45.5	12.2	43.8	74.3	19.6			
Queue Delay	0.2	1.7	0.9	28.0	0.0			
Total Delay	45.7	13.9	44.7	102.3	19.6	Error		
LOS	D	B	D	F	B	F		
Approach Delay		18.5	44.7		52.7	Err		
Approach LOS		B	D		D	F		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





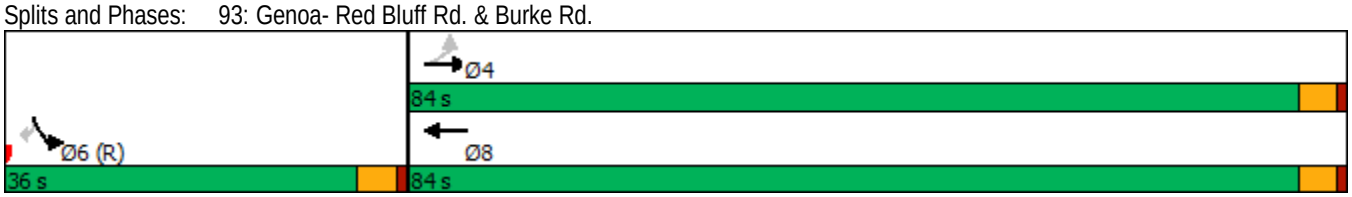
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	733	0	0	1035	36	635	719	232	0	2	0
Future Volume (vph)	124	733	0	0	1035	36	635	719	232	0	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95			0.91		1.00	0.91			1.00	
Frt	1.00	1.00			0.99		1.00	0.96			1.00	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3471			4962		1736	4805			0	
Flt Permitted	0.95	1.00			1.00		0.76	1.00			1.00	
Satd. Flow (perm)	1736	3471			4962		1382	4805			0	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	131	772	0	0	1089	38	668	757	244	0	2	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	49	0	0	0	0
Lane Group Flow (vph)	131	772	0	0	1124	0	668	952	0	0	2	0
Turn Type	Prot	NA			NA		Perm	NA			NA	
Protected Phases	5	5 6			6			8			4	
Permitted Phases							8					
Actuated Green, G (s)	12.5	54.5			37.5		56.5	56.5			56.5	
Effective Green, g (s)	12.5	54.5			37.5		56.5	56.5			56.5	
Actuated g/C Ratio	0.10	0.45			0.31		0.47	0.47			0.47	
Clearance Time (s)	4.5				4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0				3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	180	1576			1550		650	2262			0	
v/s Ratio Prot	c0.08	0.22			c0.23			0.20				
v/s Ratio Perm							c0.48					
v/c Ratio	0.73	0.49			0.73		1.03	0.42			no cap	
Uniform Delay, d1	52.1	23.0			36.7		31.8	21.0			Error	
Progression Factor	0.52	0.49			1.14		1.00	1.00				
Incremental Delay, d2	9.8	0.2			1.6		42.6	0.1			Error	
Delay (s)	37.1	11.4			43.6		74.3	21.1			Error	
Level of Service	D	B			D		E	C			F	
Approach Delay (s)		15.2			43.6			42.4			Error	
Approach LOS		B			D			D			F	

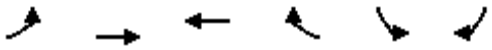
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	249	418	370	280	222
Future Volume (vph)	249	418	370	280	222
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	84.0	84.0	84.0	36.0	36.0
Total Split (%)	70.0%	70.0%	70.0%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	71.1	71.1	71.1	39.9	39.9
Actuated g/C Ratio	0.59	0.59	0.59	0.33	0.33
v/c Ratio	0.89	0.24	0.38	0.58	0.38
Control Delay	51.2	6.7	6.6	41.2	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	6.7	6.6	41.2	5.9
LOS	D	A	A	D	A
Approach Delay		23.3	6.6	25.6	
Approach LOS		C	A	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	249	418	370	284	280	222
Future Volume (veh/h)	249	418	370	284	280	222
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	296	498	440	338	333	264
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	378	2068	1116	853	585	520
Arrive On Green	0.59	0.59	0.59	0.59	0.33	0.33
Sat Flow, veh/h	683	3589	1980	1442	1753	1560
Grp Volume(v), veh/h	296	498	407	371	333	264
Grp Sat Flow(s),veh/h/ln	683	1749	1749	1581	1753	1560
Q Serve(g_s), s	49.0	8.1	14.9	15.0	18.8	16.3
Cycle Q Clear(g_c), s	64.0	8.1	14.9	15.0	18.8	16.3
Prop In Lane	1.00			0.91	1.00	1.00
Lane Grp Cap(c), veh/h	378	2068	1034	935	585	520
V/C Ratio(X)	0.78	0.24	0.39	0.40	0.57	0.51
Avail Cap(c_a), veh/h	427	2317	1159	1047	585	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.34	0.34
Uniform Delay (d), s/veh	30.2	11.7	13.1	13.1	32.9	32.1
Incr Delay (d2), s/veh	8.2	0.1	0.2	0.3	1.4	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	3.1	5.8	5.3	8.2	6.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.3	11.7	13.3	13.4	34.3	33.3
LnGrp LOS	D	B	B	B	C	C
Approach Vol, veh/h		794	778		597	
Approach Delay, s/veh		21.7	13.3		33.8	
Approach LOS		C	B		C	

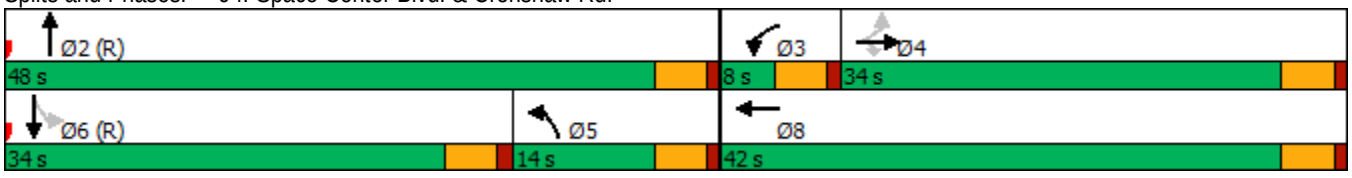
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			75.5		44.5	75.5
Change Period (Y+Rc), s			4.5		4.5	4.5
Max Green Setting (Gmax), s			79.5		31.5	79.5
Max Q Clear Time (g_c+I1), s			66.0		20.8	17.0
Green Ext Time (p_c), s			5.0		1.6	6.2

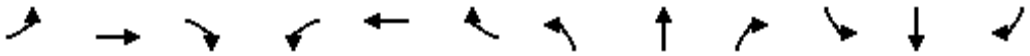
Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	334	127	172	8	133	167	567	104	626
Future Volume (vph)	334	127	172	8	133	167	567	104	626
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA
Protected Phases		4		3	8	5	2		6
Permitted Phases	4		4					6	
Detector Phase	4	4	4	3	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	34.0	34.0	34.0	8.0	42.0	14.0	48.0	34.0	34.0
Total Split (%)	37.8%	37.8%	37.8%	8.9%	46.7%	15.6%	53.3%	37.8%	37.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead		Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	33.8	33.8	33.8	3.5	35.4	9.5	45.6	31.6	31.6
Actuated g/C Ratio	0.38	0.38	0.38	0.04	0.39	0.11	0.51	0.35	0.35
v/c Ratio	0.84	0.20	0.26	0.12	0.17	0.96	0.35	0.52	0.82
Control Delay	45.9	19.9	4.4	45.8	10.6	100.1	14.4	35.2	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	19.9	4.4	45.8	10.6	100.1	14.4	35.2	31.0
LOS	D	B	A	D	B	F	B	D	C
Approach Delay		29.4			11.8		33.4		31.4
Approach LOS		C			B		C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 82.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	334	127	172	8	133	81	167	567	18	104	626	334
Future Volume (veh/h)	334	127	172	8	133	81	167	567	18	104	626	334
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	352	134	181	8	140	85	176	597	19	109	659	352
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	450	599	508	12	820	469	245	1790	57	260	722	385
Arrive On Green	0.33	0.33	0.33	0.01	0.38	0.38	0.14	0.52	0.52	0.33	0.33	0.33
Sat Flow, veh/h	1137	1841	1560	1753	2143	1226	1753	3460	110	794	2202	1176
Grp Volume(v), veh/h	352	134	181	8	113	112	176	302	314	109	523	488
Grp Sat Flow(s),veh/h/ln	1137	1841	1560	1753	1749	1620	1753	1749	1821	794	1749	1629
Q Serve(g_s), s	27.2	4.8	5.1	0.4	3.8	4.1	8.6	9.1	9.1	11.1	25.8	25.8
Cycle Q Clear(g_c), s	27.2	4.8	5.1	0.4	3.8	4.1	8.6	9.1	9.1	20.1	25.8	25.8
Prop In Lane	1.00		1.00	1.00		0.76	1.00		0.06	1.00		0.72
Lane Grp Cap(c), veh/h	450	599	508	12	669	620	245	905	942	260	573	534
V/C Ratio(X)	0.78	0.22	0.36	0.65	0.17	0.18	0.72	0.33	0.33	0.42	0.91	0.91
Avail Cap(c_a), veh/h	453	603	511	68	729	675	245	905	942	260	573	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	22.1	9.6	44.6	18.3	18.4	37.0	12.7	12.7	31.2	29.0	29.0
Incr Delay (d2), s/veh	8.6	0.2	0.4	45.0	0.1	0.1	6.8	0.7	0.6	4.9	21.3	22.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	2.0	2.8	0.3	1.5	1.5	4.1	3.5	3.7	2.4	13.8	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	22.3	10.0	89.6	18.4	18.6	43.9	13.3	13.3	36.1	50.4	51.5
LnGrp LOS	D	C	B	F	B	B	D	B	B	D	D	D
Approach Vol, veh/h		667			233			792			1120	
Approach Delay, s/veh		27.4			20.9			20.1			49.5	
Approach LOS		C			C			C			D	

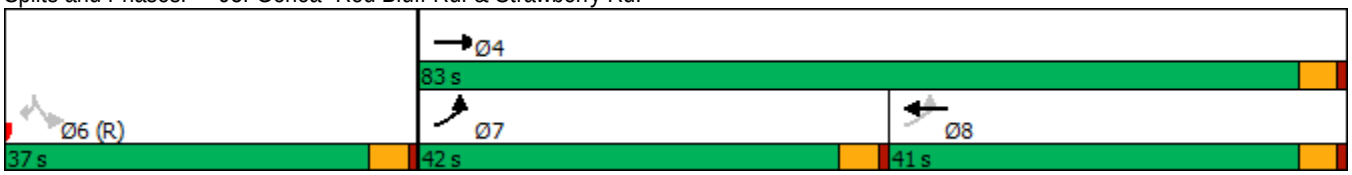
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		51.1	5.1	33.8	17.1	34.0		38.9				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		43.5	3.5	29.5	9.5	29.5		37.5				
Max Q Clear Time (g_c+I1), s		11.1	2.4	29.2	10.6	27.8		6.1				
Green Ext Time (p_c), s		4.2	0.0	0.1	0.0	1.1		1.4				

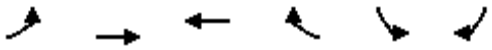
Intersection Summary												
HCM 6th Ctrl Delay			33.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	384	864	607	157	352
Future Volume (vph)	384	864	607	157	352
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	42.0	83.0	41.0	37.0	37.0
Total Split (%)	35.0%	69.2%	34.2%	30.8%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	60.9	65.4	32.9	45.6	45.6
Actuated g/C Ratio	0.51	0.54	0.27	0.38	0.38
v/c Ratio	0.86	0.48	0.81	0.25	0.45
Control Delay	37.6	19.8	45.4	29.9	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	37.6	19.8	45.4	29.9	5.3
LOS	D	B	D	C	A
Approach Delay		25.3	45.4	12.9	
Approach LOS		C	D	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 107 (89%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 28.6	Intersection LOS: C
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.





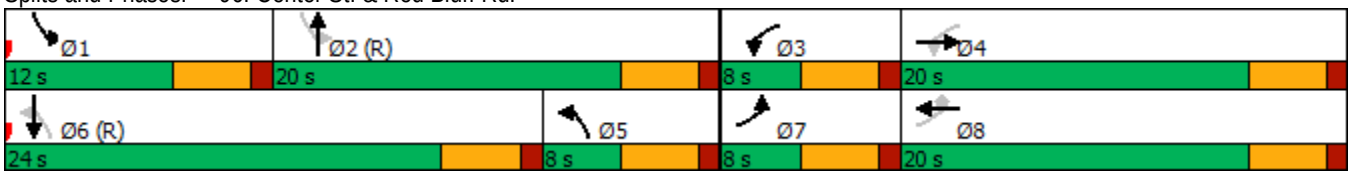
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	384	864	607	120	157	352
Future Volume (vph)	384	864	607	120	157	352
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	3471	3385		1736	1553
Flt Permitted	0.14	1.00	1.00		0.95	1.00
Satd. Flow (perm)	247	3471	3385		1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	404	909	639	126	165	371
RTOR Reduction (vph)	0	0	15	0	0	230
Lane Group Flow (vph)	404	909	750	0	165	141
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	60.9	65.4	32.9		45.6	45.6
Effective Green, g (s)	60.9	65.4	32.9		45.6	45.6
Actuated g/C Ratio	0.51	0.55	0.27		0.38	0.38
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	472	1891	928		659	590
v/s Ratio Prot	c0.20	0.26	0.22			
v/s Ratio Perm	c0.23				c0.10	0.09
v/c Ratio	0.86	0.48	0.81		0.25	0.24
Uniform Delay, d1	30.9	16.8	40.6		25.5	25.4
Progression Factor	0.70	1.17	0.97		1.00	1.00
Incremental Delay, d2	13.7	0.2	5.1		0.9	1.0
Delay (s)	35.1	19.8	44.6		26.4	26.3
Level of Service	D	B	D		C	C
Approach Delay (s)		24.5	44.6		26.3	
Approach LOS		C	D		C	

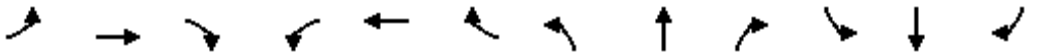
Intersection Summary			
HCM 2000 Control Delay	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	40	548	21	643	254	119	754	294	814
Future Volume (vph)	40	548	21	643	254	119	754	294	814
Turn Type	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases	8		4		8	6		2	
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	12.0	24.0
Total Split (%)	13.3%	33.3%	13.3%	33.3%	33.3%	13.3%	33.3%	20.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.4	18.6	19.3	17.0	17.0	27.2	16.6	26.3	24.4
Actuated g/C Ratio	0.31	0.31	0.32	0.28	0.28	0.45	0.28	0.44	0.41
v/c Ratio	0.20	0.73	0.11	0.70	0.43	0.52	0.85	0.72	0.61
Control Delay	9.4	14.9	13.0	24.2	5.1	21.4	36.4	24.8	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.4	14.9	13.0	24.2	5.1	21.4	36.4	24.8	18.2
LOS	A	B	B	C	A	C	D	C	B
Approach Delay		14.7		18.7			34.4		20.0
Approach LOS		B		B			C		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 77.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	548	202	21	643	254	119	754	9	294	814	0
Future Volume (veh/h)	40	548	202	21	643	254	119	754	9	294	814	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	583	215	22	684	270	127	802	10	313	866	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	209	647	238	173	862	384	358	1057	13	401	1137	0
Arrive On Green	0.03	0.26	0.26	0.02	0.25	0.25	0.10	0.30	0.30	0.13	0.32	0.00
Sat Flow, veh/h	1753	2503	921	1753	3497	1560	1753	3537	44	1753	3589	0
Grp Volume(v), veh/h	43	407	391	22	684	270	127	396	416	313	866	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1675	1753	1749	1560	1753	1749	1833	1753	1749	0
Q Serve(g_s), s	1.1	13.5	13.6	0.6	11.0	9.5	0.0	12.3	12.3	7.5	13.3	0.0
Cycle Q Clear(g_c), s	1.1	13.5	13.6	0.6	11.0	9.5	0.0	12.3	12.3	7.5	13.3	0.0
Prop In Lane	1.00		0.55	1.00		1.00	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	209	452	433	173	862	384	358	522	548	401	1137	0
V/C Ratio(X)	0.21	0.90	0.90	0.13	0.79	0.70	0.35	0.76	0.76	0.78	0.76	0.00
Avail Cap(c_a), veh/h	259	452	433	244	903	403	358	522	548	401	1137	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.47	0.47	0.47	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.2	21.5	21.5	17.5	21.2	20.6	22.8	19.1	19.1	14.3	18.2	0.0
Incr Delay (d2), s/veh	0.5	20.9	22.0	0.3	4.7	5.1	0.3	4.9	4.7	9.6	4.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	7.6	7.5	0.2	4.7	3.7	1.6	5.2	5.4	3.6	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	42.4	43.5	17.8	25.9	25.7	23.1	24.0	23.7	23.9	23.0	0.0
LnGrp LOS	B	D	D	B	C	C	C	C	C	C	C	A
Approach Vol, veh/h		841			976			939			1179	
Approach Delay, s/veh		41.6			25.7			23.7			23.2	
Approach LOS		D			C			C			C	

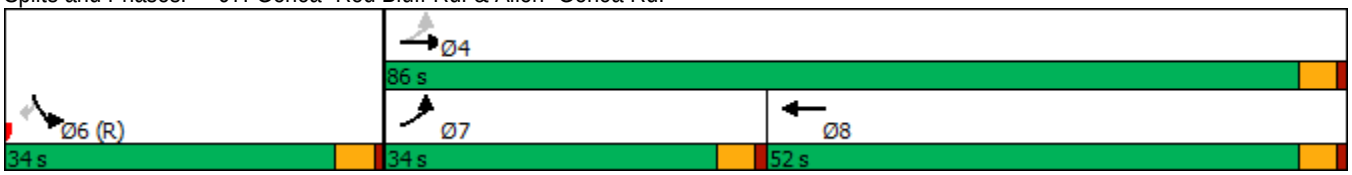
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	22.4	5.6	20.0	10.4	24.0	6.3	19.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	15.5	3.5	15.5	3.5	19.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	9.5	14.3	2.6	15.6	2.0	15.3	3.1	13.0
Green Ext Time (p_c), s	0.0	0.6	0.0	0.0	0.0	2.2	0.0	1.4

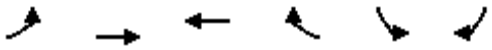
Intersection Summary	
HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	250	914	700	65	191
Future Volume (vph)	250	914	700	65	191
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	34.0	86.0	52.0	34.0	34.0
Total Split (%)	28.3%	71.7%	43.3%	28.3%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	62.2	62.2	36.9	48.8	48.8
Actuated g/C Ratio	0.52	0.52	0.31	0.41	0.41
v/c Ratio	0.72	0.55	0.79	0.10	0.28
Control Delay	34.7	20.1	19.1	18.1	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	20.1	19.1	18.1	4.0
LOS	C	C	B	B	A
Approach Delay		23.2	19.1	7.5	
Approach LOS		C	B	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38 (32%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 55.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	250	914	700	66	65	191
Future Volume (veh/h)	250	914	700	66	65	191
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	272	993	761	72	71	208
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	323	1564	910	86	838	745
Arrive On Green	0.13	0.45	0.28	0.28	0.48	0.48
Sat Flow, veh/h	1753	3589	3321	305	1753	1560
Grp Volume(v), veh/h	272	993	412	421	71	208
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1786	1753	1560
Q Serve(g_s), s	12.6	26.3	26.6	26.6	2.6	9.6
Cycle Q Clear(g_c), s	12.6	26.3	26.6	26.6	2.6	9.6
Prop In Lane	1.00			0.17	1.00	1.00
Lane Grp Cap(c), veh/h	323	1564	493	504	838	745
V/C Ratio(X)	0.84	0.63	0.84	0.84	0.08	0.28
Avail Cap(c_a), veh/h	530	2375	692	707	838	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	25.6	40.5	40.5	17.1	18.9
Incr Delay (d2), s/veh	6.4	0.4	6.3	6.2	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	10.9	12.2	12.5	1.1	10.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.6	26.0	46.7	46.6	17.3	19.8
LnGrp LOS	C	C	D	D	B	B
Approach Vol, veh/h		1265	833		279	
Approach Delay, s/veh		27.9	46.7		19.2	
Approach LOS		C	D		B	

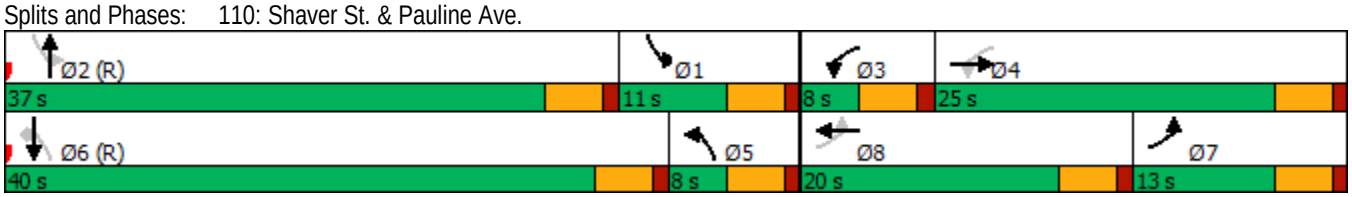
Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		58.2		61.8	19.8	38.3
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		81.5		29.5	29.5	47.5
Max Q Clear Time (g_c+I1), s		28.3		11.6	14.6	28.6
Green Ext Time (p_c), s		9.4		0.8	0.7	5.3

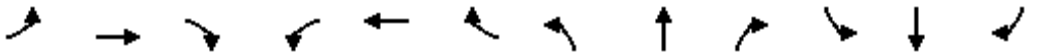
Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	130	144	53	116	46	781	81	936	149
Future Volume (vph)	130	144	53	116	46	781	81	936	149
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	25.0	8.0	20.0	8.0	37.0	11.0	40.0	40.0
Total Split (%)	16.0%	30.9%	9.9%	24.7%	9.9%	45.7%	13.6%	49.4%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.7	18.4	20.5	12.4	47.0	40.2	46.3	44.0	44.0
Actuated g/C Ratio	0.23	0.23	0.25	0.15	0.58	0.50	0.57	0.54	0.54
v/c Ratio	0.54	0.40	0.19	0.67	0.18	0.57	0.31	0.53	0.17
Control Delay	33.2	29.2	21.5	38.3	11.5	17.3	8.5	5.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	29.2	21.5	38.3	11.5	17.3	8.5	5.6	0.9
LOS	C	C	C	D	B	B	A	A	A
Approach Delay		31.0		34.5		17.0		5.2	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 43 (53%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	144	11	53	116	65	46	781	124	81	936	149
Future Volume (veh/h)	130	144	11	53	116	65	46	781	124	81	936	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	140	155	12	57	125	70	49	840	133	87	1006	160
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	196	241	19	222	154	86	468	1213	192	530	1533	684
Arrive On Green	0.04	0.14	0.14	0.04	0.14	0.14	0.16	0.40	0.40	0.20	0.44	0.44
Sat Flow, veh/h	1753	1687	131	1753	1108	621	1753	3024	479	1753	3497	1560
Grp Volume(v), veh/h	140	0	167	57	0	195	49	486	487	87	1006	160
Grp Sat Flow(s),veh/h/ln	1753	0	1817	1753	0	1729	1753	1749	1755	1753	1749	1560
Q Serve(g_s), s	0.5	0.0	7.0	2.2	0.0	8.9	0.0	18.7	18.7	0.0	18.4	5.2
Cycle Q Clear(g_c), s	0.5	0.0	7.0	2.2	0.0	8.9	0.0	18.7	18.7	0.0	18.4	5.2
Prop In Lane	1.00		0.07	1.00		0.36	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	196	0	259	222	0	240	468	702	704	530	1533	684
V/C Ratio(X)	0.71	0.00	0.64	0.26	0.00	0.81	0.10	0.69	0.69	0.16	0.66	0.23
Avail Cap(c_a), veh/h	308	0	460	232	0	331	468	702	704	530	1533	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	0.0	32.8	28.4	0.0	33.8	17.9	20.1	20.1	19.2	17.9	14.2
Incr Delay (d2), s/veh	4.8	0.0	2.7	0.6	0.0	10.2	0.1	5.1	5.0	0.1	2.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	3.2	1.0	0.0	4.3	0.6	8.1	8.1	1.2	7.3	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	0.0	35.4	29.0	0.0	44.0	18.0	25.2	25.2	19.3	20.2	15.0
LnGrp LOS	D	A	D	C	A	D	B	C	C	B	C	B
Approach Vol, veh/h		307			252			1022			1253	
Approach Delay, s/veh		38.3			40.6			24.8			19.4	
Approach LOS		D			D			C			B	

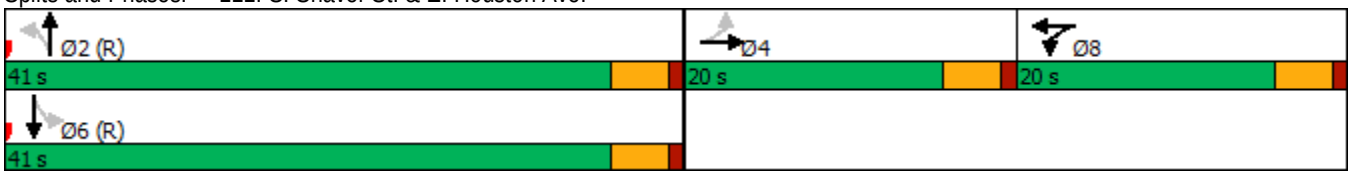
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	37.0	7.6	16.1	17.4	40.0	7.9	15.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	32.5	3.5	20.5	3.5	35.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	20.7	4.2	9.0	2.0	20.4	2.5	10.9
Green Ext Time (p_c), s	0.1	5.0	0.0	0.6	0.0	6.9	0.2	0.4

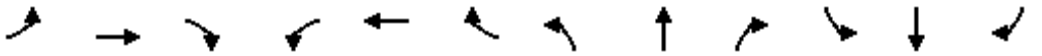
Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	30	16	93	14	15	818	38	1062
Future Volume (vph)	30	16	93	14	15	818	38	1062
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	41.0	41.0	41.0	41.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	50.6%	50.6%	50.6%	50.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.7	10.7	9.9	9.9	54.3	54.3	54.3	54.3
Actuated g/C Ratio	0.13	0.13	0.12	0.12	0.67	0.67	0.67	0.67
v/c Ratio	0.27	0.13	0.47	0.29	0.07	0.40	0.12	0.50
Control Delay	35.4	20.9	33.3	9.7	8.1	7.2	11.6	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Total Delay	35.4	20.9	33.3	9.7	8.1	7.2	11.6	12.6
LOS	D	C	C	A	A	A	B	B
Approach Delay		28.4		23.4		7.2		12.6
Approach LOS		C		C		A		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 43 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 54.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	16	12	93	14	54	15	818	54	38	1062	20
Future Volume (veh/h)	30	16	12	93	14	54	15	818	54	38	1062	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	17	13	99	15	57	16	870	57	40	1130	21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	81	45	34	145	28	106	360	2346	154	408	2473	46
Arrive On Green	0.05	0.05	0.05	0.08	0.08	0.08	0.47	0.47	0.47	0.70	0.70	0.70
Sat Flow, veh/h	1753	968	740	1753	336	1275	481	3332	218	594	3512	65
Grp Volume(v), veh/h	32	0	30	99	0	72	16	457	470	40	563	588
Grp Sat Flow(s),veh/h/ln	1753	0	1708	1753	0	1611	481	1749	1801	594	1749	1829
Q Serve(g_s), s	1.4	0.0	1.4	4.4	0.0	3.5	1.7	13.5	13.5	2.7	11.4	11.4
Cycle Q Clear(g_c), s	1.4	0.0	1.4	4.4	0.0	3.5	13.1	13.5	13.5	16.2	11.4	11.4
Prop In Lane	1.00		0.43	1.00		0.79	1.00		0.12	1.00		0.04
Lane Grp Cap(c), veh/h	81	0	79	145	0	133	360	1231	1269	408	1231	1288
V/C Ratio(X)	0.39	0.00	0.38	0.68	0.00	0.54	0.04	0.37	0.37	0.10	0.46	0.46
Avail Cap(c_a), veh/h	335	0	327	335	0	308	360	1231	1269	408	1231	1288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.94	0.00	0.94	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	37.5	36.1	0.0	35.7	13.4	9.9	9.9	9.3	5.2	5.2
Incr Delay (d2), s/veh	3.1	0.0	3.0	5.2	0.0	3.2	0.2	0.8	0.7	0.5	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.6	2.1	0.0	1.5	0.2	5.8	5.9	0.4	3.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.0	40.4	41.3	0.0	38.8	13.6	10.7	10.6	9.8	6.4	6.4
LnGrp LOS	D	A	D	D	A	D	B	B	B	A	A	A
Approach Vol, veh/h		62			171			943			1191	
Approach Delay, s/veh		40.5			40.3			10.7			6.5	
Approach LOS		D			D			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.5		8.3		61.5		11.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		36.5		15.5		36.5		15.5				
Max Q Clear Time (g_c+I1), s		15.5		3.4		18.2		6.4				
Green Ext Time (p_c), s		6.4		0.1		8.0		0.4				

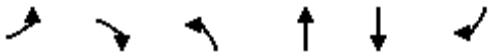
Intersection Summary												
HCM 6th Ctrl Delay			11.5									
HCM 6th LOS			B									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	108	51	1302	1491
Future Volume (vph)	108	51	1302	1491
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	20.0	8.0	61.0	53.0
Total Split (%)	24.7%	9.9%	75.3%	65.4%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	11.8	60.2	60.2	55.4
Actuated g/C Ratio	0.15	0.74	0.74	0.68
v/c Ratio	0.63	0.30	0.54	0.73
Control Delay	37.6	7.7	2.7	5.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.6	7.7	2.7	5.7
LOS	D	A	A	A
Approach Delay	37.6		2.8	5.7
Approach LOS	D		A	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 64 (79%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 6.1	Intersection LOS: A
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	108	48	51	1302	1491	101
Future Volume (vph)	108	48	51	1302	1491	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.96		1.00	1.00	0.99	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1692		1736	3471	3438	
Flt Permitted	0.97		0.08	1.00	1.00	
Satd. Flow (perm)	1692		154	3471	3438	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	116	52	55	1400	1603	109
RTOR Reduction (vph)	21	0	0	0	5	0
Lane Group Flow (vph)	147	0	55	1400	1707	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	11.8		60.2	60.2	53.6	
Effective Green, g (s)	11.8		60.2	60.2	53.6	
Actuated g/C Ratio	0.15		0.74	0.74	0.66	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	246		155	2579	2275	
v/s Ratio Prot			0.01	c0.40	c0.50	
v/s Ratio Perm	c0.09		0.25			
v/c Ratio	0.60		0.35	0.54	0.75	
Uniform Delay, d1	32.4		15.1	4.5	9.2	
Progression Factor	1.00		0.41	0.37	0.38	
Incremental Delay, d2	3.8		1.3	0.8	2.2	
Delay (s)	36.2		7.4	2.4	5.7	
Level of Service	D		A	A	A	
Approach Delay (s)	36.2			2.6	5.7	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	5.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	20	756	89	863
Future Volume (vph)	20	756	89	863
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	23.0	58.0	58.0	58.0
Total Split (%)	28.4%	71.6%	71.6%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	8.0	64.0		64.0
Actuated g/C Ratio	0.10	0.79		0.79
v/c Ratio	0.61	0.29		0.45
Control Delay	16.7	2.9		3.9
Queue Delay	0.0	0.0		0.0
Total Delay	16.7	2.9		3.9
LOS	B	A		A
Approach Delay	16.7	2.9		3.9
Approach LOS	B	A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 4.7	Intersection LOS: A
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	20	158	756	23	89	863
Future Volume (veh/h)	20	158	756	23	89	863
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	21	163	779	24	92	890
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	25	195	2593	80	228	2088
Arrive On Green	0.14	0.14	0.75	0.75	0.75	0.75
Sat Flow, veh/h	179	1393	3556	107	233	2873
Grp Volume(v), veh/h	185	0	393	410	467	515
Grp Sat Flow(s),veh/h/ln	1581	0	1749	1822	1431	1591
Q Serve(g_s), s	9.2	0.0	5.9	5.9	0.0	9.7
Cycle Q Clear(g_c), s	9.2	0.0	5.9	5.9	6.9	9.7
Prop In Lane	0.11	0.88		0.06	0.20	
Lane Grp Cap(c), veh/h	222	0	1309	1364	1124	1191
V/C Ratio(X)	0.83	0.00	0.30	0.30	0.42	0.43
Avail Cap(c_a), veh/h	361	0	1309	1364	1124	1191
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.92	0.92
Uniform Delay (d), s/veh	33.9	0.0	3.3	3.3	3.4	3.8
Incr Delay (d2), s/veh	8.6	0.0	0.6	0.6	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	1.5	1.6	1.9	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.5	0.0	3.9	3.9	4.5	4.8
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	185		803			982
Approach Delay, s/veh	42.5		3.9			4.7
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		65.1			65.1	15.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		53.5			53.5	18.5
Max Q Clear Time (g_c+I1), s		7.9			11.7	11.2
Green Ext Time (p_c), s		5.7			8.4	0.3

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

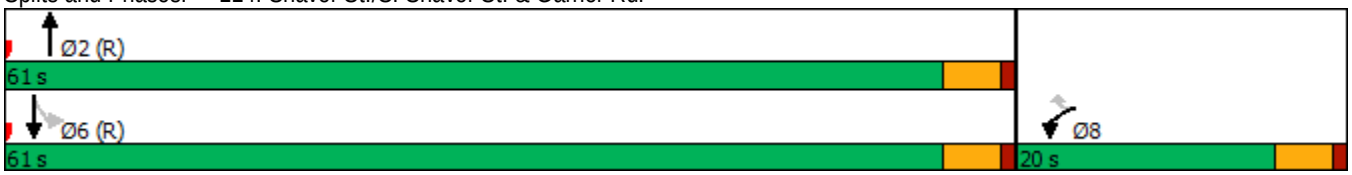
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	130	130	1009	172	1177
Future Volume (vph)	130	130	1009	172	1177
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	61.0	61.0	61.0
Total Split (%)	24.7%	24.7%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	11.5	11.5	60.5	60.5	60.5
Actuated g/C Ratio	0.14	0.14	0.75	0.75	0.75
v/c Ratio	0.56	0.41	0.48	0.67	0.48
Control Delay	39.8	9.3	1.5	21.6	3.4
Queue Delay	0.4	0.0	0.1	0.0	0.0
Total Delay	40.2	9.3	1.6	21.6	3.4
LOS	D	A	A	C	A
Approach Delay	24.8		1.6		5.7
Approach LOS	C		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 68 (84%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 5.8	Intersection LOS: A
Intersection Capacity Utilization 64.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	130	130	1009	147	172	1177
Future Volume (veh/h)	130	130	1009	147	172	1177
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	138	138	1073	156	183	1252
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	203	181	2369	344	434	2703
Arrive On Green	0.12	0.12	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	3157	445	446	3589
Grp Volume(v), veh/h	138	138	611	618	183	1252
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1761	446	1749
Q Serve(g_s), s	6.1	6.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.1	6.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		0.25	1.00	
Lane Grp Cap(c), veh/h	203	181	1352	1361	434	2703
V/C Ratio(X)	0.68	0.76	0.45	0.45	0.42	0.46
Avail Cap(c_a), veh/h	335	299	1352	1361	434	2703
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.81	0.81	0.86	0.86
Uniform Delay (d), s/veh	34.4	34.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.9	6.5	0.9	0.9	2.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.9	0.3	0.3	0.3	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.3	41.2	0.9	0.9	2.6	0.5
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	276		1229			1435
Approach Delay, s/veh	39.8		0.9			0.8
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		67.1			67.1	13.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		56.5			56.5	15.5
Max Q Clear Time (g_c+I1), s		2.0			2.0	8.9
Green Ext Time (p_c), s		11.9			19.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	2	60	68	34	48	70	798	78	858
Future Volume (vph)	2	60	68	34	48	70	798	78	858
Turn Type	D.P+P	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	4	3	8	5	2	1	6
Permitted Phases	8			4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.5	23.5	23.5	8.0	22.0	12.0	47.0	12.0	47.0
Total Split (%)	10.5%	26.0%	26.0%	8.8%	24.3%	13.3%	51.9%	13.3%	51.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		8.8	8.8	10.9	13.6	64.3	58.3	64.3	58.6
Actuated g/C Ratio		0.10	0.10	0.12	0.15	0.71	0.64	0.71	0.65
v/c Ratio		0.40	0.24	0.22	0.44	0.18	0.42	0.19	0.42
Control Delay		44.6	1.8	33.7	19.4	5.3	10.2	6.4	10.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		44.6	1.8	33.7	19.4	5.3	10.2	6.4	10.2
LOS		D	A	C	B	A	B	A	B
Approach Delay		22.1			22.5		9.8		9.9
Approach LOS		C			C		A		A

Intersection Summary	
Cycle Length: 90.5	
Actuated Cycle Length: 90.5	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 54.0%	ICU Level of Service A
Analysis Period (min) 15	

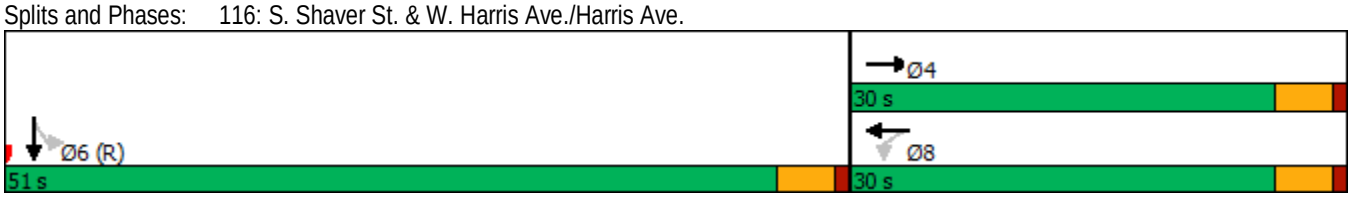
Splits and Phases: 115: Shaver St. & Fresa Rd.

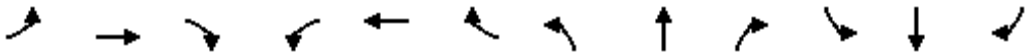


Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	132	98	161	1112
Future Volume (vph)	132	98	161	1112
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	51.0
Total Split (%)	37.0%	37.0%	37.0%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	14.8		14.8	57.2
Actuated g/C Ratio	0.18		0.18	0.71
v/c Ratio	0.41		0.65	0.39
Control Delay	22.9		32.6	3.9
Queue Delay	0.0		0.0	0.0
Total Delay	22.9		32.6	3.9
LOS	C		C	A
Approach Delay	22.9		32.6	3.9
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 70 (86%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 10.7	Intersection LOS: B
Intersection Capacity Utilization 53.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	132	95	98	161	0	0	0	0	95	1112	40
Future Volume (veh/h)	0	132	95	98	161	0	0	0	0	95	1112	40
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	145	104	108	177	0				104	1222	44
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	416	279	211	385	0				258	3236	120
Arrive On Green	0.00	0.21	0.21	0.07	0.07	0.00				0.22	0.22	0.22
Sat Flow, veh/h	0	2094	1345	638	1940	0				379	4751	176
Grp Volume(v), veh/h	0	125	124	141	144	0				500	418	452
Grp Sat Flow(s),veh/h/ln	0	1749	1599	903	1591	0				1822	1675	1809
Q Serve(g_s), s	0.0	5.0	5.4	8.3	7.0	0.0				18.9	17.1	17.1
Cycle Q Clear(g_c), s	0.0	5.0	5.4	13.7	7.0	0.0				18.9	17.1	17.1
Prop In Lane	0.00		0.84	0.76		0.00				0.21		0.10
Lane Grp Cap(c), veh/h	0	363	332	266	331	0				1241	1141	1232
V/C Ratio(X)	0.00	0.35	0.37	0.53	0.43	0.00				0.40	0.37	0.37
Avail Cap(c_a), veh/h	0	551	503	397	501	0				1241	1141	1232
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.85	0.85	0.00				0.96	0.96	0.96
Uniform Delay (d), s/veh	0.0	27.4	27.6	38.0	33.2	0.0				17.4	16.6	16.6
Incr Delay (d2), s/veh	0.0	0.6	0.7	1.4	0.8	0.0				0.9	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	2.1	3.1	2.9	0.0				9.4	7.8	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.0	28.2	39.4	33.9	0.0				18.3	17.5	17.4
LnGrp LOS	A	C	C	D	C	A				B	B	B
Approach Vol, veh/h		249			285						1370	
Approach Delay, s/veh		28.1			36.6						17.8	
Approach LOS		C			D						B	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		21.3		59.7		21.3			
Change Period (Y+Rc), s		4.5		4.5		4.5			
Max Green Setting (Gmax), s		25.5		46.5		25.5			
Max Q Clear Time (g_c+I1), s		7.4		20.9		15.7			
Green Ext Time (p_c), s		1.3		9.8		1.2			

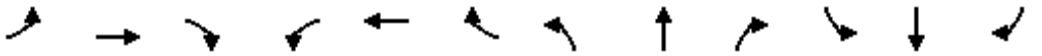
Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	41	195	184	755
Future Volume (vph)	41	195	184	755
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	32.0	32.0	32.0	49.0
Total Split (%)	39.5%	39.5%	39.5%	60.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		12.7	12.7	59.3
Actuated g/C Ratio		0.16	0.16	0.73
v/c Ratio		0.62	0.51	0.29
Control Delay		37.1	24.4	2.2
Queue Delay		0.0	0.0	0.0
Total Delay		37.1	24.4	2.2
LOS		D	C	A
Approach Delay		37.1	24.4	2.2
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 41 (51%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 48.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



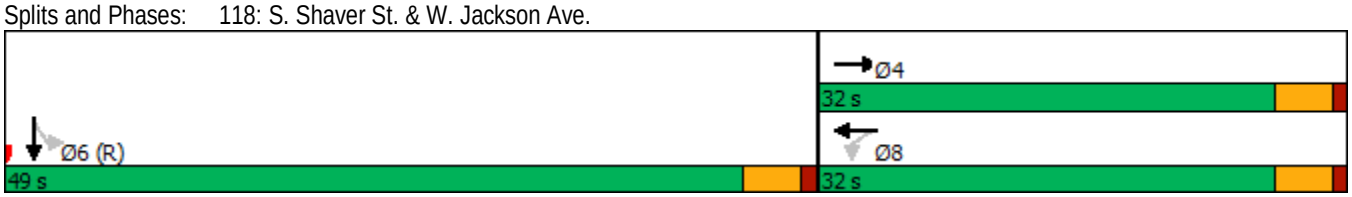


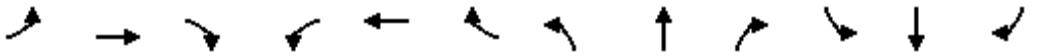
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	195	0	0	184	79	89	755	107	0	0	0
Future Volume (veh/h)	41	195	0	0	184	79	89	755	107	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	44	210	0	0	198	85	96	812	115			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	99	393	0	0	373	155	339	3052	445			
Arrive On Green	0.05	0.05	0.00	0.00	0.15	0.15	0.24	0.24	0.24			
Sat Flow, veh/h	251	2626	0	0	2503	998	462	4157	606			
Grp Volume(v), veh/h	128	126	0	0	142	141	378	316	329			
Grp Sat Flow(s),veh/h/ln	1201	1591	0	0	1749	1661	1818	1675	1732			
Q Serve(g_s), s	2.9	6.3	0.0	0.0	6.0	6.4	13.7	12.4	12.4			
Cycle Q Clear(g_c), s	9.3	6.3	0.0	0.0	6.0	6.4	13.7	12.4	12.4			
Prop In Lane	0.34		0.00	0.00		0.60	0.25		0.35			
Lane Grp Cap(c), veh/h	246	246	0	0	271	257	1334	1230	1271			
V/C Ratio(X)	0.52	0.51	0.00	0.00	0.52	0.55	0.28	0.26	0.26			
Avail Cap(c_a), veh/h	519	540	0	0	594	564	1334	1230	1271			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.92	0.92	0.00	0.00	0.77	0.77	0.89	0.89	0.89			
Uniform Delay (d), s/veh	36.5	35.5	0.0	0.0	31.5	31.6	13.3	12.8	12.9			
Incr Delay (d2), s/veh	1.6	1.5	0.0	0.0	1.2	1.4	0.5	0.5	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	2.6	0.0	0.0	2.6	2.6	6.7	5.6	5.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	37.0	0.0	0.0	32.7	33.0	13.8	13.3	13.3			
LnGrp LOS	D	D	A	A	C	C	B	B	B			
Approach Vol, veh/h		254			283			1023				
Approach Delay, s/veh		37.5			32.9			13.5				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		64.0		17.0				17.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		44.5		27.5				27.5				
Max Q Clear Time (g_c+I1), s		15.7		11.3				8.4				
Green Ext Time (p_c), s		7.0		1.3				1.5				
Intersection Summary												
HCM 6th Ctrl Delay			20.9									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	105	56	193	977
Future Volume (vph)	105	56	193	977
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	32.0	32.0	32.0	49.0
Total Split (%)	39.5%	39.5%	39.5%	60.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	13.2		13.2	58.8
Actuated g/C Ratio	0.16		0.16	0.73
v/c Ratio	0.42		0.62	0.30
Control Delay	20.1		24.4	4.4
Queue Delay	0.0		0.0	0.0
Total Delay	20.1		24.4	4.4
LOS	C		C	A
Approach Delay	20.1		24.4	4.4
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 30 (37%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 10.0	Intersection LOS: B
Intersection Capacity Utilization 48.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	105	119	56	193	0	0	0	0	46	977	19
Future Volume (veh/h)	0	105	119	56	193	0	0	0	0	46	977	19
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	111	125	59	203	0				48	1028	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	289	257	124	391	0				159	3625	73
Arrive On Green	0.00	0.17	0.17	0.05	0.05	0.00				0.72	0.72	0.72
Sat Flow, veh/h	0	1841	1560	359	2452	0				220	5007	100
Grp Volume(v), veh/h	0	111	125	132	130	0				400	333	363
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1136	1591	0				1830	1675	1823
Q Serve(g_s), s	0.0	4.6	5.9	4.2	6.4	0.0				6.3	5.6	5.6
Cycle Q Clear(g_c), s	0.0	4.6	5.9	10.1	6.4	0.0				6.3	5.6	5.6
Prop In Lane	0.00		1.00	0.45		0.00				0.12		0.06
Lane Grp Cap(c), veh/h	0	289	257	252	263	0				1324	1212	1319
V/C Ratio(X)	0.00	0.38	0.49	0.52	0.50	0.00				0.30	0.27	0.27
Avail Cap(c_a), veh/h	0	594	530	502	540	0				1324	1212	1319
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.88	0.88	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	30.1	30.7	36.8	35.0	0.0				4.0	3.9	3.9
Incr Delay (d2), s/veh	0.0	0.8	1.4	1.5	1.3	0.0				0.6	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	2.2	2.9	2.6	0.0				1.8	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.0	32.1	38.3	36.3	0.0				4.5	4.4	4.4
LnGrp LOS	A	C	C	D	D	A				A	A	A
Approach Vol, veh/h		236			262						1096	
Approach Delay, s/veh		31.6			37.3						4.4	
Approach LOS		C			D						A	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		17.9		63.1		17.9						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		27.5		44.5		27.5						
Max Q Clear Time (g_c+I1), s		7.9		8.3		12.1						
Green Ext Time (p_c), s		1.2		7.9		1.2						

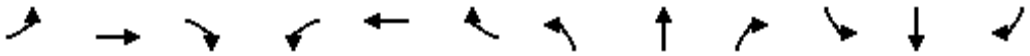
Intersection Summary												
HCM 6th Ctrl Delay		13.9										
HCM 6th LOS		B										

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	16	131	156	558
Future Volume (vph)	16	131	156	558
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	32.0	32.0	32.0	49.0
Total Split (%)	39.5%	39.5%	39.5%	60.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		9.6	9.6	62.4
Actuated g/C Ratio		0.12	0.12	0.77
v/c Ratio		0.45	0.47	0.20
Control Delay		42.6	33.3	1.4
Queue Delay		0.0	0.0	0.0
Total Delay		42.6	33.3	1.4
LOS		D	C	A
Approach Delay		42.6	33.3	1.4
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 12 (15%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 36.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



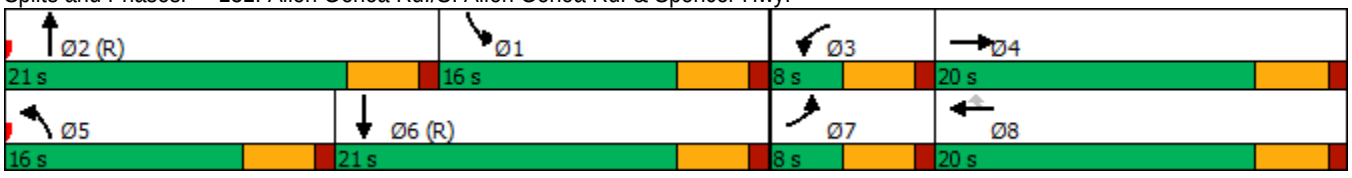


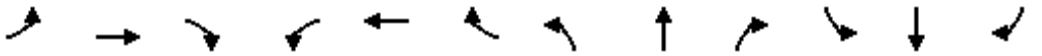
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	131	0	0	156	20	100	558	74	0	0	0
Future Volume (veh/h)	16	131	0	0	156	20	100	558	74	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	17	138	0	0	164	21	105	587	78			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	69	270	0	0	293	37	534	3189	432			
Arrive On Green	0.03	0.03	0.00	0.00	0.09	0.09	0.26	0.26	0.26			
Sat Flow, veh/h	159	2963	0	0	3216	394	671	4010	544			
Grp Volume(v), veh/h	80	75	0	0	91	94	283	237	250			
Grp Sat Flow(s),veh/h/ln	1447	1591	0	0	1749	1770	1807	1675	1743			
Q Serve(g_s), s	0.7	3.7	0.0	0.0	4.0	4.1	9.9	8.9	9.0			
Cycle Q Clear(g_c), s	4.8	3.7	0.0	0.0	4.0	4.1	9.9	8.9	9.0			
Prop In Lane	0.21		0.00	0.00		0.22	0.37		0.31			
Lane Grp Cap(c), veh/h	189	149	0	0	164	166	1437	1332	1386			
V/C Ratio(X)	0.42	0.50	0.00	0.00	0.55	0.57	0.20	0.18	0.18			
Avail Cap(c_a), veh/h	594	540	0	0	594	601	1437	1332	1386			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.91	0.91	0.00	0.00	1.00	1.00	0.97	0.97	0.97			
Uniform Delay (d), s/veh	37.5	37.4	0.0	0.0	35.1	35.1	9.7	9.4	9.4			
Incr Delay (d2), s/veh	1.4	2.4	0.0	0.0	2.9	3.0	0.3	0.3	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	1.6	0.0	0.0	1.8	1.9	3.6	2.7	2.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	39.7	0.0	0.0	38.0	38.2	10.0	9.7	9.7			
LnGrp LOS	D	D	A	A	D	D	B	A	A			
Approach Vol, veh/h		155			185			770				
Approach Delay, s/veh		39.3			38.1			9.8				
Approach LOS		D			D			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		68.9		12.1				12.1				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		44.5		27.5				27.5				
Max Q Clear Time (g_c+I1), s		11.9		6.8				6.1				
Green Ext Time (p_c), s		5.0		0.8				0.9				
Intersection Summary												
HCM 6th Ctrl Delay			18.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	87	835	52	908	240	208	518	279	566
Future Volume (vph)	87	835	52	908	240	208	518	279	566
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	20.0	16.0	21.0	16.0	21.0
Total Split (%)	12.3%	30.8%	12.3%	30.8%	30.8%	24.6%	32.3%	24.6%	32.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	3.5	18.7	3.5	15.5	15.5	10.9	16.5	11.5	17.1
Actuated g/C Ratio	0.05	0.29	0.05	0.24	0.24	0.17	0.25	0.18	0.26
v/c Ratio	0.98	0.75	0.58	0.82	0.44	0.74	0.71	0.95	0.74
Control Delay	126.2	25.6	57.4	31.0	6.0	43.1	26.7	70.3	27.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	126.2	25.6	57.4	31.0	6.0	43.1	26.7	70.3	27.9
LOS	F	C	E	C	A	D	C	E	C
Approach Delay		33.6		27.1			31.0		41.0
Approach LOS		C		C			C		D

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 76.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	835	173	52	908	240	208	518	62	279	566	58
Future Volume (veh/h)	87	835	173	52	908	240	208	518	62	279	566	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	91	870	180	54	946	250	217	540	65	291	590	60
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	94	1021	210	67	1150	357	262	798	96	327	932	95
Arrive On Green	0.05	0.24	0.24	0.04	0.23	0.23	0.15	0.25	0.25	0.19	0.29	0.29
Sat Flow, veh/h	1753	4177	860	1753	5025	1560	1753	3144	377	1753	3205	325
Grp Volume(v), veh/h	91	697	353	54	946	250	217	300	305	291	321	329
Grp Sat Flow(s),veh/h/ln	1753	1675	1686	1753	1675	1560	1753	1749	1773	1753	1749	1782
Q Serve(g_s), s	3.4	12.9	13.0	2.0	11.6	5.5	7.8	10.0	10.1	10.5	10.4	10.4
Cycle Q Clear(g_c), s	3.4	12.9	13.0	2.0	11.6	5.5	7.8	10.0	10.1	10.5	10.4	10.4
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.21	1.00		0.18
Lane Grp Cap(c), veh/h	94	819	412	67	1150	357	262	444	450	327	509	518
V/C Ratio(X)	0.96	0.85	0.86	0.81	0.82	0.70	0.83	0.67	0.68	0.89	0.63	0.63
Avail Cap(c_a), veh/h	94	819	412	94	1198	372	310	444	450	327	509	518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.41	0.41	0.41	0.96	0.96	0.96	0.91	0.91	0.91
Uniform Delay (d), s/veh	30.7	23.4	23.5	31.0	23.8	7.7	26.8	21.8	21.9	25.8	20.0	20.0
Incr Delay (d2), s/veh	72.8	7.2	13.8	13.1	1.9	2.3	14.2	7.7	7.7	22.9	5.4	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.5	6.3	1.0	4.4	3.2	4.1	4.8	4.9	6.2	4.7	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.5	30.6	37.3	44.1	25.8	10.0	41.0	29.5	29.6	48.7	25.4	25.3
LnGrp LOS	F	C	D	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h		1141			1250			822			941	
Approach Delay, s/veh		38.5			23.4			32.6			32.6	
Approach LOS		D			C			C			C	

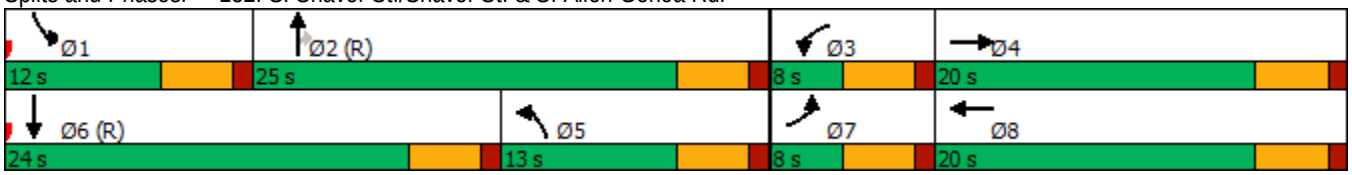
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	21.0	7.0	20.4	14.2	23.4	8.0	19.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	16.5	3.5	15.5	11.5	16.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	12.5	12.1	4.0	15.0	9.8	12.4	5.4	13.6
Green Ext Time (p_c), s	0.0	1.5	0.0	0.3	0.1	1.5	0.0	1.3

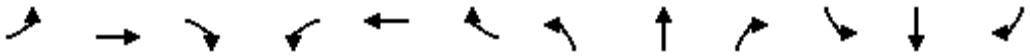
Intersection Summary	
HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	12	333	16	408	201	770	22	131	888
Future Volume (vph)	12	333	16	408	201	770	22	131	888
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases							2		
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	13.0	25.0	25.0	12.0	24.0
Total Split (%)	12.3%	30.8%	12.3%	30.8%	20.0%	38.5%	38.5%	18.5%	36.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	3.5	14.9	3.5	14.9	8.5	27.9	27.9	9.3	26.5
Actuated g/C Ratio	0.05	0.23	0.05	0.23	0.13	0.43	0.43	0.14	0.41
v/c Ratio	0.14	0.65	0.18	0.72	0.93	0.54	0.03	0.55	0.66
Control Delay	32.8	15.8	34.1	25.0	70.0	21.1	0.0	36.9	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	15.8	34.1	25.0	70.0	21.1	0.0	36.9	20.7
LOS	C	B	C	C	E	C	A	D	C
Approach Delay		16.2		25.3		30.5			22.8
Approach LOS		B		C		C			C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 24.4	Intersection LOS: C
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	333	252	16	408	162	201	770	22	131	888	2
Future Volume (veh/h)	12	333	252	16	408	162	201	770	22	131	888	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	13	351	265	17	429	171	212	811	0	138	935	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	20	423	314	25	548	216	329	1360		174	1074	2
Arrive On Green	0.01	0.22	0.22	0.01	0.22	0.22	0.19	0.39	0.00	0.10	0.30	0.30
Sat Flow, veh/h	1753	1914	1420	1753	2449	966	1753	3497	1560	1753	3580	8
Grp Volume(v), veh/h	13	320	296	17	305	295	212	811	0	138	457	480
Grp Sat Flow(s),veh/h/ln	1753	1749	1585	1753	1749	1667	1753	1749	1560	1753	1749	1839
Q Serve(g_s), s	0.5	11.4	11.6	0.6	10.7	10.8	7.3	12.0	0.0	5.0	16.1	16.1
Cycle Q Clear(g_c), s	0.5	11.4	11.6	0.6	10.7	10.8	7.3	12.0	0.0	5.0	16.1	16.1
Prop In Lane	1.00		0.90	1.00		0.58	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	20	386	350	25	392	373	329	1360		174	525	552
V/C Ratio(X)	0.66	0.83	0.84	0.68	0.78	0.79	0.64	0.60		0.79	0.87	0.87
Avail Cap(c_a), veh/h	94	417	378	94	417	397	329	1360		202	525	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.51	0.51	0.00	0.60	0.60	0.60
Uniform Delay (d), s/veh	32.0	24.1	24.2	31.9	23.7	23.8	24.4	15.8	0.0	28.6	21.6	21.6
Incr Delay (d2), s/veh	31.5	12.3	15.1	27.9	8.6	9.8	2.2	1.0	0.0	10.8	11.5	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	5.7	5.5	0.4	5.0	4.9	3.0	4.4	0.0	2.5	7.6	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	36.5	39.4	59.8	32.3	33.6	26.6	16.8	0.0	39.4	33.1	32.6
LnGrp LOS	E	D	D	E	C	C	C	B		D	C	C
Approach Vol, veh/h		629			617			1023	A		1075	
Approach Delay, s/veh		38.4			33.7			18.8			33.7	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	29.8	5.4	18.9	16.7	24.0	5.2	19.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	20.5	3.5	15.5	8.5	19.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	7.0	14.0	2.6	13.6	9.3	18.1	2.5	12.8
Green Ext Time (p_c), s	0.0	2.8	0.0	0.7	0.0	0.8	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

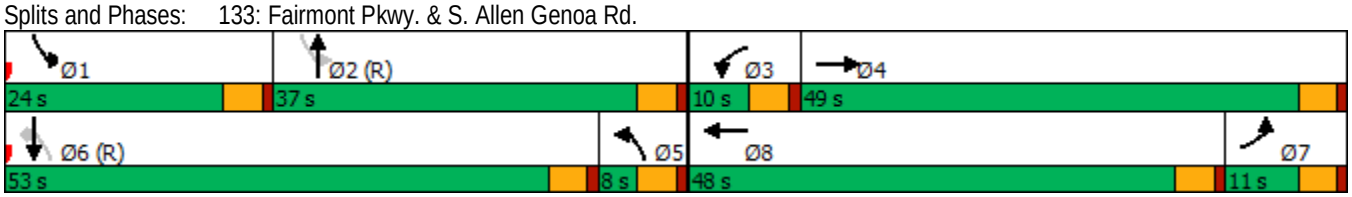
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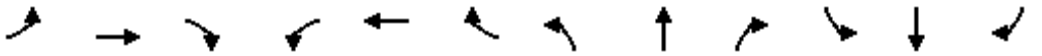
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	32	607	27	613	41	227	237	224	39
Future Volume (vph)	32	607	27	613	41	227	237	224	39
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	11.0	49.0	10.0	48.0	8.0	37.0	24.0	53.0	53.0
Total Split (%)	9.2%	40.8%	8.3%	40.0%	6.7%	30.8%	20.0%	44.2%	44.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.8	39.2	5.5	38.1	62.2	46.8	61.3	59.4	59.4
Actuated g/C Ratio	0.06	0.33	0.05	0.32	0.52	0.39	0.51	0.50	0.50
v/c Ratio	0.32	0.42	0.34	0.82	0.07	0.37	0.43	0.25	0.05
Control Delay	63.2	30.8	67.5	41.4	9.8	17.7	19.2	21.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.2	30.8	67.5	41.4	9.8	17.7	19.2	21.5	0.1
LOS	E	C	E	D	A	B	B	C	A
Approach Delay		32.3		42.2		16.6		18.7	
Approach LOS		C		D		B		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 32 (27%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 31.3	Intersection LOS: C
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	607	69	27	613	283	41	227	32	237	224	39
Future Volume (veh/h)	32	607	69	27	613	283	41	227	32	237	224	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	613	70	27	619	286	41	229	32	239	226	39
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	40	1422	161	33	712	329	616	671	94	588	744	630
Arrive On Green	0.02	0.31	0.31	0.02	0.31	0.31	0.12	0.42	0.42	0.10	0.40	0.40
Sat Flow, veh/h	1753	4580	518	1753	2323	1073	1753	1580	221	1753	1841	1560
Grp Volume(v), veh/h	32	447	236	27	466	439	41	0	261	239	226	39
Grp Sat Flow(s),veh/h/ln	1753	1675	1748	1753	1749	1648	1753	0	1801	1753	1841	1560
Q Serve(g_s), s	2.2	12.7	12.9	1.8	30.2	30.2	0.0	0.0	11.7	9.1	10.0	1.8
Cycle Q Clear(g_c), s	2.2	12.7	12.9	1.8	30.2	30.2	0.0	0.0	11.7	9.1	10.0	1.8
Prop In Lane	1.00		0.30	1.00		0.65	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	40	1040	543	33	536	505	616	0	765	588	744	630
V/C Ratio(X)	0.80	0.43	0.44	0.81	0.87	0.87	0.07	0.00	0.34	0.41	0.30	0.06
Avail Cap(c_a), veh/h	95	1242	648	80	634	597	616	0	765	705	744	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.17	0.17	0.17	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	32.9	33.0	58.6	39.3	39.3	19.7	0.0	23.2	16.7	24.3	21.8
Incr Delay (d2), s/veh	25.9	0.2	0.5	7.8	2.1	2.3	0.0	0.0	1.2	0.5	1.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.2	5.6	0.9	13.2	12.4	0.7	0.0	5.2	3.6	4.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.2	33.2	33.5	66.4	41.5	41.6	19.8	0.0	24.4	17.2	25.3	22.0
LnGrp LOS	F	C	C	E	D	D	B	A	C	B	C	C
Approach Vol, veh/h		715			932			302			504	
Approach Delay, s/veh		35.5			42.2			23.8			21.2	
Approach LOS		D			D			C			C	

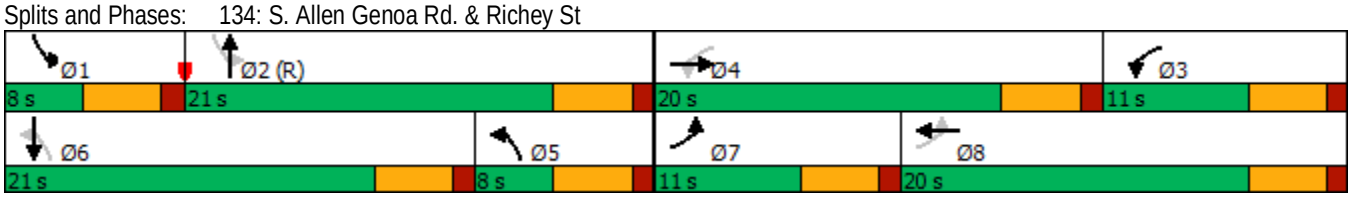
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	55.5	6.8	41.8	18.5	53.0	7.2	41.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	32.5	5.5	44.5	3.5	48.5	6.5	43.5
Max Q Clear Time (g_c+I1), s	11.1	13.7	3.8	14.9	2.0	12.0	4.2	32.2
Green Ext Time (p_c), s	0.4	1.3	0.0	4.9	0.0	1.5	0.0	4.6

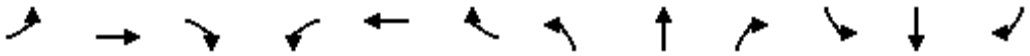
Intersection Summary	
HCM 6th Ctrl Delay	33.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	160	520	160	572	43	538	40	705
Future Volume (vph)	160	520	160	572	43	538	40	705
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	20.0	11.0	20.0	8.0	21.0	8.0	21.0
Total Split (%)	18.3%	33.3%	18.3%	33.3%	13.3%	35.0%	13.3%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	19.8	14.6	20.9	14.6	24.9	24.4	25.8	22.8
Actuated g/C Ratio	0.33	0.24	0.35	0.24	0.42	0.41	0.43	0.38
v/c Ratio	0.56	0.74	0.55	0.74	0.18	0.47	0.13	0.69
Control Delay	19.1	25.9	21.3	25.1	15.7	15.6	9.1	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.1	25.9	21.3	25.1	15.7	15.6	9.1	22.3
LOS	B	C	C	C	B	B	A	C
Approach Delay		24.5		24.3		15.6		21.7
Approach LOS		C		C		B		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 2:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	520	78	160	572	23	43	538	91	40	705	147
Future Volume (veh/h)	160	520	78	160	572	23	43	538	91	40	705	147
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	168	547	82	168	602	24	45	566	96	42	742	155
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	336	682	102	330	755	30	319	1051	178	323	792	165
Arrive On Green	0.10	0.22	0.22	0.10	0.22	0.22	0.11	0.35	0.35	0.03	0.28	0.28
Sat Flow, veh/h	1753	3051	456	1753	3428	137	1753	2992	506	1753	2880	601
Grp Volume(v), veh/h	168	313	316	168	307	319	45	330	332	42	451	446
Grp Sat Flow(s),veh/h/ln	1753	1749	1759	1753	1749	1816	1753	1749	1750	1753	1749	1732
Q Serve(g_s), s	4.3	10.1	10.2	0.0	10.0	10.0	0.0	9.1	9.1	0.9	15.1	15.1
Cycle Q Clear(g_c), s	4.3	10.1	10.2	0.0	10.0	10.0	0.0	9.1	9.1	0.9	15.1	15.1
Prop In Lane	1.00		0.26	1.00		0.08	1.00		0.29	1.00		0.35
Lane Grp Cap(c), veh/h	336	391	393	330	385	400	319	614	614	323	481	476
V/C Ratio(X)	0.50	0.80	0.81	0.51	0.80	0.80	0.14	0.54	0.54	0.13	0.94	0.94
Avail Cap(c_a), veh/h	352	452	454	352	452	469	319	614	614	374	481	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.4	22.0	22.1	24.1	22.1	22.1	23.8	15.6	15.6	12.5	21.2	21.2
Incr Delay (d2), s/veh	1.1	8.7	9.0	1.2	8.3	8.1	0.2	3.4	3.4	0.2	26.1	26.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.7	4.8	2.1	4.6	4.7	0.5	3.7	3.7	0.3	8.9	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.6	30.8	31.1	25.3	30.5	30.3	24.0	18.9	19.0	12.7	47.3	47.6
LnGrp LOS	B	C	C	C	C	C	C	B	B	B	D	D
Approach Vol, veh/h		797			794			707			939	
Approach Delay, s/veh		28.1			29.3			19.3			45.9	
Approach LOS		C			C			B			D	

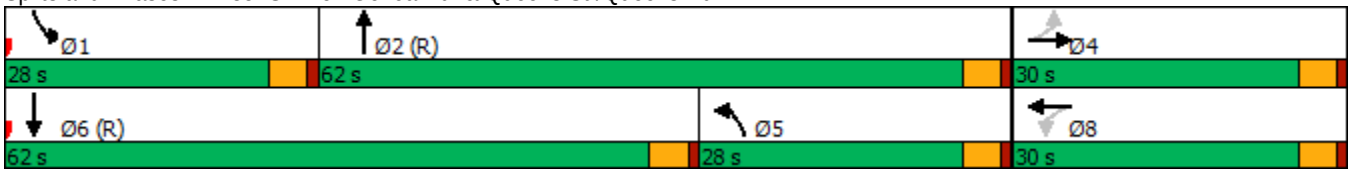
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	25.6	10.3	17.9	10.8	21.0	10.5	17.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	16.5	6.5	15.5	3.5	16.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	2.9	11.1	2.0	12.2	2.0	17.1	6.3	12.0
Green Ext Time (p_c), s	0.0	1.9	0.2	1.2	0.0	0.0	0.0	1.2

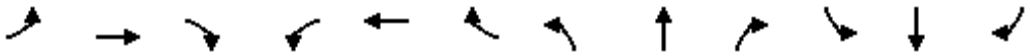
Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	162	2	116	113	509	116	775
Future Volume (vph)	23	162	2	116	113	509	116	775
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	30.0	30.0	30.0	30.0	28.0	62.0	28.0	62.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	23.3%	51.7%	23.3%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		14.7		14.7	23.5	78.1	13.7	68.3
Actuated g/C Ratio		0.12		0.12	0.20	0.65	0.11	0.57
v/c Ratio		0.72		0.49	0.35	0.24	0.61	0.43
Control Delay		47.6		29.7	45.1	9.9	62.8	16.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		47.6		29.7	45.1	9.9	62.8	16.3
LOS		D		C	D	A	E	B
Approach Delay		47.6		29.7		16.3		22.2
Approach LOS		D		C		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 31 (26%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 24.7	Intersection LOS: C
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	162	98	2	116	97	113	509	3	116	775	35
Future Volume (veh/h)	23	162	98	2	116	97	113	509	3	116	775	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	169	102	2	121	101	118	530	3	121	807	36
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	52	231	141	31	245	185	484	2390	14	149	1634	73
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.28	0.67	0.67	0.08	0.48	0.48
Sat Flow, veh/h	129	1749	1063	7	1853	1399	1753	3566	20	1753	3410	152
Grp Volume(v), veh/h	153	0	142	121	0	103	118	260	273	121	414	429
Grp Sat Flow(s),veh/h/ln	1457	0	1484	1836	0	1423	1753	1749	1837	1753	1749	1813
Q Serve(g_s), s	4.6	0.0	11.1	0.0	0.0	8.1	6.3	6.9	6.9	8.1	19.4	19.4
Cycle Q Clear(g_c), s	12.7	0.0	11.1	7.3	0.0	8.1	6.3	6.9	6.9	8.1	19.4	19.4
Prop In Lane	0.16		0.72	0.02		0.98	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	227	0	196	273	0	188	484	1172	1232	149	838	869
V/C Ratio(X)	0.67	0.00	0.73	0.44	0.00	0.55	0.24	0.22	0.22	0.81	0.49	0.49
Avail Cap(c_a), veh/h	362	0	315	419	0	302	484	1172	1232	343	838	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	0.0	50.0	48.4	0.0	48.7	33.7	7.7	7.7	54.0	21.3	21.3
Incr Delay (d2), s/veh	3.4	0.0	5.0	1.1	0.0	2.5	0.2	0.3	0.3	10.2	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	4.3	3.4	0.0	3.0	2.7	2.5	2.6	4.0	8.2	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	0.0	55.0	49.5	0.0	51.2	33.9	8.0	7.9	64.1	23.4	23.3
LnGrp LOS	D	A	E	D	A	D	C	A	A	E	C	C
Approach Vol, veh/h		295			224			651			964	
Approach Delay, s/veh		54.4			50.3			12.7			28.5	
Approach LOS		D			D			B			C	

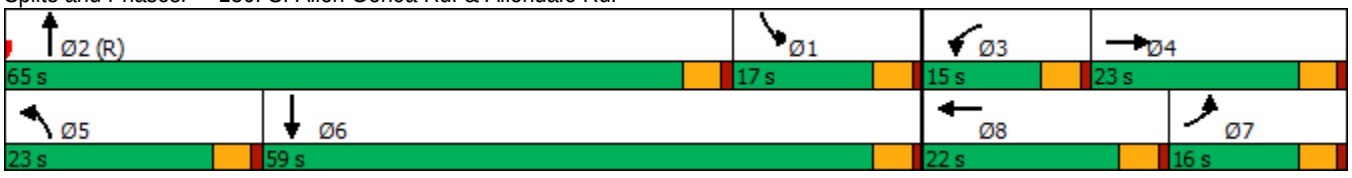
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.7	84.9		20.4	37.6	62.0		20.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	23.5	57.5		25.5	23.5	57.5		25.5				
Max Q Clear Time (g_c+I1), s	10.1	8.9		14.7	8.3	21.4		10.1				
Green Ext Time (p_c), s	0.2	3.4		1.2	0.2	5.9		1.0				

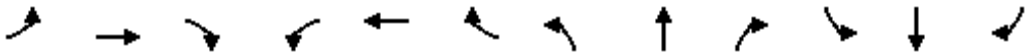
Intersection Summary			
HCM 6th Ctrl Delay		29.5	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	174	43	155	101	555	69	815
Future Volume (vph)	60	174	43	155	101	555	69	815
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	23.0	15.0	22.0	23.0	65.0	17.0	59.0
Total Split (%)	13.3%	19.2%	12.5%	18.3%	19.2%	54.2%	14.2%	49.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	9.8	13.3	8.4	12.0	12.8	74.5	9.9	69.5
Actuated g/C Ratio	0.08	0.11	0.07	0.10	0.11	0.62	0.08	0.58
v/c Ratio	0.45	0.63	0.39	0.57	0.59	0.31	0.50	0.47
Control Delay	61.7	48.1	57.2	48.7	66.8	13.3	64.2	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	48.1	57.2	48.7	66.8	13.3	64.2	17.5
LOS	E	D	E	D	E	B	E	B
Approach Delay		50.8		50.3		20.7		20.8
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 20 (17%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 28.0	Intersection LOS: C
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	174	76	43	155	34	101	555	70	69	815	87
Future Volume (veh/h)	60	174	76	43	155	34	101	555	70	69	815	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	62	181	79	45	161	35	105	578	0	72	849	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	96	240	101	58	224	48	135	1763		373	2239	
Arrive On Green	0.05	0.10	0.10	0.03	0.08	0.08	0.08	0.50	0.00	0.21	0.64	0.00
Sat Flow, veh/h	1753	2401	1007	1753	2870	610	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	62	130	130	45	97	99	105	578	0	72	849	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1659	1753	1749	1731	1753	1749	0	1753	1749	0
Q Serve(g_s), s	4.2	8.7	9.2	3.1	6.5	6.7	7.1	11.8	0.0	4.0	13.8	0.0
Cycle Q Clear(g_c), s	4.2	8.7	9.2	3.1	6.5	6.7	7.1	11.8	0.0	4.0	13.8	0.0
Prop In Lane	1.00		0.61	1.00		0.35	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	96	175	166	58	137	135	135	1763		373	2239	
V/C Ratio(X)	0.64	0.74	0.78	0.78	0.71	0.74	0.78	0.33		0.19	0.38	
Avail Cap(c_a), veh/h	168	270	256	153	255	252	270	1763		373	2239	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.6	52.5	52.7	57.6	54.0	54.1	54.4	17.7	0.0	38.8	10.2	0.0
Incr Delay (d2), s/veh	7.0	6.1	8.3	19.6	6.4	7.4	9.4	0.5	0.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.1	4.2	1.7	3.1	3.2	3.5	4.8	0.0	1.8	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	58.6	61.1	77.2	60.4	61.5	63.8	18.2	0.0	39.0	10.4	0.0
LnGrp LOS	E	E	E	E	E	E	E	B		D	B	
Approach Vol, veh/h		322			241			683	A		921	A
Approach Delay, s/veh		60.4			64.0			25.2			12.6	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	65.0	8.4	16.5	13.7	81.3	11.1	13.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	60.5	10.5	18.5	18.5	54.5	11.5	17.5
Max Q Clear Time (g_c+I1), s	6.0	13.8	5.1	11.2	9.1	15.8	6.2	8.7
Green Ext Time (p_c), s	0.1	4.6	0.0	0.8	0.1	7.3	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Notes

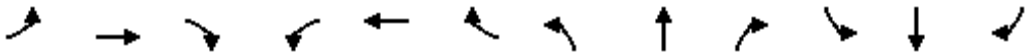
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	116	108	58	82	9	644	67	16	727	118
Future Volume (vph)	116	108	58	82	9	644	67	16	727	118
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	25.0	11.0	21.0	84.0	84.0	84.0	84.0	84.0	84.0
Total Split (%)	12.5%	20.8%	9.2%	17.5%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.3	11.7	15.2	8.6	90.2	90.2	90.2		90.2	90.2
Actuated g/C Ratio	0.15	0.10	0.13	0.07	0.75	0.75	0.75		0.75	0.75
v/c Ratio	0.59	0.47	0.40	0.40	0.02	0.52	0.06		0.35	0.11
Control Delay	41.6	24.2	51.1	52.7	1.9	5.8	0.3		5.8	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	41.6	24.2	51.1	52.7	1.9	5.8	0.3		5.8	1.2
LOS	D	C	D	D	A	A	A		A	A
Approach Delay		31.4		52.1		5.2			5.2	
Approach LOS		C		D		A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 67 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 12.3	Intersection LOS: B
Intersection Capacity Utilization 61.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	108	54	58	82	10	9	644	67	16	727	118
Future Volume (veh/h)	116	108	54	58	82	10	9	644	67	16	727	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	115	0	62	87	0	10	685	71	17	773	126
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	151	184		124	151		515	1484	1258	64	2680	1258
Arrive On Green	0.04	0.05	0.00	0.03	0.04	0.00	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1753	3589	0	1753	3589	0	610	1841	1560	41	3324	1560
Grp Volume(v), veh/h	123	115	0	62	87	0	10	685	71	417	373	126
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	610	1841	1560	1774	1591	1560
Q Serve(g_s), s	2.5	3.9	0.0	0.0	2.9	0.0	0.5	13.8	1.1	0.0	7.1	2.0
Cycle Q Clear(g_c), s	2.5	3.9	0.0	0.0	2.9	0.0	7.6	13.8	1.1	6.8	7.1	2.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.04		1.00
Lane Grp Cap(c), veh/h	151	184		124	151		515	1484	1258	1461	1283	1258
V/C Ratio(X)	0.82	0.62		0.50	0.57		0.02	0.46	0.06	0.29	0.29	0.10
Avail Cap(c_a), veh/h	238	597		169	481		515	1484	1258	1461	1283	1258
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	55.7	0.0	56.5	56.3	0.0	3.9	3.6	2.4	2.9	2.9	2.5
Incr Delay (d2), s/veh	8.8	2.6	0.0	3.1	3.4	0.0	0.1	1.0	0.1	0.5	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.8	0.0	1.9	1.4	0.0	0.1	4.1	0.3	2.0	1.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	58.3	0.0	59.6	59.7	0.0	4.0	4.6	2.4	3.4	3.5	2.6
LnGrp LOS	E	E		E	E		A	A	A	A	A	A
Approach Vol, veh/h		238	A		149	A		766			916	
Approach Delay, s/veh		61.5			59.7			4.4			3.3	
Approach LOS		E			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		101.2	7.9	10.8		101.2	9.1	9.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		79.5	6.5	20.5		79.5	10.5	16.5				
Max Q Clear Time (g_c+I1), s		15.8	2.0	5.9		9.1	4.5	4.9				
Green Ext Time (p_c), s		5.9	0.0	0.5		6.3	0.1	0.3				

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

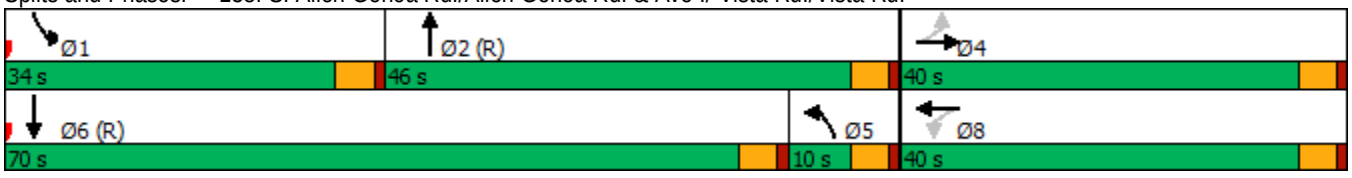
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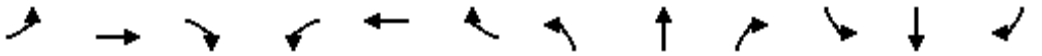
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	11	24	13	38	7	546	180	565
Future Volume (vph)	11	24	13	38	7	546	180	565
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	40.0	40.0	40.0	40.0	10.0	46.0	34.0	70.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	8.3%	38.3%	28.3%	58.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		14.7		14.7	5.5	73.0	18.8	94.3
Actuated g/C Ratio		0.12		0.12	0.05	0.61	0.16	0.79
v/c Ratio		0.33		0.82	0.10	0.30	0.72	0.23
Control Delay		38.8		36.5	57.9	13.6	62.6	4.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		38.8		36.5	57.9	13.6	62.6	4.7
LOS		D		D	E	B	E	A
Approach Delay		38.8		36.5		14.1		18.7
Approach LOS		D		D		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 106 (88%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 58.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	24	15	13	38	218	7	546	38	180	565	4
Future Volume (veh/h)	11	24	15	13	38	218	7	546	38	180	565	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	12	26	16	14	41	237	8	593	41	196	614	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	77	156	83	39	54	267	237	1830	126	227	1944	13
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.14	0.55	0.55	0.13	0.55	0.55
Sat Flow, veh/h	196	758	402	37	263	1294	1753	3319	229	1753	3562	23
Grp Volume(v), veh/h	54	0	0	292	0	0	8	312	322	196	301	317
Grp Sat Flow(s),veh/h/ln	1356	0	0	1594	0	0	1753	1749	1799	1753	1749	1837
Q Serve(g_s), s	0.0	0.0	0.0	8.8	0.0	0.0	0.5	11.7	11.7	13.1	11.3	11.4
Cycle Q Clear(g_c), s	3.0	0.0	0.0	21.3	0.0	0.0	0.5	11.7	11.7	13.1	11.3	11.4
Prop In Lane	0.22		0.30	0.05		0.81	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	316	0	0	360	0	0	237	964	992	227	954	1002
V/C Ratio(X)	0.17	0.00	0.00	0.81	0.00	0.00	0.03	0.32	0.32	0.86	0.32	0.32
Avail Cap(c_a), veh/h	453	0	0	502	0	0	237	964	992	431	954	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.85	0.00	0.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	39.0	0.0	0.0	46.2	0.0	0.0	45.1	14.7	14.7	51.2	15.0	15.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	5.8	0.0	0.0	0.1	0.9	0.9	5.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	9.0	0.0	0.0	0.2	4.8	5.0	6.1	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	0.0	52.1	0.0	0.0	45.1	15.6	15.6	57.1	15.5	15.5
LnGrp LOS	D	A	A	D	A	A	D	B	B	E	B	B
Approach Vol, veh/h		54			292			642			814	
Approach Delay, s/veh		39.3			52.1			15.9			25.5	
Approach LOS		D			D			B			C	

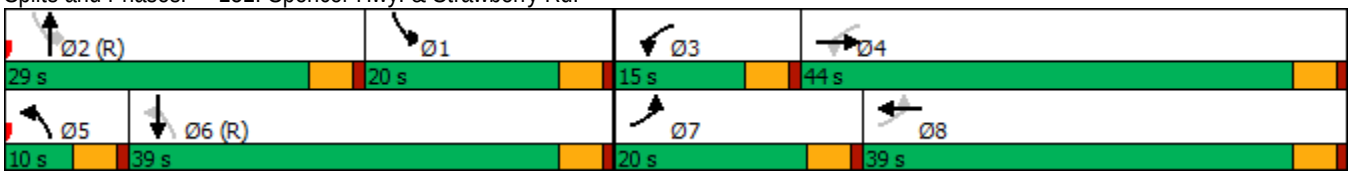
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.1	70.7		29.3	20.7	70.0		29.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	29.5	41.5		35.5	5.5	65.5		35.5				
Max Q Clear Time (g_c+I1), s	15.1	13.7		5.0	2.5	13.4		23.3				
Green Ext Time (p_c), s	0.4	4.2		0.3	0.0	4.3		1.4				

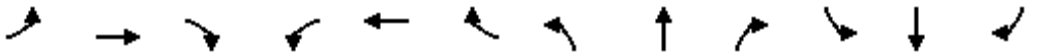
Intersection Summary			
HCM 6th Ctrl Delay		26.8	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	196	1166	111	1115	89	484	152	222	523
Future Volume (vph)	196	1166	111	1115	89	484	152	222	523
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	20.0	44.0	15.0	39.0	10.0	29.0	29.0	20.0	39.0
Total Split (%)	18.5%	40.7%	13.9%	36.1%	9.3%	26.9%	26.9%	18.5%	36.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	47.5	38.5	47.5	34.5	43.4	27.0	27.0	42.5	38.6
Actuated g/C Ratio	0.44	0.36	0.44	0.32	0.40	0.25	0.25	0.39	0.36
v/c Ratio	0.75	0.75	0.53	0.85	0.41	0.59	0.32	0.63	0.60
Control Delay	40.2	33.3	26.0	40.1	25.8	39.8	7.5	29.9	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	33.3	26.0	40.1	25.8	39.8	7.5	29.9	21.0
LOS	D	C	C	D	C	D	A	C	C
Approach Delay		34.3		39.0		31.3			23.1
Approach LOS		C		D		C			C

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 77 (71%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 32.9	Intersection LOS: C
Intersection Capacity Utilization 81.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	1166	88	111	1115	158	89	484	152	222	523	200
Future Volume (veh/h)	196	1166	88	111	1115	158	89	484	152	222	523	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	200	1190	90	113	1138	161	91	494	155	227	534	204
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	262	1604	121	219	1322	187	306	793	354	513	970	369
Arrive On Green	0.10	0.34	0.34	0.06	0.30	0.30	0.05	0.23	0.23	0.21	0.39	0.39
Sat Flow, veh/h	1753	4766	360	1753	4449	629	1753	3497	1560	1753	2477	943
Grp Volume(v), veh/h	200	836	444	113	857	442	91	494	155	227	376	362
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1727	1753	1749	1560	1753	1749	1671
Q Serve(g_s), s	8.4	23.8	23.9	4.5	26.1	26.1	3.3	13.7	7.5	2.5	18.0	18.1
Cycle Q Clear(g_c), s	8.4	23.8	23.9	4.5	26.1	26.1	3.3	13.7	7.5	2.5	18.0	18.1
Prop In Lane	1.00		0.20	1.00		0.36	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	262	1128	598	219	996	514	306	793	354	513	685	655
V/C Ratio(X)	0.76	0.74	0.74	0.52	0.86	0.86	0.30	0.62	0.44	0.44	0.55	0.55
Avail Cap(c_a), veh/h	341	1225	650	286	1070	552	314	793	354	513	685	655
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.54	0.54	0.54	0.66	0.66	0.66	0.90	0.90	0.90
Uniform Delay (d), s/veh	26.7	31.7	31.7	24.7	35.8	35.8	19.8	37.6	23.9	32.0	25.5	25.5
Incr Delay (d2), s/veh	6.4	2.0	3.7	1.0	3.9	7.2	0.4	2.4	2.6	0.5	2.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	9.5	10.4	1.8	10.7	11.6	1.3	6.0	2.9	4.8	7.8	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	33.6	35.3	25.7	39.7	43.1	20.1	40.0	26.5	32.5	28.3	28.5
LnGrp LOS	C	C	D	C	D	D	C	D	C	C	C	C
Approach Vol, veh/h		1480			1412			740			965	
Approach Delay, s/veh		34.1			39.7			34.7			29.4	
Approach LOS		C			D			C			C	

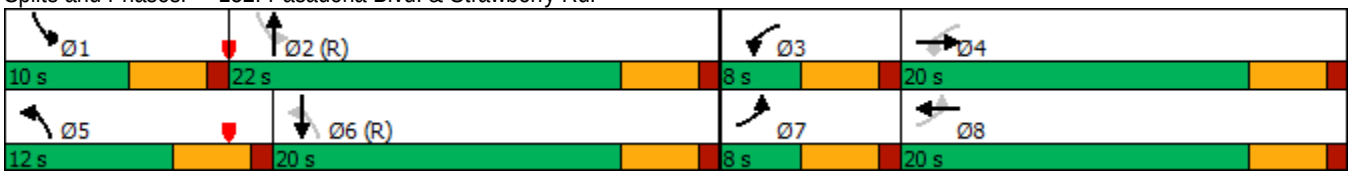
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.3	29.0	10.9	40.9	9.5	46.8	15.1	36.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	24.5	10.5	39.5	5.5	34.5	15.5	34.5
Max Q Clear Time (g_c+I1), s	4.5	15.7	6.5	25.9	5.3	20.1	10.4	28.1
Green Ext Time (p_c), s	0.5	2.5	0.1	6.8	0.0	4.0	0.2	4.0

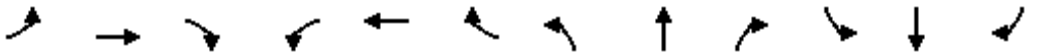
Intersection Summary	
HCM 6th Ctrl Delay	34.9
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	52	536	368	174	470	273	512	89	577
Future Volume (vph)	52	536	368	174	470	273	512	89	577
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	20.0	8.0	20.0	12.0	22.0	10.0	20.0
Total Split (%)	13.3%	33.3%	33.3%	13.3%	33.3%	20.0%	36.7%	16.7%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.9	14.6	14.6	18.1	17.8	23.9	20.3	24.8	15.7
Actuated g/C Ratio	0.33	0.24	0.24	0.30	0.30	0.40	0.34	0.41	0.26
v/c Ratio	0.20	0.66	0.62	0.71	0.54	0.80	0.59	0.28	0.70
Control Delay	13.5	24.5	9.7	33.4	19.9	33.6	19.1	11.8	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	24.5	9.7	33.4	19.9	33.6	19.1	11.8	24.6
LOS	B	C	A	C	B	C	B	B	C
Approach Delay		18.2			23.2		23.5		23.0
Approach LOS		B			C		C		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	536	368	174	470	69	273	512	109	89	577	41
Future Volume (veh/h)	52	536	368	174	470	69	273	512	109	89	577	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	54	553	379	179	485	71	281	528	112	92	595	42
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	303	903	403	293	864	126	414	948	200	352	856	60
Arrive On Green	0.03	0.26	0.26	0.06	0.28	0.28	0.13	0.33	0.33	0.05	0.26	0.26
Sat Flow, veh/h	1753	3497	1560	1753	3063	446	1753	2873	607	1753	3314	234
Grp Volume(v), veh/h	54	553	379	179	276	280	281	320	320	92	314	323
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1760	1753	1749	1731	1753	1749	1799
Q Serve(g_s), s	1.3	8.4	14.3	3.5	8.1	8.1	7.1	9.0	9.1	2.0	9.7	9.8
Cycle Q Clear(g_c), s	1.3	8.4	14.3	3.5	8.1	8.1	7.1	9.0	9.1	2.0	9.7	9.8
Prop In Lane	1.00		1.00	1.00		0.25	1.00		0.35	1.00		0.13
Lane Grp Cap(c), veh/h	303	903	403	293	493	497	414	577	572	352	452	465
V/C Ratio(X)	0.18	0.61	0.94	0.61	0.56	0.56	0.68	0.56	0.56	0.26	0.69	0.70
Avail Cap(c_a), veh/h	345	903	403	293	493	497	414	577	572	419	452	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.69	0.69	0.69	0.95	0.95	0.95	0.97	0.97	0.97
Uniform Delay (d), s/veh	15.0	19.6	21.8	18.7	18.4	18.4	14.8	16.5	16.5	12.8	20.1	20.1
Incr Delay (d2), s/veh	0.3	1.2	29.5	2.6	1.0	1.0	4.2	3.6	3.7	0.4	8.3	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.3	7.9	1.9	3.0	3.1	2.9	3.7	3.7	0.7	4.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	20.8	51.3	21.3	19.3	19.4	19.1	20.1	20.2	13.2	28.4	28.2
LnGrp LOS	B	C	D	C	B	B	B	C	C	B	C	C
Approach Vol, veh/h		986			735			921			729	
Approach Delay, s/veh		32.2			19.8			19.8			26.4	
Approach LOS		C			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	24.3	8.0	20.0	12.0	20.0	6.6	21.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	17.5	3.5	15.5	7.5	15.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	4.0	11.1	5.5	16.3	9.1	11.8	3.3	10.1
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.0	1.3	0.0	1.5

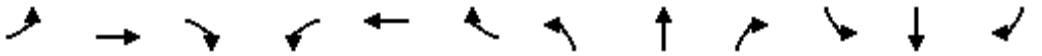
Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	82	2	1	1	111	839	1	1006
Future Volume (vph)	82	2	1	1	111	839	1	1006
Turn Type	Perm	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	24.0	24.0	24.0	24.0	16.0	76.0	8.0	68.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	14.8%	70.4%	7.4%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.1	12.1		12.1	82.4	84.9	86.0	70.9
Actuated g/C Ratio	0.11	0.11		0.11	0.76	0.79	0.80	0.66
v/c Ratio	0.56	0.49		0.01	0.29	0.33	0.00	0.52
Control Delay	58.6	12.9		39.5	3.7	1.1	3.0	11.0
Queue Delay	0.0	0.0		0.0	0.0	0.1	0.0	0.0
Total Delay	58.6	12.9		39.5	3.7	1.2	3.0	11.0
LOS	E	B		D	A	A	A	B
Approach Delay		29.6		39.5		1.5		11.0
Approach LOS		C		D		A		B

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 3 (3%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 60.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	2	140	1	1	0	111	839	2	1	1006	94
Future Volume (veh/h)	82	2	140	1	1	0	111	839	2	1	1006	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	2	149	1	1	0	118	893	2	1	1070	100
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	201	2	183	68	51	0	543	2705	6	531	1901	178
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.00	0.22	1.00	1.00	0.00	0.59	0.59
Sat Flow, veh/h	1394	21	1542	150	434	0	1753	3580	8	1753	3233	302
Grp Volume(v), veh/h	87	0	151	2	0	0	118	436	459	1	578	592
Grp Sat Flow(s),veh/h/ln	1394	0	1563	584	0	0	1753	1749	1839	1753	1749	1786
Q Serve(g_s), s	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	22.0
Cycle Q Clear(g_c), s	8.4	0.0	10.2	10.2	0.0	0.0	0.0	0.0	0.0	0.0	22.0	22.0
Prop In Lane	1.00		0.99	0.50		0.00	1.00		0.00	1.00		0.17
Lane Grp Cap(c), veh/h	201	0	185	119	0	0	543	1321	1390	531	1028	1050
V/C Ratio(X)	0.43	0.00	0.82	0.02	0.00	0.00	0.22	0.33	0.33	0.00	0.56	0.56
Avail Cap(c_a), veh/h	288	0	282	210	0	0	543	1321	1390	586	1028	1050
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.91	0.91	0.91	0.68	0.68	0.68
Uniform Delay (d), s/veh	45.7	0.0	46.4	42.3	0.0	0.0	13.2	0.0	0.0	3.2	13.7	13.7
Incr Delay (d2), s/veh	1.5	0.0	10.3	0.1	0.0	0.0	0.2	0.6	0.6	0.0	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.5	0.0	0.0	0.0	1.5	0.2	0.2	0.0	8.6	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	0.0	56.8	42.4	0.0	0.0	13.3	0.6	0.6	3.2	15.2	15.2
LnGrp LOS	D	A	E	D	A	A	B	A	A	A	B	B
Approach Vol, veh/h		238			2			1013			1171	
Approach Delay, s/veh		53.2			42.4			2.1			15.2	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	86.1		17.3	22.7	68.0		17.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	71.5		19.5	11.5	63.5		19.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		12.2	2.0	24.0		12.2				
Green Ext Time (p_c), s	0.0	6.7		0.6	0.2	10.3		0.0				

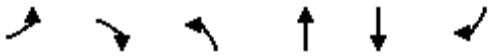
Intersection Summary												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	40	70	38	582	649
Future Volume (vph)	40	70	38	582	649
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	29.0	29.0	14.0	79.0	65.0
Total Split (%)	26.9%	26.9%	13.0%	73.1%	60.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.2	8.2	93.7	93.7	85.3
Actuated g/C Ratio	0.08	0.08	0.87	0.87	0.79
v/c Ratio	0.33	0.40	0.06	0.21	0.27
Control Delay	53.2	17.4	2.0	1.8	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	17.4	2.0	1.8	4.9
LOS	D	B	A	A	A
Approach Delay	30.6			1.8	4.9
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 17 (16%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 5.5	Intersection LOS: A
Intersection Capacity Utilization 39.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	70	38	582	649	40
Future Volume (veh/h)	40	70	38	582	649	40
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	74	40	619	690	43
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	115	102	808	2977	1873	117
Arrive On Green	0.07	0.07	0.25	0.85	0.56	0.56
Sat Flow, veh/h	1753	1560	1753	3589	3436	208
Grp Volume(v), veh/h	43	74	40	619	361	372
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1803
Q Serve(g_s), s	2.5	5.0	0.0	3.5	12.3	12.4
Cycle Q Clear(g_c), s	2.5	5.0	0.0	3.5	12.3	12.4
Prop In Lane	1.00	1.00	1.00			0.12
Lane Grp Cap(c), veh/h	115	102	808	2977	980	1010
V/C Ratio(X)	0.37	0.72	0.05	0.21	0.37	0.37
Avail Cap(c_a), veh/h	398	354	808	2977	980	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.81	0.81	0.85	0.85
Uniform Delay (d), s/veh	48.3	49.5	6.0	1.5	13.2	13.2
Incr Delay (d2), s/veh	1.8	8.5	0.0	0.1	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.5	0.3	0.6	4.8	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.2	58.0	6.0	1.6	14.1	14.0
LnGrp LOS	D	E	A	A	B	B
Approach Vol, veh/h	117			659	733	
Approach Delay, s/veh	55.1			1.9	14.1	
Approach LOS	E			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.4		11.6	31.4	65.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		74.5		24.5	9.5	60.5
Max Q Clear Time (g_c+I1), s		5.5		7.0	2.0	14.4
Green Ext Time (p_c), s		4.7		0.3	0.0	5.1

Intersection Summary		
HCM 6th Ctrl Delay		11.9
HCM 6th LOS		B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	201	36	181	61	373	174	708
Future Volume (vph)	23	201	36	181	61	373	174	708
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	28.0	15.0	29.0	20.0	41.0	36.0	57.0
Total Split (%)	11.7%	23.3%	12.5%	24.2%	16.7%	34.2%	30.0%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.2	14.2	8.0	14.8	9.8	66.2	17.8	76.4
Actuated g/C Ratio	0.06	0.12	0.07	0.12	0.08	0.55	0.15	0.64
v/c Ratio	0.23	0.66	0.33	0.63	0.45	0.24	0.70	0.35
Control Delay	58.4	51.7	60.4	33.2	62.0	16.4	62.7	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.4	51.7	60.4	33.2	62.0	16.4	62.7	13.3
LOS	E	D	E	C	E	B	E	B
Approach Delay		52.3		36.0		22.1		22.7
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	201	66	36	181	136	61	373	59	174	708	25
Future Volume (veh/h)	23	201	66	36	181	136	61	373	59	174	708	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	209	69	38	189	142	64	389	61	181	738	26
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	29	303	97	48	249	177	82	1773	276	212	2271	80
Arrive On Green	0.02	0.12	0.12	0.03	0.13	0.13	0.05	0.58	0.58	0.12	0.66	0.66
Sat Flow, veh/h	1753	2604	835	1753	1951	1388	1753	3033	472	1753	3446	121
Grp Volume(v), veh/h	24	138	140	38	168	163	64	223	227	181	374	390
Grp Sat Flow(s),veh/h/ln	1753	1749	1690	1753	1749	1591	1753	1749	1756	1753	1749	1819
Q Serve(g_s), s	1.6	9.1	9.5	2.6	11.2	11.9	4.3	7.3	7.4	12.1	11.2	11.2
Cycle Q Clear(g_c), s	1.6	9.1	9.5	2.6	11.2	11.9	4.3	7.3	7.4	12.1	11.2	11.2
Prop In Lane	1.00		0.49	1.00		0.87	1.00		0.27	1.00		0.07
Lane Grp Cap(c), veh/h	29	204	197	48	223	203	82	1023	1027	212	1152	1198
V/C Ratio(X)	0.82	0.68	0.71	0.79	0.76	0.80	0.78	0.22	0.22	0.85	0.32	0.33
Avail Cap(c_a), veh/h	139	342	331	153	357	325	226	1023	1027	460	1152	1198
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	50.9	51.0	58.0	50.6	50.9	56.6	11.9	11.9	51.7	8.9	8.9
Incr Delay (d2), s/veh	32.1	3.0	3.5	23.7	5.2	7.3	14.3	0.5	0.5	9.3	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.1	4.2	1.5	5.2	5.1	2.2	2.9	2.9	5.8	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.9	53.8	54.6	81.7	55.7	58.2	70.9	12.3	12.4	60.9	9.6	9.6
LnGrp LOS	F	D	D	F	E	E	E	B	B	E	A	A
Approach Vol, veh/h		302			369			514			945	
Approach Delay, s/veh		57.1			59.5			19.7			19.5	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	74.7	7.8	18.5	10.1	83.6	6.5	19.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	31.5	36.5	10.5	23.5	15.5	52.5	9.5	24.5
Max Q Clear Time (g_c+I1), s	14.1	9.4	4.6	11.5	6.3	13.2	3.6	13.9
Green Ext Time (p_c), s	0.4	2.7	0.0	1.1	0.1	5.3	0.0	1.4

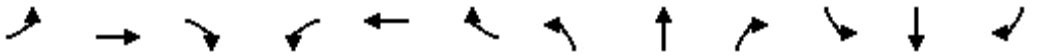
Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	8	92	8	22	855	119	1014
Future Volume (vph)	8	92	8	22	855	119	1014
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	10.0	64.0	18.0	72.0
Total Split (%)	24.1%	24.1%	24.1%	9.3%	59.3%	16.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.3	13.3	13.3	83.9	73.7	81.2	81.7
Actuated g/C Ratio	0.12	0.12	0.12	0.78	0.68	0.75	0.76
v/c Ratio	0.11	0.60	0.39	0.06	0.43	0.31	0.43
Control Delay	24.5	59.1	13.9	1.3	4.0	3.8	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Delay	24.5	59.1	13.9	1.3	4.0	4.0	1.6
LOS	C	E	B	A	A	A	A
Approach Delay	24.5		35.6		4.0		1.8
Approach LOS	C		D		A		A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 7 (6%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	13	92	8	91	22	855	63	119	1014	2
Future Volume (veh/h)	0	8	13	92	8	91	22	855	63	119	1014	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	9	14	101	9	100	24	940	69	131	1114	2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	71	110	198	14	158	625	2401	176	475	2239	4
Arrive On Green	0.00	0.11	0.11	0.11	0.11	0.11	0.14	0.73	0.73	0.08	1.00	1.00
Sat Flow, veh/h	0	649	1010	1366	130	1449	1753	3303	242	1753	3582	6
Grp Volume(v), veh/h	0	0	23	101	0	109	24	498	511	131	544	572
Grp Sat Flow(s),veh/h/ln	0	0	1659	1366	0	1580	1753	1749	1797	1753	1749	1840
Q Serve(g_s), s	0.0	0.0	1.4	7.8	0.0	7.1	0.0	11.7	11.7	2.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	9.1	0.0	7.1	0.0	11.7	11.7	2.1	0.0	0.0
Prop In Lane	0.00		0.61	1.00		0.92	1.00		0.13	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	181	198	0	172	625	1271	1306	475	1093	1150
V/C Ratio(X)	0.00	0.00	0.13	0.51	0.00	0.63	0.04	0.39	0.39	0.28	0.50	0.50
Avail Cap(c_a), veh/h	0	0	330	322	0	315	625	1271	1306	626	1093	1150
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.73	0.73	0.73	0.84	0.84	0.84
Uniform Delay (d), s/veh	0.0	0.0	43.5	47.6	0.0	46.1	3.1	5.6	5.6	3.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	2.0	0.0	3.8	0.0	0.7	0.6	0.3	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	2.8	0.0	3.0	0.1	3.8	3.9	0.6	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	43.8	49.6	0.0	49.9	3.1	6.3	6.3	4.1	1.4	1.3
LnGrp LOS	A	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		23			210			1033			1247	
Approach Delay, s/veh		43.8			49.8			6.2			1.6	
Approach LOS		D			D			A			A	

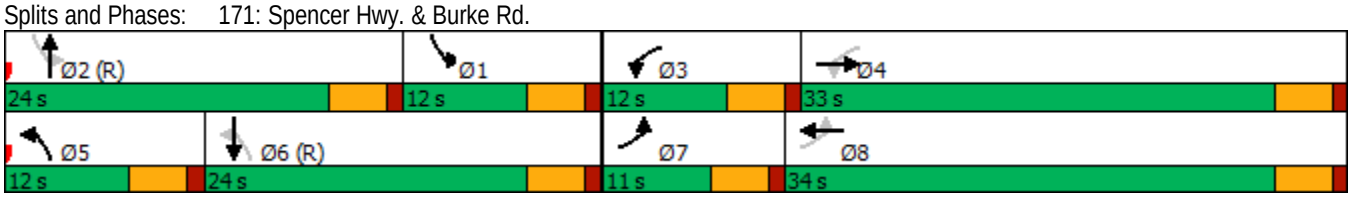
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	83.0		16.3	19.7	72.0		16.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	59.5		21.5	5.5	67.5		21.5				
Max Q Clear Time (g_c+I1), s	4.1	13.7		3.4	2.0	2.0		11.1				
Green Ext Time (p_c), s	0.2	7.9		0.1	0.0	9.4		0.6				

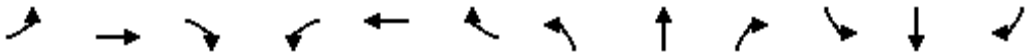
Intersection Summary			
HCM 6th Ctrl Delay		7.9	
HCM 6th LOS		A	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	114	1143	131	1267	150	316	162	283
Future Volume (vph)	114	1143	131	1267	150	316	162	283
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	33.0	12.0	34.0	12.0	24.0	12.0	24.0
Total Split (%)	13.6%	40.7%	14.8%	42.0%	14.8%	29.6%	14.8%	29.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	36.2	28.0	35.3	31.0	27.7	20.2	27.7	20.3
Actuated g/C Ratio	0.45	0.35	0.44	0.38	0.34	0.25	0.34	0.25
v/c Ratio	0.55	0.83	0.58	0.81	0.50	0.55	0.56	0.48
Control Delay	21.6	28.9	22.5	26.9	17.5	22.5	21.1	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	28.9	22.5	26.9	17.5	22.5	21.1	16.4
LOS	C	C	C	C	B	C	C	B
Approach Delay		28.3		26.5		21.2		17.8
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 3 (4%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1143	131	131	1267	111	150	316	118	162	283	97
Future Volume (veh/h)	114	1143	131	131	1267	111	150	316	118	162	283	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	1229	141	141	1362	119	161	340	127	174	304	104
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	230	1528	175	253	1612	141	418	603	221	424	729	245
Arrive On Green	0.07	0.33	0.33	0.07	0.34	0.34	0.09	0.24	0.24	0.13	0.28	0.28
Sat Flow, veh/h	1753	4572	524	1753	4706	411	1753	2504	920	1753	2571	863
Grp Volume(v), veh/h	123	901	469	141	970	511	161	236	231	174	205	203
Grp Sat Flow(s),veh/h/ln	1753	1675	1746	1753	1675	1767	1753	1749	1675	1753	1749	1685
Q Serve(g_s), s	3.6	19.8	19.8	4.2	21.7	21.7	5.2	9.6	9.9	0.0	7.7	8.0
Cycle Q Clear(g_c), s	3.6	19.8	19.8	4.2	21.7	21.7	5.2	9.6	9.9	0.0	7.7	8.0
Prop In Lane	1.00		0.30	1.00		0.23	1.00		0.55	1.00		0.51
Lane Grp Cap(c), veh/h	230	1119	584	253	1148	605	418	421	403	424	496	478
V/C Ratio(X)	0.54	0.80	0.80	0.56	0.84	0.84	0.38	0.56	0.57	0.41	0.41	0.43
Avail Cap(c_a), veh/h	256	1179	614	286	1220	643	430	421	403	424	496	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	24.6	24.6	19.1	24.6	24.6	18.2	27.0	27.1	27.7	23.5	23.6
Incr Delay (d2), s/veh	1.3	2.7	5.0	1.2	3.6	6.5	0.6	5.3	5.8	0.6	2.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	7.6	8.3	1.6	8.4	9.3	2.0	4.4	4.4	2.9	3.4	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	27.2	29.6	20.3	28.2	31.1	18.8	32.3	32.9	28.3	26.1	26.4
LnGrp LOS	C	C	C	C	C	C	B	C	C	C	C	C
Approach Vol, veh/h		1493			1622			628			582	
Approach Delay, s/veh		27.4			28.4			29.0			26.9	
Approach LOS		C			C			C			C	

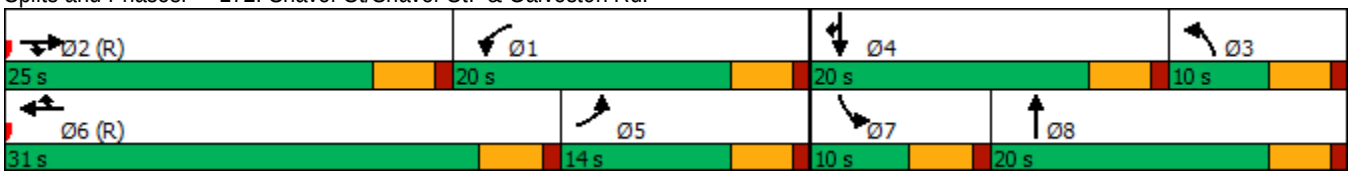
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	24.0	10.5	31.6	11.5	27.5	9.8	32.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	19.5	7.5	28.5	7.5	19.5	6.5	29.5
Max Q Clear Time (g_c+I1), s	2.0	11.9	6.2	21.8	7.2	10.0	5.6	23.7
Green Ext Time (p_c), s	0.2	1.6	0.0	4.3	0.0	1.6	0.0	4.1

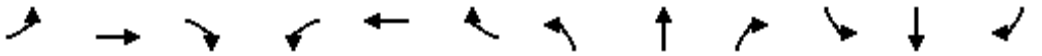
Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	160	900	90	330	811	126	86	472	114	496	191
Future Volume (vph)	160	900	90	330	811	126	86	472	114	496	191
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	Prot	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8	7	4	4
Permitted Phases											
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	25.0	25.0	20.0	31.0	31.0	10.0	20.0	10.0	20.0	20.0
Total Split (%)	18.7%	33.3%	33.3%	26.7%	41.3%	41.3%	13.3%	26.7%	13.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	9.5	20.5	20.5	15.5	26.5	26.5	5.7	15.5	5.5	17.4	17.4
Actuated g/C Ratio	0.13	0.27	0.27	0.21	0.35	0.35	0.08	0.21	0.07	0.23	0.23
v/c Ratio	0.75	0.98	0.15	0.95	0.68	0.19	0.67	0.94	0.93	0.63	0.37
Control Delay	55.0	53.5	0.5	68.9	24.1	0.9	61.1	48.0	102.2	30.9	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	53.5	0.5	68.9	24.1	0.9	61.1	48.0	102.2	30.9	5.5
LOS	E	D	A	E	C	A	E	D	F	C	A
Approach Delay		49.6			33.5			49.5		35.0	
Approach LOS		D			C			D		D	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 41.5	Intersection LOS: D
Intersection Capacity Utilization 89.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	900	90	330	811	126	86	472	210	114	496	191
Future Volume (veh/h)	160	900	90	330	811	126	86	472	210	114	496	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	165	928	93	340	836	130	89	487	216	118	511	197
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	222	956	426	362	1236	551	171	488	215	129	639	285
Arrive On Green	0.13	0.27	0.27	0.21	0.35	0.35	0.10	0.21	0.21	0.07	0.18	0.18
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	2361	1041	1753	3497	1560
Grp Volume(v), veh/h	165	928	93	340	836	130	89	360	343	118	511	197
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1653	1753	1749	1560
Q Serve(g_s), s	6.8	19.7	3.5	14.3	15.2	3.1	3.6	15.4	15.5	5.0	10.5	8.9
Cycle Q Clear(g_c), s	6.8	19.7	3.5	14.3	15.2	3.1	3.6	15.4	15.5	5.0	10.5	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	222	956	426	362	1236	551	171	361	342	129	639	285
V/C Ratio(X)	0.74	0.97	0.22	0.94	0.68	0.24	0.52	1.00	1.00	0.92	0.80	0.69
Avail Cap(c_a), veh/h	222	956	426	362	1236	551	171	361	342	129	723	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	27.0	21.1	29.3	20.6	8.4	32.2	29.7	29.8	34.5	29.3	28.7
Incr Delay (d2), s/veh	12.6	22.8	1.2	31.8	3.0	1.0	2.8	46.2	49.7	54.9	5.7	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	10.6	1.3	9.0	6.3	1.6	1.6	10.8	10.6	4.0	4.7	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.2	49.8	22.2	61.1	23.6	9.4	35.0	75.9	79.4	89.4	35.1	34.0
LnGrp LOS	D	D	C	E	C	A	D	E	F	F	D	C
Approach Vol, veh/h		1186			1306			792			826	
Approach Delay, s/veh		46.9			32.0			72.9			42.6	
Approach LOS		D			C			E			D	

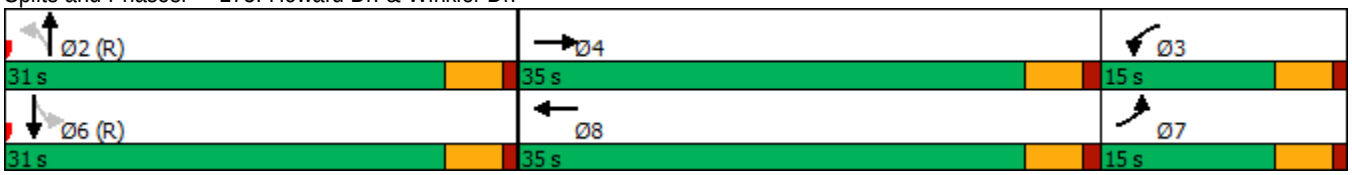
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	25.0	11.8	18.2	14.0	31.0	10.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	20.5	5.5	15.5	9.5	26.5	5.5	15.5
Max Q Clear Time (g_c+I1), s	16.3	21.7	5.6	12.5	8.8	17.2	7.0	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	4.2	0.0	0.0

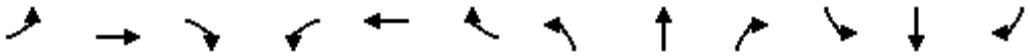
Intersection Summary	
HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	52	469	61	377	100	209	10	40
Future Volume (vph)	52	469	61	377	100	209	10	40
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	35.0	15.0	35.0	31.0	31.0	31.0	31.0
Total Split (%)	18.5%	43.2%	18.5%	43.2%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.0	21.0	8.3	20.5		40.2		40.2
Actuated g/C Ratio	0.14	0.26	0.10	0.25		0.50		0.50
v/c Ratio	0.22	0.72	0.35	0.56		0.27		0.07
Control Delay	31.4	28.1	34.1	15.1		13.5		8.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	31.4	28.1	34.1	15.1		13.5		8.7
LOS	C	C	C	B		B		A
Approach Delay		28.3		17.2		13.5		8.7
Approach LOS		C		B		B		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 60 (74%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 53.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	469	183	61	377	113	100	209	76	10	40	48
Future Volume (veh/h)	52	469	183	61	377	113	100	209	76	10	40	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	53	479	187	62	385	115	102	213	78	10	41	49
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	615	239	79	522	154	460	926	342	192	753	764
Arrive On Green	0.10	0.25	0.25	0.05	0.20	0.20	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1753	2462	955	1753	2662	786	730	1720	636	257	1398	1420
Grp Volume(v), veh/h	53	339	327	62	251	249	202	0	191	51	0	49
Grp Sat Flow(s),veh/h/ln	1753	1749	1669	1753	1749	1699	1526	0	1561	1656	0	1420
Q Serve(g_s), s	2.3	14.6	14.8	2.8	10.9	11.2	3.3	0.0	5.2	0.0	0.0	1.3
Cycle Q Clear(g_c), s	2.3	14.6	14.8	2.8	10.9	11.2	5.3	0.0	5.2	1.1	0.0	1.3
Prop In Lane	1.00		0.57	1.00		0.46	0.51		0.41	0.20		1.00
Lane Grp Cap(c), veh/h	174	437	417	79	343	333	888	0	840	944	0	764
V/C Ratio(X)	0.31	0.78	0.78	0.78	0.73	0.75	0.23	0.00	0.23	0.05	0.00	0.06
Avail Cap(c_a), veh/h	227	658	628	227	658	640	888	0	840	944	0	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.9	28.3	28.3	38.3	30.6	30.7	9.8	0.0	9.8	8.9	0.0	8.9
Incr Delay (d2), s/veh	1.0	3.3	3.7	15.1	3.0	3.3	0.6	0.0	0.6	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.2	6.0	1.5	4.7	4.7	1.8	0.0	1.7	0.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	31.6	32.1	53.4	33.6	34.0	10.4	0.0	10.5	9.0	0.0	9.1
LnGrp LOS	C	C	C	D	C	C	B	A	B	A	A	A
Approach Vol, veh/h		719			562			393			100	
Approach Delay, s/veh		32.1			36.0			10.4			9.0	
Approach LOS		C			D			B			A	

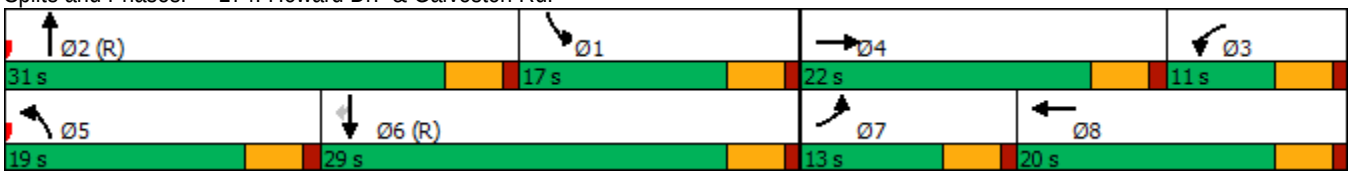
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.1	8.2	24.7		48.1	12.5	20.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	10.5	30.5		26.5	10.5	30.5				
Max Q Clear Time (g_c+I1), s		7.3	4.8	16.8		3.3	4.3	13.2				
Green Ext Time (p_c), s		2.2	0.0	3.4		0.5	0.0	2.7				

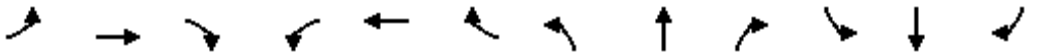
Intersection Summary												
HCM 6th Ctrl Delay			27.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	115	304	42	354	227	638	138	837	274
Future Volume (vph)	115	304	42	354	227	638	138	837	274
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	22.0	11.0	20.0	19.0	31.0	17.0	29.0	29.0
Total Split (%)	16.0%	27.2%	13.6%	24.7%	23.5%	38.3%	21.0%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.2	19.7	6.9	14.2	13.7	28.1	12.5	26.9	26.9
Actuated g/C Ratio	0.10	0.24	0.09	0.18	0.17	0.35	0.15	0.33	0.33
v/c Ratio	0.68	0.57	0.30	0.74	0.80	0.61	0.53	0.75	0.40
Control Delay	44.9	6.2	40.5	36.9	53.5	24.6	37.7	28.2	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.9	6.2	40.5	36.9	53.5	24.6	37.7	28.2	3.6
LOS	D	A	D	D	D	C	D	C	A
Approach Delay		13.2		37.2		31.6		23.9	
Approach LOS		B		D		C		C	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 72 (89%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 26.0	Intersection LOS: C
Intersection Capacity Utilization 75.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	304	220	42	354	94	227	638	73	138	837	274
Future Volume (veh/h)	115	304	220	42	354	94	227	638	73	138	837	274
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	119	313	227	43	365	97	234	658	75	142	863	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	150	379	268	99	451	118	273	1035	118	352	1303	
Arrive On Green	0.09	0.19	0.19	0.06	0.16	0.16	0.16	0.33	0.33	0.20	0.37	0.00
Sat Flow, veh/h	1753	1956	1384	1753	2741	719	1753	3164	360	1753	3497	1560
Grp Volume(v), veh/h	119	279	261	43	231	231	234	363	370	142	863	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1592	1753	1749	1711	1753	1749	1776	1753	1749	1560
Q Serve(g_s), s	5.4	12.4	12.8	1.9	10.3	10.5	10.5	14.3	14.3	5.7	16.7	0.0
Cycle Q Clear(g_c), s	5.4	12.4	12.8	1.9	10.3	10.5	10.5	14.3	14.3	5.7	16.7	0.0
Prop In Lane	1.00		0.87	1.00		0.42	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	150	338	308	99	288	281	273	572	581	352	1303	
V/C Ratio(X)	0.80	0.82	0.85	0.44	0.80	0.82	0.86	0.63	0.64	0.40	0.66	
Avail Cap(c_a), veh/h	184	378	344	141	335	327	314	572	581	352	1303	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.3	31.3	31.5	37.0	32.6	32.7	33.3	23.1	23.2	28.1	21.2	0.0
Incr Delay (d2), s/veh	17.5	12.7	16.3	3.0	11.7	13.4	18.6	5.3	5.3	0.7	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.2	6.1	0.9	5.1	5.2	5.6	6.3	6.4	2.3	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	44.0	47.8	40.0	44.3	46.1	51.9	28.4	28.4	28.9	23.8	0.0
LnGrp LOS	D	D	D	D	D	D	D	C	C	C	C	
Approach Vol, veh/h		659			505			967			1005	A
Approach Delay, s/veh		47.3			44.8			34.1			24.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	31.0	9.1	20.2	17.1	34.7	11.4	17.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	26.5	6.5	17.5	14.5	24.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	7.7	16.3	3.9	14.8	12.5	18.7	7.4	12.5
Green Ext Time (p_c), s	0.1	3.1	0.0	0.9	0.1	2.7	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

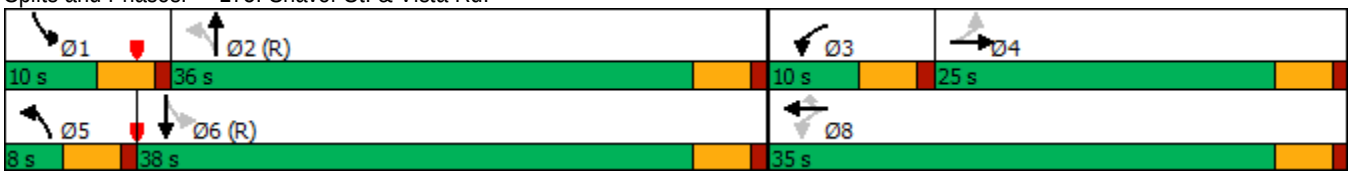
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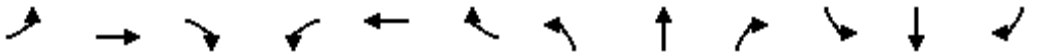
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	22	271	176	313	141	16	999	116	1110
Future Volume (vph)	22	271	176	313	141	16	999	116	1110
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	25.0	25.0	10.0	35.0	35.0	8.0	36.0	10.0	38.0
Total Split (%)	30.9%	30.9%	12.3%	43.2%	43.2%	9.9%	44.4%	12.3%	46.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead			Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		18.8	28.8	28.8	28.8	36.9	32.6	42.2	40.0
Actuated g/C Ratio		0.23	0.36	0.36	0.36	0.46	0.40	0.52	0.49
v/c Ratio		0.84	0.78	0.53	0.24	0.10	0.88	0.59	0.73
Control Delay		48.6	36.1	18.0	3.5	11.2	31.7	24.0	21.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		48.6	36.1	18.0	3.5	11.2	31.7	24.0	21.2
LOS		D	D	B	A	B	C	C	C
Approach Delay		48.6		19.8			31.4		21.4
Approach LOS		D		B			C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 57 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 90.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	271	16	176	313	141	16	999	112	116	1110	29
Future Volume (veh/h)	22	271	16	176	313	141	16	999	112	116	1110	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	298	18	193	344	155	18	1098	123	127	1220	32
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	62	349	20	335	630	534	199	1367	153	252	1659	44
Arrive On Green	0.22	0.22	0.22	0.07	0.34	0.34	0.01	0.43	0.43	0.06	0.48	0.48
Sat Flow, veh/h	66	1593	93	1753	1841	1560	1753	3171	355	1753	3482	91
Grp Volume(v), veh/h	340	0	0	193	344	155	18	605	616	127	613	639
Grp Sat Flow(s),veh/h/ln	1752	0	0	1753	1841	1560	1753	1749	1777	1753	1749	1824
Q Serve(g_s), s	7.2	0.0	0.0	5.5	12.2	5.9	0.5	24.4	24.5	3.1	22.9	22.9
Cycle Q Clear(g_c), s	15.1	0.0	0.0	5.5	12.2	5.9	0.5	24.4	24.5	3.1	22.9	22.9
Prop In Lane	0.07		0.05	1.00		1.00	1.00		0.20	1.00		0.05
Lane Grp Cap(c), veh/h	431	0	0	335	630	534	199	754	766	252	833	869
V/C Ratio(X)	0.79	0.00	0.00	0.58	0.55	0.29	0.09	0.80	0.80	0.50	0.73	0.74
Avail Cap(c_a), veh/h	489	0	0	335	693	587	249	754	766	266	833	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.00	0.00	1.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	0.0	22.1	21.5	19.4	15.0	20.0	20.1	16.3	17.1	17.1
Incr Delay (d2), s/veh	5.6	0.0	0.0	2.4	0.7	0.3	0.2	7.4	7.4	1.6	5.7	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	0.0	2.8	5.0	2.0	0.2	10.5	10.7	1.2	9.5	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	0.0	0.0	24.5	22.3	19.7	15.1	27.5	27.4	17.9	22.8	22.6
LnGrp LOS	D	A	A	C	C	B	B	C	C	B	C	C
Approach Vol, veh/h		340			692			1239			1379	
Approach Delay, s/veh		36.1			22.3			27.3			22.2	
Approach LOS		D			C			C			C	

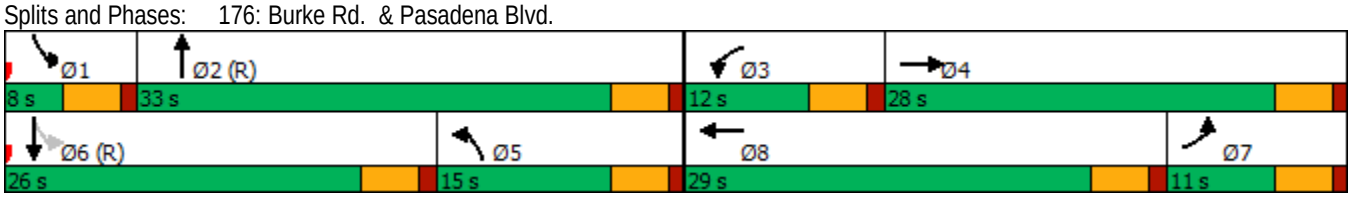
Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	9.3	39.4	10.0	22.2	5.7	43.1		32.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.5	31.5	5.5	20.5	3.5	33.5		30.5
Max Q Clear Time (g_c+I1), s	5.1	26.5	7.5	17.1	2.5	24.9		14.2
Green Ext Time (p_c), s	0.0	3.2	0.0	0.6	0.0	5.0		2.2

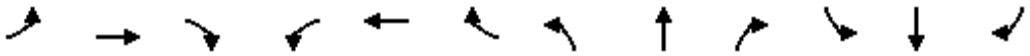
Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	50	492	56	542	91	238	38	225
Future Volume (vph)	50	492	56	542	91	238	38	225
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	28.0	12.0	29.0	15.0	33.0	8.0	26.0
Total Split (%)	13.6%	34.6%	14.8%	35.8%	18.5%	40.7%	9.9%	32.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.6	20.9	7.0	23.5	9.6	41.6		29.6
Actuated g/C Ratio	0.08	0.26	0.09	0.29	0.12	0.51		0.37
v/c Ratio	0.38	0.73	0.42	0.70	0.48	0.20		0.35
Control Delay	43.4	31.1	44.1	29.4	30.6	6.2		14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	43.4	31.1	44.1	29.4	30.6	6.2		14.2
LOS	D	C	D	C	C	A		B
Approach Delay		32.0		30.6		11.5		14.2
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 47 (58%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





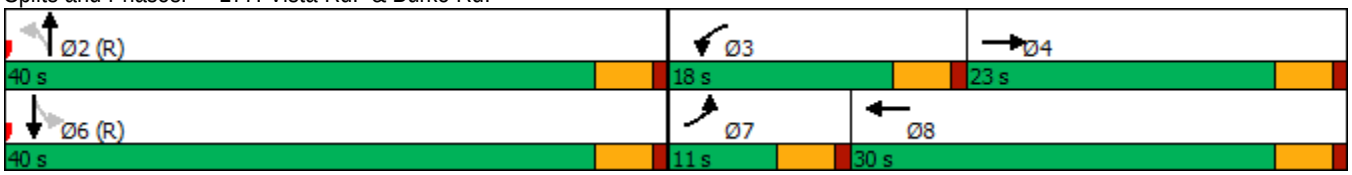
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	492	111	56	542	57	91	238	89	38	225	66
Future Volume (vph)	50	492	111	56	542	57	91	238	89	38	225	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.96			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1736	3375		1678	3193		1736	3329			3124	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.88	
Satd. Flow (perm)	1736	3375		1678	3193		1736	3329			2758	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	535	121	61	589	62	99	259	97	41	245	72
RTOR Reduction (vph)	0	25	0	0	10	0	0	38	0	0	25	0
Lane Group Flow (vph)	54	631	0	61	641	0	99	318	0	0	333	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	4.2	21.8		5.9	23.5		8.4	39.8			26.9	
Effective Green, g (s)	4.2	21.8		5.9	23.5		8.4	39.8			26.9	
Actuated g/C Ratio	0.05	0.27		0.07	0.29		0.10	0.49			0.33	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	90	908		122	926		180	1635			915	
v/s Ratio Prot	0.03	c0.19		0.04	c0.20		c0.06	0.10				
v/s Ratio Perm											c0.12	
v/c Ratio	0.60	0.70		0.50	0.69		0.55	0.19			0.36	
Uniform Delay, d1	37.6	26.6		36.1	25.5		34.5	11.6			20.5	
Progression Factor	1.00	1.00		1.00	1.00		0.73	0.61			0.66	
Incremental Delay, d2	10.3	2.3		3.2	2.3		2.9	0.2			0.2	
Delay (s)	47.9	28.9		39.3	27.8		28.0	7.3			13.9	
Level of Service	D	C		D	C		C	A			B	
Approach Delay (s)		30.4			28.8			11.8			13.9	
Approach LOS		C			C			B			B	

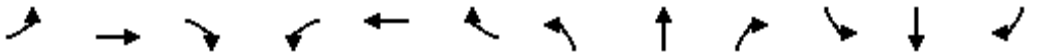
Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	58	339	110	396	94	409	78	480
Future Volume (vph)	58	339	110	396	94	409	78	480
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	23.0	18.0	30.0	40.0	40.0	40.0	40.0
Total Split (%)	13.6%	28.4%	22.2%	37.0%	49.4%	49.4%	49.4%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.3	16.1	10.5	20.1		43.1		43.1
Actuated g/C Ratio	0.08	0.20	0.13	0.25		0.53		0.53
v/c Ratio	0.46	0.69	0.52	0.64		0.45		0.48
Control Delay	49.5	24.9	40.9	27.4		14.6		12.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	49.5	24.9	40.9	27.4		14.6		12.8
LOS	D	C	D	C		B		B
Approach Delay		27.7		29.8		14.6		12.8
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 44 (54%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	339	115	110	396	119	94	409	58	78	480	98
Future Volume (veh/h)	58	339	115	110	396	119	94	409	58	78	480	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	62	365	124	118	426	128	101	440	62	84	516	105
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	79	462	155	150	585	174	263	1169	173	217	1286	265
Arrive On Green	0.05	0.18	0.18	0.09	0.22	0.22	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1753	2573	862	1753	2656	791	355	2058	305	284	2264	466
Grp Volume(v), veh/h	62	246	243	118	279	275	273	0	330	347	0	358
Grp Sat Flow(s),veh/h/ln	1753	1749	1686	1753	1749	1698	1098	0	1620	1424	0	1591
Q Serve(g_s), s	2.8	10.9	11.2	5.3	12.0	12.2	6.3	0.0	8.9	3.4	0.0	10.2
Cycle Q Clear(g_c), s	2.8	10.9	11.2	5.3	12.0	12.2	16.5	0.0	8.9	12.3	0.0	10.2
Prop In Lane	1.00		0.51	1.00		0.47	0.37		0.19	0.24		0.29
Lane Grp Cap(c), veh/h	79	314	303	150	385	374	684	0	920	864	0	904
V/C Ratio(X)	0.79	0.78	0.80	0.78	0.72	0.73	0.40	0.00	0.36	0.40	0.00	0.40
Avail Cap(c_a), veh/h	141	399	385	292	551	535	684	0	920	864	0	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.53	0.53	0.53	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.3	31.7	31.8	36.3	29.3	29.4	11.1	0.0	9.5	9.8	0.0	9.8
Incr Delay (d2), s/veh	15.5	7.7	9.1	4.8	1.5	1.7	1.7	0.0	1.1	1.4	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.1	5.2	2.4	5.0	5.0	3.2	0.0	3.1	3.3	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	39.4	41.0	41.1	30.7	31.0	12.8	0.0	10.6	11.2	0.0	11.1
LnGrp LOS	D	D	D	D	C	C	B	A	B	B	A	B
Approach Vol, veh/h		551			672			603			705	
Approach Delay, s/veh		41.7			32.7			11.6			11.1	
Approach LOS		D			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		50.5	11.4	19.1		50.5	8.1	22.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	13.5	18.5		35.5	6.5	25.5				
Max Q Clear Time (g_c+I1), s		18.5	7.3	13.2		14.3	4.8	14.2				
Green Ext Time (p_c), s		3.9	0.1	1.4		4.8	0.0	2.6				

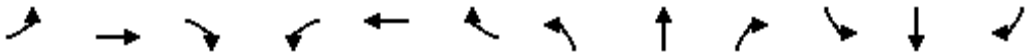
Intersection Summary	
HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	44	3	2	1	128	527	2	805
Future Volume (vph)	44	3	2	1	128	527	2	805
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	23.0	23.0	23.0	58.0	58.0	58.0	58.0
Total Split (%)	28.4%	28.4%	28.4%	28.4%	71.6%	71.6%	71.6%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		7.4		7.4		64.6		64.6
Actuated g/C Ratio		0.09		0.09		0.80		0.80
v/c Ratio		0.52		0.01		0.39		0.35
Control Delay		15.5		0.0		1.6		2.9
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		15.5		0.0		1.6		2.9
LOS		B		A		A		A
Approach Delay		15.5				1.6		2.9
Approach LOS		B				A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 77 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 3.8	Intersection LOS: A
Intersection Capacity Utilization 69.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	3	145	2	1	4	128	527	2	2	805	62
Future Volume (veh/h)	44	3	145	2	1	4	128	527	2	2	805	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	47	3	154	2	1	4	136	561	2	2	856	66
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	264	14	194	103	37	194	373	1570	6	45	2423	186
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	1301	104	1420	211	271	1420	406	2088	8	1	3221	248
Grp Volume(v), veh/h	50	0	154	3	0	4	259	0	440	490	0	434
Grp Sat Flow(s),veh/h/ln	1406	0	1420	483	0	1420	828	0	1674	1840	0	1630
Q Serve(g_s), s	2.4	0.0	8.5	0.0	0.0	0.2	6.1	0.0	7.2	0.0	0.0	7.3
Cycle Q Clear(g_c), s	2.6	0.0	8.5	8.5	0.0	0.2	13.4	0.0	7.2	7.3	0.0	7.3
Prop In Lane	0.94		1.00	0.67		1.00	0.53		0.00	0.00		0.15
Lane Grp Cap(c), veh/h	279	0	194	140	0	194	691	0	1259	1428	0	1226
V/C Ratio(X)	0.18	0.00	0.79	0.02	0.00	0.02	0.37	0.00	0.35	0.34	0.00	0.35
Avail Cap(c_a), veh/h	408	0	324	265	0	324	691	0	1259	1428	0	1226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	33.8	30.6	0.0	30.3	4.2	0.0	3.4	3.4	0.0	3.4
Incr Delay (d2), s/veh	0.3	0.0	7.1	0.1	0.0	0.0	1.6	0.0	0.8	0.7	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.2	0.1	0.0	0.1	1.0	0.0	1.6	1.8	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	0.0	41.0	30.6	0.0	30.3	5.7	0.0	4.1	4.0	0.0	4.2
LnGrp LOS	C	A	D	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		204			7			699			924	
Approach Delay, s/veh		38.7			30.4			4.7			4.1	
Approach LOS		D			C			A			A	

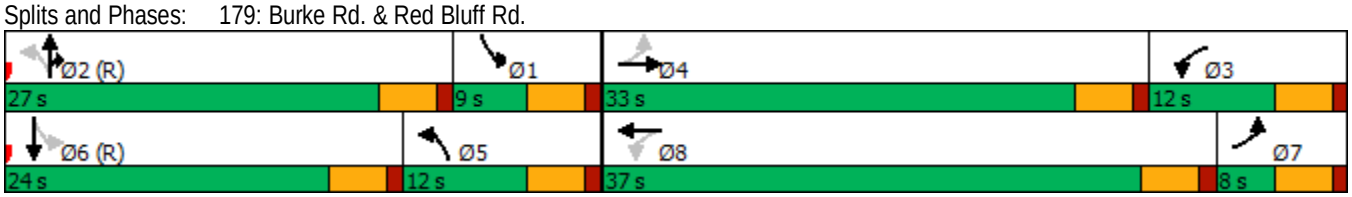
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		65.4		15.6		65.4		15.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		53.5		18.5		53.5		18.5				
Max Q Clear Time (g_c+I1), s		15.4		10.5		9.3		10.5				
Green Ext Time (p_c), s		5.9		0.7		6.6		0.0				

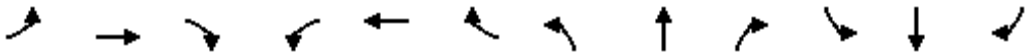
Intersection Summary												
HCM 6th Ctrl Delay			8.3									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	25	672	106	713	193	233	80	96	188
Future Volume (vph)	25	672	106	713	193	233	80	96	188
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	33.0	12.0	37.0	12.0	27.0	27.0	9.0	24.0
Total Split (%)	9.9%	40.7%	14.8%	45.7%	14.8%	33.3%	33.3%	11.1%	29.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	31.6	27.1	36.3	32.2	34.9	28.9	28.9	29.0	24.5
Actuated g/C Ratio	0.39	0.33	0.45	0.40	0.43	0.36	0.36	0.36	0.30
v/c Ratio	0.12	0.84	0.50	0.62	0.46	0.40	0.14	0.29	0.45
Control Delay	14.5	31.0	19.3	6.8	15.2	21.9	2.8	19.7	27.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	31.0	19.3	6.8	15.2	21.9	2.8	19.7	27.1
LOS	B	C	B	A	B	C	A	B	C
Approach Delay		30.6		8.2		16.3			24.9
Approach LOS		C		A		B			C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 75.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	672	250	106	713	105	193	233	80	96	188	40
Future Volume (veh/h)	25	672	250	106	713	105	193	233	80	96	188	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	26	693	258	109	735	108	199	240	82	99	194	41
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	244	799	298	181	919	135	534	511	433	472	355	75
Arrive On Green	0.06	0.32	0.32	0.04	0.30	0.30	0.18	0.28	0.28	0.14	0.24	0.24
Sat Flow, veh/h	1753	2494	928	1753	3059	449	1753	1841	1560	1753	1473	311
Grp Volume(v), veh/h	26	486	465	109	420	423	199	240	82	99	0	235
Grp Sat Flow(s),veh/h/ln	1753	1749	1674	1753	1749	1760	1753	1841	1560	1753	0	1785
Q Serve(g_s), s	0.0	21.2	21.2	0.0	17.9	17.9	0.0	8.8	3.2	0.0	0.0	9.3
Cycle Q Clear(g_c), s	0.0	21.2	21.2	0.0	17.9	17.9	0.0	8.8	3.2	0.0	0.0	9.3
Prop In Lane	1.00		0.55	1.00		0.26	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	244	560	536	181	525	529	534	511	433	472	0	430
V/C Ratio(X)	0.11	0.87	0.87	0.60	0.80	0.80	0.37	0.47	0.19	0.21	0.00	0.55
Avail Cap(c_a), veh/h	244	615	589	274	702	706	534	511	433	472	0	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.46	0.46	0.46	0.95	0.95	0.95	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	25.9	25.9	37.0	26.1	26.1	24.2	24.3	22.3	23.7	0.0	26.9
Incr Delay (d2), s/veh	0.2	11.7	12.2	1.5	2.3	2.3	0.4	2.9	0.9	0.2	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.2	9.8	2.1	7.4	7.5	3.1	4.0	1.3	1.5	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	37.6	38.1	38.5	28.4	28.4	24.6	27.2	23.2	23.9	0.0	31.8
LnGrp LOS	C	D	D	D	C	C	C	C	C	C	A	C
Approach Vol, veh/h		977			952			521			334	
Approach Delay, s/veh		37.7			29.5			25.6			29.5	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	27.0	7.7	30.5	18.8	24.0	9.3	28.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	22.5	7.5	28.5	7.5	19.5	3.5	32.5
Max Q Clear Time (g_c+I1), s	2.0	10.8	2.0	23.2	2.0	11.3	2.0	19.9
Green Ext Time (p_c), s	0.0	1.2	0.1	2.8	0.2	0.8	0.0	4.4

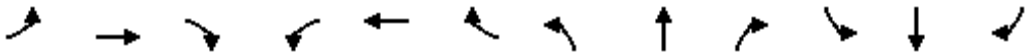
Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	60	4	60	25	250	15	800
Future Volume (vph)	20	60	4	60	25	250	15	800
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	25.0	25.0	25.0	56.0	56.0	56.0	56.0
Total Split (%)	30.9%	30.9%	30.9%	30.9%	69.1%	69.1%	69.1%	69.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	8.6	8.6		66.3		66.3
Actuated g/C Ratio	0.11	0.11	0.11	0.11		0.82		0.82
v/c Ratio	0.16	0.43	0.03	0.35		0.13		0.34
Control Delay	23.8	22.9	31.0	36.1		1.4		3.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	23.8	22.9	31.0	36.1		1.4		3.0
LOS	C	C	C	D		A		A
Approach Delay		23.1		35.8		1.4		3.0
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 64 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 5.9	Intersection LOS: A
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Future Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	22	65	22	4	65	4	27	272	27	16	870	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	106	36	131	138	8	211	2114	215	66	2749	50
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1311	1315	445	1289	1716	106	197	2615	266	25	3399	62
Grp Volume(v), veh/h	22	0	87	4	0	69	161	0	165	472	0	430
Grp Sat Flow(s),veh/h/ln	1311	0	1761	1289	0	1822	1451	0	1627	1822	0	1664
Q Serve(g_s), s	1.3	0.0	3.9	0.2	0.0	2.9	0.0	0.0	1.8	0.0	0.0	5.4
Cycle Q Clear(g_c), s	4.3	0.0	3.9	4.1	0.0	2.9	1.5	0.0	1.8	5.3	0.0	5.4
Prop In Lane	1.00		0.25	1.00		0.06	0.17		0.16	0.03		0.04
Lane Grp Cap(c), veh/h	147	0	141	131	0	146	1225	0	1316	1519	0	1345
V/C Ratio(X)	0.15	0.00	0.62	0.03	0.00	0.47	0.13	0.00	0.13	0.31	0.00	0.32
Avail Cap(c_a), veh/h	373	0	446	354	0	461	1225	0	1316	1519	0	1345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.74	0.00	0.74
Uniform Delay (d), s/veh	37.6	0.0	36.0	38.0	0.0	35.6	1.6	0.0	1.7	2.0	0.0	2.0
Incr Delay (d2), s/veh	0.5	0.0	4.3	0.1	0.0	2.3	0.2	0.0	0.2	0.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.8	0.1	0.0	1.4	0.3	0.0	0.3	1.1	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	40.3	38.1	0.0	38.0	1.8	0.0	1.8	2.4	0.0	2.5
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		109			73			326			902	
Approach Delay, s/veh		39.9			38.0			1.8			2.4	
Approach LOS		D			D			A			A	

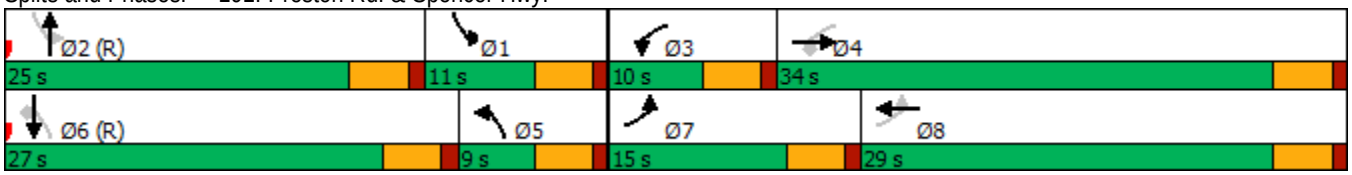
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		11.0		70.0		11.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		51.5		20.5		51.5		20.5				
Max Q Clear Time (g_c+I1), s		3.8		6.3		7.4		6.1				
Green Ext Time (p_c), s		2.3		0.4		7.1		0.2				

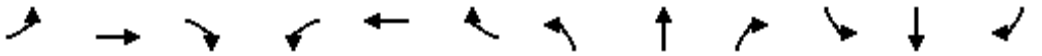
Intersection Summary		
HCM 6th Ctrl Delay		7.0
HCM 6th LOS		A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	290	1322	265	152	1345	152	698	203	826	322
Future Volume (vph)	290	1322	265	152	1345	152	698	203	826	322
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	8		4	4		6		2		6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	15.0	34.0	34.0	10.0	29.0	9.0	25.0	11.0	27.0	27.0
Total Split (%)	18.8%	42.5%	42.5%	12.5%	36.3%	11.3%	31.3%	13.8%	33.8%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	35.0	29.5	29.5	35.0	24.5	27.0	20.5	27.0	22.5	22.5
Actuated g/C Ratio	0.44	0.37	0.37	0.44	0.31	0.34	0.26	0.34	0.28	0.28
v/c Ratio	0.93	0.76	0.38	0.74	1.00	0.82	0.94	0.89	0.86	0.56
Control Delay	55.8	25.5	6.7	35.7	52.4	61.6	48.6	68.2	38.3	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	25.5	6.7	35.7	52.4	61.6	48.6	68.2	38.3	13.2
LOS	E	C	A	D	D	E	D	E	D	B
Approach Delay		27.5			50.9		50.7		36.8	
Approach LOS		C			D		D		D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 40.1	Intersection LOS: D
Intersection Capacity Utilization 99.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	1322	265	152	1345	150	152	698	120	203	826	322
Future Volume (veh/h)	290	1322	265	152	1345	150	152	698	120	203	826	322
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	296	1349	270	155	1372	153	155	712	122	207	843	329
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	324	1853	575	253	1405	157	214	765	131	247	984	439
Arrive On Green	0.13	0.37	0.37	0.07	0.31	0.31	0.06	0.26	0.26	0.08	0.28	0.28
Sat Flow, veh/h	1753	5025	1560	1753	4587	512	1753	2986	511	1753	3497	1560
Grp Volume(v), veh/h	296	1349	270	155	1002	523	155	417	417	207	843	329
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1749	1753	1749	1749	1753	1749	1560
Q Serve(g_s), s	9.1	18.5	7.7	4.4	23.7	23.7	1.6	18.6	18.6	4.4	18.3	10.2
Cycle Q Clear(g_c), s	9.1	18.5	7.7	4.4	23.7	23.7	1.6	18.6	18.6	4.4	18.3	10.2
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	324	1853	575	253	1026	536	214	448	448	247	984	439
V/C Ratio(X)	0.91	0.73	0.47	0.61	0.98	0.98	0.73	0.93	0.93	0.84	0.86	0.75
Avail Cap(c_a), veh/h	324	1853	575	253	1026	536	214	448	448	247	984	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.58	0.58	0.58	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	19.0	21.8	10.3	17.8	27.5	27.5	35.4	29.1	29.1	34.6	27.2	11.4
Incr Delay (d2), s/veh	19.0	0.8	0.3	2.5	16.1	24.0	11.6	28.2	28.3	20.2	9.0	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	6.7	3.3	1.7	10.9	12.6	3.5	11.0	11.0	5.0	8.5	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	22.6	10.7	20.4	43.6	51.4	47.1	57.2	57.4	54.8	36.2	21.9
LnGrp LOS	D	C	B	C	D	D	D	E	E	D	D	C
Approach Vol, veh/h		1915			1680			989			1379	
Approach Delay, s/veh		23.3			43.9			55.7			35.6	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	25.0	10.0	34.0	9.0	27.0	15.0	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	20.5	5.5	29.5	4.5	22.5	10.5	24.5
Max Q Clear Time (g_c+I1), s	6.4	20.6	6.4	20.5	3.6	20.3	11.1	25.7
Green Ext Time (p_c), s	0.0	0.0	0.0	6.0	0.0	1.5	0.0	0.0

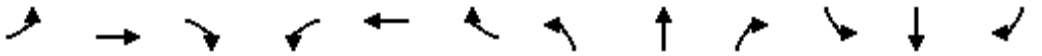
Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	102	360	130	426	124	687	99	794
Future Volume (vph)	102	360	130	426	124	687	99	794
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	14.0	27.0	14.0	27.0	14.0	46.8	12.2	45.0
Total Split (%)	14.0%	27.0%	14.0%	27.0%	14.0%	46.8%	12.2%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	28.5	18.5	27.6	22.0	54.4	49.0	55.3	45.9
Actuated g/C Ratio	0.28	0.18	0.28	0.22	0.54	0.49	0.55	0.46
v/c Ratio	0.46	0.74	0.54	0.71	0.42	0.48	0.28	0.61
Control Delay	37.5	42.3	32.6	40.1	14.6	19.3	12.2	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	42.3	32.6	40.1	14.6	19.3	12.2	22.8
LOS	D	D	C	D	B	B	B	C
Approach Delay		41.5		38.6		18.7		21.8
Approach LOS		D		D		B		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 27.9	Intersection LOS: C
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	360	116	130	426	100	124	687	101	99	794	141
Future Volume (veh/h)	102	360	116	130	426	100	124	687	101	99	794	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	104	367	118	133	435	102	127	701	103	101	810	144
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	220	452	143	244	522	121	357	1592	234	406	1525	271
Arrive On Green	0.07	0.17	0.17	0.08	0.19	0.19	0.05	0.52	0.52	0.05	0.51	0.51
Sat Flow, veh/h	1753	2612	828	1753	2816	655	1753	3059	449	1753	2967	527
Grp Volume(v), veh/h	104	244	241	133	269	268	127	400	404	101	477	477
Grp Sat Flow(s),veh/h/ln	1753	1749	1692	1753	1749	1723	1753	1749	1760	1753	1749	1746
Q Serve(g_s), s	0.0	13.4	13.7	6.1	14.8	15.0	3.4	14.2	14.3	2.6	18.2	18.3
Cycle Q Clear(g_c), s	0.0	13.4	13.7	6.1	14.8	15.0	3.4	14.2	14.3	2.6	18.2	18.3
Prop In Lane	1.00		0.49	1.00		0.38	1.00		0.26	1.00		0.30
Lane Grp Cap(c), veh/h	220	303	293	244	324	319	357	910	916	406	899	897
V/C Ratio(X)	0.47	0.81	0.82	0.55	0.83	0.84	0.36	0.44	0.44	0.25	0.53	0.53
Avail Cap(c_a), veh/h	268	393	381	271	393	388	430	910	916	459	899	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	39.7	39.9	31.3	39.2	39.3	12.2	14.9	14.9	11.1	16.2	16.2
Incr Delay (d2), s/veh	1.6	9.1	10.7	1.9	11.8	13.0	0.5	1.4	1.4	0.3	2.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	6.4	6.4	2.7	7.3	7.4	1.3	5.7	5.7	1.0	7.5	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	48.8	50.6	33.2	51.0	52.3	12.8	16.3	16.3	11.5	18.5	18.5
LnGrp LOS	D	D	D	C	D	D	B	B	B	B	B	B
Approach Vol, veh/h		589			670			931			1055	
Approach Delay, s/veh		48.8			48.0			15.8			17.8	
Approach LOS		D			D			B			B	

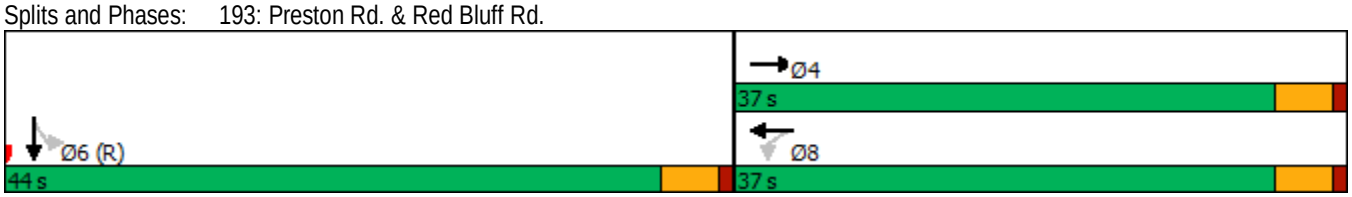
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	56.5	12.5	21.8	9.8	55.9	11.2	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.7	42.3	9.5	22.5	9.5	40.5	9.5	22.5
Max Q Clear Time (g_c+I1), s	4.6	16.3	8.1	15.7	5.4	20.3	2.0	17.0
Green Ext Time (p_c), s	0.1	5.3	0.0	1.6	0.1	6.4	0.1	1.5

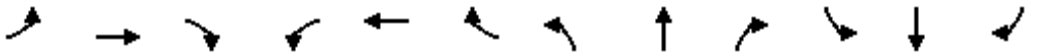
Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	687	53	1041	940
Future Volume (vph)	687	53	1041	940
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	44.0
Total Split (%)	45.7%	45.7%	45.7%	54.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	31.1	31.1	31.1	40.9
Actuated g/C Ratio	0.38	0.38	0.38	0.50
v/c Ratio	0.79	0.62	0.82	0.79
Control Delay	11.8	45.6	21.1	20.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.8	45.6	21.1	20.9
LOS	B	D	C	C
Approach Delay	11.8		22.3	20.9
Approach LOS	B		C	C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 71 (88%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 85.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	687	304	53	1041	0	0	0	0	257	940	91
Future Volume (veh/h)	0	687	304	53	1041	0	0	0	0	257	940	91
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	723	320	56	1096	0				271	989	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	939	415	159	1392	0				358	1386	
Arrive On Green	0.00	0.40	0.40	0.80	0.80	0.00				0.49	0.49	0.00
Sat Flow, veh/h	0	2450	1043	532	3589	0				730	2915	0
Grp Volume(v), veh/h	0	536	507	56	1096	0				670	590	0
Grp Sat Flow(s),veh/h/ln	0	1749	1653	532	1749	0				1804	1749	0
Q Serve(g_s), s	0.0	21.6	21.6	7.9	13.9	0.0				24.4	21.0	0.0
Cycle Q Clear(g_c), s	0.0	21.6	21.6	29.5	13.9	0.0				24.4	21.0	0.0
Prop In Lane	0.00		0.63	1.00		0.00				0.40		0.00
Lane Grp Cap(c), veh/h	0	696	658	159	1392	0				886	858	
V/C Ratio(X)	0.00	0.77	0.77	0.35	0.79	0.00				0.76	0.69	
Avail Cap(c_a), veh/h	0	702	663	161	1403	0				886	858	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.59	0.59	0.75	0.75	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	21.2	21.2	18.0	6.4	0.0				16.7	15.8	0.0
Incr Delay (d2), s/veh	0.0	3.1	3.3	1.0	2.3	0.0				6.0	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.8	8.4	0.8	2.7	0.0				10.6	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.3	24.5	19.0	8.7	0.0				22.7	20.3	0.0
LnGrp LOS	A	C	C	B	A	A				C	C	
Approach Vol, veh/h		1043			1152						1260	A
Approach Delay, s/veh		24.4			9.2						21.6	
Approach LOS		C			A						C	

Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				36.7		44.3		36.7				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				32.5		39.5		32.5				
Max Q Clear Time (g_c+I1), s				23.6		26.4		31.5				
Green Ext Time (p_c), s				4.5		7.0		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			18.3									
HCM 6th LOS			B									

Notes

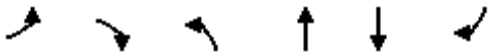
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	96	177	192	1147	1283
Future Volume (vph)	96	177	192	1147	1283
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	14.0	61.0	47.0
Total Split (%)	24.7%	24.7%	17.3%	75.3%	58.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	10.1	10.1	61.9	61.9	47.9
Actuated g/C Ratio	0.12	0.12	0.76	0.76	0.59
v/c Ratio	0.48	0.53	0.62	0.47	0.77
Control Delay	40.0	11.3	23.1	2.1	16.6
Queue Delay	0.0	0.0	0.0	0.1	0.0
Total Delay	40.0	11.3	23.1	2.2	16.6
LOS	D	B	C	A	B
Approach Delay	21.4			5.2	16.6
Approach LOS	C			A	B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 17 (21%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	96	177	192	1147	1283	160
Future Volume (veh/h)	96	177	192	1147	1283	160
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	97	179	194	1159	1296	162
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	246	219	442	2618	1642	204
Arrive On Green	0.14	0.14	0.34	1.00	0.52	0.52
Sat Flow, veh/h	1753	1560	1753	3589	3222	389
Grp Volume(v), veh/h	97	179	194	1159	721	737
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1771
Q Serve(g_s), s	4.1	9.0	0.0	0.0	27.0	27.5
Cycle Q Clear(g_c), s	4.1	9.0	0.0	0.0	27.0	27.5
Prop In Lane	1.00	1.00	1.00			0.22
Lane Grp Cap(c), veh/h	246	219	442	2618	918	929
V/C Ratio(X)	0.39	0.82	0.44	0.44	0.79	0.79
Avail Cap(c_a), veh/h	335	299	442	2618	918	929
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	0.77	0.77
Uniform Delay (d), s/veh	31.7	33.8	20.4	0.0	15.6	15.7
Incr Delay (d2), s/veh	1.0	12.0	0.6	0.5	5.3	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	8.2	2.5	0.2	10.6	11.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.7	45.8	21.0	0.5	20.8	21.1
LnGrp LOS	C	D	C	A	C	C
Approach Vol, veh/h	276			1353	1458	
Approach Delay, s/veh	41.2			3.5	21.0	
Approach LOS	D			A	C	

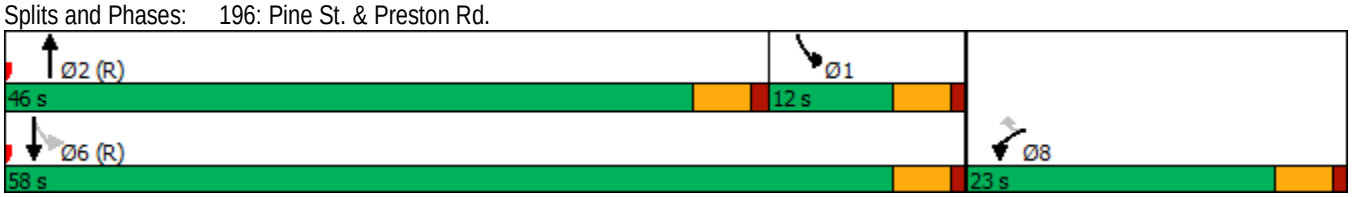
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		65.1		15.9	18.1	47.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		56.5		15.5	9.5	42.5
Max Q Clear Time (g_c+I1), s		2.0		11.0	2.0	29.5
Green Ext Time (p_c), s		11.3		0.4	0.3	7.9

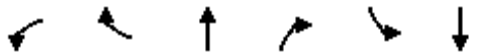
Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	34	98	793	95	1094
Future Volume (vph)	34	98	793	95	1094
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	23.0	23.0	46.0	12.0	58.0
Total Split (%)	28.4%	28.4%	56.8%	14.8%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	7.3	58.0	67.6	67.6
Actuated g/C Ratio	0.09	0.09	0.72	0.83	0.83
v/c Ratio	0.22	0.44	0.35	0.17	0.39
Control Delay	36.8	13.8	6.5	0.8	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	36.8	13.8	6.5	0.8	0.7
LOS	D	B	A	A	A
Approach Delay	19.7		6.5		0.7
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 4.1	Intersection LOS: A
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	98	793	43	95	1094
Future Volume (veh/h)	34	98	793	43	95	1094
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	35	101	818	44	98	1128
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	152	136	1729	93	709	2805
Arrive On Green	0.09	0.09	0.51	0.51	0.47	1.00
Sat Flow, veh/h	1753	1560	3467	182	1753	3589
Grp Volume(v), veh/h	35	101	424	438	98	1128
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1808	1753	1749
Q Serve(g_s), s	1.5	5.1	12.6	12.6	0.0	0.0
Cycle Q Clear(g_c), s	1.5	5.1	12.6	12.6	0.0	0.0
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	152	136	896	926	709	2805
V/C Ratio(X)	0.23	0.74	0.47	0.47	0.14	0.40
Avail Cap(c_a), veh/h	400	356	896	926	709	2805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.24	0.24	0.59	0.59
Uniform Delay (d), s/veh	34.5	36.1	12.7	12.7	5.9	0.0
Incr Delay (d2), s/veh	0.8	7.8	0.4	0.4	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.2	4.6	4.8	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.2	43.9	13.1	13.1	6.0	0.3
LnGrp LOS	D	D	B	B	A	A
Approach Vol, veh/h	136		862			1226
Approach Delay, s/veh	41.7		13.1			0.7
Approach LOS	D		B			A

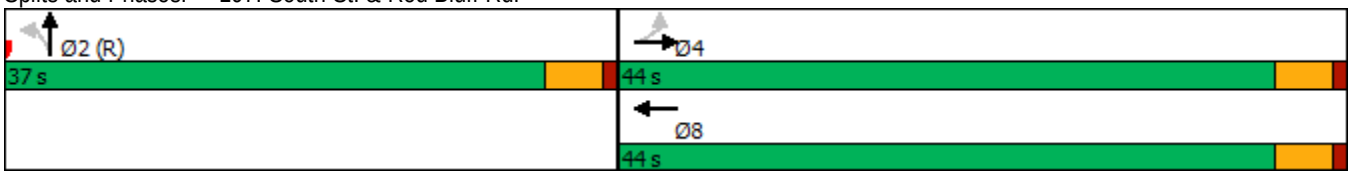
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	23.5	46.0			69.5	11.5
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	7.5	41.5			53.5	18.5
Max Q Clear Time (g_c+I1), s	2.0	14.6			2.0	7.1
Green Ext Time (p_c), s	0.1	6.1			11.4	0.3

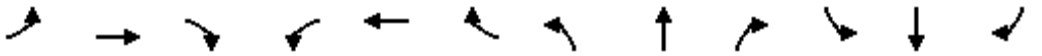
Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	74	728	677	337	511
Future Volume (vph)	74	728	677	337	511
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	44.0	44.0	44.0	37.0	37.0
Total Split (%)	54.3%	54.3%	54.3%	45.7%	45.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	29.8	29.8	29.8	42.2	42.2
Actuated g/C Ratio	0.37	0.37	0.37	0.52	0.52
v/c Ratio	0.69	0.59	0.71	0.39	0.30
Control Delay	40.2	22.7	23.1	9.9	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	22.7	23.1	9.9	8.5
LOS	D	C	C	A	A
Approach Delay		24.3	23.1		9.0
Approach LOS		C	C		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 77 (95%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 85.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	728	0	0	677	194	337	511	13	0	0	0
Future Volume (veh/h)	74	728	0	0	677	194	337	511	13	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	77	758	0	0	705	0	351	532	0			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	220	1204	0	0	1204		955	1904				
Arrive On Green	0.69	0.69	0.00	0.00	0.34	0.00	0.18	0.18	0.00			
Sat Flow, veh/h	731	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	77	758	0	0	705	0	351	532	0			
Grp Sat Flow(s),veh/h/ln	731	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	6.9	9.6	0.0	0.0	13.4	0.0	14.2	10.6	0.0			
Cycle Q Clear(g_c), s	20.4	9.6	0.0	0.0	13.4	0.0	14.2	10.6	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	220	1204	0	0	1204		955	1904				
V/C Ratio(X)	0.35	0.63	0.00	0.00	0.59		0.37	0.28				
Avail Cap(c_a), veh/h	324	1706	0	0	1706		955	1904				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.51	0.51	0.00	0.00	0.94	0.00	0.94	0.94	0.00			
Uniform Delay (d), s/veh	16.9	9.8	0.0	0.0	21.8	0.0	21.0	19.5	0.0			
Incr Delay (d2), s/veh	0.5	0.3	0.0	0.0	0.4	0.0	1.0	0.3	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	2.4	0.0	0.0	5.3	0.0	6.9	4.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	10.0	0.0	0.0	22.2	0.0	22.0	19.8	0.0			
LnGrp LOS	B	B	A	A	C		C	B				
Approach Vol, veh/h		835			705	A		883	A			
Approach Delay, s/veh		10.7			22.2			20.7				
Approach LOS		B			C			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		48.6		32.4				32.4				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		32.5		39.5				39.5				
Max Q Clear Time (g_c+I1), s		16.2		22.4				15.4				
Green Ext Time (p_c), s		4.3		5.5				5.2				

Intersection Summary		
HCM 6th Ctrl Delay		17.7
HCM 6th LOS		B

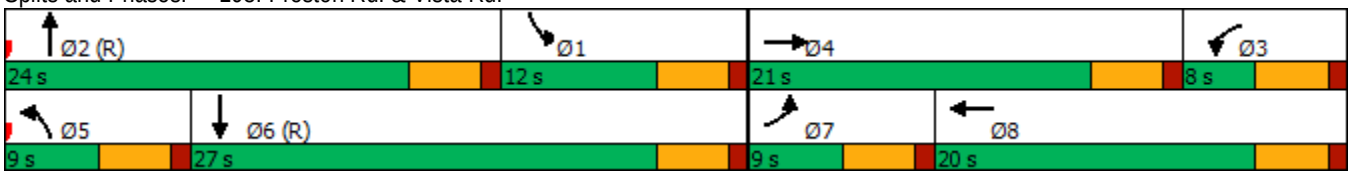
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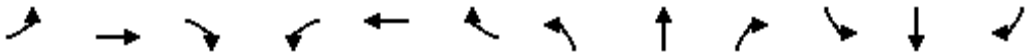
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	104	474	50	408	93	668	137	833
Future Volume (vph)	104	474	50	408	93	668	137	833
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	21.0	8.0	20.0	9.0	24.0	12.0	27.0
Total Split (%)	13.8%	32.3%	12.3%	30.8%	13.8%	36.9%	18.5%	41.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.5	18.6	4.2	14.4	5.3	20.6	7.5	22.8
Actuated g/C Ratio	0.07	0.29	0.06	0.22	0.08	0.32	0.12	0.35
v/c Ratio	0.93	0.69	0.49	0.79	0.72	0.72	0.73	0.83
Control Delay	100.6	23.2	48.3	28.3	63.8	24.1	51.5	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.6	23.2	48.3	28.3	63.8	24.1	51.5	26.5
LOS	F	C	D	C	E	C	D	C
Approach Delay		33.8		29.9		28.5		29.7
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 30.4	Intersection LOS: C
Intersection Capacity Utilization 75.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	474	182	50	408	173	93	668	72	137	833	109
Future Volume (veh/h)	104	474	182	50	408	173	93	668	72	137	833	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	504	194	53	434	184	99	711	77	146	886	116
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	121	590	226	85	522	219	121	955	103	239	1141	149
Arrive On Green	0.07	0.24	0.24	0.05	0.22	0.22	0.07	0.30	0.30	0.14	0.37	0.37
Sat Flow, veh/h	1753	2472	947	1753	2400	1008	1753	3183	344	1753	3109	407
Grp Volume(v), veh/h	111	356	342	53	315	303	99	390	398	146	498	504
Grp Sat Flow(s),veh/h/ln	1753	1749	1670	1753	1749	1659	1753	1749	1779	1753	1749	1767
Q Serve(g_s), s	4.1	12.6	12.8	1.9	11.2	11.4	3.6	13.1	13.1	5.1	16.4	16.4
Cycle Q Clear(g_c), s	4.1	12.6	12.8	1.9	11.2	11.4	3.6	13.1	13.1	5.1	16.4	16.4
Prop In Lane	1.00		0.57	1.00		0.61	1.00		0.19	1.00		0.23
Lane Grp Cap(c), veh/h	121	417	398	85	381	361	121	525	534	239	642	649
V/C Ratio(X)	0.91	0.85	0.86	0.62	0.83	0.84	0.82	0.74	0.75	0.61	0.78	0.78
Avail Cap(c_a), veh/h	121	444	424	94	417	396	121	525	534	239	642	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	0.63	0.63	0.63	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	23.7	23.7	30.3	24.3	24.3	29.8	20.5	20.5	26.5	18.2	18.2
Incr Delay (d2), s/veh	42.9	9.9	10.9	10.4	12.1	13.8	23.0	6.0	5.9	4.5	9.0	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.8	5.7	1.0	5.4	5.4	2.2	5.5	5.6	2.3	7.2	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.0	33.6	34.6	40.7	36.4	38.1	52.9	26.5	26.4	31.0	27.2	27.1
LnGrp LOS	E	C	C	D	D	D	D	C	C	C	C	C
Approach Vol, veh/h		809			671			887			1148	
Approach Delay, s/veh		39.4			37.5			29.4			27.6	
Approach LOS		D			D			C			C	

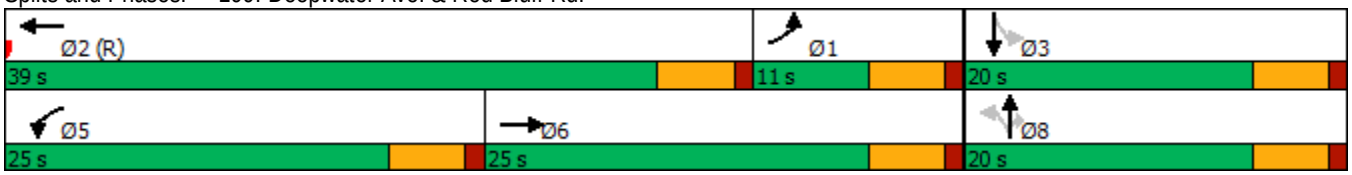
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	24.0	7.6	20.0	9.0	28.4	9.0	18.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	19.5	3.5	16.5	4.5	22.5	4.5	15.5
Max Q Clear Time (g_c+I1), s	7.1	15.1	3.9	14.8	5.6	18.4	6.1	13.4
Green Ext Time (p_c), s	0.0	1.8	0.0	0.7	0.0	2.2	0.0	0.8

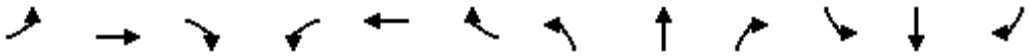
Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	58	515	255	667	8	113	252	40	155
Future Volume (vph)	58	515	255	667	8	113	252	40	155
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	25.0	25.0	39.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	15.7%	35.7%	35.7%	55.7%	28.6%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lag	Lag	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)	5.9	28.0	15.4	41.8		11.6	11.6		11.6
Actuated g/C Ratio	0.08	0.40	0.22	0.60		0.17	0.17		0.17
v/c Ratio	0.41	0.40	0.69	0.35		0.42	0.55		0.49
Control Delay	39.3	17.4	34.2	9.0		30.4	8.5		24.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	39.3	17.4	34.2	9.0		30.4	8.5		24.0
LOS	D	B	C	A		C	A		C
Approach Delay		19.6		15.7		15.5			24.0
Approach LOS		B		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





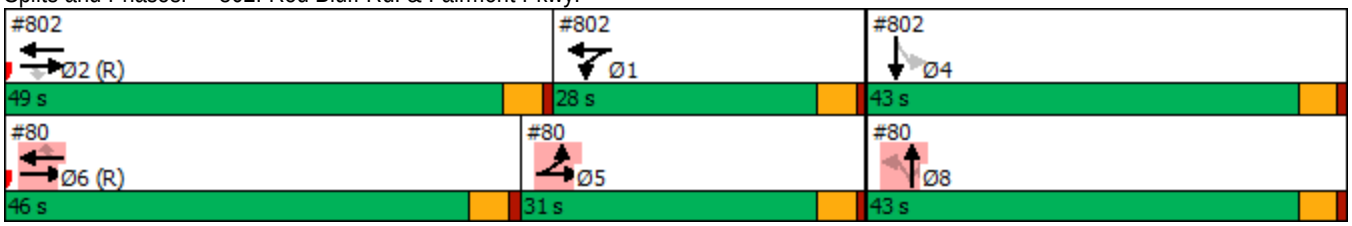
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	515	22	255	667	39	8	113	252	40	155	59
Future Volume (vph)	58	515	22	255	667	39	8	113	252	40	155	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	0.99		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3450		1736	3443			1821	1553		3324	
Flt Permitted	0.95	1.00		0.95	1.00			0.97	1.00		0.88	
Satd. Flow (perm)	1736	3450		1736	3443			1765	1553		2958	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	60	531	23	263	688	40	8	116	260	41	160	61
RTOR Reduction (vph)	0	4	0	0	5	0	0	0	217	0	43	0
Lane Group Flow (vph)	60	550	0	263	723	0	0	124	43	0	219	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	3.6	28.0		15.4	39.8			11.6	11.6		11.6	
Effective Green, g (s)	3.6	28.0		15.4	39.8			11.6	11.6		11.6	
Actuated g/C Ratio	0.05	0.40		0.22	0.57			0.17	0.17		0.17	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	89	1380		381	1957			292	257		490	
v/s Ratio Prot	0.03	c0.16		c0.15	0.21							
v/s Ratio Perm								0.07	0.03		c0.07	
v/c Ratio	0.67	0.40		0.69	0.37			0.42	0.17		0.45	
Uniform Delay, d1	32.6	15.0		25.1	8.2			26.2	25.1		26.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	18.3	0.2		5.3	0.5			1.0	0.3		0.6	
Delay (s)	50.9	15.2		30.4	8.8			27.2	25.4		27.0	
Level of Service	D	B		C	A			C	C		C	
Approach Delay (s)		18.7			14.5			26.0			27.0	
Approach LOS		B			B			C			C	

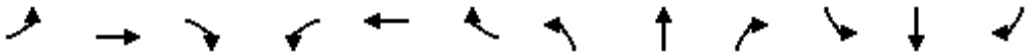
Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	1086	169	152	1318	183	549			
Future Volume (vph)	1086	169	152	1318	183	549			
Turn Type	NA	Perm	Prot	NA	Perm	NA			
Protected Phases	2		1	1 2		4	5	6	8
Permitted Phases		2			4				
Detector Phase	2	2	1	1 2	4	4			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	49.0	49.0	28.0		43.0	43.0	31.0	46.0	43.0
Total Split (%)	40.8%	40.8%	23.3%		35.8%	35.8%	26%	38%	36%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5			
Lead/Lag	Lead	Lead	Lag				Lag	Lead	
Lead-Lag Optimize?							Yes		
Recall Mode	C-Max	C-Max	None		None	None	None	C-Max	None
Act Effct Green (s)	57.2	57.2	19.3	81.0	30.0	30.0			
Actuated g/C Ratio	0.48	0.48	0.16	0.68	0.25	0.25			
v/c Ratio	0.40	0.22	0.31	0.43	0.46	0.74			
Control Delay	17.1	1.8	43.5	3.9	40.8	46.2			
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0			
Total Delay	17.1	1.8	43.5	4.0	40.8	46.2			
LOS	B	A	D	A	D	D			
Approach Delay	15.0			8.1		44.9			
Approach LOS	B			A		D			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 39 (33%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 51.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





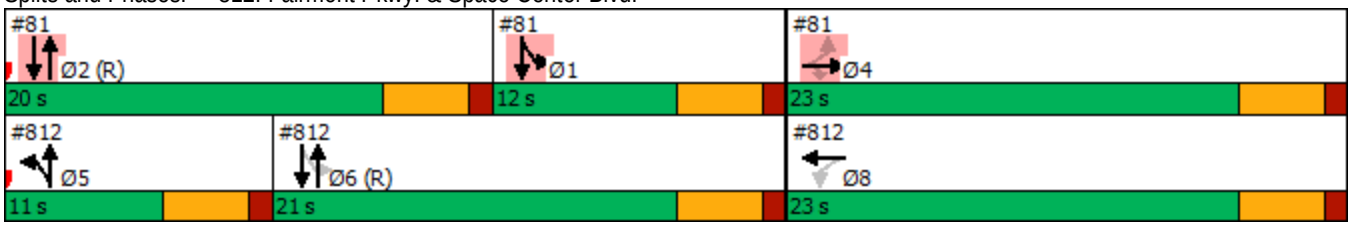
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1086	169	152	1318	0	0	0	0	183	549	34
Future Volume (vph)	0	1086	169	152	1318	0	0	0	0	183	549	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91					1.00	0.95	
Frt		1.00	0.85	1.00	1.00					1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988					1736	3441	
Flt Permitted		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (perm)		6285	1553	3367	4988					1736	3441	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	1193	186	167	1448	0	0	0	0	201	603	37
RTOR Reduction (vph)	0	0	94	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	1193	92	167	1448	0	0	0	0	201	636	0
Turn Type		NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases			2							4		
Actuated Green, G (s)		57.2	57.2	19.3	81.0					30.0	30.0	
Effective Green, g (s)		57.2	57.2	19.3	81.0					30.0	30.0	
Actuated g/C Ratio		0.48	0.48	0.16	0.68					0.25	0.25	
Clearance Time (s)		4.5	4.5	4.5						4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0						3.0	3.0	
Lane Grp Cap (vph)		2995	740	541	3366					434	860	
v/s Ratio Prot		0.19		0.05	c0.29						c0.18	
v/s Ratio Perm			0.06							0.12		
v/c Ratio		0.40	0.12	0.31	0.43					0.46	0.74	
Uniform Delay, d1		20.3	17.5	44.5	8.9					38.2	41.4	
Progression Factor		0.77	0.31	0.97	0.37					1.00	1.00	
Incremental Delay, d2		0.4	0.3	0.3	0.1					0.8	3.4	
Delay (s)		15.9	5.8	43.4	3.4					39.0	44.8	
Level of Service		B	A	D	A					D	D	
Approach Delay (s)		14.5			7.5			0.0			43.4	
Approach LOS		B			A			A			D	

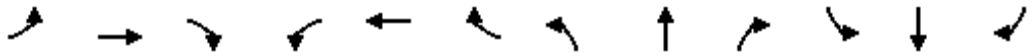
Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	357	1712	241	516	1	705			
Future Volume (vph)	357	1712	241	516	1	705			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	23.0	23.0	11.0		21.0	21.0	12.0	20.0	23.0
Total Split (%)	41.8%	41.8%	20.0%		38.2%	38.2%	22%	36%	42%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	18.5	18.5	6.5	27.5		16.5			
Actuated g/C Ratio	0.34	0.34	0.12	0.50		0.30			
v/c Ratio	0.64	0.92	0.63	0.31		0.67			
Control Delay	21.4	26.3	35.9	4.2		19.3			
Queue Delay	15.7	0.0	0.1	1.2		0.2			
Total Delay	37.1	26.3	36.0	5.4		19.5			
LOS	D	C	D	A		B			
Approach Delay		28.0		15.1		19.5			
Approach LOS		C		B		B			

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 55	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 74.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





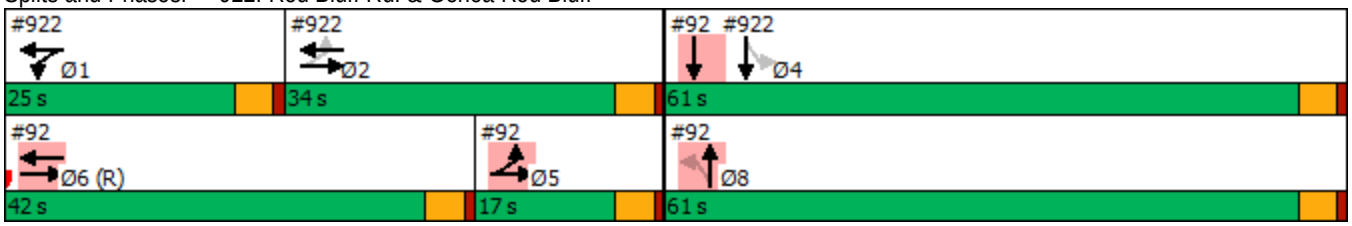
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	357	1712	151	241	516	0	1	705	175
Future Volume (vph)	0	0	0	357	1712	151	241	516	0	1	705	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.99		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6208		3367	3471			4839	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6208		3367	3471			4546	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	372	1783	157	251	538	0	1	734	182
RTOR Reduction (vph)	0	0	0	0	25	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	0	0	372	1915	0	251	538	0	0	905	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				18.5	18.5		6.5	27.5			16.5	
Effective Green, g (s)				18.5	18.5		6.5	27.5			16.5	
Actuated g/C Ratio				0.34	0.34		0.12	0.50			0.30	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				583	2088		397	1735			1363	
v/s Ratio Prot					c0.31		c0.07	0.15				
v/s Ratio Perm				0.21							c0.20	
v/c Ratio				0.64	0.92		0.63	0.31			0.66	
Uniform Delay, d1				15.4	17.5		23.1	8.1			16.8	
Progression Factor				1.00	1.00		1.30	0.47			1.00	
Incremental Delay, d2				2.3	6.9		2.2	0.1			2.6	
Delay (s)				17.7	24.4		32.2	3.9			19.4	
Level of Service				B	C		C	A			B	
Approach Delay (s)		0.0			23.3			12.9			19.4	
Approach LOS		A			C			B			B	

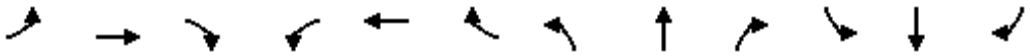
Intersection Summary			
HCM 2000 Control Delay	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations								
Traffic Volume (vph)	1	681	278	1153	522			
Future Volume (vph)	1	681	278	1153	522			
Turn Type	Perm	NA	Prot	NA	NA			
Protected Phases		2	1	2 1	4	5	6	8
Permitted Phases	2							
Detector Phase	2	2	1	2 1	4			
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	34.0	34.0	25.0		61.0	17.0	42.0	61.0
Total Split (%)	28.3%	28.3%	20.8%		50.8%	14%	35%	51%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0			
Total Lost Time (s)		4.5	4.5		4.5			
Lead/Lag	Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None		None	None	C-Max	None
Act Effct Green (s)		29.5	20.5	54.5	56.5			
Actuated g/C Ratio		0.25	0.17	0.45	0.47			
v/c Ratio		0.86	1.00	0.78	0.31			
Control Delay		48.3	81.5	22.6	24.2			
Queue Delay		0.4	34.3	16.3	0.0			
Total Delay		48.8	115.8	38.9	24.2			
LOS		D	F	D	C			
Approach Delay		48.8		53.9	24.2			
Approach LOS		D		D	C			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 45.7	Intersection LOS: D
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	681	252	278	1153	0	0	0	0	44	522	112
Future Volume (vph)	1	681	252	278	1153	0	0	0	0	44	522	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.91		1.00	0.95						0.91	
Frt		0.96		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		4785		1736	3471						4848	
Flt Permitted		0.94		0.95	1.00						1.00	
Satd. Flow (perm)		4494		1736	3471						4848	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1	724	268	296	1227	0	0	0	0	47	555	119
RTOR Reduction (vph)	0	56	0	0	0	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	937	0	296	1227	0	0	0	0	0	706	0
Turn Type	Perm	NA		Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases	2									4		
Actuated Green, G (s)		29.5		20.5	54.5						56.5	
Effective Green, g (s)		29.5		20.5	54.5						56.5	
Actuated g/C Ratio		0.25		0.17	0.45						0.47	
Clearance Time (s)		4.5		4.5							4.5	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		1104		296	1576						2282	
v/s Ratio Prot				c0.17	c0.35							
v/s Ratio Perm		c0.21									0.15	
v/c Ratio		0.85		1.00	0.78						0.31	
Uniform Delay, d1		43.1		49.8	27.7						19.7	
Progression Factor		1.00		0.86	0.73						1.26	
Incremental Delay, d2		6.2		37.5	1.3						0.1	
Delay (s)		49.4		80.1	21.5						24.8	
Level of Service		D		F	C						C	
Approach Delay (s)		49.4			32.9			0.0			24.8	
Approach LOS		D			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

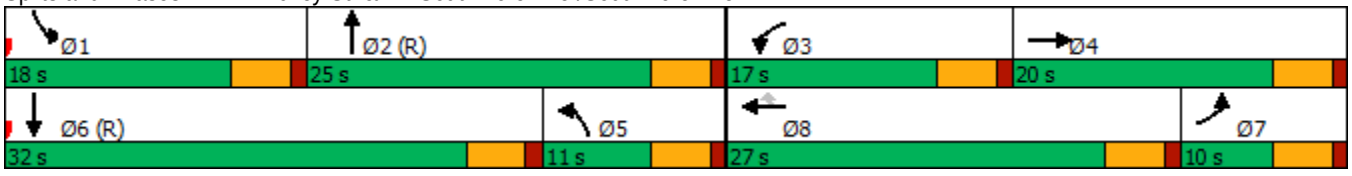
Synchro Report

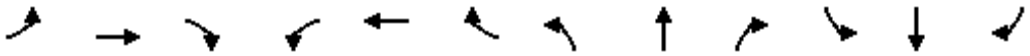
Short-Term Improved Network 2045 AM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	41	281	310	430	203	47	429	149	352
Future Volume (vph)	41	281	310	430	203	47	429	149	352
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	17.0	27.0	27.0	11.0	25.0	18.0	32.0
Total Split (%)	12.5%	25.0%	21.3%	33.8%	33.8%	13.8%	31.3%	22.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.1	12.6	11.6	21.4	21.4	6.3	26.2	11.6	35.6
Actuated g/C Ratio	0.09	0.16	0.14	0.27	0.27	0.08	0.33	0.14	0.44
v/c Ratio	0.27	0.62	0.65	0.48	0.37	0.35	0.53	0.62	0.26
Control Delay	37.3	33.7	27.4	16.1	3.5	36.3	18.1	42.7	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	33.7	27.4	16.1	3.5	36.3	18.1	42.7	16.0
LOS	D	C	C	B	A	D	B	D	B
Approach Delay		34.1		17.1			19.4		23.4
Approach LOS		C		B			B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 10 (13%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	281	52	310	430	203	47	429	155	149	352	38
Future Volume (veh/h)	41	281	52	310	430	203	47	429	155	149	352	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	42	290	54	320	443	209	48	442	160	154	363	39
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	132	391	72	411	622	278	312	1041	373	191	1096	117
Arrive On Green	0.08	0.13	0.13	0.12	0.18	0.18	0.18	0.41	0.41	0.11	0.34	0.34
Sat Flow, veh/h	1753	2950	542	3401	3497	1560	1753	2522	905	1753	3188	340
Grp Volume(v), veh/h	42	170	174	320	443	209	48	305	297	154	198	204
Grp Sat Flow(s),veh/h/ln	1753	1749	1743	1700	1749	1560	1753	1749	1678	1753	1749	1779
Q Serve(g_s), s	1.8	7.5	7.7	7.3	9.5	7.4	1.9	9.9	10.1	6.9	6.7	6.8
Cycle Q Clear(g_c), s	1.8	7.5	7.7	7.3	9.5	7.4	1.9	9.9	10.1	6.9	6.7	6.8
Prop In Lane	1.00		0.31	1.00		1.00	1.00		0.54	1.00		0.19
Lane Grp Cap(c), veh/h	132	232	231	411	622	278	312	722	693	191	601	612
V/C Ratio(X)	0.32	0.73	0.75	0.78	0.71	0.75	0.15	0.42	0.43	0.81	0.33	0.33
Avail Cap(c_a), veh/h	132	339	338	531	984	439	312	722	693	296	601	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	33.3	33.4	34.1	30.9	16.7	27.8	16.7	16.8	34.8	19.4	19.5
Incr Delay (d2), s/veh	1.1	3.6	4.3	5.5	1.5	4.1	0.2	1.8	1.9	8.8	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.3	3.4	3.2	4.0	0.3	0.8	4.0	3.9	3.3	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	37.0	37.7	39.7	32.5	20.8	28.0	18.5	18.7	43.6	20.9	20.9
LnGrp LOS	D	D	D	D	C	C	C	B	B	D	C	C
Approach Vol, veh/h		386			972			650			556	
Approach Delay, s/veh		37.2			32.3			19.3			27.2	
Approach LOS		D			C			B			C	

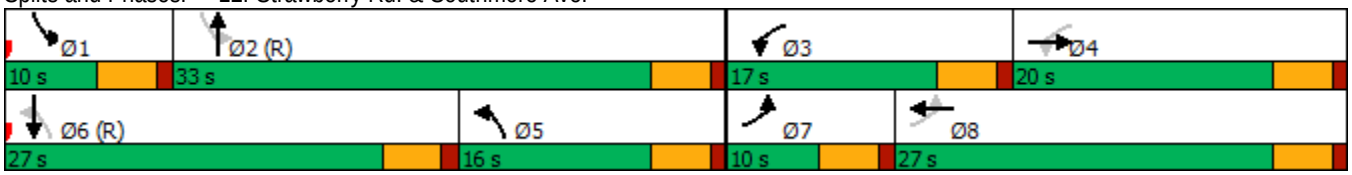
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	37.5	14.2	15.1	18.7	32.0	10.5	18.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	20.5	12.5	15.5	6.5	27.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	8.9	12.1	9.3	9.7	3.9	8.8	3.8	11.5
Green Ext Time (p_c), s	0.1	2.3	0.4	0.9	0.0	2.1	0.0	2.7

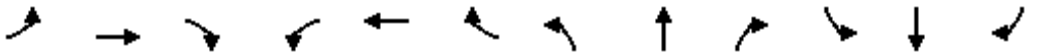
Intersection Summary	
HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	91	413	235	559	220	486	57	504
Future Volume (vph)	91	413	235	559	220	486	57	504
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	17.0	27.0	16.0	33.0	10.0	27.0
Total Split (%)	12.5%	25.0%	21.3%	33.8%	20.0%	41.3%	12.5%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	27.4	14.5	26.5	23.0	35.5	31.8	36.4	24.0
Actuated g/C Ratio	0.34	0.18	0.33	0.29	0.44	0.40	0.46	0.30
v/c Ratio	0.45	0.75	0.74	0.70	0.67	0.57	0.23	0.68
Control Delay	14.8	32.0	23.9	19.9	27.8	14.8	13.3	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	32.0	23.9	19.9	27.8	14.8	13.3	28.2
LOS	B	C	C	B	C	B	B	C
Approach Delay		28.9		21.0		17.9		26.9
Approach LOS		C		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 10 (13%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	413	6	235	559	57	220	486	218	57	504	107
Future Volume (veh/h)	91	413	6	235	559	57	220	486	218	57	504	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	102	464	7	264	628	64	247	546	245	64	566	120
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	245	574	9	381	800	81	489	1010	452	400	808	171
Arrive On Green	0.06	0.16	0.16	0.15	0.25	0.25	0.37	0.86	0.86	0.03	0.28	0.28
Sat Flow, veh/h	1753	3527	53	1753	3205	326	1753	2349	1051	1753	2873	607
Grp Volume(v), veh/h	102	230	241	264	342	350	247	406	385	64	344	342
Grp Sat Flow(s),veh/h/ln	1753	1749	1831	1753	1749	1782	1753	1749	1652	1753	1749	1731
Q Serve(g_s), s	3.4	10.1	10.2	9.8	14.6	14.7	0.0	4.8	4.9	1.6	14.1	14.2
Cycle Q Clear(g_c), s	3.4	10.1	10.2	9.8	14.6	14.7	0.0	4.8	4.9	1.6	14.1	14.2
Prop In Lane	1.00		0.03	1.00		0.18	1.00		0.64	1.00		0.35
Lane Grp Cap(c), veh/h	245	284	298	381	437	445	489	752	710	400	492	487
V/C Ratio(X)	0.42	0.81	0.81	0.69	0.78	0.79	0.51	0.54	0.54	0.16	0.70	0.70
Avail Cap(c_a), veh/h	260	339	355	396	492	501	489	752	710	460	492	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	32.3	32.3	23.3	28.0	28.0	19.4	3.5	3.5	12.1	25.7	25.8
Incr Delay (d2), s/veh	1.1	11.7	11.3	3.2	4.8	4.8	0.8	2.6	2.8	0.2	8.0	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.0	5.2	4.1	6.4	6.5	3.0	1.6	1.5	0.6	6.6	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	43.9	43.6	26.5	32.8	32.9	20.2	6.2	6.3	12.2	33.7	34.0
LnGrp LOS	C	D	D	C	C	C	C	A	A	B	C	C
Approach Vol, veh/h		573			956			1038			750	
Approach Delay, s/veh		40.0			31.1			9.6			32.0	
Approach LOS		D			C			A			C	

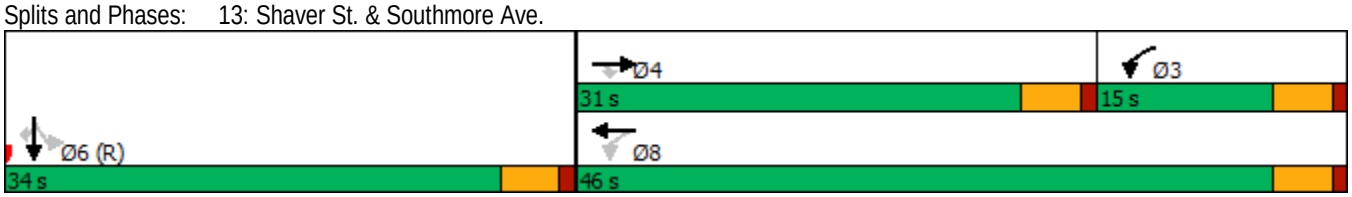
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	38.9	16.3	17.5	19.2	27.0	9.3	24.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	28.5	12.5	15.5	11.5	22.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	3.6	6.9	11.8	12.2	2.0	16.2	5.4	16.7
Green Ext Time (p_c), s	0.0	5.1	0.1	0.9	0.5	2.2	0.0	2.1

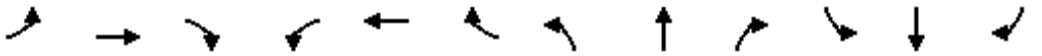
Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	521	123	119	617	152	496	208
Future Volume (vph)	521	123	119	617	152	496	208
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	15.0	46.0	34.0	34.0	34.0
Total Split (%)	38.8%	38.8%	18.8%	57.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	20.6	20.6	30.6	30.6	40.4	40.4	40.4
Actuated g/C Ratio	0.26	0.26	0.38	0.38	0.50	0.50	0.50
v/c Ratio	0.68	0.29	0.49	0.56	0.20	0.33	0.31
Control Delay	26.1	9.5	13.6	8.1	8.8	8.9	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	9.5	13.6	8.1	8.8	8.9	9.6
LOS	C	A	B	A	A	A	A
Approach Delay	22.9			9.0		9.0	
Approach LOS	C			A		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 38 (48%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	521	123	119	617	0	0	0	0	152	496	208
Future Volume (veh/h)	0	521	123	119	617	0	0	0	0	152	496	208
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	606	143	138	717	0				177	577	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	804	358	194	1146	0				981	1958	
Arrive On Green	0.00	0.23	0.23	0.08	0.66	0.00				0.56	0.56	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	606	143	138	717	0				177	577	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	12.9	6.2	0.3	9.6	0.0				4.0	7.0	0.0
Cycle Q Clear(g_c), s	0.0	12.9	6.2	0.3	9.6	0.0				4.0	7.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	804	358	194	1146	0				981	1958	
V/C Ratio(X)	0.00	0.75	0.40	0.71	0.63	0.00				0.18	0.29	
Avail Cap(c_a), veh/h	0	1159	517	351	1814	0				981	1958	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.58	0.58	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	28.7	26.1	34.8	10.9	0.0				8.6	9.3	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.7	2.8	0.3	0.0				0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	2.3	2.6	2.5	0.0				1.4	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.4	26.8	37.6	11.2	0.0				9.0	9.7	0.0
LnGrp LOS	A	C	C	D	B	A				A	A	
Approach Vol, veh/h		749			855						754	A
Approach Delay, s/veh		29.7			15.5						9.5	
Approach LOS		C			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		7.8	22.9		49.3		30.7					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		10.5	26.5		29.5		41.5					
Max Q Clear Time (g_c+I1), s		2.3	14.9		9.0		11.6					
Green Ext Time (p_c), s		0.2	3.5		4.3		5.3					

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

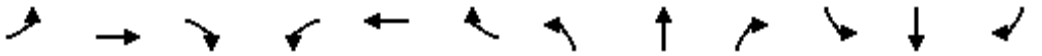
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	95	469	57	549	173	291	750	114	456
Future Volume (vph)	95	469	57	549	173	291	750	114	456
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	25.0	9.0	22.0	22.0	23.0	33.0	13.0	23.0
Total Split (%)	15.0%	31.3%	11.3%	27.5%	27.5%	28.8%	41.3%	16.3%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	19.9	4.8	17.5	17.5	17.5	31.2	8.2	21.9
Actuated g/C Ratio	0.09	0.25	0.06	0.22	0.22	0.22	0.39	0.10	0.27
v/c Ratio	0.67	0.87	0.61	0.80	0.38	0.85	0.66	0.71	0.54
Control Delay	42.9	28.5	59.6	39.9	14.3	52.1	23.7	46.6	30.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	28.5	59.6	39.9	14.3	52.1	23.7	46.6	30.8
LOS	D	C	E	D	B	D	C	D	C
Approach Delay		30.3		35.6			31.3		34.0
Approach LOS		C		D			C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 33 (41%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 32.6	Intersection LOS: C
Intersection Capacity Utilization 73.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	469	236	57	549	173	291	750	44	114	456	4
Future Volume (veh/h)	95	469	236	57	549	173	291	750	44	114	456	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	106	521	262	63	610	192	323	833	49	127	507	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	134	571	286	80	778	347	354	1294	76	159	974	8
Arrive On Green	0.08	0.25	0.25	0.05	0.22	0.22	0.40	0.77	0.77	0.09	0.27	0.27
Sat Flow, veh/h	1753	2255	1130	1753	3497	1560	1753	3356	197	1753	3556	28
Grp Volume(v), veh/h	106	404	379	63	610	192	323	434	448	127	249	262
Grp Sat Flow(s),veh/h/ln	1753	1749	1637	1753	1749	1560	1753	1749	1805	1753	1749	1836
Q Serve(g_s), s	4.8	17.9	18.0	2.8	13.1	8.7	13.9	9.0	9.0	5.7	9.7	9.7
Cycle Q Clear(g_c), s	4.8	17.9	18.0	2.8	13.1	8.7	13.9	9.0	9.0	5.7	9.7	9.7
Prop In Lane	1.00		0.69	1.00		1.00	1.00		0.11	1.00		0.02
Lane Grp Cap(c), veh/h	134	443	415	80	778	347	354	674	696	159	479	503
V/C Ratio(X)	0.79	0.91	0.91	0.79	0.78	0.55	0.91	0.64	0.64	0.80	0.52	0.52
Avail Cap(c_a), veh/h	164	448	420	99	778	347	405	674	696	186	479	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	29.0	29.0	37.8	29.3	27.6	23.2	6.7	6.7	35.7	24.6	24.6
Incr Delay (d2), s/veh	18.6	22.5	24.2	28.0	5.3	1.9	22.7	4.7	4.6	18.8	4.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	9.8	9.5	1.8	5.8	3.3	6.3	2.8	2.8	3.2	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.9	51.5	53.3	65.8	34.6	29.5	45.9	11.4	11.2	54.4	28.6	28.4
LnGrp LOS	D	D	D	E	C	C	D	B	B	D	C	C
Approach Vol, veh/h		889			865			1205			638	
Approach Delay, s/veh		52.6			35.7			20.6			33.7	
Approach LOS		D			D			C			C	

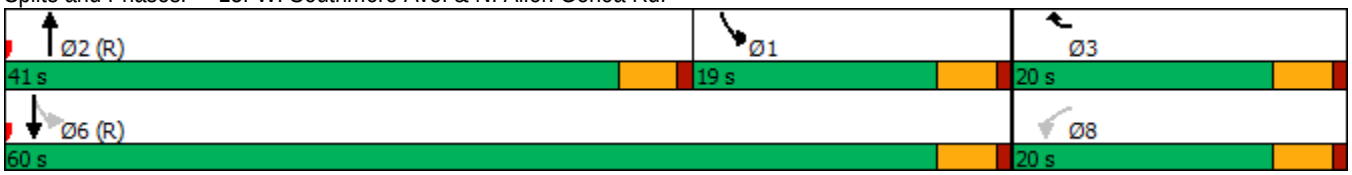
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	35.3	8.2	24.8	20.7	26.4	10.6	22.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	28.5	4.5	20.5	18.5	18.5	7.5	17.5
Max Q Clear Time (g_c+I1), s	7.7	11.0	4.8	20.0	15.9	11.7	6.8	15.1
Green Ext Time (p_c), s	0.0	5.2	0.0	0.3	0.3	1.6	0.0	1.1

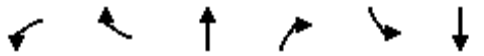
Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	90	330	1097	244	485
Future Volume (vph)	90	330	1097	244	485
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	41.0	19.0	60.0
Total Split (%)	25.0%	25.0%	51.3%	23.8%	75.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.2	10.2	41.8	60.8	60.8
Actuated g/C Ratio	0.13	0.13	0.52	0.76	0.76
v/c Ratio	0.44	0.74	0.67	0.58	0.21
Control Delay	15.6	17.6	9.1	21.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	17.6	9.1	21.1	3.3
LOS	B	B	A	C	A
Approach Delay	17.1		9.1		9.3
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.



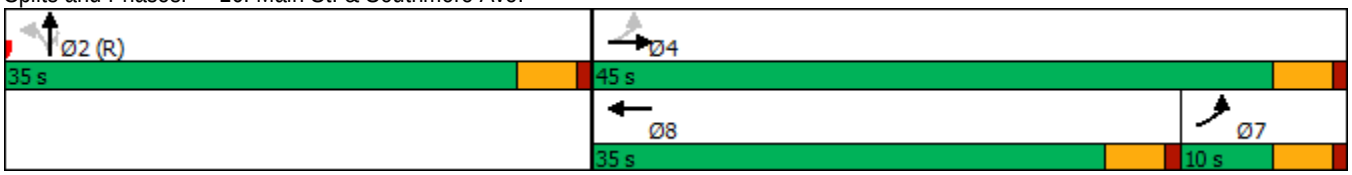


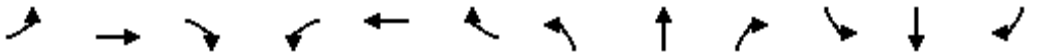
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	90	330	1097	22	244	485		
Future Volume (veh/h)	90	330	1097	22	244	485		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No		No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841		
Adj Flow Rate, veh/h	98	359	1192	24	265	527		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	4	4	4	4	4	4		
Cap, veh/h	340	302	1600	32	476	2426		
Arrive On Green	0.19	0.19	0.46	0.46	0.18	0.69		
Sat Flow, veh/h	1753	1560	3598	71	1753	3589		
Grp Volume(v), veh/h	98	359	594	622	265	527		
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1828	1753	1749		
Q Serve(g_s), s	3.8	15.5	22.4	22.4	3.2	4.3		
Cycle Q Clear(g_c), s	3.8	15.5	22.4	22.4	3.2	4.3		
Prop In Lane	1.00	1.00		0.04	1.00			
Lane Grp Cap(c), veh/h	340	302	798	834	476	2426		
V/C Ratio(X)	0.29	1.19	0.74	0.75	0.56	0.22		
Avail Cap(c_a), veh/h	340	302	798	834	476	2426		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.88	0.88	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	27.5	32.3	17.9	17.9	25.6	4.4		
Incr Delay (d2), s/veh	0.4	110.0	6.3	6.0	1.4	0.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.6	14.7	9.5	9.8	4.2	1.2		
Unsig. Movement Delay, s/veh								
LnGrp Delay(d),s/veh	27.9	142.2	24.2	23.9	27.0	4.6		
LnGrp LOS	C	F	C	C	C	A		
Approach Vol, veh/h	457		1216			792		
Approach Delay, s/veh	117.7		24.0			12.1		
Approach LOS	F		C			B		
Timer - Assigned Phs	1	2				6	8	
Phs Duration (G+Y+Rc), s	19.0	41.0				60.0	20.0	
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5	
Max Green Setting (Gmax), s	14.5	36.5				55.5	15.5	
Max Q Clear Time (g_c+I1), s	5.2	24.4				6.3	17.5	
Green Ext Time (p_c), s	0.5	6.1				3.9	0.0	
Intersection Summary								
HCM 6th Ctrl Delay			37.6					
HCM 6th LOS			D					

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	80	564	569	786	154
Future Volume (vph)	80	564	569	786	154
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	45.0	35.0	35.0	35.0
Total Split (%)	12.5%	56.3%	43.8%	43.8%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	34.8	33.7	25.4	37.3	37.3
Actuated g/C Ratio	0.44	0.42	0.32	0.47	0.47
v/c Ratio	0.35	0.46	0.75	0.47	0.22
Control Delay	8.8	11.5	11.1	17.0	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	11.5	11.1	17.0	4.4
LOS	A	B	B	B	A
Approach Delay		11.2	11.1	15.2	
Approach LOS		B	B	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



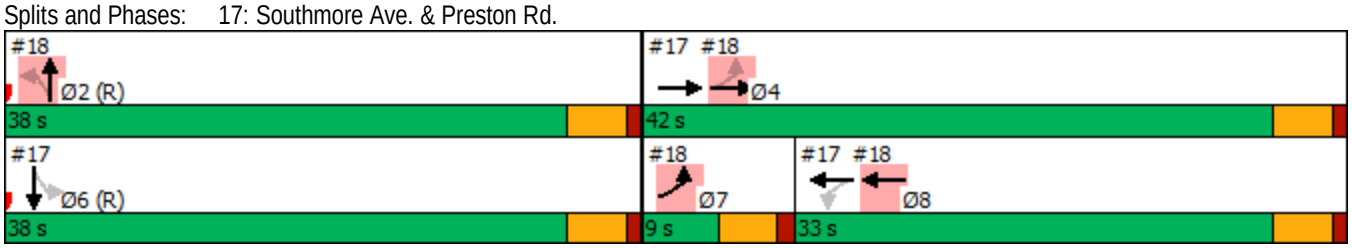


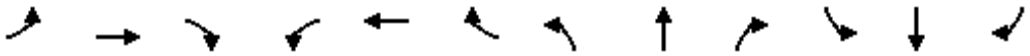
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	564	0	0	569	124	163	786	154	0	0	0
Future Volume (veh/h)	80	564	0	0	569	124	163	786	154	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	92	648	0	0	654	143	187	903	177			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	189	1328	0	0	814	178	422	2193	792			
Arrive On Green	0.08	0.76	0.00	0.00	0.29	0.29	0.51	0.51	0.51			
Sat Flow, veh/h	1753	3589	0	0	2946	623	831	4318	1560			
Grp Volume(v), veh/h	92	648	0	0	400	397	405	685	177			
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1729	1799	1675	1560			
Q Serve(g_s), s	0.0	5.7	0.0	0.0	17.0	17.0	11.4	10.1	5.0			
Cycle Q Clear(g_c), s	0.0	5.7	0.0	0.0	17.0	17.0	11.4	10.1	5.0			
Prop In Lane	1.00		0.00	0.00		0.36	0.46		1.00			
Lane Grp Cap(c), veh/h	189	1328	0	0	499	493	914	1701	792			
V/C Ratio(X)	0.49	0.49	0.00	0.00	0.80	0.80	0.44	0.40	0.22			
Avail Cap(c_a), veh/h	242	1771	0	0	667	659	914	1701	792			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.80	0.80	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	34.9	6.7	0.0	0.0	26.5	26.5	12.5	12.2	10.9			
Incr Delay (d2), s/veh	1.6	0.2	0.0	0.0	5.2	5.3	1.6	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	1.5	0.0	0.0	7.3	7.3	4.5	3.5	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	6.9	0.0	0.0	31.7	31.8	14.1	12.9	11.6			
LnGrp LOS	D	A	A	A	C	C	B	B	B			
Approach Vol, veh/h		740			797			1267				
Approach Delay, s/veh		10.6			31.8			13.1				
Approach LOS		B			C			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		45.1		34.9			7.5	27.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		30.5		40.5			5.5	30.5				
Max Q Clear Time (g_c+I1), s		13.4		7.7			2.0	19.0				
Green Ext Time (p_c), s		7.3		4.8			0.1	3.8				
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	391	112	397	675		
Future Volume (vph)	391	112	397	675		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	42.0	33.0	33.0	38.0	38.0	9.0
Total Split (%)	52.5%	41.3%	41.3%	47.5%	48%	11%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lag	Lag			Lead
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	30.2	21.2	21.2	40.8		
Actuated g/C Ratio	0.38	0.26	0.26	0.51		
v/c Ratio	0.48	0.62	0.51	0.59		
Control Delay	24.4	28.3	18.9	11.7		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	24.4	28.3	18.9	11.7		
LOS	C	C	B	B		
Approach Delay	24.4		20.9	11.7		
Approach LOS	C		C	B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





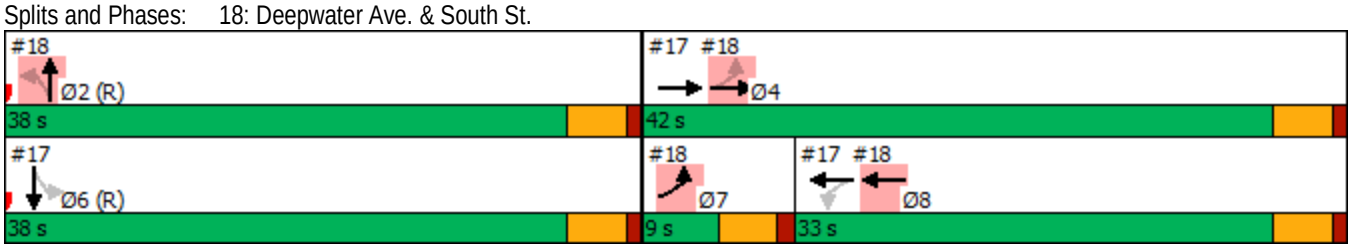
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	391	141	112	397	0	0	0	0	43	675	182
Future Volume (vph)	0	391	141	112	397	0	0	0	0	43	675	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.96		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3222		1736	3355						3358	
Flt Permitted		1.00		0.42	1.00						1.00	
Satd. Flow (perm)		3222		774	3355						3358	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	444	160	127	451	0	0	0	0	49	767	207
RTOR Reduction (vph)	0	54	0	0	0	0	0	0	0	0	24	0
Lane Group Flow (vph)	0	550	0	127	451	0	0	0	0	0	999	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		30.2		21.2	21.2						40.8	
Effective Green, g (s)		30.2		21.2	21.2						40.8	
Actuated g/C Ratio		0.38		0.26	0.26						0.51	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1216		205	889						1712	
v/s Ratio Prot		c0.17			0.13							
v/s Ratio Perm				c0.16							0.30	
v/c Ratio		0.45		0.62	0.51						0.58	
Uniform Delay, d1		18.7		25.9	25.0						13.7	
Progression Factor		1.53		0.63	0.71						0.74	
Incremental Delay, d2		0.3		5.2	0.4						1.0	
Delay (s)		28.8		21.4	18.0						11.1	
Level of Service		C		C	B						B	
Approach Delay (s)		28.8			18.8			0.0			11.1	
Approach LOS		C			B			A			B	

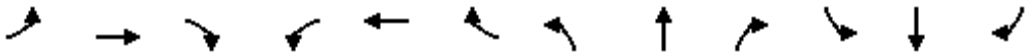
Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	123	289	377	606	
Future Volume (vph)	123	289	377	606	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	42.0	33.0	38.0	38.0
Total Split (%)	11.3%	52.5%	41.3%	47.5%	48%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.2	30.2	21.2	40.8	
Actuated g/C Ratio	0.38	0.38	0.26	0.51	
v/c Ratio	0.50	0.26	0.52	0.38	
Control Delay	11.6	3.7	25.6	13.1	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	11.6	3.7	25.6	13.1	
LOS	B	A	C	B	
Approach Delay		6.0	25.6	13.1	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





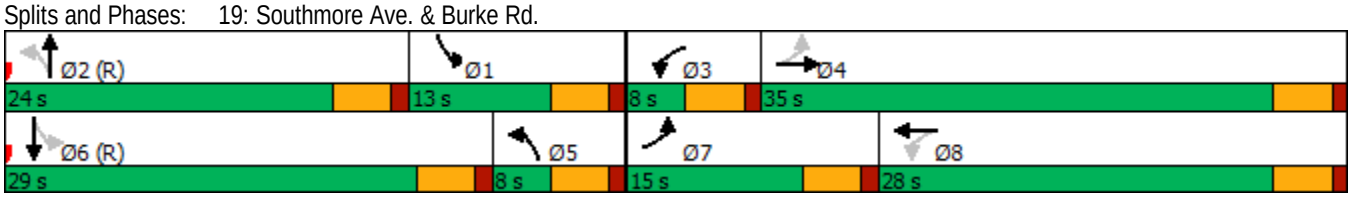
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	289	0	0	377	34	118	606	93	0	0	0
Future Volume (vph)	123	289	0	0	377	34	118	606	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.98				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3200			4543				
Flt Permitted	0.32	1.00			1.00			0.99				
Satd. Flow (perm)	552	3240			3200			4543				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	314	0	0	410	37	128	659	101	0	0	0
RTOR Reduction (vph)	0	0	0	0	10	0	0	17	0	0	0	0
Lane Group Flow (vph)	134	314	0	0	437	0	0	871	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	30.2	30.2			21.2			40.8				
Effective Green, g (s)	30.2	30.2			21.2			40.8				
Actuated g/C Ratio	0.38	0.38			0.26			0.51				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	268	1223			848			2316				
v/s Ratio Prot	c0.03	0.10			0.14							
v/s Ratio Perm	c0.16							0.19				
v/c Ratio	0.50	0.26			0.52			0.38				
Uniform Delay, d1	17.5	17.2			25.0			11.9				
Progression Factor	0.35	0.20			1.00			1.00				
Incremental Delay, d2	1.4	0.1			0.5			0.5				
Delay (s)	7.5	3.5			25.6			12.4				
Level of Service	A	A			C			B				
Approach Delay (s)		4.7			25.6			12.4			0.0	
Approach LOS		A			C			B			A	

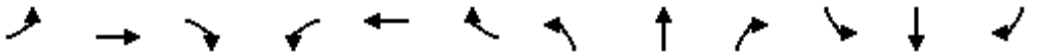
Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	126	353	38	401	48	198	151	216
Future Volume (vph)	126	353	38	401	48	198	151	216
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	35.0	8.0	28.0	8.0	24.0	13.0	29.0
Total Split (%)	18.8%	43.8%	10.0%	35.0%	10.0%	30.0%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	34.3	29.5	24.4	20.0	28.4	24.9	36.7	31.9
Actuated g/C Ratio	0.43	0.37	0.30	0.25	0.36	0.31	0.46	0.40
v/c Ratio	0.49	0.40	0.15	0.75	0.19	0.27	0.35	0.32
Control Delay	14.2	13.4	8.4	20.2	17.9	17.9	22.7	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	13.4	8.4	20.2	17.9	17.9	22.7	13.0
LOS	B	B	A	C	B	B	C	B
Approach Delay		13.6		19.4		17.9		15.8
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 15 (19%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 16.6	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	353	44	38	401	131	48	198	34	151	216	154
Future Volume (veh/h)	126	353	44	38	401	131	48	198	34	151	216	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	150	420	52	45	477	156	57	236	40	180	257	183
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	281	895	110	298	593	193	471	731	122	637	607	417
Arrive On Green	0.09	0.29	0.29	0.03	0.23	0.23	0.15	0.24	0.24	0.07	0.10	0.10
Sat Flow, veh/h	1753	3134	386	1753	2595	843	1753	2998	501	1753	1982	1362
Grp Volume(v), veh/h	150	233	239	45	320	313	57	136	140	180	226	214
Grp Sat Flow(s),veh/h/ln	1753	1749	1771	1753	1749	1689	1753	1749	1751	1753	1749	1596
Q Serve(g_s), s	4.9	8.8	8.9	1.6	13.8	14.0	0.0	5.1	5.3	0.0	9.7	10.1
Cycle Q Clear(g_c), s	4.9	8.8	8.9	1.6	13.8	14.0	0.0	5.1	5.3	0.0	9.7	10.1
Prop In Lane	1.00		0.22	1.00		0.50	1.00		0.29	1.00		0.85
Lane Grp Cap(c), veh/h	281	499	506	298	400	386	471	426	427	637	536	489
V/C Ratio(X)	0.53	0.47	0.47	0.15	0.80	0.81	0.12	0.32	0.33	0.28	0.42	0.44
Avail Cap(c_a), veh/h	362	667	675	325	514	496	471	426	427	637	536	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.67	0.67	0.67	0.85	0.85	0.85	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	21.1	23.6	23.6	22.8	29.1	29.2	22.6	24.8	24.9	23.4	29.3	29.5
Incr Delay (d2), s/veh	1.1	0.5	0.5	0.2	5.9	6.6	0.1	2.0	2.0	0.2	1.8	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.5	3.6	0.6	6.2	6.1	0.8	2.3	2.3	2.9	4.6	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.2	24.0	24.1	23.0	35.1	35.8	22.7	26.8	26.9	23.6	31.1	31.7
LnGrp LOS	C	C	C	C	D	D	C	C	C	C	C	C
Approach Vol, veh/h		622			678			333			620	
Approach Delay, s/veh		23.6			34.6			26.1			29.1	
Approach LOS		C			C			C			C	

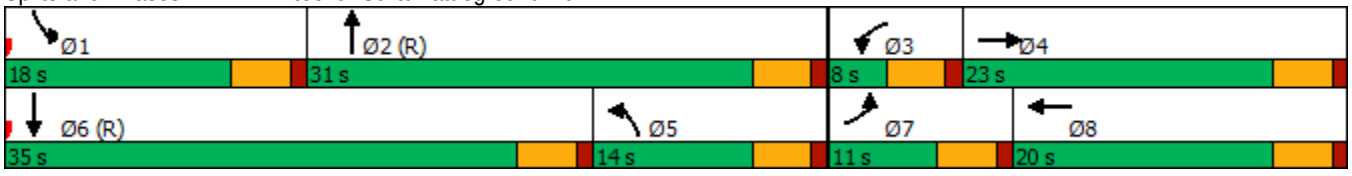
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	24.0	6.8	27.3	16.9	29.0	11.3	22.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	19.5	3.5	30.5	3.5	24.5	10.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	7.3	3.6	10.9	2.0	12.1	6.9	16.0
Green Ext Time (p_c), s	0.2	1.1	0.0	2.6	0.0	2.1	0.1	2.3

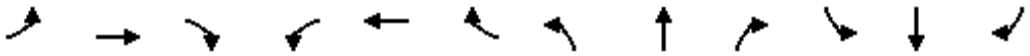
Intersection Summary	
HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	70	15	4	5	80	755	165	665
Future Volume (vph)	70	15	4	5	80	755	165	665
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	23.0	8.0	20.0	14.0	31.0	18.0	35.0
Total Split (%)	13.8%	28.8%	10.0%	25.0%	17.5%	38.8%	22.5%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.3	11.2	3.5	6.0	8.7	42.5	13.2	49.9
Actuated g/C Ratio	0.08	0.14	0.04	0.08	0.11	0.53	0.16	0.62
v/c Ratio	0.54	0.15	0.05	0.16	0.45	0.45	0.62	0.35
Control Delay	53.6	12.7	38.2	15.8	34.6	12.8	39.8	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	12.7	38.2	15.8	34.6	12.8	39.8	10.9
LOS	D	B	D	B	C	B	D	B
Approach Delay		33.6		17.8		14.9		16.4
Approach LOS		C		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 54 (68%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	15	52	4	5	34	80	755	18	165	665	38
Future Volume (veh/h)	70	15	52	4	5	34	80	755	18	165	665	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	16	55	4	5	36	85	803	19	176	707	40
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	189	168	7	101	90	494	1889	45	214	1283	73
Arrive On Green	0.05	0.11	0.11	0.00	0.06	0.06	0.28	0.54	0.54	0.12	0.38	0.38
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3492	83	1753	3365	190
Grp Volume(v), veh/h	74	16	55	4	5	36	85	402	420	176	367	380
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1826	1753	1749	1806
Q Serve(g_s), s	3.3	0.7	2.6	0.2	0.2	1.8	2.9	11.0	11.0	7.8	13.2	13.2
Cycle Q Clear(g_c), s	3.3	0.7	2.6	0.2	0.2	1.8	2.9	11.0	11.0	7.8	13.2	13.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.11
Lane Grp Cap(c), veh/h	95	189	168	7	101	90	494	946	988	214	667	689
V/C Ratio(X)	0.78	0.08	0.33	0.61	0.05	0.40	0.17	0.42	0.43	0.82	0.55	0.55
Avail Cap(c_a), veh/h	142	404	361	77	339	302	494	946	988	296	667	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	32.1	33.0	39.8	35.6	36.4	21.7	10.9	10.9	34.3	19.4	19.4
Incr Delay (d2), s/veh	14.2	0.2	1.1	68.0	0.2	2.8	0.2	1.4	1.3	12.2	3.3	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.3	1.0	0.2	0.1	0.7	1.1	3.8	4.0	3.8	5.3	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	32.3	34.1	107.8	35.8	39.2	21.8	12.3	12.3	46.5	22.6	22.6
LnGrp LOS	D	C	C	F	D	D	C	B	B	D	C	C
Approach Vol, veh/h		145			45			907			923	
Approach Delay, s/veh		42.8			44.9			13.2			27.1	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	47.8	4.8	13.1	27.1	35.0	8.8	9.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	26.5	3.5	18.5	9.5	30.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	9.8	13.0	2.2	4.6	4.9	15.2	5.3	3.8
Green Ext Time (p_c), s	0.1	3.9	0.0	0.2	0.1	3.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

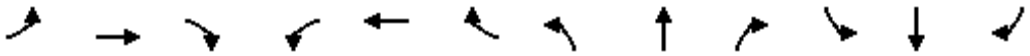
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	142	145	307	230	239	1218	130	948
Future Volume (vph)	142	145	307	230	239	1218	130	948
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	30.0	30.0	30.0	30.0	16.0	39.0	11.0	34.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	20.0%	48.8%	13.8%	42.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		25.0		25.0	11.0	34.0	6.0	29.0
Actuated g/C Ratio		0.31		0.31	0.14	0.42	0.08	0.36
v/c Ratio		0.74		1.23dl	1.08	1.02	1.08	0.96
Control Delay		27.6		90.0	77.1	30.3	140.5	43.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		27.6		90.0	77.1	30.3	140.5	43.7
LOS		C		F	E	C	F	D
Approach Delay		27.6		90.0		37.2		53.8
Approach LOS		C		F		D		D

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 53 (66%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 50.6	Intersection LOS: D
Intersection Capacity Utilization 101.7%	ICU Level of Service G
Analysis Period (min) 15	

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	145	138	307	230	166	239	1218	171	130	948	168
Future Volume (veh/h)	142	145	138	307	230	166	239	1218	171	130	948	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	153	156	148	330	247	178	257	1310	184	140	1019	181
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	138	235	268	261	282	213	241	1310	183	131	1076	191
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.14	0.43	0.43	0.08	0.36	0.36
Sat Flow, veh/h	185	753	859	554	904	682	1753	3082	430	1753	2968	526
Grp Volume(v), veh/h	195	0	262	350	0	405	257	739	755	140	600	600
Grp Sat Flow(s),veh/h/ln	276	0	1520	588	0	1552	1753	1749	1763	1753	1749	1746
Q Serve(g_s), s	5.6	0.0	11.4	13.6	0.0	19.4	11.0	33.7	34.0	6.0	26.6	26.7
Cycle Q Clear(g_c), s	25.0	0.0	11.4	25.0	0.0	19.4	11.0	33.7	34.0	6.0	26.6	26.7
Prop In Lane	0.78		0.56	0.94		0.44	1.00		0.24	1.00		0.30
Lane Grp Cap(c), veh/h	167	0	475	271	0	485	241	743	749	131	634	633
V/C Ratio(X)	1.17	0.00	0.55	1.29	0.00	0.84	1.07	0.99	1.01	1.06	0.95	0.95
Avail Cap(c_a), veh/h	167	0	475	271	0	485	241	743	749	131	634	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.64	0.00	0.64	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	0.0	22.8	35.4	0.0	25.6	34.5	22.9	23.0	37.0	24.7	24.8
Incr Delay (d2), s/veh	122.8	0.0	1.4	147.5	0.0	8.0	38.2	8.8	11.6	96.9	24.7	25.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	0.0	4.1	16.3	0.0	7.9	7.0	13.9	14.7	6.0	14.2	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	159.7	0.0	24.2	182.9	0.0	33.6	72.7	31.7	34.6	133.9	49.4	49.9
LnGrp LOS	F	A	C	F	A	C	F	C	F	F	D	D
Approach Vol, veh/h		457			755			1751			1340	
Approach Delay, s/veh		82.0			102.8			39.0			58.5	
Approach LOS		F			F			D			E	

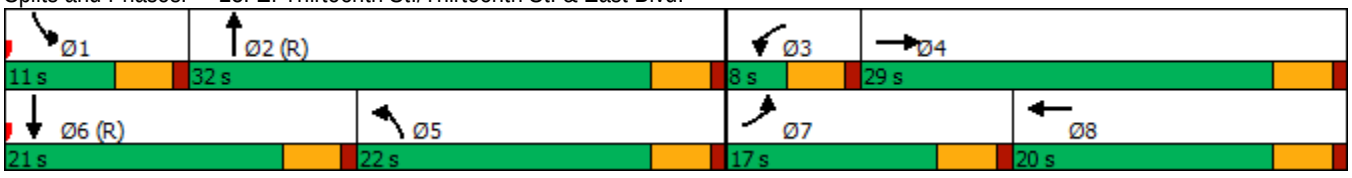
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	39.0		30.0	16.0	34.0		30.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	6.0	34.0		25.0	11.0	29.0		25.0				
Max Q Clear Time (g_c+I1), s	8.0	36.0		27.0	13.0	28.7		27.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.2		0.0				

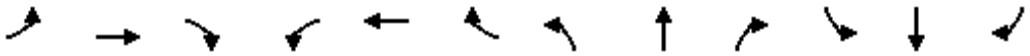
Intersection Summary			
HCM 6th Ctrl Delay		60.8	
HCM 6th LOS		E	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	137	96	8	71	192	541	52	353
Future Volume (vph)	137	96	8	71	192	541	52	353
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	17.0	29.0	8.0	20.0	22.0	32.0	11.0	21.0
Total Split (%)	21.3%	36.3%	10.0%	25.0%	27.5%	40.0%	13.8%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.0	19.2	3.5	7.3	17.5	41.9	8.1	28.2
Actuated g/C Ratio	0.14	0.24	0.04	0.09	0.22	0.52	0.10	0.35
v/c Ratio	0.63	0.32	0.12	0.29	0.57	0.38	0.33	0.42
Control Delay	34.7	6.4	57.2	15.5	21.7	9.5	37.8	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	6.4	57.2	15.5	21.7	9.5	37.8	20.6
LOS	C	A	E	B	C	A	D	C
Approach Delay		16.3		19.2		12.4		22.3
Approach LOS		B		B		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 6 (8%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 16.4	Intersection LOS: B
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	96	159	8	71	14	192	541	76	52	353	107
Future Volume (veh/h)	137	96	159	8	71	14	192	541	76	52	353	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	105	175	9	78	15	211	595	84	57	388	118
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	187	282	252	14	184	34	700	1737	245	72	547	164
Arrive On Green	0.11	0.16	0.16	0.01	0.06	0.06	0.40	0.56	0.56	0.04	0.21	0.21
Sat Flow, veh/h	1753	1749	1560	1753	2940	551	1753	3078	434	1753	2650	796
Grp Volume(v), veh/h	151	105	175	9	46	47	211	337	342	57	254	252
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1742	1753	1749	1763	1753	1749	1697
Q Serve(g_s), s	6.7	4.3	8.5	0.4	2.0	2.1	6.6	8.3	8.4	2.6	10.8	11.0
Cycle Q Clear(g_c), s	6.7	4.3	8.5	0.4	2.0	2.1	6.6	8.3	8.4	2.6	10.8	11.0
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.25	1.00		0.47
Lane Grp Cap(c), veh/h	187	282	252	14	109	109	700	987	995	72	361	350
V/C Ratio(X)	0.81	0.37	0.69	0.65	0.42	0.44	0.30	0.34	0.34	0.79	0.71	0.72
Avail Cap(c_a), veh/h	274	536	478	77	339	337	700	987	995	142	361	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	29.9	31.7	39.6	36.1	36.1	16.4	9.4	9.4	38.0	29.5	29.6
Incr Delay (d2), s/veh	8.5	0.6	2.7	38.8	2.4	2.6	0.2	0.9	0.9	17.0	11.0	12.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.8	3.3	0.3	0.9	1.0	2.4	2.9	2.9	1.4	5.4	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	30.6	34.4	78.4	38.5	38.7	16.6	10.3	10.4	55.0	40.5	41.6
LnGrp LOS	D	C	C	E	D	D	B	B	B	E	D	D
Approach Vol, veh/h		431			102			890			563	
Approach Delay, s/veh		36.6			42.1			11.8			42.5	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	49.7	5.1	17.4	36.5	21.0	13.1	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	27.5	3.5	24.5	17.5	16.5	12.5	15.5
Max Q Clear Time (g_c+I1), s	4.6	10.4	2.4	10.5	8.6	13.0	8.7	4.1
Green Ext Time (p_c), s	0.0	3.6	0.0	1.4	0.4	0.9	0.1	0.3

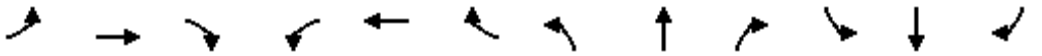
Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	292	109	419	312	131	93	119
Future Volume (vph)	6	292	109	419	312	131	93	119
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	27.0	27.0	53.0	53.0	53.0	53.0
Total Split (%)	33.8%	33.8%	33.8%	33.8%	66.3%	66.3%	66.3%	66.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	21.7	21.7	21.7	21.7		49.3		49.3
Actuated g/C Ratio	0.27	0.27	0.27	0.27		0.62		0.62
v/c Ratio	0.07	0.58	0.95	0.70		0.91		0.39
Control Delay	25.5	23.8	91.0	22.8		29.0		9.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	25.5	23.8	91.0	22.8		29.0		9.8
LOS	C	C	F	C		C		A
Approach Delay		23.8		34.6		29.0		9.8
Approach LOS		C		C		C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 63 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 27.3	Intersection LOS: C
Intersection Capacity Utilization 79.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	292	159	109	419	104	312	131	102	93	119	13
Future Volume (veh/h)	6	292	159	109	419	104	312	131	102	93	119	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	8	370	201	138	530	132	395	166	129	118	151	16
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	619	331	200	781	194	549	201	156	396	486	49
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	761	2201	1177	828	2777	689	788	331	257	548	802	80
Grp Volume(v), veh/h	8	293	278	138	333	329	690	0	0	285	0	0
Grp Sat Flow(s),veh/h/ln	761	1749	1629	828	1749	1717	1377	0	0	1430	0	0
Q Serve(g_s), s	0.8	11.6	11.8	10.7	13.5	13.6	24.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.4	11.6	11.8	22.5	13.5	13.6	31.6	0.0	0.0	7.0	0.0	0.0
Prop In Lane	1.00		0.72	1.00		0.40	0.57		0.19	0.41		0.06
Lane Grp Cap(c), veh/h	174	492	458	200	492	483	906	0	0	931	0	0
V/C Ratio(X)	0.05	0.60	0.61	0.69	0.68	0.68	0.76	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	174	492	458	200	492	483	906	0	0	931	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	0.87	0.87	0.87	0.79	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.0	24.8	24.9	35.7	25.5	25.6	12.4	0.0	0.0	7.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	1.1	8.4	3.2	3.4	4.8	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.7	4.5	3.1	5.8	5.8	9.3	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	25.7	26.0	44.1	28.7	29.0	17.2	0.0	0.0	8.3	0.0	0.0
LnGrp LOS	C	C	C	D	C	C	B	A	A	A	A	A
Approach Vol, veh/h		579			800			690			285	
Approach Delay, s/veh		25.9			31.5			17.2			8.3	
Approach LOS		C			C			B			A	

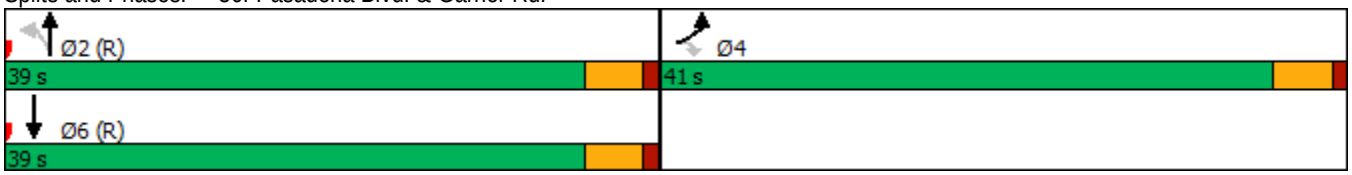
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.0		27.0		53.0		27.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		48.5		22.5		48.5		22.5				
Max Q Clear Time (g_c+I1), s		33.6		16.4		9.0		24.5				
Green Ext Time (p_c), s		4.7		1.9		2.1		0.0				

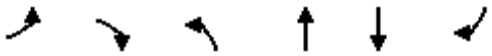
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Lane Group	Ø2	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	2	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0
Total Split (%)	49%	51%	49%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	2	2	0	3301	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1560	0	3681	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1560	0	1749	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	2	2	0	3301	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	800	712	0	3301	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0			0	0	
Approach Delay, s/veh	0.0			0.0	0.0	
Approach LOS						

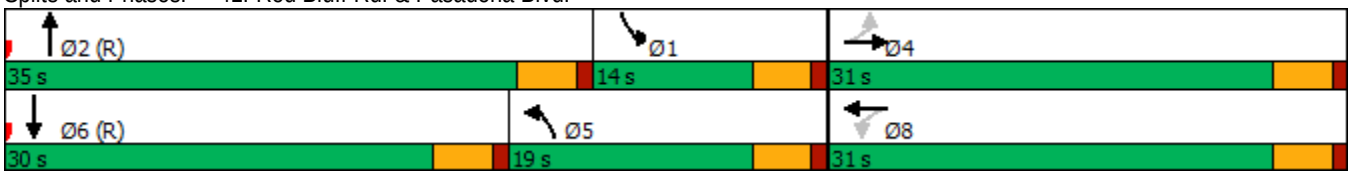
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		34.5		36.5		34.5
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0
Green Ext Time (p_c), s		0.0		0.0		0.0

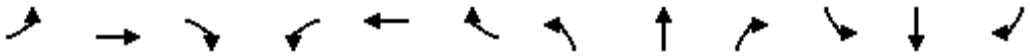
Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	334	14	443	143	835	98	637
Future Volume (vph)	334	14	443	143	835	98	637
Turn Type	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8					
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	31.0	31.0	31.0	19.0	35.0	14.0	30.0
Total Split (%)	38.8%	38.8%	38.8%	23.8%	43.8%	17.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lead	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	23.0		23.0	13.0	36.9	8.7	30.5
Actuated g/C Ratio	0.29		0.29	0.16	0.46	0.11	0.38
v/c Ratio	0.51		0.80	0.58	0.62	0.58	0.55
Control Delay	15.9		22.3	42.7	14.8	46.5	22.7
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	15.9		22.3	42.7	14.8	46.5	22.7
LOS	B		C	D	B	D	C
Approach Delay	15.9		22.3		18.7		25.8
Approach LOS	B		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 17 (21%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	334	109	14	443	222	143	835	28	98	637	11
Future Volume (veh/h)	0	334	109	14	443	222	143	835	28	98	637	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	371	121	16	492	247	159	928	0	109	708	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	714	230	55	599	295	418	1333		308	1115	
Arrive On Green	0.00	0.27	0.27	0.27	0.27	0.27	0.24	0.38	0.00	0.18	0.32	0.00
Sat Flow, veh/h	0	2694	837	30	2185	1076	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	0	248	244	415	0	340	159	928	0	109	708	0
Grp Sat Flow(s),veh/h/ln	0	1749	1690	1809	0	1481	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	9.6	9.8	4.7	0.0	17.3	6.1	17.9	0.0	4.4	13.8	0.0
Cycle Q Clear(g_c), s	0.0	9.6	9.8	17.1	0.0	17.3	6.1	17.9	0.0	4.4	13.8	0.0
Prop In Lane	0.00		0.50	0.04		0.73	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	480	464	543	0	406	418	1333		308	1115	
V/C Ratio(X)	0.00	0.52	0.53	0.76	0.00	0.84	0.38	0.70		0.35	0.64	
Avail Cap(c_a), veh/h	0	579	560	644	0	491	418	1333		308	1115	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	24.5	24.6	27.2	0.0	27.3	25.5	20.8	0.0	29.0	23.3	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.9	4.6	0.0	10.3	0.6	3.0	0.0	0.7	2.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	3.8	7.5	0.0	6.8	2.5	7.4	0.0	1.9	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.4	25.6	31.8	0.0	37.7	26.1	23.9	0.0	29.7	26.0	0.0
LnGrp LOS	A	C	C	C	A	D	C	C		C	C	
Approach Vol, veh/h		492			755			1087	A		817	A
Approach Delay, s/veh		25.5			34.4			24.2			26.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.6	35.0		26.4	23.6	30.0		26.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	30.5		26.5	14.5	25.5		26.5				
Max Q Clear Time (g_c+I1), s	6.4	19.9		11.8	8.1	15.8		19.3				
Green Ext Time (p_c), s	0.1	4.7		2.4	0.2	3.4		2.6				

Intersection Summary			
HCM 6th Ctrl Delay		27.5	
HCM 6th LOS		C	

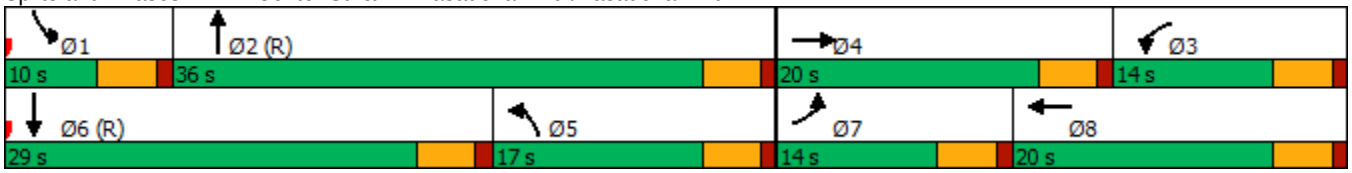
Notes

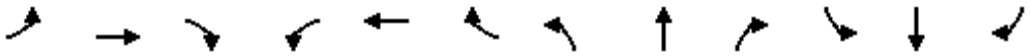
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	248	357	263	439	260	1381	164	980
Future Volume (vph)	248	357	263	439	260	1381	164	980
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	20.0	14.0	20.0	17.0	36.0	10.0	29.0
Total Split (%)	17.5%	25.0%	17.5%	25.0%	21.3%	45.0%	12.5%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.5	14.9	10.1	15.5	12.5	31.5	5.5	24.5
Actuated g/C Ratio	0.12	0.19	0.13	0.19	0.16	0.39	0.07	0.31
v/c Ratio	1.34	0.89	1.29	1.06	1.07	1.27	1.48	1.06
Control Delay	211.2	30.2	177.0	56.7	82.4	144.5	258.9	57.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	211.2	30.2	177.0	56.7	82.4	144.5	258.9	57.2
LOS	F	C	F	E	F	F	F	E
Approach Delay		79.7		88.1		135.6		84.6
Approach LOS		E		F		F		F

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 64 (80%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.48	
Intersection Signal Delay: 103.1	Intersection LOS: F
Intersection Capacity Utilization 108.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	357	302	263	439	307	260	1381	170	164	980	62
Future Volume (veh/h)	248	357	302	263	439	307	260	1381	170	164	980	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	267	384	325	283	472	330	280	1485	183	176	1054	67
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	208	350	293	208	382	266	274	1236	151	121	1023	65
Arrive On Green	0.12	0.19	0.19	0.12	0.19	0.19	0.16	0.39	0.39	0.07	0.31	0.31
Sat Flow, veh/h	1753	1805	1512	1753	1970	1372	1753	3138	383	1753	3339	212
Grp Volume(v), veh/h	267	372	337	283	419	383	280	820	848	176	552	569
Grp Sat Flow(s),veh/h/ln	1753	1749	1569	1753	1749	1594	1753	1749	1772	1753	1749	1803
Q Serve(g_s), s	9.5	15.5	15.5	9.5	15.5	15.5	12.5	31.5	31.5	5.5	24.5	24.5
Cycle Q Clear(g_c), s	9.5	15.5	15.5	9.5	15.5	15.5	12.5	31.5	31.5	5.5	24.5	24.5
Prop In Lane	1.00		0.96	1.00		0.86	1.00		0.22	1.00		0.12
Lane Grp Cap(c), veh/h	208	339	304	208	339	309	274	689	698	121	536	552
V/C Ratio(X)	1.28	1.10	1.11	1.36	1.24	1.24	1.02	1.19	1.21	1.46	1.03	1.03
Avail Cap(c_a), veh/h	208	339	304	208	339	309	274	689	698	121	536	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	0.09	0.09	0.09	0.18	0.18	0.18
Uniform Delay (d), s/veh	35.2	32.3	32.3	35.2	32.3	32.3	33.7	24.3	24.3	37.3	27.7	27.8
Incr Delay (d2), s/veh	158.6	77.6	84.3	176.2	118.2	121.4	22.2	87.7	98.0	215.3	25.0	24.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	13.4	12.6	14.0	17.3	16.0	6.7	28.3	30.6	9.5	13.2	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	193.9	109.9	116.6	211.4	150.4	153.6	56.0	111.9	122.2	252.6	52.7	52.6
LnGrp LOS	F	F	F	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h		976			1085			1948			1297	
Approach Delay, s/veh		135.2			167.5			108.4			79.8	
Approach LOS		F			F			F			E	

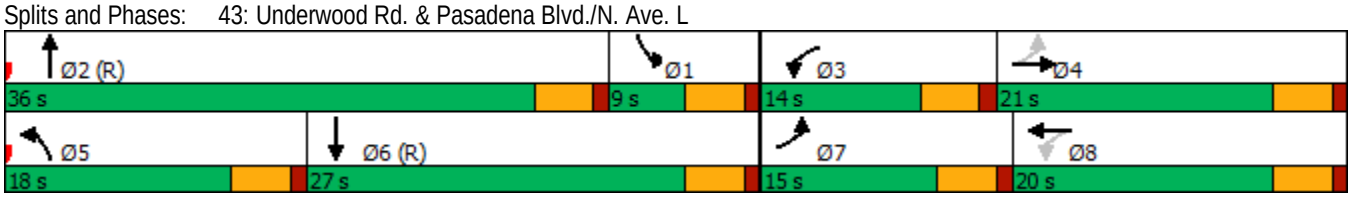
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	36.0	14.0	20.0	17.0	29.0	14.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	31.5	9.5	15.5	12.5	24.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	7.5	33.5	11.5	17.5	14.5	26.5	11.5	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

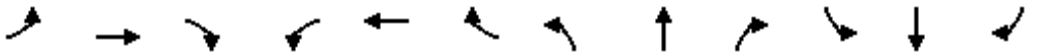
Intersection Summary	
HCM 6th Ctrl Delay	118.4
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	229	188	198	189	180	755	50	521
Future Volume (vph)	229	188	198	189	180	755	50	521
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	21.0	14.0	20.0	18.0	36.0	9.0	27.0
Total Split (%)	18.8%	26.3%	17.5%	25.0%	22.5%	45.0%	11.3%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	22.6	12.1	20.6	11.1	13.5	37.7	4.5	26.8
Actuated g/C Ratio	0.28	0.15	0.26	0.14	0.17	0.47	0.06	0.34
v/c Ratio	0.84	0.65	0.78	0.64	0.72	0.65	0.61	0.61
Control Delay	30.0	16.7	38.2	20.4	39.5	19.3	53.1	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.0	16.7	38.2	20.4	39.5	19.3	53.1	15.9
LOS	C	B	D	C	D	B	D	B
Approach Delay		21.7		27.2		22.7		18.7
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 22.4	Intersection LOS: C
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	188	185	198	189	130	180	755	138	50	521	79
Future Volume (veh/h)	229	188	185	198	189	130	180	755	138	50	521	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	269	221	218	233	222	153	212	888	162	59	613	93
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	369	299	267	332	320	211	251	1163	212	160	1042	158
Arrive On Green	0.13	0.17	0.17	0.12	0.16	0.16	0.14	0.39	0.39	0.09	0.34	0.34
Sat Flow, veh/h	1753	1749	1560	1753	2018	1332	1753	2954	539	1753	3045	461
Grp Volume(v), veh/h	269	221	218	233	191	184	212	526	524	59	351	355
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1601	1753	1749	1744	1753	1749	1758
Q Serve(g_s), s	10.3	9.6	10.8	8.9	8.3	8.7	9.4	20.8	20.9	2.5	13.2	13.3
Cycle Q Clear(g_c), s	10.3	9.6	10.8	8.9	8.3	8.7	9.4	20.8	20.9	2.5	13.2	13.3
Prop In Lane	1.00		1.00	1.00		0.83	1.00		0.31	1.00		0.26
Lane Grp Cap(c), veh/h	369	299	267	332	277	254	251	689	687	160	598	602
V/C Ratio(X)	0.73	0.74	0.82	0.70	0.69	0.72	0.85	0.76	0.76	0.37	0.59	0.59
Avail Cap(c_a), veh/h	369	361	322	332	339	310	296	689	687	160	598	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.14	0.14	0.14	0.99	0.99	0.99	0.23	0.23	0.23	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	31.5	32.0	24.9	31.8	32.0	33.4	21.0	21.0	34.2	21.7	21.7
Incr Delay (d2), s/veh	1.0	0.9	2.0	6.4	4.4	6.4	4.7	1.9	1.9	1.4	4.2	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	4.0	4.0	3.9	3.6	3.6	4.0	7.7	7.6	1.1	5.6	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	32.4	34.0	31.3	36.2	38.4	38.1	22.9	22.9	35.6	25.8	25.9
LnGrp LOS	C	C	C	C	D	D	D	C	C	D	C	C
Approach Vol, veh/h		708			608			1262			765	
Approach Delay, s/veh		30.3			35.0			25.5			26.6	
Approach LOS		C			C			C			C	

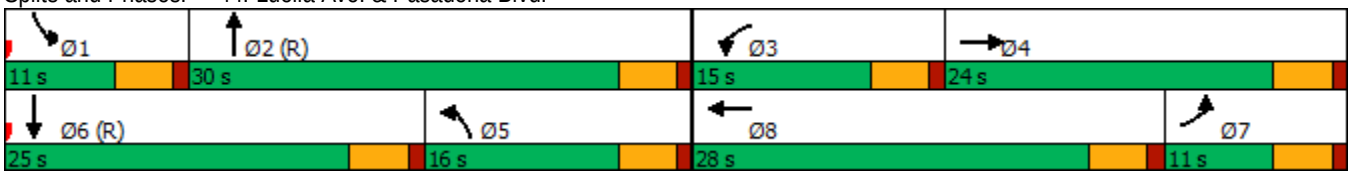
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	36.0	14.0	18.2	15.9	31.9	15.0	17.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	31.5	9.5	16.5	13.5	22.5	10.5	15.5
Max Q Clear Time (g_c+I1), s	4.5	22.9	10.9	12.8	11.4	15.3	12.3	10.7
Green Ext Time (p_c), s	0.0	3.9	0.0	0.9	0.1	2.3	0.0	0.8

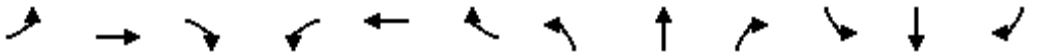
Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	70	484	145	655	141	149	86	132
Future Volume (vph)	70	484	145	655	141	149	86	132
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	11.0	24.0	15.0	28.0	16.0	30.0	11.0	25.0
Total Split (%)	13.8%	30.0%	18.8%	35.0%	20.0%	37.5%	13.8%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.4	18.6	10.1	24.4	11.5	29.0	6.5	21.8
Actuated g/C Ratio	0.08	0.23	0.13	0.30	0.14	0.36	0.08	0.27
v/c Ratio	0.58	0.79	0.77	0.84	0.65	0.57	0.70	0.57
Control Delay	32.2	21.8	54.0	29.5	41.3	19.8	50.6	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.2	21.8	54.0	29.5	41.3	19.8	50.6	17.8
LOS	C	C	D	C	D	B	D	B
Approach Delay		23.0		33.4		26.2		26.3
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 22 (28%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 28.2	Intersection LOS: C
Intersection Capacity Utilization 69.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	484	72	145	655	113	141	149	180	86	132	117
Future Volume (veh/h)	70	484	72	145	655	113	141	149	180	86	132	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	80	556	83	167	753	130	162	171	207	99	152	134
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	102	684	102	203	839	145	314	276	334	126	231	204
Arrive On Green	0.06	0.22	0.22	0.12	0.28	0.28	0.18	0.36	0.36	0.07	0.26	0.26
Sat Flow, veh/h	1753	3053	454	1753	2982	515	1753	758	918	1753	902	795
Grp Volume(v), veh/h	80	318	321	167	441	442	162	0	378	99	0	286
Grp Sat Flow(s),veh/h/ln	1753	1749	1759	1753	1749	1748	1753	0	1676	1753	0	1698
Q Serve(g_s), s	3.6	13.8	13.9	7.4	19.4	19.4	6.7	0.0	14.8	4.4	0.0	12.1
Cycle Q Clear(g_c), s	3.6	13.8	13.9	7.4	19.4	19.4	6.7	0.0	14.8	4.4	0.0	12.1
Prop In Lane	1.00		0.26	1.00		0.29	1.00		0.55	1.00		0.47
Lane Grp Cap(c), veh/h	102	392	394	203	492	492	314	0	609	126	0	435
V/C Ratio(X)	0.78	0.81	0.82	0.82	0.90	0.90	0.52	0.00	0.62	0.79	0.00	0.66
Avail Cap(c_a), veh/h	142	426	429	230	514	513	314	0	609	142	0	435
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.09	0.09	0.86	0.00	0.86	0.79	0.00	0.79
Uniform Delay (d), s/veh	37.2	29.4	29.5	34.6	27.6	27.6	29.7	0.0	20.9	36.5	0.0	26.6
Incr Delay (d2), s/veh	1.8	1.1	1.1	2.1	2.1	2.2	1.3	0.0	4.1	18.4	0.0	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.5	5.6	3.1	7.7	7.7	2.9	0.0	6.2	2.5	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	30.5	30.6	36.6	29.8	29.8	31.0	0.0	25.0	55.0	0.0	32.6
LnGrp LOS	D	C	C	D	C	C	C	A	C	D	A	C
Approach Vol, veh/h		719			1050			540			385	
Approach Delay, s/veh		31.5			30.9			26.8			38.4	
Approach LOS		C			C			C			D	

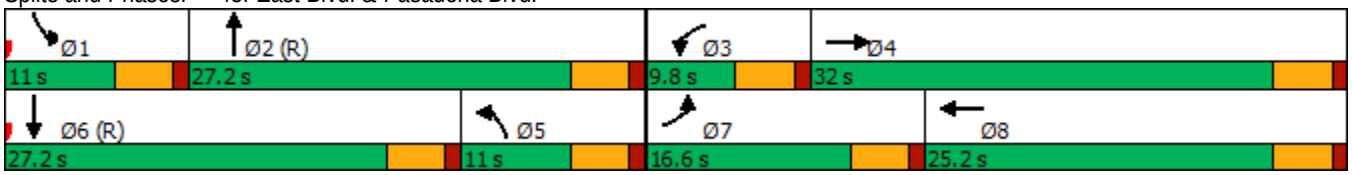
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	33.6	13.8	22.4	18.8	25.0	9.2	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	25.5	10.5	19.5	11.5	20.5	6.5	23.5
Max Q Clear Time (g_c+I1), s	6.4	16.8	9.4	15.9	8.7	14.1	5.6	21.4
Green Ext Time (p_c), s	0.0	1.6	0.0	1.3	0.1	0.8	0.0	1.1

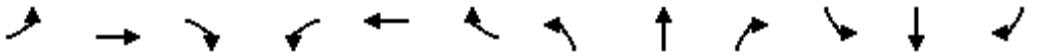
Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	215	335	65	317	117	636	117	733
Future Volume (vph)	215	335	65	317	117	636	117	733
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	9.5	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.6	32.0	9.8	25.2	11.0	27.2	11.0	27.2
Total Split (%)	20.8%	40.0%	12.3%	31.5%	13.8%	34.0%	13.8%	34.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.1	29.5	5.3	20.7	6.5	22.7	6.5	22.7
Actuated g/C Ratio	0.15	0.37	0.07	0.26	0.08	0.28	0.08	0.28
v/c Ratio	0.94	0.98	0.65	1.04	0.95	0.91	0.95	1.01
Control Delay	80.6	48.3	67.9	75.1	85.1	29.4	107.3	65.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.6	48.3	67.9	75.1	85.1	29.4	107.3	65.0
LOS	F	D	E	E	F	C	F	E
Approach Delay		57.2		74.1		36.7		70.0
Approach LOS		E		E		D		E

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 8 (10%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 58.0	Intersection LOS: E
Intersection Capacity Utilization 88.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	335	231	65	317	109	117	636	138	117	733	130
Future Volume (veh/h)	215	335	231	65	317	109	117	636	138	117	733	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	247	385	266	75	364	125	134	731	159	134	843	149
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	265	360	249	96	339	116	142	811	176	142	843	149
Arrive On Green	0.15	0.36	0.36	0.05	0.26	0.26	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1753	1014	701	1753	1310	450	1753	2856	621	1753	2970	525
Grp Volume(v), veh/h	247	0	651	75	0	489	134	447	443	134	496	496
Grp Sat Flow(s),veh/h/ln	1753	0	1715	1753	0	1760	1753	1749	1729	1753	1749	1746
Q Serve(g_s), s	11.1	0.0	28.4	3.4	0.0	20.7	6.1	19.7	19.7	6.1	22.7	22.7
Cycle Q Clear(g_c), s	11.1	0.0	28.4	3.4	0.0	20.7	6.1	19.7	19.7	6.1	22.7	22.7
Prop In Lane	1.00		0.41	1.00		0.26	1.00		0.36	1.00		0.30
Lane Grp Cap(c), veh/h	265	0	609	96	0	455	142	496	491	142	496	495
V/C Ratio(X)	0.93	0.00	1.07	0.78	0.00	1.07	0.94	0.90	0.90	0.94	1.00	1.00
Avail Cap(c_a), veh/h	265	0	609	116	0	455	142	496	491	142	496	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.00	0.53	0.69	0.00	0.69	0.67	0.67	0.67	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	0.0	25.8	37.4	0.0	29.7	36.6	27.6	27.6	36.6	28.7	28.7
Incr Delay (d2), s/veh	24.4	0.0	46.8	17.7	0.0	56.6	45.2	16.3	16.5	57.6	40.5	40.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	18.1	1.8	0.0	15.1	4.2	9.5	9.5	4.7	14.0	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	0.0	72.5	55.1	0.0	86.2	81.8	43.9	44.1	94.2	69.1	69.2
LnGrp LOS	E	A	F	E	A	F	F	D	D	F	F	F
Approach Vol, veh/h		898			564			1024			1126	
Approach Delay, s/veh		68.5			82.1			48.9			72.1	
Approach LOS		E			F			D			E	

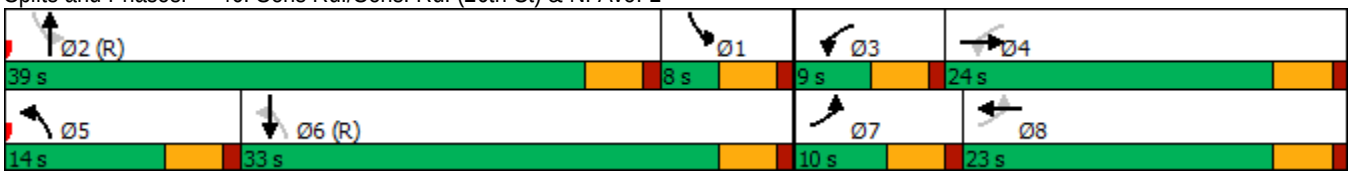
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	27.2	8.9	32.9	11.0	27.2	16.6	25.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.7	5.3	27.5	6.5	22.7	12.1	20.7
Max Q Clear Time (g_c+I1), s	8.1	21.7	5.4	30.4	8.1	24.7	13.1	22.7
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0

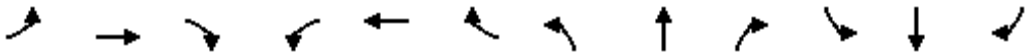
Intersection Summary	
HCM 6th Ctrl Delay	66.2
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	75	3	8	0	119	466	404	
Future Volume (vph)	75	3	8	0	119	466	404	
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	NA	
Protected Phases	7	4	3	8	5	2	6	1
Permitted Phases	8		4		6			
Detector Phase	7	4	3	8	5	2	6	
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0
Total Split (s)	10.0	24.0	9.0	23.0	14.0	39.0	33.0	8.0
Total Split (%)	12.5%	30.0%	11.3%	28.8%	17.5%	48.8%	41.3%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	7.7	6.8	7.5	6.2	60.8	65.3	55.7	
Actuated g/C Ratio	0.10	0.08	0.09	0.08	0.76	0.82	0.70	
v/c Ratio	0.49	0.44	0.06	0.01	0.18	0.19	0.21	
Control Delay	38.1	14.7	29.1	0.0	3.0	2.5	7.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	38.1	14.7	29.1	0.0	3.0	2.5	7.0	
LOS	D	B	C	A	A	A	A	
Approach Delay		25.6		21.8		2.6	7.0	
Approach LOS		C		C		A	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 56 (70%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 7.4	Intersection LOS: A
Intersection Capacity Utilization 47.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	3	83	8	0	3	119	466	9	0	404	38
Future Volume (veh/h)	75	3	83	8	0	3	119	466	9	0	404	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	83	3	92	9	0	3	132	518	10	0	449	42
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	268	5	162	167	0	88	666	1513	29	778	1969	183
Arrive On Green	0.06	0.11	0.11	0.01	0.00	0.06	0.05	0.43	0.43	0.00	0.61	0.61
Sat Flow, veh/h	1753	49	1518	1753	0	1560	1753	3510	68	1753	3234	301
Grp Volume(v), veh/h	83	0	95	9	0	3	132	258	270	0	242	249
Grp Sat Flow(s),veh/h/ln	1753	0	1567	1753	0	1560	1753	1749	1829	1753	1749	1786
Q Serve(g_s), s	3.5	0.0	4.6	0.4	0.0	0.1	2.2	7.9	7.9	0.0	5.0	5.1
Cycle Q Clear(g_c), s	3.5	0.0	4.6	0.4	0.0	0.1	2.2	7.9	7.9	0.0	5.0	5.1
Prop In Lane	1.00		0.97	1.00		1.00	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	268	0	167	167	0	88	666	754	789	778	1065	1088
V/C Ratio(X)	0.31	0.00	0.57	0.05	0.00	0.03	0.20	0.34	0.34	0.00	0.23	0.23
Avail Cap(c_a), veh/h	287	0	382	252	0	361	784	754	789	778	1065	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.00	0.72	1.00	0.00	1.00	0.86	0.86	0.86	0.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	0.0	34.0	31.6	0.0	35.7	5.2	15.2	15.2	0.0	7.1	7.1
Incr Delay (d2), s/veh	0.5	0.0	2.2	0.1	0.0	0.2	0.1	1.1	1.0	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.8	0.2	0.0	0.1	0.6	3.0	3.2	0.0	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	36.1	31.8	0.0	35.8	5.3	16.2	16.2	0.0	7.6	7.6
LnGrp LOS	C	A	D	C	A	D	A	B	B	A	A	A
Approach Vol, veh/h		178			12			660			491	
Approach Delay, s/veh		34.8			32.8			14.0			7.6	
Approach LOS		C			C			B			A	

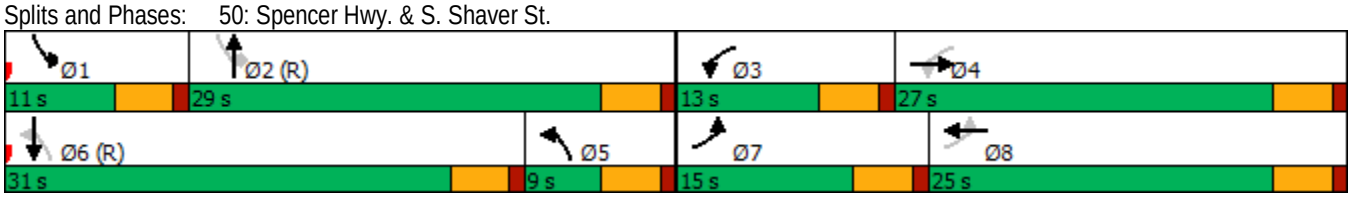
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.8	39.0	5.1	13.0	8.6	53.2	9.1	9.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	34.5	4.5	19.5	9.5	28.5	5.5	18.5
Max Q Clear Time (g_c+I1), s	0.0	9.9	2.4	6.6	4.2	7.1	5.5	2.1
Green Ext Time (p_c), s	0.0	3.0	0.0	0.3	0.1	2.7	0.0	0.0

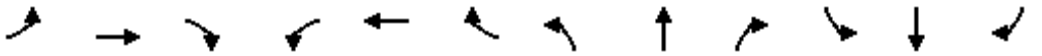
Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	187	841	155	899	109	488	187	159	472
Future Volume (vph)	187	841	155	899	109	488	187	159	472
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	15.0	27.0	13.0	25.0	9.0	29.0	29.0	11.0	31.0
Total Split (%)	18.8%	33.8%	16.3%	31.3%	11.3%	36.3%	36.3%	13.8%	38.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	31.0	22.7	31.0	20.9	31.0	24.5	24.5	31.0	26.5
Actuated g/C Ratio	0.39	0.28	0.39	0.26	0.39	0.31	0.31	0.39	0.33
v/c Ratio	0.71	0.76	0.67	0.91	0.61	0.56	0.36	0.59	0.70
Control Delay	30.3	35.0	21.6	32.2	29.1	20.0	5.2	17.5	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	35.0	21.6	32.2	29.1	20.0	5.2	17.5	14.0
LOS	C	C	C	C	C	C	A	B	B
Approach Delay		34.2		30.8		17.8			14.7
Approach LOS		C		C		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 71 (89%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 25.6	Intersection LOS: C
Intersection Capacity Utilization 76.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	841	74	155	899	104	109	488	187	159	472	218
Future Volume (veh/h)	187	841	74	155	899	104	109	488	187	159	472	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	220	989	87	182	1058	122	128	574	220	187	555	256
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	303	1291	113	294	1169	135	298	1130	504	360	771	355
Arrive On Green	0.04	0.09	0.09	0.03	0.08	0.08	0.07	0.32	0.32	0.08	0.33	0.33
Sat Flow, veh/h	1753	4704	413	1753	4570	526	1753	3497	1560	1753	2326	1071
Grp Volume(v), veh/h	220	704	372	182	775	405	128	574	220	187	417	394
Grp Sat Flow(s),veh/h/ln	1753	1675	1766	1753	1675	1746	1753	1749	1560	1753	1749	1648
Q Serve(g_s), s	7.2	16.4	16.5	5.8	18.4	18.4	0.0	10.6	8.9	5.7	16.7	16.8
Cycle Q Clear(g_c), s	7.2	16.4	16.5	5.8	18.4	18.4	0.0	10.6	8.9	5.7	16.7	16.8
Prop In Lane	1.00		0.23	1.00		0.30	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	303	919	485	294	857	447	298	1130	504	360	579	546
V/C Ratio(X)	0.73	0.77	0.77	0.62	0.90	0.91	0.43	0.51	0.44	0.52	0.72	0.72
Avail Cap(c_a), veh/h	332	942	497	312	858	447	298	1130	504	360	579	546
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	33.9	33.9	21.6	35.7	35.7	31.3	21.9	21.3	16.9	23.5	23.5
Incr Delay (d2), s/veh	6.1	3.3	6.1	2.6	10.2	17.5	1.0	1.6	2.7	1.3	7.5	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	7.6	8.5	2.5	9.3	10.6	2.3	4.4	3.4	2.3	7.8	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	37.1	40.0	24.2	45.9	53.2	32.3	23.6	24.1	18.2	31.0	31.6
LnGrp LOS	C	D	D	C	D	D	C	C	C	B	C	C
Approach Vol, veh/h		1296			1362			922			998	
Approach Delay, s/veh		36.5			45.2			24.9			28.8	
Approach LOS		D			D			C			C	

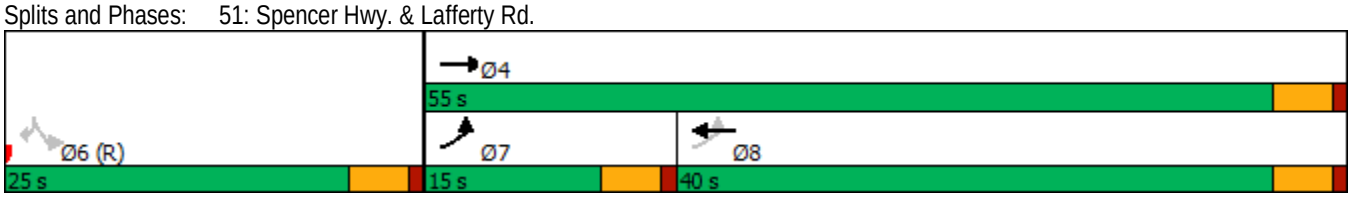
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	30.4	12.2	26.5	10.4	31.0	13.7	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	24.5	8.5	22.5	4.5	26.5	10.5	20.5
Max Q Clear Time (g_c+I1), s	7.7	12.6	7.8	18.5	2.0	18.8	9.2	20.4
Green Ext Time (p_c), s	0.0	3.7	0.0	2.3	0.1	3.2	0.1	0.1

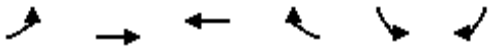
Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	85	1114	1089	138	100
Future Volume (vph)	85	1114	1089	138	100
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	55.0	40.0	25.0	25.0
Total Split (%)	18.8%	68.8%	50.0%	31.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	38.9	42.5	32.4	28.5	28.5
Actuated g/C Ratio	0.49	0.53	0.40	0.36	0.36
v/c Ratio	0.40	0.49	0.71	0.26	0.19
Control Delay	9.5	7.8	20.9	23.0	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	7.8	20.9	23.0	5.9
LOS	A	A	C	C	A
Approach Delay		7.9	20.9	15.8	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 4 (5%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 51.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





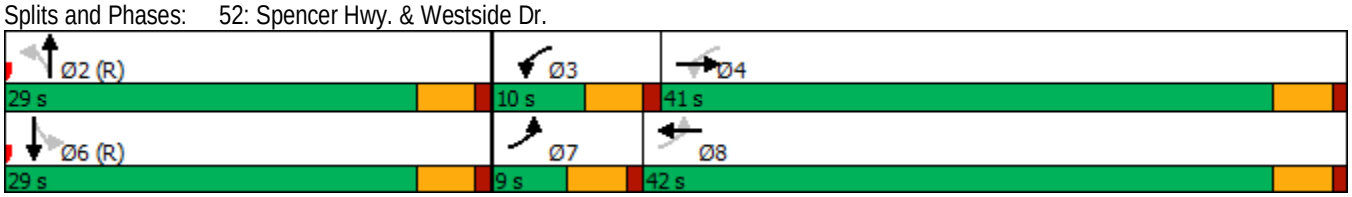
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	85	1114	1089	128	138	100
Future Volume (vph)	85	1114	1089	128	138	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4745		1678	1501
Flt Permitted	0.12	1.00	1.00		0.95	1.00
Satd. Flow (perm)	218	4821	4745		1678	1501
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	97	1266	1238	145	157	114
RTOR Reduction (vph)	0	0	19	0	0	75
Lane Group Flow (vph)	97	1266	1364	0	157	39
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	38.8	43.3	32.4		27.7	27.7
Effective Green, g (s)	38.8	43.3	32.4		27.7	27.7
Actuated g/C Ratio	0.48	0.54	0.40		0.35	0.35
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	222	2609	1921		581	519
v/s Ratio Prot	0.03	c0.26	c0.29			
v/s Ratio Perm	0.18				c0.09	0.03
v/c Ratio	0.44	0.49	0.71		0.27	0.08
Uniform Delay, d1	12.9	11.4	19.9		18.9	17.6
Progression Factor	0.67	0.63	1.04		1.00	1.00
Incremental Delay, d2	1.2	0.1	0.6		1.1	0.3
Delay (s)	9.9	7.3	21.3		20.0	17.8
Level of Service	A	A	C		C	B
Approach Delay (s)		7.5	21.3		19.1	
Approach LOS		A	C		B	

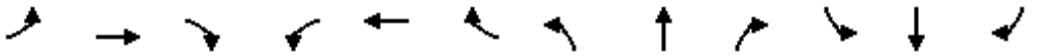
Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	1065	32	1093	33	52	85	47
Future Volume (vph)	10	1065	32	1093	33	52	85	47
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	41.0	10.0	42.0	29.0	29.0	29.0	29.0
Total Split (%)	11.3%	51.3%	12.5%	52.5%	36.3%	36.3%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	35.9	30.8	34.1	35.0		34.2		34.2
Actuated g/C Ratio	0.45	0.38	0.43	0.44		0.43		0.43
v/c Ratio	0.06	0.65	0.16	0.62		0.22		0.26
Control Delay	4.6	13.5	3.2	3.9		14.2		21.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	4.6	13.5	3.2	3.9		14.2		21.6
LOS	A	B	A	A		B		C
Approach Delay		13.4		3.8		14.2		21.6
Approach LOS		B		A		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 40 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 9.4	Intersection LOS: A
Intersection Capacity Utilization 49.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1065	38	32	1093	89	33	52	53	85	47	11
Future Volume (veh/h)	10	1065	38	32	1093	89	33	52	53	85	47	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	11	1170	42	35	1201	98	36	57	58	93	52	12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	1688	61	220	1672	136	202	317	289	461	246	53
Arrive On Green	0.02	0.68	0.68	0.02	0.35	0.35	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1753	4980	179	1753	4735	386	313	675	617	830	526	112
Grp Volume(v), veh/h	11	787	425	35	850	449	151	0	0	157	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1771	1605	0	0	1469	0	0
Q Serve(g_s), s	0.3	11.4	11.4	1.0	17.6	17.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	11.4	11.4	1.0	17.6	17.6	4.1	0.0	0.0	4.1	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.22	0.24		0.38	0.59		0.08
Lane Grp Cap(c), veh/h	162	1136	613	220	1183	625	808	0	0	760	0	0
V/C Ratio(X)	0.07	0.69	0.69	0.16	0.72	0.72	0.19	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	244	1528	825	299	1570	830	808	0	0	760	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	0.69	0.69	0.69	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	10.4	10.4	17.5	22.4	22.4	12.4	0.0	0.0	12.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.6	1.1	0.2	0.7	1.4	0.5	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.5	2.8	0.4	6.7	7.2	1.6	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	10.9	11.4	17.7	23.2	23.8	12.9	0.0	0.0	13.0	0.0	0.0
LnGrp LOS	B	B	B	B	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1223			1334			151			157	
Approach Delay, s/veh		11.2			23.3			12.9			13.0	
Approach LOS		B			C			B			B	

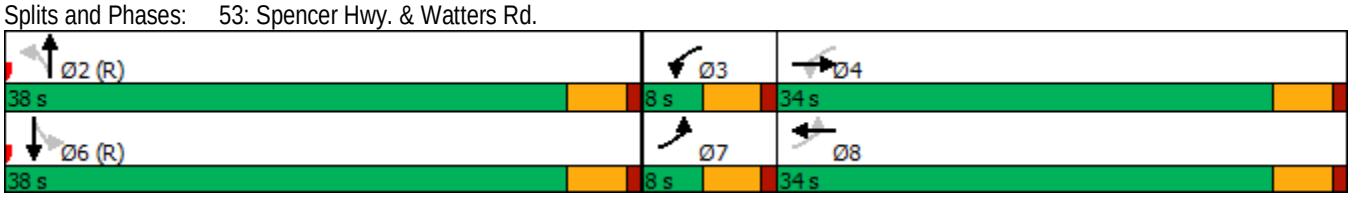
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.0	6.4	31.6		42.0	5.3	32.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.5	5.5	36.5		24.5	4.5	37.5				
Max Q Clear Time (g_c+I1), s		6.1	3.0	13.4		6.1	2.3	19.6				
Green Ext Time (p_c), s		0.7	0.0	8.3		0.8	0.0	8.7				

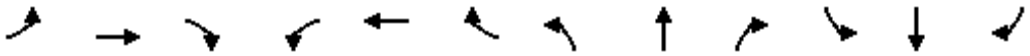
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	62	1390	81	1404	223	41	65	44
Future Volume (vph)	62	1390	81	1404	223	41	65	44
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	34.0	8.0	34.0	38.0	38.0	38.0	38.0
Total Split (%)	10.0%	42.5%	10.0%	42.5%	47.5%	47.5%	47.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	33.6	30.8	33.6	30.8		33.8		33.8
Actuated g/C Ratio	0.42	0.38	0.42	0.38		0.42		0.42
v/c Ratio	0.41	0.94	0.53	0.84		0.87		0.50
Control Delay	12.9	18.2	13.1	7.4		42.3		13.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	12.9	18.2	13.1	7.4		42.3		13.7
LOS	B	B	B	A		D		B
Approach Delay		18.0		7.7		42.3		13.7
Approach LOS		B		A		D		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 76 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 95.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	1390	254	81	1404	76	223	41	90	65	44	202
Future Volume (veh/h)	62	1390	254	81	1404	76	223	41	90	65	44	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	1511	276	88	1526	83	242	45	98	71	48	220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	205	1565	285	177	1817	99	370	69	125	164	128	439
Arrive On Green	0.08	0.73	0.73	0.09	0.75	0.75	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1753	4273	778	1753	4878	265	704	163	296	260	303	1041
Grp Volume(v), veh/h	67	1184	603	88	1048	561	385	0	0	339	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1701	1753	1675	1793	1163	0	0	1605	0	0
Q Serve(g_s), s	1.9	25.8	26.1	2.5	17.0	17.0	11.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.9	25.8	26.1	2.5	17.0	17.0	24.0	0.0	0.0	12.0	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.15	0.63		0.25	0.21		0.65
Lane Grp Cap(c), veh/h	205	1227	623	177	1248	668	563	0	0	730	0	0
V/C Ratio(X)	0.33	0.96	0.97	0.50	0.84	0.84	0.68	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	216	1235	627	177	1248	668	563	0	0	730	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.1	10.2	10.3	18.9	8.6	8.6	20.8	0.0	0.0	16.9	0.0	0.0
Incr Delay (d2), s/veh	0.4	10.1	16.8	0.2	0.5	0.9	6.6	0.0	0.0	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.9	6.1	0.9	2.7	2.9	6.9	0.0	0.0	4.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	20.3	27.0	19.1	9.1	9.5	27.4	0.0	0.0	19.0	0.0	0.0
LnGrp LOS	B	C	C	B	A	A	C	A	A	B	A	A
Approach Vol, veh/h		1854			1697			385			339	
Approach Delay, s/veh		22.3			9.7			27.4			19.0	
Approach LOS		C			A			C			B	

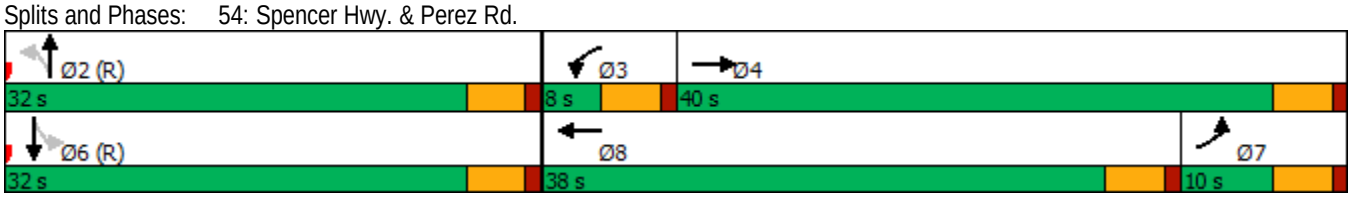
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		38.2	8.0	33.8		38.2	7.5	34.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		33.5	3.5	29.5		33.5	3.5	29.5				
Max Q Clear Time (g_c+I1), s		26.0	4.5	28.1		14.0	3.9	19.0				
Green Ext Time (p_c), s		1.6	0.0	1.2		2.2	0.0	7.0				

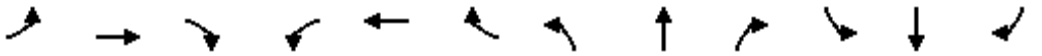
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	33	921	1	1133	9	135	4
Future Volume (vph)	33	921	1	1133	9	135	4
Turn Type	Prot	NA	Prot	NA	NA	Perm	NA
Protected Phases	7	4	3	8	2		6
Permitted Phases						6	
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	40.0	8.0	38.0	32.0	32.0	32.0
Total Split (%)	12.5%	50.0%	10.0%	47.5%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	5.6	36.4	3.5	32.0	33.0		33.0
Actuated g/C Ratio	0.07	0.46	0.04	0.40	0.41		0.41
v/c Ratio	0.32	0.48	0.01	0.75	0.03		0.39
Control Delay	42.0	20.1	61.0	10.9	12.2		19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	42.0	20.1	61.0	10.9	12.2		19.1
LOS	D	C	E	B	B		B
Approach Delay		20.8		10.9	12.2		19.1
Approach LOS		C		B	B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	921	0	1	1133	121	0	9	10	135	4	50
Future Volume (veh/h)	33	921	0	1	1133	121	0	9	10	135	4	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	1096	0	1	1349	144	0	11	12	161	5	60
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	48	1865	0	2	1589	170	0	370	403	532	27	174
Arrive On Green	0.03	0.37	0.00	0.00	0.69	0.69	0.00	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1753	5191	0	1753	4610	492	0	805	878	990	59	379
Grp Volume(v), veh/h	39	1096	0	1	980	513	0	0	23	226	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	0	1753	1675	1752	0	0	1683	1429	0	0
Q Serve(g_s), s	1.8	14.0	0.0	0.0	17.5	17.5	0.0	0.0	0.6	7.1	0.0	0.0
Cycle Q Clear(g_c), s	1.8	14.0	0.0	0.0	17.5	17.5	0.0	0.0	0.6	8.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.28	0.00		0.52	0.71		0.27
Lane Grp Cap(c), veh/h	48	1865	0	2	1155	604	0	0	773	733	0	0
V/C Ratio(X)	0.81	0.59	0.00	0.46	0.85	0.85	0.00	0.00	0.03	0.31	0.00	0.00
Avail Cap(c_a), veh/h	121	2230	0	77	1403	734	0	0	773	733	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.00	0.36	0.36	0.36	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.7	20.2	0.0	39.9	10.9	10.9	0.0	0.0	11.9	13.8	0.0	0.0
Incr Delay (d2), s/veh	13.6	0.1	0.0	45.3	1.6	3.0	0.0	0.0	0.1	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.0	0.0	0.0	3.3	3.7	0.0	0.0	0.2	2.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	20.4	0.0	85.2	12.5	13.9	0.0	0.0	11.9	14.9	0.0	0.0
LnGrp LOS	D	C	A	F	B	B	A	A	B	B	A	A
Approach Vol, veh/h		1135			1494			23			226	
Approach Delay, s/veh		21.5			13.0			11.9			14.9	
Approach LOS		C			B			B			B	

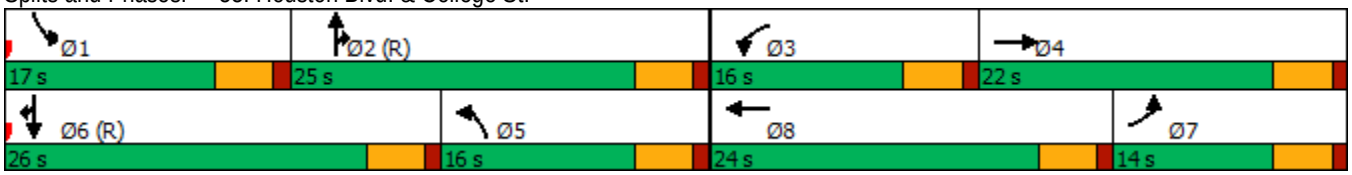
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		41.2	4.6	34.2		41.2	6.7	32.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		27.5	3.5	35.5		27.5	5.5	33.5				
Max Q Clear Time (g_c+I1), s		2.6	2.0	16.0		10.0	3.8	19.5				
Green Ext Time (p_c), s		0.1	0.0	7.3		1.2	0.0	8.0				

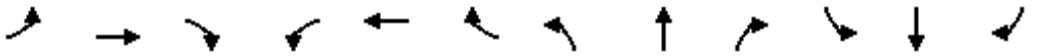
Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	165	568	132	950	122	648	132	229	442	212
Future Volume (vph)	165	568	132	950	122	648	132	229	442	212
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	Prot	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases										
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	22.0	16.0	24.0	16.0	25.0	25.0	17.0	26.0	26.0
Total Split (%)	17.5%	27.5%	20.0%	30.0%	20.0%	31.3%	31.3%	21.3%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.5	18.7	10.3	19.5	10.6	20.5	20.5	12.5	24.7	24.7
Actuated g/C Ratio	0.12	0.23	0.13	0.24	0.13	0.26	0.26	0.16	0.31	0.31
v/c Ratio	0.86	0.64	0.64	1.01	0.57	0.78	0.26	0.91	0.44	0.36
Control Delay	55.5	15.0	26.2	45.8	42.6	35.2	2.4	71.3	25.1	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	15.0	26.2	45.8	42.6	35.2	2.4	71.3	25.1	5.3
LOS	E	B	C	D	D	D	A	E	C	A
Approach Delay		22.9		43.7		31.4			32.3	
Approach LOS		C		D		C			C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 53 (66%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 33.7	Intersection LOS: C
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	568	104	132	950	157	122	648	132	229	442	212
Future Volume (veh/h)	165	568	104	132	950	157	122	648	132	229	442	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	611	112	142	1022	169	131	697	142	246	475	228
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	208	1119	202	177	1059	175	252	896	400	274	940	419
Arrive On Green	0.12	0.26	0.26	0.10	0.24	0.24	0.14	0.26	0.26	0.16	0.27	0.27
Sat Flow, veh/h	1753	4279	773	1753	4345	717	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	177	476	247	142	788	403	131	697	142	246	475	228
Grp Sat Flow(s),veh/h/ln	1753	1675	1702	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	7.9	9.8	10.0	6.3	18.6	18.7	5.5	14.8	6.0	11.0	9.2	10.0
Cycle Q Clear(g_c), s	7.9	9.8	10.0	6.3	18.6	18.7	5.5	14.8	6.0	11.0	9.2	10.0
Prop In Lane	1.00		0.45	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	876	445	177	817	417	252	896	400	274	940	419
V/C Ratio(X)	0.85	0.54	0.55	0.80	0.96	0.97	0.52	0.78	0.36	0.90	0.51	0.54
Avail Cap(c_a), veh/h	208	876	445	252	817	417	252	896	400	274	940	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	25.4	25.5	35.2	29.9	29.9	31.7	27.6	24.3	33.1	24.8	25.1
Incr Delay (d2), s/veh	26.9	0.7	1.5	11.5	23.1	35.4	1.9	6.6	2.5	29.6	1.9	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.7	3.9	3.1	9.5	11.2	2.4	6.8	2.3	6.8	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	26.1	27.0	46.7	53.0	65.3	33.6	34.2	26.8	62.7	26.7	30.0
LnGrp LOS	E	C	C	D	D	E	C	C	C	E	C	C
Approach Vol, veh/h		900			1333			970			949	
Approach Delay, s/veh		33.3			56.1			33.1			36.8	
Approach LOS		C			E			C			D	

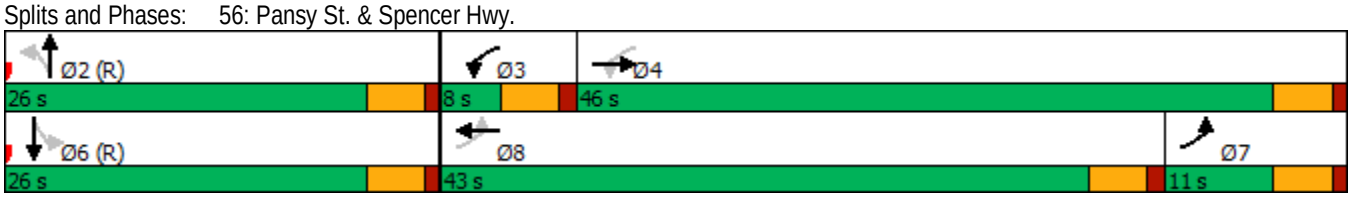
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	25.0	12.6	25.4	16.0	26.0	14.0	24.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	20.5	11.5	17.5	11.5	21.5	9.5	19.5
Max Q Clear Time (g_c+I1), s	13.0	16.8	8.3	12.0	7.5	12.0	9.9	20.7
Green Ext Time (p_c), s	0.0	1.8	0.1	2.1	0.1	2.8	0.0	0.0

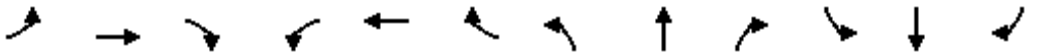
Intersection Summary	
HCM 6th Ctrl Delay	41.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	88	1169	36	1609	17	81	46	66
Future Volume (vph)	88	1169	36	1609	17	81	46	66
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	46.0	8.0	43.0	26.0	26.0	26.0	26.0
Total Split (%)	13.8%	57.5%	10.0%	53.8%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	43.5	41.2	43.3	37.6		25.0		25.0
Actuated g/C Ratio	0.54	0.52	0.54	0.47		0.31		0.31
v/c Ratio	0.45	0.52	0.18	0.77		0.25		0.38
Control Delay	13.2	10.9	4.9	7.4		21.4		21.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	13.2	10.9	4.9	7.4		21.4		21.4
LOS	B	B	A	A		C		C
Approach Delay		11.1		7.3		21.4		21.4
Approach LOS		B		A		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 2 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 10.1	Intersection LOS: B
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1169	32	36	1609	53	17	81	25	46	66	72
Future Volume (veh/h)	88	1169	32	36	1609	53	17	81	25	46	66	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	95	1257	34	39	1730	57	18	87	27	49	71	77
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	192	2247	61	300	2167	71	101	438	125	166	237	223
Arrive On Green	0.08	0.89	0.89	0.03	0.43	0.43	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1753	5030	136	1753	4997	165	139	1219	349	306	661	620
Grp Volume(v), veh/h	95	837	454	39	1160	627	132	0	0	197	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1816	1753	1675	1811	1707	0	0	1587	0	0
Q Serve(g_s), s	0.0	4.3	4.3	1.0	24.0	24.0	0.0	0.0	0.0	0.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.3	4.3	1.0	24.0	24.0	4.1	0.0	0.0	6.7	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.09	0.14		0.20	0.25		0.39
Lane Grp Cap(c), veh/h	192	1497	811	300	1453	785	664	0	0	626	0	0
V/C Ratio(X)	0.49	0.56	0.56	0.13	0.80	0.80	0.20	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	267	1738	942	332	1612	872	664	0	0	626	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	0.50	0.50	0.50	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.5	2.6	2.6	11.5	19.6	19.6	17.7	0.0	0.0	18.6	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.2	0.3	0.1	1.4	2.5	0.7	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.8	0.9	0.3	8.5	9.4	1.7	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	2.7	2.9	11.6	21.0	22.1	18.4	0.0	0.0	19.9	0.0	0.0
LnGrp LOS	C	A	A	B	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1386			1826			132			197	
Approach Delay, s/veh		5.0			21.2			18.4			19.9	
Approach LOS		A			C			B			B	

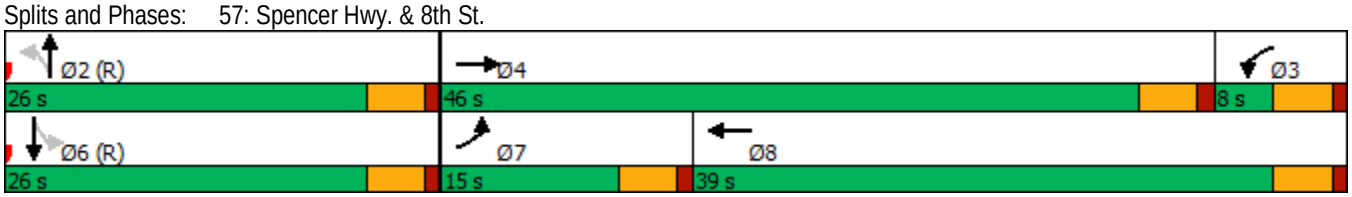
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.2	6.5	40.2		33.2	7.6	39.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	6.5	38.5				
Max Q Clear Time (g_c+I1), s		6.1	3.0	6.3		8.7	2.0	26.0				
Green Ext Time (p_c), s		0.6	0.0	10.3		0.9	0.1	8.7				

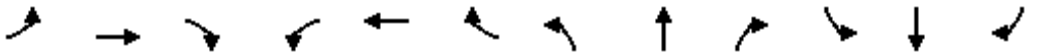
Intersection Summary												
HCM 6th Ctrl Delay			14.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	69	867	14	1214	20	34	33	19
Future Volume (vph)	69	867	14	1214	20	34	33	19
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	46.0	8.0	39.0	26.0	26.0	26.0	26.0
Total Split (%)	18.8%	57.5%	10.0%	48.8%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.4	38.3	7.7	31.3		28.8		28.8
Actuated g/C Ratio	0.10	0.48	0.10	0.39		0.36		0.36
v/c Ratio	0.40	0.41	0.09	0.71		0.18		0.28
Control Delay	21.9	7.3	30.7	21.4		13.9		9.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	21.9	7.3	30.7	21.4		13.9		9.7
LOS	C	A	C	C		B		A
Approach Delay		8.3		21.5		13.9		9.7
Approach LOS		A		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.3	Intersection LOS: B
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	867	20	14	1214	36	20	34	46	33	19	114
Future Volume (veh/h)	69	867	20	14	1214	36	20	34	46	33	19	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	932	22	15	1305	39	22	37	49	35	20	123
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	1367	32	227	1733	52	160	268	311	153	107	462
Arrive On Green	0.05	0.27	0.27	0.13	0.35	0.35	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1753	5050	119	1753	5014	150	246	621	720	230	249	1071
Grp Volume(v), veh/h	74	618	336	15	872	472	108	0	0	178	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1819	1753	1675	1814	1587	0	0	1550	0	0
Q Serve(g_s), s	3.3	13.2	13.2	0.6	18.4	18.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	13.2	13.2	0.6	18.4	18.4	3.1	0.0	0.0	5.6	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.08	0.20		0.45	0.20		0.69
Lane Grp Cap(c), veh/h	95	907	493	227	1158	627	739	0	0	722	0	0
V/C Ratio(X)	0.78	0.68	0.68	0.07	0.75	0.75	0.15	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	230	1738	944	227	1445	782	739	0	0	722	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.16	0.16	0.16	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.3	26.1	26.1	30.6	23.2	23.2	13.8	0.0	0.0	14.5	0.0	0.0
Incr Delay (d2), s/veh	12.6	0.9	1.7	0.0	0.3	0.5	0.4	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.0	5.5	0.2	6.6	7.3	1.2	0.0	0.0	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	27.0	27.8	30.6	23.4	23.7	14.2	0.0	0.0	15.3	0.0	0.0
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1028			1359			108			178	
Approach Delay, s/veh		28.9			23.6			14.2			15.3	
Approach LOS		C			C			B			B	

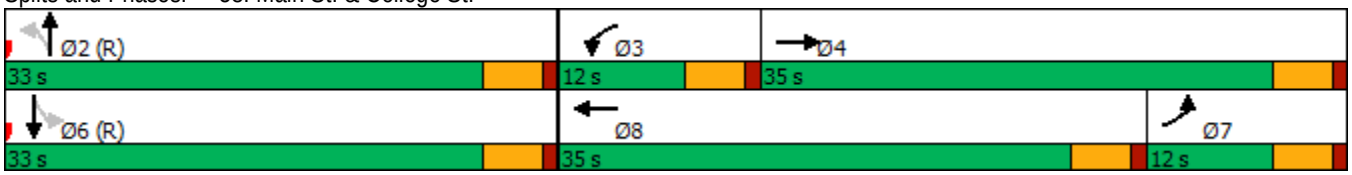
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.0	14.8	26.2		39.0	8.8	32.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	10.5	34.5				
Max Q Clear Time (g_c+I1), s		5.1	2.6	15.2		7.6	5.3	20.4				
Green Ext Time (p_c), s		0.5	0.0	6.4		0.8	0.1	7.2				

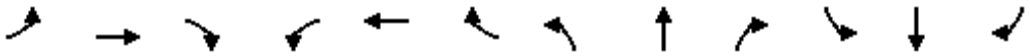
Intersection Summary												
HCM 6th Ctrl Delay			24.7									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	55	848	55	1079	99	47	28	48
Future Volume (vph)	55	848	55	1079	99	47	28	48
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	35.0	12.0	35.0	33.0	33.0	33.0	33.0
Total Split (%)	15.0%	43.8%	15.0%	43.8%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.1	28.1	7.0	28.0		35.7		35.7
Actuated g/C Ratio	0.09	0.35	0.09	0.35		0.45		0.45
v/c Ratio	0.39	0.62	0.39	0.71		0.37		0.24
Control Delay	41.8	21.7	52.9	6.0		23.5		10.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	41.8	21.7	52.9	6.0		23.5		10.5
LOS	D	C	D	A		C		B
Approach Delay		22.8		8.3		23.5		10.5
Approach LOS		C		A		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	848	161	55	1079	27	99	47	72	28	48	93
Future Volume (veh/h)	55	848	161	55	1079	27	99	47	72	28	48	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	59	912	173	59	1160	29	106	51	77	30	52	100
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	75	1310	247	75	1556	39	361	178	232	144	252	420
Arrive On Green	0.04	0.31	0.31	0.04	0.31	0.31	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1753	4245	802	1753	5042	126	616	370	484	192	525	874
Grp Volume(v), veh/h	59	719	366	59	771	418	234	0	0	182	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1696	1753	1675	1818	1470	0	0	1591	0	0
Q Serve(g_s), s	2.7	15.1	15.2	2.7	16.5	16.5	1.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	15.1	15.2	2.7	16.5	16.5	6.7	0.0	0.0	5.1	0.0	0.0
Prop In Lane	1.00		0.47	1.00		0.07	0.45		0.33	0.16		0.55
Lane Grp Cap(c), veh/h	75	1034	523	75	1034	561	771	0	0	816	0	0
V/C Ratio(X)	0.79	0.70	0.70	0.79	0.75	0.75	0.30	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	164	1277	647	164	1277	693	771	0	0	816	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.9	24.4	24.4	37.9	24.8	24.8	12.5	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	16.3	1.2	2.5	16.3	1.9	3.5	1.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.9	6.2	1.5	6.5	7.3	2.6	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	25.6	26.9	54.2	26.7	28.3	13.5	0.0	0.0	12.8	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1144			1248			234			182	
Approach Delay, s/veh		27.5			28.6			13.5			12.8	
Approach LOS		C			C			B			B	

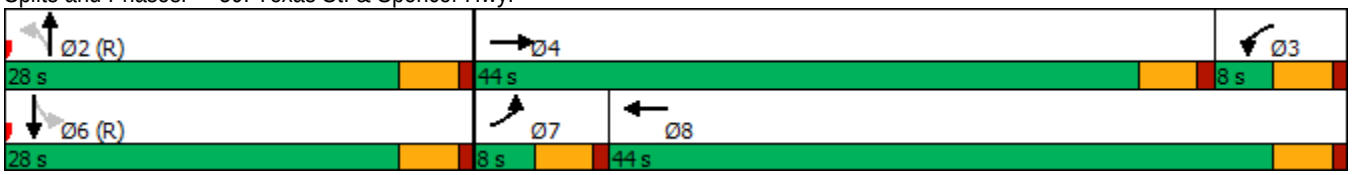
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.9	7.9	29.2		42.9	7.9	29.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	7.5	30.5		28.5	7.5	30.5				
Max Q Clear Time (g_c+I1), s		8.7	4.7	17.2		7.1	4.7	18.5				
Green Ext Time (p_c), s		1.4	0.0	6.1		1.0	0.0	6.1				

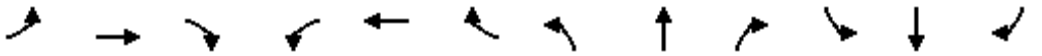
Intersection Summary												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	5	861	5	1128	85	4	3	0
Future Volume (vph)	5	861	5	1128	85	4	3	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	44.0	8.0	44.0	28.0	28.0	28.0	28.0
Total Split (%)	10.0%	55.0%	10.0%	55.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	3.5	33.2	6.9	34.8		34.6		34.6
Actuated g/C Ratio	0.04	0.42	0.09	0.44		0.43		0.43
v/c Ratio	0.07	0.50	0.03	0.71		0.17		0.04
Control Delay	29.8	9.9	15.2	4.3		17.8		0.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	29.8	9.9	15.2	4.3		17.8		0.1
LOS	C	A	B	A		B		A
Approach Delay		10.0		4.3		17.8		0.1
Approach LOS		B		A		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 27 (34%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	861	38	5	1128	213	85	4	0	3	0	27
Future Volume (veh/h)	5	861	38	5	1128	213	85	4	0	3	0	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	5	946	42	5	1240	234	93	4	0	3	0	30
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	8	1373	61	206	1660	313	664	27	0	82	29	618
Arrive On Green	0.00	0.28	0.28	0.12	0.39	0.39	0.44	0.44	0.00	0.44	0.00	0.44
Sat Flow, veh/h	1753	4933	219	1753	4245	801	1322	61	0	75	67	1419
Grp Volume(v), veh/h	5	642	346	5	978	496	97	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1801	1753	1675	1697	1383	0	0	1561	0	0
Q Serve(g_s), s	0.2	13.7	13.7	0.2	20.1	20.1	2.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	13.7	13.7	0.2	20.1	20.1	3.1	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.47	0.96		0.00	0.09		0.91
Lane Grp Cap(c), veh/h	8	933	501	206	1310	663	691	0	0	729	0	0
V/C Ratio(X)	0.62	0.69	0.69	0.02	0.75	0.75	0.14	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	77	1654	889	206	1654	838	691	0	0	729	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.7	25.8	25.8	31.3	21.0	21.0	13.6	0.0	0.0	13.0	0.0	0.0
Incr Delay (d2), s/veh	58.6	0.9	1.7	0.0	1.4	2.8	0.4	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.2	5.7	0.1	7.3	7.7	1.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.3	26.7	27.5	31.3	22.4	23.8	14.0	0.0	0.0	13.1	0.0	0.0
LnGrp LOS	F	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		993			1479			97			33	
Approach Delay, s/veh		27.3			22.9			14.0			13.1	
Approach LOS		C			C			B			B	

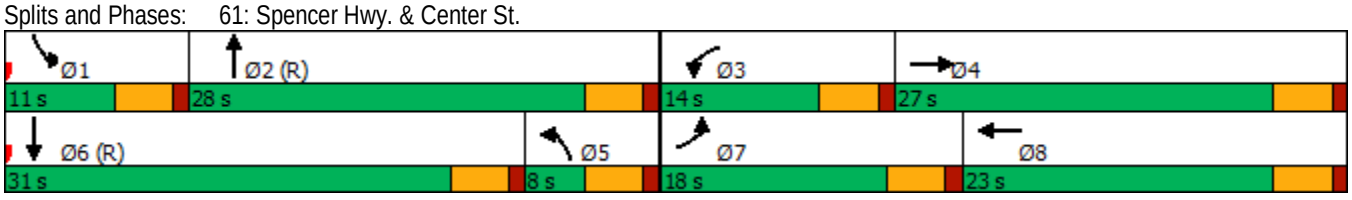
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.3	13.9	26.8		39.3	4.9	35.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	3.5	39.5		23.5	3.5	39.5				
Max Q Clear Time (g_c+I1), s		5.1	2.2	15.7		3.0	2.2	22.1				
Green Ext Time (p_c), s		0.4	0.0	6.5		0.1	0.0	9.2				

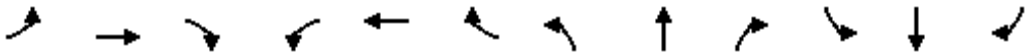
Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	345	814	169	932	57	910	187	696
Future Volume (vph)	345	814	169	932	57	910	187	696
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	27.0	14.0	23.0	8.0	28.0	11.0	31.0
Total Split (%)	22.5%	33.8%	17.5%	28.8%	10.0%	35.0%	13.8%	38.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.5	22.5	9.5	18.5	3.5	23.5	6.5	28.1
Actuated g/C Ratio	0.17	0.28	0.12	0.23	0.04	0.29	0.08	0.35
v/c Ratio	1.28	0.74	0.89	1.08	0.83	1.09	1.44	0.93
Control Delay	185.0	14.5	65.1	70.3	61.5	61.1	232.5	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	185.0	14.5	65.1	70.3	61.5	61.1	232.5	16.6
LOS	F	B	E	E	E	E	F	B
Approach Delay		59.9		69.6		61.1		49.0
Approach LOS		E		E		E		D

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.44	
Intersection Signal Delay: 60.1	Intersection LOS: E
Intersection Capacity Utilization 101.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	345	814	137	169	932	237	57	910	103	187	696	362
Future Volume (veh/h)	345	814	137	169	932	237	57	910	103	187	696	362
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	375	885	149	184	1013	258	62	989	112	203	757	393
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	296	1219	204	208	923	235	77	930	105	142	738	382
Arrive On Green	0.34	0.56	0.56	0.12	0.23	0.23	0.04	0.29	0.29	0.08	0.33	0.33
Sat Flow, veh/h	1753	4334	726	1753	3993	1015	1753	3166	358	1753	2228	1153
Grp Volume(v), veh/h	375	683	351	184	850	421	62	546	555	203	594	556
Grp Sat Flow(s),veh/h/ln	1753	1675	1710	1753	1675	1658	1753	1749	1776	1753	1749	1633
Q Serve(g_s), s	13.5	12.1	12.2	8.3	18.5	18.5	2.8	23.5	23.5	6.5	26.5	26.5
Cycle Q Clear(g_c), s	13.5	12.1	12.2	8.3	18.5	18.5	2.8	23.5	23.5	6.5	26.5	26.5
Prop In Lane	1.00		0.42	1.00		0.61	1.00		0.20	1.00		0.71
Lane Grp Cap(c), veh/h	296	942	481	208	775	383	77	514	522	142	579	541
V/C Ratio(X)	1.27	0.73	0.73	0.88	1.10	1.10	0.81	1.06	1.06	1.43	1.02	1.03
Avail Cap(c_a), veh/h	296	942	481	208	775	383	77	514	522	142	579	541
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.52	0.52	0.52	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	26.5	15.2	15.2	34.7	30.7	30.8	37.9	28.3	28.3	36.8	26.8	26.8
Incr Delay (d2), s/veh	138.0	2.0	3.9	20.2	54.5	63.4	45.4	57.5	57.4	195.1	18.2	19.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.6	3.4	3.7	4.6	13.0	13.8	2.1	17.5	17.8	10.4	13.3	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	164.5	17.2	19.2	54.9	85.3	94.2	83.3	85.8	85.7	231.8	45.0	46.6
LnGrp LOS	F	B	B	D	F	F	F	F	F	F	F	F
Approach Vol, veh/h		1409			1455			1163			1353	
Approach Delay, s/veh		56.9			84.0			85.6			73.7	
Approach LOS		E			F			F			E	

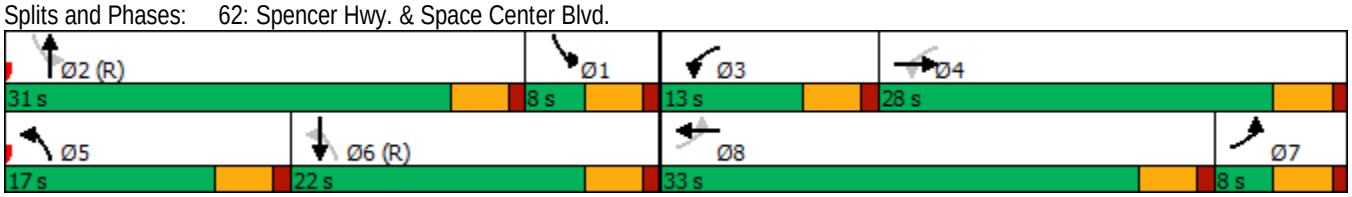
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	28.0	14.0	27.0	8.0	31.0	18.0	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	23.5	9.5	22.5	3.5	26.5	13.5	18.5
Max Q Clear Time (g_c+I1), s	8.5	25.5	10.3	14.2	4.8	28.5	15.5	20.5
Green Ext Time (p_c), s	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0

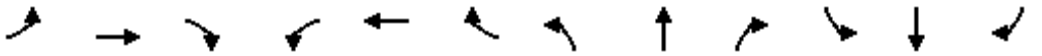
Intersection Summary	
HCM 6th Ctrl Delay	74.6
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	1096	220	1403	353	394	34	267
Future Volume (vph)	29	1096	220	1403	353	394	34	267
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	28.0	13.0	33.0	17.0	31.0	8.0	22.0
Total Split (%)	10.0%	35.0%	16.3%	41.3%	21.3%	38.8%	10.0%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	34.7	23.5	32.0	33.3	30.0	29.7	31.8	17.5
Actuated g/C Ratio	0.43	0.29	0.40	0.42	0.38	0.37	0.40	0.22
v/c Ratio	0.19	1.01	0.90	0.78	0.88	0.54	0.16	0.49
Control Delay	23.5	54.9	46.7	18.9	45.0	19.3	16.7	27.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	54.9	46.7	18.9	45.0	19.3	16.7	27.2
LOS	C	D	D	B	D	B	B	C
Approach Delay		54.2		22.6		28.5		26.2
Approach LOS		D		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 60 (75%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 34.0	Intersection LOS: C
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1096	216	220	1403	38	353	394	241	34	267	70
Future Volume (veh/h)	29	1096	216	220	1403	38	353	394	241	34	267	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	1191	235	239	1525	41	384	428	262	37	290	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	206	1237	244	282	1735	47	489	693	420	283	602	155
Arrive On Green	0.06	0.29	0.29	0.11	0.34	0.34	0.16	0.33	0.33	0.04	0.22	0.22
Sat Flow, veh/h	1753	4211	831	1753	5031	135	1753	2092	1269	1753	2753	709
Grp Volume(v), veh/h	32	948	478	239	1015	551	384	357	333	37	182	184
Grp Sat Flow(s),veh/h/ln	1753	1675	1691	1753	1675	1816	1753	1749	1612	1753	1749	1713
Q Serve(g_s), s	0.0	22.3	22.3	7.6	22.8	22.8	12.5	13.7	13.9	0.0	7.3	7.5
Cycle Q Clear(g_c), s	0.0	22.3	22.3	7.6	22.8	22.8	12.5	13.7	13.9	0.0	7.3	7.5
Prop In Lane	1.00		0.49	1.00		0.07	1.00		0.79	1.00		0.41
Lane Grp Cap(c), veh/h	206	984	497	282	1155	626	489	579	534	283	383	375
V/C Ratio(X)	0.16	0.96	0.96	0.85	0.88	0.88	0.79	0.62	0.62	0.13	0.48	0.49
Avail Cap(c_a), veh/h	206	984	497	282	1193	647	489	579	534	283	383	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	27.8	27.8	20.1	24.6	24.6	21.5	22.5	22.5	26.9	27.3	27.3
Incr Delay (d2), s/veh	0.3	18.1	27.9	10.4	3.6	6.3	8.2	4.9	5.4	0.2	4.2	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	10.5	11.9	3.5	8.6	9.8	6.4	6.1	5.7	0.6	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	45.9	55.7	30.5	28.2	31.0	29.7	27.3	27.9	27.1	31.5	31.9
LnGrp LOS	C	D	E	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1458			1805			1074			403	
Approach Delay, s/veh		48.9			29.4			28.4			31.2	
Approach LOS		D			C			C			C	

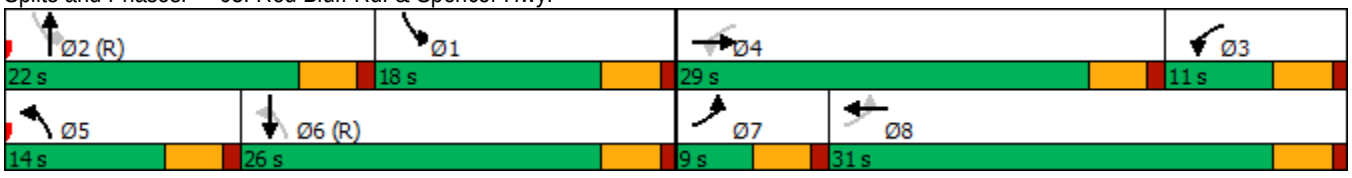
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	31.0	13.0	28.0	17.0	22.0	8.9	32.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	26.5	8.5	23.5	12.5	17.5	3.5	28.5
Max Q Clear Time (g_c+I1), s	2.0	15.9	9.6	24.3	14.5	9.5	2.0	24.8
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	1.3	0.0	2.8

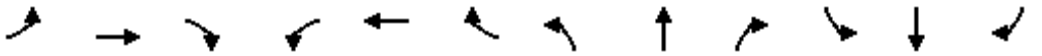
Intersection Summary	
HCM 6th Ctrl Delay	35.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	95	844	76	993	165	338	46	314	376
Future Volume (vph)	95	844	76	993	165	338	46	314	376
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	9.0	29.0	11.0	31.0	14.0	22.0	22.0	18.0	26.0
Total Split (%)	11.3%	36.3%	13.8%	38.8%	17.5%	27.5%	27.5%	22.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	30.3	24.5	30.3	26.7	32.6	19.1	19.1	32.6	23.7
Actuated g/C Ratio	0.38	0.31	0.38	0.33	0.41	0.24	0.24	0.41	0.30
v/c Ratio	0.54	0.68	0.34	0.88	0.44	0.45	0.09	0.68	0.46
Control Delay	18.8	9.2	16.3	19.8	24.6	27.6	1.2	14.0	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	9.2	16.3	19.8	24.6	27.6	1.2	14.0	7.9
LOS	B	A	B	B	C	C	A	B	A
Approach Delay		10.1		19.6		24.5			10.5
Approach LOS		B		B		C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 56 (70%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	844	135	76	993	357	165	338	46	314	376	63
Future Volume (veh/h)	95	844	135	76	993	357	165	338	46	314	376	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	101	898	144	81	1056	380	176	360	49	334	400	67
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	206	1141	182	336	1182	425	428	765	341	522	907	151
Arrive On Green	0.06	0.26	0.26	0.12	0.32	0.32	0.09	0.22	0.22	0.18	0.30	0.30
Sat Flow, veh/h	1753	4368	697	1753	3644	1311	1753	3497	1560	1753	3001	499
Grp Volume(v), veh/h	101	688	354	81	971	465	176	360	49	334	232	235
Grp Sat Flow(s),veh/h/ln	1753	1675	1715	1753	1675	1605	1753	1749	1560	1753	1749	1751
Q Serve(g_s), s	3.0	15.3	15.4	0.0	22.1	22.1	5.4	7.2	2.0	3.5	8.5	8.7
Cycle Q Clear(g_c), s	3.0	15.3	15.4	0.0	22.1	22.1	5.4	7.2	2.0	3.5	8.5	8.7
Prop In Lane	1.00		0.41	1.00		0.82	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	206	875	448	336	1087	521	428	765	341	522	529	529
V/C Ratio(X)	0.49	0.79	0.79	0.24	0.89	0.89	0.41	0.47	0.14	0.64	0.44	0.44
Avail Cap(c_a), veh/h	207	1026	525	336	1110	532	475	765	341	522	529	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.13	0.13	0.13	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	27.5	27.5	29.8	25.7	25.7	16.9	27.2	25.2	25.6	22.4	22.5
Incr Delay (d2), s/veh	0.2	0.5	1.0	0.0	1.0	2.0	0.6	2.1	0.9	2.6	2.6	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.6	5.9	1.4	8.4	8.2	2.1	3.1	0.8	5.6	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	28.0	28.5	29.8	26.7	27.7	17.5	29.3	26.1	28.2	25.1	25.2
LnGrp LOS	C	C	C	C	C	C	B	C	C	C	C	C
Approach Vol, veh/h		1143			1517			585			801	
Approach Delay, s/veh		27.4			27.2			25.5			26.4	
Approach LOS		C			C			C			C	

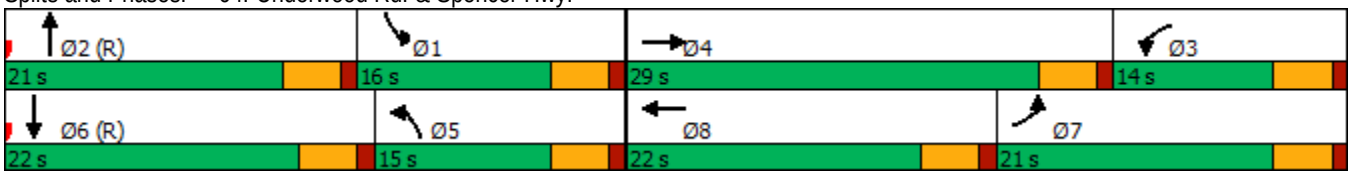
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	22.0	14.1	25.4	11.9	28.7	9.0	30.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	17.5	6.5	24.5	9.5	21.5	4.5	26.5
Max Q Clear Time (g_c+I1), s	5.5	9.2	2.0	17.4	7.4	10.7	5.0	24.1
Green Ext Time (p_c), s	0.7	1.6	0.1	3.5	0.1	2.1	0.0	1.9

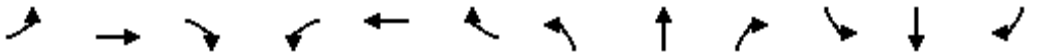
Intersection Summary	
HCM 6th Ctrl Delay	26.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	309	599	90	658	147	507	222	390
Future Volume (vph)	309	599	90	658	147	507	222	390
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	29.0	14.0	22.0	15.0	21.0	16.0	22.0
Total Split (%)	26.3%	36.3%	17.5%	27.5%	18.8%	26.3%	20.0%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.5	24.0	12.1	17.5	10.5	16.5	11.5	17.5
Actuated g/C Ratio	0.21	0.30	0.15	0.22	0.13	0.21	0.14	0.22
v/c Ratio	0.95	0.54	0.38	1.00	0.74	0.93	0.98	0.80
Control Delay	58.8	12.1	36.6	49.1	62.4	52.5	77.9	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.8	12.1	36.6	49.1	62.4	52.5	77.9	26.6
LOS	E	B	D	D	E	D	E	C
Approach Delay		26.3		48.1		54.4		40.8
Approach LOS		C		D		D		D

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 71 (89%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 41.8	Intersection LOS: D
Intersection Capacity Utilization 87.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	599	110	90	658	366	147	507	104	222	390	193
Future Volume (veh/h)	309	599	110	90	658	366	147	507	104	222	390	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	340	658	121	99	723	402	162	557	114	244	429	212
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	362	913	166	371	733	341	230	597	122	252	498	244
Arrive On Green	0.21	0.21	0.21	0.21	0.22	0.22	0.13	0.21	0.21	0.14	0.22	0.22
Sat Flow, veh/h	1753	4275	776	1753	3350	1560	1753	2893	590	1753	2275	1114
Grp Volume(v), veh/h	340	514	265	99	723	402	162	336	335	244	329	312
Grp Sat Flow(s),veh/h/ln	1753	1675	1701	1753	1675	1560	1753	1749	1734	1753	1749	1640
Q Serve(g_s), s	15.3	11.4	11.6	3.8	17.2	17.5	7.1	15.1	15.2	11.1	14.5	14.7
Cycle Q Clear(g_c), s	15.3	11.4	11.6	3.8	17.2	17.5	7.1	15.1	15.2	11.1	14.5	14.7
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.34	1.00		0.68
Lane Grp Cap(c), veh/h	362	716	363	371	733	341	230	361	358	252	383	359
V/C Ratio(X)	0.94	0.72	0.73	0.27	0.99	1.18	0.70	0.93	0.94	0.97	0.86	0.87
Avail Cap(c_a), veh/h	362	1026	521	371	733	341	230	361	358	252	383	359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.72	0.72	0.72	0.28	0.28	0.28	0.71	0.71	0.71
Uniform Delay (d), s/veh	31.3	29.2	29.3	26.4	31.1	31.3	33.3	31.2	31.2	34.1	30.1	30.2
Incr Delay (d2), s/veh	26.3	1.0	2.2	0.3	24.9	100.2	2.7	13.3	14.0	39.2	16.2	18.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	4.3	4.6	1.5	8.9	15.5	3.0	7.2	7.2	7.1	7.3	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	30.2	31.5	26.6	56.0	131.5	36.0	44.5	45.2	73.3	46.3	48.4
LnGrp LOS	E	C	C	C	E	F	D	D	D	E	D	D
Approach Vol, veh/h		1119			1224			833			885	
Approach Delay, s/veh		38.8			78.4			43.1			54.5	
Approach LOS		D			E			D			D	

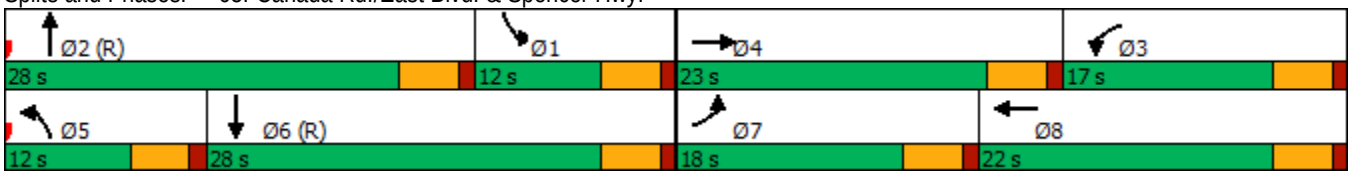
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	21.0	21.4	21.6	15.0	22.0	21.0	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	16.5	9.5	24.5	10.5	17.5	16.5	17.5
Max Q Clear Time (g_c+I1), s	13.1	17.2	5.8	13.6	9.1	16.7	17.3	19.5
Green Ext Time (p_c), s	0.0	0.0	0.1	3.5	0.1	0.3	0.0	0.0

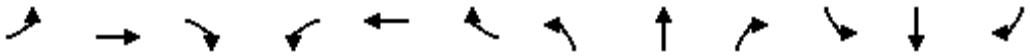
Intersection Summary	
HCM 6th Ctrl Delay	55.0
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	210	598	123	670	95	488	229	512
Future Volume (vph)	210	598	123	670	95	488	229	512
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	23.0	17.0	22.0	12.0	28.0	12.0	28.0
Total Split (%)	22.5%	28.8%	21.3%	27.5%	15.0%	35.0%	15.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.9	20.6	12.0	17.4	7.3	24.2	7.5	26.6
Actuated g/C Ratio	0.16	0.26	0.15	0.22	0.09	0.30	0.09	0.33
v/c Ratio	0.81	0.59	0.51	0.88	0.67	0.65	0.78	0.66
Control Delay	32.7	8.9	17.5	15.2	51.3	25.1	26.0	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	8.9	17.5	15.2	51.3	25.1	26.0	7.9
LOS	C	A	B	B	D	C	C	A
Approach Delay		14.5		15.4		28.6		12.3
Approach LOS		B		B		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 75.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	598	83	123	670	216	95	488	140	229	512	201
Future Volume (veh/h)	210	598	83	123	670	216	95	488	140	229	512	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	226	643	89	132	720	232	102	525	151	246	551	216
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	264	843	115	313	816	260	130	788	226	388	820	321
Arrive On Green	0.15	0.19	0.19	0.18	0.22	0.22	0.07	0.29	0.29	0.11	0.33	0.33
Sat Flow, veh/h	1753	4469	612	1753	3774	1201	1753	2683	768	3401	2456	960
Grp Volume(v), veh/h	226	480	252	132	638	314	102	341	335	246	392	375
Grp Sat Flow(s),veh/h/ln	1753	1675	1731	1753	1675	1625	1753	1749	1702	1700	1749	1668
Q Serve(g_s), s	10.1	10.9	11.1	5.4	14.8	15.0	4.6	13.7	13.8	5.5	15.4	15.5
Cycle Q Clear(g_c), s	10.1	10.9	11.1	5.4	14.8	15.0	4.6	13.7	13.8	5.5	15.4	15.5
Prop In Lane	1.00		0.35	1.00		0.74	1.00		0.45	1.00		0.58
Lane Grp Cap(c), veh/h	264	632	326	313	725	351	130	514	500	388	584	557
V/C Ratio(X)	0.85	0.76	0.77	0.42	0.88	0.89	0.79	0.66	0.67	0.63	0.67	0.67
Avail Cap(c_a), veh/h	296	775	400	313	733	355	164	514	500	388	584	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.17	0.17	0.17	0.43	0.43	0.43	0.12	0.12	0.12
Uniform Delay (d), s/veh	33.1	30.7	30.8	29.2	30.3	30.4	36.4	24.8	24.8	33.8	22.9	22.9
Incr Delay (d2), s/veh	13.0	2.2	4.6	0.2	2.4	5.4	8.3	2.9	3.1	0.4	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	4.2	4.7	2.1	5.7	5.9	2.2	5.7	5.6	2.2	6.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	33.0	35.4	29.3	32.7	35.8	44.7	27.7	27.9	34.3	23.6	23.7
LnGrp LOS	D	C	D	C	C	D	D	C	C	C	C	C
Approach Vol, veh/h		958			1084			778			1013	
Approach Delay, s/veh		36.7			33.2			30.0			26.2	
Approach LOS		D			C			C			C	

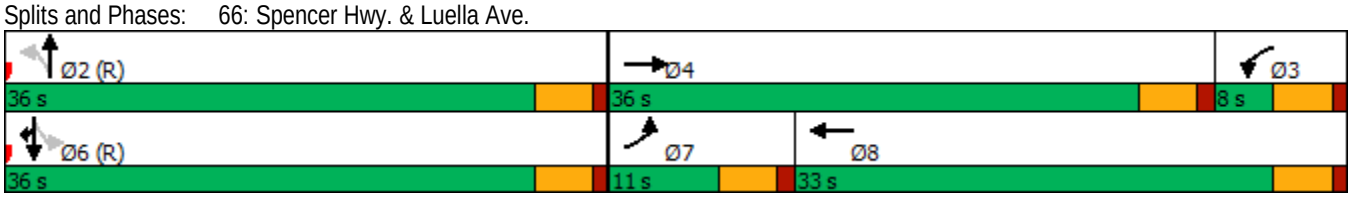
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	28.0	18.8	19.6	10.4	31.2	16.6	21.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	23.5	12.5	18.5	7.5	23.5	13.5	17.5
Max Q Clear Time (g_c+I1), s	7.5	15.8	7.4	13.1	6.6	17.5	12.1	17.0
Green Ext Time (p_c), s	0.0	2.4	0.1	2.0	0.0	2.4	0.1	0.3

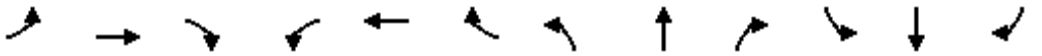
Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	67	903	4	1051	5	0	265	5	203
Future Volume (vph)	67	903	4	1051	5	0	265	5	203
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	36.0	8.0	33.0	36.0	36.0	36.0	36.0	36.0
Total Split (%)	13.8%	45.0%	10.0%	41.3%	45.0%	45.0%	45.0%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.3	35.1	5.5	28.1		34.1		34.1	34.1
Actuated g/C Ratio	0.08	0.44	0.07	0.35		0.43		0.43	0.43
v/c Ratio	0.54	0.47	0.03	0.86		0.01		0.53	0.29
Control Delay	33.7	9.0	21.0	14.9		0.0		20.3	3.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	33.7	9.0	21.0	14.9		0.0		20.3	3.3
LOS	C	A	C	B		A		C	A
Approach Delay		10.7		14.9				13.0	
Approach LOS		B		B				B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	903	22	4	1051	317	5	0	1	265	5	203
Future Volume (veh/h)	67	903	22	4	1051	317	5	0	1	265	5	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	1003	24	4	1168	352	6	0	1	294	6	226
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	1381	33	202	1282	386	399	6	54	720	13	690
Arrive On Green	0.05	0.27	0.27	0.23	0.67	0.67	0.44	0.00	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	5048	121	1753	3829	1154	712	15	121	1427	29	1560
Grp Volume(v), veh/h	74	665	362	4	1022	498	7	0	0	300	0	226
Grp Sat Flow(s),veh/h/ln	1753	1675	1819	1753	1675	1633	848	0	0	1456	0	1560
Q Serve(g_s), s	3.3	14.4	14.4	0.1	20.7	20.7	0.1	0.0	0.0	0.0	0.0	7.6
Cycle Q Clear(g_c), s	3.3	14.4	14.4	0.1	20.7	20.7	10.5	0.0	0.0	10.4	0.0	7.6
Prop In Lane	1.00		0.07	1.00		0.71	0.86		0.14	0.98		1.00
Lane Grp Cap(c), veh/h	95	917	498	202	1122	547	459	0	0	733	0	690
V/C Ratio(X)	0.78	0.73	0.73	0.02	0.91	0.91	0.02	0.00	0.00	0.41	0.00	0.33
Avail Cap(c_a), veh/h	142	1319	716	202	1193	582	459	0	0	733	0	690
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.79	0.79	0.79	1.00	0.00	0.00	0.72	0.00	0.72
Uniform Delay (d), s/veh	37.4	26.3	26.3	27.3	12.2	12.2	13.1	0.0	0.0	15.3	0.0	14.5
Incr Delay (d2), s/veh	6.5	0.5	0.9	0.0	8.3	15.0	0.1	0.0	0.0	1.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.3	5.8	0.1	4.6	5.5	0.1	0.0	0.0	3.8	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	26.8	27.2	27.3	20.5	27.2	13.2	0.0	0.0	16.6	0.0	15.5
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	B
Approach Vol, veh/h		1101			1524			7			526	
Approach Delay, s/veh		28.1			22.7			13.2			16.1	
Approach LOS		C			C			B			B	

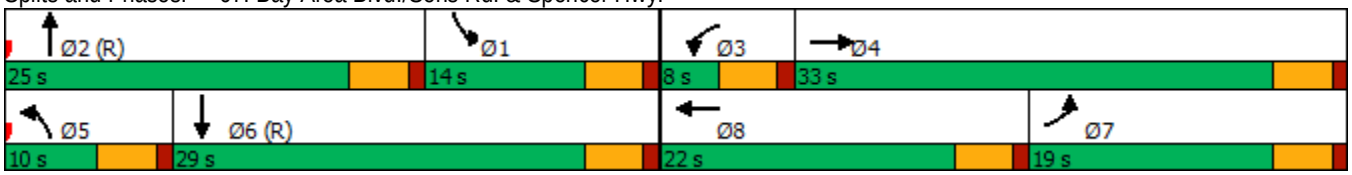
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.9	13.7	26.4		39.9	8.8	31.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		31.5	3.5	31.5		31.5	6.5	28.5				
Max Q Clear Time (g_c+I1), s		12.5	2.1	16.4		12.4	5.3	22.7				
Green Ext Time (p_c), s		0.0	0.0	5.5		2.5	0.0	4.1				

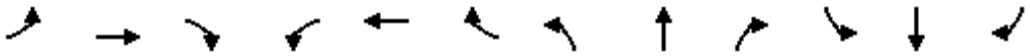
Intersection Summary												
HCM 6th Ctrl Delay			23.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	202	587	39	446	84	307	133	291
Future Volume (vph)	202	587	39	446	84	307	133	291
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	19.0	33.0	8.0	22.0	10.0	25.0	14.0	29.0
Total Split (%)	23.8%	41.3%	10.0%	27.5%	12.5%	31.3%	17.5%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.4	28.0	3.5	14.9	6.8	24.2	9.5	29.2
Actuated g/C Ratio	0.17	0.35	0.04	0.19	0.08	0.30	0.12	0.36
v/c Ratio	0.74	0.43	0.55	0.65	0.64	0.37	0.70	0.33
Control Delay	30.8	7.0	65.7	28.9	66.2	7.4	50.5	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	7.0	65.7	28.9	66.2	7.4	50.5	13.7
LOS	C	A	E	C	E	A	D	B
Approach Delay		12.5		31.2		18.2		23.0
Approach LOS		B		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 60.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	587	94	39	446	130	84	307	65	133	291	104
Future Volume (veh/h)	202	587	94	39	446	130	84	307	65	133	291	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	213	618	99	41	469	137	88	323	68	140	306	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	253	1241	196	51	655	185	112	739	154	362	1013	354
Arrive On Green	0.14	0.28	0.28	0.03	0.17	0.17	0.06	0.26	0.26	0.21	0.40	0.40
Sat Flow, veh/h	1753	4375	691	1753	3892	1101	1753	2882	599	1753	2542	888
Grp Volume(v), veh/h	213	471	246	41	402	204	88	194	197	140	209	206
Grp Sat Flow(s),veh/h/ln	1753	1675	1716	1753	1675	1643	1753	1749	1733	1753	1749	1681
Q Serve(g_s), s	9.5	9.4	9.6	1.9	9.1	9.5	4.0	7.4	7.6	5.5	6.5	6.7
Cycle Q Clear(g_c), s	9.5	9.4	9.6	1.9	9.1	9.5	4.0	7.4	7.6	5.5	6.5	6.7
Prop In Lane	1.00		0.40	1.00		0.67	1.00		0.35	1.00		0.53
Lane Grp Cap(c), veh/h	253	950	487	51	564	276	112	448	444	362	697	670
V/C Ratio(X)	0.84	0.50	0.50	0.81	0.71	0.74	0.79	0.43	0.44	0.39	0.30	0.31
Avail Cap(c_a), veh/h	318	1193	611	77	733	359	121	448	444	362	697	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	1.00	1.00	1.00	0.89	0.89	0.89	0.99	0.99	0.99
Uniform Delay (d), s/veh	33.3	23.9	24.0	38.6	31.4	31.6	36.9	24.9	25.0	27.4	16.4	16.5
Incr Delay (d2), s/veh	11.4	0.3	0.6	30.3	2.3	5.7	24.1	2.7	2.8	0.7	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.6	3.8	1.2	3.7	4.1	2.4	3.2	3.3	2.3	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	24.2	24.5	69.0	33.7	37.3	61.0	27.6	27.8	28.1	17.5	17.7
LnGrp LOS	D	C	C	E	C	D	E	C	C	C	B	B
Approach Vol, veh/h		930			647			479			555	
Approach Delay, s/veh		29.0			37.1			33.8			20.2	
Approach LOS		C			D			C			C	

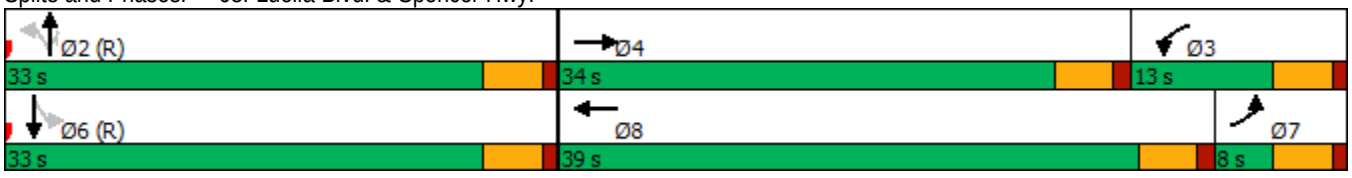
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	25.0	6.8	27.2	9.6	36.4	16.0	18.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	20.5	3.5	28.5	5.5	24.5	14.5	17.5
Max Q Clear Time (g_c+I1), s	7.5	9.6	3.9	11.6	6.0	8.7	11.5	11.5
Green Ext Time (p_c), s	0.1	1.6	0.0	4.4	0.0	2.2	0.2	2.0

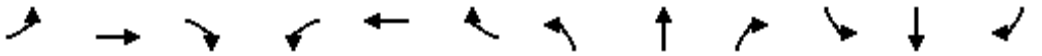
Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	8	1022	66	1220	188	4	63	4	4
Future Volume (vph)	8	1022	66	1220	188	4	63	4	4
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	7	4	3	8		2			6
Permitted Phases					2		2	6	
Detector Phase	7	4	3	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	34.0	13.0	39.0	33.0	33.0	33.0	33.0	33.0
Total Split (%)	10.0%	42.5%	16.3%	48.8%	41.3%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.2	28.3	7.7	36.9	32.5	32.5	32.5		32.5
Actuated g/C Ratio	0.06	0.35	0.10	0.46	0.41	0.41	0.41		0.41
v/c Ratio	0.08	0.76	0.44	0.61	0.39	0.01	0.10		0.02
Control Delay	32.5	9.6	37.2	11.8	26.6	20.5	7.1		14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	32.5	9.6	37.2	11.8	26.6	20.5	7.1		14.3
LOS	C	A	D	B	C	C	A		B
Approach Delay		9.8		13.1		21.7			14.3
Approach LOS		A		B		C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 38 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	1022	137	66	1220	5	188	4	63	4	4	4
Future Volume (veh/h)	8	1022	137	66	1220	5	188	4	63	4	4	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	9	1136	152	73	1356	6	209	4	70	4	4	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	14	1354	181	94	1797	8	750	875	741	278	276	247
Arrive On Green	0.02	0.60	0.60	0.05	0.35	0.35	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1753	4483	600	1753	5164	23	1385	1841	1560	459	580	520
Grp Volume(v), veh/h	9	849	439	73	880	482	209	4	70	12	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1733	1753	1675	1837	1385	1841	1560	1559	0	0
Q Serve(g_s), s	0.4	16.3	16.3	3.3	18.6	18.6	7.1	0.1	2.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	16.3	16.3	3.3	18.6	18.6	7.4	0.1	2.0	0.3	0.0	0.0
Prop In Lane	1.00		0.35	1.00		0.01	1.00		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	14	1012	523	94	1166	639	750	875	741	801	0	0
V/C Ratio(X)	0.65	0.84	0.84	0.77	0.75	0.75	0.28	0.00	0.09	0.01	0.00	0.00
Avail Cap(c_a), veh/h	77	1235	639	186	1445	792	750	875	741	801	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.39	0.39	0.39	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.3	14.3	14.3	37.4	23.1	23.1	12.9	11.0	11.5	11.1	0.0	0.0
Incr Delay (d2), s/veh	36.7	3.9	7.3	5.2	0.7	1.3	0.9	0.0	0.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.9	4.5	1.5	6.8	7.5	2.3	0.0	0.7	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.0	18.2	21.6	42.6	23.8	24.4	13.8	11.0	11.8	11.1	0.0	0.0
LnGrp LOS	E	B	C	D	C	C	B	B	B	B	A	A
Approach Vol, veh/h		1297			1435			283			12	
Approach Delay, s/veh		19.7			24.9			13.3			11.1	
Approach LOS		B			C			B			B	

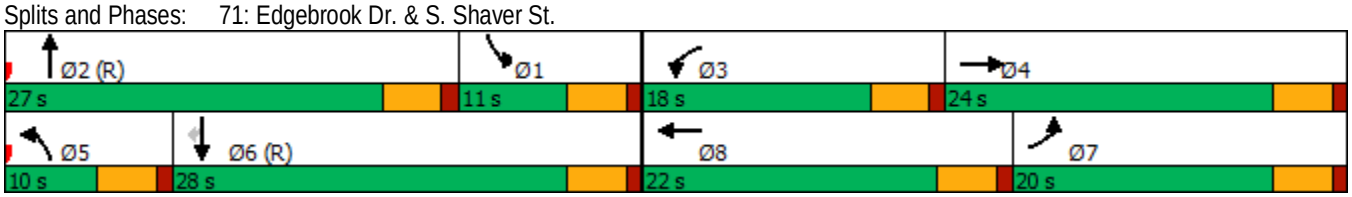
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.5	8.8	28.7		42.5	5.1	32.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	8.5	29.5		28.5	3.5	34.5				
Max Q Clear Time (g_c+I1), s		9.4	5.3	18.3		2.3	2.4	20.6				
Green Ext Time (p_c), s		0.8	0.0	5.9		0.0	0.0	7.3				

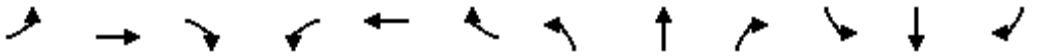
Intersection Summary												
HCM 6th Ctrl Delay			21.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	234	687	204	566	63	485	72	522	269
Future Volume (vph)	234	687	204	566	63	485	72	522	269
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	24.0	18.0	22.0	10.0	27.0	11.0	28.0	28.0
Total Split (%)	25.0%	30.0%	22.5%	27.5%	12.5%	33.8%	13.8%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.7	19.0	12.9	17.3	5.6	25.8	6.4	26.5	26.5
Actuated g/C Ratio	0.18	0.24	0.16	0.22	0.07	0.32	0.08	0.33	0.33
v/c Ratio	0.82	0.68	0.81	0.90	0.58	0.65	0.58	0.50	0.43
Control Delay	38.1	19.7	34.2	29.2	42.7	12.2	43.6	16.6	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.1	19.7	34.2	29.2	42.7	12.2	43.6	16.6	4.0
LOS	D	B	C	C	D	B	D	B	A
Approach Delay		24.2		30.5		14.9		14.9	
Approach LOS		C		C		B		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 73 (91%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 72.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	687	38	204	566	38	63	485	165	72	522	269
Future Volume (veh/h)	234	687	38	204	566	38	63	485	165	72	522	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	260	763	42	227	629	42	70	539	183	80	580	299
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	299	1134	62	267	713	48	89	722	244	191	1186	529
Arrive On Green	0.17	0.23	0.23	0.10	0.14	0.14	0.05	0.28	0.28	0.04	0.11	0.11
Sat Flow, veh/h	1753	4875	267	1753	3328	222	1753	2566	868	1753	3497	1560
Grp Volume(v), veh/h	260	523	282	227	330	341	70	367	355	80	580	299
Grp Sat Flow(s),veh/h/ln	1753	1675	1793	1753	1749	1801	1753	1749	1685	1753	1749	1560
Q Serve(g_s), s	11.6	11.4	11.4	10.2	14.8	14.8	3.2	15.3	15.4	3.6	12.5	8.3
Cycle Q Clear(g_c), s	11.6	11.4	11.4	10.2	14.8	14.8	3.2	15.3	15.4	3.6	12.5	8.3
Prop In Lane	1.00		0.15	1.00		0.12	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	299	779	417	267	375	386	89	492	474	191	1186	529
V/C Ratio(X)	0.87	0.67	0.68	0.85	0.88	0.88	0.78	0.75	0.75	0.42	0.49	0.57
Avail Cap(c_a), veh/h	340	817	437	296	383	394	121	492	474	191	1186	529
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	32.3	27.9	27.9	35.0	33.3	33.3	37.5	26.1	26.2	36.1	29.0	9.8
Incr Delay (d2), s/veh	19.0	2.0	3.9	10.1	11.1	11.0	20.7	9.9	10.4	1.3	1.3	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	4.6	5.2	5.2	7.6	7.9	1.8	7.3	7.2	1.6	6.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	30.0	31.8	45.1	44.4	44.3	58.3	36.0	36.6	37.4	30.3	13.7
LnGrp LOS	D	C	C	D	D	D	E	D	D	D	C	B
Approach Vol, veh/h		1065			898			792			959	
Approach Delay, s/veh		35.6			44.5			38.3			25.7	
Approach LOS		D			D			D			C	

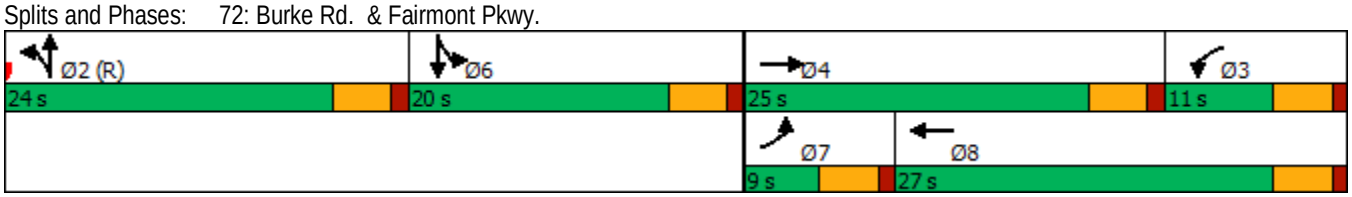
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	27.0	16.7	23.1	8.6	31.6	18.2	21.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.5	13.5	19.5	5.5	23.5	15.5	17.5
Max Q Clear Time (g_c+I1), s	5.6	17.4	12.2	13.4	5.2	14.5	13.6	16.8
Green Ext Time (p_c), s	0.0	2.0	0.1	2.6	0.0	3.4	0.2	0.3

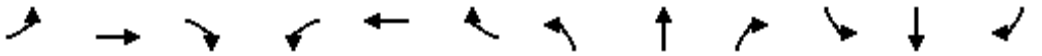
Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	76	794	121	675	403	165	342
Future Volume (vph)	76	794	121	675	403	165	342
Turn Type	Prot	NA	Prot	NA	NA	Split	NA
Protected Phases	7	4	3	8	2	6	6
Permitted Phases							
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	25.0	11.0	27.0	24.0	20.0	20.0
Total Split (%)	11.3%	31.3%	13.8%	33.8%	30.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	Max	Max
Act Effct Green (s)	4.5	20.5	6.5	22.5	19.5	15.5	15.5
Actuated g/C Ratio	0.06	0.26	0.08	0.28	0.24	0.19	0.19
v/c Ratio	0.84	1.10	0.91	0.88	1.05	0.52	0.66
Control Delay	82.8	82.8	80.9	30.9	65.0	30.5	28.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.8	82.8	80.9	30.9	65.0	30.5	28.3
LOS	F	F	F	C	E	C	C
Approach Delay		82.8		37.4	65.0		28.9
Approach LOS		F		D	E		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 69 (86%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 56.3	Intersection LOS: E
Intersection Capacity Utilization 88.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	794	119	121	675	133	230	403	196	165	342	77
Future Volume (veh/h)	76	794	119	121	675	133	230	403	196	165	342	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	81	845	127	129	718	141	245	429	0	176	364	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	99	781	117	142	820	161	298	562		340	678	
Arrive On Green	0.06	0.26	0.26	0.03	0.09	0.09	0.24	0.24	0.00	0.19	0.19	0.00
Sat Flow, veh/h	1753	3049	458	1753	2914	572	1223	2397	0	1753	3589	0
Grp Volume(v), veh/h	81	485	487	129	431	428	356	318	0	176	364	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1758	1753	1749	1738	1780	1749	0	1753	1749	0
Q Serve(g_s), s	3.7	20.5	20.5	5.9	19.5	19.5	15.1	13.4	0.0	7.2	7.5	0.0
Cycle Q Clear(g_c), s	3.7	20.5	20.5	5.9	19.5	19.5	15.1	13.4	0.0	7.2	7.5	0.0
Prop In Lane	1.00		0.26	1.00		0.33	0.69		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	99	448	451	142	492	489	434	426		340	678	
V/C Ratio(X)	0.82	1.08	1.08	0.91	0.88	0.88	0.82	0.75		0.52	0.54	
Avail Cap(c_a), veh/h	99	448	451	142	492	489	434	426		340	678	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	0.59	0.59	0.59	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.4	29.7	29.8	38.6	34.9	34.9	28.6	28.0	0.0	28.9	29.0	0.0
Incr Delay (d2), s/veh	32.3	60.8	60.7	33.9	10.3	10.5	1.7	1.1	0.0	5.6	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	15.8	15.9	3.9	10.4	10.4	6.4	5.5	0.0	3.5	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.7	90.6	90.5	72.5	45.2	45.4	30.3	29.1	0.0	34.5	32.1	0.0
LnGrp LOS	E	F	F	E	D	D	C	C		C	C	
Approach Vol, veh/h		1053			988			674	A		540	A
Approach Delay, s/veh		88.9			48.9			29.7			32.8	
Approach LOS		F			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0	11.0	25.0		20.0	9.0	27.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	6.5	20.5		15.5	4.5	22.5				
Max Q Clear Time (g_c+I1), s		17.1	7.9	22.5		9.5	5.7	21.5				
Green Ext Time (p_c), s		1.0	0.0	0.0		1.5	0.0	0.6				

Intersection Summary	
HCM 6th Ctrl Delay	55.2
HCM 6th LOS	E

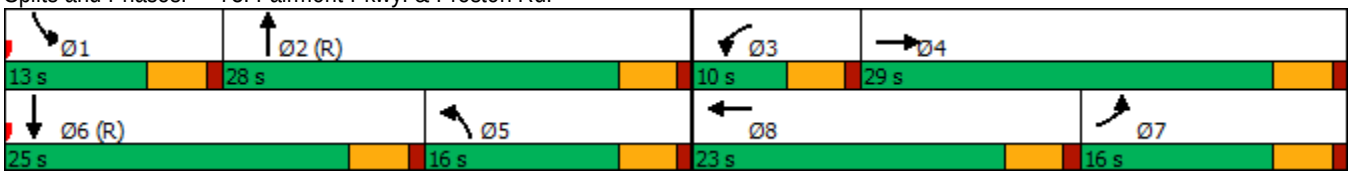
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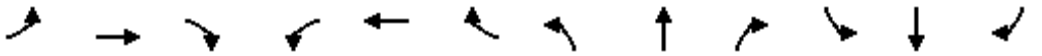
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	166	861	72	794	180	580	268	631
Future Volume (vph)	166	861	72	794	180	580	268	631
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	29.0	10.0	23.0	16.0	28.0	13.0	25.0
Total Split (%)	20.0%	36.3%	12.5%	28.8%	20.0%	35.0%	16.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.9	25.9	5.5	18.5	11.5	24.0	8.6	21.1
Actuated g/C Ratio	0.14	0.32	0.07	0.23	0.14	0.30	0.11	0.26
v/c Ratio	0.74	0.66	0.64	0.89	0.76	0.75	0.78	0.82
Control Delay	30.4	6.5	62.0	38.6	54.2	29.3	34.2	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	6.5	62.0	38.6	54.2	29.3	34.2	24.6
LOS	C	A	E	D	D	C	C	C
Approach Delay		9.9		40.2		34.2		27.2
Approach LOS		A		D		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 63 (79%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 78.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	861	150	72	794	189	180	580	159	268	631	80
Future Volume (veh/h)	166	861	150	72	794	189	180	580	159	268	631	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	175	906	158	76	836	199	189	611	167	282	664	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	208	1263	219	97	932	220	299	871	238	359	800	101
Arrive On Green	0.24	0.59	0.59	0.06	0.23	0.23	0.17	0.32	0.32	0.11	0.26	0.26
Sat Flow, veh/h	1753	4308	748	1753	4058	960	1753	2715	741	3401	3124	395
Grp Volume(v), veh/h	175	704	360	76	689	346	189	393	385	282	371	377
Grp Sat Flow(s),veh/h/ln	1753	1675	1706	1753	1675	1668	1753	1749	1707	1700	1749	1770
Q Serve(g_s), s	7.6	12.0	12.1	3.4	16.0	16.1	8.0	15.8	15.8	6.5	16.0	16.1
Cycle Q Clear(g_c), s	7.6	12.0	12.1	3.4	16.0	16.1	8.0	15.8	15.8	6.5	16.0	16.1
Prop In Lane	1.00		0.44	1.00		0.58	1.00		0.43	1.00		0.22
Lane Grp Cap(c), veh/h	208	982	500	97	770	383	299	561	548	359	448	453
V/C Ratio(X)	0.84	0.72	0.72	0.78	0.90	0.90	0.63	0.70	0.70	0.78	0.83	0.83
Avail Cap(c_a), veh/h	252	1026	522	121	775	386	299	561	548	361	448	453
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.26	0.26	0.26	1.00	1.00	1.00	0.65	0.65	0.65
Uniform Delay (d), s/veh	29.8	14.2	14.2	37.3	29.9	29.9	30.9	23.8	23.8	34.9	28.1	28.1
Incr Delay (d2), s/veh	12.6	1.4	2.9	6.9	4.0	8.0	4.3	7.1	7.4	7.2	11.1	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.2	3.5	1.6	6.6	7.1	3.6	7.3	7.2	3.0	7.8	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	15.6	17.1	44.2	33.9	38.0	35.2	30.9	31.2	42.1	39.1	39.2
LnGrp LOS	D	B	B	D	C	D	D	C	C	D	D	D
Approach Vol, veh/h		1239			1111			967			1030	
Approach Delay, s/veh		19.8			35.8			31.8			40.0	
Approach LOS		B			D			C			D	

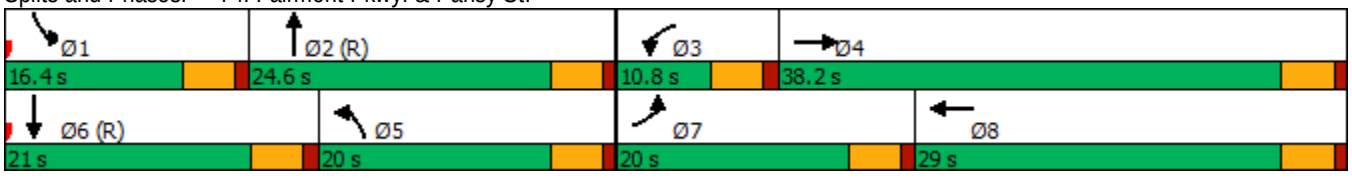
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	30.2	8.9	27.9	18.1	25.0	14.0	22.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	23.5	5.5	24.5	11.5	20.5	11.5	18.5
Max Q Clear Time (g_c+I1), s	8.5	17.8	5.4	14.1	10.0	18.1	9.6	18.1
Green Ext Time (p_c), s	0.0	2.4	0.0	5.1	0.1	1.1	0.1	0.3

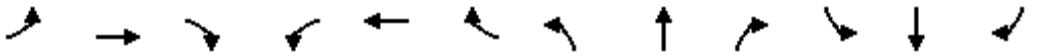
Intersection Summary	
HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	220	1148	56	1045	221	207	90	217
Future Volume (vph)	220	1148	56	1045	221	207	90	217
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	8.0	20.0	9.5	20.0
Total Split (s)	20.0	38.2	10.8	29.0	20.0	24.6	16.4	21.0
Total Split (%)	22.2%	42.4%	12.0%	32.2%	22.2%	27.3%	18.2%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.0	35.9	6.2	25.0	15.5	24.2	10.0	16.5
Actuated g/C Ratio	0.17	0.40	0.07	0.28	0.17	0.27	0.11	0.18
v/c Ratio	0.87	0.78	0.54	0.94	0.84	0.36	0.53	0.55
Control Delay	65.7	27.1	58.1	46.6	61.9	23.5	47.7	28.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.7	27.1	58.1	46.6	61.9	23.5	47.7	28.9
LOS	E	C	E	D	E	C	D	C
Approach Delay		32.5		47.1		39.9		33.0
Approach LOS		C		D		D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 38.3	Intersection LOS: D
Intersection Capacity Utilization 76.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1148	210	56	1045	100	221	207	90	90	217	110
Future Volume (veh/h)	220	1148	210	56	1045	100	221	207	90	90	217	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	250	1305	239	64	1188	114	251	235	102	102	247	125
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	284	1654	303	82	1268	122	320	700	294	130	417	204
Arrive On Green	0.16	0.39	0.39	0.05	0.27	0.27	0.18	0.29	0.29	0.07	0.18	0.18
Sat Flow, veh/h	1753	4269	782	1753	4663	447	1753	2399	1009	1753	2275	1114
Grp Volume(v), veh/h	250	1024	520	64	853	449	251	169	168	102	188	184
Grp Sat Flow(s),veh/h/ln	1753	1675	1700	1753	1675	1760	1753	1749	1659	1753	1749	1640
Q Serve(g_s), s	12.5	24.3	24.3	3.3	22.4	22.4	12.3	6.8	7.2	5.1	8.9	9.3
Cycle Q Clear(g_c), s	12.5	24.3	24.3	3.3	22.4	22.4	12.3	6.8	7.2	5.1	8.9	9.3
Prop In Lane	1.00		0.46	1.00		0.25	1.00		0.61	1.00		0.68
Lane Grp Cap(c), veh/h	284	1298	659	82	911	479	320	510	484	130	321	301
V/C Ratio(X)	0.88	0.79	0.79	0.78	0.94	0.94	0.78	0.33	0.35	0.79	0.59	0.61
Avail Cap(c_a), veh/h	302	1298	659	123	912	479	320	510	484	232	321	301
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	24.3	24.3	42.4	32.0	32.0	35.1	25.0	25.1	41.0	33.6	33.8
Incr Delay (d2), s/veh	17.2	2.3	4.4	16.9	16.6	26.2	12.0	1.7	2.0	9.9	7.6	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	9.6	10.1	1.8	10.9	12.7	6.2	3.0	3.0	2.6	4.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	26.6	28.7	59.3	48.6	58.2	47.1	26.7	27.1	50.9	41.3	42.8
LnGrp LOS	D	C	C	E	D	E	D	C	C	D	D	D
Approach Vol, veh/h		1794			1366			588			474	
Approach Delay, s/veh		31.0			52.2			35.5			43.9	
Approach LOS		C			D			D			D	

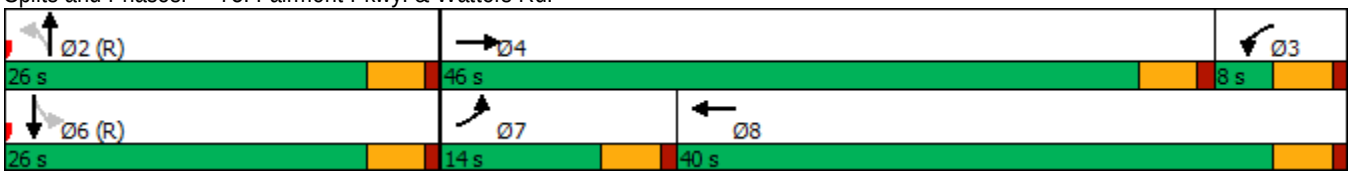
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	30.8	8.7	39.4	20.9	21.0	19.1	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.9	20.1	6.3	33.7	15.5	16.5	15.5	24.5
Max Q Clear Time (g_c+I1), s	7.1	9.2	5.3	26.3	14.3	11.3	14.5	24.4
Green Ext Time (p_c), s	0.1	1.5	0.0	5.4	0.1	1.0	0.1	0.1

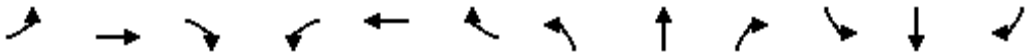
Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	77	1159	19	894	17	8	66	10
Future Volume (vph)	77	1159	19	894	17	8	66	10
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	46.0	8.0	40.0	26.0	26.0	26.0	26.0
Total Split (%)	17.5%	57.5%	10.0%	50.0%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.3	40.8	4.9	33.2		27.0		27.0
Actuated g/C Ratio	0.10	0.51	0.06	0.42		0.34		0.34
v/c Ratio	0.46	0.72	0.20	0.74		0.07		0.33
Control Delay	48.4	7.8	19.3	8.8		17.6		15.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	48.4	7.8	19.3	8.8		17.6		15.8
LOS	D	A	B	A		B		B
Approach Delay		10.3		9.0		17.6		15.8
Approach LOS		B		A		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1159	17	19	894	83	17	8	9	66	10	88
Future Volume (veh/h)	77	1159	17	19	894	83	17	8	9	66	10	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	84	1260	18	21	972	90	18	9	10	72	11	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	108	1529	22	29	1255	116	325	163	156	270	60	309
Arrive On Green	0.06	0.43	0.43	0.02	0.39	0.39	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1753	3530	50	1753	3236	300	676	426	408	542	158	810
Grp Volume(v), veh/h	84	624	654	21	525	537	37	0	0	179	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1832	1753	1749	1787	1511	0	0	1510	0	0
Q Serve(g_s), s	3.8	25.2	25.2	1.0	21.0	21.0	0.0	0.0	0.0	3.4	0.0	0.0
Cycle Q Clear(g_c), s	3.8	25.2	25.2	1.0	21.0	21.0	1.1	0.0	0.0	6.3	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.17	0.49		0.27	0.40		0.54
Lane Grp Cap(c), veh/h	108	758	794	29	678	693	644	0	0	639	0	0
V/C Ratio(X)	0.78	0.82	0.82	0.73	0.77	0.77	0.06	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	208	907	950	77	776	793	644	0	0	639	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.38	0.38	0.38	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.0	20.0	20.0	39.2	21.4	21.4	15.6	0.0	0.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.5	0.5	12.9	1.7	1.6	0.2	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.5	10.0	0.5	8.4	8.5	0.4	0.0	0.0	2.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	20.5	20.5	52.1	23.1	23.1	15.8	0.0	0.0	18.3	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1362			1083			37			179	
Approach Delay, s/veh		21.6			23.6			15.8			18.3	
Approach LOS		C			C			B			B	

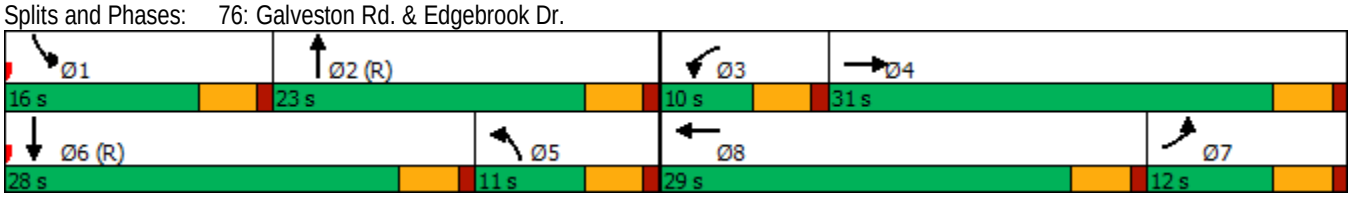
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.0	5.8	39.2		35.0	9.4	35.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	9.5	35.5				
Max Q Clear Time (g_c+I1), s		3.1	3.0	27.2		8.3	5.8	23.0				
Green Ext Time (p_c), s		0.1	0.0	7.5		0.8	0.1	5.6				

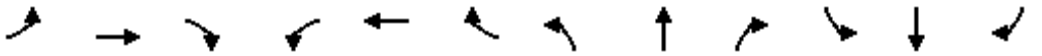
Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	145	730	75	725	52	463	215	378
Future Volume (vph)	145	730	75	725	52	463	215	378
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	31.0	10.0	29.0	11.0	23.0	16.0	28.0
Total Split (%)	15.0%	38.8%	12.5%	36.3%	13.8%	28.8%	20.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	28.5	5.5	24.5	6.3	18.5	11.5	27.9
Actuated g/C Ratio	0.09	0.36	0.07	0.31	0.08	0.23	0.14	0.35
v/c Ratio	0.91	0.67	0.65	0.98	0.39	0.68	0.88	0.42
Control Delay	71.2	11.3	49.9	47.6	25.0	15.9	69.2	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.2	11.3	49.9	47.6	25.0	15.9	69.2	20.2
LOS	E	B	D	D	C	B	E	C
Approach Delay		20.4		47.7		16.7		35.2
Approach LOS		C		D		B		D

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 31.9	Intersection LOS: C
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	730	75	75	725	305	52	463	70	215	378	112
Future Volume (veh/h)	145	730	75	75	725	305	52	463	70	215	378	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	148	745	77	77	740	311	53	472	71	219	386	114
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	164	1101	114	98	735	309	142	705	106	252	784	229
Arrive On Green	0.09	0.34	0.34	0.06	0.31	0.31	0.08	0.23	0.23	0.14	0.29	0.29
Sat Flow, veh/h	1753	3199	331	1753	2400	1008	1753	3051	457	1753	2670	779
Grp Volume(v), veh/h	148	407	415	77	539	512	53	270	273	219	251	249
Grp Sat Flow(s),veh/h/ln	1753	1749	1781	1753	1749	1659	1753	1749	1759	1753	1749	1700
Q Serve(g_s), s	6.7	15.9	15.9	3.5	24.5	24.5	2.3	11.2	11.3	9.8	9.5	9.7
Cycle Q Clear(g_c), s	6.7	15.9	15.9	3.5	24.5	24.5	2.3	11.2	11.3	9.8	9.5	9.7
Prop In Lane	1.00		0.19	1.00		0.61	1.00		0.26	1.00		0.46
Lane Grp Cap(c), veh/h	164	602	613	98	536	508	142	404	407	252	514	500
V/C Ratio(X)	0.90	0.68	0.68	0.78	1.01	1.01	0.37	0.67	0.67	0.87	0.49	0.50
Avail Cap(c_a), veh/h	164	602	613	121	536	508	142	404	407	252	514	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	22.4	22.4	37.3	27.7	27.8	34.8	27.9	28.0	33.5	23.3	23.4
Incr Delay (d2), s/veh	42.8	3.0	3.0	23.3	40.6	41.8	1.6	8.4	8.6	26.1	3.3	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	6.7	6.8	2.1	15.7	15.1	1.0	5.5	5.6	5.9	4.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.7	25.5	25.4	60.6	68.3	69.5	36.4	36.4	36.6	59.6	26.6	26.9
LnGrp LOS	E	C	C	E	F	F	D	D	D	E	C	C
Approach Vol, veh/h		970			1128			596			719	
Approach Delay, s/veh		33.6			68.3			36.5			36.8	
Approach LOS		C			E			D			D	

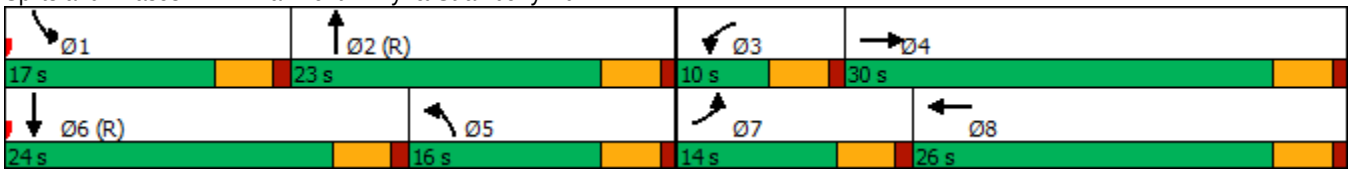
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	23.0	9.0	32.0	11.0	28.0	12.0	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	18.5	5.5	26.5	6.5	23.5	7.5	24.5
Max Q Clear Time (g_c+I1), s	11.8	13.3	5.5	17.9	4.3	11.7	8.7	26.5
Green Ext Time (p_c), s	0.0	1.5	0.0	3.4	0.0	2.4	0.0	0.0

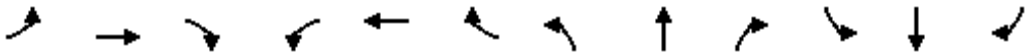
Intersection Summary	
HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	141	616	33	562	105	569	189	361
Future Volume (vph)	141	616	33	562	105	569	189	361
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	30.0	10.0	26.0	16.0	23.0	17.0	24.0
Total Split (%)	17.5%	37.5%	12.5%	32.5%	20.0%	28.8%	21.3%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.2	28.9	5.5	21.2	10.5	19.6	11.9	23.3
Actuated g/C Ratio	0.12	0.36	0.07	0.26	0.13	0.24	0.15	0.29
v/c Ratio	0.76	0.57	0.29	0.91	0.50	0.84	0.79	0.57
Control Delay	49.2	15.4	35.5	26.8	32.5	31.7	41.4	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.2	15.4	35.5	26.8	32.5	31.7	41.4	13.9
LOS	D	B	D	C	C	C	D	B
Approach Delay		21.3		27.1		31.8		21.0
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 67 (84%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 25.3	Intersection LOS: C
Intersection Capacity Utilization 79.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	616	44	33	562	230	105	569	94	189	361	184
Future Volume (veh/h)	141	616	44	33	562	230	105	569	94	189	361	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	152	662	47	35	604	247	113	612	101	203	388	198
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	187	1162	82	43	651	266	274	788	130	241	549	276
Arrive On Green	0.11	0.35	0.35	0.01	0.09	0.09	0.16	0.26	0.26	0.14	0.24	0.24
Sat Flow, veh/h	1753	3312	235	1753	2422	989	1753	3005	495	1753	2252	1134
Grp Volume(v), veh/h	152	349	360	35	436	415	113	356	357	203	300	286
Grp Sat Flow(s),veh/h/ln	1753	1749	1798	1753	1749	1663	1753	1749	1752	1753	1749	1637
Q Serve(g_s), s	6.8	13.0	13.0	1.6	19.8	19.8	4.7	15.1	15.1	9.0	12.5	12.8
Cycle Q Clear(g_c), s	6.8	13.0	13.0	1.6	19.8	19.8	4.7	15.1	15.1	9.0	12.5	12.8
Prop In Lane	1.00		0.13	1.00		0.60	1.00		0.28	1.00		0.69
Lane Grp Cap(c), veh/h	187	613	631	43	470	447	274	459	460	241	426	399
V/C Ratio(X)	0.81	0.57	0.57	0.82	0.93	0.93	0.41	0.78	0.78	0.84	0.70	0.72
Avail Cap(c_a), veh/h	208	613	631	121	470	447	274	459	460	274	426	399
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	0.34	0.34	0.34	1.00	1.00	1.00	0.63	0.63	0.63
Uniform Delay (d), s/veh	35.0	21.1	21.1	39.5	35.7	35.7	30.5	27.3	27.3	33.7	27.6	27.7
Incr Delay (d2), s/veh	14.2	0.9	0.8	12.3	11.0	11.7	1.0	12.1	12.2	12.7	6.1	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	5.2	5.3	0.8	10.6	10.2	2.0	7.6	7.6	4.6	5.8	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	21.9	21.9	51.8	46.7	47.4	31.4	39.4	39.6	46.3	33.7	34.5
LnGrp LOS	D	C	C	D	D	D	C	D	D	D	C	C
Approach Vol, veh/h		861			886			826			789	
Approach Delay, s/veh		26.7			47.2			38.4			37.2	
Approach LOS		C			D			D			D	

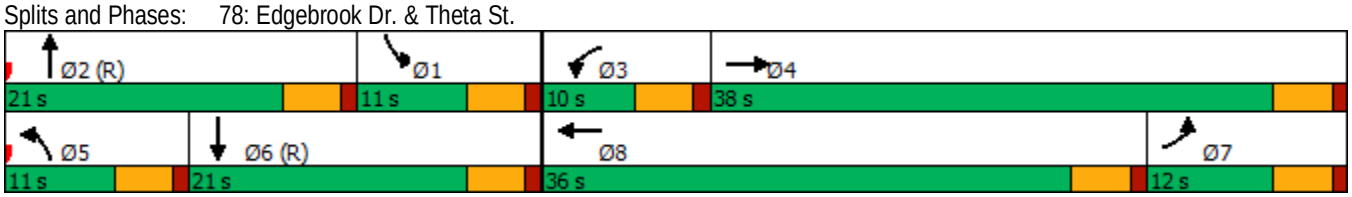
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	25.5	6.4	32.6	17.0	24.0	13.0	26.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	18.5	5.5	25.5	11.5	19.5	9.5	21.5
Max Q Clear Time (g_c+I1), s	11.0	17.1	3.6	15.0	6.7	14.8	8.8	21.8
Green Ext Time (p_c), s	0.1	0.6	0.0	3.3	0.1	1.5	0.0	0.0

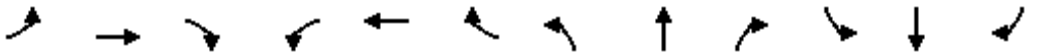
Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	105	888	36	1021	61	41	91	41
Future Volume (vph)	105	888	36	1021	61	41	91	41
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	38.0	10.0	36.0	11.0	21.0	11.0	21.0
Total Split (%)	15.0%	47.5%	12.5%	45.0%	13.8%	26.3%	13.8%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	37.4	5.5	31.4	6.3	18.8	6.5	18.8
Actuated g/C Ratio	0.09	0.47	0.07	0.39	0.08	0.24	0.08	0.24
v/c Ratio	0.74	0.65	0.34	0.94	0.50	0.30	0.73	0.42
Control Delay	63.5	19.5	53.9	23.5	48.6	13.1	55.6	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	19.5	53.9	23.5	48.6	13.1	55.6	6.3
LOS	E	B	D	C	D	B	E	A
Approach Delay		24.0		24.4		24.9		22.5
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 24.1	Intersection LOS: C
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	888	38	36	1021	96	61	41	80	91	41	143
Future Volume (veh/h)	105	888	38	36	1021	96	61	41	80	91	41	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	119	1009	43	41	1160	109	69	47	91	103	47	162
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	149	1512	64	51	1248	117	88	116	224	171	92	317
Arrive On Green	0.09	0.44	0.44	0.03	0.39	0.39	0.05	0.21	0.21	0.10	0.25	0.25
Sat Flow, veh/h	1753	3418	146	1753	3232	303	1753	560	1085	1753	363	1252
Grp Volume(v), veh/h	119	516	536	41	627	642	69	0	138	103	0	209
Grp Sat Flow(s),veh/h/ln	1753	1749	1815	1753	1749	1786	1753	0	1645	1753	0	1615
Q Serve(g_s), s	5.3	18.7	18.7	1.9	27.4	27.6	3.1	0.0	5.8	4.5	0.0	8.9
Cycle Q Clear(g_c), s	5.3	18.7	18.7	1.9	27.4	27.6	3.1	0.0	5.8	4.5	0.0	8.9
Prop In Lane	1.00		0.08	1.00		0.17	1.00		0.66	1.00		0.78
Lane Grp Cap(c), veh/h	149	774	803	51	675	690	88	0	339	171	0	409
V/C Ratio(X)	0.80	0.67	0.67	0.81	0.93	0.93	0.78	0.00	0.41	0.60	0.00	0.51
Avail Cap(c_a), veh/h	164	774	803	121	689	703	142	0	339	171	0	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.9	17.6	17.6	38.6	23.5	23.5	37.6	0.0	27.5	34.6	0.0	25.6
Incr Delay (d2), s/veh	21.7	2.2	2.1	25.2	18.8	18.9	13.9	0.0	3.6	5.8	0.0	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.8	7.0	1.1	13.2	13.5	1.6	0.0	2.5	2.1	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	19.8	19.8	63.8	42.3	42.4	51.5	0.0	31.1	40.5	0.0	30.1
LnGrp LOS	E	B	B	E	D	D	D	A	C	D	A	C
Approach Vol, veh/h		1171			1310			207			312	
Approach Delay, s/veh		23.7			43.0			37.9			33.5	
Approach LOS		C			D			D			C	

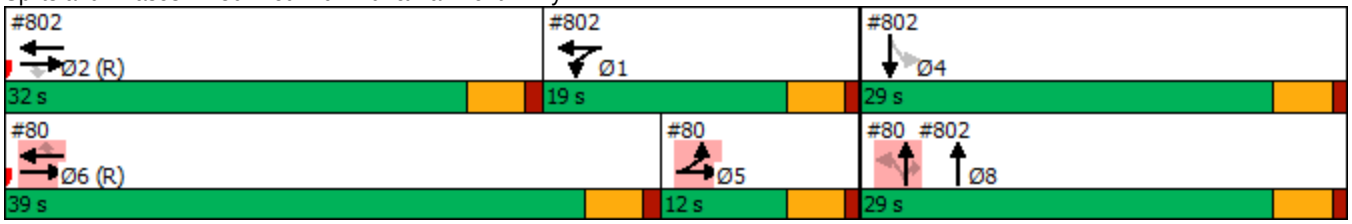
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	21.0	6.8	39.9	8.5	24.8	11.3	35.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	16.5	5.5	33.5	6.5	16.5	7.5	31.5
Max Q Clear Time (g_c+I1), s	6.5	7.8	3.9	20.7	5.1	10.9	7.3	29.6
Green Ext Time (p_c), s	0.0	0.4	0.0	4.9	0.0	0.5	0.0	1.3

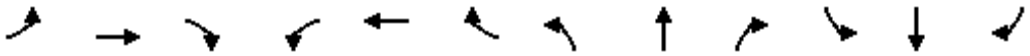
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	10	829	832	119	141	427	67			
Future Volume (vph)	10	829	832	119	141	427	67			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	12.0		39.0	39.0	29.0	29.0	29.0	19.0	32.0	29.0
Total Split (%)	15.0%		48.8%	48.8%	36.3%	36.3%	36.3%	24%	40%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	7.4	49.5	37.5	37.5	21.5	21.5	21.5			
Actuated g/C Ratio	0.09	0.62	0.47	0.47	0.27	0.27	0.27			
v/c Ratio	0.07	0.28	0.25	0.16	0.32	0.48	0.14			
Control Delay	25.1	1.9	19.8	11.7	11.6	13.1	1.3			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	25.1	1.9	19.8	11.7	11.6	13.1	1.3			
LOS	C	A	B	B	B	B	A			
Approach Delay		2.2	18.8			11.5				
Approach LOS		A	B			B				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 38.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





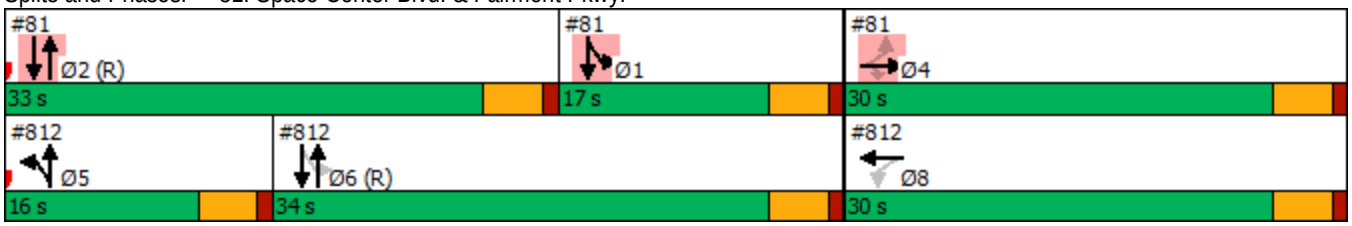
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	829	0	0	832	119	141	427	67	0	0	0
Future Volume (vph)	10	829	0	0	832	119	141	427	67	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	873	0	0	876	125	148	449	71	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	66	0	0	52	0	0	0
Lane Group Flow (vph)	11	873	0	0	876	59	148	449	19	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	7.4	49.5			37.6	37.6	21.5	21.5	21.5			
Effective Green, g (s)	7.4	49.5			37.6	37.6	21.5	21.5	21.5			
Actuated g/C Ratio	0.09	0.62			0.47	0.47	0.27	0.27	0.27			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	160	3086			3477	729	466	932	417			
v/s Ratio Prot	0.01	c0.18			0.12			c0.13				
v/s Ratio Perm						0.04	0.09		0.01			
v/c Ratio	0.07	0.28			0.25	0.08	0.32	0.48	0.05			
Uniform Delay, d1	33.2	7.0			12.7	11.7	23.4	24.6	21.7			
Progression Factor	0.73	0.22			1.47	3.86	0.45	0.49	1.00			
Incremental Delay, d2	0.2	0.0			0.1	0.2	0.3	0.3	0.0			
Delay (s)	24.3	1.6			18.8	45.3	10.8	12.3	21.7			
Level of Service	C	A			B	D	B	B	C			
Approach Delay (s)		1.9			22.1			12.9			0.0	
Approach LOS		A			C			B			A	

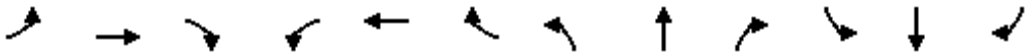
Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	107	1588	174	908	178	721			
Future Volume (vph)	107	1588	174	908	178	721			
Turn Type	Perm	NA	Perm	NA	Prot	NA			
Protected Phases		4		2	1	1 2	5	6	8
Permitted Phases	4		4						
Detector Phase	4	4	4	2	1	1 2			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	33.0	17.0		16.0	34.0	30.0
Total Split (%)	37.5%	37.5%	37.5%	41.3%	21.3%		20%	43%	38%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	25.5	25.5	25.5	28.5	12.5	45.5			
Actuated g/C Ratio	0.32	0.32	0.32	0.36	0.16	0.57			
v/c Ratio	0.22	0.90	0.33	0.89	0.75	0.41			
Control Delay	21.3	33.7	7.0	25.9	47.8	9.8			
Queue Delay	0.1	0.0	0.0	0.4	60.4	1.5			
Total Delay	21.5	33.7	7.0	26.3	108.3	11.4			
LOS	C	C	A	C	F	B			
Approach Delay		30.5		26.3		30.5			
Approach LOS		C		C		C			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 61 (76%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 75.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





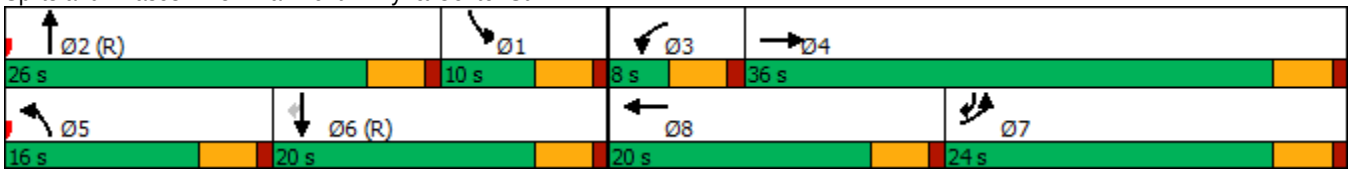
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	1588	174	0	0	0	0	908	447	178	721	0
Future Volume (vph)	107	1588	174	0	0	0	0	908	447	178	721	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91		1.00	0.95	
Frt	1.00	1.00	0.85					0.95		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4741		1736	3471	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4741		1736	3471	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	122	1805	198	0	0	0	0	1032	508	202	819	0
RTOR Reduction (vph)	0	0	112	0	0	0	0	42	0	0	0	0
Lane Group Flow (vph)	122	1805	86	0	0	0	0	1498	0	202	819	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4									
Actuated Green, G (s)	25.5	25.5	25.5					28.5		12.5	45.5	
Effective Green, g (s)	25.5	25.5	25.5					28.5		12.5	45.5	
Actuated g/C Ratio	0.32	0.32	0.32					0.36		0.16	0.57	
Clearance Time (s)	4.5	4.5	4.5					4.5		4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		
Lane Grp Cap (vph)	553	2003	495					1688		271	1974	
v/s Ratio Prot		c0.29						c0.32		c0.12	0.24	
v/s Ratio Perm	0.07		0.06									
v/c Ratio	0.22	0.90	0.17					0.89		0.75	0.41	
Uniform Delay, d1	20.0	26.0	19.6					24.2		32.2	9.7	
Progression Factor	1.00	1.00	1.00					0.78		0.92	0.93	
Incremental Delay, d2	0.2	6.1	0.2					7.1		10.2	0.1	
Delay (s)	20.2	32.1	19.8					25.9		39.8	9.2	
Level of Service	C	C	B					C		D	A	
Approach Delay (s)		30.3			0.0			25.9			15.3	
Approach LOS		C			A			C			B	

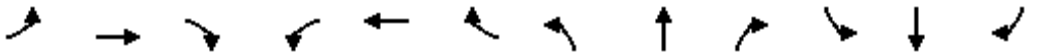
Intersection Summary			
HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	766	1258	20	846	225	133	32	41	621
Future Volume (vph)	766	1258	20	846	225	133	32	41	621
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	24.0	36.0	8.0	20.0	16.0	26.0	10.0	20.0	24.0
Total Split (%)	30.0%	45.0%	10.0%	25.0%	20.0%	32.5%	12.5%	25.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	19.5	36.3	3.5	15.5	11.5	25.5	5.5	15.5	35.0
Actuated g/C Ratio	0.24	0.45	0.04	0.19	0.14	0.32	0.07	0.19	0.44
v/c Ratio	1.00	0.72	0.29	0.95	0.97	0.15	0.29	0.12	0.52
Control Delay	64.7	20.0	35.9	39.5	87.7	18.5	49.2	37.0	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.7	20.0	35.9	39.5	87.7	18.5	49.2	37.0	13.7
LOS	E	C	D	D	F	B	D	D	B
Approach Delay		35.2		39.4		59.2		16.7	
Approach LOS		D		D		E		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 35.2	Intersection LOS: D
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	766	1258	237	20	846	9	225	133	24	32	41	621
Future Volume (veh/h)	766	1258	237	20	846	9	225	133	24	32	41	621
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	824	1353	255	22	910	10	242	143	26	34	44	668
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	829	1786	336	30	993	11	252	797	142	121	357	1201
Arrive On Green	0.08	0.14	0.14	0.01	0.06	0.06	0.14	0.27	0.27	0.07	0.19	0.19
Sat Flow, veh/h	3401	4247	800	1753	5124	56	1753	2966	528	1753	1841	2745
Grp Volume(v), veh/h	824	1067	541	22	595	325	242	83	86	34	44	668
Grp Sat Flow(s),veh/h/ln	1700	1675	1697	1753	1675	1831	1753	1749	1746	1753	1841	1373
Q Serve(g_s), s	19.4	24.5	24.5	1.0	14.1	14.1	11.0	2.9	3.0	1.5	1.6	5.1
Cycle Q Clear(g_c), s	19.4	24.5	24.5	1.0	14.1	14.1	11.0	2.9	3.0	1.5	1.6	5.1
Prop In Lane	1.00		0.47	1.00		0.03	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	829	1409	714	30	649	355	252	470	469	121	357	1201
V/C Ratio(X)	0.99	0.76	0.76	0.74	0.92	0.92	0.96	0.18	0.18	0.28	0.12	0.56
Avail Cap(c_a), veh/h	829	1409	714	77	649	355	252	470	469	121	357	1201
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	0.73	0.73	0.73
Uniform Delay (d), s/veh	36.7	30.5	30.5	39.6	36.8	36.8	34.0	22.5	22.5	35.4	26.6	5.4
Incr Delay (d2), s/veh	29.7	2.4	4.7	26.9	16.2	25.5	45.6	0.8	0.9	0.9	0.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	11.3	11.9	0.6	7.7	9.3	7.6	1.2	1.3	0.6	0.7	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.4	32.9	35.2	66.5	53.0	62.3	79.6	23.3	23.4	36.3	27.2	6.8
LnGrp LOS	E	C	D	E	D	E	E	C	C	D	C	A
Approach Vol, veh/h		2432			942			411			746	
Approach Delay, s/veh		44.8			56.5			56.5			9.3	
Approach LOS		D			E			E			A	

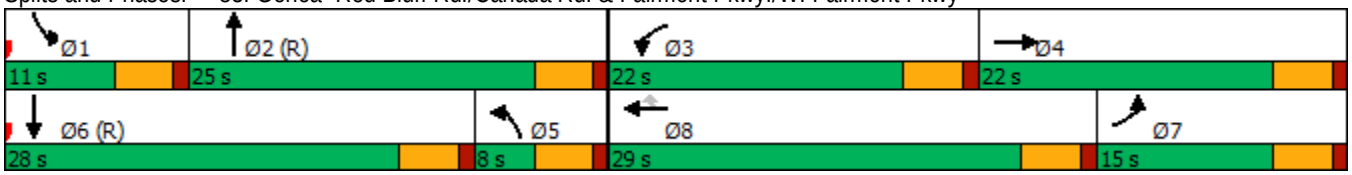
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	26.0	5.9	38.1	16.0	20.0	24.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	21.5	3.5	31.5	11.5	15.5	19.5	15.5
Max Q Clear Time (g_c+I1), s	3.5	5.0	3.0	26.5	13.0	7.1	21.4	16.1
Green Ext Time (p_c), s	0.0	0.7	0.0	3.9	0.0	2.0	0.0	0.0

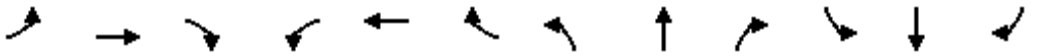
Intersection Summary	
HCM 6th Ctrl Delay	42.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	204	841	453	833	184	34	369	171	448
Future Volume (vph)	204	841	453	833	184	34	369	171	448
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	22.0	22.0	29.0	29.0	8.0	25.0	11.0	28.0
Total Split (%)	18.8%	27.5%	27.5%	36.3%	36.3%	10.0%	31.3%	13.8%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.9	17.5	17.5	24.1	24.1	3.5	20.5	6.5	26.7
Actuated g/C Ratio	0.14	0.22	0.22	0.30	0.30	0.04	0.26	0.08	0.33
v/c Ratio	0.95	1.27	1.31	0.88	0.33	0.49	0.91	1.33	0.60
Control Delay	67.1	151.1	160.8	12.3	1.1	50.6	19.3	216.6	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	151.1	160.8	12.3	1.1	50.6	19.3	216.6	23.3
LOS	E	F	F	B	A	D	B	F	C
Approach Delay		135.3		56.7			20.3		64.7
Approach LOS		F		E			C		E

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 22 (28%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 69.3	Intersection LOS: E
Intersection Capacity Utilization 108.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	841	37	453	833	184	34	369	603	171	448	180
Future Volume (veh/h)	204	841	37	453	833	184	34	369	603	171	448	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	224	924	41	498	915	202	37	405	663	188	492	198
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	250	746	33	383	1031	460	77	448	400	142	716	287
Arrive On Green	0.14	0.22	0.22	0.22	0.29	0.29	0.04	0.26	0.26	0.08	0.29	0.29
Sat Flow, veh/h	1753	3411	151	1753	3497	1560	1753	1749	1560	1753	2438	976
Grp Volume(v), veh/h	224	474	491	498	915	202	37	405	663	188	352	338
Grp Sat Flow(s),veh/h/ln	1753	1749	1813	1753	1749	1560	1753	1749	1560	1753	1749	1665
Q Serve(g_s), s	10.0	17.5	17.5	17.5	20.0	6.1	1.6	17.9	20.5	6.5	14.2	14.4
Cycle Q Clear(g_c), s	10.0	17.5	17.5	17.5	20.0	6.1	1.6	17.9	20.5	6.5	14.2	14.4
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	250	383	397	383	1031	460	77	448	400	142	514	489
V/C Ratio(X)	0.90	1.24	1.24	1.30	0.89	0.44	0.48	0.90	1.66	1.32	0.69	0.69
Avail Cap(c_a), veh/h	250	383	397	383	1071	478	77	448	400	142	514	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.09	0.09	0.09	1.00	1.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	33.7	31.3	31.3	31.3	26.9	12.0	37.4	28.8	29.8	36.8	25.0	25.0
Incr Delay (d2), s/veh	26.3	124.0	123.5	136.2	0.9	0.1	4.6	24.2	307.3	174.9	5.3	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	20.3	20.9	21.6	8.1	2.8	0.8	10.0	41.2	9.6	6.4	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	155.2	154.7	167.4	27.9	12.1	42.0	53.0	337.1	211.6	30.3	30.7
LnGrp LOS	E	F	F	F	C	B	D	D	F	F	C	C
Approach Vol, veh/h		1189			1615			1105			878	
Approach Delay, s/veh		137.1			68.9			223.1			69.3	
Approach LOS		F			E			F			E	

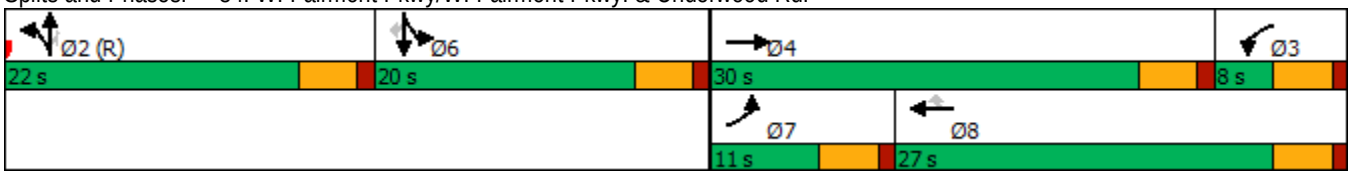
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	25.0	22.0	22.0	8.0	28.0	15.9	28.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	20.5	17.5	17.5	3.5	23.5	10.5	24.5
Max Q Clear Time (g_c+I1), s	8.5	22.5	19.5	19.5	3.6	16.4	12.0	22.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.6

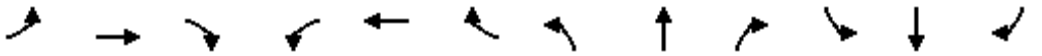
Intersection Summary	
HCM 6th Ctrl Delay	121.5
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	210	1447	110	1300	276	29	38	364	112	253
Future Volume (vph)	210	1447	110	1300	276	29	38	364	112	253
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Split	NA	Perm
Protected Phases	7	4	3	8		2		6	6	
Permitted Phases					8		2			6
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	30.0	8.0	27.0	27.0	22.0	22.0	20.0	20.0	20.0
Total Split (%)	13.8%	37.5%	10.0%	33.8%	33.8%	27.5%	27.5%	25.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	6.5	25.5	3.5	22.5	22.5	17.5	17.5	15.5	15.5	15.5
Actuated g/C Ratio	0.08	0.32	0.04	0.28	0.28	0.22	0.22	0.19	0.19	0.19
v/c Ratio	1.62	1.53	1.60	1.45	0.56	0.19	0.08	1.18	0.35	0.53
Control Delay	307.3	265.8	343.2	230.2	11.7	27.0	0.3	128.0	20.5	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	307.3	265.8	343.2	230.2	11.7	27.0	0.3	128.0	20.5	4.3
LOS	F	F	F	F	B	C	A	F	C	A
Approach Delay		270.7		201.9		17.4			68.5	
Approach LOS		F		F		B			E	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 75 (94%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.62	
Intersection Signal Delay: 203.0	Intersection LOS: F
Intersection Capacity Utilization 93.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	1447	108	110	1300	276	38	29	38	364	112	253
Future Volume (veh/h)	210	1447	108	110	1300	276	38	29	38	364	112	253
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	228	1573	117	120	1413	300	41	32	41	396	122	275
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	1052	78	77	984	439	220	172	341	340	357	302
Arrive On Green	0.08	0.32	0.32	0.04	0.28	0.28	0.22	0.22	0.22	0.19	0.19	0.19
Sat Flow, veh/h	1753	3302	244	1753	3497	1560	1006	785	1560	1753	1841	1560
Grp Volume(v), veh/h	228	828	862	120	1413	300	73	0	41	396	122	275
Grp Sat Flow(s),veh/h/ln	1753	1749	1797	1753	1749	1560	1790	0	1560	1753	1841	1560
Q Serve(g_s), s	6.5	25.5	25.5	3.5	22.5	13.7	2.7	0.0	1.7	15.5	4.6	13.8
Cycle Q Clear(g_c), s	6.5	25.5	25.5	3.5	22.5	13.7	2.7	0.0	1.7	15.5	4.6	13.8
Prop In Lane	1.00		0.14	1.00		1.00	0.56		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	557	573	77	984	439	392	0	341	340	357	302
V/C Ratio(X)	1.60	1.49	1.51	1.56	1.44	0.68	0.19	0.00	0.12	1.17	0.34	0.91
Avail Cap(c_a), veh/h	142	557	573	77	984	439	392	0	341	340	357	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.48	0.48	0.48	1.00	0.00	1.00	0.58	0.58	0.58
Uniform Delay (d), s/veh	36.8	27.3	27.3	38.3	28.8	25.6	25.5	0.0	25.1	32.3	27.8	31.6
Incr Delay (d2), s/veh	273.3	219.4	228.1	282.2	199.3	2.1	1.0	0.0	0.7	92.1	1.5	22.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	44.0	46.6	7.5	36.2	5.1	1.2	0.0	0.7	15.0	2.1	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	310.1	246.6	255.3	320.4	228.0	27.7	26.5	0.0	25.8	124.4	29.4	54.0
LnGrp LOS	F	F	F	F	F	C	C	A	C	F	C	D
Approach Vol, veh/h		1918			1833			114			793	
Approach Delay, s/veh		258.1			201.3			26.2			85.4	
Approach LOS		F			F			C			F	

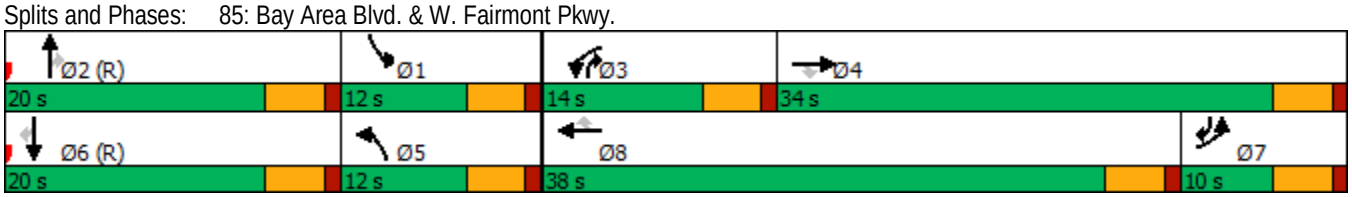
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.0	8.0	30.0		20.0	11.0	27.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.5	3.5	25.5		15.5	6.5	22.5				
Max Q Clear Time (g_c+I1), s		4.7	5.5	27.5		17.5	8.5	24.5				
Green Ext Time (p_c), s		0.3	0.0	0.0		0.0	0.0	0.0				

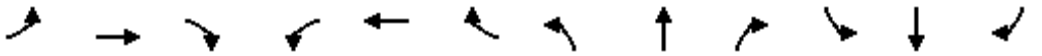
Intersection Summary												
HCM 6th Ctrl Delay			200.7									
HCM 6th LOS			F									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	1322	213	215	1326	124	142	245	147	164	267	216
Future Volume (vph)	112	1322	213	215	1326	124	142	245	147	164	267	216
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	10.0	34.0	34.0	14.0	38.0	38.0	12.0	20.0	14.0	12.0	20.0	10.0
Total Split (%)	12.5%	42.5%	42.5%	17.5%	47.5%	47.5%	15.0%	25.0%	17.5%	15.0%	25.0%	12.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	5.5	29.5	29.5	9.5	33.5	33.5	7.5	15.5	25.0	7.5	15.5	25.5
Actuated g/C Ratio	0.07	0.37	0.37	0.12	0.42	0.42	0.09	0.19	0.31	0.09	0.19	0.32
v/c Ratio	0.95	1.04	0.32	1.05	0.92	0.17	0.88	0.37	0.25	1.02	0.40	0.37
Control Delay	96.7	51.0	2.9	108.0	17.3	0.4	84.4	29.8	3.6	118.3	29.2	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.7	51.0	2.9	108.0	17.3	0.4	84.4	29.8	3.6	118.3	29.2	9.7
LOS	F	D	A	F	B	A	F	C	A	F	C	A
Approach Delay		47.9			27.7			37.1			45.3	
Approach LOS		D			C			D			D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 38.8	Intersection LOS: D
Intersection Capacity Utilization 84.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





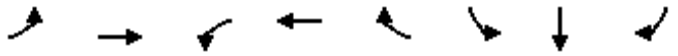
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	1322	213	215	1326	124	142	245	147	164	267	216
Future Volume (veh/h)	112	1322	213	215	1326	124	142	245	147	164	267	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	113	1335	0	217	1339	125	143	247	148	166	270	218
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	131	1290		208	1443	644	164	678	487	164	678	419
Arrive On Green	0.07	0.37	0.00	0.12	0.41	0.41	0.09	0.19	0.19	0.09	0.19	0.19
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	113	1335	0	217	1339	125	143	247	148	166	270	218
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	5.1	29.5	0.0	9.5	29.2	4.1	6.4	4.9	3.6	7.5	5.4	3.5
Cycle Q Clear(g_c), s	5.1	29.5	0.0	9.5	29.2	4.1	6.4	4.9	3.6	7.5	5.4	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	131	1290		208	1443	644	164	678	487	164	678	419
V/C Ratio(X)	0.86	1.04		1.04	0.93	0.19	0.87	0.36	0.30	1.01	0.40	0.52
Avail Cap(c_a), veh/h	131	1290		208	1465	653	164	678	487	164	678	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	0.37	0.37	0.37	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	36.6	25.3	0.0	35.2	22.4	15.0	35.8	28.0	9.0	36.3	28.2	24.9
Incr Delay (d2), s/veh	35.5	32.6	0.0	49.4	4.5	0.1	36.1	1.5	1.6	71.1	1.7	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	17.2	0.0	6.8	11.9	1.4	4.3	2.1	1.7	6.4	2.4	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.1	57.8	0.0	84.7	26.9	15.1	71.9	29.5	10.6	107.3	29.8	29.2
LnGrp LOS	E	F		F	C	B	E	C	B	F	C	C
Approach Vol, veh/h		1448	A		1681			538			654	
Approach Delay, s/veh		58.9			33.5			35.6			49.3	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	20.0	14.0	34.0	12.0	20.0	10.5	37.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	15.5	9.5	29.5	7.5	15.5	5.5	33.5
Max Q Clear Time (g_c+I1), s	9.5	6.9	11.5	31.5	8.4	7.4	7.1	31.2
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.0	1.6	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	44.7
HCM 6th LOS	D

Notes

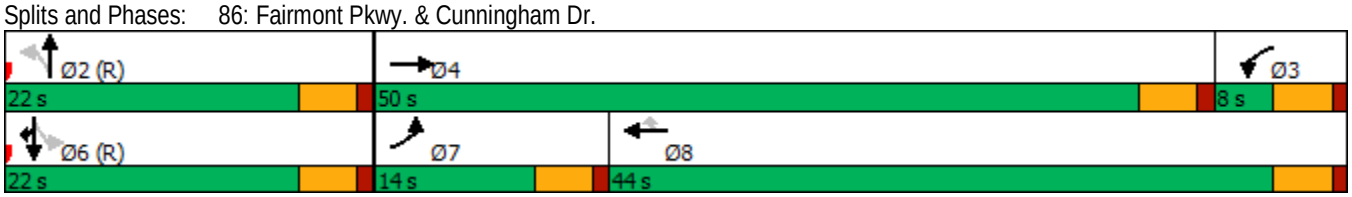
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

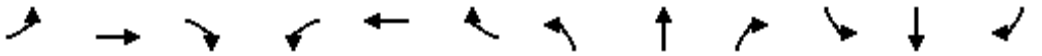


Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR	Ø2
Lane Configurations									
Traffic Volume (vph)	81	1194	5	1068	5	5	0	5	
Future Volume (vph)	81	1194	5	1068	5	5	0	5	
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Prot	
Protected Phases	7	4	3	8			6	6	2
Permitted Phases					8	6			
Detector Phase	7	4	3	8	8	6	6	6	
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	50.0	8.0	44.0	44.0	22.0	22.0	22.0	22.0
Total Split (%)	17.5%	62.5%	10.0%	55.0%	55.0%	27.5%	27.5%	27.5%	28%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lead	Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.4	46.1	5.3	36.8	36.8		23.3	23.3	
Actuated g/C Ratio	0.10	0.58	0.07	0.46	0.46		0.29	0.29	
v/c Ratio	0.49	0.66	0.05	0.74	0.01		0.01	0.01	
Control Delay	35.8	15.1	22.0	7.8	0.0		24.6	0.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	35.8	15.1	22.0	7.8	0.0		24.6	0.0	
LOS	D	B	C	A	A		C	A	
Approach Delay		16.4		7.8			12.3		
Approach LOS		B		A			B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 58.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1194	0	5	1068	5	0	0	0	5	0	5
Future Volume (veh/h)	81	1194	0	5	1068	5	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	90	1327	0	6	1187	0	0	0	0	6	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	116	1636	0	22	1449		0	646	0	580	0	
Arrive On Green	0.07	0.47	0.00	0.01	0.41	0.00	0.00	0.00	0.00	0.35	0.00	0.00
Sat Flow, veh/h	1753	3589	0	1753	3497	1560	0	1841	0	1395	0	1560
Grp Volume(v), veh/h	90	1327	0	6	1187	0	0	0	0	6	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	1560	0	1841	0	1395	0	1560
Q Serve(g_s), s	4.0	26.0	0.0	0.3	24.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	4.0	26.0	0.0	0.3	24.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	1636	0	22	1449		0	646	0	580	0	
V/C Ratio(X)	0.78	0.81	0.00	0.28	0.82		0.00	0.00	0.00	0.01	0.00	
Avail Cap(c_a), veh/h	208	1989	0	77	1727		0	646	0	580	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.56	0.56	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	36.8	18.2	0.0	39.1	20.8	0.0	0.0	0.0	0.0	16.9	0.0	0.0
Incr Delay (d2), s/veh	10.7	2.2	0.0	3.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	10.0	0.0	0.1	9.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	20.4	0.0	42.9	22.3	0.0	0.0	0.0	0.0	17.0	0.0	0.0
LnGrp LOS	D	C	A	D	C		A	A	A	B	A	
Approach Vol, veh/h		1417			1193	A		0			6	A
Approach Delay, s/veh		22.2			22.4			0.0			17.0	
Approach LOS		C			C						B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.6	5.5	41.9		32.6	9.8	37.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.5	3.5	45.5		17.5	9.5	39.5				
Max Q Clear Time (g_c+I1), s		0.0	2.3	28.0		2.2	6.0	26.1				
Green Ext Time (p_c), s		0.0	0.0	9.4		0.0	0.1	7.1				

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

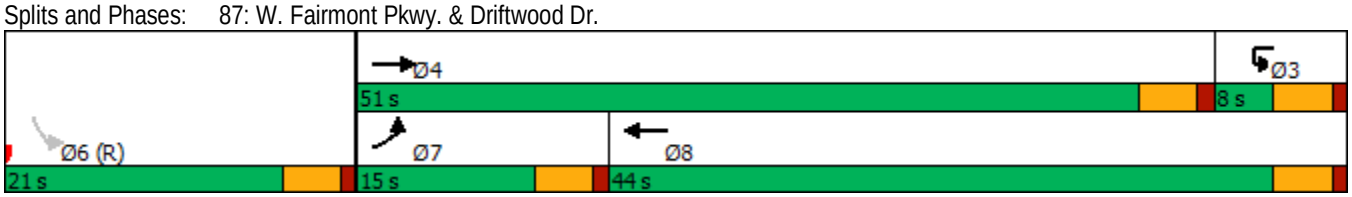
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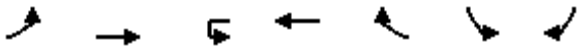
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	100	1200	1218	132	
Future Volume (vph)	100	1200	1218	132	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	15.0	51.0	44.0	21.0	8.0
Total Split (%)	18.8%	63.8%	55.0%	26.3%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lead	Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	9.1	49.3	37.9	21.7	
Actuated g/C Ratio	0.11	0.62	0.47	0.27	
v/c Ratio	0.52	0.58	0.81	0.33	
Control Delay	40.4	4.6	9.4	12.2	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	40.4	4.6	9.4	12.2	
LOS	D	A	A	B	
Approach Delay		7.3	9.4	12.2	
Approach LOS		A	A	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 40 (50%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 66.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





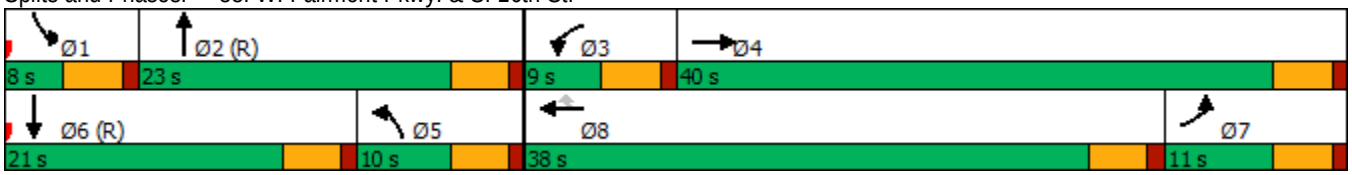
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	100	1200	0	1218	65	132	189
Future Volume (vph)	100	1200	0	1218	65	132	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.91	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3445		3166	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3445		3166	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	103	1237	0	1256	67	136	195
RTOR Reduction (vph)	0	0	0	5	0	145	0
Lane Group Flow (vph)	103	1237	0	1318	0	186	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	7.9	50.3		37.9		20.7	
Effective Green, g (s)	7.9	50.3		37.9		20.7	
Actuated g/C Ratio	0.10	0.63		0.47		0.26	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	171	2182		1632		819	
v/s Ratio Prot	0.06	c0.36		c0.38			
v/s Ratio Perm						c0.06	
v/c Ratio	0.60	0.57		0.81		0.23	
Uniform Delay, d1	34.5	8.6		17.9		23.4	
Progression Factor	1.19	0.50		0.40		1.00	
Incremental Delay, d2	0.5	0.0		1.6		0.6	
Delay (s)	41.6	4.3		8.7		24.0	
Level of Service	D	A		A		C	
Approach Delay (s)		7.2		8.7		24.0	
Approach LOS		A		A		C	

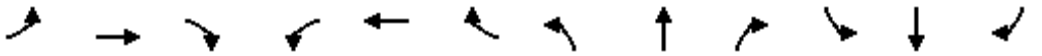
Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	95	1046	61	1219	99	74	19	20	19
Future Volume (vph)	95	1046	61	1219	99	74	19	20	19
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	40.0	9.0	38.0	38.0	10.0	23.0	8.0	21.0
Total Split (%)	13.8%	50.0%	11.3%	47.5%	47.5%	12.5%	28.8%	10.0%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	34.6	4.5	33.0	33.0	5.5	26.0	3.9	21.2
Actuated g/C Ratio	0.08	0.43	0.06	0.41	0.41	0.07	0.32	0.05	0.26
v/c Ratio	0.70	0.83	0.66	0.89	0.14	0.65	0.05	0.25	0.06
Control Delay	30.0	6.9	69.9	31.0	0.4	62.8	12.7	44.5	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.0	6.9	69.9	31.0	0.4	62.8	12.7	44.5	14.3
LOS	C	A	E	C	A	E	B	D	B
Approach Delay		8.6		30.6			42.4		23.1
Approach LOS		A		C			D		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1046	132	61	1219	99	74	19	32	20	19	30
Future Volume (veh/h)	95	1046	132	61	1219	99	74	19	32	20	19	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	99	1090	138	64	1270	103	77	20	33	21	20	31
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	126	1341	170	81	1413	630	163	495	441	29	361	322
Arrive On Green	0.07	0.43	0.43	0.05	0.40	0.40	0.09	0.28	0.28	0.02	0.21	0.21
Sat Flow, veh/h	1753	3123	395	1753	3497	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	99	610	618	64	1270	103	77	20	33	21	20	31
Grp Sat Flow(s),veh/h/ln	1753	1749	1770	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	4.4	24.4	24.5	2.9	27.2	2.6	3.3	0.7	1.2	1.0	0.7	1.3
Cycle Q Clear(g_c), s	4.4	24.4	24.5	2.9	27.2	2.6	3.3	0.7	1.2	1.0	0.7	1.3
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	751	760	81	1413	630	163	495	441	29	361	322
V/C Ratio(X)	0.79	0.81	0.81	0.79	0.90	0.16	0.47	0.04	0.07	0.73	0.06	0.10
Avail Cap(c_a), veh/h	142	776	785	99	1465	653	163	495	441	77	361	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.16	0.16	0.16	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	20.0	20.0	37.8	22.3	9.3	34.4	20.8	21.0	39.2	25.5	25.7
Incr Delay (d2), s/veh	4.3	1.1	1.1	28.4	7.7	0.1	2.1	0.2	0.3	30.0	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	9.4	9.5	1.9	11.8	1.1	1.5	0.3	0.5	0.6	0.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	21.1	21.1	66.1	30.0	9.5	36.5	21.0	21.3	69.2	25.8	26.3
LnGrp LOS	D	C	C	E	C	A	D	C	C	E	C	C
Approach Vol, veh/h		1327			1437			130			72	
Approach Delay, s/veh		22.6			30.1			30.3			38.7	
Approach LOS		C			C			C			D	

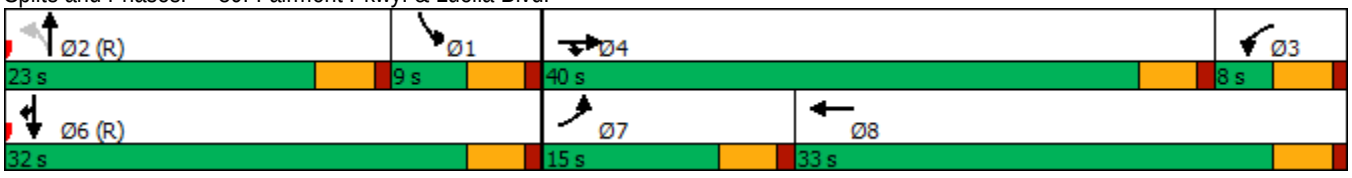
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	27.1	8.2	38.8	11.9	21.0	10.2	36.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	18.5	4.5	35.5	5.5	16.5	6.5	33.5
Max Q Clear Time (g_c+I1), s	3.0	3.2	4.9	26.5	5.3	3.3	6.4	29.2
Green Ext Time (p_c), s	0.0	0.2	0.0	5.2	0.0	0.1	0.0	3.1

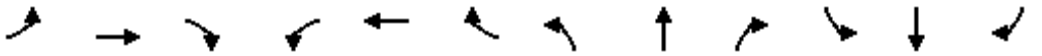
Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBR
Lane Configurations									
Traffic Volume (vph)	118	867	4	5	819	1	0	46	104
Future Volume (vph)	118	867	4	5	819	1	0	46	104
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	Prot
Protected Phases	7	4	4	3	8		2	1	6
Permitted Phases						2			
Detector Phase	7	4	4	3	8	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	15.0	40.0	40.0	8.0	33.0	23.0	23.0	9.0	32.0
Total Split (%)	18.8%	50.0%	50.0%	10.0%	41.3%	28.8%	28.8%	11.3%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.5	37.4	37.4	5.2	27.2		26.6	4.5	32.0
Actuated g/C Ratio	0.12	0.47	0.47	0.06	0.34		0.33	0.06	0.40
v/c Ratio	0.62	0.58	0.00	0.04	0.83		0.00	0.52	0.14
Control Delay	29.1	13.0	0.0	28.2	18.4		0.0	49.4	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	29.1	13.0	0.0	28.2	18.4		0.0	49.4	1.2
LOS	C	B	A	C	B		A	D	A
Approach Delay		14.8			18.5				
Approach LOS		B			B				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	867	4	5	819	79	1	0	1	46	0	104
Future Volume (veh/h)	118	867	4	5	819	79	1	0	1	46	0	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	128	942	4	5	890	86	1	0	1	50	0	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	159	1108	494	167	1036	100	211	21	165	231	772	654
Arrive On Green	0.18	0.63	0.63	0.10	0.32	0.32	0.23	0.00	0.23	0.13	0.00	0.42
Sat Flow, veh/h	1753	3497	1560	1753	3222	311	622	91	713	1753	1841	1560
Grp Volume(v), veh/h	128	942	4	5	483	493	2	0	0	50	0	113
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1785	1426	0	0	1753	1841	1560
Q Serve(g_s), s	5.6	17.1	0.1	0.2	20.7	20.7	0.0	0.0	0.0	2.0	0.0	3.6
Cycle Q Clear(g_c), s	5.6	17.1	0.1	0.2	20.7	20.7	0.1	0.0	0.0	2.0	0.0	3.6
Prop In Lane	1.00		1.00	1.00		0.17	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	159	1108	494	167	562	574	397	0	0	231	772	654
V/C Ratio(X)	0.81	0.85	0.01	0.03	0.86	0.86	0.01	0.00	0.00	0.22	0.00	0.17
Avail Cap(c_a), veh/h	230	1552	692	167	623	636	397	0	0	231	772	654
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.39	0.39	0.39	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.1	13.2	10.0	32.8	25.4	25.4	23.7	0.0	0.0	31.0	0.0	14.5
Incr Delay (d2), s/veh	9.2	2.4	0.0	0.0	4.6	4.5	0.0	0.0	0.0	0.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.0	0.0	0.1	8.8	9.0	0.0	0.0	0.0	0.9	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	15.5	10.0	32.9	30.0	30.0	23.7	0.0	0.0	31.5	0.0	15.1
LnGrp LOS	D	B	B	C	C	C	C	A	A	C	A	B
Approach Vol, veh/h		1074			981			2			163	
Approach Delay, s/veh		18.6			30.0			23.7			20.1	
Approach LOS		B			C			C			C	

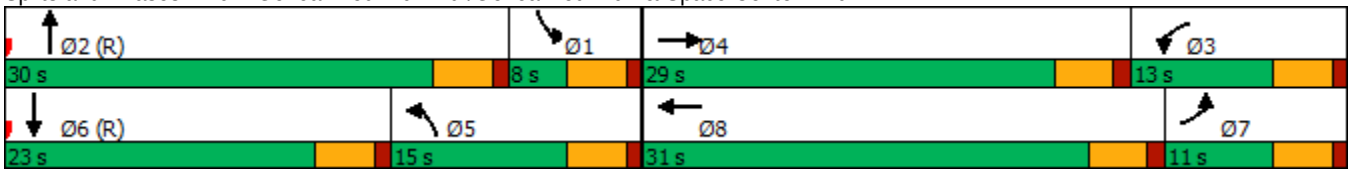
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	15.0	23.0	12.1	29.8		38.0	11.7	30.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.5	18.5	3.5	35.5		27.5	10.5	28.5				
Max Q Clear Time (g_c+I1), s	4.0	2.1	2.2	19.1		5.6	7.6	22.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	6.2		0.3	0.1	3.0				

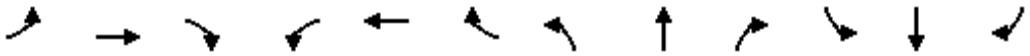
Intersection Summary												
HCM 6th Ctrl Delay			23.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	86	1022	255	802	314	786	89	580
Future Volume (vph)	86	1022	255	802	314	786	89	580
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	29.0	13.0	31.0	15.0	30.0	8.0	23.0
Total Split (%)	13.8%	36.3%	16.3%	38.8%	18.8%	37.5%	10.0%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.6	24.5	8.5	28.6	10.5	25.5	3.5	18.5
Actuated g/C Ratio	0.08	0.31	0.11	0.36	0.13	0.32	0.04	0.23
v/c Ratio	0.64	1.40	1.49	0.74	1.49	1.10	1.28	1.03
Control Delay	59.5	210.6	272.1	12.7	271.3	83.8	223.1	62.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	210.6	272.1	12.7	271.3	83.8	223.1	62.7
LOS	E	F	F	B	F	F	F	E
Approach Delay		201.8		72.6		124.3		79.2
Approach LOS		F		E		F		E

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 69 (86%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.49	
Intersection Signal Delay: 127.9	Intersection LOS: F
Intersection Capacity Utilization 113.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	1022	362	255	802	47	314	786	356	89	580	196
Future Volume (veh/h)	86	1022	362	255	802	47	314	786	356	89	580	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	92	1099	389	274	862	51	338	845	383	96	624	211
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	779	271	186	1004	59	230	747	337	77	594	200
Arrive On Green	0.11	0.31	0.31	0.11	0.30	0.30	0.13	0.32	0.32	0.09	0.46	0.46
Sat Flow, veh/h	1753	2544	886	1753	3355	199	1753	2343	1056	1753	2567	867
Grp Volume(v), veh/h	92	749	739	274	449	464	338	630	598	96	425	410
Grp Sat Flow(s),veh/h/ln	1753	1749	1681	1753	1749	1805	1753	1749	1651	1753	1749	1685
Q Serve(g_s), s	3.9	24.5	24.5	8.5	19.4	19.4	10.5	25.5	25.5	3.5	18.5	18.5
Cycle Q Clear(g_c), s	3.9	24.5	24.5	8.5	19.4	19.4	10.5	25.5	25.5	3.5	18.5	18.5
Prop In Lane	1.00		0.53	1.00		0.11	1.00		0.64	1.00		0.51
Lane Grp Cap(c), veh/h	199	536	515	186	523	540	230	557	526	77	404	390
V/C Ratio(X)	0.46	1.40	1.43	1.47	0.86	0.86	1.47	1.13	1.14	1.25	1.05	1.05
Avail Cap(c_a), veh/h	199	536	515	186	579	598	230	557	526	77	404	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	33.2	27.7	27.8	35.8	26.4	26.4	34.8	27.3	27.3	36.5	21.5	21.5
Incr Delay (d2), s/veh	1.7	190.9	206.4	237.1	10.8	10.5	233.2	79.0	83.0	175.1	54.5	55.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	38.1	38.8	15.8	9.2	9.5	19.3	22.3	21.6	5.1	10.9	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	218.6	234.1	272.8	37.2	36.9	268.0	106.3	110.2	211.6	76.0	77.3
LnGrp LOS	C	F	F	F	D	D	F	F	F	F	F	F
Approach Vol, veh/h		1580			1187			1566			931	
Approach Delay, s/veh		215.2			91.5			142.7			90.6	
Approach LOS		F			F			F			F	

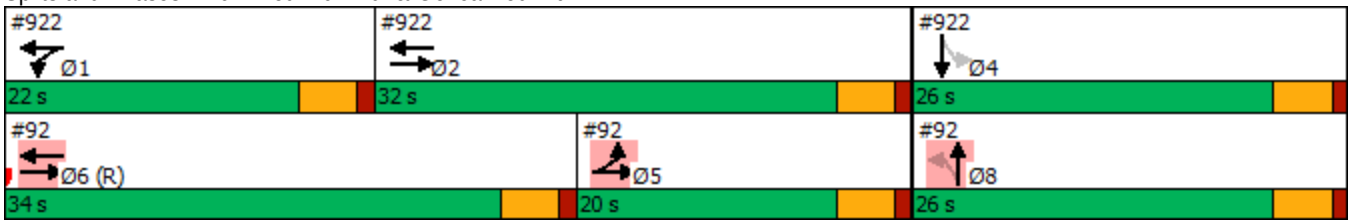
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	30.0	13.0	29.0	15.0	23.0	13.6	28.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	25.5	8.5	24.5	10.5	18.5	6.5	26.5
Max Q Clear Time (g_c+I1), s	5.5	27.5	10.5	26.5	12.5	20.5	5.9	21.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5

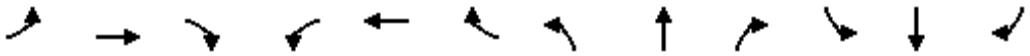
Intersection Summary	
HCM 6th Ctrl Delay	143.7
HCM 6th LOS	F

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	168	946	768	286	541	0			
Future Volume (vph)	168	946	768	286	541	0			
Turn Type	Prot	NA	NA	Perm	NA				
Protected Phases	5	5 6	6		8		1	2	4
Permitted Phases				8					
Detector Phase	5	5 6	6	8	8				
Switch Phase									
Minimum Initial (s)	3.5		5.0	5.0	5.0		3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0		8.0	20.0	20.0
Total Split (s)	20.0		34.0	26.0	26.0		22.0	32.0	26.0
Total Split (%)	25.0%		42.5%	32.5%	32.5%		28%	40%	33%
Yellow Time (s)	3.5		3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0				
Total Lost Time (s)	4.5		4.5	4.5	4.5				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None		C-Max	None	None		None	None	None
Act Effct Green (s)	15.5	51.2	31.2	19.8	19.8	0.0			
Actuated g/C Ratio	0.19	0.64	0.39	0.25	0.25	0.00			
v/c Ratio	0.53	0.45	0.43	0.71	0.65	0.01			
Control Delay	20.6	4.2	20.2	37.0	24.9	0.0			
Queue Delay	1.1	0.6	0.0	0.0	0.0	0.0			
Total Delay	21.7	4.9	20.3	37.0	24.9	0.0			
LOS	C	A	C	D	C	A			
Approach Delay		7.4	20.3		28.1				
Approach LOS		A	C		C				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 18.2	Intersection LOS: B
Intersection Capacity Utilization 67.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





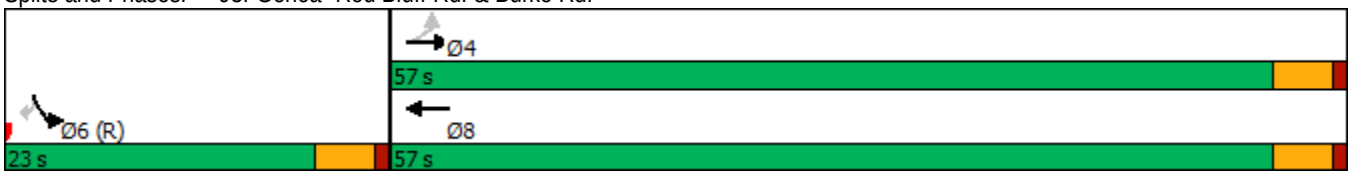
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	168	946	0	0	768	10	286	541	232	0	0	3
Future Volume (vph)	168	946	0	0	768	10	286	541	232	0	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5			4.0	
Lane Util. Factor	1.00	0.95			0.91		1.00	0.91			1.00	
Frt	1.00	1.00			1.00		1.00	0.95			0.85	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3471			4978		1736	4763			0	
Flt Permitted	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1736	3471			4978		1736	4763			0	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	179	1006	0	0	817	11	304	576	247	0	0	3
RTOR Reduction (vph)	0	0	0	0	2	0	0	96	0	0	3	0
Lane Group Flow (vph)	179	1006	0	0	826	0	304	727	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	5 6			6			8				
Permitted Phases							8					
Actuated Green, G (s)	15.5	51.2			31.2		19.8	19.8			0.0	
Effective Green, g (s)	15.5	51.2			31.2		19.8	19.8			0.0	
Actuated g/C Ratio	0.19	0.64			0.39		0.25	0.25			0.00	
Clearance Time (s)	4.5				4.5		4.5	4.5				
Vehicle Extension (s)	3.0				3.0		3.0	3.0				
Lane Grp Cap (vph)	336	2221			1941		429	1178			0	
v/s Ratio Prot	c0.10	c0.29			0.17			0.15				
v/s Ratio Perm							c0.18					
v/c Ratio	0.53	0.45			0.43		0.71	0.62			0.00	
Uniform Delay, d1	29.0	7.3			17.8		27.5	26.7			40.0	
Progression Factor	0.53	0.48			1.09		1.00	1.00			1.00	
Incremental Delay, d2	1.3	0.1			0.2		5.3	1.0			0.0	
Delay (s)	16.7	3.6			19.7		32.8	27.7			40.0	
Level of Service	B	A			B		C	C			D	
Approach Delay (s)		5.6			19.7			29.1			40.0	
Approach LOS		A			B			C			D	

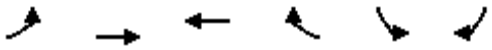
Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	381	592	474	385	232
Future Volume (vph)	381	592	474	385	232
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	57.0	57.0	57.0	23.0	23.0
Total Split (%)	71.3%	71.3%	71.3%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	52.5	52.5	52.5	18.5	18.5
Actuated g/C Ratio	0.66	0.66	0.66	0.23	0.23
v/c Ratio	1.19	0.29	0.39	1.05	0.46
Control Delay	124.4	4.2	0.6	77.1	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	124.4	4.2	0.6	77.1	3.6
LOS	F	A	A	E	A
Approach Delay		51.3	0.6	49.4	
Approach LOS		D	A	D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 33.9	Intersection LOS: C
Intersection Capacity Utilization 80.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	381	592	474	321	385	232
Future Volume (veh/h)	381	592	474	321	385	232
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	419	651	521	353	423	255
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	424	2295	1310	886	405	361
Arrive On Green	0.66	0.66	0.66	0.66	0.23	0.23
Sat Flow, veh/h	624	3589	2088	1351	1753	1560
Grp Volume(v), veh/h	419	651	456	418	423	255
Grp Sat Flow(s),veh/h/ln	624	1749	1749	1598	1753	1560
Q Serve(g_s), s	42.8	6.3	9.7	9.7	18.5	12.0
Cycle Q Clear(g_c), s	52.5	6.3	9.7	9.7	18.5	12.0
Prop In Lane	1.00			0.85	1.00	1.00
Lane Grp Cap(c), veh/h	424	2295	1148	1048	405	361
V/C Ratio(X)	0.99	0.28	0.40	0.40	1.04	0.71
Avail Cap(c_a), veh/h	424	2295	1148	1048	405	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.63	0.63
Uniform Delay (d), s/veh	23.0	5.8	6.4	6.4	30.7	28.3
Incr Delay (d2), s/veh	40.7	0.1	0.2	0.2	47.3	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	1.9	3.0	2.8	12.8	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.7	5.9	6.6	6.6	78.1	35.4
LnGrp LOS	E	A	A	A	F	D
Approach Vol, veh/h		1070	874		678	
Approach Delay, s/veh		28.5	6.6		62.0	
Approach LOS		C	A		E	

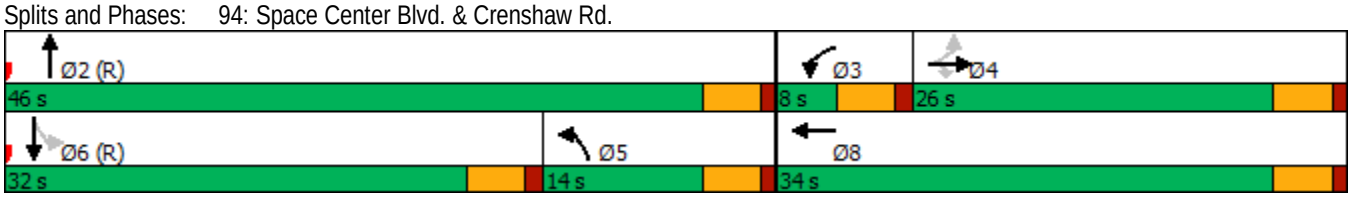
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			57.0		23.0	57.0
Change Period (Y+Rc), s			4.5		4.5	4.5
Max Green Setting (Gmax), s			52.5		18.5	52.5
Max Q Clear Time (g_c+I1), s			54.5		20.5	11.7
Green Ext Time (p_c), s			0.0		0.0	7.1

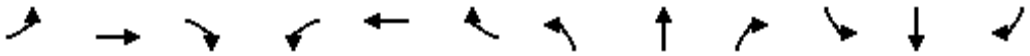
Intersection Summary	
HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	199	108	141	19	103	143	637	102	526
Future Volume (vph)	199	108	141	19	103	143	637	102	526
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA
Protected Phases		4		3	8	5	2		6
Permitted Phases	4		4					6	
Detector Phase	4	4	4	3	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	26.0	26.0	26.0	8.0	34.0	14.0	46.0	32.0	32.0
Total Split (%)	32.5%	32.5%	32.5%	10.0%	42.5%	17.5%	57.5%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead		Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	20.2	20.2	20.2	3.5	23.4	9.5	47.6	33.6	33.6
Actuated g/C Ratio	0.25	0.25	0.25	0.04	0.29	0.12	0.60	0.42	0.42
v/c Ratio	0.85	0.26	0.31	0.28	0.28	0.78	0.37	0.50	0.60
Control Delay	56.9	24.8	6.0	46.6	8.4	20.2	1.1	22.1	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.9	24.8	6.0	46.6	8.4	20.2	1.1	22.1	11.4
LOS	E	C	A	D	A	C	A	C	B
Approach Delay		33.2			10.9		4.5		12.7
Approach LOS		C			B		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	108	141	19	103	156	143	637	29	102	526	241
Future Volume (veh/h)	199	108	141	19	103	156	143	637	29	102	526	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	224	121	158	21	116	175	161	716	33	115	591	271
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	341	456	386	29	560	500	293	1931	89	331	801	367
Arrive On Green	0.25	0.25	0.25	0.02	0.32	0.32	0.33	1.00	1.00	0.34	0.34	0.34
Sat Flow, veh/h	1071	1841	1560	1753	1749	1560	1753	3404	157	702	2330	1067
Grp Volume(v), veh/h	224	121	158	21	116	175	161	368	381	115	443	419
Grp Sat Flow(s),veh/h/ln	1071	1841	1560	1753	1749	1560	1753	1749	1812	702	1749	1649
Q Serve(g_s), s	16.2	4.2	4.3	1.0	3.9	6.9	6.0	0.0	0.0	10.3	17.8	17.9
Cycle Q Clear(g_c), s	17.3	4.2	4.3	1.0	3.9	6.9	6.0	0.0	0.0	10.3	17.8	17.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.65
Lane Grp Cap(c), veh/h	341	456	386	29	560	500	293	992	1028	331	601	567
V/C Ratio(X)	0.66	0.27	0.41	0.73	0.21	0.35	0.55	0.37	0.37	0.35	0.74	0.74
Avail Cap(c_a), veh/h	364	495	419	77	645	575	293	992	1028	331	601	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	24.2	9.9	39.2	19.8	20.8	24.2	0.0	0.0	20.6	23.1	23.1
Incr Delay (d2), s/veh	3.9	0.3	0.7	30.0	0.2	0.4	0.2	0.1	0.1	2.9	7.9	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	1.8	2.4	0.6	1.5	2.5	2.2	0.0	0.0	1.9	8.3	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	24.5	10.6	69.2	20.0	21.2	24.4	0.1	0.1	23.5	31.0	31.5
LnGrp LOS	C	C	B	E	B	C	C	A	A	C	C	C
Approach Vol, veh/h		503			312			910			977	
Approach Delay, s/veh		24.2			24.0			4.4			30.3	
Approach LOS		C			C			A			C	

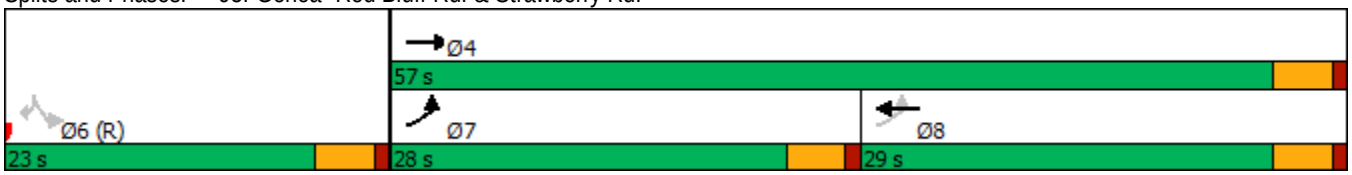
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		49.9	5.8	24.3	17.9	32.0		30.1				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		41.5	3.5	21.5	9.5	27.5		29.5				
Max Q Clear Time (g_c+I1), s		2.0	3.0	19.3	8.0	19.9		8.9				
Green Ext Time (p_c), s		5.4	0.0	0.5	0.1	3.8		1.7				

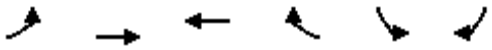
Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	496	1013	724	225	333
Future Volume (vph)	496	1013	724	225	333
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	28.0	57.0	29.0	23.0	23.0
Total Split (%)	35.0%	71.3%	36.3%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	46.6	51.1	24.7	19.9	19.9
Actuated g/C Ratio	0.58	0.64	0.31	0.25	0.25
v/c Ratio	0.90	0.47	0.90	0.54	0.53
Control Delay	36.2	4.9	30.9	36.8	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	4.9	30.9	36.8	15.7
LOS	D	A	C	D	B
Approach Delay		15.2	30.9	24.2	
Approach LOS		B	C	C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 65 (81%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.





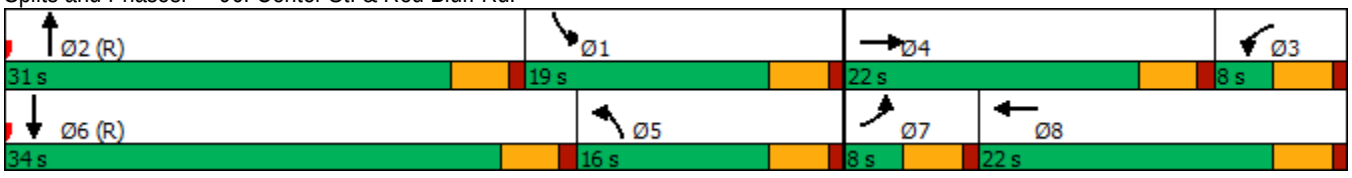
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	496	1013	724	208	225	333
Future Volume (vph)	496	1013	724	208	225	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.97		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	3471	3355		1736	1553
Flt Permitted	0.16	1.00	1.00		0.95	1.00
Satd. Flow (perm)	296	3471	3355		1736	1553
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	511	1044	746	214	232	343
RTOR Reduction (vph)	0	0	33	0	0	258
Lane Group Flow (vph)	511	1044	927	0	232	85
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	46.6	51.1	24.7		19.9	19.9
Effective Green, g (s)	46.6	51.1	24.7		19.9	19.9
Actuated g/C Ratio	0.58	0.64	0.31		0.25	0.25
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	566	2217	1035		431	386
v/s Ratio Prot	c0.25	0.30	0.28			
v/s Ratio Perm	c0.28				c0.13	0.05
v/c Ratio	0.90	0.47	0.90		0.54	0.22
Uniform Delay, d1	19.4	7.5	26.4		26.1	23.9
Progression Factor	0.82	0.57	0.72		1.18	3.70
Incremental Delay, d2	17.0	0.2	9.8		4.3	1.2
Delay (s)	32.8	4.4	28.9		35.1	89.5
Level of Service	C	A	C		D	F
Approach Delay (s)		13.7	28.9		67.5	
Approach LOS		B	C		E	

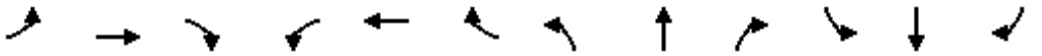
Intersection Summary			
HCM 2000 Control Delay	28.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	57	532	4	438	166	914	241	725
Future Volume (vph)	57	532	4	438	166	914	241	725
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	22.0	8.0	22.0	16.0	31.0	19.0	34.0
Total Split (%)	10.0%	27.5%	10.0%	27.5%	20.0%	38.8%	23.8%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	3.8	24.2	3.5	17.5	11.2	26.5	14.2	29.5
Actuated g/C Ratio	0.05	0.30	0.04	0.22	0.14	0.33	0.18	0.37
v/c Ratio	0.78	0.73	0.05	0.96	0.77	0.90	0.88	0.64
Control Delay	95.1	27.1	38.2	47.8	41.6	19.3	45.2	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.1	27.1	38.2	47.8	41.6	19.3	45.2	12.8
LOS	F	C	D	D	D	B	D	B
Approach Delay		32.3		47.7		22.7		20.9
Approach LOS		C		D		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 29.5	Intersection LOS: C
Intersection Capacity Utilization 85.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	532	150	4	438	310	166	914	8	241	725	0
Future Volume (veh/h)	57	532	150	4	438	310	166	914	8	241	725	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	64	598	169	4	492	348	187	1027	9	271	815	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	77	589	166	77	428	302	252	1177	10	318	1290	0
Arrive On Green	0.04	0.22	0.22	0.04	0.22	0.22	0.05	0.11	0.11	0.18	0.37	0.00
Sat Flow, veh/h	1753	2693	759	1753	1958	1382	1753	3553	31	1753	3589	0
Grp Volume(v), veh/h	64	388	379	4	439	401	187	506	530	271	815	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1704	1753	1749	1592	1753	1749	1835	1753	1749	0
Q Serve(g_s), s	2.9	17.5	17.5	0.2	17.5	17.5	8.4	22.8	22.8	12.0	15.3	0.0
Cycle Q Clear(g_c), s	2.9	17.5	17.5	0.2	17.5	17.5	8.4	22.8	22.8	12.0	15.3	0.0
Prop In Lane	1.00		0.45	1.00		0.87	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	77	383	373	77	383	348	252	579	608	318	1290	0
V/C Ratio(X)	0.83	1.01	1.02	0.05	1.15	1.15	0.74	0.87	0.87	0.85	0.63	0.00
Avail Cap(c_a), veh/h	77	383	373	77	383	348	252	579	608	318	1290	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.39	0.39	0.39	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.0	31.3	31.3	36.7	31.3	31.3	36.6	34.0	34.0	31.7	20.8	0.0
Incr Delay (d2), s/veh	51.7	49.6	51.1	0.3	92.8	95.9	4.6	7.4	7.0	19.5	2.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	12.3	12.2	0.1	16.9	15.7	4.1	11.7	12.2	6.6	6.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.7	80.8	82.3	36.9	124.1	127.1	41.2	41.3	41.0	51.2	23.1	0.0
LnGrp LOS	F	F	F	D	F	F	D	D	D	D	C	A
Approach Vol, veh/h		831			844			1223			1086	
Approach Delay, s/veh		82.2			125.1			41.2			30.2	
Approach LOS		F			F			D			C	

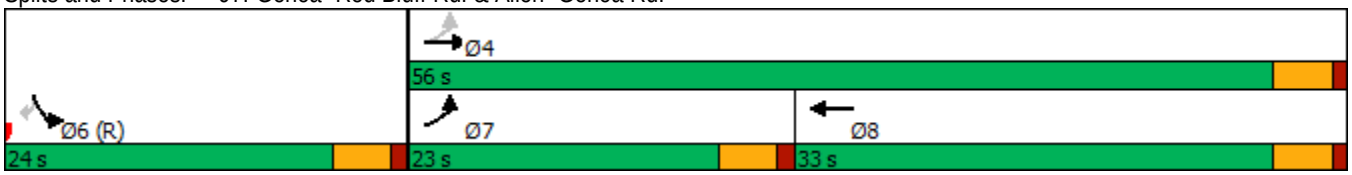
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	31.0	8.0	22.0	16.0	34.0	8.0	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	26.5	3.5	17.5	11.5	29.5	3.5	17.5
Max Q Clear Time (g_c+I1), s	14.0	24.8	2.2	19.5	10.4	17.3	4.9	19.5
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.1	4.5	0.0	0.0

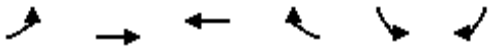
Intersection Summary	
HCM 6th Ctrl Delay	64.5
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	265	988	747	133	292
Future Volume (vph)	265	988	747	133	292
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	56.0	33.0	24.0	24.0
Total Split (%)	28.8%	70.0%	41.3%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	46.9	46.9	26.8	24.1	24.1
Actuated g/C Ratio	0.59	0.59	0.34	0.30	0.30
v/c Ratio	0.67	0.53	0.80	0.28	0.46
Control Delay	21.8	10.6	12.7	13.9	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	10.6	12.7	13.9	4.1
LOS	C	B	B	B	A
Approach Delay		13.0	12.7	7.2	
Approach LOS		B	B	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	265	988	747	105	133	292
Future Volume (veh/h)	265	988	747	105	133	292
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	288	1074	812	114	145	317
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	366	1761	960	135	673	599
Arrive On Green	0.14	0.50	0.31	0.31	0.38	0.38
Sat Flow, veh/h	1753	3589	3171	432	1753	1560
Grp Volume(v), veh/h	288	1074	461	465	145	317
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1763	1753	1560
Q Serve(g_s), s	8.3	17.6	19.7	19.7	4.4	12.6
Cycle Q Clear(g_c), s	8.3	17.6	19.7	19.7	4.4	12.6
Prop In Lane	1.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	366	1761	545	550	673	599
V/C Ratio(X)	0.79	0.61	0.85	0.85	0.22	0.53
Avail Cap(c_a), veh/h	534	2251	623	628	673	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	14.2	25.7	25.7	16.6	19.1
Incr Delay (d2), s/veh	4.8	0.3	9.4	9.4	0.7	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	6.4	9.2	9.3	1.8	11.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	14.6	35.1	35.1	17.3	22.4
LnGrp LOS	C	B	D	D	B	C
Approach Vol, veh/h		1362	926		462	
Approach Delay, s/veh		16.2	35.1		20.8	
Approach LOS		B	D		C	

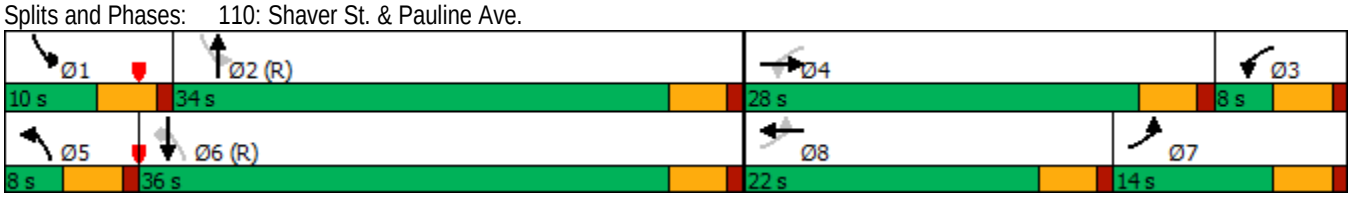
Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		44.8		35.2	15.3	29.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		51.5		19.5	18.5	28.5
Max Q Clear Time (g_c+I1), s		19.6		14.6	10.3	21.7
Green Ext Time (p_c), s		9.6		0.8	0.6	3.2

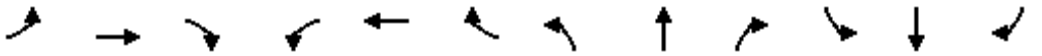
Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	133	103	72	133	44	667	57	621	94
Future Volume (vph)	133	103	72	133	44	667	57	621	94
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	28.0	8.0	22.0	8.0	34.0	10.0	36.0	36.0
Total Split (%)	17.5%	35.0%	10.0%	27.5%	10.0%	42.5%	12.5%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.7	13.8	21.6	14.2	43.1	36.9	42.2	39.7	39.7
Actuated g/C Ratio	0.26	0.17	0.27	0.18	0.54	0.46	0.53	0.50	0.50
v/c Ratio	0.58	0.47	0.22	0.72	0.12	0.49	0.19	0.41	0.12
Control Delay	29.0	17.5	20.6	38.6	3.9	10.8	6.7	7.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	17.5	20.6	38.6	3.9	10.8	6.7	7.5	0.5
LOS	C	B	C	D	A	B	A	A	A
Approach Delay		23.2		34.1		10.4		6.6	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 13.9	Intersection LOS: B
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	103	30	72	133	83	44	667	33	57	621	94
Future Volume (veh/h)	133	103	30	72	133	83	44	667	33	57	621	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	149	116	34	81	149	93	49	749	37	64	698	106
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	157	46	297	178	111	421	1804	89	375	1874	836
Arrive On Green	0.04	0.11	0.11	0.10	0.17	0.17	0.01	0.18	0.18	0.03	0.54	0.54
Sat Flow, veh/h	1753	1368	401	1753	1060	662	1753	3392	167	1753	3497	1560
Grp Volume(v), veh/h	149	0	150	81	0	242	49	386	400	64	698	106
Grp Sat Flow(s),veh/h/ln	1753	0	1769	1753	0	1722	1753	1749	1811	1753	1749	1560
Q Serve(g_s), s	0.9	0.0	6.6	0.0	0.0	10.9	1.0	15.7	15.7	1.3	9.3	1.8
Cycle Q Clear(g_c), s	0.9	0.0	6.6	0.0	0.0	10.9	1.0	15.7	15.7	1.3	9.3	1.8
Prop In Lane	1.00		0.23	1.00		0.38	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	199	0	203	297	0	289	421	930	963	375	1874	836
V/C Ratio(X)	0.75	0.00	0.74	0.27	0.00	0.84	0.12	0.42	0.42	0.17	0.37	0.13
Avail Cap(c_a), veh/h	334	0	520	297	0	377	447	930	963	438	1874	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	34.2	32.1	0.0	32.2	8.5	21.9	21.9	9.6	10.8	4.1
Incr Delay (d2), s/veh	5.5	0.0	5.2	0.5	0.0	12.1	0.1	1.3	1.2	0.2	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	3.0	1.4	0.0	5.4	0.4	7.6	7.8	0.5	3.4	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	0.0	39.4	32.6	0.0	44.3	8.6	23.2	23.1	9.8	11.3	4.4
LnGrp LOS	D	A	D	C	A	D	A	C	C	A	B	A
Approach Vol, veh/h		299			323			835			868	
Approach Delay, s/veh		40.7			41.4			22.3			10.4	
Approach LOS		D			D			C			B	

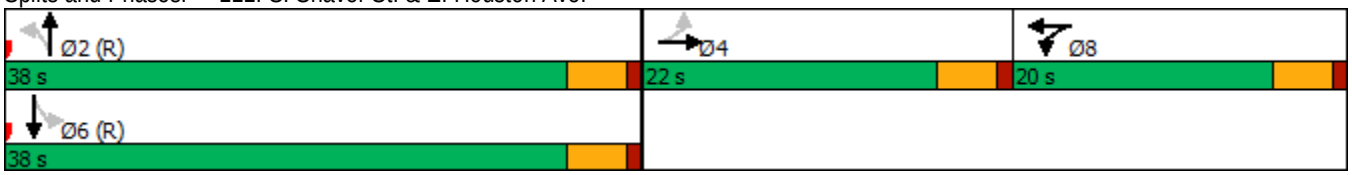
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	47.0	12.1	13.7	6.8	47.4	7.9	17.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	29.5	3.5	23.5	3.5	31.5	9.5	17.5
Max Q Clear Time (g_c+I1), s	3.3	17.7	2.0	8.6	3.0	11.3	2.9	12.9
Green Ext Time (p_c), s	0.0	3.9	0.0	0.6	0.0	5.2	0.2	0.5

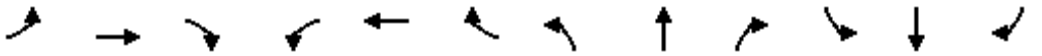
Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	39	25	57	23	6	931	23	598
Future Volume (vph)	39	25	57	23	6	931	23	598
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	22.0	22.0	20.0	20.0	38.0	38.0	38.0	38.0
Total Split (%)	27.5%	27.5%	25.0%	25.0%	47.5%	47.5%	47.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.8	12.8	8.3	8.3	50.3	50.3	50.3	50.3
Actuated g/C Ratio	0.16	0.16	0.10	0.10	0.63	0.63	0.63	0.63
v/c Ratio	0.43	0.16	0.35	0.39	0.02	0.51	0.11	0.31
Control Delay	41.9	18.5	37.9	18.7	8.5	11.3	12.7	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay	41.9	18.5	37.9	18.7	8.5	11.3	12.7	11.0
LOS	D	B	D	B	A	B	B	B
Approach Delay		29.6		26.7		11.3		11.0
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 50.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	25	19	57	23	57	6	931	69	23	598	14
Future Volume (veh/h)	39	25	19	57	23	57	6	931	69	23	598	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	27	21	63	25	63	7	1023	76	25	657	15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	52	40	139	37	93	563	2302	171	374	2438	56
Arrive On Green	0.05	0.05	0.05	0.08	0.08	0.08	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1753	960	747	1753	463	1167	754	3300	245	505	3495	80
Grp Volume(v), veh/h	43	0	48	63	0	88	7	542	557	25	329	343
Grp Sat Flow(s),veh/h/ln	1753	0	1706	1753	0	1631	754	1749	1797	505	1749	1826
Q Serve(g_s), s	1.9	0.0	2.2	2.7	0.0	4.2	0.3	10.9	10.9	1.8	5.6	5.6
Cycle Q Clear(g_c), s	1.9	0.0	2.2	2.7	0.0	4.2	5.9	10.9	10.9	12.7	5.6	5.6
Prop In Lane	1.00		0.44	1.00		0.72	1.00		0.14	1.00		0.04
Lane Grp Cap(c), veh/h	95	0	93	139	0	130	563	1220	1253	374	1220	1274
V/C Ratio(X)	0.45	0.00	0.52	0.45	0.00	0.68	0.01	0.44	0.44	0.07	0.27	0.27
Avail Cap(c_a), veh/h	383	0	373	340	0	316	563	1220	1253	374	1220	1274
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	0.0	36.8	35.2	0.0	35.8	5.6	5.3	5.3	8.1	4.5	4.5
Incr Delay (d2), s/veh	3.3	0.0	4.4	2.3	0.0	6.1	0.0	0.9	0.9	0.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.0	1.2	0.0	1.9	0.0	3.3	3.4	0.2	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.0	41.3	37.4	0.0	41.9	5.6	6.2	6.2	8.4	5.0	5.0
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		91			151			1106			697	
Approach Delay, s/veh		40.7			40.1			6.2			5.2	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.3		8.8		60.3		10.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		33.5		17.5		33.5		15.5				
Max Q Clear Time (g_c+I1), s		12.9		4.2		14.7		6.2				
Green Ext Time (p_c), s		7.7		0.2		4.3		0.4				

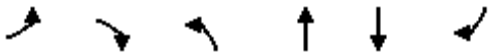
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	147	25	1246	1070
Future Volume (vph)	147	25	1246	1070
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	22.0	8.0	58.0	50.0
Total Split (%)	27.5%	10.0%	72.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	13.9	57.1	57.1	53.9
Actuated g/C Ratio	0.17	0.71	0.71	0.67
v/c Ratio	0.69	0.12	0.58	0.61
Control Delay	28.9	4.6	4.6	10.8
Queue Delay	0.0	0.0	0.0	0.4
Total Delay	28.9	4.6	4.6	11.2
LOS	C	A	A	B
Approach Delay	28.9		4.6	11.2
Approach LOS	C		A	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 54.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	147	38	25	1246	1070	145
Future Volume (vph)	147	38	25	1246	1070	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.97		1.00	1.00	0.98	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1708		1736	3471	3409	
Flt Permitted	0.96		0.14	1.00	1.00	
Satd. Flow (perm)	1708		254	3471	3409	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	169	44	29	1432	1230	167
RTOR Reduction (vph)	12	0	0	0	11	0
Lane Group Flow (vph)	201	0	29	1432	1386	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	13.9		57.1	57.1	51.2	
Effective Green, g (s)	13.9		57.1	57.1	51.2	
Actuated g/C Ratio	0.17		0.71	0.71	0.64	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	296		207	2477	2181	
v/s Ratio Prot			0.00	c0.41	c0.41	
v/s Ratio Perm	c0.12		0.10			
v/c Ratio	0.68		0.14	0.58	0.64	
Uniform Delay, d1	31.0		10.0	5.6	8.7	
Progression Factor	0.61		0.70	0.58	1.12	
Incremental Delay, d2	6.0		0.3	0.9	1.3	
Delay (s)	24.8		7.3	4.2	11.1	
Level of Service	C		A	A	B	
Approach Delay (s)	24.8			4.3	11.1	
Approach LOS	C			A	B	

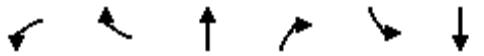
Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	14	658	89	734
Future Volume (vph)	14	658	89	734
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	23.0	57.0	57.0	57.0
Total Split (%)	28.8%	71.3%	71.3%	71.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.8	63.2		63.2
Actuated g/C Ratio	0.10	0.79		0.79
v/c Ratio	0.59	0.29		0.47
Control Delay	21.2	1.1		3.8
Queue Delay	0.0	0.0		0.0
Total Delay	21.2	1.1		3.8
LOS	C	A		A
Approach Delay	21.2	1.1		3.8
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 68 (85%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 4.3	Intersection LOS: A
Intersection Capacity Utilization 65.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	135	658	15	89	734
Future Volume (veh/h)	14	135	658	15	89	734
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	17	161	783	18	106	874
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	20	194	2624	60	259	2017
Arrive On Green	0.14	0.14	0.75	0.75	1.00	1.00
Sat Flow, veh/h	150	1419	3587	80	271	2770
Grp Volume(v), veh/h	179	0	392	409	456	524
Grp Sat Flow(s),veh/h/ln	1578	0	1749	1826	1366	1591
Q Serve(g_s), s	8.8	0.0	5.8	5.8	0.0	0.0
Cycle Q Clear(g_c), s	8.8	0.0	5.8	5.8	0.0	0.0
Prop In Lane	0.09	0.90		0.04	0.23	
Lane Grp Cap(c), veh/h	216	0	1313	1371	1081	1195
V/C Ratio(X)	0.83	0.00	0.30	0.30	0.42	0.44
Avail Cap(c_a), veh/h	365	0	1313	1371	1081	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	33.6	0.0	3.2	3.2	0.0	0.0
Incr Delay (d2), s/veh	8.0	0.0	0.6	0.6	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	1.4	1.5	0.3	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.6	0.0	3.8	3.8	1.1	1.1
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	179		801			980
Approach Delay, s/veh	41.6		3.8			1.1
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		64.6			64.6	15.4
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		52.5			52.5	18.5
Max Q Clear Time (g_c+I1), s		7.8			2.0	10.8
Green Ext Time (p_c), s		5.7			8.7	0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

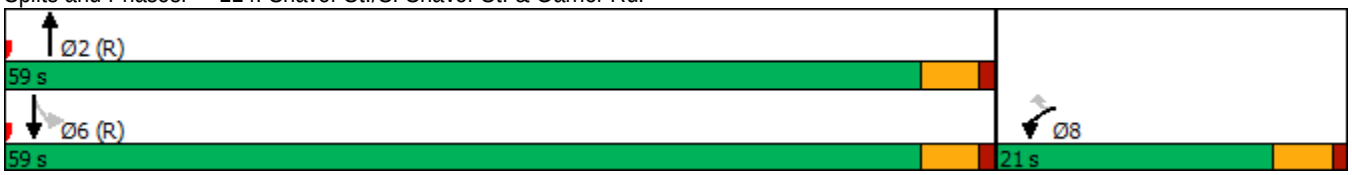
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	232	208	980	105	783
Future Volume (vph)	232	208	980	105	783
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	21.0	21.0	59.0	59.0	59.0
Total Split (%)	26.3%	26.3%	73.8%	73.8%	73.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.3	15.3	55.7	55.7	55.7
Actuated g/C Ratio	0.19	0.19	0.70	0.70	0.70
v/c Ratio	0.80	0.60	0.56	0.58	0.37
Control Delay	50.3	21.2	3.2	17.5	2.8
Queue Delay	1.9	0.0	0.2	0.0	0.1
Total Delay	52.2	21.2	3.5	17.5	2.9
LOS	D	C	A	B	A
Approach Delay	37.6		3.5		4.7
Approach LOS	D		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 49 (61%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 66.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	232	208	980	175	105	783
Future Volume (veh/h)	232	208	980	175	105	783
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	267	239	1126	201	121	900
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	315	280	2100	373	378	2475
Arrive On Green	0.18	0.18	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	3059	527	406	3589
Grp Volume(v), veh/h	267	239	662	665	121	900
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1746	406	1749
Q Serve(g_s), s	11.8	11.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.8	11.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		0.30	1.00	
Lane Grp Cap(c), veh/h	315	280	1238	1236	378	2475
V/C Ratio(X)	0.85	0.85	0.53	0.54	0.32	0.36
Avail Cap(c_a), veh/h	362	322	1238	1236	378	2475
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.78	0.78	0.96	0.96
Uniform Delay (d), s/veh	31.7	31.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	15.3	17.5	1.3	1.3	2.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	5.7	0.4	0.5	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.0	49.3	1.3	1.3	2.1	0.4
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	506		1327			1021
Approach Delay, s/veh	48.1		1.3			0.6
Approach LOS	D		A			A

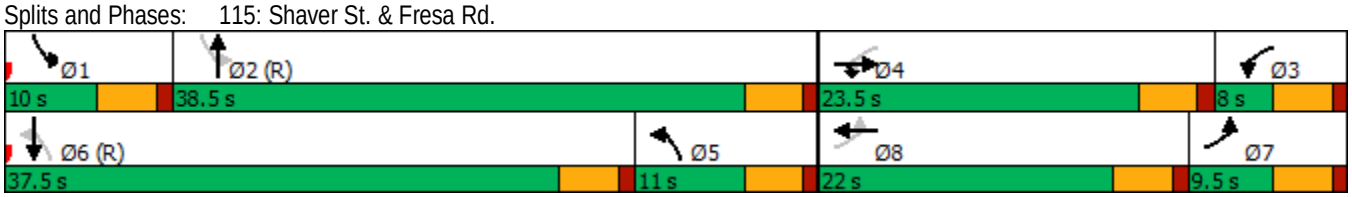
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		61.1			61.1	18.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		54.5			54.5	16.5
Max Q Clear Time (g_c+I1), s		2.0			2.0	13.9
Green Ext Time (p_c), s		13.6			11.7	0.5

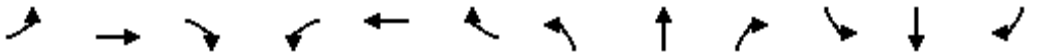
Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	Ø7
Lane Configurations									
Traffic Volume (vph)	33	124	42	56	85	673	52	631	
Future Volume (vph)	33	124	42	56	85	673	52	631	
Turn Type	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA	
Protected Phases	4	4	3	8	5	2	1	6	7
Permitted Phases			4		6		2		
Detector Phase	4	4	3	8	5	2	1	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	9.5
Total Split (s)	23.5	23.5	8.0	22.0	11.0	38.5	10.0	37.5	9.5
Total Split (%)	29.4%	29.4%	10.0%	27.5%	13.8%	48.1%	12.5%	46.9%	12%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	7.6	7.6	13.2	13.7	53.7	50.3	54.6	48.5	
Actuated g/C Ratio	0.10	0.10	0.16	0.17	0.67	0.63	0.68	0.61	
v/c Ratio	0.24	0.45	0.21	0.49	0.22	0.39	0.14	0.37	
Control Delay	36.7	6.5	27.3	18.7	4.1	5.4	12.4	15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.7	6.5	27.3	18.7	4.1	5.4	12.4	15.3	
LOS	D	A	C	B	A	A	B	B	
Approach Delay	12.9			20.6		5.2		15.1	
Approach LOS	B			C		A		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 72 (90%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 11.2	Intersection LOS: B
Intersection Capacity Utilization 50.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 115: Shaver St. & Fresa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	33	124	42	56	86	85	673	28	52	631	1
Future Volume (veh/h)	0	33	124	42	56	86	85	673	28	52	631	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	39	146	49	66	101	100	792	33	61	742	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	0	0	0	0	0	0	0	0	0	0	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Change Period (Y+Rc), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Green Setting (Gmax), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

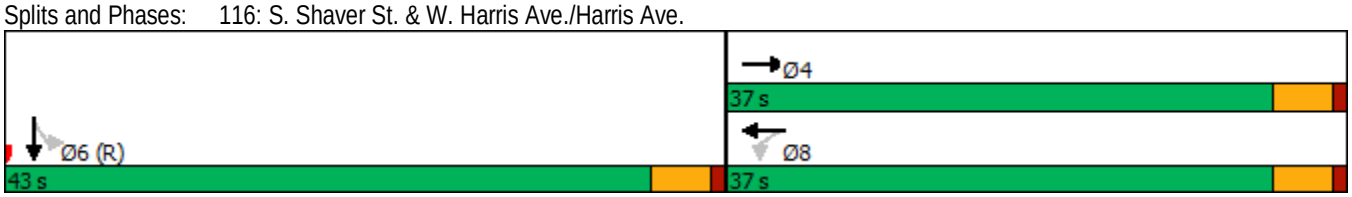
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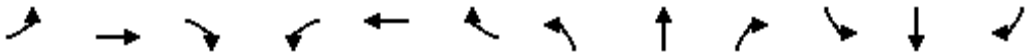
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	262	62	281	697
Future Volume (vph)	262	62	281	697
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	19.2		19.2	51.8
Actuated g/C Ratio	0.24		0.24	0.65
v/c Ratio	0.63		0.81	0.34
Control Delay	24.6		38.9	6.6
Queue Delay	0.0		0.0	0.0
Total Delay	24.6		38.9	6.6
LOS	C		D	A
Approach Delay	24.6		38.9	6.6
Approach LOS	C		D	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 6 (8%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	262	152	62	281	0	0	0	0	85	697	100
Future Volume (veh/h)	0	262	152	62	281	0	0	0	0	85	697	100
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	323	188	77	347	0				105	860	123
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	598	341	136	634	0				289	2520	371
Arrive On Green	0.00	0.28	0.28	0.09	0.09	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	2239	1222	263	2359	0				475	4139	609
Grp Volume(v), veh/h	0	262	249	200	224	0				402	337	349
Grp Sat Flow(s),veh/h/ln	0	1749	1621	947	1591	0				1817	1675	1731
Q Serve(g_s), s	0.0	10.2	10.5	7.6	10.7	0.0				15.2	13.8	13.8
Cycle Q Clear(g_c), s	0.0	10.2	10.5	18.1	10.7	0.0				15.2	13.8	13.8
Prop In Lane	0.00		0.75	0.38		0.00				0.26		0.35
Lane Grp Cap(c), veh/h	0	487	452	326	443	0				1106	1020	1054
V/C Ratio(X)	0.00	0.54	0.55	0.61	0.50	0.00				0.36	0.33	0.33
Avail Cap(c_a), veh/h	0	710	658	491	646	0				1106	1020	1054
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.90	0.90	0.00				0.97	0.97	0.97
Uniform Delay (d), s/veh	0.0	24.5	24.6	34.9	31.1	0.0				18.6	18.0	18.0
Incr Delay (d2), s/veh	0.0	0.9	1.1	1.7	0.8	0.0				0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	4.0	4.3	4.6	0.0				7.5	6.3	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.4	25.7	36.6	31.9	0.0				19.5	18.8	18.8
LnGrp LOS	A	C	C	D	C	A				B	B	B
Approach Vol, veh/h		511			424						1088	
Approach Delay, s/veh		25.5			34.1						19.1	
Approach LOS		C			C						B	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		26.8		53.2		26.8			
Change Period (Y+Rc), s		4.5		4.5		4.5			
Max Green Setting (Gmax), s		32.5		38.5		32.5			
Max Q Clear Time (g_c+I1), s		12.5		17.2		20.1			
Green Ext Time (p_c), s		3.1		6.9		2.2			

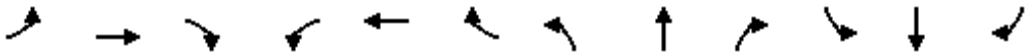
Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	58	278	197	851
Future Volume (vph)	58	278	197	851
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	33.0	33.0	33.0	47.0
Total Split (%)	41.3%	41.3%	41.3%	58.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		17.0	17.0	54.0
Actuated g/C Ratio		0.21	0.21	0.68
v/c Ratio		0.71	0.44	0.38
Control Delay		36.4	17.8	5.9
Queue Delay		0.0	0.0	0.0
Total Delay		36.4	17.8	5.9
LOS		D	B	A
Approach Delay		36.4	17.8	5.9
Approach LOS		D	B	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 49 (61%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.9	Intersection LOS: B
Intersection Capacity Utilization 53.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



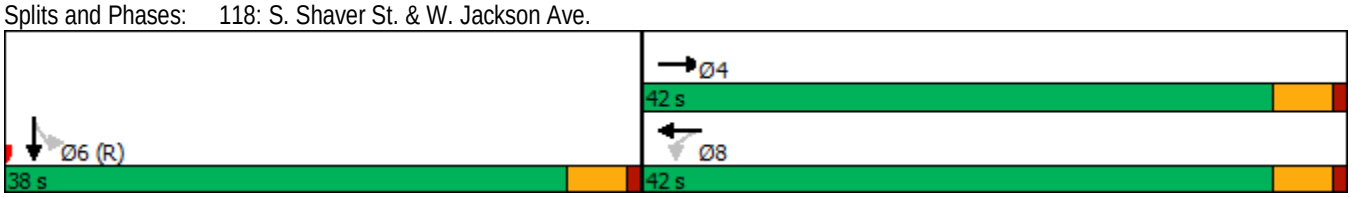


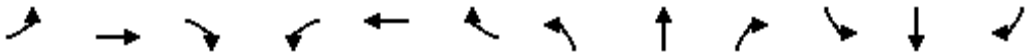
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	278	0	0	197	85	140	851	91	0	0	0
Future Volume (veh/h)	58	278	0	0	197	85	140	851	91	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	67	320	0	0	226	98	161	978	105			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	125	538	0	0	512	215	430	2795	308			
Arrive On Green	0.07	0.07	0.00	0.00	0.21	0.21	0.22	0.22	0.22			
Sat Flow, veh/h	302	2604	0	0	2492	1008	639	4146	457			
Grp Volume(v), veh/h	194	193	0	0	163	161	456	384	404			
Grp Sat Flow(s),veh/h/ln	1231	1591	0	0	1749	1659	1809	1675	1758			
Q Serve(g_s), s	6.4	9.4	0.0	0.0	6.5	6.8	17.1	15.4	15.5			
Cycle Q Clear(g_c), s	13.1	9.4	0.0	0.0	6.5	6.8	17.1	15.4	15.5			
Prop In Lane	0.34		0.00	0.00		0.61	0.35		0.26			
Lane Grp Cap(c), veh/h	323	340	0	0	373	354	1219	1129	1185			
V/C Ratio(X)	0.60	0.57	0.00	0.00	0.44	0.46	0.37	0.34	0.34			
Avail Cap(c_a), veh/h	531	567	0	0	623	591	1219	1129	1185			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.74	0.74	0.00	0.00	0.67	0.67	0.88	0.88	0.88			
Uniform Delay (d), s/veh	35.5	33.6	0.0	0.0	27.3	27.4	16.8	16.1	16.1			
Incr Delay (d2), s/veh	1.3	1.1	0.0	0.0	0.5	0.6	0.8	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.2	4.0	0.0	0.0	2.7	2.7	8.4	7.0	7.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	34.7	0.0	0.0	27.8	28.0	17.6	16.9	16.8			
LnGrp LOS	D	C	A	A	C	C	B	B	B			
Approach Vol, veh/h		387			324			1244				
Approach Delay, s/veh		35.8			27.9			17.1				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		58.4		21.6				21.6				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		42.5		28.5				28.5				
Max Q Clear Time (g_c+I1), s		19.1		15.1				8.8				
Green Ext Time (p_c), s		8.4		1.9				1.8				
Intersection Summary												
HCM 6th Ctrl Delay			22.6									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	180	55	413	551
Future Volume (vph)	180	55	413	551
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	38.0
Total Split (%)	52.5%	52.5%	52.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	21.2		21.2	49.8
Actuated g/C Ratio	0.26		0.26	0.62
v/c Ratio	0.40		0.71	0.27
Control Delay	13.6		26.3	7.6
Queue Delay	0.0		0.0	0.0
Total Delay	13.6		26.3	7.6
LOS	B		C	A
Approach Delay	13.6		26.3	7.6
Approach LOS	B		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 27 (34%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	180	150	55	413	0	0	0	0	123	551	62
Future Volume (veh/h)	0	180	150	55	413	0	0	0	0	123	551	62
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	200	167	61	459	0				137	612	69
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	452	357	107	664	0				531	2547	293
Arrive On Green	0.00	0.24	0.24	0.49	0.49	0.00				0.64	0.64	0.64
Sat Flow, veh/h	0	1948	1469	214	2813	0				825	3954	455
Grp Volume(v), veh/h	0	188	179	265	255	0				299	252	267
Grp Sat Flow(s),veh/h/ln	0	1749	1576	1352	1591	0				1799	1675	1759
Q Serve(g_s), s	0.0	7.3	7.8	6.6	9.7	0.0				5.7	5.0	5.1
Cycle Q Clear(g_c), s	0.0	7.3	7.8	14.4	9.7	0.0				5.7	5.0	5.1
Prop In Lane	0.00		0.93	0.23		0.00				0.46		0.26
Lane Grp Cap(c), veh/h	0	425	383	384	387	0				1159	1079	1133
V/C Ratio(X)	0.00	0.44	0.47	0.69	0.66	0.00				0.26	0.23	0.24
Avail Cap(c_a), veh/h	0	820	739	732	746	0				1159	1079	1133
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.72	0.72	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	25.7	25.8	19.2	18.0	0.0				6.1	6.0	6.0
Incr Delay (d2), s/veh	0.0	0.7	0.9	1.6	1.4	0.0				0.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.0	2.9	3.1	2.8	0.0				1.9	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.4	26.7	20.8	19.4	0.0				6.6	6.5	6.5
LnGrp LOS	A	C	C	C	B	A				A	A	A
Approach Vol, veh/h		367			520						818	
Approach Delay, s/veh		26.6			20.1						6.5	
Approach LOS		C			C						A	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		24.0		56.0		24.0						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		37.5		33.5		37.5						
Max Q Clear Time (g_c+I1), s		9.8		7.7		16.4						
Green Ext Time (p_c), s		2.2		5.2		3.1						

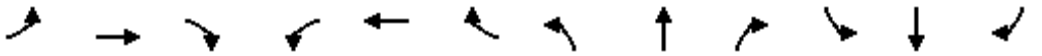
Intersection Summary												
HCM 6th Ctrl Delay		15.0										
HCM 6th LOS		B										

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Configurations					
Traffic Volume (vph)	80	235	1	298	801
Future Volume (vph)	80	235	1	298	801
Turn Type	Perm	NA	Perm	NA	NA
Protected Phases		4		8	2
Permitted Phases	4		8		
Detector Phase	4	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	34.0	34.0	34.0	34.0	46.0
Total Split (%)	42.5%	42.5%	42.5%	42.5%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)		16.4		16.4	54.6
Actuated g/C Ratio		0.20		0.20	0.68
v/c Ratio		0.77		0.65	0.32
Control Delay		37.4		28.4	3.2
Queue Delay		0.0		0.0	0.0
Total Delay		37.4		28.4	3.2
LOS		D		C	A
Approach Delay		37.4		28.4	3.2
Approach LOS		D		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 21 (26%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 55.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



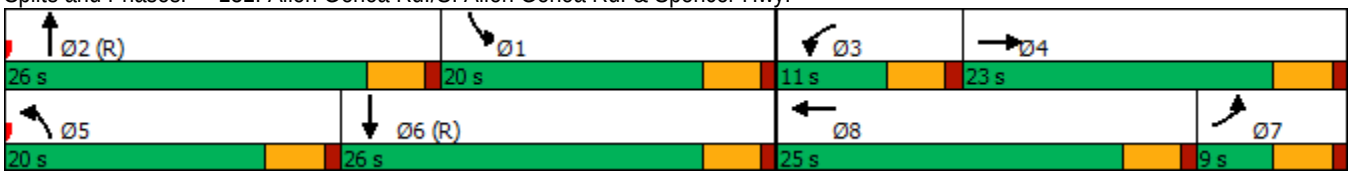


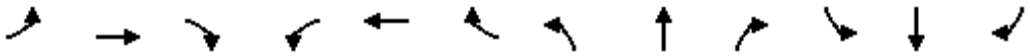
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	235	0	1	298	105	168	801	51	0	0	0
Future Volume (veh/h)	80	235	0	1	298	105	168	801	51	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	1841	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	85	250	0	1	317	112	179	852	54			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	4	4	0	4	4	4	4	4	4			
Cap, veh/h	156	497	0	45	608	210	526	2692	174			
Arrive On Green	0.49	0.49	0.00	0.24	0.24	0.24	0.21	0.21	0.21			
Sat Flow, veh/h	354	2127	0	1	2497	862	817	4179	271			
Grp Volume(v), veh/h	156	179	0	232	0	198	394	333	357			
Grp Sat Flow(s),veh/h/ln	806	1591	0	1840	0	1520	1800	1675	1792			
Q Serve(g_s), s	6.8	6.0	0.0	0.0	0.0	9.0	14.9	13.4	13.4			
Cycle Q Clear(g_c), s	15.9	6.0	0.0	8.7	0.0	9.0	14.9	13.4	13.4			
Prop In Lane	0.55		0.00	0.00		0.57	0.45		0.15			
Lane Grp Cap(c), veh/h	266	387	0	493	0	370	1159	1079	1154			
V/C Ratio(X)	0.59	0.46	0.00	0.47	0.00	0.53	0.34	0.31	0.31			
Avail Cap(c_a), veh/h	418	587	0	723	0	560	1159	1079	1154			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.92	0.92	0.00	1.00	0.00	1.00	0.93	0.93	0.93			
Uniform Delay (d), s/veh	20.9	17.1	0.0	26.2	0.0	26.3	17.1	16.5	16.5			
Incr Delay (d2), s/veh	1.9	0.8	0.0	0.7	0.0	1.2	0.7	0.7	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	1.9	0.0	3.8	0.0	3.3	7.2	6.1	6.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	17.9	0.0	26.9	0.0	27.5	17.8	17.2	17.2			
LnGrp LOS	C	B	A	C	A	C	B	B	B			
Approach Vol, veh/h		335			430			1085				
Approach Delay, s/veh		20.1			27.2			17.4				
Approach LOS		C			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		56.0		24.0				24.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		41.5		29.5				29.5				
Max Q Clear Time (g_c+I1), s		16.9		17.9				11.0				
Green Ext Time (p_c), s		7.2		1.6				2.5				
Intersection Summary												
HCM 6th Ctrl Delay			20.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	81	721	69	872	221	524	256	387
Future Volume (vph)	81	721	69	872	221	524	256	387
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	23.0	11.0	25.0	20.0	26.0	20.0	26.0
Total Split (%)	11.3%	28.8%	13.8%	31.3%	25.0%	32.5%	25.0%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.5	20.7	6.3	20.5	14.5	21.5	15.5	22.5
Actuated g/C Ratio	0.06	0.26	0.08	0.26	0.18	0.27	0.19	0.28
v/c Ratio	0.96	0.82	0.58	1.00	0.81	0.70	0.88	0.54
Control Delay	107.7	15.9	46.9	32.5	42.4	23.1	49.2	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	107.7	15.9	46.9	32.5	42.4	23.1	49.2	16.0
LOS	F	B	D	C	D	C	D	B
Approach Delay		23.5		33.4		28.7		28.2
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 28.7	Intersection LOS: C
Intersection Capacity Utilization 75.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	721	174	69	872	223	221	524	23	256	387	53
Future Volume (veh/h)	81	721	174	69	872	223	221	524	23	256	387	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	93	829	200	79	1002	256	254	602	26	294	445	61
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	99	1032	247	101	1022	261	294	918	40	340	912	124
Arrive On Green	0.11	0.51	0.51	0.06	0.26	0.26	0.17	0.27	0.27	0.19	0.29	0.29
Sat Flow, veh/h	1753	4047	970	1753	3990	1018	1753	3415	147	1753	3092	422
Grp Volume(v), veh/h	93	685	344	79	841	417	254	308	320	294	251	255
Grp Sat Flow(s),veh/h/ln	1753	1675	1666	1753	1675	1658	1753	1749	1814	1753	1749	1765
Q Serve(g_s), s	4.2	13.6	13.8	3.6	19.9	20.0	11.3	12.5	12.5	13.0	9.4	9.5
Cycle Q Clear(g_c), s	4.2	13.6	13.8	3.6	19.9	20.0	11.3	12.5	12.5	13.0	9.4	9.5
Prop In Lane	1.00		0.58	1.00		0.61	1.00		0.08	1.00		0.24
Lane Grp Cap(c), veh/h	99	854	425	101	858	425	294	470	488	340	516	520
V/C Ratio(X)	0.94	0.80	0.81	0.78	0.98	0.98	0.86	0.66	0.66	0.87	0.49	0.49
Avail Cap(c_a), veh/h	99	854	425	142	858	425	340	470	488	340	516	520
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.57	0.57	0.57	0.96	0.96	0.96	0.91	0.91	0.91
Uniform Delay (d), s/veh	35.4	17.9	18.0	37.2	29.5	29.6	32.4	26.0	26.0	31.2	23.2	23.2
Incr Delay (d2), s/veh	68.3	5.1	10.2	10.0	18.5	28.3	17.6	6.7	6.5	18.7	3.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	4.1	4.7	1.8	9.7	10.8	6.1	5.9	6.1	7.1	4.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	103.7	23.0	28.2	47.2	48.0	57.9	50.0	32.7	32.5	50.0	26.2	26.2
LnGrp LOS	F	C	C	D	D	E	D	C	C	D	C	C
Approach Vol, veh/h		1122			1337			882			800	
Approach Delay, s/veh		31.3			51.1			37.6			34.9	
Approach LOS		C			D			D			C	

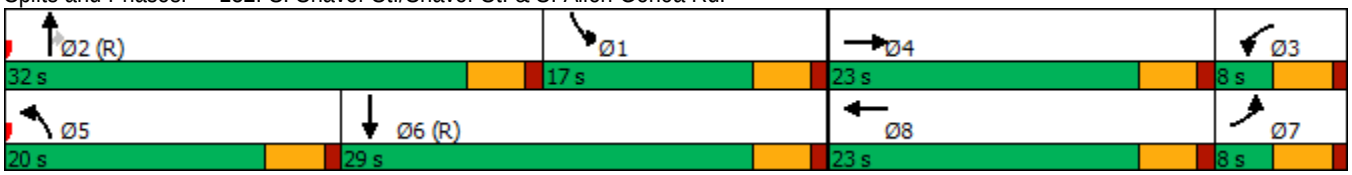
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	26.0	9.1	24.9	17.9	28.1	9.0	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	21.5	6.5	18.5	15.5	21.5	4.5	20.5
Max Q Clear Time (g_c+I1), s	15.0	14.5	5.6	15.8	13.3	11.5	6.2	22.0
Green Ext Time (p_c), s	0.1	2.2	0.0	1.6	0.2	2.2	0.0	0.0

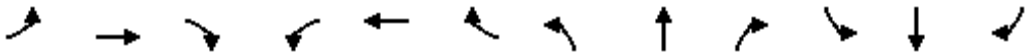
Intersection Summary	
HCM 6th Ctrl Delay	39.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	10	340	14	373	176	587	8	126	612
Future Volume (vph)	10	340	14	373	176	587	8	126	612
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases							2		
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	23.0	8.0	23.0	20.0	32.0	32.0	17.0	29.0
Total Split (%)	10.0%	28.8%	10.0%	28.8%	25.0%	40.0%	40.0%	21.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	4.4	16.5	4.7	16.5	13.0	35.9	35.9	12.5	35.4
Actuated g/C Ratio	0.06	0.21	0.06	0.21	0.16	0.45	0.45	0.16	0.44
v/c Ratio	0.12	0.73	0.15	0.77	0.66	0.40	0.01	0.49	0.42
Control Delay	33.4	16.5	38.6	27.3	21.6	13.2	0.0	28.3	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.4	16.5	38.6	27.3	21.6	13.2	0.0	28.3	11.7
LOS	C	B	D	C	C	B	A	C	B
Approach Delay		16.8		27.6		15.0			14.6
Approach LOS		B		C		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	340	222	14	373	179	176	587	8	126	612	4
Future Volume (veh/h)	10	340	222	14	373	179	176	587	8	126	612	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	11	358	234	15	393	188	185	618	0	133	644	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	30	427	275	22	472	223	225	1202		367	1514	9
Arrive On Green	0.02	0.21	0.21	0.01	0.20	0.20	0.13	0.34	0.00	0.42	0.85	0.85
Sat Flow, veh/h	1753	2041	1312	1753	2305	1088	1753	3497	1560	1753	3563	22
Grp Volume(v), veh/h	11	306	286	15	297	284	185	618	0	133	316	332
Grp Sat Flow(s),veh/h/ln	1753	1749	1605	1753	1749	1645	1753	1749	1560	1753	1749	1837
Q Serve(g_s), s	0.5	13.4	13.7	0.7	13.0	13.3	8.2	11.3	0.0	4.2	3.4	3.4
Cycle Q Clear(g_c), s	0.5	13.4	13.7	0.7	13.0	13.3	8.2	11.3	0.0	4.2	3.4	3.4
Prop In Lane	1.00		0.82	1.00		0.66	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	30	366	336	22	358	337	225	1202		367	743	780
V/C Ratio(X)	0.37	0.84	0.85	0.69	0.83	0.84	0.82	0.51		0.36	0.43	0.43
Avail Cap(c_a), veh/h	77	404	371	77	404	380	340	1202		367	743	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.66	0.66	0.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	38.9	30.3	30.4	39.4	30.5	30.6	34.0	20.9	0.0	19.6	3.7	3.7
Incr Delay (d2), s/veh	7.4	13.1	16.0	32.3	12.3	14.5	6.4	1.0	0.0	0.5	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.8	6.6	0.5	6.4	6.4	3.8	4.5	0.0	1.5	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	43.4	46.4	71.7	42.8	45.1	40.4	22.0	0.0	20.1	5.3	5.2
LnGrp LOS	D	D	D	E	D	D	D	C		C	A	A
Approach Vol, veh/h		603			596			803	A		781	
Approach Delay, s/veh		44.9			44.6			26.2			7.8	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	32.0	5.5	21.2	14.8	38.5	5.9	20.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	27.5	3.5	18.5	15.5	24.5	3.5	18.5
Max Q Clear Time (g_c+I1), s	6.2	13.3	2.7	15.7	10.2	5.4	2.5	15.3
Green Ext Time (p_c), s	0.2	3.5	0.0	1.0	0.2	3.7	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

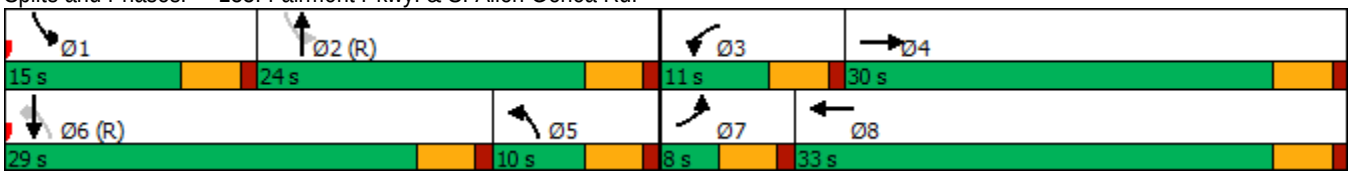
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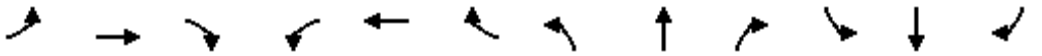
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	33	862	39	700	80	245	225	263	57
Future Volume (vph)	33	862	39	700	80	245	225	263	57
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	8.0	30.0	11.0	33.0	10.0	24.0	15.0	29.0	29.0
Total Split (%)	10.0%	37.5%	13.8%	41.3%	12.5%	30.0%	18.8%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	3.5	27.2	6.3	29.0	33.6	22.2	32.7	29.2	29.2
Actuated g/C Ratio	0.04	0.34	0.08	0.36	0.42	0.28	0.41	0.36	0.36
v/c Ratio	0.52	0.67	0.34	0.90	0.24	0.69	0.72	0.47	0.10
Control Delay	70.5	16.3	42.1	26.9	10.1	26.3	22.4	14.0	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.5	16.3	42.1	26.9	10.1	26.3	22.4	14.0	0.9
LOS	E	B	D	C	B	C	C	B	A
Approach Delay		18.1		27.5		22.8		16.1	
Approach LOS		B		C		C		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 21.5	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	862	85	39	700	248	80	245	47	225	263	57
Future Volume (veh/h)	33	862	85	39	700	248	80	245	47	225	263	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	1026	101	46	833	295	95	292	56	268	313	68
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	48	1613	159	57	892	316	408	396	76	408	564	478
Arrive On Green	0.03	0.35	0.35	0.03	0.35	0.35	0.09	0.26	0.26	0.13	0.31	0.31
Sat Flow, veh/h	1753	4651	457	1753	2533	896	1753	1501	288	1753	1841	1560
Grp Volume(v), veh/h	39	738	389	46	575	553	95	0	348	268	313	68
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1749	1680	1753	0	1789	1753	1841	1560
Q Serve(g_s), s	1.8	14.8	14.8	2.1	25.4	25.5	0.0	0.0	14.2	8.7	11.4	2.0
Cycle Q Clear(g_c), s	1.8	14.8	14.8	2.1	25.4	25.5	0.0	0.0	14.2	8.7	11.4	2.0
Prop In Lane	1.00		0.26	1.00		0.53	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	48	1162	610	57	616	592	408	0	472	408	564	478
V/C Ratio(X)	0.81	0.64	0.64	0.80	0.93	0.93	0.23	0.00	0.74	0.66	0.56	0.14
Avail Cap(c_a), veh/h	77	1162	610	142	623	598	408	0	472	408	564	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.39	0.39	0.39	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	21.9	21.9	38.4	25.0	25.0	24.7	0.0	26.9	19.0	23.2	12.8
Incr Delay (d2), s/veh	20.9	0.8	1.5	9.6	10.4	10.9	0.3	0.0	9.8	3.8	3.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.6	6.1	1.0	11.6	11.3	1.4	0.0	7.0	3.7	5.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	22.7	23.4	48.0	35.4	36.0	25.0	0.0	36.7	22.8	27.1	13.5
LnGrp LOS	E	C	C	D	D	D	C	A	D	C	C	B
Approach Vol, veh/h		1166			1174			443			649	
Approach Delay, s/veh		24.2			36.1			34.2			23.9	
Approach LOS		C			D			C			C	

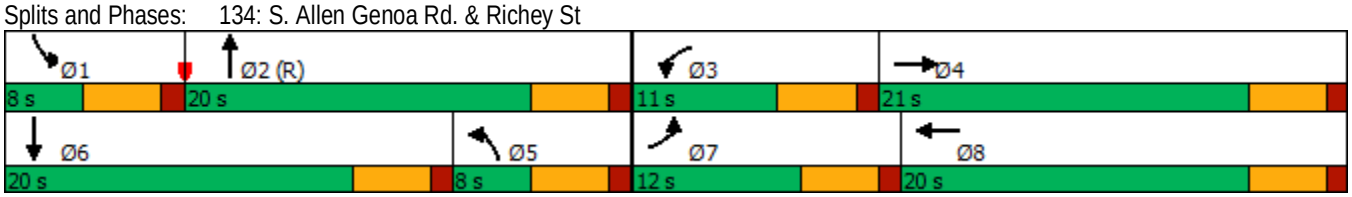
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	25.6	7.1	32.2	11.6	29.0	6.7	32.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	19.5	6.5	25.5	5.5	24.5	3.5	28.5
Max Q Clear Time (g_c+I1), s	10.7	16.2	4.1	16.8	2.0	13.4	3.8	27.5
Green Ext Time (p_c), s	0.0	0.6	0.0	4.7	0.1	1.5	0.0	0.7

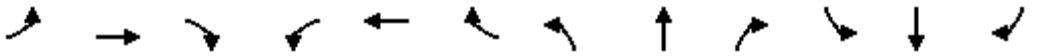
Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	155	380	91	466	41	695	22	428
Future Volume (vph)	155	380	91	466	41	695	22	428
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	21.0	11.0	20.0	8.0	20.0	8.0	20.0
Total Split (%)	20.0%	35.0%	18.3%	33.3%	13.3%	33.3%	13.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	7.5	17.3	6.4	14.1	4.4	21.7	4.3	20.1
Actuated g/C Ratio	0.12	0.29	0.11	0.24	0.07	0.36	0.07	0.34
v/c Ratio	0.85	0.49	0.59	0.69	0.38	0.72	0.21	0.58
Control Delay	62.7	19.7	40.5	25.5	38.3	24.4	31.2	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	19.7	40.5	25.5	38.3	24.4	31.2	18.7
LOS	E	B	D	C	D	C	C	B
Approach Delay		31.5		27.9		25.2		19.1
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 25.8	Intersection LOS: C
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	380	32	91	466	5	41	695	63	22	428	136
Future Volume (veh/h)	155	380	32	91	466	5	41	695	63	22	428	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	185	452	38	108	555	6	49	827	75	26	510	162
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	219	770	65	163	723	8	238	1137	103	36	616	195
Arrive On Green	0.13	0.24	0.24	0.09	0.20	0.20	0.14	0.35	0.35	0.02	0.24	0.24
Sat Flow, veh/h	1753	3266	274	1753	3544	38	1753	3242	294	1753	2614	826
Grp Volume(v), veh/h	185	241	249	108	274	287	49	446	456	26	340	332
Grp Sat Flow(s),veh/h/ln	1753	1749	1791	1753	1749	1834	1753	1749	1788	1753	1749	1692
Q Serve(g_s), s	6.2	7.3	7.4	3.6	8.9	8.9	1.5	13.3	13.3	0.9	11.1	11.2
Cycle Q Clear(g_c), s	6.2	7.3	7.4	3.6	8.9	8.9	1.5	13.3	13.3	0.9	11.1	11.2
Prop In Lane	1.00		0.15	1.00		0.02	1.00		0.16	1.00		0.49
Lane Grp Cap(c), veh/h	219	412	422	163	357	374	238	613	627	36	412	399
V/C Ratio(X)	0.84	0.59	0.59	0.66	0.77	0.77	0.21	0.73	0.73	0.72	0.83	0.83
Avail Cap(c_a), veh/h	219	481	493	190	452	474	238	613	627	102	452	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	20.3	20.3	26.3	22.5	22.5	23.1	17.0	17.0	29.2	21.8	21.8
Incr Delay (d2), s/veh	24.8	1.3	1.4	6.7	6.0	5.8	0.4	7.4	7.2	23.7	11.1	12.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	2.8	2.9	1.7	3.9	4.1	0.6	5.9	6.0	0.6	5.3	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	21.7	21.7	33.0	28.6	28.3	23.5	24.4	24.2	52.9	32.9	33.9
LnGrp LOS	D	C	C	C	C	C	C	C	C	D	C	C
Approach Vol, veh/h		675			669			951			698	
Approach Delay, s/veh		29.6			29.2			24.3			34.1	
Approach LOS		C			C			C			C	

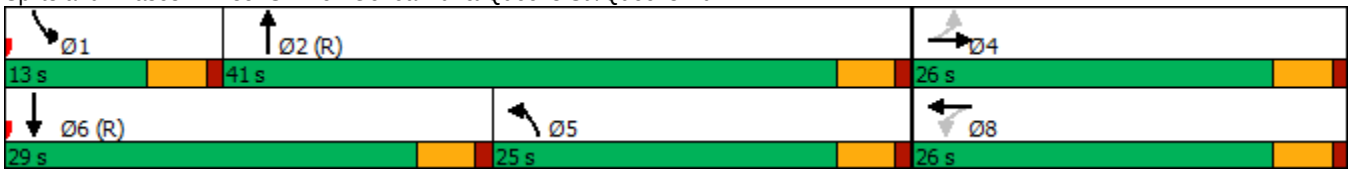
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	25.5	10.1	18.6	12.6	18.6	12.0	16.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	15.5	6.5	16.5	3.5	15.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	2.9	15.3	5.6	9.4	3.5	13.2	8.2	10.9
Green Ext Time (p_c), s	0.0	0.1	0.0	1.6	0.0	0.9	0.0	1.4

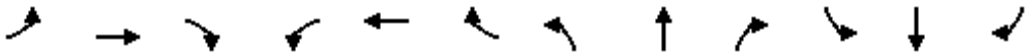
Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	28	248	267	183	589	50	430
Future Volume (vph)	28	248	267	183	589	50	430
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	25.0	41.0	13.0	29.0
Total Split (%)	32.5%	32.5%	32.5%	31.3%	51.3%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		15.1	15.1	20.5	48.0	7.6	30.9
Actuated g/C Ratio		0.19	0.19	0.26	0.60	0.10	0.39
v/c Ratio		0.74	0.62	0.44	0.31	0.33	0.41
Control Delay		29.9	17.4	11.4	1.8	38.7	19.0
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		29.9	17.4	11.4	1.8	38.7	19.0
LOS		C	B	B	A	D	B
Approach Delay		29.9	17.4		4.0		20.8
Approach LOS		C	B		A		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 33 (41%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	248	143	0	267	126	183	589	18	50	430	81
Future Volume (veh/h)	28	248	143	0	267	126	183	589	18	50	430	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	267	154	0	287	135	197	633	19	54	462	87
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	69	363	219	0	478	219	561	2036	61	68	900	169
Arrive On Green	0.21	0.21	0.21	0.00	0.21	0.21	0.32	0.59	0.59	0.04	0.31	0.31
Sat Flow, veh/h	91	1772	1069	0	2421	1068	1753	3467	104	1753	2940	550
Grp Volume(v), veh/h	237	0	214	0	214	208	197	319	333	54	274	275
Grp Sat Flow(s),veh/h/ln	1450	0	1483	0	1749	1648	1753	1749	1822	1753	1749	1742
Q Serve(g_s), s	3.8	0.0	10.7	0.0	8.9	9.2	6.9	7.4	7.4	2.4	10.3	10.4
Cycle Q Clear(g_c), s	13.0	0.0	10.7	0.0	8.9	9.2	6.9	7.4	7.4	2.4	10.3	10.4
Prop In Lane	0.13		0.72	0.00		0.65	1.00		0.06	1.00		0.32
Lane Grp Cap(c), veh/h	348	0	304	0	359	338	561	1027	1070	68	536	533
V/C Ratio(X)	0.68	0.00	0.70	0.00	0.60	0.62	0.35	0.31	0.31	0.79	0.51	0.52
Avail Cap(c_a), veh/h	453	0	398	0	470	443	561	1027	1070	186	536	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	0.0	29.5	0.0	28.8	28.9	20.8	8.3	8.3	38.1	22.8	22.9
Incr Delay (d2), s/veh	2.8	0.0	3.7	0.0	1.6	1.8	0.2	0.5	0.5	17.9	3.5	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	3.9	0.0	3.6	3.6	2.7	2.5	2.6	1.4	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	0.0	33.2	0.0	30.4	30.8	21.1	8.8	8.8	56.0	26.3	26.4
LnGrp LOS	C	A	C	A	C	C	C	A	A	E	C	C
Approach Vol, veh/h		451			422			849			603	
Approach Delay, s/veh		32.9			30.6			11.7			29.0	
Approach LOS		C			C			B			C	

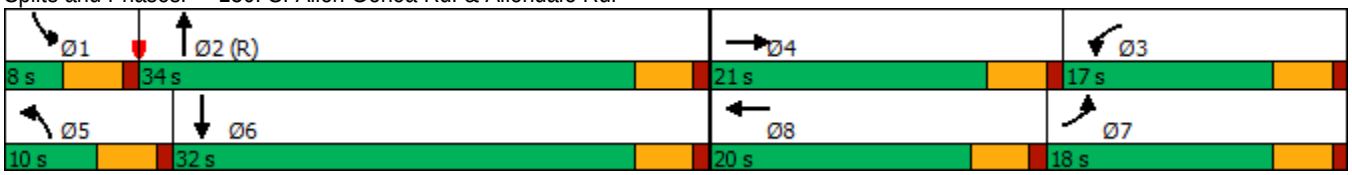
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	51.5		20.9	30.1	29.0		20.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	36.5		21.5	20.5	24.5		21.5				
Max Q Clear Time (g_c+I1), s	4.4	9.4		15.0	8.9	12.4		11.2				
Green Ext Time (p_c), s	0.0	4.1		1.4	0.4	2.6		1.7				

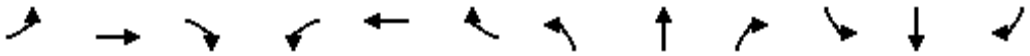
Intersection Summary			
HCM 6th Ctrl Delay		23.7	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	165	143	110	128	34	729	28	419
Future Volume (vph)	165	143	110	128	34	729	28	419
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	21.0	17.0	20.0	10.0	34.0	8.0	32.0
Total Split (%)	22.5%	26.3%	21.3%	25.0%	12.5%	42.5%	10.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	13.7	12.1	13.1	9.2	6.4	37.7	5.5	36.8
Actuated g/C Ratio	0.17	0.15	0.16	0.12	0.08	0.47	0.07	0.46
v/c Ratio	0.66	0.43	0.47	0.54	0.30	0.61	0.28	0.34
Control Delay	30.3	13.8	34.6	20.2	40.8	19.6	41.5	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	13.8	34.6	20.2	40.8	19.6	41.5	19.1
LOS	C	B	C	C	D	B	D	B
Approach Delay		21.1		25.3		20.4		20.4
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 53.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	143	65	110	128	72	34	729	104	28	419	42
Future Volume (veh/h)	165	143	65	110	128	72	34	729	104	28	419	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	194	168	76	129	151	85	40	858	0	33	493	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	233	254	110	229	230	123	83	1801		40	1715	
Arrive On Green	0.13	0.11	0.11	0.13	0.10	0.10	0.05	0.51	0.00	0.02	0.49	0.00
Sat Flow, veh/h	1753	2375	1030	1753	2203	1175	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	194	122	122	129	118	118	40	858	0	33	493	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1655	1753	1749	1629	1753	1749	0	1753	1749	0
Q Serve(g_s), s	8.6	5.3	5.7	5.5	5.2	5.6	1.8	12.6	0.0	1.5	6.7	0.0
Cycle Q Clear(g_c), s	8.6	5.3	5.7	5.5	5.2	5.6	1.8	12.6	0.0	1.5	6.7	0.0
Prop In Lane	1.00		0.62	1.00		0.72	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	233	187	177	229	183	170	83	1801		40	1715	
V/C Ratio(X)	0.83	0.65	0.69	0.56	0.65	0.69	0.48	0.48		0.83	0.29	
Avail Cap(c_a), veh/h	296	361	341	274	339	316	121	1801		77	1715	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.8	34.3	34.5	32.6	34.4	34.6	37.2	12.5	0.0	38.9	12.1	0.0
Incr Delay (d2), s/veh	14.8	3.8	4.8	2.1	3.7	4.9	4.3	0.9	0.0	32.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.4	2.5	2.4	2.3	2.4	0.8	4.7	0.0	1.0	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	38.1	39.2	34.8	38.2	39.5	41.4	13.4	0.0	71.9	12.2	0.0
LnGrp LOS	D	D	D	C	D	D	D	B		E	B	
Approach Vol, veh/h		438			365			898	A		526	A
Approach Delay, s/veh		43.1			37.4			14.6			15.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	45.7	14.9	13.0	8.3	43.7	15.1	12.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	29.5	12.5	16.5	5.5	27.5	13.5	15.5
Max Q Clear Time (g_c+I1), s	3.5	14.6	7.5	7.7	3.8	8.7	10.6	7.6
Green Ext Time (p_c), s	0.0	5.3	0.1	0.9	0.0	3.2	0.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

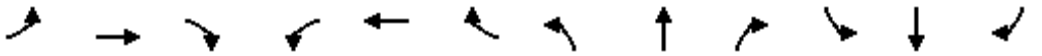
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	84	119	60	130	490	63	10	560	62
Future Volume (vph)	84	119	60	130	490	63	10	560	62
Turn Type	pm+pt	NA	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8	2			6	
Permitted Phases	4		8			2	6		6
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	23.0	8.0	20.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	13.8%	28.8%	10.0%	25.0%	61.3%	61.3%	61.3%	61.3%	61.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	10.4	9.3	52.9	52.9		52.9	52.9
Actuated g/C Ratio	0.11	0.11	0.13	0.12	0.66	0.66		0.66	0.66
v/c Ratio	0.48	0.46	0.28	0.35	0.43	0.06		0.29	0.06
Control Delay	27.0	14.6	25.2	24.2	9.1	0.1		3.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	27.0	14.6	25.2	24.2	9.1	0.1		3.9	0.3
LOS	C	B	C	C	A	A		A	A
Approach Delay		18.6		24.5	8.1			3.5	
Approach LOS		B		C	A			A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	119	57	60	130	3	0	490	63	10	560	62
Future Volume (veh/h)	84	119	57	60	130	3	0	490	63	10	560	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	123	0	62	134	0	0	505	65	10	577	64
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	201	228		206	237		90	1289	1092	60	2372	1092
Arrive On Green	0.06	0.07	0.00	0.07	0.07	0.00	0.00	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1753	3589	0	1753	3589	0	776	1841	1560	20	3388	1560
Grp Volume(v), veh/h	87	123	0	62	134	0	0	505	65	313	274	64
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	776	1841	1560	1816	1591	1560
Q Serve(g_s), s	3.9	2.7	0.0	0.0	3.0	0.0	0.0	9.1	1.0	0.0	5.0	1.0
Cycle Q Clear(g_c), s	3.9	2.7	0.0	0.0	3.0	0.0	0.0	9.1	1.0	4.9	5.0	1.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.03		1.00
Lane Grp Cap(c), veh/h	201	228		206	237		90	1289	1092	1318	1114	1092
V/C Ratio(X)	0.43	0.54		0.30	0.57		0.00	0.39	0.06	0.24	0.25	0.06
Avail Cap(c_a), veh/h	232	809		206	678		90	1289	1092	1318	1114	1092
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	36.2	0.0	34.9	36.1	0.0	0.0	5.0	3.8	4.3	4.3	3.7
Incr Delay (d2), s/veh	1.3	1.8	0.0	0.8	2.1	0.0	0.0	0.9	0.1	0.4	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.2	0.0	1.1	1.3	0.0	0.0	2.8	0.3	1.5	1.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	38.0	0.0	35.7	38.3	0.0	0.0	5.9	3.9	4.8	4.9	3.9
LnGrp LOS	D	D		D	D		A	A	A	A	A	A
Approach Vol, veh/h		210	A		196	A		570			651	
Approach Delay, s/veh		38.1			37.5			5.6			4.7	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		60.5	9.8	9.7		60.5	9.6	9.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		44.5	3.5	18.5		44.5	6.5	15.5				
Max Q Clear Time (g_c+I1), s		11.1	2.0	4.7		7.0	5.9	5.0				
Green Ext Time (p_c), s		3.7	0.0	0.5		4.0	0.0	0.5				

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

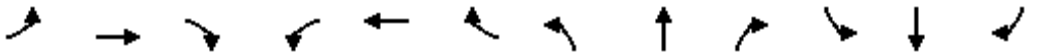
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	34	6	34	4	575	122	494
Future Volume (vph)	4	34	6	34	4	575	122	494
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	26.0	8.0	33.0	21.0	46.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	10.0%	41.3%	26.3%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		9.3		9.3	3.5	48.3	11.2	60.1
Actuated g/C Ratio		0.12		0.12	0.04	0.60	0.14	0.75
v/c Ratio		0.25		0.70	0.05	0.31	0.53	0.20
Control Delay		29.2		18.9	46.2	12.4	37.6	1.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		29.2		18.9	46.2	12.4	37.6	1.2
LOS		C		B	D	B	D	A
Approach Delay		29.2		18.9		12.7		8.4
Approach LOS		C		B		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 52 (65%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	34	8	6	34	218	4	575	33	122	494	3
Future Volume (veh/h)	4	34	8	6	34	218	4	575	33	122	494	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	4	36	8	6	36	229	4	605	35	128	520	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	58	286	59	48	47	268	198	1816	105	161	1849	11
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.11	0.54	0.54	0.18	1.00	1.00
Sat Flow, veh/h	45	1435	296	12	235	1347	1753	3360	194	1753	3565	21
Grp Volume(v), veh/h	48	0	0	271	0	0	4	315	325	128	255	268
Grp Sat Flow(s),veh/h/ln	1777	0	0	1594	0	0	1753	1749	1806	1753	1749	1837
Q Serve(g_s), s	0.0	0.0	0.0	2.6	0.0	0.0	0.2	8.1	8.1	5.6	0.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	13.1	0.0	0.0	0.2	8.1	8.1	5.6	0.0	0.0
Prop In Lane	0.08		0.17	0.02		0.85	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	403	0	0	364	0	0	198	945	976	161	907	953
V/C Ratio(X)	0.12	0.00	0.00	0.75	0.00	0.00	0.02	0.33	0.33	0.80	0.28	0.28
Avail Cap(c_a), veh/h	520	0	0	474	0	0	198	945	976	362	907	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	0.84	0.00	0.00	1.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	26.4	0.0	0.0	30.9	0.0	0.0	31.5	10.3	10.3	32.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	3.9	0.0	0.0	0.0	0.9	0.9	7.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	5.3	0.0	0.0	0.1	3.1	3.2	2.5	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.0	0.0	34.8	0.0	0.0	31.6	11.3	11.2	39.2	0.6	0.6
LnGrp LOS	C	A	A	C	A	A	C	B	B	D	A	A
Approach Vol, veh/h		48			271			644			651	
Approach Delay, s/veh		26.5			34.8			11.4			8.2	
Approach LOS		C			C			B			A	

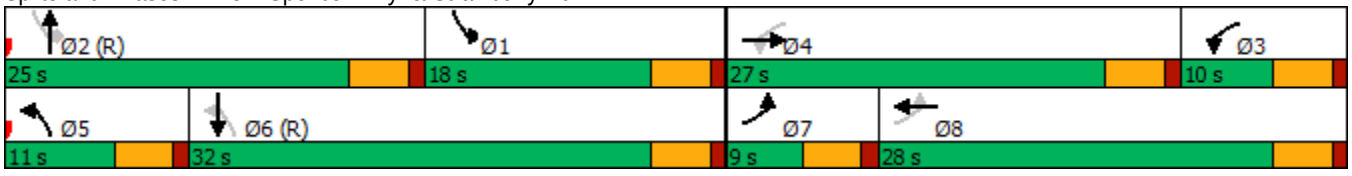
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	47.7		20.4	13.6	46.0		20.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	16.5	28.5		21.5	3.5	41.5		21.5				
Max Q Clear Time (g_c+I1), s	7.6	10.1		3.8	2.2	2.0		15.1				
Green Ext Time (p_c), s	0.2	3.8		0.1	0.0	3.5		0.9				

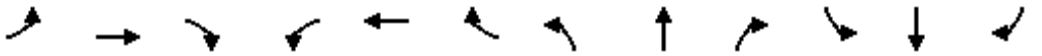
Intersection Summary			
HCM 6th Ctrl Delay		14.5	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	141	1175	155	942	128	668	184	320	541
Future Volume (vph)	141	1175	155	942	128	668	184	320	541
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	9.0	27.0	10.0	28.0	11.0	25.0	25.0	18.0	32.0
Total Split (%)	11.3%	33.8%	12.5%	35.0%	13.8%	31.3%	31.3%	22.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.0	22.5	28.0	23.5	34.0	20.5	20.5	34.0	27.5
Actuated g/C Ratio	0.35	0.28	0.35	0.29	0.42	0.26	0.26	0.42	0.34
v/c Ratio	0.85	1.03	0.81	0.92	0.59	0.85	0.39	0.98	0.70
Control Delay	53.0	46.6	40.2	24.5	22.8	28.3	3.4	62.7	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	46.6	40.2	24.5	22.8	28.3	3.4	62.7	14.9
LOS	D	D	D	C	C	C	A	E	B
Approach Delay		47.3		26.3		22.9			29.1
Approach LOS		D		C		C			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 16 (20%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 32.3	Intersection LOS: C
Intersection Capacity Utilization 89.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	1175	89	155	942	259	128	668	184	320	541	216
Future Volume (veh/h)	141	1175	89	155	942	259	128	668	184	320	541	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	155	1291	98	170	1035	285	141	734	202	352	595	237
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	201	1340	102	216	1144	315	311	896	400	423	866	345
Arrive On Green	0.11	0.56	0.56	0.02	0.10	0.10	0.07	0.26	0.26	0.17	0.35	0.35
Sat Flow, veh/h	1753	4764	362	1753	3919	1078	1753	3497	1560	1753	2443	972
Grp Volume(v), veh/h	155	908	481	170	885	435	141	734	202	352	426	406
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1647	1753	1749	1560	1753	1749	1666
Q Serve(g_s), s	4.5	20.7	20.7	3.2	20.9	20.9	4.0	15.8	8.9	9.6	16.6	16.7
Cycle Q Clear(g_c), s	4.5	20.7	20.7	3.2	20.9	20.9	4.0	15.8	8.9	9.6	16.6	16.7
Prop In Lane	1.00		0.20	1.00		0.65	1.00		1.00	1.00		0.58
Lane Grp Cap(c), veh/h	201	942	499	216	978	481	311	896	400	423	620	591
V/C Ratio(X)	0.77	0.96	0.96	0.79	0.90	0.91	0.45	0.82	0.51	0.83	0.69	0.69
Avail Cap(c_a), veh/h	201	942	499	219	984	484	327	896	400	423	620	591
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.56	0.56	0.56	0.46	0.46	0.46	0.82	0.82	0.82
Uniform Delay (d), s/veh	22.7	17.1	17.1	37.1	35.0	35.0	16.5	28.0	25.4	29.6	22.0	22.0
Incr Delay (d2), s/veh	14.9	19.3	28.7	10.1	7.0	12.9	0.5	4.0	2.1	11.0	5.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.7	8.4	3.8	10.2	10.8	1.5	6.7	3.3	7.4	7.2	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	36.4	45.8	47.2	42.1	48.0	17.0	32.0	27.5	40.6	27.1	27.3
LnGrp LOS	D	D	D	D	D	D	B	C	C	D	C	C
Approach Vol, veh/h		1544			1490			1077			1184	
Approach Delay, s/veh		39.4			44.4			29.2			31.2	
Approach LOS		D			D			C			C	

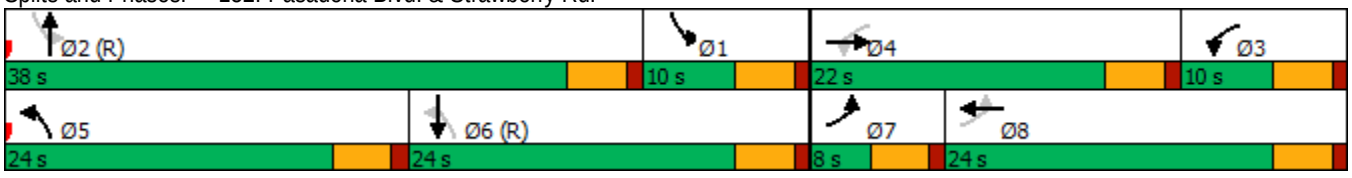
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	25.0	9.9	27.0	10.3	32.9	9.0	27.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	20.5	5.5	22.5	6.5	27.5	4.5	23.5
Max Q Clear Time (g_c+I1), s	11.6	17.8	5.2	22.7	6.0	18.7	6.5	22.9
Green Ext Time (p_c), s	0.2	1.4	0.0	0.0	0.0	3.4	0.0	0.4

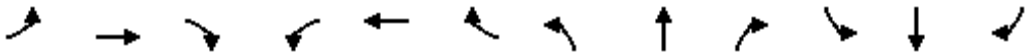
Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	48	418	165	541	449	693	116	599
Future Volume (vph)	48	418	165	541	449	693	116	599
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	22.0	10.0	24.0	24.0	38.0	10.0	24.0
Total Split (%)	10.0%	27.5%	12.5%	30.0%	30.0%	47.5%	12.5%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	24.8	17.5	23.0	22.7	39.0	35.5	39.9	19.5
Actuated g/C Ratio	0.31	0.22	0.29	0.28	0.49	0.44	0.50	0.24
v/c Ratio	0.33	1.02	0.87	0.77	1.02	0.62	0.46	0.82
Control Delay	23.7	57.5	53.5	19.3	61.0	9.6	13.1	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	57.5	53.5	19.3	61.0	9.6	13.1	24.7
LOS	C	E	D	B	E	A	B	C
Approach Delay		55.8		26.0		28.2		22.8
Approach LOS		E		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 47 (59%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 97.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	418	451	165	541	136	449	693	98	116	599	22
Future Volume (veh/h)	48	418	451	165	541	136	449	693	98	116	599	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	53	464	501	183	601	151	499	770	109	129	666	24
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	181	383	341	211	706	177	578	1288	182	420	839	30
Arrive On Green	0.03	0.22	0.22	0.07	0.25	0.25	0.49	0.84	0.84	0.14	0.49	0.49
Sat Flow, veh/h	1753	1749	1560	1753	2770	694	1753	3076	435	1753	3443	124
Grp Volume(v), veh/h	53	464	501	183	379	373	499	438	441	129	338	352
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1716	1753	1749	1762	1753	1749	1818
Q Serve(g_s), s	1.8	17.5	17.5	4.1	16.5	16.6	18.4	6.5	6.5	0.0	12.9	12.9
Cycle Q Clear(g_c), s	1.8	17.5	17.5	4.1	16.5	16.6	18.4	6.5	6.5	0.0	12.9	12.9
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	181	383	341	211	446	437	578	732	738	420	426	443
V/C Ratio(X)	0.29	1.21	1.47	0.87	0.85	0.85	0.86	0.60	0.60	0.31	0.79	0.79
Avail Cap(c_a), veh/h	200	383	341	211	446	437	578	732	738	420	426	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	0.82	0.82	0.82	0.83	0.83	0.83
Uniform Delay (d), s/veh	22.8	31.3	31.3	35.6	28.4	28.4	11.5	4.3	4.3	16.2	18.8	18.8
Incr Delay (d2), s/veh	0.9	117.7	226.1	23.3	10.9	11.3	10.8	2.9	2.9	0.3	11.9	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	19.6	27.7	4.6	7.9	7.8	5.2	1.9	1.9	1.5	5.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	148.9	257.4	58.9	39.2	39.7	22.3	7.3	7.2	16.5	30.7	30.4
LnGrp LOS	C	F	F	E	D	D	C	A	A	B	C	C
Approach Vol, veh/h		1018			935			1378			819	
Approach Delay, s/veh		195.8			43.3			12.7			28.3	
Approach LOS		F			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	38.0	10.0	22.0	24.0	24.0	7.1	24.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	33.5	5.5	17.5	19.5	19.5	3.5	19.5
Max Q Clear Time (g_c+I1), s	2.0	8.5	6.1	19.5	20.4	14.9	3.8	18.6
Green Ext Time (p_c), s	0.1	5.9	0.0	0.0	0.0	1.7	0.0	0.5

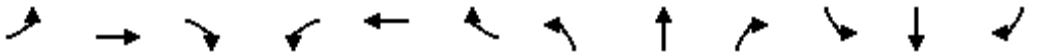
Intersection Summary	
HCM 6th Ctrl Delay	67.6
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	118	11	1	121	1129	13	1079
Future Volume (vph)	118	11	1	121	1129	13	1079
Turn Type	Perm	NA	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4			6		2	
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	21.0	14.0	51.0	8.0	45.0
Total Split (%)	26.3%	26.3%	26.3%	17.5%	63.8%	10.0%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.6	12.6	12.6	53.9	56.8	57.5	46.1
Actuated g/C Ratio	0.16	0.16	0.16	0.67	0.71	0.72	0.58
v/c Ratio	0.62	0.53	0.01	0.47	0.54	0.06	0.69
Control Delay	43.5	10.1	22.5	14.7	1.2	4.6	8.9
Queue Delay	0.0	0.0	0.0	0.3	0.4	0.0	0.0
Total Delay	43.5	10.1	22.5	15.0	1.6	4.6	8.9
LOS	D	B	C	B	A	A	A
Approach Delay		22.6	22.5		2.9		8.8
Approach LOS		C	C		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 6 (8%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 7.7	Intersection LOS: A
Intersection Capacity Utilization 70.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	11	188	0	1	1	121	1129	23	13	1079	104
Future Volume (veh/h)	118	11	188	0	1	1	121	1129	23	13	1079	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	136	13	216	0	1	1	139	1298	26	15	1240	120
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	330	15	257	0	146	146	284	2038	41	462	1946	188
Arrive On Green	0.17	0.17	0.17	0.00	0.17	0.17	0.11	1.00	1.00	0.03	0.20	0.20
Sat Flow, veh/h	1393	89	1484	0	844	844	1753	3507	70	1753	3222	311
Grp Volume(v), veh/h	136	0	229	0	0	2	139	647	677	15	671	689
Grp Sat Flow(s),veh/h/ln	1393	0	1574	0	0	1689	1753	1749	1828	1753	1749	1785
Q Serve(g_s), s	7.2	0.0	11.3	0.0	0.0	0.1	2.4	0.0	0.0	0.0	28.2	28.3
Cycle Q Clear(g_c), s	7.2	0.0	11.3	0.0	0.0	0.1	2.4	0.0	0.0	0.0	28.2	28.3
Prop In Lane	1.00		0.94	0.00		0.50	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	330	0	272	0	0	292	284	1016	1063	462	1056	1078
V/C Ratio(X)	0.41	0.00	0.84	0.00	0.00	0.01	0.49	0.64	0.64	0.03	0.64	0.64
Avail Cap(c_a), veh/h	376	0	325	0	0	348	397	1016	1063	462	1056	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.60	0.60	0.60	0.45	0.45	0.45
Uniform Delay (d), s/veh	30.4	0.0	32.0	0.0	0.0	27.4	11.9	0.0	0.0	5.1	24.0	24.0
Incr Delay (d2), s/veh	0.8	0.0	15.5	0.0	0.0	0.0	0.8	1.8	1.8	0.0	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	5.3	0.0	0.0	0.0	1.0	0.5	0.5	0.1	13.3	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	47.5	0.0	0.0	27.4	12.7	1.8	1.8	5.1	25.3	25.4
LnGrp LOS	C	A	D	A	A	C	B	A	A	A	C	C
Approach Vol, veh/h		365			2			1463			1375	
Approach Delay, s/veh		41.4			27.4			2.8			25.1	
Approach LOS		D			C			A			C	

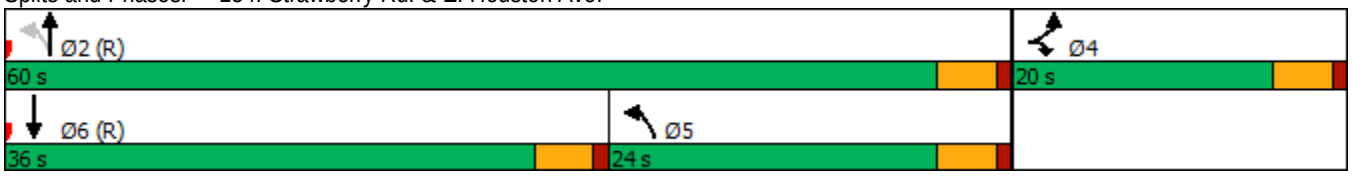
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	51.0		18.3	8.9	52.8		18.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	46.5		16.5	9.5	40.5		16.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		13.3	4.4	30.3		2.1				
Green Ext Time (p_c), s	0.0	12.1		0.6	0.1	6.3		0.0				

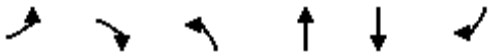
Intersection Summary			
HCM 6th Ctrl Delay		16.8	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	74	116	269	750	642
Future Volume (vph)	74	116	269	750	642
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	24.0	60.0	36.0
Total Split (%)	25.0%	25.0%	30.0%	75.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	9.3	9.3	61.7	61.7	37.7
Actuated g/C Ratio	0.12	0.12	0.77	0.77	0.47
v/c Ratio	0.43	0.45	0.48	0.33	0.55
Control Delay	38.7	11.1	12.0	1.9	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	11.1	12.0	1.9	6.6
LOS	D	B	B	A	A
Approach Delay	21.9			4.6	6.6
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 15 (19%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 7.0	Intersection LOS: A
Intersection Capacity Utilization 56.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	116	269	750	642	110
Future Volume (veh/h)	74	116	269	750	642	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	136	316	882	755	129
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	199	177	819	2707	1176	201
Arrive On Green	0.11	0.11	0.65	1.00	0.79	0.79
Sat Flow, veh/h	1753	1560	1753	3589	3079	510
Grp Volume(v), veh/h	87	136	316	882	442	442
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1749
Q Serve(g_s), s	3.7	6.8	0.0	0.0	8.7	8.7
Cycle Q Clear(g_c), s	3.7	6.8	0.0	0.0	8.7	8.7
Prop In Lane	1.00	1.00	1.00			0.29
Lane Grp Cap(c), veh/h	199	177	819	2707	689	689
V/C Ratio(X)	0.44	0.77	0.39	0.33	0.64	0.64
Avail Cap(c_a), veh/h	340	302	819	2707	689	689
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.77	0.77	0.65	0.65
Uniform Delay (d), s/veh	33.1	34.4	4.9	0.0	6.1	6.1
Incr Delay (d2), s/veh	1.5	6.9	0.2	0.2	3.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.0	1.4	0.1	2.3	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.6	41.3	5.1	0.2	9.1	9.1
LnGrp LOS	C	D	A	A	A	A
Approach Vol, veh/h	223			1198	884	
Approach Delay, s/veh	38.7			1.5	9.1	
Approach LOS	D			A	A	

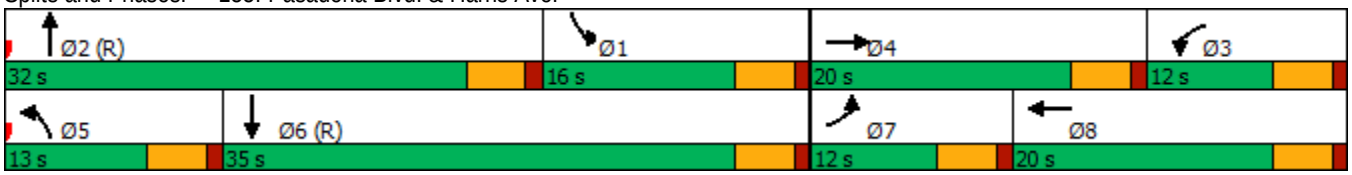
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		66.4		13.6	30.4	36.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		15.5	19.5	31.5
Max Q Clear Time (g_c+I1), s		2.0		8.8	2.0	10.7
Green Ext Time (p_c), s		7.5		0.4	0.9	5.6

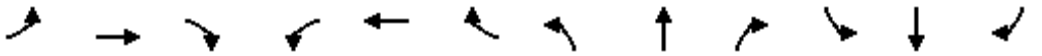
Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	96	232	81	234	62	739	150	456
Future Volume (vph)	96	232	81	234	62	739	150	456
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	20.0	12.0	20.0	13.0	32.0	16.0	35.0
Total Split (%)	15.0%	25.0%	15.0%	25.0%	16.3%	40.0%	20.0%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	12.1	8.1	13.0	7.6	32.4	11.5	38.2
Actuated g/C Ratio	0.09	0.15	0.10	0.16	0.10	0.40	0.14	0.48
v/c Ratio	0.68	0.61	0.51	0.72	0.42	0.66	0.67	0.34
Control Delay	41.4	13.0	45.3	20.2	29.0	13.1	47.4	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	13.0	45.3	20.2	29.0	13.1	47.4	15.9
LOS	D	B	D	C	C	B	D	B
Approach Delay		19.9		23.7		14.2		23.1
Approach LOS		B		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 71.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	232	67	81	234	260	62	739	89	150	456	51
Future Volume (veh/h)	96	232	67	81	234	260	62	739	89	150	456	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	107	258	74	90	260	289	69	821	99	167	507	57
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	135	352	99	246	339	302	88	1080	130	281	1438	161
Arrive On Green	0.08	0.13	0.13	0.14	0.19	0.19	0.05	0.34	0.34	0.16	0.45	0.45
Sat Flow, veh/h	1753	2696	757	1753	1749	1560	1753	3142	379	1753	3170	355
Grp Volume(v), veh/h	107	165	167	90	260	289	69	457	463	167	279	285
Grp Sat Flow(s),veh/h/ln	1753	1749	1704	1753	1749	1560	1753	1749	1773	1753	1749	1777
Q Serve(g_s), s	4.8	7.3	7.5	3.7	11.3	14.7	3.1	18.6	18.6	7.1	8.3	8.4
Cycle Q Clear(g_c), s	4.8	7.3	7.5	3.7	11.3	14.7	3.1	18.6	18.6	7.1	8.3	8.4
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.21	1.00		0.20
Lane Grp Cap(c), veh/h	135	228	222	246	339	302	88	601	609	281	793	806
V/C Ratio(X)	0.79	0.72	0.75	0.37	0.77	0.96	0.78	0.76	0.76	0.59	0.35	0.35
Avail Cap(c_a), veh/h	164	339	330	246	339	302	186	601	609	281	793	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	33.4	33.5	31.1	30.5	31.9	37.5	23.3	23.3	31.2	14.2	14.2
Incr Delay (d2), s/veh	12.6	2.8	3.3	0.9	10.2	40.0	13.7	8.8	8.7	3.4	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.1	3.2	1.6	5.5	8.6	1.6	8.6	8.7	3.1	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	36.2	36.8	32.1	40.7	71.9	51.3	32.1	32.0	34.5	15.4	15.4
LnGrp LOS	D	D	D	C	D	E	D	C	C	C	B	B
Approach Vol, veh/h		439			639			989			731	
Approach Delay, s/veh		39.5			53.6			33.4			19.8	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	32.0	15.7	14.9	8.5	40.8	10.7	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	27.5	7.5	15.5	8.5	30.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	9.1	20.6	5.7	9.5	5.1	10.4	6.8	16.7
Green Ext Time (p_c), s	0.1	3.2	0.0	0.9	0.0	3.2	0.0	0.0

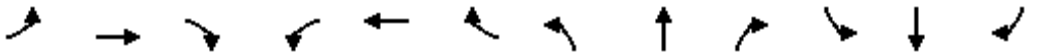
Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	8	86	4	30	1154	150	1124
Future Volume (vph)	8	86	4	30	1154	150	1124
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	20.0	8.0	46.0	14.0	52.0
Total Split (%)	25.0%	25.0%	25.0%	10.0%	57.5%	17.5%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.1	11.1	11.1	57.2	45.9	55.4	54.2
Actuated g/C Ratio	0.14	0.14	0.14	0.72	0.57	0.69	0.68
v/c Ratio	0.16	0.54	0.42	0.11	0.74	0.57	0.55
Control Delay	14.7	42.0	10.3	2.7	6.4	16.8	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	14.7	42.0	10.3	2.7	6.4	16.8	5.3
LOS	B	D	B	A	A	B	A
Approach Delay	14.7		23.5		6.3		6.6
Approach LOS	B		C		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 3 (4%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 7.8	Intersection LOS: A
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	27	86	4	117	30	1154	112	150	1124	1
Future Volume (veh/h)	0	8	27	86	4	117	30	1154	112	150	1124	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	9	31	99	5	134	34	1326	129	172	1292	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	45	156	228	7	189	418	1671	162	483	2450	2
Arrive On Green	0.00	0.12	0.12	0.12	0.12	0.12	0.02	0.52	0.52	0.38	1.00	1.00
Sat Flow, veh/h	0	363	1252	1346	56	1512	1753	3221	312	1753	3586	3
Grp Volume(v), veh/h	0	0	40	99	0	139	34	717	738	172	630	663
Grp Sat Flow(s),veh/h/ln	0	0	1615	1346	0	1569	1753	1749	1785	1753	1749	1840
Q Serve(g_s), s	0.0	0.0	1.8	5.7	0.0	6.8	0.5	26.8	27.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.8	7.5	0.0	6.8	0.5	26.8	27.1	0.0	0.0	0.0
Prop In Lane	0.00		0.77	1.00		0.96	1.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	202	228	0	196	418	907	926	483	1195	1257
V/C Ratio(X)	0.00	0.00	0.20	0.43	0.00	0.71	0.08	0.79	0.80	0.36	0.53	0.53
Avail Cap(c_a), veh/h	0	0	313	321	0	304	454	907	926	483	1195	1257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.40	0.40	0.40	0.67	0.67	0.67
Uniform Delay (d), s/veh	0.0	0.0	31.4	34.8	0.0	33.6	3.5	15.7	15.8	17.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	1.3	0.0	4.7	0.0	2.9	3.0	0.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	1.9	0.0	2.8	0.1	9.9	10.3	2.0	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.9	36.1	0.0	38.3	3.6	18.6	18.7	17.9	1.1	1.1
LnGrp LOS	A	A	C	D	A	D	A	B	B	B	A	A
Approach Vol, veh/h		40			238			1489			1465	
Approach Delay, s/veh		31.9			37.4			18.3			3.1	
Approach LOS		C			D			B			A	

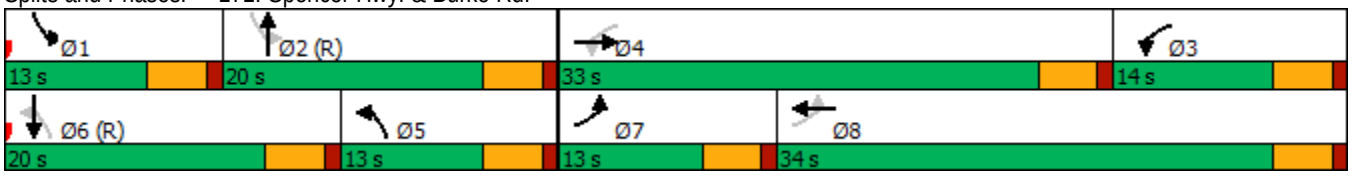
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.5	46.0		14.5	6.4	59.2		14.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	41.5		15.5	3.5	47.5		15.5				
Max Q Clear Time (g_c+I1), s	2.0	29.1		3.8	2.5	2.0		9.5				
Green Ext Time (p_c), s	0.3	7.6		0.1	0.0	11.7		0.5				

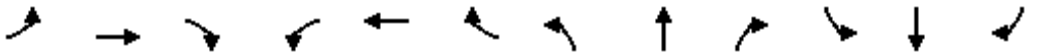
Intersection Summary			
HCM 6th Ctrl Delay		13.0	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	123	1205	168	1144	140	173	182	230
Future Volume (vph)	123	1205	168	1144	140	173	182	230
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	33.0	14.0	34.0	13.0	20.0	13.0	20.0
Total Split (%)	16.3%	41.3%	17.5%	42.5%	16.3%	25.0%	16.3%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	37.1	28.4	37.1	29.2	24.9	16.5	24.9	16.4
Actuated g/C Ratio	0.46	0.36	0.46	0.36	0.31	0.21	0.31	0.20
v/c Ratio	0.52	0.87	0.67	0.79	0.48	0.45	0.59	0.50
Control Delay	18.6	8.2	26.4	19.7	19.1	11.1	17.2	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	8.2	26.4	19.7	19.1	11.1	17.2	20.4
LOS	B	A	C	B	B	B	B	C
Approach Delay		9.1		20.5		13.6		19.3
Approach LOS		A		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 54 (68%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	1205	128	168	1144	104	140	173	141	182	230	93
Future Volume (veh/h)	123	1205	128	168	1144	104	140	173	141	182	230	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	137	1339	142	187	1271	116	156	192	157	202	256	103
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	246	1506	160	273	1600	146	481	478	370	443	476	186
Arrive On Green	0.14	0.65	0.65	0.03	0.11	0.11	0.17	0.25	0.25	0.11	0.19	0.19
Sat Flow, veh/h	1753	4614	489	1753	4686	428	1753	1877	1451	1753	2455	961
Grp Volume(v), veh/h	137	972	509	187	909	478	156	178	171	202	180	179
Grp Sat Flow(s),veh/h/ln	1753	1675	1753	1753	1675	1764	1753	1749	1579	1753	1749	1668
Q Serve(g_s), s	4.0	19.2	19.2	2.9	21.1	21.1	0.0	6.8	7.2	6.7	7.4	7.7
Cycle Q Clear(g_c), s	4.0	19.2	19.2	2.9	21.1	21.1	0.0	6.8	7.2	6.7	7.4	7.7
Prop In Lane	1.00		0.28	1.00		0.24	1.00		0.92	1.00		0.58
Lane Grp Cap(c), veh/h	246	1094	572	273	1144	602	481	446	403	443	339	323
V/C Ratio(X)	0.56	0.89	0.89	0.68	0.79	0.79	0.32	0.40	0.42	0.46	0.53	0.55
Avail Cap(c_a), veh/h	306	1193	624	329	1235	650	481	446	403	443	339	323
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.20	0.20	0.20	0.43	0.43	0.43	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	12.7	12.7	35.4	32.8	32.8	25.3	24.7	24.9	18.9	29.0	29.1
Incr Delay (d2), s/veh	0.4	1.8	3.3	2.0	1.5	2.8	0.4	2.7	3.3	0.7	5.9	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.7	4.1	3.6	9.5	10.3	2.5	3.0	2.9	2.6	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	14.5	16.0	37.3	34.3	35.6	25.7	27.4	28.2	19.6	34.9	35.8
LnGrp LOS	B	B	B	D	C	D	C	C	C	B	C	D
Approach Vol, veh/h		1618			1574			505			561	
Approach Delay, s/veh		15.2			35.0			27.1			29.7	
Approach LOS		B			D			C			C	

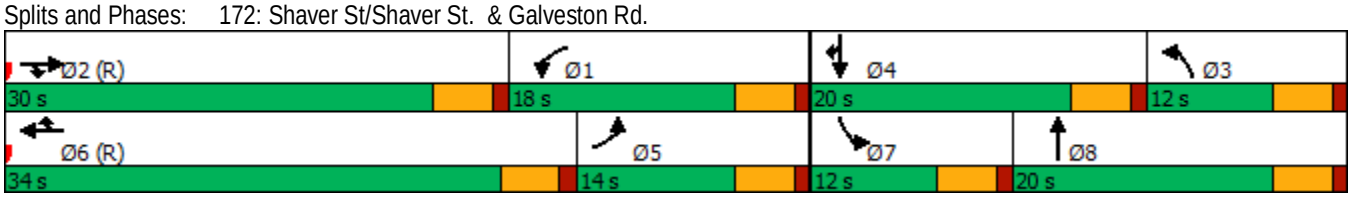
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	24.9	11.5	30.6	17.9	20.0	10.3	31.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	15.5	9.5	28.5	8.5	15.5	8.5	29.5
Max Q Clear Time (g_c+I1), s	8.7	9.2	4.9	21.2	2.0	9.7	6.0	23.1
Green Ext Time (p_c), s	0.0	1.0	0.2	4.9	0.2	1.0	0.1	4.2

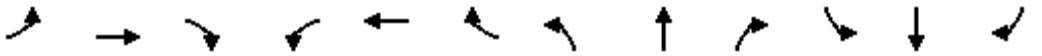
Intersection Summary	
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	184	932	128	264	940	166	96	433	149	472	176
Future Volume (vph)	184	932	128	264	940	166	96	433	149	472	176
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	Prot	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8	7	4	4
Permitted Phases											
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	30.0	30.0	18.0	34.0	34.0	12.0	20.0	12.0	20.0	20.0
Total Split (%)	17.5%	37.5%	37.5%	22.5%	42.5%	42.5%	15.0%	25.0%	15.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	9.5	25.5	25.5	13.5	29.5	29.5	7.3	15.5	7.5	17.9	17.9
Actuated g/C Ratio	0.12	0.32	0.32	0.17	0.37	0.37	0.09	0.19	0.09	0.22	0.22
v/c Ratio	0.96	0.91	0.22	0.97	0.79	0.25	0.65	0.97	0.99	0.65	0.38
Control Delay	92.0	39.4	1.7	76.9	23.4	2.2	55.9	57.4	101.2	30.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.0	39.4	1.7	76.9	23.4	2.2	55.9	57.4	101.2	30.3	6.6
LOS	F	D	A	E	C	A	E	E	F	C	A
Approach Delay		43.3			31.2			57.2		38.3	
Approach LOS		D			C			E		D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 38 (48%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 40.8	Intersection LOS: D
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	932	128	264	940	166	96	433	213	149	472	176
Future Volume (veh/h)	184	932	128	264	940	166	96	433	213	149	472	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	198	1002	138	284	1011	178	103	466	229	160	508	189
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	208	1115	497	296	1290	575	194	441	215	164	618	276
Arrive On Green	0.12	0.32	0.32	0.17	0.37	0.37	0.11	0.19	0.19	0.09	0.18	0.18
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	2278	1112	1753	3497	1560
Grp Volume(v), veh/h	198	1002	138	284	1011	178	103	357	338	160	508	189
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1641	1753	1749	1560
Q Serve(g_s), s	9.0	21.9	5.3	12.9	20.5	4.4	4.4	15.5	15.5	7.3	11.2	9.1
Cycle Q Clear(g_c), s	9.0	21.9	5.3	12.9	20.5	4.4	4.4	15.5	15.5	7.3	11.2	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		1.00
Lane Grp Cap(c), veh/h	208	1115	497	296	1290	575	194	339	318	164	618	276
V/C Ratio(X)	0.95	0.90	0.28	0.96	0.78	0.31	0.53	1.05	1.06	0.97	0.82	0.69
Avail Cap(c_a), veh/h	208	1115	497	296	1290	575	194	339	318	164	678	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	26.0	20.4	33.0	22.4	8.2	33.6	32.3	32.3	36.2	31.7	30.8
Incr Delay (d2), s/veh	48.5	11.5	1.4	41.4	4.8	1.4	2.7	63.7	68.2	62.1	7.5	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	10.2	2.0	8.7	8.8	2.4	2.0	12.3	11.9	5.9	5.2	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.5	37.5	21.8	74.4	27.2	9.6	36.3	96.0	100.4	98.3	39.2	36.5
LnGrp LOS	F	D	C	E	C	A	D	F	F	F	D	D
Approach Vol, veh/h		1338			1473			798			857	
Approach Delay, s/veh		42.7			34.2			90.2			49.6	
Approach LOS		D			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	30.0	13.4	18.6	14.0	34.0	12.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	25.5	7.5	15.5	9.5	29.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	14.9	23.9	6.4	13.2	11.0	22.5	9.3	17.5
Green Ext Time (p_c), s	0.0	1.1	0.0	1.0	0.0	4.1	0.0	0.0

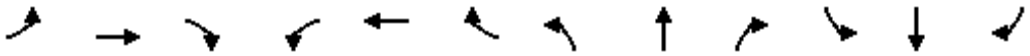
Intersection Summary	
HCM 6th Ctrl Delay	49.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	38	439	41	413	69	223	13	47
Future Volume (vph)	38	439	41	413	69	223	13	47
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	37.0	14.0	37.0	29.0	29.0	29.0	29.0
Total Split (%)	17.5%	46.3%	17.5%	46.3%	36.3%	36.3%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.3	19.5	8.0	20.1		43.2		43.2
Actuated g/C Ratio	0.09	0.24	0.10	0.25		0.54		0.54
v/c Ratio	0.25	0.70	0.25	0.73		0.21		0.07
Control Delay	37.1	29.1	27.8	8.4		12.2		8.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	37.1	29.1	27.8	8.4		12.2		8.3
LOS	D	C	C	A		B		A
Approach Delay		29.6		9.5		12.2		8.3
Approach LOS		C		A		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 65 (81%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	439	126	41	413	287	69	223	33	13	47	47
Future Volume (veh/h)	38	439	126	41	413	287	69	223	33	13	47	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	40	467	134	44	439	305	73	237	35	14	50	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	50	619	176	139	557	385	375	1176	175	217	738	696
Arrive On Green	0.03	0.23	0.23	0.08	0.28	0.28	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1753	2686	765	1753	1978	1365	598	2255	336	310	1416	1335
Grp Volume(v), veh/h	40	303	298	44	388	356	177	0	168	60	0	54
Grp Sat Flow(s),veh/h/ln	1753	1749	1703	1753	1749	1595	1575	0	1615	1627	0	1435
Q Serve(g_s), s	1.8	12.9	13.1	1.9	16.4	16.5	1.5	0.0	4.4	0.0	0.0	1.5
Cycle Q Clear(g_c), s	1.8	12.9	13.1	1.9	16.4	16.5	4.3	0.0	4.4	1.3	0.0	1.5
Prop In Lane	1.00		0.45	1.00		0.86	0.41		0.21	0.23		0.93
Lane Grp Cap(c), veh/h	50	403	392	139	493	449	885	0	842	904	0	748
V/C Ratio(X)	0.81	0.75	0.76	0.32	0.79	0.79	0.20	0.00	0.20	0.07	0.00	0.07
Avail Cap(c_a), veh/h	208	710	692	208	710	648	885	0	842	904	0	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.7	28.7	28.7	34.8	26.5	26.6	10.2	0.0	10.2	9.5	0.0	9.5
Incr Delay (d2), s/veh	25.5	2.8	3.1	1.3	3.7	4.3	0.5	0.0	0.5	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.4	5.4	0.8	6.9	6.4	1.6	0.0	1.5	0.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	31.5	31.8	36.0	30.3	30.9	10.7	0.0	10.8	9.6	0.0	9.7
LnGrp LOS	E	C	C	D	C	C	B	A	B	A	A	A
Approach Vol, veh/h		641			788			345			114	
Approach Delay, s/veh		33.7			30.9			10.7			9.7	
Approach LOS		C			C			B			A	

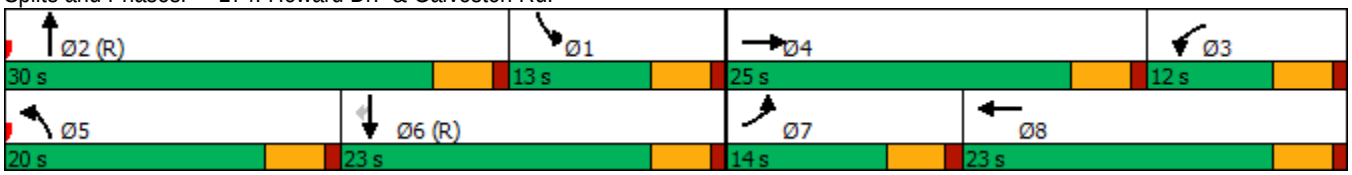
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.2	10.9	22.9		46.2	6.8	27.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.5	9.5	32.5		24.5	9.5	32.5				
Max Q Clear Time (g_c+I1), s		6.4	3.9	15.1		3.5	3.8	18.5				
Green Ext Time (p_c), s		1.8	0.0	3.4		0.5	0.0	4.0				

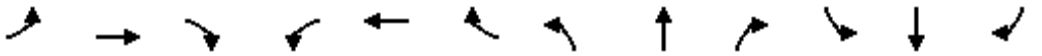
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	135	344	60	469	230	672	117	439	113
Future Volume (vph)	135	344	60	469	230	672	117	439	113
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	25.0	12.0	23.0	20.0	30.0	13.0	23.0	23.0
Total Split (%)	17.5%	31.3%	15.0%	28.8%	25.0%	37.5%	16.3%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.2	23.9	7.6	18.0	14.5	26.3	8.5	20.3	20.3
Actuated g/C Ratio	0.12	0.30	0.10	0.22	0.18	0.33	0.11	0.25	0.25
v/c Ratio	0.74	0.56	0.42	0.89	0.81	0.70	0.70	0.55	0.23
Control Delay	49.0	8.0	42.1	42.1	54.1	24.9	55.4	28.2	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	8.0	42.1	42.1	54.1	24.9	55.4	28.2	1.8
LOS	D	A	D	D	D	C	E	C	A
Approach Delay		15.9		42.1		31.9		28.5	
Approach LOS		B		D		C		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 79 (99%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	344	215	60	469	175	230	672	53	117	439	113
Future Volume (veh/h)	135	344	215	60	469	175	230	672	53	117	439	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	148	378	236	66	515	192	253	738	58	129	482	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	182	458	282	198	571	212	293	1047	82	216	963	
Arrive On Green	0.10	0.22	0.22	0.11	0.23	0.23	0.17	0.32	0.32	0.12	0.28	0.00
Sat Flow, veh/h	1753	2079	1280	1753	2496	926	1753	3285	258	1753	3497	1560
Grp Volume(v), veh/h	148	317	297	66	360	347	253	393	403	129	482	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1610	1753	1749	1674	1753	1749	1794	1753	1749	1560
Q Serve(g_s), s	6.6	13.8	14.1	2.8	16.0	16.1	11.2	15.8	15.8	5.6	9.3	0.0
Cycle Q Clear(g_c), s	6.6	13.8	14.1	2.8	16.0	16.1	11.2	15.8	15.8	5.6	9.3	0.0
Prop In Lane	1.00		0.79	1.00		0.55	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	182	385	354	198	400	383	293	557	572	216	963	
V/C Ratio(X)	0.81	0.82	0.84	0.33	0.90	0.91	0.86	0.70	0.71	0.60	0.50	
Avail Cap(c_a), veh/h	208	448	413	198	404	387	340	557	572	216	963	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.1	29.7	29.8	32.7	30.0	30.0	32.4	23.9	23.9	33.2	24.4	0.0
Incr Delay (d2), s/veh	19.0	10.4	12.6	1.0	22.4	24.1	18.1	7.3	7.1	4.4	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	6.6	6.4	1.2	8.8	8.7	6.0	7.1	7.3	2.5	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	40.2	42.4	33.7	52.3	54.1	50.6	31.2	31.1	37.6	26.2	0.0
LnGrp LOS	D	D	D	C	D	D	D	C	C	D	C	
Approach Vol, veh/h		762			773			1049			611	A
Approach Delay, s/veh		43.7			51.5			35.8			28.6	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	30.0	13.5	22.1	17.9	26.5	12.8	22.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	25.5	7.5	20.5	15.5	18.5	9.5	18.5
Max Q Clear Time (g_c+I1), s	7.6	17.8	4.8	16.1	13.2	11.3	8.6	18.1
Green Ext Time (p_c), s	0.0	2.8	0.0	1.5	0.2	1.7	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

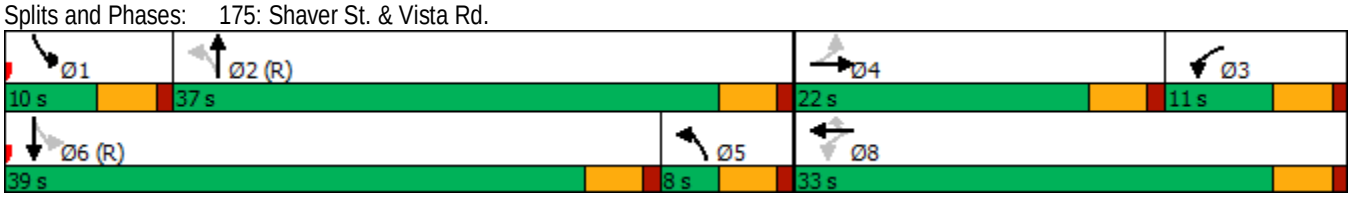
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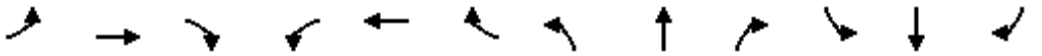
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	23	198	187	292	147	10	738	109	706
Future Volume (vph)	23	198	187	292	147	10	738	109	706
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	11.0	33.0	33.0	8.0	37.0	10.0	39.0
Total Split (%)	27.5%	27.5%	13.8%	41.3%	41.3%	10.0%	46.3%	12.5%	48.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		16.2	26.6	26.6	26.6	35.8	35.8	42.8	42.8
Actuated g/C Ratio		0.20	0.33	0.33	0.33	0.45	0.45	0.54	0.54
v/c Ratio		0.92	0.64	0.54	0.26	0.03	0.68	0.53	0.44
Control Delay		60.8	35.3	26.0	7.9	13.1	13.1	22.7	8.6
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		60.8	35.3	26.0	7.9	13.1	13.1	22.7	8.6
LOS		E	D	C	A	B	B	C	A
Approach Delay		60.8		24.5			13.1		10.4
Approach LOS		E		C			B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 23 (29%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	198	10	187	292	147	10	738	188	109	706	25
Future Volume (veh/h)	23	198	10	187	292	147	10	738	188	109	706	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	26	222	11	210	328	165	11	829	211	122	793	28
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	61	265	12	264	586	497	388	1236	314	218	1486	52
Arrive On Green	0.22	0.22	0.22	0.04	0.32	0.32	0.03	0.15	0.15	0.07	0.43	0.43
Sat Flow, veh/h	54	1210	56	1753	1841	1560	1753	2760	702	1753	3446	122
Grp Volume(v), veh/h	259	0	0	210	328	165	11	525	515	122	402	419
Grp Sat Flow(s),veh/h/ln	1320	0	0	1753	1841	1560	1753	1749	1714	1753	1749	1819
Q Serve(g_s), s	4.0	0.0	0.0	0.7	11.8	6.5	0.0	22.7	22.7	3.6	13.6	13.6
Cycle Q Clear(g_c), s	15.8	0.0	0.0	0.7	11.8	6.5	0.0	22.7	22.7	3.6	13.6	13.6
Prop In Lane	0.10		0.04	1.00		1.00	1.00		0.41	1.00		0.07
Lane Grp Cap(c), veh/h	338	0	0	264	586	497	388	783	767	218	754	784
V/C Ratio(X)	0.77	0.00	0.00	0.80	0.56	0.33	0.03	0.67	0.67	0.56	0.53	0.53
Avail Cap(c_a), veh/h	338	0	0	330	656	556	388	783	767	224	754	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	0.0	0.0	33.0	22.6	20.8	20.1	28.5	28.5	19.8	16.8	16.8
Incr Delay (d2), s/veh	9.0	0.0	0.0	10.3	0.8	0.4	0.0	4.2	4.3	2.9	2.7	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	0.0	4.5	4.8	2.2	0.1	11.4	11.2	1.5	5.5	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	0.0	0.0	43.3	23.5	21.2	20.1	32.7	32.8	22.8	19.5	19.4
LnGrp LOS	D	A	A	D	C	C	C	C	C	C	B	B
Approach Vol, veh/h		259			703			1051			943	
Approach Delay, s/veh		38.7			28.8			32.7			19.9	
Approach LOS		D			C			C			B	

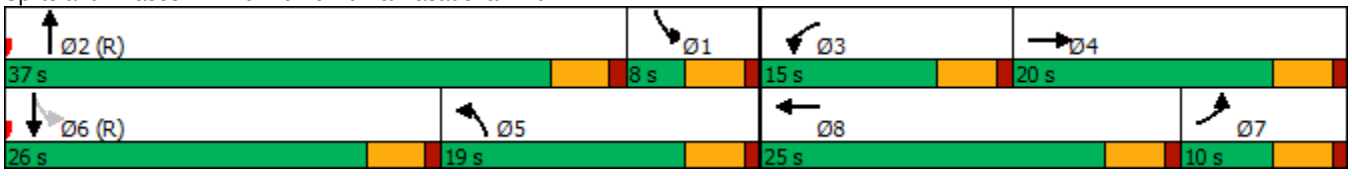
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	40.3	8.0	22.0	11.0	39.0		30.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	32.5	6.5	17.5	3.5	34.5		28.5				
Max Q Clear Time (g_c+I1), s	5.6	24.7	2.7	17.8	2.0	15.6		13.8				
Green Ext Time (p_c), s	0.0	3.9	0.2	0.0	0.0	4.9		2.1				

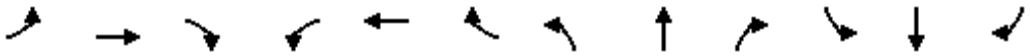
Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	373	117	439	182	244	34	330
Future Volume (vph)	43	373	117	439	182	244	34	330
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	15.0	25.0	19.0	37.0	8.0	26.0
Total Split (%)	12.5%	25.0%	18.8%	31.3%	23.8%	46.3%	10.0%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	14.9	9.6	19.9	12.7	44.3		27.1
Actuated g/C Ratio	0.08	0.19	0.12	0.25	0.16	0.55		0.34
v/c Ratio	0.32	0.81	0.61	0.62	0.70	0.21		0.48
Control Delay	37.9	33.0	31.7	20.8	44.4	6.4		13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	37.9	33.0	31.7	20.8	44.4	6.4		13.4
LOS	D	C	C	C	D	A		B
Approach Delay		33.3		22.9		19.0		13.4
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 7 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 65.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





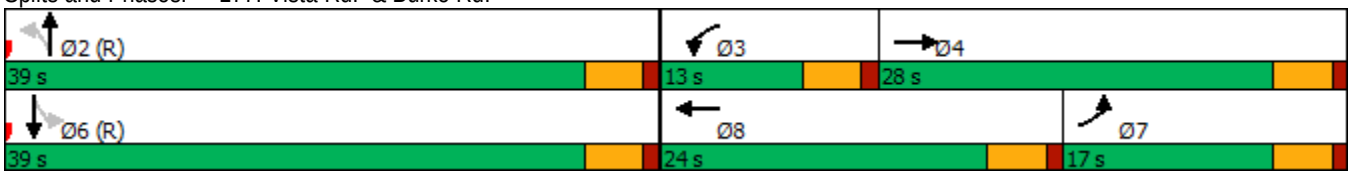
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	373	145	117	439	37	182	244	124	34	330	85
Future Volume (vph)	43	373	145	117	439	37	182	244	124	34	330	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.96		1.00	0.99		1.00	0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3325		1678	3202		1736	3295			3136	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.90	
Satd. Flow (perm)	1736	3325		1678	3202		1736	3295			2830	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	393	153	123	462	39	192	257	131	36	347	89
RTOR Reduction (vph)	0	51	0	0	8	0	0	61	0	0	25	0
Lane Group Flow (vph)	45	495	0	123	493	0	192	327	0	0	447	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	4.1	15.7		8.3	19.9		12.7	42.5			25.3	
Effective Green, g (s)	4.1	15.7		8.3	19.9		12.7	42.5			25.3	
Actuated g/C Ratio	0.05	0.20		0.10	0.25		0.16	0.53			0.32	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	88	652		174	796		275	1750			894	
v/s Ratio Prot	0.03	c0.15		0.07	c0.15		c0.11	0.10				
v/s Ratio Perm											c0.16	
v/c Ratio	0.51	0.76		0.71	0.62		0.70	0.19			0.50	
Uniform Delay, d1	37.0	30.4		34.7	26.7		31.8	9.8			22.2	
Progression Factor	0.99	0.98		0.66	0.69		1.00	0.90			0.54	
Incremental Delay, d2	2.4	2.5		9.1	1.0		7.0	0.2			0.4	
Delay (s)	39.0	32.3		31.9	19.4		38.7	9.0			12.4	
Level of Service	D	C		C	B		D	A			B	
Approach Delay (s)		32.8			21.9			18.8			12.4	
Approach LOS		C			C			B			B	

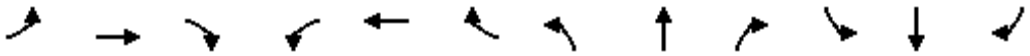
Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	104	386	61	306	98	359	108	306
Future Volume (vph)	104	386	61	306	98	359	108	306
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	17.0	28.0	13.0	24.0	39.0	39.0	39.0	39.0
Total Split (%)	21.3%	35.0%	16.3%	30.0%	48.8%	48.8%	48.8%	48.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.2	17.2	7.6	14.8		43.7		43.7
Actuated g/C Ratio	0.13	0.22	0.10	0.18		0.55		0.55
v/c Ratio	0.50	0.63	0.40	0.63		0.43		0.38
Control Delay	28.9	21.9	34.0	17.5		16.2		7.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	28.9	21.9	34.0	17.5		16.2		7.0
LOS	C	C	C	B		B		A
Approach Delay		23.2		19.8		16.2		7.0
Approach LOS		C		B		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 13 (16%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 16.8	Intersection LOS: B
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	386	60	61	306	79	98	359	133	108	306	58
Future Volume (veh/h)	104	386	60	61	306	79	98	359	133	108	306	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	411	64	65	326	84	104	382	141	115	326	62
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	584	90	83	438	111	303	1079	406	358	1062	213
Arrive On Green	0.08	0.19	0.19	0.05	0.16	0.16	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	1753	3036	469	1753	2762	701	410	1823	687	490	1795	359
Grp Volume(v), veh/h	111	236	239	65	205	205	308	0	319	225	0	278
Grp Sat Flow(s),veh/h/ln	1753	1749	1756	1753	1749	1714	1369	0	1551	1034	0	1610
Q Serve(g_s), s	5.0	10.1	10.2	2.9	8.9	9.2	4.4	0.0	8.4	6.1	0.0	6.8
Cycle Q Clear(g_c), s	5.0	10.1	10.2	2.9	8.9	9.2	11.3	0.0	8.4	14.5	0.0	6.8
Prop In Lane	1.00		0.27	1.00		0.41	0.34		0.44	0.51		0.22
Lane Grp Cap(c), veh/h	142	336	338	83	278	272	870	0	918	680	0	953
V/C Ratio(X)	0.78	0.70	0.71	0.78	0.74	0.75	0.35	0.00	0.35	0.33	0.00	0.29
Avail Cap(c_a), veh/h	274	514	516	186	426	418	870	0	918	680	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.55	0.55	0.55	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	30.2	30.2	37.7	32.1	32.2	8.8	0.0	8.4	10.1	0.0	8.1
Incr Delay (d2), s/veh	9.0	2.7	2.8	8.5	2.1	2.4	1.1	0.0	1.0	1.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.4	4.4	1.4	3.8	3.9	2.9	0.0	2.7	2.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	32.8	33.0	46.2	34.2	34.5	9.9	0.0	9.4	11.4	0.0	8.8
LnGrp LOS	D	C	C	D	C	C	A	A	A	B	A	A
Approach Vol, veh/h		586			475			627			503	
Approach Delay, s/veh		35.2			36.0			9.7			10.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		51.8	8.3	19.9		51.8	11.0	17.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		34.5	8.5	23.5		34.5	12.5	19.5				
Max Q Clear Time (g_c+I1), s		13.3	4.9	12.2		16.5	7.0	11.2				
Green Ext Time (p_c), s		4.2	0.0	2.2		3.2	0.1	1.5				

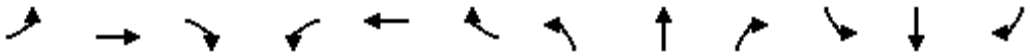
Intersection Summary												
HCM 6th Ctrl Delay			22.3									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	36	1	0	122	618	4	369
Future Volume (vph)	36	1	0	122	618	4	369
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA
Protected Phases		4	8		2		6
Permitted Phases	4			2		6	
Detector Phase	4	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	24.0	24.0	24.0	56.0	56.0	56.0	56.0
Total Split (%)	30.0%	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0
Total Lost Time (s)		4.5	4.5		4.5		4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		7.3	7.3		63.7		63.7
Actuated g/C Ratio		0.09	0.09		0.80		0.80
v/c Ratio		0.53	0.01		0.38		0.17
Control Delay		14.0	0.0		0.4		2.2
Queue Delay		0.0	0.0		0.0		0.0
Total Delay		14.0	0.0		0.4		2.2
LOS		B	A		A		A
Approach Delay		14.0			0.4		2.2
Approach LOS		B			A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 76 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 2.9	Intersection LOS: A
Intersection Capacity Utilization 57.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	1	157	0	0	4	122	618	1	4	369	27
Future Volume (veh/h)	36	1	157	0	0	4	122	618	1	4	369	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	40	1	174	0	0	4	136	687	1	4	410	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	293	6	215	0	265	236	399	1918	3	51	2373	172
Arrive On Green	0.15	0.15	0.15	0.00	0.00	0.15	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	1345	41	1420	0	1841	1560	459	2606	4	7	3223	233
Grp Volume(v), veh/h	41	0	174	0	0	4	380	0	444	234	0	210
Grp Sat Flow(s),veh/h/ln	1386	0	1420	0	1749	1560	1395	0	1674	1831	0	1633
Q Serve(g_s), s	2.0	0.0	9.5	0.0	0.0	0.2	2.8	0.0	7.6	0.0	0.0	3.1
Cycle Q Clear(g_c), s	2.2	0.0	9.5	0.0	0.0	0.2	6.4	0.0	7.6	3.1	0.0	3.1
Prop In Lane	0.98		1.00	0.00		1.00	0.36		0.00	0.02		0.14
Lane Grp Cap(c), veh/h	299	0	215	0	265	236	1088	0	1232	1393	0	1202
V/C Ratio(X)	0.14	0.00	0.81	0.00	0.00	0.02	0.35	0.00	0.36	0.17	0.00	0.17
Avail Cap(c_a), veh/h	428	0	346	0	426	380	1088	0	1232	1393	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	32.8	0.0	0.0	28.9	3.6	0.0	3.8	3.2	0.0	3.2
Incr Delay (d2), s/veh	0.2	0.0	7.2	0.0	0.0	0.0	0.9	0.0	0.8	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	3.6	0.0	0.0	0.1	1.5	0.0	1.8	0.8	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	40.1	0.0	0.0	28.9	4.4	0.0	4.6	3.5	0.0	3.5
LnGrp LOS	C	A	D	A	A	C	A	A	A	A	A	A
Approach Vol, veh/h		215			4			824			444	
Approach Delay, s/veh		38.1			28.9			4.5			3.5	
Approach LOS		D			C			A			A	

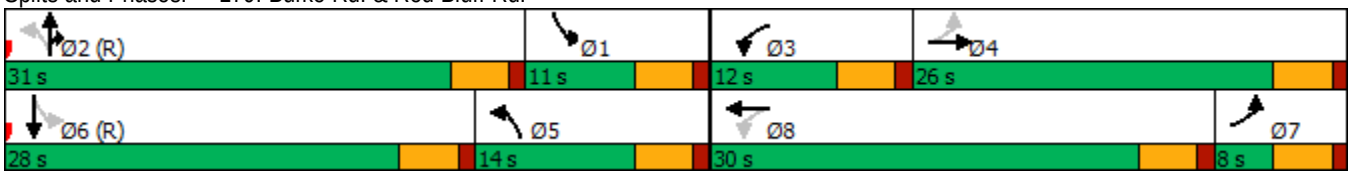
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.4		16.6		63.4		16.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		51.5		19.5		51.5		19.5				
Max Q Clear Time (g_c+I1), s		9.6		11.5		5.1		2.2				
Green Ext Time (p_c), s		6.1		0.7		2.7		0.0				

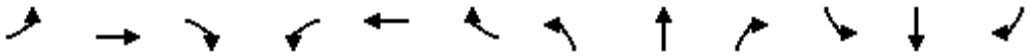
Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	29	543	152	601	223	185	76	127	216
Future Volume (vph)	29	543	152	601	223	185	76	127	216
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	26.0	12.0	30.0	14.0	31.0	31.0	11.0	28.0
Total Split (%)	10.0%	32.5%	15.0%	37.5%	17.5%	38.8%	38.8%	13.8%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.0	21.0	30.0	30.0	36.3	27.2	27.2	30.3	24.2
Actuated g/C Ratio	0.26	0.26	0.38	0.38	0.45	0.34	0.34	0.38	0.30
v/c Ratio	0.14	0.88	0.68	0.56	0.58	0.35	0.13	0.34	0.57
Control Delay	24.7	39.0	27.7	11.9	24.7	24.6	2.6	16.5	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	39.0	27.7	11.9	24.7	24.6	2.6	16.5	27.4
LOS	C	D	C	B	C	C	A	B	C
Approach Delay		38.4		14.8		21.1			24.0
Approach LOS		D		B		C			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	543	170	152	601	60	223	185	76	127	216	61
Future Volume (veh/h)	29	543	170	152	601	60	223	185	76	127	216	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	590	185	165	653	65	242	201	83	138	235	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	286	669	209	254	808	80	474	610	517	485	406	114
Arrive On Green	0.10	0.26	0.26	0.09	0.25	0.25	0.13	0.33	0.33	0.09	0.29	0.29
Sat Flow, veh/h	1753	2622	820	1753	3213	319	1753	1841	1560	1753	1383	388
Grp Volume(v), veh/h	32	393	382	165	355	363	242	201	83	138	0	301
Grp Sat Flow(s),veh/h/ln	1753	1749	1693	1753	1749	1783	1753	1841	1560	1753	0	1771
Q Serve(g_s), s	0.0	17.3	17.4	6.5	15.3	15.3	0.0	6.6	2.1	0.0	0.0	11.6
Cycle Q Clear(g_c), s	0.0	17.3	17.4	6.5	15.3	15.3	0.0	6.6	2.1	0.0	0.0	11.6
Prop In Lane	1.00		0.48	1.00		0.18	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	286	446	432	254	440	449	474	610	517	485	0	520
V/C Ratio(X)	0.11	0.88	0.88	0.65	0.81	0.81	0.51	0.33	0.16	0.28	0.00	0.58
Avail Cap(c_a), veh/h	286	470	455	254	557	568	474	610	517	485	0	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	0.95	0.95	0.95	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.5	28.6	28.7	27.5	28.1	28.1	26.5	20.1	9.0	22.0	0.0	24.0
Incr Delay (d2), s/veh	0.2	16.9	17.8	4.1	5.0	5.0	0.9	1.4	0.6	0.3	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	9.0	8.9	2.9	6.7	6.9	4.0	2.9	1.1	2.0	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	45.6	46.4	31.6	33.1	33.1	27.4	21.5	9.7	22.4	0.0	28.7
LnGrp LOS	C	D	D	C	C	C	C	C	A	C	A	C
Approach Vol, veh/h		807			883			526			439	
Approach Delay, s/veh		45.4			32.8			22.3			26.7	
Approach LOS		D			C			C			C	

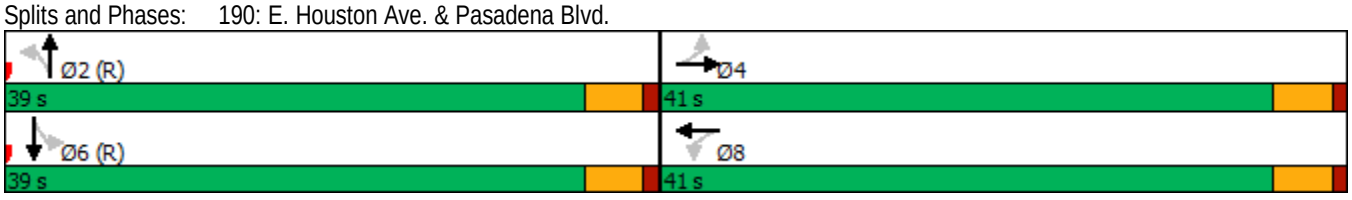
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	31.0	12.0	24.9	15.1	28.0	12.3	24.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	26.5	7.5	21.5	9.5	23.5	3.5	25.5
Max Q Clear Time (g_c+I1), s	2.0	8.6	8.5	19.4	2.0	13.6	2.0	17.3
Green Ext Time (p_c), s	0.1	1.2	0.0	1.0	0.4	1.2	0.0	2.8

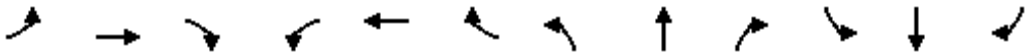
Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Lane Group	Ø2	Ø4	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	2	4	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0	41.0
Total Split (%)	49%	51%	49%	51%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1841	0	1753	1841	0	0	3681	0	0	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1841	0	1753	1841	0	0	1749	0	0	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	988	840	0	988	840	0	0	3301	0	0	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

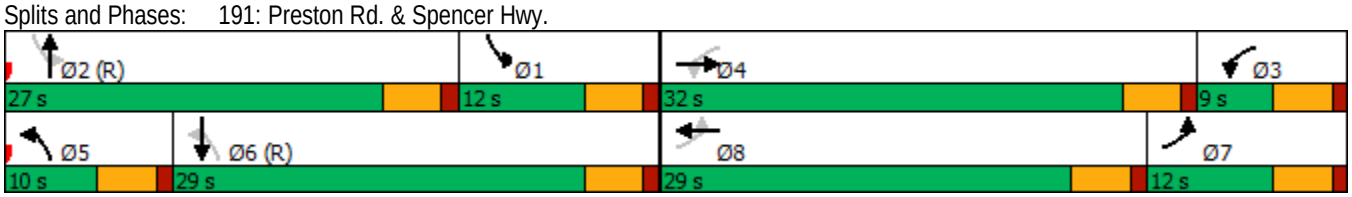
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0		0.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		34.5		36.5		34.5		36.5				
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0		0.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

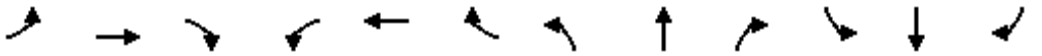
Intersection Summary												
HCM 6th Ctrl Delay			0.0									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	282	1128	88	1455	230	660	201	775
Future Volume (vph)	282	1128	88	1455	230	660	201	775
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	32.0	9.0	29.0	10.0	27.0	12.0	29.0
Total Split (%)	15.0%	40.0%	11.3%	36.3%	12.5%	33.8%	15.0%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	32.0	29.3	32.9	24.5	30.0	22.5	30.0	24.5
Actuated g/C Ratio	0.40	0.37	0.41	0.31	0.38	0.28	0.38	0.31
v/c Ratio	1.19	0.81	0.50	1.17	1.16	0.80	0.84	1.07
Control Delay	126.5	10.3	19.4	95.8	131.4	31.4	51.8	72.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	126.5	10.3	19.4	95.8	131.4	31.4	51.8	72.1
LOS	F	B	B	F	F	C	D	E
Approach Delay		30.7		91.9		55.4		68.9
Approach LOS		C		F		E		E

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 62.8	Intersection LOS: E
Intersection Capacity Utilization 111.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	1128	196	88	1455	198	230	660	67	201	775	291
Future Volume (veh/h)	282	1128	196	88	1455	198	230	660	67	201	775	291
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	303	1213	211	95	1565	213	247	710	72	216	833	313
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	254	1422	247	235	1370	186	211	902	91	306	762	286
Arrive On Green	0.06	0.22	0.22	0.09	0.41	0.41	0.07	0.28	0.28	0.09	0.31	0.31
Sat Flow, veh/h	1753	4307	749	1753	4474	608	1753	3206	325	1753	2488	933
Grp Volume(v), veh/h	303	944	480	95	1171	607	247	387	395	216	585	561
Grp Sat Flow(s),veh/h/ln	1753	1675	1706	1753	1675	1731	1753	1749	1782	1753	1749	1673
Q Serve(g_s), s	7.5	21.6	21.6	0.0	24.5	24.5	5.5	16.3	16.4	2.8	24.5	24.5
Cycle Q Clear(g_c), s	7.5	21.6	21.6	0.0	24.5	24.5	5.5	16.3	16.4	2.8	24.5	24.5
Prop In Lane	1.00		0.44	1.00		0.35	1.00		0.18	1.00		0.56
Lane Grp Cap(c), veh/h	254	1106	563	235	1026	530	211	492	501	306	536	512
V/C Ratio(X)	1.19	0.85	0.85	0.41	1.14	1.14	1.17	0.79	0.79	0.70	1.09	1.10
Avail Cap(c_a), veh/h	254	1152	586	235	1026	530	211	492	501	306	536	512
HCM Platoon Ratio	0.67	0.67	0.67	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.23	0.23	0.23	0.56	0.56	0.56	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	36.2	29.3	29.3	33.2	23.7	23.7	24.4	26.5	26.5	32.5	27.7	27.8
Incr Delay (d2), s/veh	95.2	1.5	2.9	0.6	70.8	77.7	116.7	12.0	11.9	6.8	65.4	67.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	9.0	9.4	1.6	17.6	19.2	9.4	8.1	8.3	4.3	19.4	18.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	131.4	30.8	32.2	33.8	94.5	101.4	141.1	38.6	38.4	39.3	93.2	95.1
LnGrp LOS	F	C	C	C	F	F	F	D	D	D	F	F
Approach Vol, veh/h		1727			1873			1029			1362	
Approach Delay, s/veh		48.8			93.6			63.1			85.4	
Approach LOS		D			F			E			F	

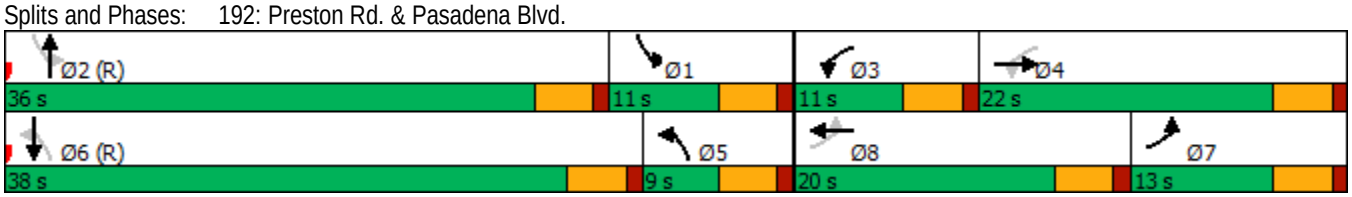
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	27.0	10.1	30.9	10.0	29.0	12.0	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	22.5	4.5	27.5	5.5	24.5	7.5	24.5
Max Q Clear Time (g_c+I1), s	4.8	18.4	2.0	23.6	7.5	26.5	9.5	26.5
Green Ext Time (p_c), s	0.2	1.8	0.0	2.8	0.0	0.0	0.0	0.0

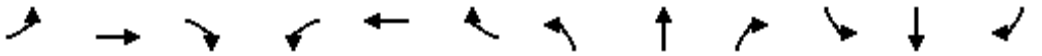
Intersection Summary	
HCM 6th Ctrl Delay	73.6
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	143	292	95	348	100	711	88	848
Future Volume (vph)	143	292	95	348	100	711	88	848
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	13.0	22.0	11.0	20.0	9.0	36.0	11.0	38.0
Total Split (%)	16.3%	27.5%	13.8%	25.0%	11.3%	45.0%	13.8%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.8	17.5	22.7	14.4	42.0	35.9	42.2	37.5
Actuated g/C Ratio	0.27	0.22	0.28	0.18	0.52	0.45	0.53	0.47
v/c Ratio	0.63	0.61	0.41	0.77	0.52	0.57	0.31	0.70
Control Delay	25.9	14.5	17.2	21.6	28.6	16.2	16.0	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	14.5	17.2	21.6	28.6	16.2	16.0	20.3
LOS	C	B	B	C	C	B	B	C
Approach Delay		17.2		20.8		17.6		20.0
Approach LOS		B		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 14 (18%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	292	155	95	348	99	100	711	95	88	848	171
Future Volume (veh/h)	143	292	155	95	348	99	100	711	95	88	848	171
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	157	321	170	104	382	109	110	781	104	97	932	188
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	249	402	208	240	464	131	354	1221	163	423	1214	245
Arrive On Green	0.07	0.18	0.18	0.07	0.17	0.17	0.04	0.13	0.13	0.14	0.42	0.42
Sat Flow, veh/h	1753	2228	1154	1753	2693	759	1753	3102	413	1753	2900	584
Grp Volume(v), veh/h	157	250	241	104	246	245	110	440	445	97	562	558
Grp Sat Flow(s),veh/h/ln	1753	1749	1633	1753	1749	1704	1753	1749	1766	1753	1749	1736
Q Serve(g_s), s	1.3	11.0	11.3	3.8	10.9	11.1	0.0	19.1	19.1	0.0	22.0	22.0
Cycle Q Clear(g_c), s	1.3	11.0	11.3	3.8	10.9	11.1	0.0	19.1	19.1	0.0	22.0	22.0
Prop In Lane	1.00		0.71	1.00		0.45	1.00		0.23	1.00		0.34
Lane Grp Cap(c), veh/h	249	316	295	240	301	294	354	689	696	423	732	727
V/C Ratio(X)	0.63	0.79	0.82	0.43	0.82	0.83	0.31	0.64	0.64	0.23	0.77	0.77
Avail Cap(c_a), veh/h	306	383	357	267	339	330	354	689	696	423	732	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	31.4	31.5	25.1	31.9	32.0	30.6	29.4	29.4	23.9	19.9	19.9
Incr Delay (d2), s/veh	2.9	9.1	11.6	1.2	13.2	15.1	0.4	3.9	3.9	0.3	7.6	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.2	5.2	1.6	5.5	5.6	2.0	9.5	9.6	1.5	9.8	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	40.5	43.1	26.3	45.1	47.1	31.0	33.3	33.3	24.2	27.5	27.6
LnGrp LOS	D	D	D	C	D	D	C	C	C	C	C	C
Approach Vol, veh/h		648			595			995			1217	
Approach Delay, s/veh		40.6			42.6			33.0			27.3	
Approach LOS		D			D			C			C	

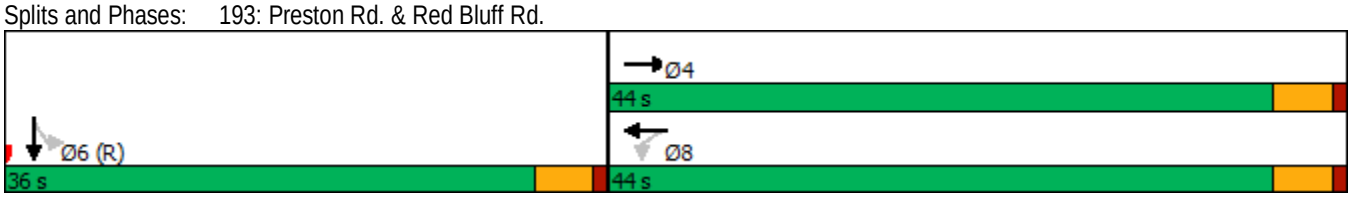
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	36.0	9.7	18.9	13.3	38.0	10.4	18.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	31.5	6.5	17.5	4.5	33.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	21.1	5.8	13.3	2.0	24.0	3.3	13.1
Green Ext Time (p_c), s	0.1	4.0	0.0	1.1	0.1	5.0	0.2	0.7

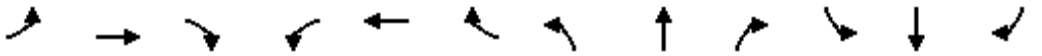
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	729	47	900	659
Future Volume (vph)	729	47	900	659
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	44.0	44.0	44.0	36.0
Total Split (%)	55.0%	55.0%	55.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	36.4	36.4	36.4	34.6
Actuated g/C Ratio	0.46	0.46	0.46	0.43
v/c Ratio	0.79	0.58	0.65	0.73
Control Delay	13.4	37.8	14.3	23.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.4	37.8	14.3	23.0
LOS	B	D	B	C
Approach Delay	13.4		15.5	23.0
Approach LOS	B		B	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	729	354	47	900	0	0	0	0	215	659	71
Future Volume (veh/h)	0	729	354	47	900	0	0	0	0	215	659	71
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	828	402	53	1023	0				244	749	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	1076	520	165	1646	0				347	1132	
Arrive On Green	0.00	0.47	0.47	0.94	0.94	0.00				0.42	0.42	0.00
Sat Flow, veh/h	0	2379	1104	446	3589	0				833	2807	0
Grp Volume(v), veh/h	0	632	598	53	1023	0				527	466	0
Grp Sat Flow(s),veh/h/ln	0	1749	1642	446	1749	0				1799	1749	0
Q Serve(g_s), s	0.0	24.0	24.3	8.3	3.3	0.0				19.3	17.0	0.0
Cycle Q Clear(g_c), s	0.0	24.0	24.3	32.6	3.3	0.0				19.3	17.0	0.0
Prop In Lane	0.00		0.67	1.00		0.00				0.46		0.00
Lane Grp Cap(c), veh/h	0	823	773	165	1646	0				750	729	
V/C Ratio(X)	0.00	0.77	0.77	0.32	0.62	0.00				0.70	0.64	
Avail Cap(c_a), veh/h	0	863	811	175	1727	0				750	729	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.60	0.60	0.84	0.84	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	17.6	17.6	12.8	1.3	0.0				19.2	18.5	0.0
Incr Delay (d2), s/veh	0.0	2.5	2.7	0.9	0.5	0.0				5.4	4.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.4	8.9	0.7	0.6	0.0				8.6	7.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.0	20.4	13.7	1.9	0.0				24.7	22.8	0.0
LnGrp LOS	A	C	C	B	A	A				C	C	
Approach Vol, veh/h		1230			1076						993	A
Approach Delay, s/veh		20.2			2.5						23.8	
Approach LOS		C			A						C	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		42.2		37.8		42.2						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		39.5		31.5		39.5						
Max Q Clear Time (g_c+I1), s		26.3		21.3		34.6						
Green Ext Time (p_c), s		7.0		4.6		3.1						

Intersection Summary		
HCM 6th Ctrl Delay	15.5	
HCM 6th LOS	B	

Notes

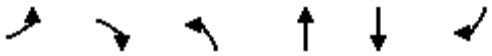
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	182	248	210	1023	1195
Future Volume (vph)	182	248	210	1023	1195
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	15.0	60.0	45.0
Total Split (%)	25.0%	25.0%	18.8%	75.0%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	13.3	13.3	57.7	57.7	43.4
Actuated g/C Ratio	0.17	0.17	0.72	0.72	0.54
v/c Ratio	0.71	0.57	0.77	0.46	0.85
Control Delay	45.9	9.6	41.2	2.3	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	9.6	41.2	2.3	13.3
LOS	D	A	D	A	B
Approach Delay	25.0			8.9	13.3
Approach LOS	C			A	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	182	248	210	1023	1195	218
Future Volume (veh/h)	182	248	210	1023	1195	218
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	190	258	219	1066	1245	227
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	329	292	427	2448	1674	303
Arrive On Green	0.19	0.19	0.16	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	1753	3589	3050	535
Grp Volume(v), veh/h	190	258	219	1066	732	740
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1744
Q Serve(g_s), s	7.9	12.9	4.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.9	12.9	4.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.31
Lane Grp Cap(c), veh/h	329	292	427	2448	990	987
V/C Ratio(X)	0.58	0.88	0.51	0.44	0.74	0.75
Avail Cap(c_a), veh/h	340	302	520	2448	990	987
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.91	0.91	0.69	0.69
Uniform Delay (d), s/veh	29.6	31.6	4.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.3	24.4	0.9	0.5	3.5	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	12.4	1.1	0.2	1.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.9	56.0	5.6	0.5	3.5	3.7
LnGrp LOS	C	E	A	A	A	A
Approach Vol, veh/h	448			1285	1472	
Approach Delay, s/veh	45.8			1.4	3.6	
Approach LOS	D			A	A	

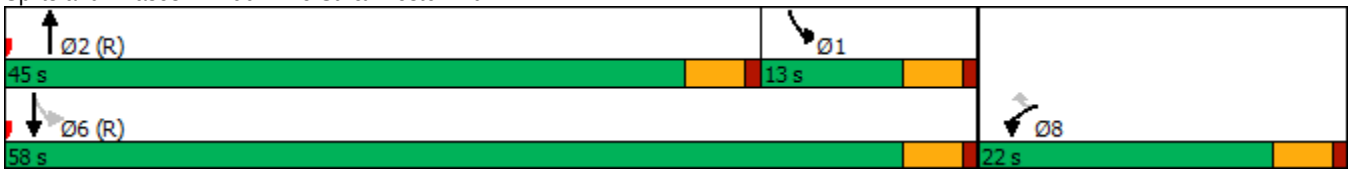
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.5		19.5	10.7	49.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		15.5	10.5	40.5
Max Q Clear Time (g_c+I1), s		2.0		14.9	6.0	2.0
Green Ext Time (p_c), s		9.9		0.1	0.2	14.3

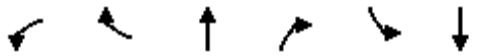
Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	27	90	867	93	866
Future Volume (vph)	27	90	867	93	866
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	45.0	13.0	58.0
Total Split (%)	27.5%	27.5%	56.3%	16.3%	72.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.2	7.2	56.3	66.7	66.7
Actuated g/C Ratio	0.09	0.09	0.70	0.83	0.83
v/c Ratio	0.19	0.43	0.41	0.20	0.33
Control Delay	35.8	13.9	1.9	1.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	35.8	13.9	1.9	1.9	1.4
LOS	D	B	A	A	A
Approach Delay	18.9		1.9		1.4
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 34 (43%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 2.7	Intersection LOS: A
Intersection Capacity Utilization 50.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	27	90	867	34	93	866
Future Volume (veh/h)	27	90	867	34	93	866
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	100	963	38	103	962
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	150	133	1736	69	670	2805
Arrive On Green	0.09	0.09	0.51	0.51	0.48	1.00
Sat Flow, veh/h	1753	1560	3522	135	1753	3589
Grp Volume(v), veh/h	30	100	491	510	103	962
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1816	1753	1749
Q Serve(g_s), s	1.3	5.0	15.4	15.4	0.0	0.0
Cycle Q Clear(g_c), s	1.3	5.0	15.4	15.4	0.0	0.0
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	150	133	885	920	670	2805
V/C Ratio(X)	0.20	0.75	0.55	0.55	0.15	0.34
Avail Cap(c_a), veh/h	383	341	885	920	670	2805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.29	0.29	0.49	0.49
Uniform Delay (d), s/veh	34.0	35.7	13.6	13.6	7.0	0.0
Incr Delay (d2), s/veh	0.6	8.1	0.7	0.7	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.2	5.7	5.9	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.7	43.9	14.3	14.3	7.1	0.2
LnGrp LOS	C	D	B	B	A	A
Approach Vol, veh/h	130		1001			1065
Approach Delay, s/veh	41.7		14.3			0.8
Approach LOS	D		B			A

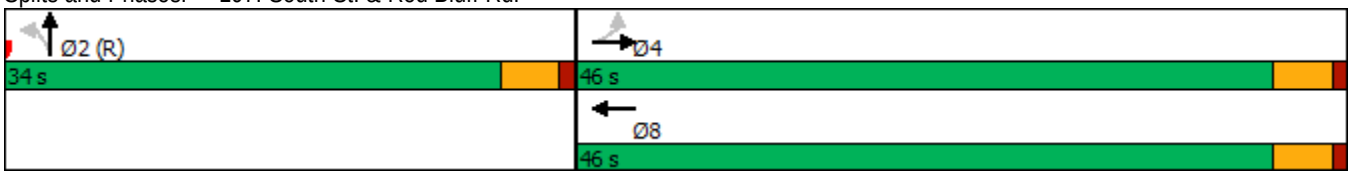
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	23.7	45.0			68.7	11.3
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	40.5			53.5	17.5
Max Q Clear Time (g_c+I1), s	2.0	17.4			2.0	7.0
Green Ext Time (p_c), s	0.1	7.1			8.9	0.2

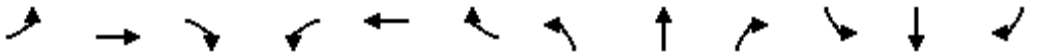
Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	110	734	538	283	630
Future Volume (vph)	110	734	538	283	630
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	46.0	46.0	46.0	34.0	34.0
Total Split (%)	57.5%	57.5%	57.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	28.6	28.6	28.6	42.4	42.4
Actuated g/C Ratio	0.36	0.36	0.36	0.53	0.53
v/c Ratio	0.75	0.64	0.59	0.34	0.38
Control Delay	38.7	21.9	20.3	9.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	21.9	20.3	9.0	8.5
LOS	D	C	C	A	A
Approach Delay		24.1	20.3		8.6
Approach LOS		C	C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 41 (51%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	734	0	0	538	141	283	630	5	0	0	0
Future Volume (veh/h)	110	734	0	0	538	141	283	630	5	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	120	798	0	0	585	0	308	685	0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	271	1230	0	0	1230		939	1874				
Arrive On Green	0.70	0.70	0.00	0.00	0.35	0.00	0.18	0.18	0.00			
Sat Flow, veh/h	817	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	120	798	0	0	585	0	308	685	0			
Grp Sat Flow(s),veh/h/ln	817	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	9.3	10.0	0.0	0.0	10.4	0.0	12.3	13.8	0.0			
Cycle Q Clear(g_c), s	19.7	10.0	0.0	0.0	10.4	0.0	12.3	13.8	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	271	1230	0	0	1230		939	1874				
V/C Ratio(X)	0.44	0.65	0.00	0.00	0.48		0.33	0.37				
Avail Cap(c_a), veh/h	407	1814	0	0	1814		939	1874				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.51	0.51	0.00	0.00	0.97	0.00	0.92	0.92	0.00			
Uniform Delay (d), s/veh	14.7	9.2	0.0	0.0	20.2	0.0	20.3	21.0	0.0			
Incr Delay (d2), s/veh	0.6	0.3	0.0	0.0	0.3	0.0	0.9	0.5	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.2	2.4	0.0	0.0	4.1	0.0	5.9	6.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	9.5	0.0	0.0	20.5	0.0	21.2	21.5	0.0			
LnGrp LOS	B	A	A	A	C		C	C				
Approach Vol, veh/h		918			585	A		993	A			
Approach Delay, s/veh		10.2			20.5			21.4				
Approach LOS		B			C			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		47.4		32.6				32.6				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		29.5		41.5				41.5				
Max Q Clear Time (g_c+I1), s		15.8		21.7				12.4				
Green Ext Time (p_c), s		4.9		6.4				4.4				

Intersection Summary												
HCM 6th Ctrl Delay			17.1									
HCM 6th LOS			B									

Notes

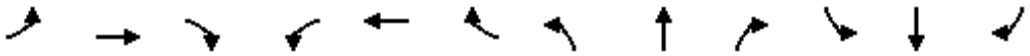
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	85	276	43	311	215	663	112	775
Future Volume (vph)	85	276	43	311	215	663	112	775
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	20.0	11.0	20.0	19.0	33.0	16.0	30.0
Total Split (%)	13.8%	25.0%	13.8%	25.0%	23.8%	41.3%	20.0%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.4	15.9	6.6	14.0	13.7	36.0	9.9	30.0
Actuated g/C Ratio	0.08	0.20	0.08	0.18	0.17	0.45	0.12	0.38
v/c Ratio	0.64	0.61	0.33	0.76	0.79	0.47	0.55	0.71
Control Delay	50.5	19.0	41.3	34.1	53.6	11.9	34.5	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	19.0	41.3	34.1	53.6	11.9	34.5	18.6
LOS	D	B	D	C	D	B	C	B
Approach Delay		24.2		34.7		21.7		20.4
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	276	156	43	311	145	215	663	36	112	775	102
Future Volume (veh/h)	85	276	156	43	311	145	215	663	36	112	775	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	89	291	164	45	327	153	226	698	38	118	816	107
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	113	363	199	122	400	183	266	1528	83	150	1203	158
Arrive On Green	0.06	0.17	0.17	0.07	0.17	0.17	0.15	0.45	0.45	0.09	0.39	0.39
Sat Flow, veh/h	1753	2179	1195	1753	2329	1068	1753	3373	184	1753	3108	408
Grp Volume(v), veh/h	89	232	223	45	244	236	226	362	374	118	459	464
Grp Sat Flow(s),veh/h/ln	1753	1749	1626	1753	1749	1648	1753	1749	1808	1753	1749	1767
Q Serve(g_s), s	4.0	10.2	10.6	2.0	10.7	11.1	10.0	11.4	11.4	5.3	17.5	17.5
Cycle Q Clear(g_c), s	4.0	10.2	10.6	2.0	10.7	11.1	10.0	11.4	11.4	5.3	17.5	17.5
Prop In Lane	1.00		0.74	1.00		0.65	1.00		0.10	1.00		0.23
Lane Grp Cap(c), veh/h	113	291	271	122	300	283	266	792	819	150	677	684
V/C Ratio(X)	0.78	0.80	0.82	0.37	0.81	0.83	0.85	0.46	0.46	0.79	0.68	0.68
Avail Cap(c_a), veh/h	142	339	315	142	339	319	318	792	819	252	677	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	0.58	0.58	0.58	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	32.0	32.2	35.5	31.9	32.0	33.1	15.1	15.1	35.9	20.4	20.4
Incr Delay (d2), s/veh	15.0	8.2	10.8	1.8	12.6	15.6	10.6	1.1	1.1	8.8	5.4	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.7	4.7	0.9	5.3	5.4	4.8	4.3	4.4	2.5	7.4	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	40.2	43.0	37.4	44.5	47.6	43.7	16.2	16.2	44.7	25.8	25.7
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		544			525			962			1041	
Approach Delay, s/veh		43.3			45.3			22.6			27.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	40.7	10.1	17.8	16.6	35.5	9.7	18.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	28.5	6.5	15.5	14.5	25.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	7.3	13.4	4.0	12.6	12.0	19.5	6.0	13.1
Green Ext Time (p_c), s	0.1	3.8	0.0	0.7	0.2	2.8	0.0	0.7

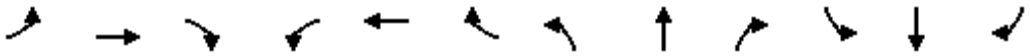
Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	34	554	204	504	1	118	197	38	206
Future Volume (vph)	34	554	204	504	1	118	197	38	206
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	27.0	23.0	40.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	14.3%	38.6%	32.9%	57.1%	28.6%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	5.9	28.7	14.0	43.4		12.3	12.3		12.3
Actuated g/C Ratio	0.08	0.41	0.20	0.62		0.18	0.18		0.18
v/c Ratio	0.26	0.44	0.66	0.27		0.41	0.48		0.61
Control Delay	34.9	17.4	34.6	7.7		29.2	7.8		27.7
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	34.9	17.4	34.6	7.7		29.2	7.8		27.7
LOS	C	B	C	A		C	A		C
Approach Delay		18.4		15.2		15.9			27.7
Approach LOS		B		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





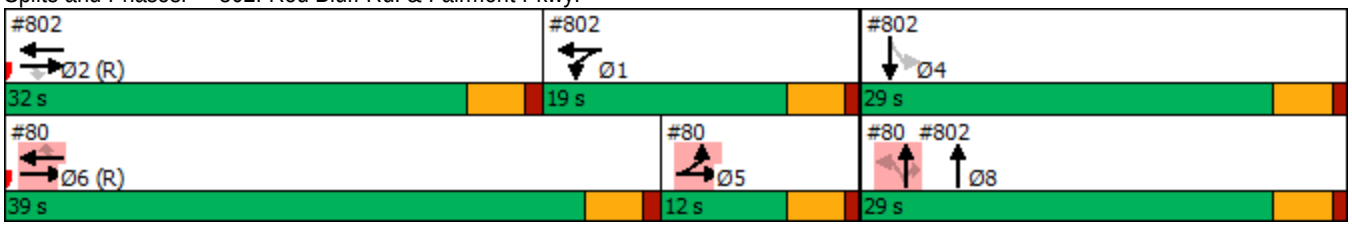
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	554	10	204	504	20	1	118	197	38	206	65
Future Volume (vph)	34	554	10	204	504	20	1	118	197	38	206	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	1.00		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3462		1736	3451			1826	1553		3341	
Flt Permitted	0.95	1.00		0.95	1.00			1.00	1.00		0.90	
Satd. Flow (perm)	1736	3462		1736	3451			1820	1553		3013	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	38	616	11	227	560	22	1	131	219	42	229	72
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	181	0	35	0
Lane Group Flow (vph)	38	625	0	227	579	0	0	132	38	0	308	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	2.2	28.7		14.0	40.5			12.3	12.3		12.3	
Effective Green, g (s)	2.2	28.7		14.0	40.5			12.3	12.3		12.3	
Actuated g/C Ratio	0.03	0.41		0.20	0.58			0.18	0.18		0.18	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	54	1419		347	1996			319	272		529	
v/s Ratio Prot	0.02	c0.18		c0.13	0.17							
v/s Ratio Perm								0.07	0.02		c0.10	
v/c Ratio	0.70	0.44		0.65	0.29			0.41	0.14		0.58	
Uniform Delay, d1	33.6	14.9		25.8	7.5			25.6	24.4		26.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	34.1	1.0		4.4	0.4			0.9	0.2		1.6	
Delay (s)	67.6	15.9		30.2	7.8			26.5	24.6		28.1	
Level of Service	E	B		C	A			C	C		C	
Approach Delay (s)		18.8			14.1			25.3			28.1	
Approach LOS		B			B			C			C	

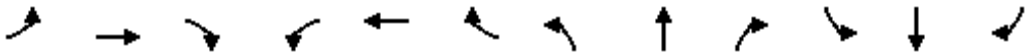
Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	Ø5	Ø6
Lane Configurations									
Traffic Volume (vph)	1070	258	118	1295	1	175	532		
Future Volume (vph)	1070	258	118	1295	1	175	532		
Turn Type	NA	Perm	Prot	NA	NA	Perm	NA		
Protected Phases	2		1	1 2	8		4	5	6
Permitted Phases		2				4			
Detector Phase	2	2	1	1 2	8	4	4		
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	20.0	8.0	20.0
Total Split (s)	32.0	32.0	19.0		29.0	29.0	29.0	12.0	39.0
Total Split (%)	40.0%	40.0%	23.8%		36.3%	36.3%	36.3%	15%	49%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5			4.5	4.5		
Lead/Lag	Lead	Lead	Lag					Lag	Lead
Lead-Lag Optimize?								Yes	
Recall Mode	C-Max	C-Max	None		None	None	None	None	C-Max
Act Effct Green (s)	30.5	30.5	14.4	49.5	0.0	21.5	21.5		
Actuated g/C Ratio	0.38	0.38	0.18	0.62	0.00	0.27	0.27		
v/c Ratio	0.50	0.41	0.22	0.47	no cap	0.53	0.65		
Control Delay	7.1	2.2	25.0	5.8		29.8	29.0		
Queue Delay	0.0	0.0	0.0	0.1		0.0	0.0		
Total Delay	7.1	2.2	25.0	5.9	Error	29.8	29.0		
LOS	A	A	C	A	F	C	C		
Approach Delay	6.1			7.5	Err		29.2		
Approach LOS	A			A	F		C		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





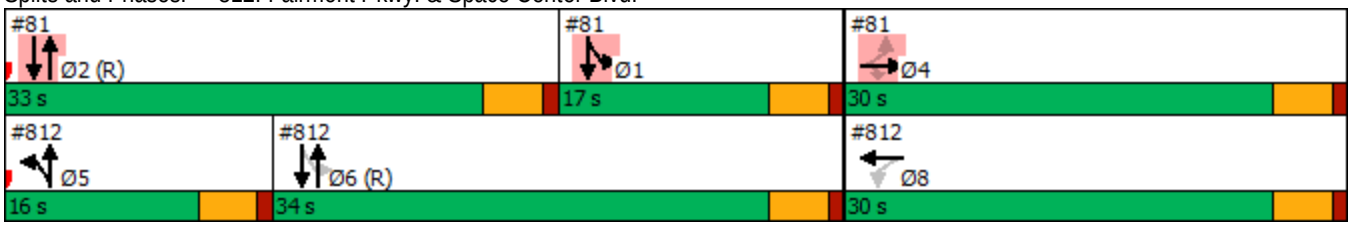
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1070	258	118	1295	0	0	1	0	175	532	11
Future Volume (vph)	0	1070	258	118	1295	0	0	1	0	175	532	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5			4.5		4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91			1.00		1.00	0.95	
Frt		1.00	0.85	1.00	1.00			1.00		1.00	1.00	
Flt Protected		1.00	1.00	0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988			0		1736	3461	
Flt Permitted		1.00	1.00	0.95	1.00			1.00		0.76	1.00	
Satd. Flow (perm)		6285	1553	3367	4988			0		1383	3461	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	1202	290	133	1455	0	0	1	0	197	598	12
RTOR Reduction (vph)	0	0	111	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	1202	179	133	1455	0	0	1	0	197	608	0
Turn Type		NA	Perm	Prot	NA			NA		Perm	NA	
Protected Phases		2		1	1 2			8			4	
Permitted Phases			2							4		
Actuated Green, G (s)		30.6	30.6	14.4	49.5			21.5		21.5	21.5	
Effective Green, g (s)		30.6	30.6	14.4	49.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.38	0.38	0.18	0.62			0.27		0.27	0.27	
Clearance Time (s)		4.5	4.5	4.5				4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0				3.0		3.0	3.0	
Lane Grp Cap (vph)		2404	594	606	3086			0		371	930	
v/s Ratio Prot		0.19		0.04	c0.29						c0.18	
v/s Ratio Perm			0.12							0.14		
v/c Ratio		0.50	0.30	0.22	0.47			no cap		0.53	0.65	
Uniform Delay, d1		18.9	17.2	28.0	8.2			Error		24.9	25.9	
Progression Factor		0.33	0.11	0.86	0.60					1.00	1.00	
Incremental Delay, d2		0.6	1.0	0.2	0.1			Error		1.5	1.7	
Delay (s)		6.8	2.9	24.2	5.0			Error		26.4	27.6	
Level of Service		A	A	C	A			F		C	C	
Approach Delay (s)		6.0			6.6			Error			27.3	
Approach LOS		A			A			F			C	

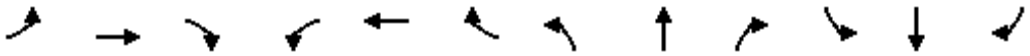
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	276	1168	263	502	1	479			
Future Volume (vph)	276	1168	263	502	1	479			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	30.0	30.0	16.0		34.0	34.0	17.0	33.0	30.0
Total Split (%)	37.5%	37.5%	20.0%		42.5%	42.5%	21%	41%	38%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	25.5	25.5	11.0	45.5		30.0			
Actuated g/C Ratio	0.32	0.32	0.14	0.57		0.38			
v/c Ratio	0.53	0.69	0.60	0.27		0.37			
Control Delay	26.5	25.3	44.6	2.7		11.7			
Queue Delay	3.8	0.0	7.5	1.6		0.1			
Total Delay	30.3	25.3	52.2	4.3		11.9			
LOS	C	C	D	A		B			
Approach Delay		26.1		20.8		11.9			
Approach LOS		C		C		B			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 61 (76%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





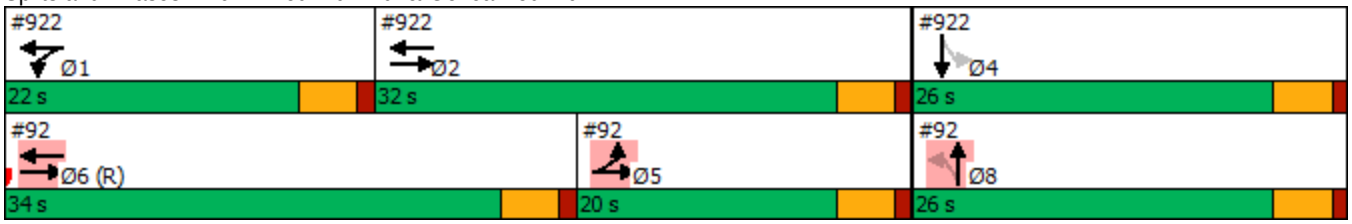
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1168	150	263	502	0	1	479	123
Future Volume (vph)	0	0	0	276	1168	150	263	502	0	1	479	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.98		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6177		3367	3471			4835	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6177		3367	3471			4543	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	291	1229	158	277	528	0	1	504	129
RTOR Reduction (vph)	0	0	0	0	29	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	0	0	291	1358	0	277	528	0	0	615	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				25.5	25.5		11.0	45.5			30.0	
Effective Green, g (s)				25.5	25.5		11.0	45.5			30.0	
Actuated g/C Ratio				0.32	0.32		0.14	0.57			0.38	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				553	1968		462	1974			1703	
v/s Ratio Prot					c0.22		c0.08	0.15				
v/s Ratio Perm				0.17							c0.14	
v/c Ratio				0.53	0.69		0.60	0.27			0.36	
Uniform Delay, d1				22.3	23.8		32.4	8.8			18.1	
Progression Factor				1.00	1.00		1.28	0.29			0.65	
Incremental Delay, d2				0.9	1.0		1.2	0.0			0.4	
Delay (s)				23.2	24.8		42.6	2.6			12.1	
Level of Service				C	C		D	A			B	
Approach Delay (s)		0.0			24.5			16.3			12.1	
Approach LOS		A			C			B			B	

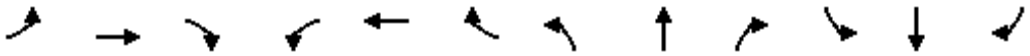
Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	835	229	796	524			
Future Volume (vph)	835	229	796	524			
Turn Type	NA	Prot	NA	NA			
Protected Phases	2	1	2 1	4	5	6	8
Permitted Phases							
Detector Phase	2	1	2 1	4			
Switch Phase							
Minimum Initial (s)	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	32.0	22.0		26.0	20.0	34.0	26.0
Total Split (%)	40.0%	27.5%		32.5%	25%	43%	33%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0			
Total Lost Time (s)	4.5	4.5		4.5			
Lead/Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?							
Recall Mode	None	None		None	None	C-Max	None
Act Effct Green (s)	30.2	16.5	51.2	19.8			
Actuated g/C Ratio	0.38	0.21	0.64	0.25			
v/c Ratio	0.71	0.68	0.38	0.61			
Control Delay	11.0	23.6	4.9	23.8			
Queue Delay	0.0	1.7	0.3	0.0			
Total Delay	11.0	25.3	5.2	23.8			
LOS	B	C	A	C			
Approach Delay	11.0		9.7	23.8			
Approach LOS	B		A	C			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 67.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	835	428	229	796	0	0	0	0	86	524	94
Future Volume (vph)	0	835	428	229	796	0	0	0	0	86	524	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.91		1.00	0.95						0.91	
Frt		0.95		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		4734		1736	3471						4858	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		4734		1736	3471						4858	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	888	455	244	847	0	0	0	0	91	557	100
RTOR Reduction (vph)	0	95	0	0	0	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	1248	0	244	847	0	0	0	0	0	722	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases										4		
Actuated Green, G (s)		30.2		16.5	51.2						19.8	
Effective Green, g (s)		30.2		16.5	51.2						19.8	
Actuated g/C Ratio		0.38		0.21	0.64						0.25	
Clearance Time (s)		4.5		4.5							4.5	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		1787		358	2221						1202	
v/s Ratio Prot		c0.26		c0.14	0.24							
v/s Ratio Perm											0.15	
v/c Ratio		0.70		0.68	0.38						0.60	
Uniform Delay, d1		21.1		29.3	6.9						26.6	
Progression Factor		0.55		0.49	0.61						0.87	
Incremental Delay, d2		0.1		4.7	0.1						0.8	
Delay (s)		11.7		19.0	4.3						23.8	
Level of Service		B		B	A						C	
Approach Delay (s)		11.7			7.6			0.0			23.8	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

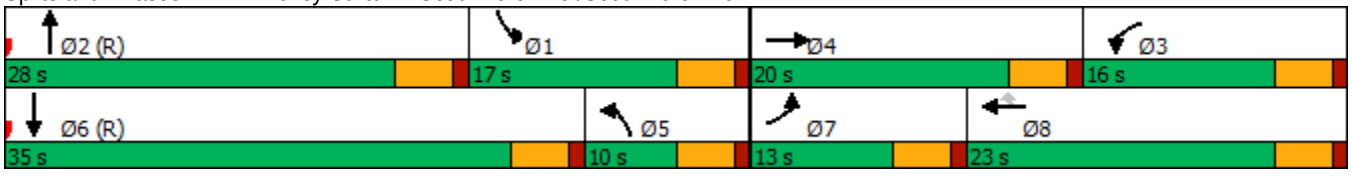
Synchro Report

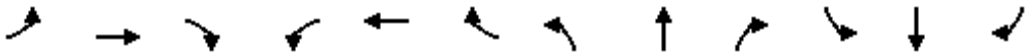
Short-Term Improved Network 2045 PM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	66	508	447	486	286	44	543	244	743
Future Volume (vph)	66	508	447	486	286	44	543	244	743
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	20.0	16.0	23.0	23.0	10.0	28.0	17.0	35.0
Total Split (%)	16.0%	24.7%	19.8%	28.4%	28.4%	12.3%	34.6%	21.0%	43.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.6	15.3	11.7	21.4	21.4	5.5	23.5	12.5	34.5
Actuated g/C Ratio	0.09	0.19	0.14	0.26	0.26	0.07	0.29	0.15	0.43
v/c Ratio	0.41	0.88	0.94	0.54	0.47	0.38	0.88	0.93	0.55
Control Delay	37.4	43.4	55.5	23.5	4.2	46.0	31.7	76.9	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.4	43.4	55.5	23.5	4.2	46.0	31.7	76.9	20.0
LOS	D	D	E	C	A	D	C	E	B
Approach Delay		42.8		30.7			32.3		33.3
Approach LOS		D		C			C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 21 (26%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 90.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	508	57	447	486	286	44	543	422	244	743	55
Future Volume (veh/h)	66	508	57	447	486	286	44	543	422	244	743	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	518	58	456	496	292	45	554	431	249	758	56
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	86	592	66	483	979	436	127	543	422	279	1243	92
Arrive On Green	0.05	0.19	0.19	0.14	0.28	0.28	0.07	0.29	0.29	0.16	0.38	0.38
Sat Flow, veh/h	1753	3172	354	3401	3497	1560	1753	1871	1456	1753	3302	244
Grp Volume(v), veh/h	67	285	291	456	496	292	45	518	467	249	401	413
Grp Sat Flow(s),veh/h/ln	1753	1749	1777	1700	1749	1560	1753	1749	1579	1753	1749	1797
Q Serve(g_s), s	3.1	12.8	12.9	10.8	9.6	8.4	2.0	23.5	23.5	11.3	15.0	15.1
Cycle Q Clear(g_c), s	3.1	12.8	12.9	10.8	9.6	8.4	2.0	23.5	23.5	11.3	15.0	15.1
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.92	1.00		0.14
Lane Grp Cap(c), veh/h	86	327	332	483	979	436	127	507	458	279	658	677
V/C Ratio(X)	0.78	0.87	0.88	0.94	0.51	0.67	0.35	1.02	1.02	0.89	0.61	0.61
Avail Cap(c_a), veh/h	184	335	340	483	979	436	127	507	458	279	658	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	32.0	32.0	34.4	24.5	10.1	35.8	28.7	28.8	33.4	20.4	20.4
Incr Delay (d2), s/veh	8.7	13.7	14.1	27.5	0.4	3.9	1.7	45.2	47.3	28.4	4.2	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.4	6.6	6.1	3.8	3.0	0.9	15.6	14.3	6.8	6.4	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	45.7	46.1	62.0	24.9	14.0	37.4	74.0	76.1	61.8	24.6	24.5
LnGrp LOS	D	D	D	E	C	B	D	F	F	E	C	C
Approach Vol, veh/h		643			1244			1030			1063	
Approach Delay, s/veh		46.0			35.9			73.3			33.3	
Approach LOS		D			D			E			C	

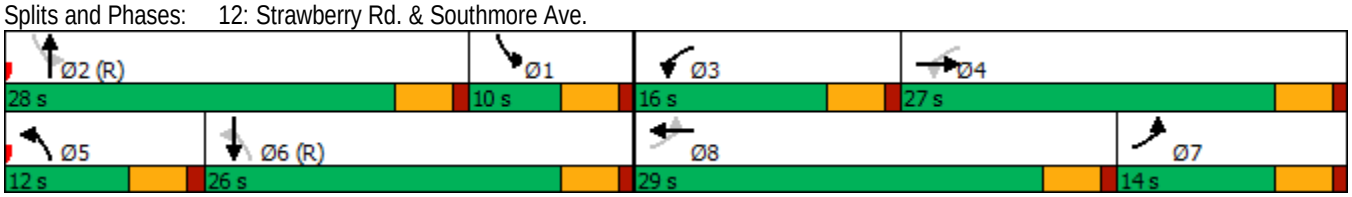
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	28.0	16.0	19.6	10.4	35.0	8.5	27.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	23.5	11.5	15.5	5.5	30.5	8.5	18.5
Max Q Clear Time (g_c+I1), s	13.3	25.5	12.8	14.9	4.0	17.1	5.1	11.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	4.2	0.0	2.4

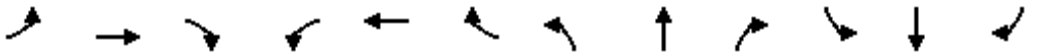
Intersection Summary	
HCM 6th Ctrl Delay	46.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	198	790	246	722	171	472	128	484
Future Volume (vph)	198	790	246	722	171	472	128	484
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	27.0	16.0	29.0	12.0	28.0	10.0	26.0
Total Split (%)	17.3%	33.3%	19.8%	35.8%	14.8%	34.6%	12.3%	32.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	33.1	22.0	33.1	22.8	29.9	24.4	29.9	22.5
Actuated g/C Ratio	0.41	0.27	0.41	0.28	0.37	0.30	0.37	0.28
v/c Ratio	0.65	0.88	0.77	0.80	0.58	0.70	0.59	0.64
Control Delay	12.9	15.7	30.7	24.3	24.5	24.5	36.1	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.9	15.7	30.7	24.3	24.5	24.5	36.1	28.6
LOS	B	B	C	C	C	C	D	C
Approach Delay		15.1		25.8		24.5		29.9
Approach LOS		B		C		C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 24 (30%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 23.4	Intersection LOS: C
Intersection Capacity Utilization 84.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	790	20	246	722	42	171	472	269	128	484	100
Future Volume (veh/h)	198	790	20	246	722	42	171	472	269	128	484	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	202	806	20	251	737	43	174	482	274	131	494	102
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	350	913	23	338	876	51	370	624	353	320	862	177
Arrive On Green	0.13	0.26	0.26	0.13	0.26	0.26	0.09	0.29	0.29	0.10	0.30	0.30
Sat Flow, veh/h	1753	3487	87	1753	3358	196	1753	2152	1218	1753	2889	593
Grp Volume(v), veh/h	202	404	422	251	384	396	174	391	365	131	298	298
Grp Sat Flow(s),veh/h/ln	1753	1749	1825	1753	1749	1805	1753	1749	1622	1753	1749	1734
Q Serve(g_s), s	2.7	18.0	18.0	8.3	16.8	16.8	5.5	16.6	16.7	0.0	11.7	11.8
Cycle Q Clear(g_c), s	2.7	18.0	18.0	8.3	16.8	16.8	5.5	16.6	16.7	0.0	11.7	11.8
Prop In Lane	1.00		0.05	1.00		0.11	1.00		0.75	1.00		0.34
Lane Grp Cap(c), veh/h	350	458	478	338	456	471	370	507	470	320	521	517
V/C Ratio(X)	0.58	0.88	0.88	0.74	0.84	0.84	0.47	0.77	0.78	0.41	0.57	0.58
Avail Cap(c_a), veh/h	350	486	507	364	529	546	375	507	470	320	521	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.55	0.55	0.55	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	28.7	28.7	20.2	28.3	28.4	17.9	26.3	26.3	31.4	24.0	24.1
Incr Delay (d2), s/veh	2.3	16.6	16.0	4.2	6.0	5.9	0.9	10.5	11.5	0.8	4.5	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	9.2	9.5	3.5	7.4	7.6	2.1	8.0	7.6	2.3	5.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	45.3	44.7	24.4	34.4	34.2	18.8	36.8	37.8	32.2	28.5	28.7
LnGrp LOS	C	D	D	C	C	C	B	D	D	C	C	C
Approach Vol, veh/h		1028			1031			930			727	
Approach Delay, s/veh		42.6			31.9			33.8			29.3	
Approach LOS		D			C			C			C	

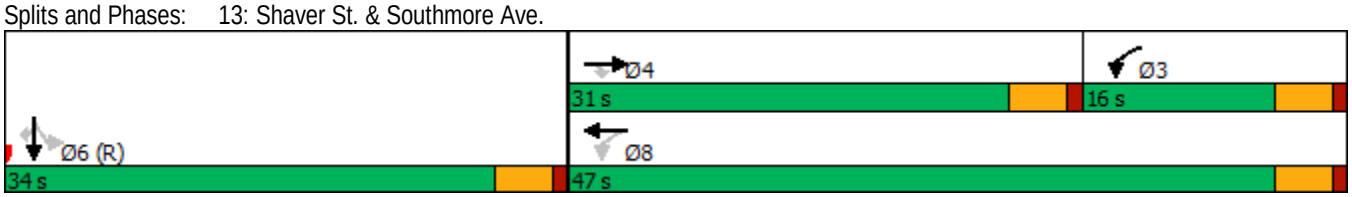
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	28.0	14.8	25.7	11.8	28.7	14.9	25.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	23.5	11.5	22.5	7.5	21.5	9.5	24.5
Max Q Clear Time (g_c+I1), s	2.0	18.7	10.3	20.0	7.5	13.8	4.7	18.8
Green Ext Time (p_c), s	0.1	2.0	0.1	1.2	0.0	2.2	0.2	2.3

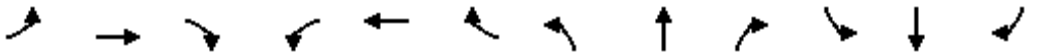
Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	945	215	256	988	292	1027	284
Future Volume (vph)	945	215	256	988	292	1027	284
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	16.0	47.0	34.0	34.0	34.0
Total Split (%)	38.3%	38.3%	19.8%	58.0%	42.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	26.3	26.3	41.7	41.7	30.3	30.3	30.3
Actuated g/C Ratio	0.32	0.32	0.51	0.51	0.37	0.37	0.37
v/c Ratio	0.90	0.41	0.85	0.61	0.48	0.85	0.53
Control Delay	21.6	7.0	34.9	5.8	17.5	24.2	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	7.0	34.9	5.8	17.5	24.2	18.4
LOS	C	A	C	A	B	C	B
Approach Delay	18.9			11.8		22.0	
Approach LOS	B			B		C	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 71 (88%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 83.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	945	215	256	988	0	0	0	0	292	1027	284
Future Volume (veh/h)	0	945	215	256	988	0	0	0	0	292	1027	284
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	1016	231	275	1062	0				314	1104	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	1119	499	307	1733	0				690	1376	
Arrive On Green	0.00	0.32	0.32	0.24	0.99	0.00				0.39	0.39	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	1016	231	275	1062	0				314	1104	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	22.6	9.6	7.6	0.6	0.0				10.7	22.7	0.0
Cycle Q Clear(g_c), s	0.0	22.6	9.6	7.6	0.6	0.0				10.7	22.7	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1119	499	307	1733	0				690	1376	
V/C Ratio(X)	0.00	0.91	0.46	0.90	0.61	0.00				0.46	0.80	
Avail Cap(c_a), veh/h	0	1144	510	345	1835	0				690	1376	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.36	0.36	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.4	22.0	28.6	0.2	0.0				18.2	21.8	0.0
Incr Delay (d2), s/veh	0.0	10.5	0.7	10.2	0.2	0.0				2.2	5.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.3	3.4	5.1	0.1	0.0				4.4	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.9	22.7	38.8	0.4	0.0				20.3	26.8	0.0
LnGrp LOS	A	D	C	D	A	A				C	C	
Approach Vol, veh/h		1247			1337						1418	A
Approach Delay, s/veh		34.3			8.3						25.4	
Approach LOS		C			A						C	

Timer - Assigned Phs		3	4		6		8				
Phs Duration (G+Y+Rc), s		14.2	30.4		36.4		44.6				
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		11.5	26.5		29.5		42.5				
Max Q Clear Time (g_c+I1), s		9.6	24.6		24.7		2.6				
Green Ext Time (p_c), s		0.2	1.3		3.3		9.4				

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

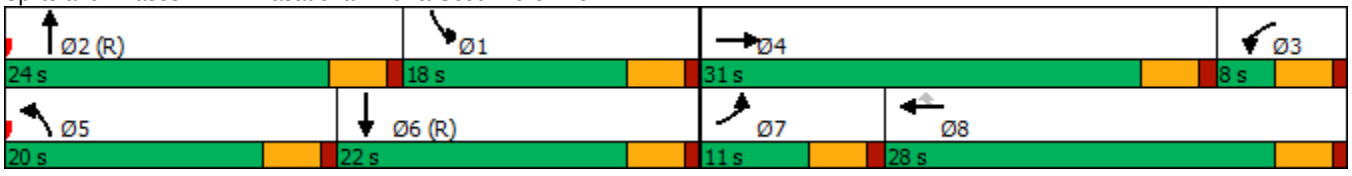
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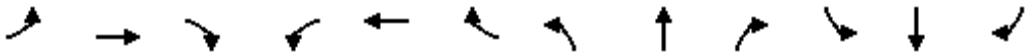
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	109	874	85	809	157	386	554	248	726
Future Volume (vph)	109	874	85	809	157	386	554	248	726
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	31.0	8.0	28.0	28.0	20.0	24.0	18.0	22.0
Total Split (%)	13.6%	38.3%	9.9%	34.6%	34.6%	24.7%	29.6%	22.2%	27.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	26.5	3.5	23.5	23.5	15.5	19.5	13.5	17.5
Actuated g/C Ratio	0.08	0.33	0.04	0.29	0.29	0.19	0.24	0.17	0.22
v/c Ratio	0.86	1.24	1.24	0.88	0.31	1.28	0.85	0.94	1.07
Control Delay	78.4	136.1	201.0	25.6	2.6	176.5	39.3	76.8	86.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.4	136.1	201.0	25.6	2.6	176.5	39.3	76.8	86.8
LOS	E	F	F	C	A	F	D	E	F
Approach Delay		131.6		36.3			90.7		84.3
Approach LOS		F		D			F		F

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 61 (75%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.28	
Intersection Signal Delay: 89.4	Intersection LOS: F
Intersection Capacity Utilization 104.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	874	424	85	809	157	386	554	91	248	726	6
Future Volume (veh/h)	109	874	424	85	809	157	386	554	91	248	726	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	120	960	466	93	889	173	424	609	100	273	798	7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	141	751	358	76	1015	453	335	724	119	292	768	7
Arrive On Green	0.08	0.33	0.33	0.04	0.29	0.29	0.38	0.48	0.48	0.17	0.22	0.22
Sat Flow, veh/h	1753	2297	1095	1753	3497	1560	1753	3008	493	1753	3553	31
Grp Volume(v), veh/h	120	727	699	93	889	173	424	354	355	273	393	412
Grp Sat Flow(s),veh/h/ln	1753	1749	1644	1753	1749	1560	1753	1749	1752	1753	1749	1835
Q Serve(g_s), s	5.5	26.5	26.5	3.5	19.6	4.4	15.5	14.3	14.3	12.5	17.5	17.5
Cycle Q Clear(g_c), s	5.5	26.5	26.5	3.5	19.6	4.4	15.5	14.3	14.3	12.5	17.5	17.5
Prop In Lane	1.00		0.67	1.00		1.00	1.00		0.28	1.00		0.02
Lane Grp Cap(c), veh/h	141	572	538	76	1015	453	335	421	422	292	378	396
V/C Ratio(X)	0.85	1.27	1.30	1.23	0.88	0.38	1.26	0.84	0.84	0.93	1.04	1.04
Avail Cap(c_a), veh/h	141	572	538	76	1015	453	335	421	422	292	378	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	27.3	27.3	38.8	27.4	8.5	25.0	19.6	19.7	33.3	31.7	31.8
Incr Delay (d2), s/veh	36.7	134.9	148.4	176.8	8.7	0.5	140.5	17.9	18.2	35.6	57.0	55.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	31.7	31.8	5.2	8.9	2.4	17.6	6.0	6.1	7.9	13.0	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	162.2	175.7	215.5	36.1	9.0	165.5	37.6	37.9	69.0	88.7	87.6
LnGrp LOS	E	F	F	F	D	A	F	D	D	E	F	F
Approach Vol, veh/h		1546			1155			1133			1078	
Approach Delay, s/veh		161.4			46.5			85.5			83.3	
Approach LOS		F			D			F			F	

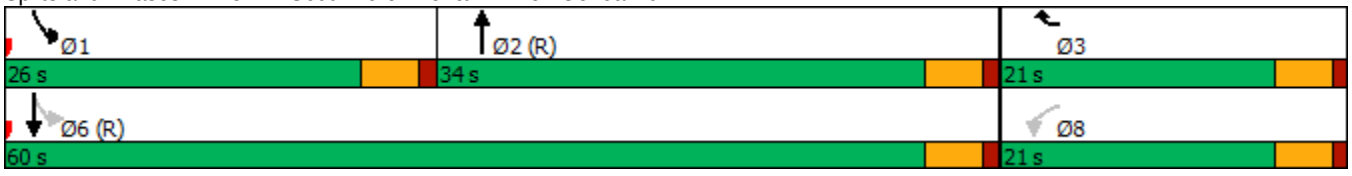
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	24.0	8.0	31.0	20.0	22.0	11.0	28.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	19.5	3.5	26.5	15.5	17.5	6.5	23.5
Max Q Clear Time (g_c+I1), s	14.5	16.3	5.5	28.5	17.5	19.5	7.5	21.6
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	99.7
HCM 6th LOS	F

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	161	353	815	373	1331
Future Volume (vph)	161	353	815	373	1331
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	34.0	26.0	60.0
Total Split (%)	25.9%	25.9%	42.0%	32.1%	74.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.7	12.7	38.7	59.3	59.3
Actuated g/C Ratio	0.16	0.16	0.48	0.73	0.73
v/c Ratio	0.62	0.66	0.55	0.74	0.56
Control Delay	20.1	9.3	18.3	17.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.1	9.3	18.3	17.3	6.5
LOS	C	A	B	B	A
Approach Delay	12.7		18.3		8.9
Approach LOS	B		B		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 19 (23%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.2	Intersection LOS: B
Intersection Capacity Utilization 68.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	161	353	815	51	373	1331	
Future Volume (veh/h)	161	353	815	51	373	1331	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	
Adj Flow Rate, veh/h	168	368	849	53	389	1386	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	4	4	4	4	4	4	
Cap, veh/h	357	318	1654	103	522	2396	
Arrive On Green	0.20	0.20	0.49	0.49	0.14	0.69	
Sat Flow, veh/h	1753	1560	3435	209	1753	3589	
Grp Volume(v), veh/h	168	368	444	458	389	1386	
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1803	1753	1749	
Q Serve(g_s), s	6.8	16.5	13.9	13.9	8.0	16.7	
Cycle Q Clear(g_c), s	6.8	16.5	13.9	13.9	8.0	16.7	
Prop In Lane	1.00	1.00		0.12	1.00		
Lane Grp Cap(c), veh/h	357	318	865	892	522	2396	
V/C Ratio(X)	0.47	1.16	0.51	0.51	0.75	0.58	
Avail Cap(c_a), veh/h	357	318	865	892	750	2396	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.83	0.83	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.4	32.3	13.9	13.9	10.6	6.6	
Incr Delay (d2), s/veh	0.8	96.5	2.2	2.1	2.4	1.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.8	14.3	5.4	5.6	2.7	4.9	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	29.2	128.8	16.0	16.0	13.0	7.7	
LnGrp LOS	C	F	B	B	B	A	
Approach Vol, veh/h	536		902			1775	
Approach Delay, s/veh	97.6		16.0			8.8	
Approach LOS	F		B			A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.4	44.6			60.0	21.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	21.5	29.5			55.5	16.5
Max Q Clear Time (g_c+I1), s	10.0	15.9			18.7	18.5
Green Ext Time (p_c), s	1.0	4.7			13.7	0.0

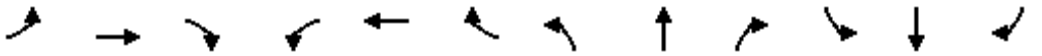
Intersection Summary		
HCM 6th Ctrl Delay	25.7	
HCM 6th LOS	C	

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	138	1041	1001	806	256
Future Volume (vph)	138	1041	1001	806	256
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	52.0	41.0	29.0	29.0
Total Split (%)	13.6%	64.2%	50.6%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	46.4	46.4	35.4	25.6	25.6
Actuated g/C Ratio	0.57	0.57	0.44	0.32	0.32
v/c Ratio	0.63	0.56	0.88	0.71	0.48
Control Delay	16.2	3.4	7.3	27.7	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	3.4	7.3	27.7	18.0
LOS	B	A	A	C	B
Approach Delay		4.9	7.3	25.8	
Approach LOS		A	A	C	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 66 (81%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 78.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



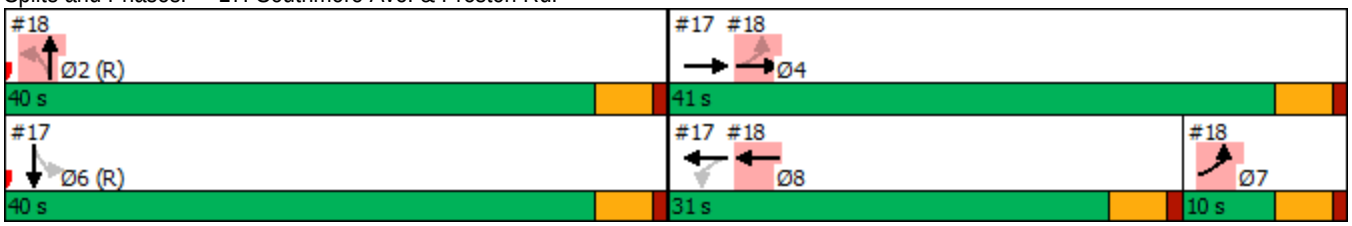


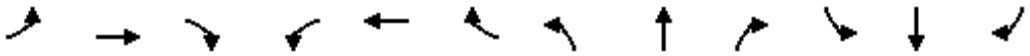
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	1041	1	0	1001	221	249	806	256	0	0	0
Future Volume (veh/h)	138	1041	1	0	1001	221	249	806	256	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	144	1084	1	0	1043	230	259	840	267			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	4	0	4	4	4	4	4			
Cap, veh/h	185	1845	2	0	1190	261	426	1496	584			
Arrive On Green	0.08	1.00	1.00	0.00	0.42	0.42	0.37	0.37	0.37			
Sat Flow, veh/h	1753	3586	3	0	2942	626	1139	3995	1560			
Grp Volume(v), veh/h	144	529	556	0	638	635	406	693	267			
Grp Sat Flow(s),veh/h/ln	1753	1749	1840	0	1749	1728	1784	1675	1560			
Q Serve(g_s), s	1.1	0.0	0.0	0.0	27.1	27.4	14.9	13.2	10.5			
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	27.1	27.4	14.9	13.2	10.5			
Prop In Lane	1.00		0.00	0.00		0.36	0.64		1.00			
Lane Grp Cap(c), veh/h	185	900	947	0	730	721	668	1254	584			
V/C Ratio(X)	0.78	0.59	0.59	0.00	0.87	0.88	0.61	0.55	0.46			
Avail Cap(c_a), veh/h	253	1025	1079	0	788	779	668	1254	584			
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.50	0.50	0.50	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	35.3	0.0	0.0	0.0	21.7	21.7	20.5	20.0	19.1			
Incr Delay (d2), s/veh	5.3	0.3	0.3	0.0	10.2	10.8	4.1	1.8	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	0.1	0.1	0.0	12.1	12.2	6.5	5.1	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.3	0.3	0.0	31.9	32.5	24.6	21.7	21.7			
LnGrp LOS	D	A	A	A	C	C	C	C	C			
Approach Vol, veh/h		1229			1273			1366				
Approach Delay, s/veh		5.0			32.2			22.6				
Approach LOS		A			C			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		34.8		46.2			7.9	38.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		24.5		47.5			6.5	36.5				
Max Q Clear Time (g_c+I1), s		16.9		2.0			3.1	29.4				
Green Ext Time (p_c), s		4.5		8.7			0.1	4.4				
Intersection Summary												
HCM 6th Ctrl Delay			20.2									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	654	109	561	1002		
Future Volume (vph)	654	109	561	1002		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	41.0	31.0	31.0	40.0	40.0	10.0
Total Split (%)	50.6%	38.3%	38.3%	49.4%	49%	12%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lead	Lead			Lag
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	34.4	24.4	24.4	37.6		
Actuated g/C Ratio	0.42	0.30	0.30	0.46		
v/c Ratio	0.57	0.96	0.56	0.82		
Control Delay	36.1	88.2	13.7	17.4		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	36.1	88.2	13.7	17.4		
LOS	D	F	B	B		
Approach Delay	36.1		25.8	17.4		
Approach LOS	D		C	B		

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 55 (68%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





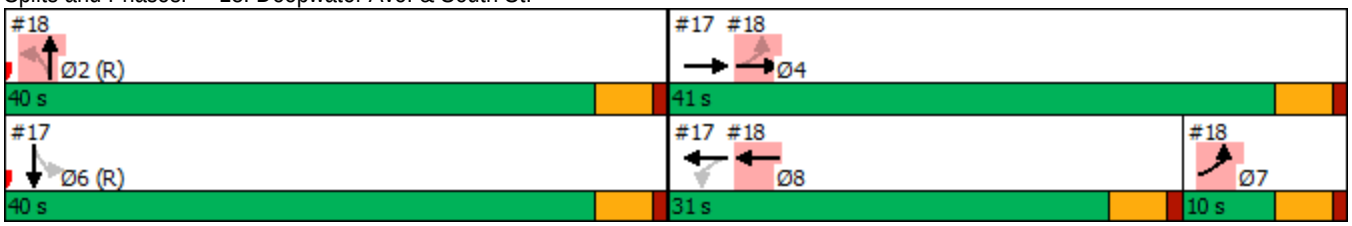
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	654	137	109	561	0	0	0	0	24	1002	263
Future Volume (vph)	0	654	137	109	561	0	0	0	0	24	1002	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.97		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3269		1736	3355						3362	
Flt Permitted		1.00		0.21	1.00						1.00	
Satd. Flow (perm)		3269		386	3355						3362	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	661	138	110	567	0	0	0	0	24	1012	266
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	777	0	110	567	0	0	0	0	0	1275	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		34.5		24.4	24.4						37.5	
Effective Green, g (s)		34.5		24.4	24.4						37.5	
Actuated g/C Ratio		0.43		0.30	0.30						0.46	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1392		116	1010						1556	
v/s Ratio Prot		c0.24			0.17							
v/s Ratio Perm				c0.29							0.38	
v/c Ratio		0.56		0.95	0.56						0.82	
Uniform Delay, d1		17.5		27.7	23.8						18.8	
Progression Factor		2.10		0.46	0.50						0.86	
Incremental Delay, d2		0.4		61.7	0.6						0.5	
Delay (s)		37.2		74.5	12.5						16.6	
Level of Service		D		E	B						B	
Approach Delay (s)		37.2			22.5			0.0			16.6	
Approach LOS		D			C			A			B	

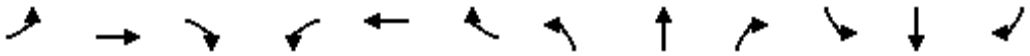
Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	225	460	498	640	
Future Volume (vph)	225	460	498	640	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	41.0	31.0	40.0	40.0
Total Split (%)	12.3%	50.6%	38.3%	49.4%	49%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	34.4	34.4	24.4	37.6	
Actuated g/C Ratio	0.42	0.42	0.30	0.46	
v/c Ratio	0.73	0.35	0.58	0.43	
Control Delay	21.0	2.2	25.7	15.5	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	21.0	2.2	25.7	15.5	
LOS	C	A	C	B	
Approach Delay		8.4	25.7	15.5	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 55 (68%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





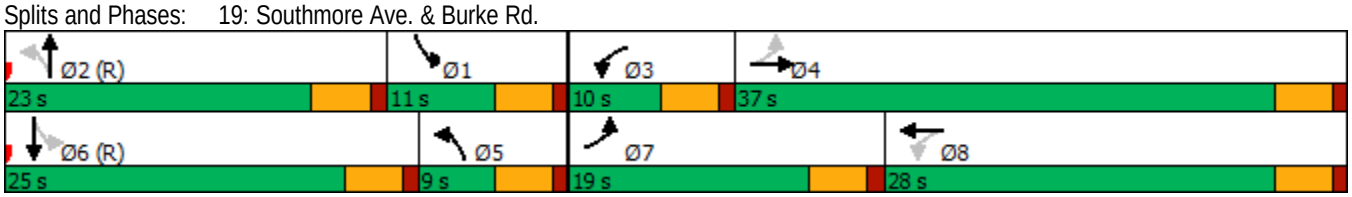
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	460	0	0	498	38	168	640	61	0	0	0
Future Volume (vph)	225	460	0	0	498	38	168	640	61	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.99				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3205			4562				
Flt Permitted	0.34	1.00			1.00			0.99				
Satd. Flow (perm)	583	3240			3205			4562				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	234	479	0	0	519	40	175	667	64	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	10	0	0	0	0
Lane Group Flow (vph)	234	479	0	0	552	0	0	896	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	34.5	34.5			24.4			37.5				
Effective Green, g (s)	34.5	34.5			24.4			37.5				
Actuated g/C Ratio	0.43	0.43			0.30			0.46				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	320	1380			965			2112				
v/s Ratio Prot	c0.05	0.15			0.17							
v/s Ratio Perm	c0.26							0.20				
v/c Ratio	0.73	0.35			0.57			0.42				
Uniform Delay, d1	24.8	15.7			23.9			14.5				
Progression Factor	0.33	0.10			1.00			1.00				
Incremental Delay, d2	7.3	0.1			0.8			0.6				
Delay (s)	15.4	1.8			24.7			15.2				
Level of Service	B	A			C			B				
Approach Delay (s)		6.3			24.7			15.2			0.0	
Approach LOS		A			C			B			A	

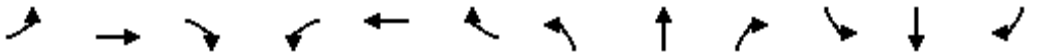
Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	211	611	81	538	66	234	136	277
Future Volume (vph)	211	611	81	538	66	234	136	277
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	19.0	37.0	10.0	28.0	9.0	23.0	11.0	25.0
Total Split (%)	23.5%	45.7%	12.3%	34.6%	11.1%	28.4%	13.6%	30.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	39.1	31.1	27.5	22.0	26.6	22.1	30.9	25.7
Actuated g/C Ratio	0.48	0.38	0.34	0.27	0.33	0.27	0.38	0.32
v/c Ratio	0.67	0.58	0.30	0.82	0.28	0.35	0.36	0.46
Control Delay	18.9	11.1	6.3	17.2	16.9	14.6	16.5	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	11.1	6.3	17.2	16.9	14.6	16.5	11.0
LOS	B	B	A	B	B	B	B	B
Approach Delay		13.0		16.1		15.0		12.2
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 26 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	611	67	81	538	163	66	234	66	136	277	215
Future Volume (veh/h)	211	611	67	81	538	163	66	234	66	136	277	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	224	650	71	86	572	173	70	249	70	145	295	229
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	327	1015	111	283	675	203	447	619	170	557	480	363
Arrive On Green	0.12	0.32	0.32	0.05	0.25	0.25	0.15	0.23	0.23	0.30	0.42	0.42
Sat Flow, veh/h	1753	3180	347	1753	2647	798	1753	2710	746	1753	1898	1433
Grp Volume(v), veh/h	224	357	364	86	377	368	70	159	160	145	271	253
Grp Sat Flow(s),veh/h/ln	1753	1749	1778	1753	1749	1697	1753	1749	1707	1753	1749	1583
Q Serve(g_s), s	7.2	14.2	14.2	2.9	16.6	16.7	0.0	6.2	6.5	0.0	9.8	10.2
Cycle Q Clear(g_c), s	7.2	14.2	14.2	2.9	16.6	16.7	0.0	6.2	6.5	0.0	9.8	10.2
Prop In Lane	1.00		0.20	1.00		0.47	1.00		0.44	1.00		0.91
Lane Grp Cap(c), veh/h	327	558	567	283	446	433	447	399	390	557	443	401
V/C Ratio(X)	0.69	0.64	0.64	0.30	0.85	0.85	0.16	0.40	0.41	0.26	0.61	0.63
Avail Cap(c_a), veh/h	437	702	714	312	507	492	447	399	390	557	443	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	0.43	0.43	0.43	0.81	0.81	0.81	1.00	1.00	1.00	0.55	0.55	0.55
Uniform Delay (d), s/veh	19.8	23.6	23.6	21.0	28.7	28.7	24.4	26.5	26.6	17.8	20.3	20.4
Incr Delay (d2), s/veh	1.2	0.6	0.6	0.5	9.5	10.0	0.2	2.9	3.2	0.1	3.5	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.6	5.7	1.2	7.7	7.6	1.1	2.8	2.9	1.7	3.7	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	24.2	24.2	21.5	38.2	38.7	24.5	29.5	29.8	17.9	23.8	24.5
LnGrp LOS	C	C	C	C	D	D	C	C	C	B	C	C
Approach Vol, veh/h		945			831			389			669	
Approach Delay, s/veh		23.4			36.7			28.7			22.8	
Approach LOS		C			D			C			C	

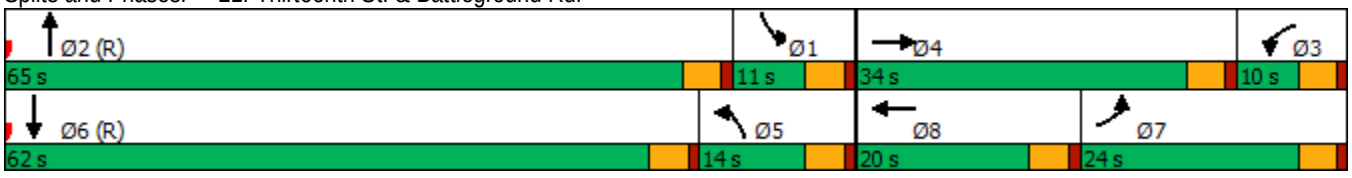
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	23.0	8.7	30.3	17.0	25.0	13.9	25.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	18.5	5.5	32.5	4.5	20.5	14.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	8.5	4.9	16.2	2.0	12.2	9.2	18.7
Green Ext Time (p_c), s	0.1	1.2	0.0	4.0	0.0	2.0	0.3	1.9

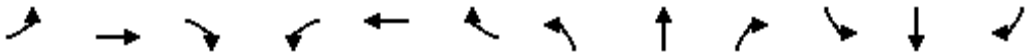
Intersection Summary	
HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	151	20	17	63	63	562	36	999
Future Volume (vph)	151	20	17	63	63	562	36	999
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	24.0	34.0	10.0	20.0	14.0	65.0	11.0	62.0
Total Split (%)	20.0%	28.3%	8.3%	16.7%	11.7%	54.2%	9.2%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.4	18.3	12.8	8.4	8.6	75.2	6.3	70.8
Actuated g/C Ratio	0.14	0.15	0.11	0.07	0.07	0.63	0.05	0.59
v/c Ratio	0.68	0.23	0.10	0.59	0.55	0.28	0.43	0.57
Control Delay	58.2	6.5	44.3	26.7	45.9	2.4	69.7	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	6.5	44.3	26.7	45.9	2.4	69.7	18.6
LOS	E	A	D	C	D	A	E	B
Approach Delay		35.4		28.1		6.7		20.2
Approach LOS		D		C		A		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 41 (34%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	20	99	17	63	123	63	562	5	36	999	81
Future Volume (veh/h)	151	20	99	17	63	123	63	562	5	36	999	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	162	22	106	18	68	132	68	604	5	39	1074	87
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	190	153	137	216	179	159	281	1792	15	237	1570	127
Arrive On Green	0.11	0.09	0.09	0.12	0.10	0.10	0.16	0.50	0.50	0.14	0.48	0.48
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3555	29	1753	3276	265
Grp Volume(v), veh/h	162	22	106	18	68	132	68	297	312	39	573	588
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1835	1753	1749	1793
Q Serve(g_s), s	10.9	1.4	8.0	1.1	4.4	10.0	4.1	12.2	12.2	2.4	30.5	30.5
Cycle Q Clear(g_c), s	10.9	1.4	8.0	1.1	4.4	10.0	4.1	12.2	12.2	2.4	30.5	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.15
Lane Grp Cap(c), veh/h	190	153	137	216	179	159	281	882	925	237	838	859
V/C Ratio(X)	0.85	0.14	0.77	0.08	0.38	0.83	0.24	0.34	0.34	0.16	0.68	0.68
Avail Cap(c_a), veh/h	285	430	383	216	226	201	281	882	925	237	838	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	50.6	53.6	46.6	50.3	52.8	44.0	17.8	17.8	45.9	24.2	24.2
Incr Delay (d2), s/veh	11.5	0.3	7.0	0.2	1.3	20.0	0.4	1.0	1.0	0.3	4.5	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.6	3.3	0.5	1.9	4.7	1.8	4.9	5.1	1.0	12.8	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	50.9	60.6	46.8	51.7	72.8	44.5	18.8	18.8	46.2	28.7	28.6
LnGrp LOS	E	D	E	D	D	E	D	B	B	D	C	C
Approach Vol, veh/h		290			218			677			1200	
Approach Delay, s/veh		61.8			64.1			21.4			29.2	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	65.0	19.3	15.0	23.7	62.0	17.5	16.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	60.5	5.5	29.5	9.5	57.5	19.5	15.5
Max Q Clear Time (g_c+I1), s	4.4	14.2	3.1	10.0	6.1	32.5	12.9	12.0
Green Ext Time (p_c), s	0.0	3.6	0.0	0.5	0.0	7.8	0.2	0.3

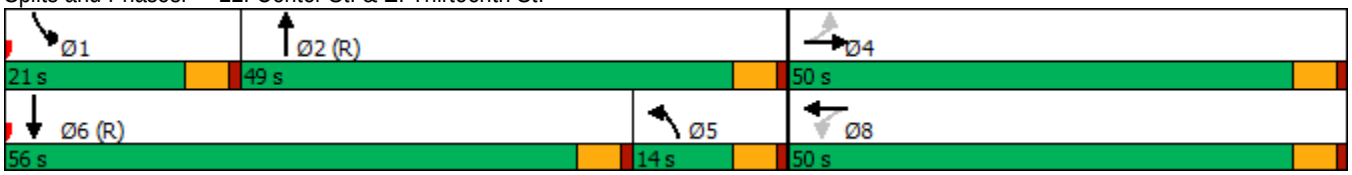
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

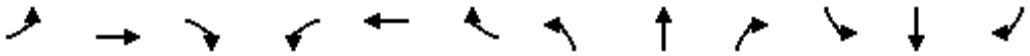
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	171	157	250	164	112	936	198	1008
Future Volume (vph)	171	157	250	164	112	936	198	1008
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	50.0	50.0	50.0	50.0	14.0	49.0	21.0	56.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	11.7%	40.8%	17.5%	46.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0		5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		45.0		45.0	9.0	44.0	16.0	51.0
Actuated g/C Ratio		0.38		0.38	0.08	0.37	0.13	0.42
v/c Ratio		1.07dl		1.24dl	1.09	1.08	1.09	1.10
Control Delay		55.2		98.4	87.0	54.1	132.9	88.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		55.2		98.4	87.0	54.1	132.9	88.4
LOS		E		F	F	D	F	F
Approach Delay		55.2		98.4		57.2		94.5
Approach LOS		E		F		E		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 57 (48%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 78.2	Intersection LOS: E
Intersection Capacity Utilization 98.7%	ICU Level of Service F
Analysis Period (min) 15	

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	157	187	250	164	229	112	936	138	198	1008	249
Future Volume (veh/h)	171	157	187	250	164	229	112	936	138	198	1008	249
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	216	199	237	316	208	290	142	1185	175	251	1276	315
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	128	234	350	202	229	350	131	1121	165	234	1186	288
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.08	0.37	0.37	0.13	0.43	0.43
Sat Flow, veh/h	197	623	932	386	610	934	1753	3059	450	1753	2790	677
Grp Volume(v), veh/h	269	0	383	346	0	468	142	675	685	251	792	799
Grp Sat Flow(s),veh/h/ln	245	0	1507	423	0	1507	1753	1749	1760	1753	1749	1719
Q Serve(g_s), s	11.2	0.0	25.6	19.4	0.0	33.8	9.0	44.0	44.0	16.0	51.0	51.0
Cycle Q Clear(g_c), s	45.0	0.0	25.6	45.0	0.0	33.8	9.0	44.0	44.0	16.0	51.0	51.0
Prop In Lane	0.80		0.62	0.91		0.62	1.00		0.26	1.00		0.39
Lane Grp Cap(c), veh/h	146	0	565	216	0	565	131	641	645	234	743	730
V/C Ratio(X)	1.84	0.00	0.68	1.60	0.00	0.83	1.08	1.05	1.06	1.07	1.07	1.09
Avail Cap(c_a), veh/h	146	0	565	216	0	565	131	641	645	234	743	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.76	0.00	0.76	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	0.0	31.4	52.9	0.0	34.0	55.5	38.0	38.0	52.0	34.5	34.5
Incr Delay (d2), s/veh	403.3	0.0	3.2	286.4	0.0	7.8	48.4	28.3	31.2	79.8	51.7	62.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.8	0.0	9.7	23.8	0.0	13.4	5.7	23.0	23.7	12.1	31.1	32.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	459.7	0.0	34.7	339.2	0.0	41.8	103.9	66.3	69.2	131.8	86.2	96.5
LnGrp LOS	F	A	C	F	A	D	F	F	F	F	F	F
Approach Vol, veh/h		652			814			1502			1842	
Approach Delay, s/veh		210.0			168.2			71.2			96.9	
Approach LOS		F			F			E			F	

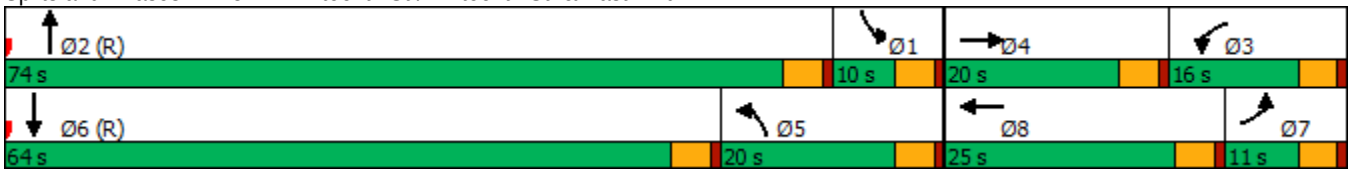
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.0	49.0		50.0	14.0	56.0		50.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	16.0	44.0		45.0	9.0	51.0		45.0				
Max Q Clear Time (g_c+I1), s	18.0	46.0		47.0	11.0	53.0		47.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0				

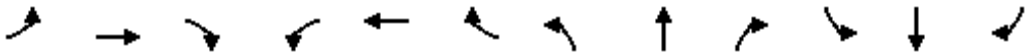
Intersection Summary			
HCM 6th Ctrl Delay		116.3	
HCM 6th LOS		F	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	37	96	79	119	113	207	19	1056
Future Volume (vph)	37	96	79	119	113	207	19	1056
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	20.0	16.0	25.0	20.0	74.0	10.0	64.0
Total Split (%)	9.2%	16.7%	13.3%	20.8%	16.7%	61.7%	8.3%	53.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.7	9.5	10.6	12.5	12.8	84.6	5.5	71.3
Actuated g/C Ratio	0.08	0.08	0.09	0.10	0.11	0.70	0.05	0.59
v/c Ratio	0.27	0.63	0.53	0.47	0.65	0.10	0.25	0.60
Control Delay	60.2	28.6	64.6	38.4	38.5	2.6	63.4	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	28.6	64.6	38.4	38.5	2.6	63.4	19.0
LOS	E	C	E	D	D	A	E	B
Approach Delay		32.9		46.2		14.6		19.7
Approach LOS		C		D		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	96	138	79	119	65	113	207	17	19	1056	135
Future Volume (veh/h)	37	96	138	79	119	65	113	207	17	19	1056	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	38	99	142	81	123	67	116	213	18	20	1089	139
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	153	190	170	103	179	92	328	1892	159	182	1547	197
Arrive On Green	0.09	0.11	0.11	0.06	0.08	0.08	0.19	0.58	0.58	0.10	0.50	0.50
Sat Flow, veh/h	1753	1749	1560	1753	2235	1148	1753	3266	274	1753	3120	398
Grp Volume(v), veh/h	38	99	142	81	95	95	116	113	118	20	610	618
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1634	1753	1749	1791	1753	1749	1769
Q Serve(g_s), s	2.4	6.4	10.7	5.5	6.3	6.8	6.9	3.5	3.6	1.2	32.4	32.5
Cycle Q Clear(g_c), s	2.4	6.4	10.7	5.5	6.3	6.8	6.9	3.5	3.6	1.2	32.4	32.5
Prop In Lane	1.00		1.00	1.00		0.70	1.00		0.15	1.00		0.22
Lane Grp Cap(c), veh/h	153	190	170	103	140	131	328	1013	1038	182	867	877
V/C Ratio(X)	0.25	0.52	0.84	0.79	0.68	0.73	0.35	0.11	0.11	0.11	0.70	0.70
Avail Cap(c_a), veh/h	153	226	201	168	299	279	328	1013	1038	182	867	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	50.5	52.4	55.8	53.7	53.9	42.5	11.4	11.4	48.8	23.4	23.4
Incr Delay (d2), s/veh	0.6	1.7	17.8	10.2	4.5	6.1	0.6	0.2	0.2	0.3	4.7	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.9	5.0	2.7	3.0	3.0	3.0	1.4	1.4	0.6	13.7	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	52.2	70.3	65.9	58.2	60.0	43.1	11.6	11.6	49.0	28.2	28.2
LnGrp LOS	D	D	E	E	E	E	D	B	B	D	C	C
Approach Vol, veh/h		279			271			347			1248	
Approach Delay, s/veh		61.3			61.1			22.1			28.5	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	74.0	11.5	17.6	26.9	64.0	15.0	14.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	69.5	11.5	15.5	15.5	59.5	6.5	20.5
Max Q Clear Time (g_c+I1), s	3.2	5.6	7.5	12.7	8.9	34.5	4.4	8.8
Green Ext Time (p_c), s	0.0	1.3	0.1	0.3	0.1	8.8	0.0	0.7

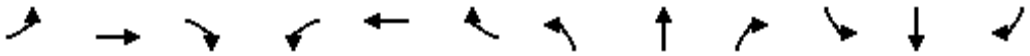
Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	163	63	203	81	104	63	234
Future Volume (vph)	29	163	63	203	81	104	63	234
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	45.0	45.0	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.2	18.2	18.2	18.2		92.8		92.8
Actuated g/C Ratio	0.15	0.15	0.15	0.15		0.77		0.77
v/c Ratio	0.36	0.61	1.05	0.61		0.28		0.31
Control Delay	45.9	24.4	155.6	35.7		2.8		5.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	45.9	24.4	155.6	35.7		2.8		5.5
LOS	D	C	F	D		A		A
Approach Delay		26.2		58.7		2.8		5.5
Approach LOS		C		E		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 104 (87%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 25.1	Intersection LOS: C
Intersection Capacity Utilization 51.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	163	157	63	203	63	81	104	53	63	234	15
Future Volume (veh/h)	29	163	157	63	203	63	81	104	53	63	234	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	36	201	194	78	251	78	100	128	65	78	289	19
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	203	388	346	168	586	178	368	464	226	247	895	57
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1034	1749	1560	974	2642	802	466	660	321	300	1273	81
Grp Volume(v), veh/h	36	201	194	78	164	165	293	0	0	386	0	0
Grp Sat Flow(s),veh/h/ln	1034	1749	1560	974	1749	1696	1447	0	0	1655	0	0
Q Serve(g_s), s	3.7	12.1	13.3	9.3	9.7	10.1	0.0	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	13.8	12.1	13.3	22.5	9.7	10.1	7.6	0.0	0.0	9.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.47	0.34		0.22	0.20		0.05
Lane Grp Cap(c), veh/h	203	388	346	168	388	376	1058	0	0	1199	0	0
V/C Ratio(X)	0.18	0.52	0.56	0.46	0.42	0.44	0.28	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	322	590	526	281	590	572	1058	0	0	1199	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.12	0.12	0.12	0.83	0.83	0.83	0.71	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.2	41.0	41.5	51.5	40.1	40.2	6.4	0.0	0.0	6.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	1.6	0.6	0.7	0.5	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.2	5.1	2.3	4.2	4.3	2.6	0.0	0.0	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	41.2	41.7	53.1	40.7	40.9	6.8	0.0	0.0	7.4	0.0	0.0
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		431			407			293			386	
Approach Delay, s/veh		41.8			43.2			6.8			7.4	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		88.9		31.1		88.9		31.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		70.5		40.5		70.5		40.5				
Max Q Clear Time (g_c+I1), s		9.6		15.8		11.8		24.5				
Green Ext Time (p_c), s		2.3		2.7		2.8		2.1				

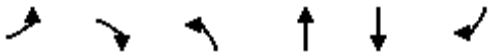
Intersection Summary												
HCM 6th Ctrl Delay			26.7									
HCM 6th LOS			C									

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	31	100	300	800
Future Volume (vph)	1	31	100	300	800
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	4			2	6
Permitted Phases		4	2		
Detector Phase	4	4	2	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	23.0	58.0	58.0	58.0
Total Split (%)	28.4%	28.4%	71.6%	71.6%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	6.2	6.2		71.6	71.6
Actuated g/C Ratio	0.08	0.08		0.88	0.88
v/c Ratio	0.01	0.23		0.22	0.29
Control Delay	41.0	17.4		1.7	0.4
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	41.0	17.4		1.7	0.4
LOS	D	B		A	A
Approach Delay	18.1			1.7	0.4
Approach LOS	B			A	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 68 (84%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 1.3	Intersection LOS: A
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	31	100	300	800	11
Future Volume (veh/h)	1	31	100	300	800	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	34	109	326	870	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	59	52	491	1630	3021	42
Arrive On Green	0.03	0.03	0.86	0.86	0.86	0.86
Sat Flow, veh/h	1753	1560	490	1990	3624	49
Grp Volume(v), veh/h	1	34	172	263	431	451
Grp Sat Flow(s),veh/h/ln	1753	1560	804	1591	1749	1832
Q Serve(g_s), s	0.0	1.7	0.8	2.3	3.8	3.8
Cycle Q Clear(g_c), s	0.0	1.7	4.7	2.3	3.8	3.8
Prop In Lane	1.00	1.00	0.63			0.03
Lane Grp Cap(c), veh/h	59	52	761	1361	1496	1567
V/C Ratio(X)	0.02	0.65	0.23	0.19	0.29	0.29
Avail Cap(c_a), veh/h	400	356	761	1361	1496	1567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.66	0.66	1.00	1.00
Uniform Delay (d), s/veh	37.8	38.7	1.0	1.0	1.1	1.1
Incr Delay (d2), s/veh	0.0	1.2	0.5	0.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.2	0.2	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.9	39.9	1.5	1.2	1.6	1.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	35			435	882	
Approach Delay, s/veh	39.8			1.3	1.6	
Approach LOS	D			A	A	

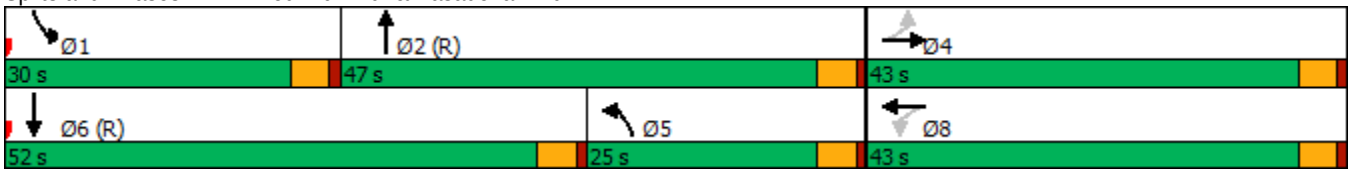
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		73.8		7.2		73.8
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		53.5		18.5		53.5
Max Q Clear Time (g_c+I1), s		6.7		3.7		5.8
Green Ext Time (p_c), s		3.9		0.0		6.9

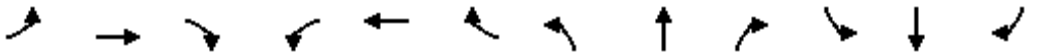
Intersection Summary	
HCM 6th Ctrl Delay	2.5
HCM 6th LOS	A

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	528	8	587	223	908	283	1147
Future Volume (vph)	1	528	8	587	223	908	283	1147
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	43.0	43.0	43.0	43.0	25.0	47.0	30.0	52.0
Total Split (%)	35.8%	35.8%	35.8%	35.8%	20.8%	39.2%	25.0%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		37.0		37.0	20.5	45.8	23.7	49.0
Actuated g/C Ratio		0.31		0.31	0.17	0.38	0.20	0.41
v/c Ratio		0.88		0.94	0.83	0.79	0.88	0.86
Control Delay		46.1		36.0	28.5	12.7	72.8	40.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		46.1		36.0	28.5	12.7	72.8	40.6
LOS		D		D	C	B	E	D
Approach Delay		46.1		36.0		15.7		46.9
Approach LOS		D		D		B		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 13 (11%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 36.1	Intersection LOS: D
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	528	300	8	587	220	223	908	34	283	1147	3
Future Volume (veh/h)	1	528	300	8	587	220	223	908	34	283	1147	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	562	319	9	624	234	237	966	0	301	1220	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	30	671	380	33	692	286	303	1333		329	1384	
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.17	0.38	0.00	0.19	0.40	0.00
Sat Flow, veh/h	0	2107	1193	7	2170	898	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	491	0	391	473	0	394	237	966	0	301	1220	0
Grp Sat Flow(s),veh/h/ln	1840	0	1460	1562	0	1513	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	0.0	29.8	6.1	0.0	28.8	15.5	28.3	0.0	20.2	38.8	0.0
Cycle Q Clear(g_c), s	29.8	0.0	29.8	35.9	0.0	28.8	15.5	28.3	0.0	20.2	38.8	0.0
Prop In Lane	0.00		0.82	0.02		0.59	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	616	0	465	528	0	482	303	1333		329	1384	
V/C Ratio(X)	0.80	0.00	0.84	0.89	0.00	0.82	0.78	0.72		0.92	0.88	
Avail Cap(c_a), veh/h	620	0	469	532	0	486	303	1333		373	1384	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.0	0.0	38.0	38.4	0.0	37.7	47.5	31.7	0.0	47.8	33.6	0.0
Incr Delay (d2), s/veh	7.2	0.0	12.7	17.4	0.0	10.5	12.4	3.5	0.0	25.0	8.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	0.0	12.0	14.9	0.0	11.7	7.8	12.5	0.0	11.1	17.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	0.0	50.7	55.8	0.0	48.1	59.8	35.2	0.0	72.8	42.0	0.0
LnGrp LOS	D	A	D	E	A	D	E	D		E	D	
Approach Vol, veh/h		882			867			1203	A		1521	A
Approach Delay, s/veh		47.6			52.3			40.1			48.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	50.2		42.7	25.3	52.0		42.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	25.5	42.5		38.5	20.5	47.5		38.5				
Max Q Clear Time (g_c+I1), s	22.2	30.3		31.8	17.5	40.8		37.9				
Green Ext Time (p_c), s	0.3	5.4		2.9	0.2	4.3		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		46.6
HCM 6th LOS		D

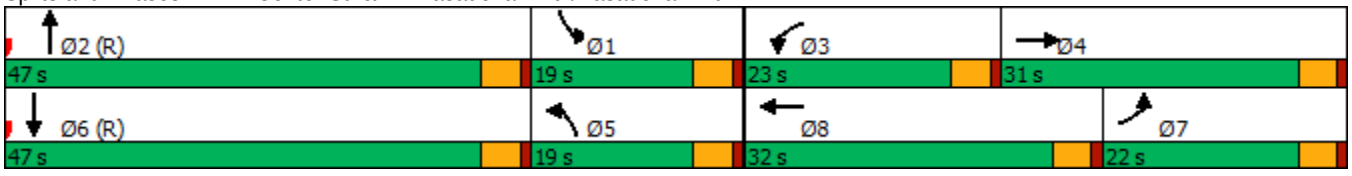
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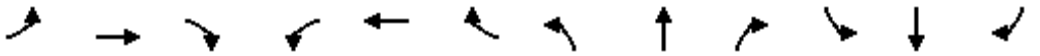
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	236	560	363	612	274	1150	273	1234
Future Volume (vph)	236	560	363	612	274	1150	273	1234
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	22.0	31.0	23.0	32.0	19.0	47.0	19.0	47.0
Total Split (%)	18.3%	25.8%	19.2%	26.7%	15.8%	39.2%	15.8%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.5	26.5	18.5	27.5	14.5	42.5	14.5	42.5
Actuated g/C Ratio	0.15	0.22	0.15	0.23	0.12	0.35	0.12	0.35
v/c Ratio	1.01	1.29	1.42	1.04	1.41	1.27	1.36	1.13
Control Delay	103.8	170.8	220.9	55.2	225.5	157.3	195.4	89.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.8	170.8	220.9	55.2	225.5	157.3	195.4	89.7
LOS	F	F	F	E	F	F	F	F
Approach Delay		158.4		107.5		168.2		107.8
Approach LOS		F		F		F		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 73 (61%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.42	
Intersection Signal Delay: 137.0	Intersection LOS: F
Intersection Capacity Utilization 127.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	560	489	363	612	175	274	1150	281	273	1234	88
Future Volume (veh/h)	236	560	489	363	612	175	274	1150	281	273	1234	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	246	583	509	378	638	182	285	1198	293	284	1285	92
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	256	391	340	270	616	175	212	989	239	212	1172	84
Arrive On Green	0.15	0.22	0.22	0.15	0.23	0.23	0.12	0.35	0.35	0.12	0.35	0.35
Sat Flow, veh/h	1753	1770	1542	1753	2686	765	1753	2793	675	1753	3310	237
Grp Volume(v), veh/h	246	576	516	378	415	405	285	745	746	284	678	699
Grp Sat Flow(s),veh/h/ln	1753	1749	1563	1753	1749	1703	1753	1749	1719	1753	1749	1798
Q Serve(g_s), s	16.7	26.5	26.5	18.5	27.5	27.5	14.5	42.5	42.5	14.5	42.5	42.5
Cycle Q Clear(g_c), s	16.7	26.5	26.5	18.5	27.5	27.5	14.5	42.5	42.5	14.5	42.5	42.5
Prop In Lane	1.00		0.99	1.00		0.45	1.00		0.39	1.00		0.13
Lane Grp Cap(c), veh/h	256	386	345	270	401	390	212	619	609	212	619	637
V/C Ratio(X)	0.96	1.49	1.49	1.40	1.04	1.04	1.35	1.20	1.23	1.34	1.09	1.10
Avail Cap(c_a), veh/h	256	386	345	270	401	390	212	619	609	212	619	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.22	0.22	0.22	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	50.9	46.8	46.8	50.8	46.3	46.3	52.8	38.7	38.8	52.8	38.7	38.8
Incr Delay (d2), s/veh	45.7	234.5	237.5	184.4	31.0	31.8	158.4	92.7	102.9	156.3	45.1	46.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	36.4	32.8	21.8	15.1	14.8	15.6	33.4	34.6	15.5	25.4	26.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.6	281.3	284.2	235.1	77.2	78.1	211.1	131.4	141.7	209.0	83.9	85.7
LnGrp LOS	F	F	F	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h		1338			1198			1776			1661	
Approach Delay, s/veh		248.5			127.3			148.5			106.0	
Approach LOS		F			F			F			F	

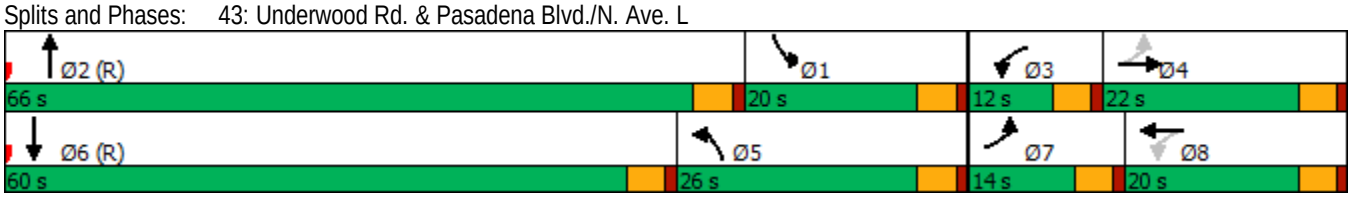
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	47.0	23.0	31.0	19.0	47.0	22.0	32.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	42.5	18.5	26.5	14.5	42.5	17.5	27.5
Max Q Clear Time (g_c+I1), s	16.5	44.5	20.5	28.5	16.5	44.5	18.7	29.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

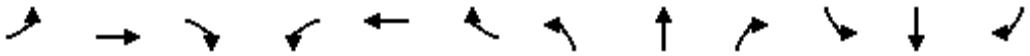
Intersection Summary	
HCM 6th Ctrl Delay	154.8
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	147	268	126	320	246	533	110	964
Future Volume (vph)	147	268	126	320	246	533	110	964
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	22.0	12.0	20.0	26.0	66.0	20.0	60.0
Total Split (%)	11.7%	18.3%	10.0%	16.7%	21.7%	55.0%	16.7%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	27.3	17.5	23.8	15.8	20.9	61.6	14.9	55.6
Actuated g/C Ratio	0.23	0.15	0.20	0.13	0.17	0.51	0.12	0.46
v/c Ratio	0.82	0.95	0.81	0.92	0.91	0.39	0.58	0.88
Control Delay	34.0	31.1	70.6	74.9	54.9	35.8	47.3	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	31.1	70.6	74.9	54.9	35.8	47.3	27.0
LOS	C	C	E	E	D	D	D	C
Approach Delay		31.8		73.8		41.3		28.7
Approach LOS		C		E		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 61 (51%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 39.2	Intersection LOS: D
Intersection Capacity Utilization 91.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	268	244	126	320	52	246	533	74	110	964	268
Future Volume (veh/h)	147	268	244	126	320	52	246	533	74	110	964	268
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	165	301	274	142	360	58	276	599	83	124	1083	301
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	208	256	227	170	390	62	314	1582	219	226	1253	345
Arrive On Green	0.08	0.15	0.15	0.06	0.13	0.13	0.18	0.51	0.51	0.13	0.46	0.46
Sat Flow, veh/h	1753	1754	1556	1753	3020	482	1753	3086	427	1753	2709	746
Grp Volume(v), veh/h	165	300	275	142	207	211	276	339	343	124	696	688
Grp Sat Flow(s),veh/h/ln	1753	1749	1561	1753	1749	1754	1753	1749	1764	1753	1749	1706
Q Serve(g_s), s	9.5	17.5	17.5	7.5	14.0	14.3	18.4	14.1	14.1	8.0	42.6	43.6
Cycle Q Clear(g_c), s	9.5	17.5	17.5	7.5	14.0	14.3	18.4	14.1	14.1	8.0	42.6	43.6
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.24	1.00		0.44
Lane Grp Cap(c), veh/h	208	255	228	170	226	227	314	896	904	226	809	789
V/C Ratio(X)	0.79	1.18	1.21	0.84	0.92	0.93	0.88	0.38	0.38	0.55	0.86	0.87
Avail Cap(c_a), veh/h	208	255	228	170	226	227	314	896	904	226	809	789
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.96	0.96	0.96	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	51.3	51.3	45.1	51.6	51.7	48.0	17.7	17.7	49.0	28.8	29.0
Incr Delay (d2), s/veh	1.9	83.6	97.4	28.2	36.9	40.1	2.9	0.1	0.1	2.8	11.6	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	13.5	12.9	4.9	8.3	8.6	8.0	5.3	5.3	3.6	19.2	19.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	134.9	148.7	73.4	88.5	91.8	50.9	17.8	17.8	51.7	40.4	41.8
LnGrp LOS	D	F	F	E	F	F	D	B	B	D	D	D
Approach Vol, veh/h		740			560			958			1508	
Approach Delay, s/veh		119.9			85.9			27.3			41.9	
Approach LOS		F			F			C			D	

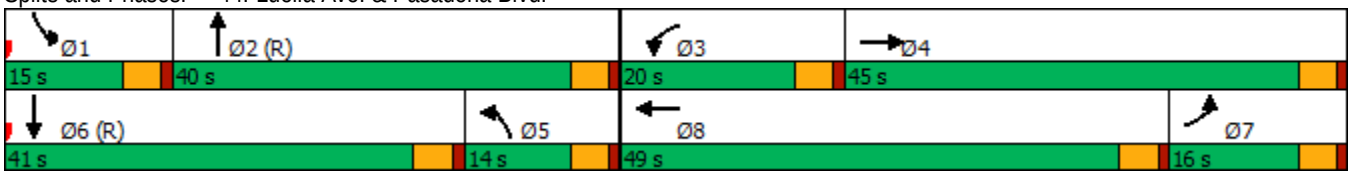
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	66.0	12.0	22.0	26.0	60.0	14.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	61.5	7.5	17.5	21.5	55.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	10.0	16.1	9.5	19.5	20.4	45.6	11.5	16.3
Green Ext Time (p_c), s	0.1	4.0	0.0	0.0	0.1	5.9	0.0	0.0

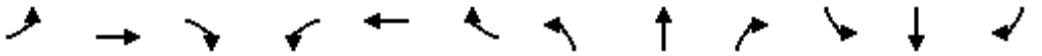
Intersection Summary	
HCM 6th Ctrl Delay	60.1
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	131	776	180	976	96	190	61	259
Future Volume (vph)	131	776	180	976	96	190	61	259
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	16.0	45.0	20.0	49.0	14.0	40.0	15.0	41.0
Total Split (%)	13.3%	37.5%	16.7%	40.8%	11.7%	33.3%	12.5%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.6	40.6	15.4	44.4	9.5	39.0	9.2	36.6
Actuated g/C Ratio	0.10	0.34	0.13	0.37	0.08	0.32	0.08	0.30
v/c Ratio	0.88	0.91	0.91	0.96	0.79	0.55	0.52	0.88
Control Delay	52.5	30.2	53.0	33.9	58.0	25.2	65.3	62.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	30.2	53.0	33.9	58.0	25.2	65.3	62.4
LOS	D	C	D	C	E	C	E	E
Approach Delay		32.9		36.6		33.5		62.7
Approach LOS		C		D		C		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 8 (7%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 39.0	Intersection LOS: D
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	776	157	180	976	108	96	190	95	61	259	165
Future Volume (veh/h)	131	776	157	180	976	108	96	190	95	61	259	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	147	872	176	202	1097	121	108	213	107	69	291	185
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	168	961	194	226	1159	128	149	392	197	88	320	203
Arrive On Green	0.10	0.33	0.33	0.13	0.36	0.36	0.09	0.34	0.34	0.05	0.30	0.30
Sat Flow, veh/h	1753	2899	585	1753	3176	350	1753	1156	581	1753	1052	669
Grp Volume(v), veh/h	147	526	522	202	603	615	108	0	320	69	0	476
Grp Sat Flow(s),veh/h/ln	1753	1749	1735	1753	1749	1778	1753	0	1736	1753	0	1720
Q Serve(g_s), s	9.9	34.5	34.5	13.6	40.1	40.3	7.2	0.0	17.9	4.7	0.0	31.9
Cycle Q Clear(g_c), s	9.9	34.5	34.5	13.6	40.1	40.3	7.2	0.0	17.9	4.7	0.0	31.9
Prop In Lane	1.00		0.34	1.00		0.20	1.00		0.33	1.00		0.39
Lane Grp Cap(c), veh/h	168	580	575	226	638	649	149	0	589	88	0	523
V/C Ratio(X)	0.87	0.91	0.91	0.89	0.95	0.95	0.72	0.00	0.54	0.78	0.00	0.91
Avail Cap(c_a), veh/h	168	590	586	226	648	659	149	0	589	153	0	523
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.09	0.09	0.28	0.00	0.28	0.90	0.00	0.90
Uniform Delay (d), s/veh	53.5	38.3	38.3	51.4	36.9	37.0	53.5	0.0	32.1	56.3	0.0	40.2
Incr Delay (d2), s/veh	5.0	2.1	2.2	4.5	3.4	3.5	4.8	0.0	1.0	12.7	0.0	20.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	14.6	14.5	6.1	17.1	17.4	3.4	0.0	7.7	2.3	0.0	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	40.5	40.5	55.9	40.4	40.5	58.4	0.0	33.2	69.0	0.0	60.8
LnGrp LOS	E	D	D	E	D	D	E	A	C	E	A	E
Approach Vol, veh/h		1195			1420			428			545	
Approach Delay, s/veh		42.7			42.6			39.5			61.9	
Approach LOS		D			D			D			E	

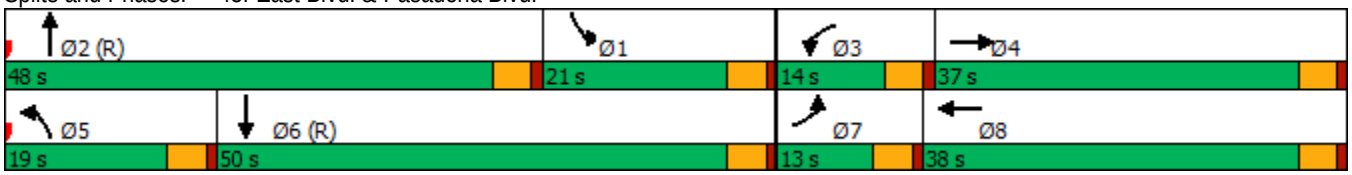
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	45.2	20.0	44.3	14.7	41.0	16.0	48.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	35.5	15.5	40.5	9.5	36.5	11.5	44.5
Max Q Clear Time (g_c+I1), s	6.7	19.9	15.6	36.5	9.2	33.9	11.9	42.3
Green Ext Time (p_c), s	0.0	1.7	0.0	2.3	0.0	0.7	0.0	1.5

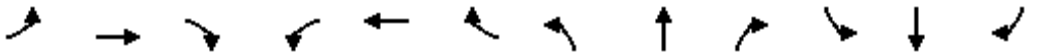
Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	145	361	178	564	295	843	188	1317
Future Volume (vph)	145	361	178	564	295	843	188	1317
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	9.5	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	37.0	14.0	38.0	19.0	48.0	21.0	50.0
Total Split (%)	10.8%	30.8%	11.7%	31.7%	15.8%	40.0%	17.5%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.5	32.5	9.5	33.5	14.5	43.5	16.5	45.5
Actuated g/C Ratio	0.07	0.27	0.08	0.28	0.12	0.36	0.14	0.38
v/c Ratio	1.26	1.38	1.38	1.47	1.50	0.84	0.84	1.36
Control Delay	180.6	206.9	228.8	241.4	269.3	25.6	69.8	192.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	180.6	206.9	228.8	241.4	269.3	25.6	69.8	192.7
LOS	F	F	F	F	F	C	E	F
Approach Delay		202.0		238.9		81.9		180.2
Approach LOS		F		F		F		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 112 (93%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.50	
Intersection Signal Delay: 168.1	Intersection LOS: F
Intersection Capacity Utilization 129.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	361	268	178	564	130	295	843	140	188	1317	336
Future Volume (veh/h)	145	361	268	178	564	130	295	843	140	188	1317	336
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	154	384	285	189	600	138	314	897	149	200	1401	357
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	124	266	197	139	404	93	212	1088	181	241	1053	261
Arrive On Green	0.07	0.27	0.27	0.08	0.28	0.28	0.12	0.36	0.36	0.14	0.38	0.38
Sat Flow, veh/h	1753	981	728	1753	1448	333	1753	3001	498	1753	2777	688
Grp Volume(v), veh/h	154	0	669	189	0	738	314	523	523	200	867	891
Grp Sat Flow(s),veh/h/ln	1753	0	1710	1753	0	1781	1753	1749	1751	1753	1749	1717
Q Serve(g_s), s	8.5	0.0	32.5	9.5	0.0	33.5	14.5	32.6	32.6	13.3	45.5	45.5
Cycle Q Clear(g_c), s	8.5	0.0	32.5	9.5	0.0	33.5	14.5	32.6	32.6	13.3	45.5	45.5
Prop In Lane	1.00		0.43	1.00		0.19	1.00		0.28	1.00		0.40
Lane Grp Cap(c), veh/h	124	0	463	139	0	497	212	634	635	241	663	651
V/C Ratio(X)	1.24	0.00	1.44	1.36	0.00	1.48	1.48	0.82	0.82	0.83	1.31	1.37
Avail Cap(c_a), veh/h	124	0	463	139	0	497	212	634	635	241	663	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.00	0.35	0.28	0.00	0.28	0.15	0.15	0.15	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	0.0	43.8	55.2	0.0	43.3	52.8	34.8	34.8	50.4	37.3	37.3
Incr Delay (d2), s/veh	129.9	0.0	204.5	175.5	0.0	221.1	220.9	2.0	2.0	20.9	149.4	175.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	0.0	39.5	10.9	0.0	44.6	19.1	13.4	13.4	7.0	45.6	49.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	185.6	0.0	248.3	230.8	0.0	264.3	273.6	36.7	36.7	71.3	186.6	212.6
LnGrp LOS	F	A	F	F	A	F	F	D	D	E	F	F
Approach Vol, veh/h		823			927			1360			1958	
Approach Delay, s/veh		236.5			257.5			91.4			186.7	
Approach LOS		F			F			F			F	

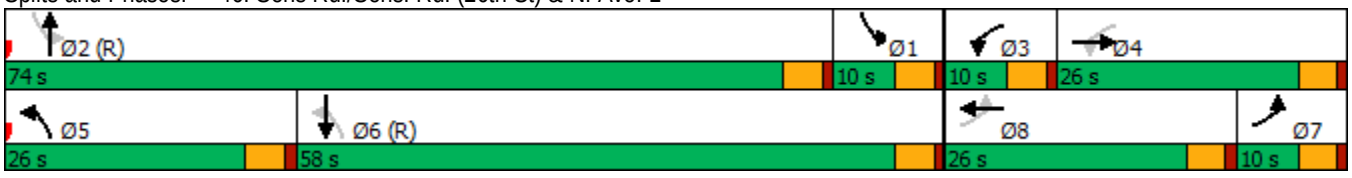
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	48.0	14.0	37.0	19.0	50.0	13.0	38.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	43.5	9.5	32.5	14.5	45.5	8.5	33.5
Max Q Clear Time (g_c+I1), s	15.3	34.6	11.5	34.5	16.5	47.5	10.5	35.5
Green Ext Time (p_c), s	0.1	4.0	0.0	0.0	0.0	0.0	0.0	0.0

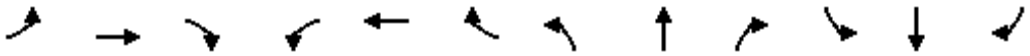
Intersection Summary	
HCM 6th Ctrl Delay	182.2
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	5	9	1	159	606	6	546
Future Volume (vph)	53	5	9	1	159	606	6	546
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	26.0	10.0	26.0	26.0	74.0	10.0	58.0
Total Split (%)	8.3%	21.7%	8.3%	21.7%	21.7%	61.7%	8.3%	48.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.8	10.5	11.6	6.0	94.0	96.5	97.6	85.6
Actuated g/C Ratio	0.09	0.09	0.10	0.05	0.78	0.80	0.81	0.71
v/c Ratio	0.39	0.53	0.09	0.14	0.34	0.26	0.01	0.32
Control Delay	43.2	11.8	45.3	29.9	5.5	5.5	3.5	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	11.8	45.3	29.9	5.5	5.5	3.5	7.6
LOS	D	B	D	C	A	A	A	A
Approach Delay		21.8		37.0		5.5		7.5
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55 (46%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 8.4	Intersection LOS: A
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	5	108	9	1	10	159	606	10	6	546	107
Future Volume (veh/h)	53	5	108	9	1	10	159	606	10	6	546	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	62	6	127	11	1	12	187	713	12	7	642	126
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	230	7	154	100	5	60	562	2038	34	677	2002	392
Arrive On Green	0.07	0.10	0.10	0.01	0.04	0.04	0.05	0.58	0.58	0.16	0.69	0.69
Sat Flow, veh/h	1753	71	1500	1753	121	1457	1753	3520	59	1753	2915	571
Grp Volume(v), veh/h	62	0	133	11	0	13	187	354	371	7	385	383
Grp Sat Flow(s),veh/h/ln	1753	0	1571	1753	0	1578	1753	1749	1830	1753	1749	1738
Q Serve(g_s), s	0.0	0.0	10.0	0.7	0.0	1.0	3.8	12.8	12.8	0.0	10.6	10.6
Cycle Q Clear(g_c), s	0.0	0.0	10.0	0.7	0.0	1.0	3.8	12.8	12.8	0.0	10.6	10.6
Prop In Lane	1.00		0.95	1.00		0.92	1.00		0.03	1.00		0.33
Lane Grp Cap(c), veh/h	230	0	162	100	0	65	562	1013	1060	677	1201	1193
V/C Ratio(X)	0.27	0.00	0.82	0.11	0.00	0.20	0.33	0.35	0.35	0.01	0.32	0.32
Avail Cap(c_a), veh/h	230	0	281	165	0	283	786	1013	1060	677	1201	1193
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.00	0.35	1.00	0.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	0.0	52.7	48.0	0.0	55.6	5.3	13.3	13.3	8.2	7.5	7.6
Incr Delay (d2), s/veh	0.2	0.0	3.7	0.5	0.0	1.5	0.3	0.8	0.8	0.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	4.0	0.3	0.0	0.4	1.2	5.0	5.2	0.1	3.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	0.0	56.5	48.5	0.0	57.1	5.6	14.2	14.1	8.2	8.3	8.3
LnGrp LOS	D	A	E	D	A	E	A	B	B	A	A	A
Approach Vol, veh/h		195			24			912			775	
Approach Delay, s/veh		54.6			53.1			12.4			8.3	
Approach LOS		D			D			B			A	

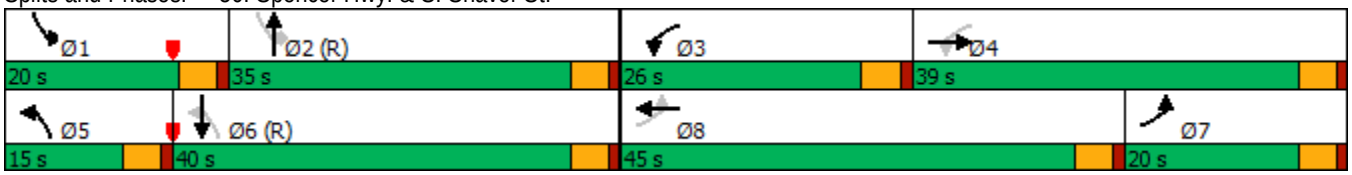
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.6	74.0	5.6	16.9	10.7	86.9	13.0	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	69.5	5.5	21.5	21.5	53.5	5.5	21.5
Max Q Clear Time (g_c+I1), s	2.0	14.8	2.7	12.0	5.8	12.6	2.0	3.0
Green Ext Time (p_c), s	0.0	4.7	0.0	0.4	0.4	5.2	0.0	0.0

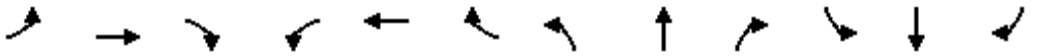
Intersection Summary	
HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	265	1253	356	1432	193	698	305	264	790
Future Volume (vph)	265	1253	356	1432	193	698	305	264	790
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	20.0	39.0	26.0	45.0	15.0	35.0	35.0	20.0	40.0
Total Split (%)	16.7%	32.5%	21.7%	37.5%	12.5%	29.2%	29.2%	16.7%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	56.0	34.5	56.0	40.5	46.0	30.5	30.5	46.0	35.5
Actuated g/C Ratio	0.47	0.29	0.47	0.34	0.38	0.25	0.25	0.38	0.30
v/c Ratio	0.98	1.06	1.01	1.03	0.96	0.86	0.61	0.98	1.04
Control Delay	95.7	85.8	64.0	50.4	81.8	54.4	22.7	81.5	79.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.7	85.8	64.0	50.4	81.8	54.4	22.7	81.5	79.6
LOS	F	F	E	D	F	D	C	F	E
Approach Delay		87.3		52.8		50.7			80.0
Approach LOS		F		D		D			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 115 (96%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 67.5	Intersection LOS: E
Intersection Capacity Utilization 107.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	1253	179	356	1432	206	193	698	305	264	790	212
Future Volume (veh/h)	265	1253	179	356	1432	206	193	698	305	264	790	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	279	1319	188	375	1507	217	203	735	321	278	832	223
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	286	1278	182	374	1498	215	213	889	396	316	807	216
Arrive On Green	0.26	0.57	0.57	0.06	0.11	0.11	0.09	0.25	0.25	0.13	0.30	0.30
Sat Flow, veh/h	1753	4444	633	1753	4438	638	1753	3497	1560	1753	2727	731
Grp Volume(v), veh/h	279	994	513	375	1137	587	203	735	321	278	533	522
Grp Sat Flow(s),veh/h/ln	1753	1675	1727	1753	1675	1726	1753	1749	1560	1753	1749	1709
Q Serve(g_s), s	14.8	34.5	34.5	21.5	40.5	40.5	9.7	23.8	23.2	13.9	35.5	35.5
Cycle Q Clear(g_c), s	14.8	34.5	34.5	21.5	40.5	40.5	9.7	23.8	23.2	13.9	35.5	35.5
Prop In Lane	1.00		0.37	1.00		0.37	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	286	963	496	374	1131	582	213	889	396	316	517	506
V/C Ratio(X)	0.97	1.03	1.03	1.00	1.01	1.01	0.95	0.83	0.81	0.88	1.03	1.03
Avail Cap(c_a), veh/h	286	963	496	374	1131	582	213	889	396	316	517	506
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.53	0.53	0.53	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	25.5	25.5	44.5	53.3	53.3	31.1	42.3	42.0	30.6	42.3	42.3
Incr Delay (d2), s/veh	41.9	35.4	45.9	34.5	20.8	29.0	47.8	8.7	16.2	23.7	47.8	48.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	13.2	15.1	11.5	21.4	23.4	6.9	11.3	10.5	7.9	22.0	21.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.5	60.9	71.4	78.9	74.2	82.4	78.9	51.0	58.3	54.3	90.0	90.6
LnGrp LOS	F	F	F	F	F	F	E	D	E	D	F	F
Approach Vol, veh/h		1786			2099			1259			1333	
Approach Delay, s/veh		67.6			77.3			57.3			82.8	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	35.0	26.0	39.0	15.0	40.0	20.0	45.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	30.5	21.5	34.5	10.5	35.5	15.5	40.5
Max Q Clear Time (g_c+I1), s	15.9	25.8	23.5	36.5	11.7	37.5	16.8	42.5
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0

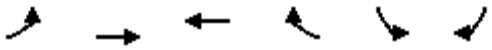
Intersection Summary	
HCM 6th Ctrl Delay	71.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	117	1676	1807	132	113
Future Volume (vph)	117	1676	1807	132	113
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	93.0	73.0	27.0	27.0
Total Split (%)	16.7%	77.5%	60.8%	22.5%	22.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	75.8	80.3	65.8	30.7	30.7
Actuated g/C Ratio	0.63	0.67	0.55	0.26	0.26
v/c Ratio	0.61	0.54	0.78	0.32	0.25
Control Delay	22.5	5.3	23.5	41.2	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	5.3	23.5	41.2	8.7
LOS	C	A	C	D	A
Approach Delay		6.5	23.5	26.2	
Approach LOS		A	C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





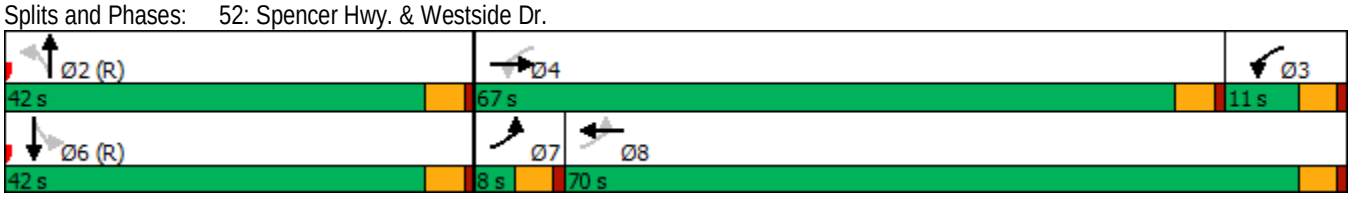
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	117	1676	1807	173	132	113
Future Volume (vph)	117	1676	1807	173	132	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4758		1678	1501
Flt Permitted	0.06	1.00	1.00		0.95	1.00
Satd. Flow (perm)	107	4821	4758		1678	1501
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	121	1728	1863	178	136	116
RTOR Reduction (vph)	0	0	10	0	0	86
Lane Group Flow (vph)	121	1728	2031	0	136	30
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	75.8	80.3	65.8		30.7	30.7
Effective Green, g (s)	75.8	80.3	65.8		30.7	30.7
Actuated g/C Ratio	0.63	0.67	0.55		0.26	0.26
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	198	3226	2608		429	384
v/s Ratio Prot	0.05	c0.36	c0.43			
v/s Ratio Perm	0.33				c0.08	0.02
v/c Ratio	0.61	0.54	0.78		0.32	0.08
Uniform Delay, d1	36.8	10.2	21.4		36.2	33.9
Progression Factor	0.37	0.48	1.00		1.00	1.00
Incremental Delay, d2	4.4	0.1	1.5		1.9	0.4
Delay (s)	18.0	5.1	22.9		38.1	34.3
Level of Service	B	A	C		D	C
Approach Delay (s)		5.9	22.9		36.3	
Approach LOS		A	C		D	

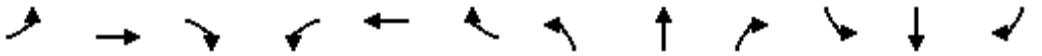
Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	1566	60	1788	36	77	119	51
Future Volume (vph)	23	1566	60	1788	36	77	119	51
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	67.0	11.0	70.0	42.0	42.0	42.0	42.0
Total Split (%)	6.7%	55.8%	9.2%	58.3%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	66.5	57.8	65.6	64.4		41.8		41.8
Actuated g/C Ratio	0.55	0.48	0.55	0.54		0.35		0.35
v/c Ratio	0.22	0.72	0.32	0.78		0.28		0.47
Control Delay	5.9	13.0	13.6	8.4		28.6		35.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	5.9	13.0	13.6	8.4		28.6		35.2
LOS	A	B	B	A		C		D
Approach Delay		12.9		8.6		28.6		35.2
Approach LOS		B		A		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 12.4	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1566	41	60	1788	163	36	77	42	119	51	28
Future Volume (veh/h)	23	1566	41	60	1788	163	36	77	42	119	51	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	1614	42	62	1843	168	37	79	43	123	53	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	128	2100	55	157	2040	185	181	378	193	408	172	88
Arrive On Green	0.01	0.28	0.28	0.07	0.87	0.87	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	5036	131	1753	4689	426	330	866	443	826	395	201
Grp Volume(v), veh/h	24	1074	582	62	1315	696	159	0	0	205	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1817	1753	1675	1764	1640	0	0	1423	0	0
Q Serve(g_s), s	0.9	35.3	35.3	0.0	28.4	29.2	0.0	0.0	0.0	4.1	0.0	0.0
Cycle Q Clear(g_c), s	0.9	35.3	35.3	0.0	28.4	29.2	6.7	0.0	0.0	10.8	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.24	0.23		0.27	0.60		0.14
Lane Grp Cap(c), veh/h	128	1397	758	157	1458	768	752	0	0	669	0	0
V/C Ratio(X)	0.19	0.77	0.77	0.40	0.90	0.91	0.21	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	151	1745	946	191	1829	963	752	0	0	669	0	0
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.14	0.14	0.14	0.58	0.58	0.58	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.4	37.9	37.9	49.6	6.2	6.3	21.0	0.0	0.0	22.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.2	0.4	0.9	3.4	6.5	0.6	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	14.9	16.3	1.8	3.3	4.2	2.9	0.0	0.0	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	38.2	38.4	50.6	9.6	12.8	21.6	0.0	0.0	23.2	0.0	0.0
LnGrp LOS	C	D	D	D	A	B	C	A	A	C	A	A
Approach Vol, veh/h		1680			2073			159			205	
Approach Delay, s/veh		38.0			11.9			21.6			23.2	
Approach LOS		D			B			C			C	

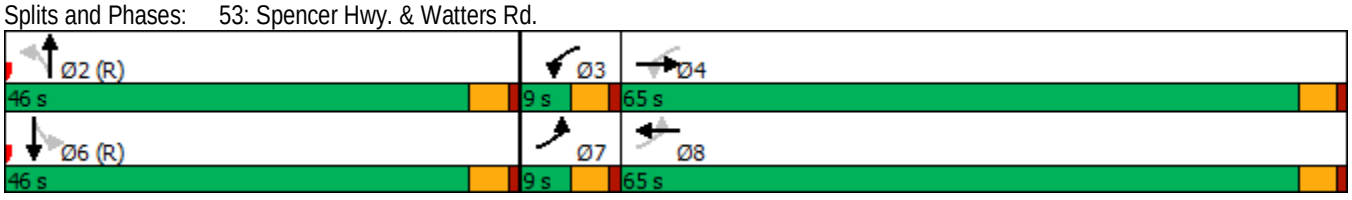
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		56.8	8.6	54.5		56.8	6.4	56.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		37.5	6.5	62.5		37.5	3.5	65.5				
Max Q Clear Time (g_c+I1), s		8.7	2.0	37.3		12.8	2.9	31.2				
Green Ext Time (p_c), s		0.9	0.0	12.7		1.2	0.0	21.1				

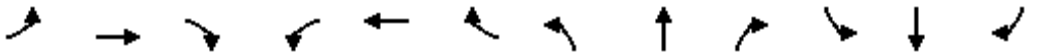
Intersection Summary												
HCM 6th Ctrl Delay			23.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	37	1981	57	1969	157	37	47	38
Future Volume (vph)	37	1981	57	1969	157	37	47	38
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	65.0	9.0	65.0	46.0	46.0	46.0	46.0
Total Split (%)	7.5%	54.2%	7.5%	54.2%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	65.0	60.5	64.1	62.3		43.3		43.3
Actuated g/C Ratio	0.54	0.50	0.53	0.52		0.36		0.36
v/c Ratio	0.31	0.90	0.48	0.82		0.67		0.32
Control Delay	17.7	32.8	24.7	27.7		39.2		23.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	17.7	32.8	24.7	27.7		39.2		23.1
LOS	B	C	C	C		D		C
Approach Delay		32.5		27.6		39.2		23.1
Approach LOS		C		C		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 77.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1981	168	57	1969	62	157	37	104	47	38	81
Future Volume (veh/h)	37	1981	168	57	1969	62	157	37	104	47	38	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	2064	175	59	2051	65	164	39	108	49	40	84
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	125	2316	195	125	2492	79	305	77	179	176	149	271
Arrive On Green	0.02	0.49	0.49	0.03	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1753	4722	397	1753	5004	158	703	209	485	374	405	736
Grp Volume(v), veh/h	39	1460	779	59	1372	744	311	0	0	173	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1769	1753	1675	1812	1397	0	0	1515	0	0
Q Serve(g_s), s	1.3	47.2	48.1	2.0	41.8	42.0	12.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	47.2	48.1	2.0	41.8	42.0	21.8	0.0	0.0	9.2	0.0	0.0
Prop In Lane	1.00		0.22	1.00		0.09	0.53		0.35	0.28		0.49
Lane Grp Cap(c), veh/h	125	1643	868	125	1669	903	560	0	0	596	0	0
V/C Ratio(X)	0.31	0.89	0.90	0.47	0.82	0.82	0.56	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	154	1689	892	141	1689	914	560	0	0	596	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.25	0.25	0.25	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.4	27.6	27.8	27.4	25.6	25.7	30.8	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.7	3.4	0.2	0.3	0.6	3.9	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	18.0	19.8	0.8	15.6	17.1	7.9	0.0	0.0	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	29.3	31.3	27.7	25.9	26.2	34.7	0.0	0.0	28.0	0.0	0.0
LnGrp LOS	C	C	C	C	C	C	C	A	A	C	A	A
Approach Vol, veh/h		2278			2175			311			173	
Approach Delay, s/veh		29.8			26.1			34.7			28.0	
Approach LOS		C			C			C			C	

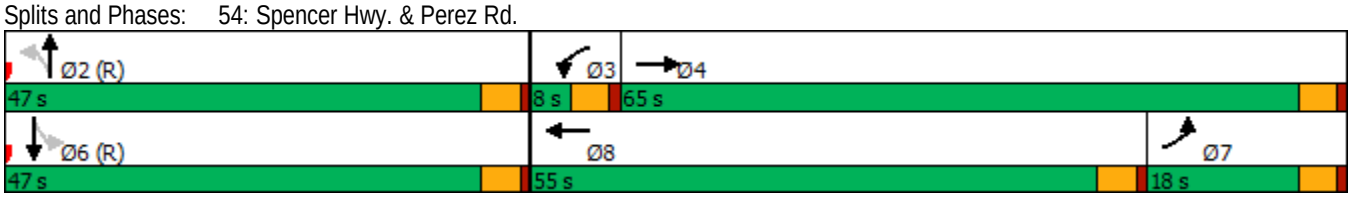
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.7	8.0	63.4		48.7	7.0	64.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		41.5	4.5	60.5		41.5	4.5	60.5				
Max Q Clear Time (g_c+I1), s		23.8	4.0	50.1		11.2	3.3	44.0				
Green Ext Time (p_c), s		1.9	0.0	8.7		1.1	0.0	12.4				

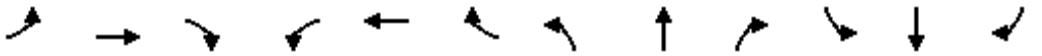
Intersection Summary												
HCM 6th Ctrl Delay			28.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	118	1313	9	1581	4	27	234	9
Future Volume (vph)	118	1313	9	1581	4	27	234	9
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	18.0	65.0	8.0	55.0	47.0	47.0	47.0	47.0
Total Split (%)	15.0%	54.2%	6.7%	45.8%	39.2%	39.2%	39.2%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.2	65.0	3.5	50.0		44.4		44.4
Actuated g/C Ratio	0.10	0.54	0.03	0.42		0.37		0.37
v/c Ratio	0.70	0.51	0.18	0.87		0.07		0.68
Control Delay	39.9	6.4	80.9	6.9		20.8		39.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	39.9	6.4	80.9	6.9		20.8		39.2
LOS	D	A	F	A		C		D
Approach Delay		9.1		7.3		20.8		39.2
Approach LOS		A		A		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 2 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 11.2	Intersection LOS: B
Intersection Capacity Utilization 83.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	1313	13	9	1581	145	4	27	11	234	9	90
Future Volume (veh/h)	118	1313	13	9	1581	145	4	27	11	234	9	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	1368	14	9	1647	151	4	28	11	244	9	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	149	2426	25	13	1854	170	74	482	180	458	15	157
Arrive On Green	0.08	0.47	0.47	0.01	0.53	0.53	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1753	5129	52	1753	4685	429	101	1185	442	1000	37	385
Grp Volume(v), veh/h	123	894	488	9	1177	621	43	0	0	347	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1831	1753	1675	1764	1729	0	0	1422	0	0
Q Serve(g_s), s	8.3	23.0	23.0	0.6	37.5	37.6	0.0	0.0	0.0	20.9	0.0	0.0
Cycle Q Clear(g_c), s	8.3	23.0	23.0	0.6	37.5	37.6	1.8	0.0	0.0	22.6	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.24	0.09		0.26	0.70		0.27
Lane Grp Cap(c), veh/h	149	1585	866	13	1326	698	736	0	0	630	0	0
V/C Ratio(X)	0.83	0.56	0.56	0.68	0.89	0.89	0.06	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	197	1689	923	51	1410	742	736	0	0	630	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	54.0	22.7	22.7	59.3	26.1	26.1	21.6	0.0	0.0	27.7	0.0	0.0
Incr Delay (d2), s/veh	8.7	0.2	0.3	5.4	0.7	1.4	0.2	0.0	0.0	3.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	8.7	9.5	0.3	12.7	13.5	0.8	0.0	0.0	8.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.7	22.9	23.0	64.6	26.8	27.4	21.8	0.0	0.0	31.1	0.0	0.0
LnGrp LOS	E	C	C	E	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1505			1807			43			347	
Approach Delay, s/veh		26.2			27.2			21.8			31.1	
Approach LOS		C			C			C			C	

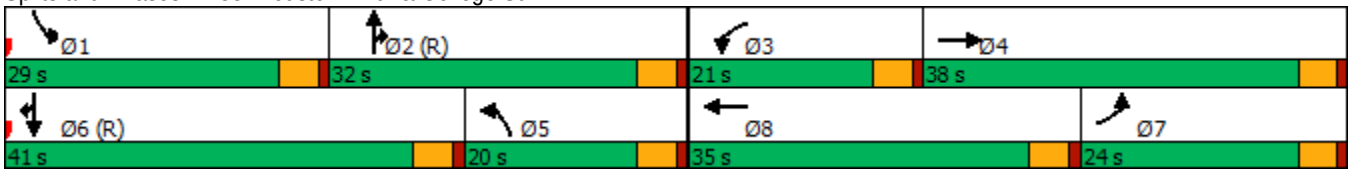
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		53.3	5.4	61.3		53.3	14.7	52.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		42.5	3.5	60.5		42.5	13.5	50.5				
Max Q Clear Time (g_c+I1), s		3.8	2.6	25.0		24.6	10.3	39.6				
Green Ext Time (p_c), s		0.2	0.0	11.4		2.0	0.1	7.8				

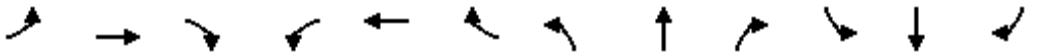
Intersection Summary												
HCM 6th Ctrl Delay			27.1									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	249	1034	211	1004	130	684	202	323	742	264
Future Volume (vph)	249	1034	211	1004	130	684	202	323	742	264
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	Prot	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases										
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	24.0	38.0	21.0	35.0	20.0	32.0	32.0	29.0	41.0	41.0
Total Split (%)	20.0%	31.7%	17.5%	29.2%	16.7%	26.7%	26.7%	24.2%	34.2%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.4	33.5	16.4	30.5	15.5	27.8	27.8	24.3	36.6	36.6
Actuated g/C Ratio	0.16	0.28	0.14	0.25	0.13	0.23	0.23	0.20	0.30	0.30
v/c Ratio	0.91	0.93	0.92	0.99	0.60	0.88	0.40	0.95	0.72	0.48
Control Delay	65.8	36.6	74.3	61.7	61.3	57.8	7.5	84.6	41.9	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.8	36.6	74.3	61.7	61.3	57.8	7.5	84.6	41.9	19.6
LOS	E	D	E	E	E	E	A	F	D	B
Approach Delay		41.6		63.7		48.3			47.9	
Approach LOS		D		E		D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 75 (63%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 50.4	Intersection LOS: D
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	1034	175	211	1004	166	130	684	202	323	742	264
Future Volume (veh/h)	249	1034	175	211	1004	166	130	684	202	323	742	264
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	257	1066	180	218	1035	171	134	705	208	333	765	272
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	282	1198	202	241	1100	181	231	813	362	357	1064	474
Arrive On Green	0.16	0.28	0.28	0.14	0.25	0.25	0.13	0.23	0.23	0.20	0.30	0.30
Sat Flow, veh/h	1753	4329	730	1753	4345	717	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	257	825	421	218	798	408	134	705	208	333	765	272
Grp Sat Flow(s),veh/h/ln	1753	1675	1709	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	17.3	28.3	28.4	14.7	28.0	28.1	8.6	23.3	14.2	22.4	23.4	17.6
Cycle Q Clear(g_c), s	17.3	28.3	28.4	14.7	28.0	28.1	8.6	23.3	14.2	22.4	23.4	17.6
Prop In Lane	1.00		0.43	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	282	927	473	241	848	433	231	813	362	357	1064	474
V/C Ratio(X)	0.91	0.89	0.89	0.90	0.94	0.94	0.58	0.87	0.57	0.93	0.72	0.57
Avail Cap(c_a), veh/h	285	935	477	241	851	435	231	813	362	358	1064	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	41.6	41.7	51.0	43.9	43.9	49.0	44.3	40.8	47.0	37.2	35.2
Incr Delay (d2), s/veh	31.1	10.5	18.5	33.7	18.0	29.0	3.6	12.1	6.5	31.0	4.2	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	12.7	14.1	8.6	13.4	15.0	4.0	11.4	6.0	12.8	10.6	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	52.2	60.2	84.7	61.9	72.9	52.6	56.3	47.3	77.9	41.4	40.2
LnGrp LOS	F	D	E	F	E	E	D	E	D	E	D	D
Approach Vol, veh/h		1503			1424			1047			1370	
Approach Delay, s/veh		59.3			68.6			54.1			50.0	
Approach LOS		E			E			D			D	

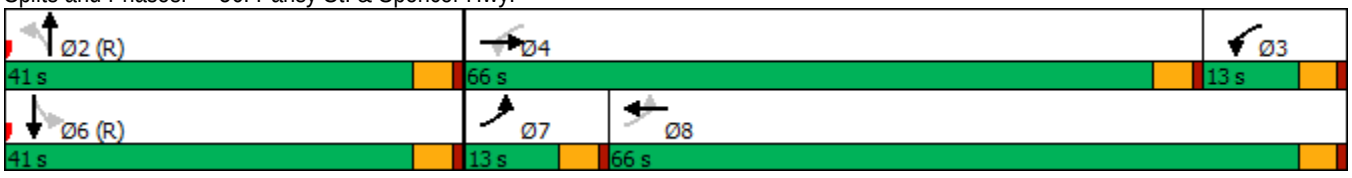
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.9	32.4	21.0	37.7	20.3	41.0	23.8	34.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	24.5	27.5	16.5	33.5	15.5	36.5	19.5	30.5
Max Q Clear Time (g_c+I1), s	24.4	25.3	16.7	30.4	10.6	25.4	19.3	30.1
Green Ext Time (p_c), s	0.0	1.2	0.0	2.1	0.1	4.7	0.0	0.3

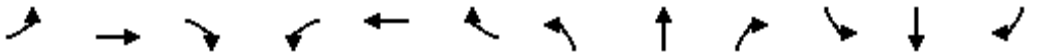
Intersection Summary	
HCM 6th Ctrl Delay	58.4
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	67	1778	70	1991	42	130	38	166
Future Volume (vph)	67	1778	70	1991	42	130	38	166
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	66.0	13.0	66.0	41.0	41.0	41.0	41.0
Total Split (%)	10.8%	55.0%	10.8%	55.0%	34.2%	34.2%	34.2%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	67.7	60.4	68.0	61.5		39.7		39.7
Actuated g/C Ratio	0.56	0.50	0.57	0.51		0.33		0.33
v/c Ratio	0.44	0.80	0.41	0.84		0.52		0.56
Control Delay	21.3	27.6	20.3	15.5		35.2		36.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	21.3	27.6	20.3	15.5		35.2		36.8
LOS	C	C	C	B		D		D
Approach Delay		27.3		15.6		35.2		36.8
Approach LOS		C		B		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 23.0	Intersection LOS: C
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	1778	70	70	1991	60	42	130	88	38	166	90
Future Volume (veh/h)	67	1778	70	70	1991	60	42	130	88	38	166	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	70	1852	73	73	2074	62	44	135	92	40	173	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	140	2250	89	198	2418	72	109	324	205	90	372	189
Arrive On Green	0.03	0.45	0.45	0.06	0.48	0.48	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1753	4960	195	1753	5014	150	199	872	551	152	1002	509
Grp Volume(v), veh/h	70	1250	675	73	1384	752	271	0	0	307	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1806	1753	1675	1814	1622	0	0	1662	0	0
Q Serve(g_s), s	2.4	39.0	39.1	0.0	43.8	44.0	0.0	0.0	0.0	2.1	0.0	0.0
Cycle Q Clear(g_c), s	2.4	39.0	39.1	0.0	43.8	44.0	14.1	0.0	0.0	16.2	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.08	0.16		0.34	0.13		0.31
Lane Grp Cap(c), veh/h	140	1520	819	198	1615	875	638	0	0	652	0	0
V/C Ratio(X)	0.50	0.82	0.82	0.37	0.86	0.86	0.42	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	206	1717	925	213	1717	930	638	0	0	652	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.38	0.38	0.38	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.5	28.6	28.6	49.7	27.4	27.5	28.1	0.0	0.0	28.7	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.5	0.4	1.7	3.2	2.1	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	14.9	16.2	2.1	16.8	18.7	6.2	0.0	0.0	7.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	28.9	29.1	50.2	29.1	30.7	30.1	0.0	0.0	31.2	0.0	0.0
LnGrp LOS	C	C	C	D	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1995			2209			271			307	
Approach Delay, s/veh		28.9			30.3			30.1			31.2	
Approach LOS		C			C			C			C	

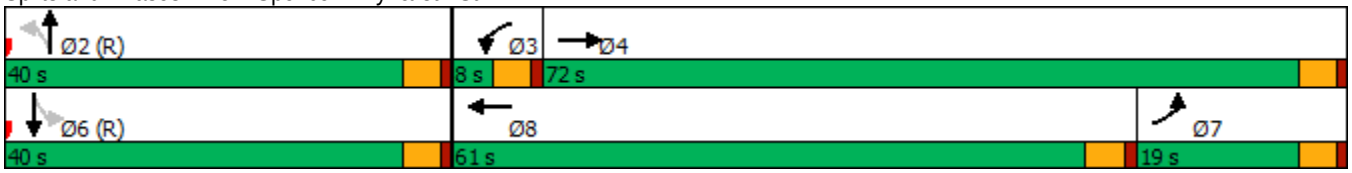
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		49.1	12.0	58.9		49.1	8.5	62.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		36.5	8.5	61.5		36.5	8.5	61.5				
Max Q Clear Time (g_c+I1), s		16.1	2.0	41.1		18.2	4.4	46.0				
Green Ext Time (p_c), s		1.6	0.1	13.3		1.8	0.0	11.9				

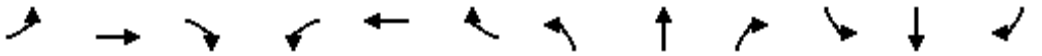
Intersection Summary	
HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	83	1347	11	1503	27	32	41	69
Future Volume (vph)	83	1347	11	1503	27	32	41	69
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	72.0	8.0	61.0	40.0	40.0	40.0	40.0
Total Split (%)	15.8%	60.0%	6.7%	50.8%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.0	63.0	3.5	51.3		46.4		46.4
Actuated g/C Ratio	0.09	0.52	0.03	0.43		0.39		0.39
v/c Ratio	0.54	0.57	0.22	0.77		0.18		0.38
Control Delay	40.6	3.5	78.2	10.8		21.0		25.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	40.6	3.5	78.2	10.8		21.0		25.7
LOS	D	A	E	B		C		C
Approach Delay		5.6		11.3		21.0		25.7
Approach LOS		A		B		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 10.1	Intersection LOS: B
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	1347	48	11	1503	43	27	32	46	41	69	130
Future Volume (veh/h)	83	1347	48	11	1503	43	27	32	46	41	69	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	86	1389	49	11	1549	44	28	33	47	42	71	134
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	109	2180	77	16	1930	55	192	227	294	132	225	381
Arrive On Green	0.06	0.44	0.44	0.01	0.38	0.38	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	4983	176	1753	5022	143	349	515	666	219	510	865
Grp Volume(v), veh/h	86	934	504	11	1033	560	108	0	0	247	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1815	1530	0	0	1594	0	0
Q Serve(g_s), s	5.8	26.1	26.1	0.8	32.9	33.0	0.0	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	26.1	26.1	0.8	32.9	33.0	4.5	0.0	0.0	11.7	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.08	0.26		0.44	0.17		0.54
Lane Grp Cap(c), veh/h	109	1465	791	16	1288	698	713	0	0	738	0	0
V/C Ratio(X)	0.79	0.64	0.64	0.70	0.80	0.80	0.15	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	212	1884	1018	51	1577	855	713	0	0	738	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	55.5	26.3	26.3	59.3	32.9	32.9	20.0	0.0	0.0	22.0	0.0	0.0
Incr Delay (d2), s/veh	12.0	0.5	0.9	5.0	0.2	0.4	0.5	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	10.1	11.0	0.4	12.9	14.0	1.9	0.0	0.0	4.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	26.8	27.2	64.3	33.1	33.3	20.5	0.0	0.0	23.2	0.0	0.0
LnGrp LOS	E	C	C	E	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1524			1604			108			247	
Approach Delay, s/veh		29.2			33.4			20.5			23.2	
Approach LOS		C			C			C			C	

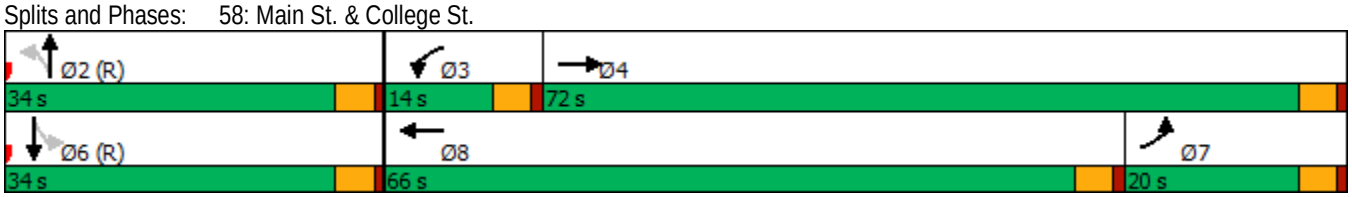
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		57.4	5.6	57.0		57.4	11.9	50.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	3.5	67.5		35.5	14.5	56.5				
Max Q Clear Time (g_c+I1), s		6.5	2.8	28.1		13.7	7.8	35.0				
Green Ext Time (p_c), s		0.6	0.0	12.5		1.5	0.1	11.2				

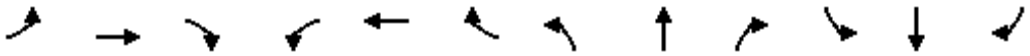
Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	72	1497	27	1294	60	30	23	30
Future Volume (vph)	72	1497	27	1294	60	30	23	30
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	72.0	14.0	66.0	34.0	34.0	34.0	34.0
Total Split (%)	16.7%	60.0%	11.7%	55.0%	28.3%	28.3%	28.3%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	13.4	57.4	7.4	49.4		45.9		45.9
Actuated g/C Ratio	0.11	0.48	0.06	0.41		0.38		0.38
v/c Ratio	0.38	0.68	0.26	0.69		0.23		0.21
Control Delay	53.2	25.2	28.5	29.0		16.9		18.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	53.2	25.2	28.5	29.0		16.9		18.1
LOS	D	C	C	C		B		B
Approach Delay		26.5		29.0		16.9		18.1
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 26.8	Intersection LOS: C
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	1497	83	27	1294	46	60	30	33	23	30	81
Future Volume (veh/h)	72	1497	83	27	1294	46	60	30	33	23	30	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	73	1528	85	28	1320	47	61	31	34	23	31	83
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	145	2012	112	35	1745	62	356	181	182	133	186	436
Arrive On Green	0.08	0.41	0.41	0.02	0.35	0.35	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	1753	4871	271	1753	4982	177	685	398	400	215	408	959
Grp Volume(v), veh/h	73	1051	562	28	888	479	126	0	0	137	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1792	1753	1675	1809	1483	0	0	1582	0	0
Q Serve(g_s), s	4.8	32.2	32.2	1.9	28.1	28.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.8	32.2	32.2	1.9	28.1	28.1	5.0	0.0	0.0	5.9	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.10	0.48		0.27	0.17		0.61
Lane Grp Cap(c), veh/h	145	1384	740	35	1173	634	719	0	0	754	0	0
V/C Ratio(X)	0.50	0.76	0.76	0.81	0.76	0.76	0.18	0.00	0.00	0.18	0.00	0.00
Avail Cap(c_a), veh/h	226	1884	1008	139	1717	927	719	0	0	754	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	52.7	30.1	30.1	58.6	34.5	34.5	19.2	0.0	0.0	19.5	0.0	0.0
Incr Delay (d2), s/veh	2.7	1.2	2.3	33.5	1.1	2.1	0.5	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	13.0	14.1	1.2	11.5	12.6	2.2	0.0	0.0	2.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	31.4	32.4	92.1	35.6	36.6	19.7	0.0	0.0	20.0	0.0	0.0
LnGrp LOS	E	C	C	F	D	D	B	A	A	B	A	A
Approach Vol, veh/h		1686			1395			126			137	
Approach Delay, s/veh		32.8			37.1			19.7			20.0	
Approach LOS		C			D			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		59.1	6.9	54.1		59.1	14.4	46.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		29.5	9.5	67.5		29.5	15.5	61.5				
Max Q Clear Time (g_c+I1), s		7.0	3.9	34.2		7.9	6.8	30.1				
Green Ext Time (p_c), s		0.7	0.0	15.4		0.7	0.1	11.9				

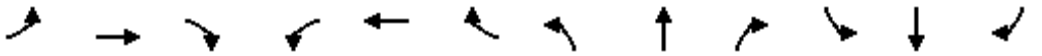
Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	25	1408	11	1318	46	3	8	4
Future Volume (vph)	25	1408	11	1318	46	3	8	4
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	81.0	10.0	77.0	29.0	29.0	29.0	29.0
Total Split (%)	11.7%	67.5%	8.3%	64.2%	24.2%	24.2%	24.2%	24.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.3	60.2	6.7	55.3		48.0		48.0
Actuated g/C Ratio	0.06	0.50	0.06	0.46		0.40		0.40
v/c Ratio	0.25	0.64	0.11	0.71		0.09		0.06
Control Delay	55.5	11.2	36.6	7.1		27.7		14.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	55.5	11.2	36.6	7.1		27.7		14.7
LOS	E	B	D	A		C		B
Approach Delay		12.0		7.3		27.7		14.7
Approach LOS		B		A		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 34 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 10.0	Intersection LOS: A
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1408	76	11	1318	208	46	3	4	8	4	28
Future Volume (veh/h)	25	1408	76	11	1318	208	46	3	4	8	4	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	26	1452	78	11	1359	214	47	3	4	8	4	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	32	1914	103	55	1773	279	618	40	48	155	92	512
Arrive On Green	0.02	0.39	0.39	0.03	0.40	0.40	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1753	4881	262	1753	4378	689	1210	86	104	257	199	1102
Grp Volume(v), veh/h	26	996	534	11	1040	533	54	0	0	41	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1794	1753	1675	1717	1400	0	0	1558	0	0
Q Serve(g_s), s	1.8	30.9	30.9	0.7	32.1	32.2	0.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.8	30.9	30.9	0.7	32.1	32.2	2.1	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.40	0.87		0.07	0.20		0.71
Lane Grp Cap(c), veh/h	32	1313	703	55	1357	695	706	0	0	759	0	0
V/C Ratio(X)	0.81	0.76	0.76	0.20	0.77	0.77	0.08	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	139	2136	1143	80	2024	1037	706	0	0	759	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	58.7	31.6	31.6	56.7	30.8	30.8	17.8	0.0	0.0	17.7	0.0	0.0
Incr Delay (d2), s/veh	36.5	0.9	1.7	1.8	1.0	2.0	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	12.2	13.2	0.3	12.6	13.1	0.9	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.2	32.5	33.3	58.5	31.8	32.8	18.0	0.0	0.0	17.8	0.0	0.0
LnGrp LOS	F	C	C	E	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1556			1584			54			41	
Approach Delay, s/veh		33.8			32.3			18.0			17.8	
Approach LOS		C			C			B			B	

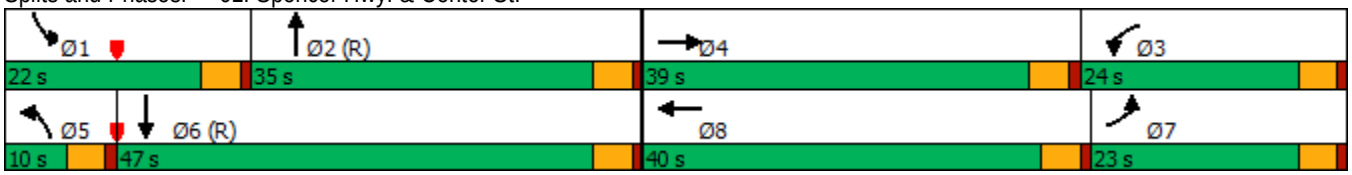
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		60.2	8.2	51.5		60.2	6.7	53.1				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.5	5.5	76.5		24.5	9.5	72.5				
Max Q Clear Time (g_c+I1), s		4.1	2.7	32.9		3.7	3.8	34.2				
Green Ext Time (p_c), s		0.2	0.0	14.2		0.1	0.0	14.4				

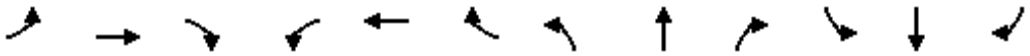
Intersection Summary												
HCM 6th Ctrl Delay			32.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	397	1383	324	1586	135	796	382	978
Future Volume (vph)	397	1383	324	1586	135	796	382	978
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	23.0	39.0	24.0	40.0	10.0	35.0	22.0	47.0
Total Split (%)	19.2%	32.5%	20.0%	33.3%	8.3%	29.2%	18.3%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.5	34.5	19.5	35.5	5.5	30.5	17.5	42.5
Actuated g/C Ratio	0.15	0.29	0.16	0.30	0.05	0.25	0.15	0.35
v/c Ratio	1.57	1.09	1.21	1.36	1.80	1.27	1.59	1.20
Control Delay	290.6	69.1	137.4	187.8	390.5	157.6	303.9	121.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	290.6	69.1	137.4	187.8	390.5	157.6	303.9	121.8
LOS	F	E	F	F	F	F	F	F
Approach Delay		116.1		180.4		183.9		161.3
Approach LOS		F		F		F		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.80	
Intersection Signal Delay: 159.1	Intersection LOS: F
Intersection Capacity Utilization 131.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	397	1383	94	324	1586	305	135	796	262	382	978	401
Future Volume (veh/h)	397	1383	94	324	1586	305	135	796	262	382	978	401
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	418	1456	99	341	1669	321	142	838	276	402	1029	422
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	270	1382	94	285	1253	239	80	657	216	256	861	347
Arrive On Green	0.31	0.57	0.57	0.16	0.30	0.30	0.05	0.25	0.25	0.15	0.35	0.35
Sat Flow, veh/h	1753	4805	327	1753	4237	808	1753	2586	851	1753	2432	981
Grp Volume(v), veh/h	418	1015	540	341	1317	673	142	566	548	402	735	716
Grp Sat Flow(s),veh/h/ln	1753	1675	1782	1753	1675	1695	1753	1749	1688	1753	1749	1664
Q Serve(g_s), s	18.5	34.5	34.5	19.5	35.5	35.5	5.5	30.5	30.5	17.5	42.5	42.5
Cycle Q Clear(g_c), s	18.5	34.5	34.5	19.5	35.5	35.5	5.5	30.5	30.5	17.5	42.5	42.5
Prop In Lane	1.00		0.18	1.00		0.48	1.00		0.50	1.00		0.59
Lane Grp Cap(c), veh/h	270	963	512	285	991	502	80	444	429	256	619	589
V/C Ratio(X)	1.55	1.05	1.05	1.20	1.33	1.34	1.77	1.27	1.28	1.57	1.19	1.21
Avail Cap(c_a), veh/h	270	963	512	285	991	502	80	444	429	256	619	589
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.13	0.13	0.13	0.15	0.15	0.15	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	41.5	25.5	25.5	50.3	42.3	42.3	57.2	44.8	44.8	51.2	38.7	38.8
Incr Delay (d2), s/veh	248.4	28.3	31.2	94.1	148.9	156.2	390.9	140.1	141.5	259.3	85.7	98.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.4	13.3	14.5	16.0	35.0	36.4	11.2	30.4	29.5	26.1	32.6	33.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	289.9	53.8	56.7	144.3	191.2	198.5	448.1	184.8	186.3	310.6	124.4	137.0
LnGrp LOS	F	F	F	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h		1973			2331			1256			1853	
Approach Delay, s/veh		104.6			186.4			215.2			169.6	
Approach LOS		F			F			F			F	

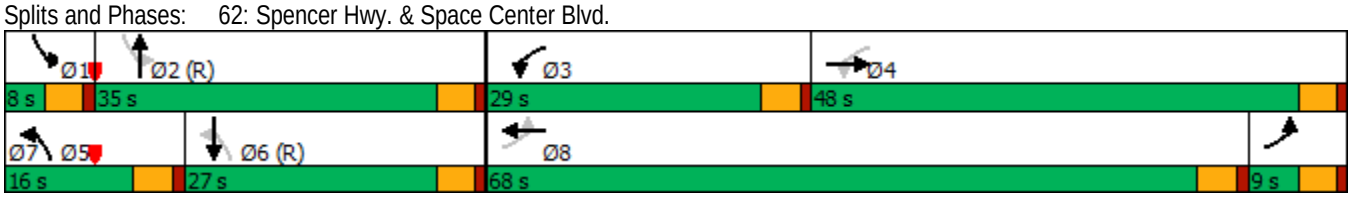
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	35.0	24.0	39.0	10.0	47.0	23.0	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	30.5	19.5	34.5	5.5	42.5	18.5	35.5
Max Q Clear Time (g_c+I1), s	19.5	32.5	21.5	36.5	7.5	44.5	20.5	37.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

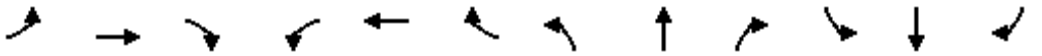
Intersection Summary	
HCM 6th Ctrl Delay	165.3
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	61	1640	481	2106	229	403	63	528
Future Volume (vph)	61	1640	481	2106	229	403	63	528
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	48.0	29.0	68.0	16.0	35.0	8.0	27.0
Total Split (%)	7.5%	40.0%	24.2%	56.7%	13.3%	29.2%	6.7%	22.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	68.9	43.5	68.0	65.3	34.0	32.1	34.9	22.5
Actuated g/C Ratio	0.57	0.36	0.57	0.54	0.28	0.27	0.29	0.19
v/c Ratio	0.50	1.22	1.20	0.85	1.03	1.04	0.58	0.95
Control Delay	27.9	126.6	122.0	28.2	98.5	54.8	52.0	72.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.9	126.6	122.0	28.2	98.5	54.8	52.0	72.7
LOS	C	F	F	C	F	D	D	E
Approach Delay		123.8		45.3		62.5		70.7
Approach LOS		F		D		E		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 105 (88%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 75.9	Intersection LOS: E
Intersection Capacity Utilization 124.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	1640	415	481	2106	52	229	403	656	63	528	48
Future Volume (veh/h)	61	1640	415	481	2106	52	229	403	656	63	528	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	63	1691	428	496	2171	54	236	415	676	65	544	49
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	1455	362	418	2517	62	247	444	396	111	608	55
Arrive On Green	0.07	0.36	0.36	0.20	0.50	0.50	0.10	0.25	0.25	0.03	0.19	0.19
Sat Flow, veh/h	1753	4012	999	1753	5043	125	1753	1749	1560	1753	3245	292
Grp Volume(v), veh/h	63	1407	712	496	1441	784	236	415	676	65	293	300
Grp Sat Flow(s),veh/h/ln	1753	1675	1661	1753	1675	1818	1753	1749	1560	1753	1749	1788
Q Serve(g_s), s	0.0	43.5	43.5	24.5	45.4	45.6	11.5	27.8	30.5	3.3	19.6	19.7
Cycle Q Clear(g_c), s	0.0	43.5	43.5	24.5	45.4	45.6	11.5	27.8	30.5	3.3	19.6	19.7
Prop In Lane	1.00		0.60	1.00		0.07	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	199	1214	602	418	1672	907	247	444	396	111	328	335
V/C Ratio(X)	0.32	1.16	1.18	1.19	0.86	0.86	0.96	0.93	1.70	0.58	0.89	0.90
Avail Cap(c_a), veh/h	199	1214	602	418	1773	962	247	444	396	111	328	335
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	38.2	38.3	38.5	26.4	26.5	39.8	43.8	44.8	35.9	47.6	47.6
Incr Delay (d2), s/veh	0.5	76.6	90.9	86.5	0.4	0.8	44.9	29.0	327.9	7.7	28.6	28.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	29.7	31.9	17.4	16.7	18.4	4.6	15.4	47.7	1.6	11.0	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	114.8	129.2	125.0	26.8	27.3	84.7	72.7	372.6	43.5	76.2	76.3
LnGrp LOS	D	F	F	F	C	C	F	E	F	D	E	E
Approach Vol, veh/h		2182			2721			1327			658	
Approach Delay, s/veh		117.6			44.9			227.6			73.0	
Approach LOS		F			D			F			E	

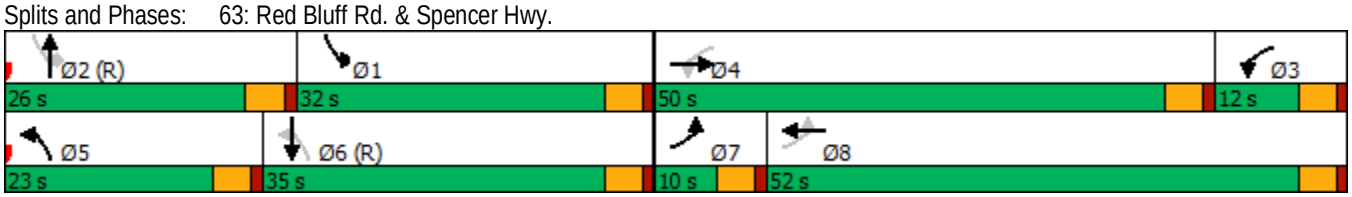
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	35.0	29.0	48.0	16.0	27.0	12.6	64.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	30.5	24.5	43.5	11.5	22.5	4.5	63.5
Max Q Clear Time (g_c+I1), s	5.3	32.5	26.5	45.5	13.5	21.7	2.0	47.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.3	0.0	12.3

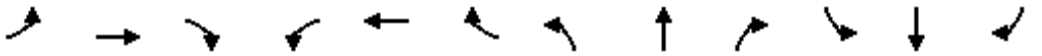
Intersection Summary	
HCM 6th Ctrl Delay	105.8
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	169	1412	131	1643	306	518	94	499	509
Future Volume (vph)	169	1412	131	1643	306	518	94	499	509
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	50.0	12.0	52.0	23.0	26.0	26.0	32.0	35.0
Total Split (%)	8.3%	41.7%	10.0%	43.3%	19.2%	21.7%	21.7%	26.7%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	53.0	45.5	53.0	47.5	49.0	21.5	21.5	49.0	30.5
Actuated g/C Ratio	0.44	0.38	0.44	0.40	0.41	0.18	0.18	0.41	0.25
v/c Ratio	1.33	0.96	0.85	1.20	1.02	0.95	0.26	1.20	0.84
Control Delay	177.7	32.3	27.2	105.1	43.9	22.8	2.5	121.1	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	177.7	32.3	27.2	105.1	43.9	22.8	2.5	121.1	23.3
LOS	F	C	C	F	D	C	A	F	C
Approach Delay		46.0		100.4		27.7			64.9
Approach LOS		D		F		C			E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 66.5	Intersection LOS: E
Intersection Capacity Utilization 112.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	1412	220	131	1643	413	306	518	94	499	509	164
Future Volume (veh/h)	169	1412	220	131	1643	413	306	518	94	499	509	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	186	1552	242	144	1805	454	336	569	103	548	559	180
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	140	1649	257	184	1593	391	365	627	279	477	662	212
Arrive On Green	0.05	0.38	0.38	0.07	0.40	0.40	0.15	0.18	0.18	0.23	0.25	0.25
Sat Flow, veh/h	1753	4386	682	1753	4025	988	1753	3497	1560	1753	2603	836
Grp Volume(v), veh/h	186	1184	610	144	1495	764	336	569	103	548	375	364
Grp Sat Flow(s),veh/h/ln	1753	1675	1718	1753	1675	1663	1753	1749	1560	1753	1749	1690
Q Serve(g_s), s	5.5	40.9	41.2	4.9	47.5	47.5	16.8	19.1	7.0	27.5	24.4	24.6
Cycle Q Clear(g_c), s	5.5	40.9	41.2	4.9	47.5	47.5	16.8	19.1	7.0	27.5	24.4	24.6
Prop In Lane	1.00		0.40	1.00		0.59	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	140	1260	646	184	1326	658	365	627	279	477	444	430
V/C Ratio(X)	1.33	0.94	0.94	0.78	1.13	1.16	0.92	0.91	0.37	1.15	0.84	0.85
Avail Cap(c_a), veh/h	140	1270	651	184	1326	658	365	627	279	477	444	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	36.1	36.2	53.4	36.3	36.3	29.6	48.3	43.3	44.1	42.5	42.5
Incr Delay (d2), s/veh	150.9	1.7	3.3	2.1	58.3	74.1	27.9	19.3	3.7	89.3	17.5	18.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	16.1	16.9	4.3	29.7	32.3	9.8	10.0	3.0	25.1	12.6	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	182.2	37.8	39.5	55.5	94.6	110.4	57.5	67.6	47.0	133.4	60.0	60.9
LnGrp LOS	F	D	D	E	F	F	E	E	D	F	E	E
Approach Vol, veh/h		1980			2403			1008			1287	
Approach Delay, s/veh		51.9			97.3			62.1			91.5	
Approach LOS		D			F			E			F	

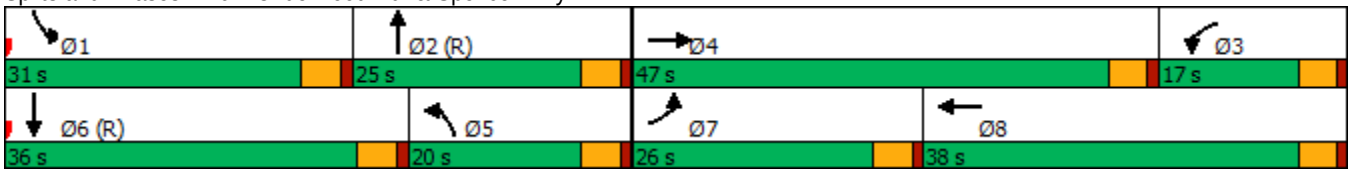
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	26.0	12.4	49.6	23.0	35.0	10.0	52.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	21.5	7.5	45.5	18.5	30.5	5.5	47.5
Max Q Clear Time (g_c+I1), s	29.5	21.1	6.9	43.2	18.8	26.6	7.5	49.5
Green Ext Time (p_c), s	0.0	0.2	0.0	2.0	0.0	1.7	0.0	0.0

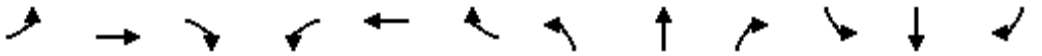
Intersection Summary	
HCM 6th Ctrl Delay	77.4
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	321	1234	138	1260	229	395	364	512
Future Volume (vph)	321	1234	138	1260	229	395	364	512
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	47.0	17.0	38.0	20.0	25.0	31.0	36.0
Total Split (%)	21.7%	39.2%	14.2%	31.7%	16.7%	20.8%	25.8%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.5	42.5	12.5	33.5	15.5	20.5	26.5	31.5
Actuated g/C Ratio	0.18	0.35	0.10	0.28	0.13	0.17	0.22	0.26
v/c Ratio	1.12	0.95	0.83	1.17	1.15	0.92	1.03	1.02
Control Delay	111.6	36.3	67.4	110.9	108.3	33.4	91.2	64.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.6	36.3	67.4	110.9	108.3	33.4	91.2	64.3
LOS	F	D	E	F	F	C	F	E
Approach Delay		49.7		107.1		56.8		72.0
Approach LOS		D		F		E		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 11 (9%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 72.7	Intersection LOS: E
Intersection Capacity Utilization 105.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	321	1234	250	138	1260	176	229	395	110	364	512	397
Future Volume (veh/h)	321	1234	250	138	1260	176	229	395	110	364	512	397
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	349	1341	272	150	1370	191	249	429	120	396	557	432
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	314	1455	295	194	1244	173	226	462	128	387	492	382
Arrive On Green	0.18	0.35	0.35	0.11	0.28	0.28	0.13	0.17	0.17	0.22	0.26	0.26
Sat Flow, veh/h	1753	4189	849	1753	4458	621	1753	2705	750	1753	1874	1454
Grp Volume(v), veh/h	349	1072	541	150	1030	531	249	276	273	396	520	469
Grp Sat Flow(s),veh/h/ln	1753	1675	1688	1753	1675	1729	1753	1749	1706	1753	1749	1579
Q Serve(g_s), s	21.5	36.9	36.9	10.0	33.5	33.5	15.5	18.6	19.0	26.5	31.5	31.5
Cycle Q Clear(g_c), s	21.5	36.9	36.9	10.0	33.5	33.5	15.5	18.6	19.0	26.5	31.5	31.5
Prop In Lane	1.00		0.50	1.00		0.36	1.00		0.44	1.00		0.92
Lane Grp Cap(c), veh/h	314	1164	586	194	935	483	226	299	291	387	459	415
V/C Ratio(X)	1.11	0.92	0.92	0.77	1.10	1.10	1.10	0.92	0.94	1.02	1.13	1.13
Avail Cap(c_a), veh/h	314	1186	598	194	935	483	226	299	291	387	459	415
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.21	0.21	0.21	0.44	0.44	0.44	0.09	0.09	0.09	0.37	0.37	0.37
Uniform Delay (d), s/veh	49.3	37.6	37.6	51.9	43.2	43.3	52.3	49.0	49.1	46.7	44.2	44.3
Incr Delay (d2), s/veh	60.0	3.0	5.6	8.2	53.2	59.2	51.7	5.6	6.7	33.8	70.0	71.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.3	14.8	15.4	4.7	20.2	21.6	9.9	8.3	8.4	14.7	22.0	20.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	109.3	40.6	43.2	60.0	96.5	102.5	103.9	54.6	55.8	80.5	114.3	115.3
LnGrp LOS	F	D	D	E	F	F	F	D	E	F	F	F
Approach Vol, veh/h		1962			1711			798			1385	
Approach Delay, s/veh		53.5			95.2			70.4			105.0	
Approach LOS		D			F			E			F	

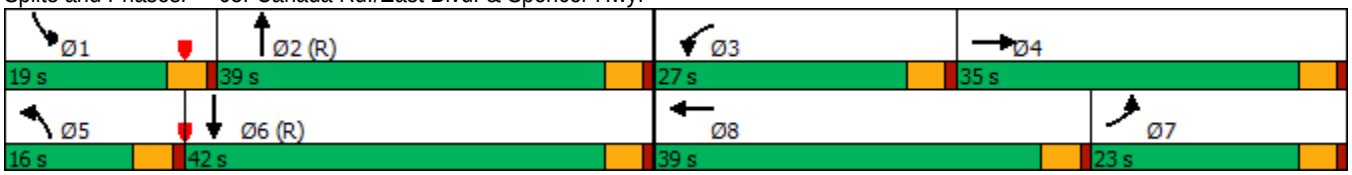
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.0	25.0	17.8	46.2	20.0	36.0	26.0	38.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	20.5	12.5	42.5	15.5	31.5	21.5	33.5
Max Q Clear Time (g_c+I1), s	28.5	21.0	12.0	38.9	17.5	33.5	23.5	35.5
Green Ext Time (p_c), s	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0

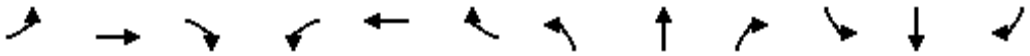
Intersection Summary	
HCM 6th Ctrl Delay	80.2
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	319	932	288	1421	179	617	358	747
Future Volume (vph)	319	932	288	1421	179	617	358	747
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	23.0	35.0	27.0	39.0	16.0	39.0	19.0	42.0
Total Split (%)	19.2%	29.2%	22.5%	32.5%	13.3%	32.5%	15.8%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.5	30.5	22.5	34.5	11.5	34.5	14.5	37.5
Actuated g/C Ratio	0.15	0.25	0.19	0.29	0.10	0.29	0.12	0.31
v/c Ratio	1.30	0.94	0.96	1.32	1.22	0.84	0.96	1.17
Control Delay	171.6	25.1	55.3	178.8	145.1	36.3	48.8	108.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	171.6	25.1	55.3	178.8	145.1	36.3	48.8	108.9
LOS	F	C	E	F	F	D	D	F
Approach Delay		59.1		160.6		57.1		94.9
Approach LOS		E		F		E		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 41 (34%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.32	
Intersection Signal Delay: 102.5	Intersection LOS: F
Intersection Capacity Utilization 115.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	932	123	288	1421	249	179	617	143	358	747	432
Future Volume (veh/h)	319	932	123	288	1421	249	179	617	143	358	747	432
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	347	1013	134	313	1545	271	195	671	155	389	812	470
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	270	1142	151	329	1237	216	168	811	187	411	669	383
Arrive On Green	0.15	0.25	0.25	0.19	0.29	0.29	0.10	0.29	0.29	0.12	0.31	0.31
Sat Flow, veh/h	1753	4491	593	1753	4303	752	1753	2821	651	3401	2141	1227
Grp Volume(v), veh/h	347	755	392	313	1202	614	195	416	410	389	662	620
Grp Sat Flow(s),veh/h/ln	1753	1675	1734	1753	1675	1705	1753	1749	1724	1700	1749	1620
Q Serve(g_s), s	18.5	26.0	26.1	21.2	34.5	34.5	11.5	26.7	26.7	13.6	37.5	37.5
Cycle Q Clear(g_c), s	18.5	26.0	26.1	21.2	34.5	34.5	11.5	26.7	26.7	13.6	37.5	37.5
Prop In Lane	1.00		0.34	1.00		0.44	1.00		0.38	1.00		0.76
Lane Grp Cap(c), veh/h	270	851	441	329	963	490	168	503	496	411	546	506
V/C Ratio(X)	1.28	0.89	0.89	0.95	1.25	1.25	1.16	0.83	0.83	0.95	1.21	1.23
Avail Cap(c_a), veh/h	270	851	441	329	963	490	168	503	496	411	546	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.34	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	50.8	43.1	43.1	48.2	42.8	42.8	54.2	40.0	40.0	52.4	41.3	41.3
Incr Delay (d2), s/veh	137.3	4.3	7.9	6.9	112.3	115.5	78.7	1.5	1.5	5.3	96.5	103.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.2	10.9	11.7	9.6	28.7	29.6	8.7	11.3	11.2	6.0	30.4	29.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	188.0	47.4	51.1	55.1	155.0	158.3	133.0	41.5	41.5	57.6	137.8	144.5
LnGrp LOS	F	D	D	E	F	F	F	D	D	E	F	F
Approach Vol, veh/h		1494			2129			1021			1671	
Approach Delay, s/veh		81.0			141.3			59.0			121.6	
Approach LOS		F			F			E			F	

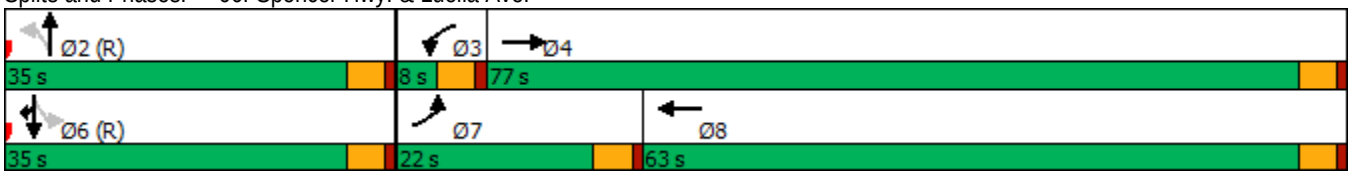
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	39.0	27.0	35.0	16.0	42.0	23.0	39.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	34.5	22.5	30.5	11.5	37.5	18.5	34.5
Max Q Clear Time (g_c+I1), s	15.6	28.7	23.2	28.1	13.5	39.5	20.5	36.5
Green Ext Time (p_c), s	0.0	2.4	0.0	1.5	0.0	0.0	0.0	0.0

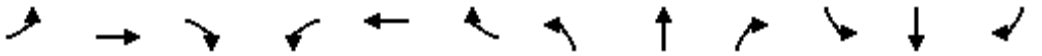
Intersection Summary	
HCM 6th Ctrl Delay	108.5
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	227	1642	4	2024	8	6	287	0	315
Future Volume (vph)	227	1642	4	2024	8	6	287	0	315
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	22.0	77.0	8.0	63.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	18.3%	64.2%	6.7%	52.5%	29.2%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.5	78.9	3.5	58.5		30.5		30.5	30.5
Actuated g/C Ratio	0.15	0.66	0.03	0.49		0.25		0.25	0.25
v/c Ratio	0.98	0.55	0.08	1.02		0.05		0.91	0.64
Control Delay	74.4	3.8	72.2	31.9		29.6		60.0	19.6
Queue Delay	0.0	0.0	0.0	6.4		0.0		0.0	0.0
Total Delay	74.4	3.9	72.2	38.3		29.6		60.0	19.6
LOS	E	A	E	D		C		E	B
Approach Delay		12.4		38.4		29.6		38.8	
Approach LOS		B		D		C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 28.1	Intersection LOS: C
Intersection Capacity Utilization 96.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	1642	4	4	2024	213	8	6	4	287	0	315
Future Volume (veh/h)	227	1642	4	4	2024	213	8	6	4	287	0	315
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	249	1804	4	4	2224	234	9	7	4	315	0	346
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	256	3260	7	6	2255	233	43	29	7	272	0	396
Arrive On Green	0.15	0.63	0.63	0.01	0.98	0.98	0.25	0.25	0.25	0.25	0.00	0.25
Sat Flow, veh/h	1753	5177	11	1753	4626	479	0	114	28	834	0	1560
Grp Volume(v), veh/h	249	1167	641	4	1601	857	20	0	0	315	0	346
Grp Sat Flow(s),veh/h/ln	1753	1675	1839	1753	1675	1755	142	0	0	834	0	1560
Q Serve(g_s), s	17.0	23.8	23.8	0.3	32.3	58.5	0.0	0.0	0.0	0.0	0.0	25.5
Cycle Q Clear(g_c), s	17.0	23.8	23.8	0.3	32.3	58.5	30.5	0.0	0.0	30.5	0.0	25.5
Prop In Lane	1.00		0.01	1.00		0.27	0.45		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	256	2110	1158	6	1633	855	80	0	0	272	0	396
V/C Ratio(X)	0.97	0.55	0.55	0.63	0.98	1.00	0.25	0.00	0.00	1.16	0.00	0.87
Avail Cap(c_a), veh/h	256	2110	1158	51	1633	855	80	0	0	272	0	396
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.50	0.50	0.50	1.00	0.00	0.00	0.34	0.00	0.34
Uniform Delay (d), s/veh	51.0	12.6	12.6	59.5	1.2	1.5	37.0	0.0	0.0	48.1	0.0	42.9
Incr Delay (d2), s/veh	11.5	0.0	0.1	41.1	11.5	22.3	7.4	0.0	0.0	85.2	0.0	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	7.9	8.7	0.2	3.2	5.9	0.6	0.0	0.0	14.7	0.0	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	12.7	12.7	100.6	12.7	23.8	44.4	0.0	0.0	133.3	0.0	52.0
LnGrp LOS	E	B	B	F	B	F	D	A	A	F	A	D
Approach Vol, veh/h		2057			2462			20			661	
Approach Delay, s/veh		18.7			16.7			44.4			90.7	
Approach LOS		B			B			D			F	

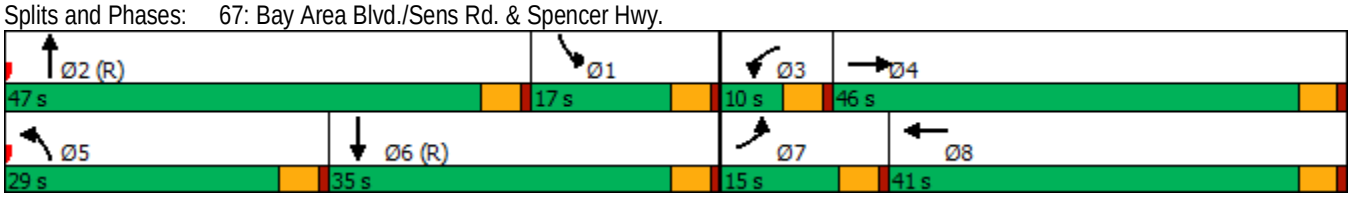
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.0	4.9	80.1		35.0	22.0	63.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	3.5	72.5		30.5	17.5	58.5				
Max Q Clear Time (g_c+I1), s		32.5	2.3	25.8		32.5	19.0	60.5				
Green Ext Time (p_c), s		0.0	0.0	18.0		0.0	0.0	0.0				

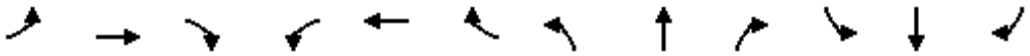
Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	95	532	69	961	237	493	152	321
Future Volume (vph)	95	532	69	961	237	493	152	321
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	46.0	10.0	41.0	29.0	47.0	17.0	35.0
Total Split (%)	12.5%	38.3%	8.3%	34.2%	24.2%	39.2%	14.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.9	39.7	5.5	35.3	21.9	44.3	12.5	34.9
Actuated g/C Ratio	0.08	0.33	0.05	0.29	0.18	0.37	0.10	0.29
v/c Ratio	0.69	0.44	0.91	0.83	0.84	0.45	0.91	0.60
Control Delay	71.7	15.5	136.2	44.5	32.9	23.3	96.9	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.7	15.5	136.2	44.5	32.9	23.3	96.9	25.1
LOS	E	B	F	D	C	C	F	C
Approach Delay		22.4		49.8		26.2		39.4
Approach LOS		C		D		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 56 (47%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 36.3	Intersection LOS: D
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	532	145	69	961	164	237	493	52	152	321	289
Future Volume (veh/h)	95	532	145	69	961	164	237	493	52	152	321	289
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	99	554	151	72	1001	171	247	514	54	158	334	301
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	123	1181	314	80	1188	203	276	1131	118	265	610	540
Arrive On Green	0.07	0.30	0.30	0.05	0.27	0.27	0.16	0.35	0.35	0.15	0.35	0.35
Sat Flow, veh/h	1753	3950	1052	1753	4322	737	1753	3195	335	1753	1756	1554
Grp Volume(v), veh/h	99	468	237	72	775	397	247	281	287	158	333	302
Grp Sat Flow(s),veh/h/ln	1753	1675	1651	1753	1675	1708	1753	1749	1780	1753	1749	1561
Q Serve(g_s), s	6.7	13.7	14.1	4.9	26.2	26.3	16.6	14.8	14.9	10.1	18.4	18.8
Cycle Q Clear(g_c), s	6.7	13.7	14.1	4.9	26.2	26.3	16.6	14.8	14.9	10.1	18.4	18.8
Prop In Lane	1.00		0.64	1.00		0.43	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	123	1002	494	80	921	470	276	619	631	265	608	542
V/C Ratio(X)	0.81	0.47	0.48	0.90	0.84	0.84	0.89	0.45	0.46	0.60	0.55	0.56
Avail Cap(c_a), veh/h	153	1159	571	80	1019	520	358	619	631	265	608	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.16	0.16	0.16	1.00	1.00	1.00	0.09	0.09	0.09	0.96	0.96	0.96
Uniform Delay (d), s/veh	55.0	34.3	34.4	57.0	41.0	41.1	49.6	29.8	29.8	47.5	31.5	31.7
Incr Delay (d2), s/veh	4.2	0.1	0.1	66.7	6.0	11.3	2.4	0.2	0.2	3.5	3.4	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	5.6	5.7	3.7	11.5	12.5	7.3	6.1	6.3	4.7	8.3	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	34.3	34.5	123.6	47.0	52.3	52.0	30.0	30.1	51.0	34.9	35.6
LnGrp LOS	E	C	C	F	D	D	D	C	C	D	C	D
Approach Vol, veh/h		804			1244			815			793	
Approach Delay, s/veh		37.4			53.2			36.7			38.4	
Approach LOS		D			D			D			D	

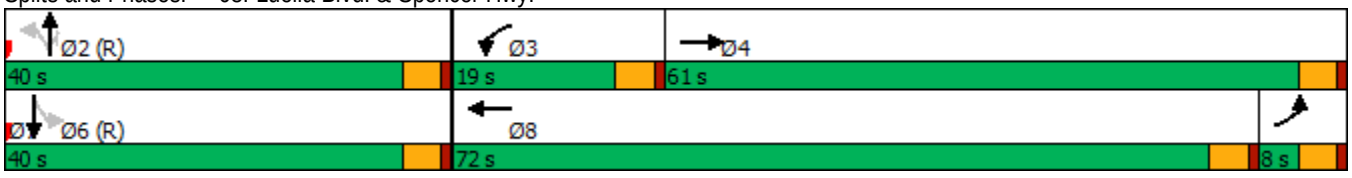
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.6	47.0	10.0	40.4	23.4	46.2	12.9	37.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	42.5	5.5	41.5	24.5	30.5	10.5	36.5
Max Q Clear Time (g_c+I1), s	12.1	16.9	6.9	16.1	18.6	20.8	8.7	28.3
Green Ext Time (p_c), s	0.0	3.3	0.0	5.0	0.3	2.9	0.0	4.7

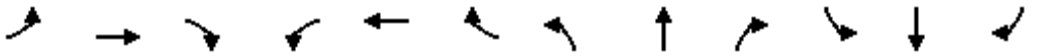
Intersection Summary	
HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	4	1733	145	2162	259	1	117	10
Future Volume (vph)	4	1733	145	2162	259	1	117	10
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		2	
Detector Phase	7	4	3	8	2	2	2	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	61.0	19.0	72.0	40.0	40.0	40.0	40.0
Total Split (%)	6.7%	50.8%	15.8%	60.0%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	3.9	56.7	13.7	73.3	36.1	36.1	36.1	36.1
Actuated g/C Ratio	0.03	0.47	0.11	0.61	0.30	0.30	0.30	0.30
v/c Ratio	0.07	0.93	0.80	0.81	0.73	0.00	0.23	0.05
Control Delay	44.0	21.4	68.1	8.5	60.6	46.0	18.1	18.6
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	44.0	21.4	68.1	8.6	60.6	46.0	18.1	18.6
LOS	D	C	E	A	E	D	B	B
Approach Delay		21.5		12.3		47.4		18.6
Approach LOS		C		B		D		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 88 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	1733	175	145	2162	8	259	1	117	0	10	13
Future Volume (veh/h)	4	1733	175	145	2162	8	259	1	117	0	10	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	4	1904	192	159	2376	9	285	1	129	0	11	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	9	2012	202	186	2761	10	521	641	543	0	256	326
Arrive On Green	0.01	0.87	0.87	0.11	0.53	0.53	0.35	0.35	0.35	0.00	0.35	0.35
Sat Flow, veh/h	1753	4642	465	1753	5168	20	1364	1841	1560	0	736	936
Grp Volume(v), veh/h	4	1371	725	159	1540	845	285	1	129	0	0	25
Grp Sat Flow(s),veh/h/ln	1753	1675	1757	1753	1675	1837	1364	1841	1560	0	0	1672
Q Serve(g_s), s	0.3	36.0	37.8	10.7	47.5	47.6	21.0	0.0	7.1	0.0	0.0	1.2
Cycle Q Clear(g_c), s	0.3	36.0	37.8	10.7	47.5	47.6	22.2	0.0	7.1	0.0	0.0	1.2
Prop In Lane	1.00		0.26	1.00		0.01	1.00		1.00	0.00		0.56
Lane Grp Cap(c), veh/h	9	1452	761	186	1790	981	521	641	543	0	0	582
V/C Ratio(X)	0.45	0.94	0.95	0.86	0.86	0.86	0.55	0.00	0.24	0.00	0.00	0.04
Avail Cap(c_a), veh/h	51	1577	827	212	1884	1033	521	641	543	0	0	582
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.09	0.09	0.09	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	59.2	6.9	7.0	52.8	24.1	24.1	33.2	25.5	27.8	0.0	0.0	25.9
Incr Delay (d2), s/veh	26.2	9.8	17.3	3.0	0.4	0.7	4.1	0.0	1.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.7	6.5	4.8	17.4	19.3	7.5	0.0	2.7	0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.4	16.7	24.3	55.8	24.5	24.8	37.3	25.5	28.8	0.0	0.0	26.0
LnGrp LOS	F	B	C	E	C	C	D	C	C	A	A	C
Approach Vol, veh/h		2100			2544			415			25	
Approach Delay, s/veh		19.5			26.6			34.6			26.0	
Approach LOS		B			C			C			C	

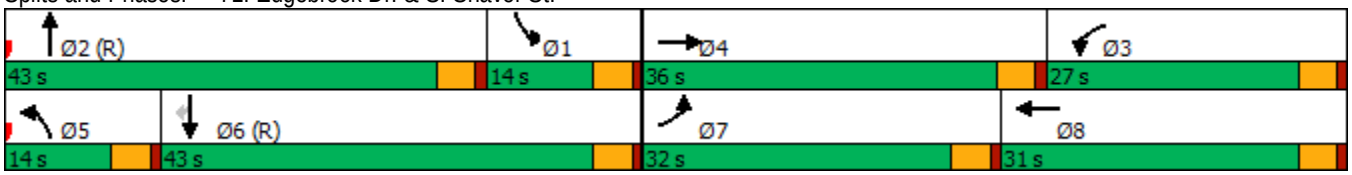
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.3	17.2	56.5		46.3	5.1	68.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	14.5	56.5		35.5	3.5	67.5				
Max Q Clear Time (g_c+I1), s		24.2	12.7	39.8		3.2	2.3	49.6				
Green Ext Time (p_c), s		1.1	0.1	12.2		0.1	0.0	14.5				

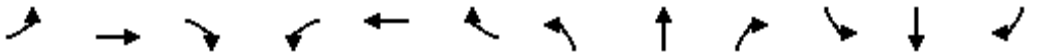
Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	328	635	192	640	88	792	107	867	404
Future Volume (vph)	328	635	192	640	88	792	107	867	404
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	32.0	36.0	27.0	31.0	14.0	43.0	14.0	43.0	43.0
Total Split (%)	26.7%	30.0%	22.5%	25.8%	11.7%	35.8%	11.7%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.0	24.6	28.2	26.8	9.1	39.8	9.5	40.2	40.2
Actuated g/C Ratio	0.22	0.20	0.24	0.22	0.08	0.33	0.08	0.34	0.34
v/c Ratio	0.90	0.71	0.49	0.93	0.69	0.84	0.80	0.77	0.66
Control Delay	40.1	19.9	18.5	35.5	80.8	44.9	62.7	22.6	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	19.9	18.5	35.5	80.8	44.9	62.7	22.6	10.4
LOS	D	B	B	D	F	D	E	C	B
Approach Delay		26.3		31.9		48.0		22.1	
Approach LOS		C		C		D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 56 (47%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 31.2	Intersection LOS: C
Intersection Capacity Utilization 89.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	635	67	192	640	57	88	792	135	107	867	404
Future Volume (veh/h)	328	635	67	192	640	57	88	792	135	107	867	404
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	338	655	69	198	660	59	91	816	139	110	894	416
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	365	857	89	425	712	64	114	959	163	178	1251	558
Arrive On Green	0.21	0.19	0.19	0.16	0.15	0.15	0.06	0.32	0.32	0.14	0.48	0.48
Sat Flow, veh/h	1753	4621	483	1753	3247	290	1753	2989	509	1753	3497	1560
Grp Volume(v), veh/h	338	473	251	198	355	364	91	477	478	110	894	416
Grp Sat Flow(s),veh/h/ln	1753	1675	1754	1753	1749	1789	1753	1749	1749	1753	1749	1560
Q Serve(g_s), s	22.7	16.1	16.3	12.3	24.1	24.1	6.1	30.6	30.6	7.1	24.4	26.0
Cycle Q Clear(g_c), s	22.7	16.1	16.3	12.3	24.1	24.1	6.1	30.6	30.6	7.1	24.4	26.0
Prop In Lane	1.00		0.28	1.00		0.16	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	365	621	325	425	383	392	114	561	561	178	1251	558
V/C Ratio(X)	0.93	0.76	0.77	0.47	0.93	0.93	0.80	0.85	0.85	0.62	0.71	0.75
Avail Cap(c_a), veh/h	402	879	460	425	386	395	139	561	561	178	1251	558
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	0.43	0.43	0.43	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	46.6	46.4	46.5	43.2	50.2	50.3	55.4	38.1	38.1	49.7	26.6	27.0
Incr Delay (d2), s/veh	25.9	2.5	5.1	0.3	15.2	15.2	23.3	15.0	15.0	3.1	1.7	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	6.9	7.6	5.6	12.5	12.8	3.4	15.2	15.2	3.2	9.5	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.5	48.9	51.6	43.6	65.5	65.5	78.7	53.0	53.0	52.8	28.3	31.4
LnGrp LOS	E	D	D	D	E	E	E	D	D	D	C	C
Approach Vol, veh/h		1062			917			1046			1420	
Approach Delay, s/veh		57.0			60.7			55.3			31.1	
Approach LOS		E			E			E			C	

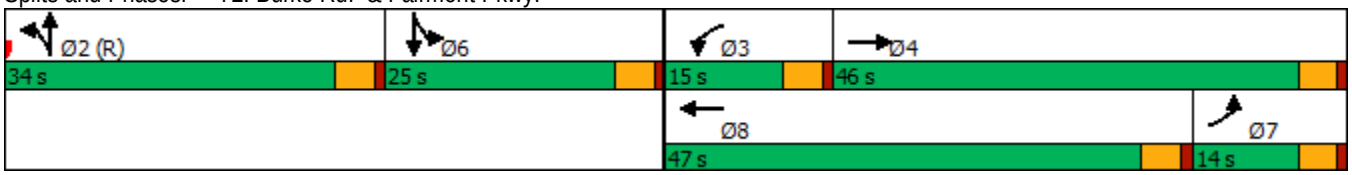
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	43.0	33.6	26.7	12.3	47.4	29.5	30.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	38.5	22.5	31.5	9.5	38.5	27.5	26.5
Max Q Clear Time (g_c+I1), s	9.1	32.6	14.3	18.3	8.1	28.0	24.7	26.1
Green Ext Time (p_c), s	0.0	2.9	0.3	3.9	0.0	5.6	0.3	0.2

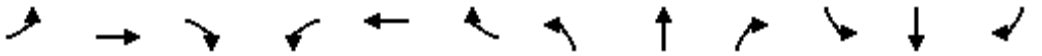
Intersection Summary	
HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	157	1073	175	1143	495	231	519
Future Volume (vph)	157	1073	175	1143	495	231	519
Turn Type	Prot	NA	Prot	NA	NA	Split	NA
Protected Phases	7	4	3	8	2	6	6
Permitted Phases							
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	46.0	15.0	47.0	34.0	25.0	25.0
Total Split (%)	11.7%	38.3%	12.5%	39.2%	28.3%	20.8%	20.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	Max	Max
Act Effct Green (s)	9.5	41.5	10.5	42.5	29.5	20.5	20.5
Actuated g/C Ratio	0.08	0.35	0.09	0.35	0.25	0.17	0.17
v/c Ratio	1.16	1.08	1.17	1.14	1.08	0.79	1.12
Control Delay	157.6	76.4	152.6	90.8	82.6	67.2	119.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	157.6	76.4	152.6	90.8	82.6	67.2	119.2
LOS	F	E	F	F	F	E	F
Approach Delay		85.4		97.8	82.6		105.8
Approach LOS		F		F	F		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 92.7	Intersection LOS: F
Intersection Capacity Utilization 112.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	1073	199	175	1143	225	183	495	220	231	519	142
Future Volume (veh/h)	157	1073	199	175	1143	225	183	495	220	231	519	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	159	1084	201	177	1155	227	185	500	0	233	524	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	139	1019	188	153	1033	202	225	647		299	597	
Arrive On Green	0.08	0.35	0.35	0.03	0.12	0.12	0.25	0.25	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1753	2947	545	1753	2917	570	914	2722	0	1753	3589	0
Grp Volume(v), veh/h	159	642	643	177	690	692	363	322	0	233	524	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1743	1753	1749	1738	1795	1749	0	1753	1749	0
Q Serve(g_s), s	9.5	41.5	41.5	10.5	42.5	42.5	23.0	20.4	0.0	15.3	17.5	0.0
Cycle Q Clear(g_c), s	9.5	41.5	41.5	10.5	42.5	42.5	23.0	20.4	0.0	15.3	17.5	0.0
Prop In Lane	1.00		0.31	1.00		0.33	0.51		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	139	605	603	153	619	616	441	430		299	597	
V/C Ratio(X)	1.15	1.06	1.07	1.15	1.11	1.12	0.82	0.75		0.78	0.88	
Avail Cap(c_a), veh/h	139	605	603	153	619	616	441	430		299	597	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.35	0.35	0.35	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.2	39.2	39.3	58.3	53.0	53.0	42.8	41.8	0.0	47.6	48.5	0.0
Incr Delay (d2), s/veh	105.0	46.5	48.5	92.3	59.7	64.2	1.7	1.1	0.0	17.9	16.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	25.3	25.6	8.9	30.2	30.8	10.3	8.9	0.0	8.1	9.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	160.3	85.8	87.8	150.6	112.6	117.2	44.5	42.9	0.0	65.4	65.1	0.0
LnGrp LOS	F	F	F	F	F	F	D	D		E	E	
Approach Vol, veh/h		1444			1559			685	A		757	A
Approach Delay, s/veh		94.9			119.0			43.7			65.2	
Approach LOS		F			F			D			E	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	34.0	15.0	46.0	25.0	14.0	47.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	29.5	10.5	41.5	20.5	9.5	42.5
Max Q Clear Time (g_c+I1), s	25.0	12.5	43.5	19.5	11.5	44.5
Green Ext Time (p_c), s	1.7	0.0	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	90.4
HCM 6th LOS	F

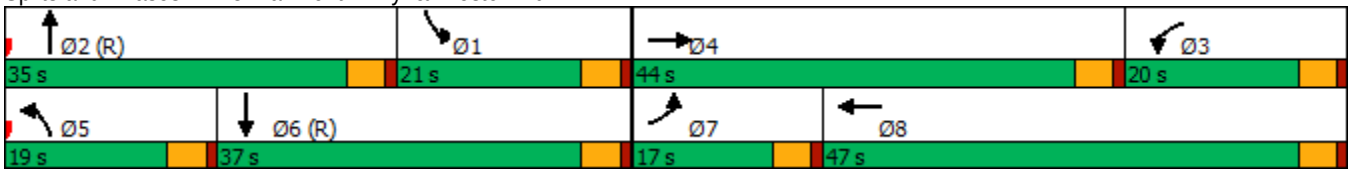
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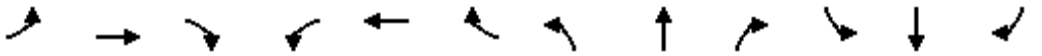
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	165	1331	204	1397	190	571	443	698
Future Volume (vph)	165	1331	204	1397	190	571	443	698
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	17.0	44.0	20.0	47.0	19.0	35.0	21.0	37.0
Total Split (%)	14.2%	36.7%	16.7%	39.2%	15.8%	29.2%	17.5%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.5	39.5	15.5	42.5	14.5	30.5	16.5	32.5
Actuated g/C Ratio	0.10	0.33	0.13	0.35	0.12	0.25	0.14	0.27
v/c Ratio	0.94	0.93	0.94	1.01	0.94	0.87	0.99	0.89
Control Delay	95.3	27.5	98.1	62.5	100.7	53.0	91.1	54.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.3	27.5	98.1	62.5	100.7	53.0	91.1	54.6
LOS	F	C	F	E	F	D	F	D
Approach Delay		34.3		66.3		62.8		67.5
Approach LOS		C		E		E		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 86 (72%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 56.9	Intersection LOS: E
Intersection Capacity Utilization 97.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	1331	132	204	1397	321	190	571	168	443	698	109
Future Volume (veh/h)	165	1331	132	204	1397	321	190	571	168	443	698	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	170	1372	136	210	1440	331	196	589	173	457	720	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	183	1471	146	249	1447	332	212	678	199	468	821	128
Arrive On Green	0.21	0.63	0.63	0.14	0.35	0.35	0.12	0.25	0.25	0.14	0.27	0.27
Sat Flow, veh/h	1753	4647	461	1753	4086	936	1753	2667	782	3401	3033	472
Grp Volume(v), veh/h	170	989	519	210	1180	591	196	386	376	457	415	417
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1675	1672	1753	1749	1700	1700	1749	1756
Q Serve(g_s), s	11.4	31.7	31.7	14.0	42.1	42.4	13.3	25.3	25.4	16.1	27.2	27.3
Cycle Q Clear(g_c), s	11.4	31.7	31.7	14.0	42.1	42.4	13.3	25.3	25.4	16.1	27.2	27.3
Prop In Lane	1.00		0.26	1.00		0.56	1.00		0.46	1.00		0.27
Lane Grp Cap(c), veh/h	183	1060	556	249	1186	592	212	444	432	468	474	476
V/C Ratio(X)	0.93	0.93	0.93	0.84	0.99	1.00	0.93	0.87	0.87	0.98	0.88	0.88
Avail Cap(c_a), veh/h	183	1103	579	249	1186	592	212	444	432	468	474	476
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.45	0.13	0.13	0.13	1.00	1.00	1.00	0.21	0.21	0.21
Uniform Delay (d), s/veh	47.1	20.9	20.9	50.2	38.6	38.7	52.2	42.8	42.9	51.6	41.8	41.8
Incr Delay (d2), s/veh	28.0	7.2	12.1	3.7	8.1	13.0	41.5	19.9	20.7	14.1	5.2	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	8.8	10.0	6.4	18.3	19.2	8.3	13.3	13.1	7.7	12.3	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.1	28.0	33.0	53.9	46.8	51.7	93.8	62.7	63.6	65.7	47.0	47.0
LnGrp LOS	E	C	C	D	D	D	F	E	E	E	D	D
Approach Vol, veh/h		1678			1981			958			1289	
Approach Delay, s/veh		34.3			49.0			69.4			53.6	
Approach LOS		C			D			E			D	

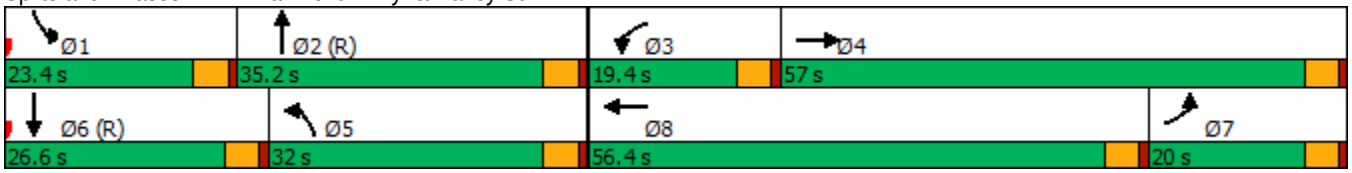
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	35.0	21.5	42.5	19.0	37.0	17.0	47.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	30.5	15.5	39.5	14.5	32.5	12.5	42.5
Max Q Clear Time (g_c+I1), s	18.1	27.4	16.0	33.7	15.3	29.3	13.4	44.4
Green Ext Time (p_c), s	0.0	1.4	0.0	4.2	0.0	1.6	0.0	0.0

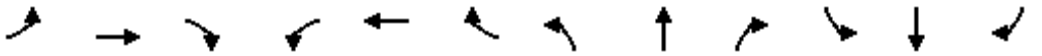
Intersection Summary	
HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	190	1804	176	1561	357	391	210	335
Future Volume (vph)	190	1804	176	1561	357	391	210	335
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	8.0	20.0	9.5	20.0
Total Split (s)	20.0	57.0	19.4	56.4	32.0	35.2	23.4	26.6
Total Split (%)	14.8%	42.2%	14.4%	41.8%	23.7%	26.1%	17.3%	19.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.5	52.5	14.9	51.9	27.5	31.1	18.5	22.1
Actuated g/C Ratio	0.11	0.39	0.11	0.38	0.20	0.23	0.14	0.16
v/c Ratio	0.98	1.07	0.95	0.97	1.04	0.68	0.91	0.87
Control Delay	119.1	80.5	112.0	55.3	110.9	49.5	96.5	65.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	119.1	80.5	112.0	55.3	110.9	49.5	96.5	65.8
LOS	F	F	F	E	F	D	F	E
Approach Delay		83.9		60.4		74.4		75.0
Approach LOS		F		E		E		E

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 73.3	Intersection LOS: E
Intersection Capacity Utilization 102.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1804	184	176	1561	225	357	391	132	210	335	152
Future Volume (veh/h)	190	1804	184	176	1561	225	357	391	132	210	335	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	196	1860	190	181	1609	232	368	403	136	216	345	157
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	205	1803	183	193	1697	244	357	595	199	239	385	172
Arrive On Green	0.12	0.39	0.39	0.11	0.38	0.38	0.20	0.23	0.23	0.14	0.16	0.16
Sat Flow, veh/h	1753	4635	471	1753	4438	638	1753	2575	859	1753	2350	1050
Grp Volume(v), veh/h	196	1342	708	181	1213	628	368	272	267	216	255	247
Grp Sat Flow(s),veh/h/ln	1753	1675	1756	1753	1675	1726	1753	1749	1686	1753	1749	1652
Q Serve(g_s), s	15.0	52.5	52.5	13.8	47.3	47.7	27.5	19.1	19.5	16.4	19.3	19.8
Cycle Q Clear(g_c), s	15.0	52.5	52.5	13.8	47.3	47.7	27.5	19.1	19.5	16.4	19.3	19.8
Prop In Lane	1.00		0.27	1.00		0.37	1.00		0.51	1.00		0.64
Lane Grp Cap(c), veh/h	205	1303	683	193	1281	660	357	404	390	239	286	270
V/C Ratio(X)	0.96	1.03	1.04	0.94	0.95	0.95	1.03	0.67	0.69	0.90	0.89	0.91
Avail Cap(c_a), veh/h	205	1303	683	193	1288	664	357	404	390	245	286	270
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.23	0.23	0.23	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	41.3	41.3	59.6	40.4	40.5	53.8	47.3	47.4	57.4	55.3	55.5
Incr Delay (d2), s/veh	20.4	20.5	27.3	46.6	14.3	23.5	55.7	8.7	9.4	32.6	31.4	36.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	25.0	27.5	8.7	21.8	24.3	17.6	9.3	9.2	9.4	11.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.6	61.8	68.5	106.1	54.6	64.0	109.4	56.0	56.8	90.1	86.7	91.8
LnGrp LOS	E	F	F	F	D	E	F	E	E	F	F	F
Approach Vol, veh/h		2246			2022			907			718	
Approach Delay, s/veh		65.5			62.1			77.9			89.4	
Approach LOS		E			E			E			F	

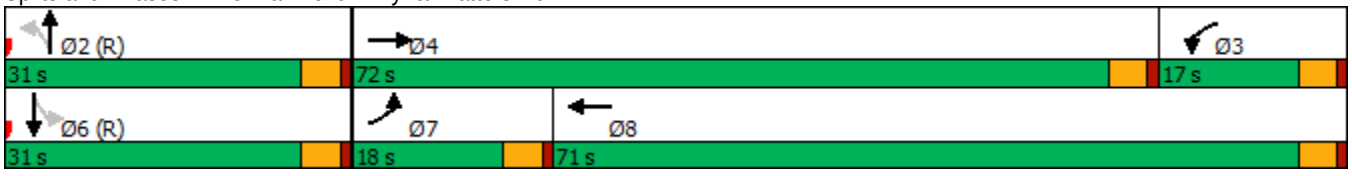
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.9	35.7	19.4	57.0	32.0	26.6	20.3	56.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.9	30.7	14.9	52.5	27.5	22.1	15.5	51.9
Max Q Clear Time (g_c+I1), s	18.4	21.5	15.8	54.5	29.5	21.8	17.0	49.7
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.0	0.1	0.0	2.0

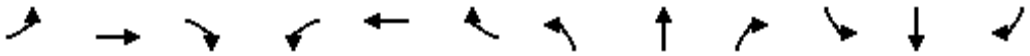
Intersection Summary	
HCM 6th Ctrl Delay	69.2
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	114	1370	85	1566	34	27	71	23
Future Volume (vph)	114	1370	85	1566	34	27	71	23
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	18.0	72.0	17.0	71.0	31.0	31.0	31.0	31.0
Total Split (%)	15.0%	60.0%	14.2%	59.2%	25.8%	25.8%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.9	59.6	17.8	65.5		29.0		29.0
Actuated g/C Ratio	0.10	0.50	0.15	0.55		0.24		0.24
v/c Ratio	0.67	0.83	0.34	0.88		0.28		0.55
Control Delay	61.3	17.6	31.0	7.3		31.7		37.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	61.3	17.6	31.0	7.3		31.7		37.5
LOS	E	B	C	A		C		D
Approach Delay		20.8		8.5		31.7		37.5
Approach LOS		C		A		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1370	30	85	1566	62	34	27	38	71	23	118
Future Volume (veh/h)	114	1370	30	85	1566	62	34	27	38	71	23	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	116	1398	31	87	1598	63	35	28	39	72	23	120
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	1631	36	234	1781	70	168	136	163	169	66	245
Arrive On Green	0.08	0.47	0.47	0.13	0.52	0.52	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1753	3498	78	1753	3430	135	443	472	566	447	228	853
Grp Volume(v), veh/h	116	698	731	87	812	849	102	0	0	215	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1827	1753	1749	1816	1481	0	0	1528	0	0
Q Serve(g_s), s	7.8	42.6	42.7	5.4	50.0	50.7	0.0	0.0	0.0	7.6	0.0	0.0
Cycle Q Clear(g_c), s	7.8	42.6	42.7	5.4	50.0	50.7	5.8	0.0	0.0	13.4	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.07	0.34		0.38	0.33		0.56
Lane Grp Cap(c), veh/h	142	815	852	234	908	943	466	0	0	480	0	0
V/C Ratio(X)	0.82	0.86	0.86	0.37	0.89	0.90	0.22	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	197	984	1028	234	969	1007	466	0	0	480	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	54.3	28.5	28.5	47.4	25.9	26.1	32.4	0.0	0.0	35.0	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.6	0.6	0.1	1.1	1.1	1.1	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	17.5	18.3	2.4	20.2	21.3	2.4	0.0	0.0	5.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	29.1	29.1	47.5	27.0	27.2	33.5	0.0	0.0	38.0	0.0	0.0
LnGrp LOS	E	C	C	D	C	C	C	A	A	D	A	A
Approach Vol, veh/h		1545			1748			102			215	
Approach Delay, s/veh		31.1			28.1			33.5			38.0	
Approach LOS		C			C			C			D	

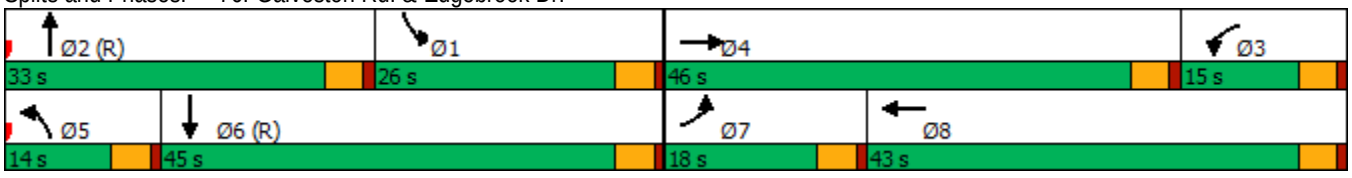
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.0	20.5	60.4		39.0	14.2	66.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	12.5	67.5		26.5	13.5	66.5				
Max Q Clear Time (g_c+I1), s		7.8	7.4	44.7		15.4	9.8	52.7				
Green Ext Time (p_c), s		0.5	0.1	11.2		0.9	0.1	9.6				

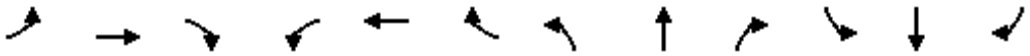
Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	143	837	86	757	89	536	240	543
Future Volume (vph)	143	837	86	757	89	536	240	543
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	46.0	15.0	43.0	14.0	33.0	26.0	45.0
Total Split (%)	15.0%	38.3%	12.5%	35.8%	11.7%	27.5%	21.7%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.9	38.2	12.6	38.0	9.1	29.7	21.5	42.0
Actuated g/C Ratio	0.11	0.32	0.10	0.32	0.08	0.25	0.18	0.35
v/c Ratio	0.80	0.84	0.49	0.93	0.71	0.78	0.80	0.66
Control Delay	62.4	23.7	48.1	38.2	82.0	48.9	67.4	34.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	23.7	48.1	38.2	82.0	48.9	67.4	34.2
LOS	E	C	D	D	F	D	E	C
Approach Delay		29.1		39.0		52.9		42.1
Approach LOS		C		D		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 61 (51%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 39.8	Intersection LOS: D
Intersection Capacity Utilization 86.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	837	48	86	757	204	89	536	102	240	543	222
Future Volume (veh/h)	143	837	48	86	757	204	89	536	102	240	543	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	149	872	50	90	789	212	93	558	106	250	566	231
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	175	1001	57	199	849	228	116	697	132	353	903	368
Arrive On Green	0.10	0.30	0.30	0.11	0.31	0.31	0.07	0.24	0.24	0.20	0.37	0.37
Sat Flow, veh/h	1753	3362	193	1753	2725	732	1753	2934	556	1753	2424	987
Grp Volume(v), veh/h	149	454	468	90	506	495	93	332	332	250	408	389
Grp Sat Flow(s),veh/h/ln	1753	1749	1806	1753	1749	1709	1753	1749	1741	1753	1749	1663
Q Serve(g_s), s	10.0	29.5	29.5	5.8	33.7	33.7	6.3	21.4	21.6	15.9	22.9	23.0
Cycle Q Clear(g_c), s	10.0	29.5	29.5	5.8	33.7	33.7	6.3	21.4	21.6	15.9	22.9	23.0
Prop In Lane	1.00		0.11	1.00		0.43	1.00		0.32	1.00		0.59
Lane Grp Cap(c), veh/h	175	520	538	199	544	532	116	415	413	353	652	620
V/C Ratio(X)	0.85	0.87	0.87	0.45	0.93	0.93	0.80	0.80	0.80	0.71	0.63	0.63
Avail Cap(c_a), veh/h	197	605	625	199	561	548	139	415	413	353	652	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	40.0	40.0	49.7	40.0	40.1	55.3	43.1	43.1	44.7	30.8	30.8
Incr Delay (d2), s/veh	25.9	11.8	11.5	1.6	21.9	22.3	24.1	14.8	15.2	6.4	4.5	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	14.3	14.7	2.6	17.6	17.3	3.5	10.9	11.0	7.6	10.4	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.0	51.8	51.5	51.3	62.0	62.3	79.4	57.9	58.3	51.1	35.3	35.6
LnGrp LOS	E	D	D	D	E	E	E	E	E	D	D	D
Approach Vol, veh/h		1071			1091			757			1047	
Approach Delay, s/veh		55.4			61.2			60.7			39.2	
Approach LOS		E			E			E			D	

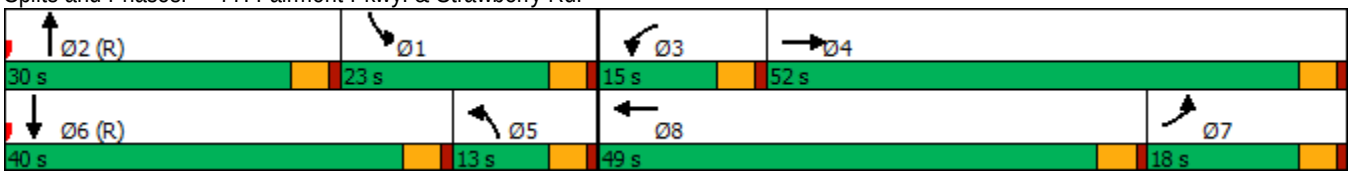
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.6	33.0	18.1	40.2	12.4	49.2	16.5	41.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	28.5	10.5	41.5	9.5	40.5	13.5	38.5
Max Q Clear Time (g_c+I1), s	17.9	23.6	7.8	31.5	8.3	25.0	12.0	35.7
Green Ext Time (p_c), s	0.2	1.8	0.0	4.2	0.0	4.7	0.1	1.7

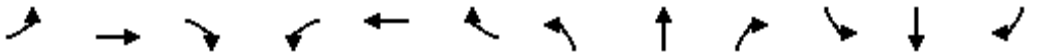
Intersection Summary	
HCM 6th Ctrl Delay	53.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	169	882	72	1006	60	552	231	490
Future Volume (vph)	169	882	72	1006	60	552	231	490
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	52.0	15.0	49.0	13.0	30.0	23.0	40.0
Total Split (%)	15.0%	43.3%	12.5%	40.8%	10.8%	25.0%	19.2%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.5	51.2	9.3	44.9	8.0	25.5	18.1	37.7
Actuated g/C Ratio	0.11	0.43	0.08	0.37	0.07	0.21	0.15	0.31
v/c Ratio	0.90	0.67	0.55	0.98	0.54	0.90	0.91	0.63
Control Delay	78.8	18.8	65.7	18.9	67.2	45.2	87.4	36.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.8	18.8	65.7	18.9	67.2	45.2	87.4	36.7
LOS	E	B	E	B	E	D	F	D
Approach Delay		27.8		21.5		47.1		49.9
Approach LOS		C		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 27 (23%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 34.1	Intersection LOS: C
Intersection Capacity Utilization 94.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	882	79	72	1006	210	60	552	89	231	490	165
Future Volume (veh/h)	169	882	79	72	1006	210	60	552	89	231	490	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	174	909	81	74	1037	216	62	569	92	238	505	170
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	1387	124	93	1060	220	129	641	103	276	761	255
Arrive On Green	0.11	0.43	0.43	0.11	0.74	0.74	0.07	0.21	0.21	0.16	0.30	0.30
Sat Flow, veh/h	1753	3248	289	1753	2883	599	1753	3016	486	1753	2573	861
Grp Volume(v), veh/h	174	489	501	74	628	625	62	329	332	238	342	333
Grp Sat Flow(s),veh/h/ln	1753	1749	1789	1753	1749	1733	1753	1749	1753	1753	1749	1686
Q Serve(g_s), s	11.7	26.7	26.7	4.9	40.4	41.1	4.1	21.9	22.1	15.9	20.6	20.8
Cycle Q Clear(g_c), s	11.7	26.7	26.7	4.9	40.4	41.1	4.1	21.9	22.1	15.9	20.6	20.8
Prop In Lane	1.00		0.16	1.00		0.35	1.00		0.28	1.00		0.51
Lane Grp Cap(c), veh/h	197	747	764	93	643	637	129	372	373	276	517	499
V/C Ratio(X)	0.88	0.66	0.66	0.79	0.98	0.98	0.48	0.89	0.89	0.86	0.66	0.67
Avail Cap(c_a), veh/h	197	747	764	153	648	643	129	372	373	276	517	499
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.09	0.09	0.09	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	52.5	27.4	27.4	53.0	15.4	15.5	53.4	45.8	45.9	49.3	37.0	37.1
Incr Delay (d2), s/veh	29.9	1.7	1.7	1.4	6.2	6.9	2.7	25.2	25.8	12.9	3.2	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	11.4	11.6	2.1	7.9	8.0	1.9	12.1	12.2	7.9	9.2	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.4	29.1	29.1	54.4	21.6	22.4	56.1	71.1	71.7	62.2	40.2	40.5
LnGrp LOS	F	C	C	D	C	C	E	E	E	E	D	D
Approach Vol, veh/h		1164			1327			723			913	
Approach Delay, s/veh		37.1			23.8			70.1			46.0	
Approach LOS		D			C			E			D	

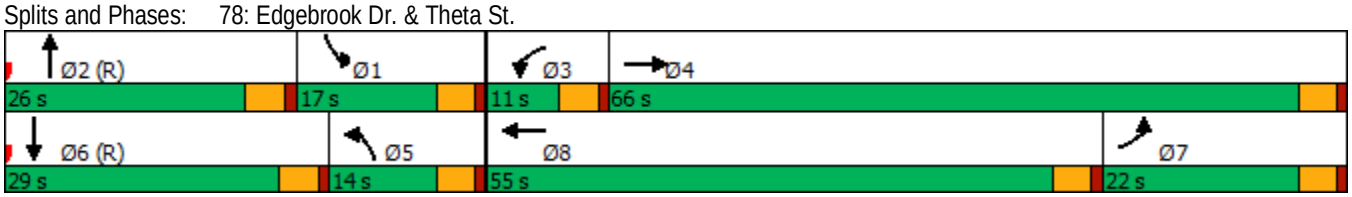
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.4	30.0	10.9	55.7	13.4	40.0	18.0	48.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	25.5	10.5	47.5	8.5	35.5	13.5	44.5
Max Q Clear Time (g_c+I1), s	17.9	24.1	6.9	28.7	6.1	22.8	13.7	43.1
Green Ext Time (p_c), s	0.0	0.6	0.0	6.5	0.0	3.5	0.0	1.0

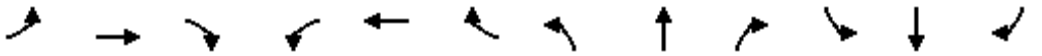
Intersection Summary	
HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	147	1237	47	1030	69	25	75	55
Future Volume (vph)	147	1237	47	1030	69	25	75	55
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	22.0	66.0	11.0	55.0	14.0	26.0	17.0	29.0
Total Split (%)	18.3%	55.0%	9.2%	45.8%	11.7%	21.7%	14.2%	24.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.3	60.4	6.4	48.4	8.8	28.2	11.3	30.6
Actuated g/C Ratio	0.14	0.50	0.05	0.40	0.07	0.24	0.09	0.26
v/c Ratio	0.71	0.88	0.57	0.89	0.61	0.23	0.52	0.51
Control Delay	66.0	33.7	62.7	32.7	74.2	16.4	65.2	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.0	33.7	62.7	32.7	74.2	16.4	65.2	29.8
LOS	E	C	E	C	E	B	E	C
Approach Delay		36.9		34.0		41.3		38.7
Approach LOS		D		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 72 (60%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 36.2	Intersection LOS: D
Intersection Capacity Utilization 79.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	1237	107	47	1030	61	69	25	66	75	55	170
Future Volume (veh/h)	147	1237	107	47	1030	61	69	25	66	75	55	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	167	1406	122	53	1170	69	78	28	75	85	62	193
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	226	1550	134	68	1293	76	230	79	212	274	80	250
Arrive On Green	0.13	0.48	0.48	0.04	0.39	0.39	0.13	0.18	0.18	0.16	0.20	0.20
Sat Flow, veh/h	1753	3257	281	1753	3356	198	1753	442	1185	1753	394	1226
Grp Volume(v), veh/h	167	752	776	53	609	630	78	0	103	85	0	255
Grp Sat Flow(s),veh/h/ln	1753	1749	1790	1753	1749	1805	1753	0	1627	1753	0	1620
Q Serve(g_s), s	11.0	47.4	48.2	3.6	39.4	39.5	4.9	0.0	6.7	5.2	0.0	17.8
Cycle Q Clear(g_c), s	11.0	47.4	48.2	3.6	39.4	39.5	4.9	0.0	6.7	5.2	0.0	17.8
Prop In Lane	1.00		0.16	1.00		0.11	1.00		0.73	1.00		0.76
Lane Grp Cap(c), veh/h	226	832	852	68	674	696	230	0	292	274	0	331
V/C Ratio(X)	0.74	0.90	0.91	0.78	0.90	0.91	0.34	0.00	0.35	0.31	0.00	0.77
Avail Cap(c_a), veh/h	256	896	917	95	736	760	230	0	292	274	0	331
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.3	28.9	29.1	57.2	34.8	34.8	47.4	0.0	43.2	44.9	0.0	45.1
Incr Delay (d2), s/veh	9.4	11.9	12.6	23.5	13.9	13.7	0.9	0.0	3.3	0.6	0.0	15.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	20.8	21.8	2.0	18.2	18.8	2.2	0.0	2.9	2.3	0.0	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	40.8	41.7	80.7	48.7	48.5	48.2	0.0	46.5	45.5	0.0	61.0
LnGrp LOS	E	D	D	F	D	D	D	A	D	D	A	E
Approach Vol, veh/h		1695			1292			181			340	
Approach Delay, s/veh		43.1			49.9			47.2			57.1	
Approach LOS		D			D			D			E	

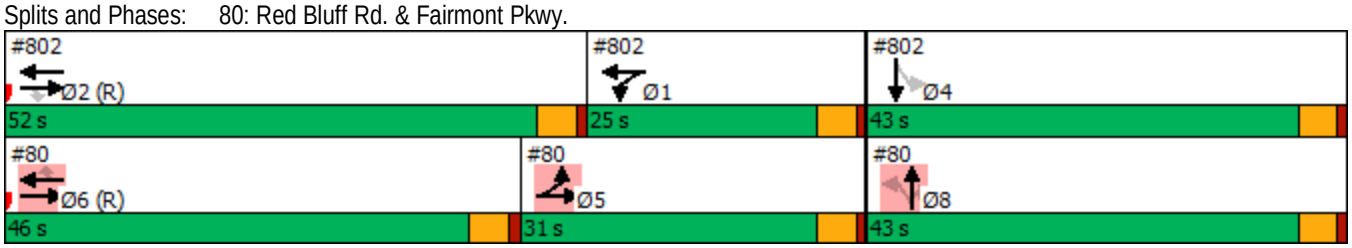
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.3	26.0	9.1	61.6	20.3	29.0	20.0	50.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	21.5	6.5	61.5	9.5	24.5	17.5	50.5
Max Q Clear Time (g_c+I1), s	7.2	8.7	5.6	50.2	6.9	19.8	13.0	41.5
Green Ext Time (p_c), s	0.1	0.4	0.0	6.9	0.0	0.6	0.2	4.7

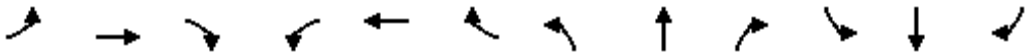
Intersection Summary	
HCM 6th Ctrl Delay	47.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	9	1880	1770	256	169	555	132			
Future Volume (vph)	9	1880	1770	256	169	555	132			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	31.0		46.0	46.0	43.0	43.0	43.0	25.0	52.0	43.0
Total Split (%)	25.8%		38.3%	38.3%	35.8%	35.8%	35.8%	21%	43%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	26.2	75.8	45.1	45.1	35.2	35.2	35.2			
Actuated g/C Ratio	0.22	0.63	0.38	0.38	0.29	0.29	0.29			
v/c Ratio	0.03	0.64	0.68	0.41	0.36	0.59	0.27			
Control Delay	27.7	6.4	18.9	7.6	33.4	37.3	18.5			
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0			
Total Delay	27.7	6.9	18.9	7.6	33.4	37.3	18.5			
LOS	C	A	B	A	C	D	B			
Approach Delay		7.0	17.4			33.6				
Approach LOS		A	B			C				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38 (32%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





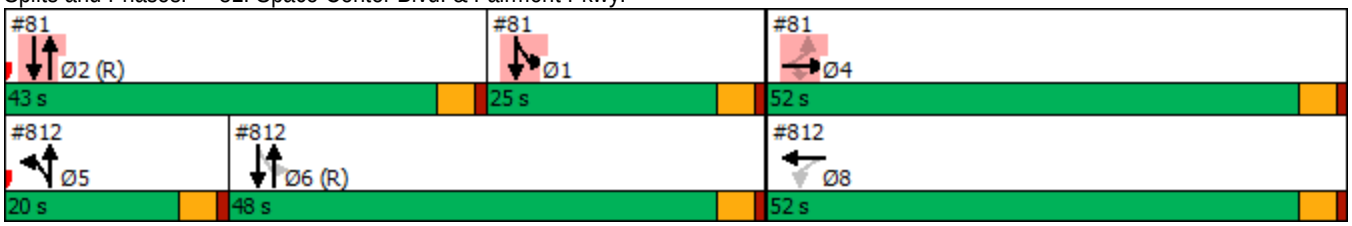
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1880	0	0	1770	256	169	555	132	0	0	0
Future Volume (vph)	9	1880	0	0	1770	256	169	555	132	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	10	2022	0	0	1903	275	182	597	142	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	84	0	0	67	0	0	0
Lane Group Flow (vph)	10	2022	0	0	1903	191	182	597	75	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	26.2	75.8			45.1	45.1	35.2	35.2	35.2			
Effective Green, g (s)	26.2	75.8			45.1	45.1	35.2	35.2	35.2			
Actuated g/C Ratio	0.22	0.63			0.38	0.38	0.29	0.29	0.29			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	379	3150			2780	583	509	1018	455			
v/s Ratio Prot	0.01	c0.41			c0.26			c0.17				
v/s Ratio Perm						0.12	0.10		0.05			
v/c Ratio	0.03	0.64			0.68	0.33	0.36	0.59	0.16			
Uniform Delay, d1	36.9	13.7			31.5	26.7	33.5	36.2	31.5			
Progression Factor	0.75	0.38			0.58	0.50	0.97	0.99	1.53			
Incremental Delay, d2	0.0	0.4			0.1	0.1	0.3	0.7	0.1			
Delay (s)	27.5	5.6			18.4	13.6	32.7	36.4	48.2			
Level of Service	C	A			B	B	C	D	D			
Approach Delay (s)		5.7			17.8			37.5			0.0	
Approach LOS		A			B			D			A	

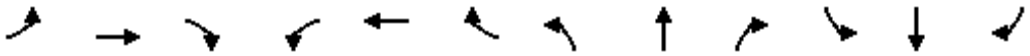
Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	303	2048	490	943	213	1461			
Future Volume (vph)	303	2048	490	943	213	1461			
Turn Type	Perm	NA	Perm	NA	Prot	NA			
Protected Phases		4		2	1	1 2	5	6	8
Permitted Phases	4		4						
Detector Phase	4	4	4	2	1	1 2			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	52.0	52.0	52.0	43.0	25.0		20.0	48.0	52.0
Total Split (%)	43.3%	43.3%	43.3%	35.8%	20.8%		17%	40%	43%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	47.5	47.5	47.5	38.5	20.5	63.5			
Actuated g/C Ratio	0.40	0.40	0.40	0.32	0.17	0.53			
v/c Ratio	0.46	0.86	0.76	0.94	0.75	0.83			
Control Delay	29.5	37.5	33.7	40.9	54.2	20.8			
Queue Delay	7.0	0.0	0.0	8.8	64.5	47.6			
Total Delay	36.5	37.5	33.7	49.8	118.7	68.4			
LOS	D	D	C	D	F	E			
Approach Delay		36.8		49.8		74.8			
Approach LOS		D		D		E			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 97 (81%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 50.6	Intersection LOS: D
Intersection Capacity Utilization 85.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





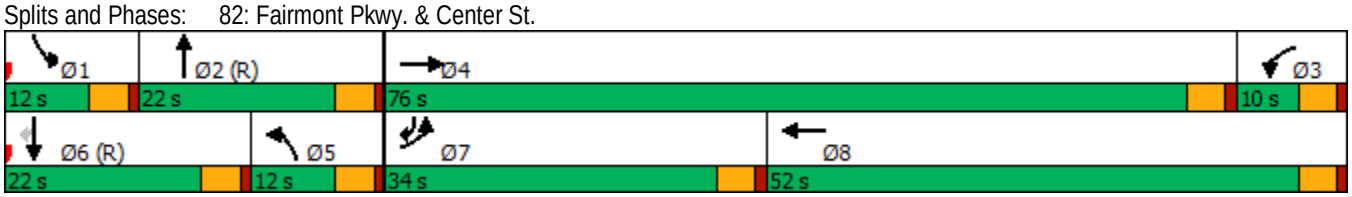
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	303	2048	490	0	0	0	0	943	461	213	1461	0
Future Volume (vph)	303	2048	490	0	0	0	0	943	461	213	1461	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91		1.00	0.95	
Frt	1.00	1.00	0.85					0.95		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4742		1736	3471	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4742		1736	3471	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	316	2133	510	0	0	0	0	982	480	222	1522	0
RTOR Reduction (vph)	0	0	57	0	0	0	0	41	0	0	0	0
Lane Group Flow (vph)	316	2133	453	0	0	0	0	1421	0	222	1522	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4									
Actuated Green, G (s)	47.5	47.5	47.5					38.5		20.5	63.5	
Effective Green, g (s)	47.5	47.5	47.5					38.5		20.5	63.5	
Actuated g/C Ratio	0.40	0.40	0.40					0.32		0.17	0.53	
Clearance Time (s)	4.5	4.5	4.5					4.5		4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		
Lane Grp Cap (vph)	687	2487	614					1521		296	1836	
v/s Ratio Prot		c0.34						c0.30		0.13	c0.44	
v/s Ratio Perm	0.18		0.29									
v/c Ratio	0.46	0.86	0.74					0.93		0.75	0.83	
Uniform Delay, d1	26.8	33.2	30.9					39.5		47.3	23.7	
Progression Factor	1.00	1.00	1.00					0.80		0.84	0.70	
Incremental Delay, d2	0.5	3.2	4.6					10.1		8.6	2.7	
Delay (s)	27.3	36.3	35.5					41.8		48.3	19.4	
Level of Service	C	D	D					D		D	B	
Approach Delay (s)		35.2			0.0			41.8			23.1	
Approach LOS		D			A			D			C	

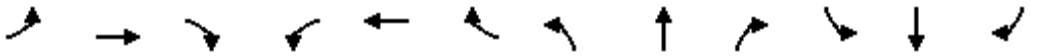
Intersection Summary			
HCM 2000 Control Delay	33.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	865	1520	17	2090	112	65	93	58	973
Future Volume (vph)	865	1520	17	2090	112	65	93	58	973
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	34.0	76.0	10.0	52.0	12.0	22.0	12.0	22.0	34.0
Total Split (%)	28.3%	63.3%	8.3%	43.3%	10.0%	18.3%	10.0%	18.3%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	29.5	76.3	7.0	47.5	7.5	17.5	7.5	17.5	47.0
Actuated g/C Ratio	0.25	0.64	0.06	0.40	0.06	0.15	0.06	0.15	0.39
v/c Ratio	1.09	0.55	0.18	1.12	1.08	0.15	0.90	0.23	0.90
Control Delay	101.2	13.7	37.0	74.4	163.3	40.9	97.6	50.7	45.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.2	13.7	37.0	74.4	163.3	40.9	97.6	50.7	45.8
LOS	F	B	D	E	F	D	F	D	D
Approach Delay		43.6		74.1		115.1		50.4	
Approach LOS		D		E		F		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 111 (93%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 58.0	Intersection LOS: E
Intersection Capacity Utilization 96.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	865	1520	147	17	2090	23	112	65	8	93	58	973
Future Volume (veh/h)	865	1520	147	17	2090	23	112	65	8	93	58	973
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	901	1583	153	18	2177	24	117	68	8	97	60	1014
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	836	2087	201	340	2028	22	110	461	53	110	268	1075
Arrive On Green	0.25	0.45	0.45	0.39	0.79	0.79	0.06	0.15	0.15	0.02	0.05	0.05
Sat Flow, veh/h	3401	4660	450	1753	5124	56	1753	3158	365	1753	1841	2745
Grp Volume(v), veh/h	901	1138	598	18	1423	778	117	37	39	97	60	1014
Grp Sat Flow(s),veh/h/ln	1700	1675	1760	1753	1675	1831	1753	1749	1775	1753	1841	1373
Q Serve(g_s), s	29.5	34.1	34.2	0.8	47.5	47.5	7.5	2.2	2.3	6.6	3.8	17.5
Cycle Q Clear(g_c), s	29.5	34.1	34.2	0.8	47.5	47.5	7.5	2.2	2.3	6.6	3.8	17.5
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	836	1500	788	340	1326	725	110	255	259	110	268	1075
V/C Ratio(X)	1.08	0.76	0.76	0.05	1.07	1.07	1.07	0.15	0.15	0.89	0.22	0.94
Avail Cap(c_a), veh/h	836	1996	1049	340	1326	725	110	255	259	110	268	1075
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	0.45	0.45	0.45
Uniform Delay (d), s/veh	45.3	27.7	27.7	29.8	12.5	12.5	56.3	44.7	44.8	58.3	50.6	22.6
Incr Delay (d2), s/veh	54.2	1.2	2.3	0.0	44.3	51.6	105.4	1.2	1.2	29.7	0.9	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.6	13.6	14.6	0.3	12.5	15.2	6.5	1.0	1.1	3.9	1.8	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.5	28.9	30.0	29.9	56.8	64.1	161.7	45.9	46.0	88.0	51.4	31.8
LnGrp LOS	F	C	C	C	F	F	F	D	D	F	D	C
Approach Vol, veh/h		2637			2219			193			1171	
Approach Delay, s/veh		53.3			59.1			116.1			37.4	
Approach LOS		D			E			F			D	

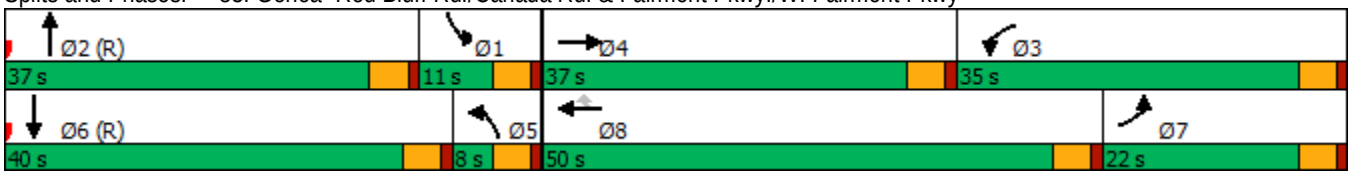
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	22.0	27.8	58.2	12.0	22.0	34.0	52.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	17.5	5.5	71.5	7.5	17.5	29.5	47.5
Max Q Clear Time (g_c+I1), s	8.6	4.3	2.8	36.2	9.5	19.5	31.5	49.5
Green Ext Time (p_c), s	0.0	0.2	0.0	17.6	0.0	0.0	0.0	0.0

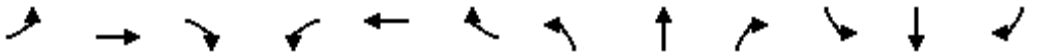
Intersection Summary	
HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	324	933	570	1644	174	53	575	119	691
Future Volume (vph)	324	933	570	1644	174	53	575	119	691
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	22.0	37.0	35.0	50.0	50.0	8.0	37.0	11.0	40.0
Total Split (%)	18.3%	30.8%	29.2%	41.7%	41.7%	6.7%	30.8%	9.2%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.5	32.5	30.5	45.5	45.5	3.5	32.5	6.5	35.5
Actuated g/C Ratio	0.15	0.27	0.25	0.38	0.38	0.03	0.27	0.05	0.30
v/c Ratio	1.32	1.05	1.33	1.29	0.28	1.10	1.14	1.31	1.03
Control Delay	211.8	66.3	179.1	154.3	5.3	199.2	102.0	184.6	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	211.8	66.3	179.1	154.3	5.3	199.2	102.0	184.6	43.5
LOS	F	E	F	F	A	F	F	F	D
Approach Delay		103.2		149.4			106.4		58.1
Approach LOS		F		F			F		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 113.6	Intersection LOS: F
Intersection Capacity Utilization 123.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	324	933	19	570	1644	174	53	575	545	119	691	338
Future Volume (veh/h)	324	933	19	570	1644	174	53	575	545	119	691	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	334	962	20	588	1695	179	55	593	562	123	712	348
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	256	949	20	446	1326	591	51	474	422	95	674	329
Arrive On Green	0.15	0.27	0.27	0.25	0.38	0.38	0.03	0.27	0.27	0.05	0.30	0.30
Sat Flow, veh/h	1753	3503	73	1753	3497	1560	1753	1749	1560	1753	2277	1112
Grp Volume(v), veh/h	334	480	502	588	1695	179	55	593	562	123	547	513
Grp Sat Flow(s),veh/h/ln	1753	1749	1828	1753	1749	1560	1753	1749	1560	1753	1749	1641
Q Serve(g_s), s	17.5	32.5	32.5	30.5	45.5	9.7	3.5	32.5	32.5	6.5	35.5	35.5
Cycle Q Clear(g_c), s	17.5	32.5	32.5	30.5	45.5	9.7	3.5	32.5	32.5	6.5	35.5	35.5
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	256	474	495	446	1326	591	51	474	422	95	517	485
V/C Ratio(X)	1.31	1.01	1.01	1.32	1.28	0.30	1.08	1.25	1.33	1.30	1.06	1.06
Avail Cap(c_a), veh/h	256	474	495	446	1326	591	51	474	422	95	517	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	51.2	43.8	43.8	44.8	37.3	26.1	58.3	43.8	43.8	56.8	42.3	42.3
Incr Delay (d2), s/veh	159.0	40.7	39.9	145.3	125.7	0.0	148.7	129.9	164.1	140.0	30.4	31.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.9	19.3	20.0	31.1	42.2	3.6	3.6	30.7	31.4	6.6	19.5	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	210.2	84.5	83.7	190.1	163.0	26.1	206.9	173.7	207.9	196.7	72.7	73.3
LnGrp LOS	F	F	F	F	F	C	F	F	F	F	F	F
Approach Vol, veh/h		1316			2462			1210			1183	
Approach Delay, s/veh		116.1			159.5			191.1			85.9	
Approach LOS		F			F			F			F	

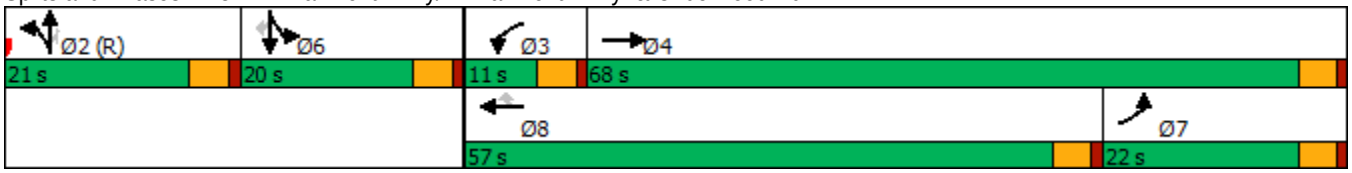
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	37.0	35.0	37.0	8.0	40.0	22.0	50.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	32.5	30.5	32.5	3.5	35.5	17.5	45.5
Max Q Clear Time (g_c+I1), s	8.5	34.5	32.5	34.5	5.5	37.5	19.5	47.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

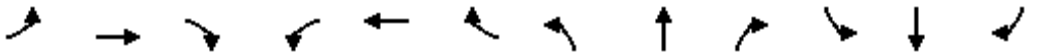
Intersection Summary	
HCM 6th Ctrl Delay	142.3
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	368	1473	52	2099	250	94	63	222	42	418
Future Volume (vph)	368	1473	52	2099	250	94	63	222	42	418
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Split	NA	Perm
Protected Phases	7	4	3	8		2		6	6	
Permitted Phases					8		2			6
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	22.0	68.0	11.0	57.0	57.0	21.0	21.0	20.0	20.0	20.0
Total Split (%)	18.3%	56.7%	9.2%	47.5%	47.5%	17.5%	17.5%	16.7%	16.7%	16.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	17.5	65.7	6.4	52.5	52.5	16.5	16.5	15.5	15.5	15.5
Actuated g/C Ratio	0.15	0.55	0.05	0.44	0.44	0.14	0.14	0.13	0.13	0.13
v/c Ratio	1.58	0.86	0.62	1.50	0.37	0.98	0.21	1.08	0.20	1.00
Control Delay	295.8	10.3	83.9	250.7	5.2	104.6	1.4	91.9	33.7	34.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	295.8	10.3	83.9	250.7	5.2	104.6	1.4	91.9	33.7	34.8
LOS	F	B	F	F	A	F	A	F	C	C
Approach Delay		66.7		221.5		81.8			53.3	
Approach LOS		E		F		F			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 108 (90%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.58	
Intersection Signal Delay: 136.9	Intersection LOS: F
Intersection Capacity Utilization 114.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	368	1473	23	52	2099	250	126	94	63	222	42	418
Future Volume (veh/h)	368	1473	23	52	2099	250	126	94	63	222	42	418
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	400	1601	25	57	2282	272	137	102	68	241	46	454
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	256	1909	30	73	1530	682	141	105	214	226	238	201
Arrive On Green	0.15	0.54	0.54	0.04	0.44	0.44	0.14	0.14	0.14	0.13	0.13	0.13
Sat Flow, veh/h	1753	3525	55	1753	3497	1560	1026	764	1560	1753	1841	1560
Grp Volume(v), veh/h	400	793	833	57	2282	272	239	0	68	241	46	454
Grp Sat Flow(s),veh/h/ln	1753	1749	1831	1753	1749	1560	1789	0	1560	1753	1841	1560
Q Serve(g_s), s	17.5	45.7	45.9	3.9	52.5	14.3	16.0	0.0	4.7	15.5	2.7	15.5
Cycle Q Clear(g_c), s	17.5	45.7	45.9	3.9	52.5	14.3	16.0	0.0	4.7	15.5	2.7	15.5
Prop In Lane	1.00		0.03	1.00		1.00	0.57		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	947	992	73	1530	682	246	0	214	226	238	201
V/C Ratio(X)	1.56	0.84	0.84	0.78	1.49	0.40	0.97	0.00	0.32	1.06	0.19	2.25
Avail Cap(c_a), veh/h	256	947	992	95	1530	682	246	0	214	226	238	201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.27	0.27	0.27	1.00	0.00	1.00	0.10	0.10	0.10
Uniform Delay (d), s/veh	51.2	23.1	23.1	57.0	33.8	23.0	51.5	0.0	46.7	52.3	46.7	52.2
Incr Delay (d2), s/veh	255.8	0.7	0.6	8.2	222.1	0.1	50.5	0.0	3.8	38.8	0.2	565.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.8	18.2	19.1	1.9	68.8	5.2	10.4	0.0	2.1	9.2	1.2	37.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	307.1	23.7	23.7	65.2	255.8	23.1	102.0	0.0	50.5	91.0	46.8	617.8
LnGrp LOS	F	C	C	E	F	C	F	A	D	F	D	F
Approach Vol, veh/h		2026			2611			307			741	
Approach Delay, s/veh		79.7			227.4			90.6			411.0	
Approach LOS		E			F			F			F	

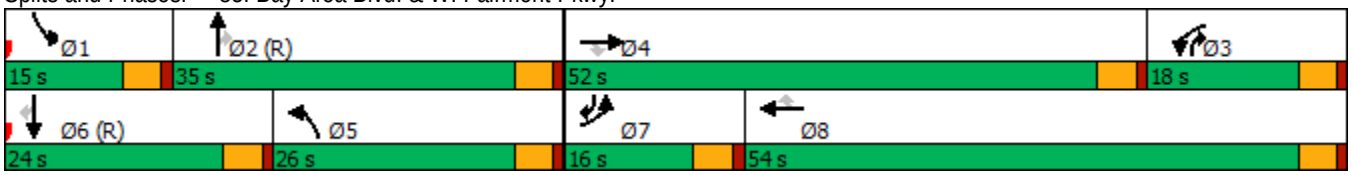
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.0	9.5	69.5		20.0	22.0	57.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.5	6.5	63.5		15.5	17.5	52.5				
Max Q Clear Time (g_c+I1), s		18.0	5.9	47.9		17.5	19.5	54.5				
Green Ext Time (p_c), s		0.0	0.0	10.3		0.0	0.0	0.0				

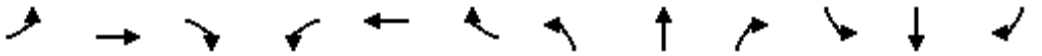
Intersection Summary												
HCM 6th Ctrl Delay			191.3									
HCM 6th LOS			F									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	1477	249	169	1649	258	399	881	669	180	331	254
Future Volume (vph)	198	1477	249	169	1649	258	399	881	669	180	331	254
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	16.0	52.0	52.0	18.0	54.0	54.0	26.0	35.0	18.0	15.0	24.0	16.0
Total Split (%)	13.3%	43.3%	43.3%	15.0%	45.0%	45.0%	21.7%	29.2%	15.0%	12.5%	20.0%	13.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	11.5	47.5	47.5	13.5	49.5	49.5	21.5	30.5	44.0	10.5	19.5	31.0
Actuated g/C Ratio	0.10	0.40	0.40	0.11	0.41	0.41	0.18	0.25	0.37	0.09	0.16	0.26
v/c Ratio	1.33	1.20	0.40	0.96	1.28	0.40	1.42	1.11	1.18	1.32	0.65	0.60
Control Delay	223.0	122.1	8.9	90.1	154.5	4.4	245.6	106.9	124.5	226.0	59.4	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	223.0	122.1	8.9	90.1	154.5	4.4	245.6	106.9	124.5	226.0	59.4	20.3
LOS	F	F	A	F	F	A	F	F	F	F	E	C
Approach Delay		117.9			130.6			141.3			85.6	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.42	
Intersection Signal Delay: 124.9	Intersection LOS: F
Intersection Capacity Utilization 110.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	1477	249	169	1649	258	399	881	669	180	331	254
Future Volume (veh/h)	198	1477	249	169	1649	258	399	881	669	180	331	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	220	1641	0	188	1832	287	443	979	743	200	368	282
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	168	1384		197	1443	643	314	889	572	153	568	403
Arrive On Green	0.10	0.40	0.00	0.11	0.41	0.41	0.18	0.25	0.25	0.09	0.16	0.16
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	220	1641	0	188	1832	287	443	979	743	200	368	282
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	11.5	47.5	0.0	12.8	49.5	15.9	21.5	30.5	25.3	10.5	11.8	11.9
Cycle Q Clear(g_c), s	11.5	47.5	0.0	12.8	49.5	15.9	21.5	30.5	25.3	10.5	11.8	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	168	1384		197	1443	643	314	889	572	153	568	403
V/C Ratio(X)	1.31	1.19		0.95	1.27	0.45	1.41	1.10	1.30	1.30	0.65	0.70
Avail Cap(c_a), veh/h	168	1384		197	1443	643	314	889	572	153	568	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.00	0.46	0.46	0.46	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	54.2	36.3	0.0	52.9	35.3	25.4	49.3	44.8	24.9	54.8	47.0	18.3
Incr Delay (d2), s/veh	169.8	89.8	0.0	31.7	124.1	0.2	202.6	61.8	147.1	167.2	4.2	7.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.0	37.0	0.0	7.4	45.3	5.9	26.9	20.5	31.7	11.8	5.5	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	224.0	126.0	0.0	84.6	159.3	25.6	251.9	106.6	172.0	221.9	51.2	25.6
LnGrp LOS	F	F		F	F	C	F	F	F	F	D	C
Approach Vol, veh/h		1861	A		2307			2165			850	
Approach Delay, s/veh		137.6			136.6			158.8			82.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	35.0	18.0	52.0	26.0	24.0	16.0	54.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	30.5	13.5	47.5	21.5	19.5	11.5	49.5
Max Q Clear Time (g_c+I1), s	12.5	32.5	14.8	49.5	23.5	13.9	13.5	51.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	137.2
HCM 6th LOS	F

Notes

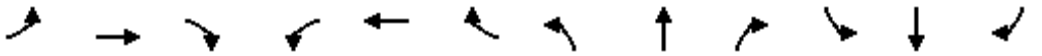
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	51	1558	19	2353	8	25	0	3	0	67
Future Volume (vph)	51	1558	19	2353	8	25	0	3	0	67
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8			2		6	6
Permitted Phases					8	2		6		
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	90.0	10.0	91.0	91.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	7.5%	75.0%	8.3%	75.8%	75.8%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	4.5	91.5	5.9	86.5	86.5		15.5		15.5	15.5
Actuated g/C Ratio	0.04	0.76	0.05	0.72	0.72		0.13		0.13	0.13
v/c Ratio	0.88	0.67	0.25	1.04	0.01		0.16		0.02	0.26
Control Delay	147.9	5.6	53.6	39.9	0.0		49.0		46.0	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	147.9	5.6	53.6	39.9	0.0		49.0		46.0	7.7
LOS	F	A	D	D	A		D		D	A
Approach Delay		10.1		39.9			49.0		9.2	
Approach LOS		B		D			D		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 91.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1558	37	19	2353	8	25	0	0	3	0	67
Future Volume (veh/h)	51	1558	37	19	2353	8	25	0	0	3	0	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	57	1731	41	21	2614	0	28	0	0	3	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	66	2046	48	302	2521		241	0	0	246	0	
Arrive On Green	0.04	0.59	0.59	0.34	1.00	0.00	0.13	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1753	3492	82	1753	3497	1560	1399	0	0	1443	0	1560
Grp Volume(v), veh/h	57	864	908	21	2614	0	28	0	0	3	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1826	1753	1749	1560	1399	0	0	1443	0	1560
Q Serve(g_s), s	3.9	48.6	49.1	1.0	86.5	0.0	1.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.9	48.6	49.1	1.0	86.5	0.0	2.1	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	1025	1070	302	2521		241	0	0	246	0	
V/C Ratio(X)	0.87	0.84	0.85	0.07	1.04		0.12	0.00	0.00	0.01	0.00	
Avail Cap(c_a), veh/h	66	1246	1301	302	2521		241	0	0	246	0	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.24	0.24	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.5	20.3	20.5	32.8	0.0	0.0	46.4	0.0	0.0	45.6	0.0	0.0
Incr Delay (d2), s/veh	66.8	4.6	4.6	0.0	20.5	0.0	1.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	20.0	21.1	0.4	7.2	0.0	0.8	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	124.2	25.0	25.1	32.9	20.5	0.0	47.4	0.0	0.0	45.7	0.0	0.0
LnGrp LOS	F	C	C	C	F		D	A	A	D	A	
Approach Vol, veh/h		1829			2635	A		28			3	A
Approach Delay, s/veh		28.1			20.6			47.4			45.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	25.2	74.8		20.0	9.0	91.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	5.5	85.5		15.5	4.5	86.5				
Max Q Clear Time (g_c+I1), s		4.1	3.0	51.1		2.2	5.9	88.5				
Green Ext Time (p_c), s		0.0	0.0	19.2		0.0	0.0	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

Notes

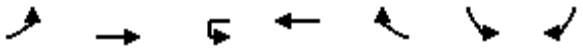
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	179	1389	1632	128	
Future Volume (vph)	179	1389	1632	128	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	21.0	90.0	77.0	22.0	8.0
Total Split (%)	17.5%	75.0%	64.2%	18.3%	7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	15.8	92.6	72.3	18.4	
Actuated g/C Ratio	0.13	0.77	0.60	0.15	
v/c Ratio	0.84	0.56	0.92	0.45	
Control Delay	56.3	4.6	8.2	26.1	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	56.3	4.6	8.2	26.1	
LOS	E	A	A	C	
Approach Delay		10.5	8.2	26.1	
Approach LOS		B	A	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 44 (37%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 10.4	Intersection LOS: B
Intersection Capacity Utilization 82.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





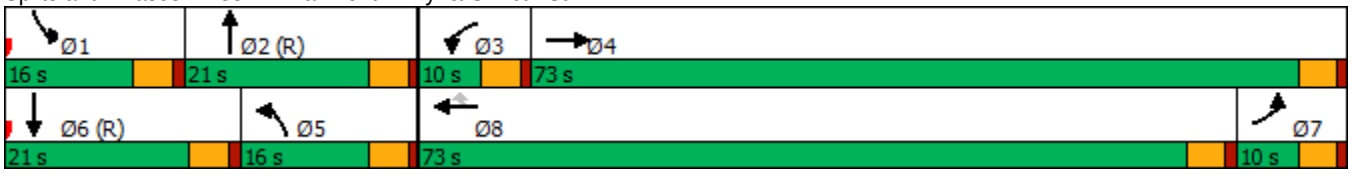
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	179	1389	0	1632	145	128	123
Future Volume (vph)	179	1389	0	1632	145	128	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.93	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3429		3202	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3429		3202	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	192	1494	0	1755	156	138	132
RTOR Reduction (vph)	0	0	0	6	0	112	0
Lane Group Flow (vph)	192	1494	0	1905	0	158	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	15.8	92.6		72.3		18.4	
Effective Green, g (s)	15.8	92.6		72.3		18.4	
Actuated g/C Ratio	0.13	0.77		0.60		0.15	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	228	2678		2065		490	
v/s Ratio Prot	c0.11	0.43		c0.56			
v/s Ratio Perm						c0.05	
v/c Ratio	0.84	0.56		0.92		0.32	
Uniform Delay, d1	50.9	5.5		21.3		45.3	
Progression Factor	0.76	0.77		0.30		1.00	
Incremental Delay, d2	12.7	0.1		0.8		1.7	
Delay (s)	51.4	4.3		7.3		47.0	
Level of Service	D	A		A		D	
Approach Delay (s)		9.7		7.3		47.0	
Approach LOS		A		A		D	

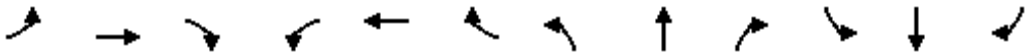
Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	43	1789	66	1409	60	159	29	74	19
Future Volume (vph)	43	1789	66	1409	60	159	29	74	19
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	73.0	10.0	73.0	73.0	16.0	21.0	16.0	21.0
Total Split (%)	8.3%	60.8%	8.3%	60.8%	60.8%	13.3%	17.5%	13.3%	17.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.1	68.5	5.5	70.0	70.0	11.5	20.2	10.1	16.5
Actuated g/C Ratio	0.05	0.57	0.05	0.58	0.58	0.10	0.17	0.08	0.14
v/c Ratio	0.56	1.08	0.95	0.79	0.07	1.09	0.19	0.58	0.23
Control Delay	45.0	50.8	145.5	23.6	0.1	146.5	17.5	68.6	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	50.8	145.5	23.6	0.1	146.5	17.5	68.6	14.9
LOS	D	D	F	C	A	F	B	E	B
Approach Delay		50.6		27.9			96.9		37.7
Approach LOS		D		C			F		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 101 (84%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 44.1	Intersection LOS: D
Intersection Capacity Utilization 79.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1789	84	66	1409	60	159	29	70	74	19	81
Future Volume (veh/h)	43	1789	84	66	1409	60	159	29	70	74	19	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	49	2033	95	75	1601	68	181	33	80	84	22	92
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	169	1943	90	80	1819	811	168	302	270	106	240	214
Arrive On Green	0.10	0.57	0.57	0.05	0.52	0.52	0.10	0.17	0.17	0.06	0.14	0.14
Sat Flow, veh/h	1753	3403	158	1753	3497	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	49	1037	1091	75	1601	68	181	33	80	84	22	92
Grp Sat Flow(s),veh/h/ln	1753	1749	1812	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	3.1	68.5	68.5	5.1	48.6	1.9	11.5	1.9	5.4	5.7	1.3	6.5
Cycle Q Clear(g_c), s	3.1	68.5	68.5	5.1	48.6	1.9	11.5	1.9	5.4	5.7	1.3	6.5
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	998	1035	80	1819	811	168	302	270	106	240	214
V/C Ratio(X)	0.29	1.04	1.05	0.93	0.88	0.08	1.08	0.11	0.30	0.79	0.09	0.43
Avail Cap(c_a), veh/h	169	998	1035	80	1996	890	168	302	270	168	240	214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	25.8	25.8	57.1	25.5	7.4	54.2	41.8	43.3	55.6	45.2	47.4
Incr Delay (d2), s/veh	0.1	21.0	27.4	78.0	4.6	0.0	91.6	0.7	2.8	12.4	0.8	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	32.4	35.4	4.0	20.5	0.9	9.3	0.9	2.3	2.9	0.6	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	46.7	53.1	135.1	30.1	7.5	145.8	42.6	46.1	68.0	46.0	53.6
LnGrp LOS	D	F	F	F	C	A	F	D	D	E	D	D
Approach Vol, veh/h		2177			1744			294			198	
Approach Delay, s/veh		50.0			33.7			107.1			58.9	
Approach LOS		D			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	25.2	10.0	73.0	16.0	21.0	16.1	66.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	16.5	5.5	68.5	11.5	16.5	5.5	68.5
Max Q Clear Time (g_c+I1), s	7.7	7.4	7.1	70.5	13.5	8.5	5.1	50.6
Green Ext Time (p_c), s	0.1	0.3	0.0	0.0	0.0	0.3	0.0	11.8

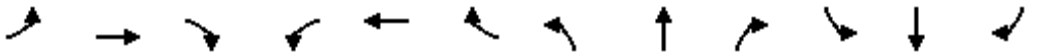
Intersection Summary	
HCM 6th Ctrl Delay	47.8
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	160	1143	5	37	1712	3	1	33	18	210
Future Volume (vph)	160	1143	5	37	1712	3	1	33	18	210
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	NA	Prot
Protected Phases	7	4	4	3	8		2	1	6	6
Permitted Phases						2				
Detector Phase	7	4	4	3	8	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	18.0	80.0	80.0	11.0	73.0	21.0	21.0	8.0	29.0	29.0
Total Split (%)	15.0%	66.7%	66.7%	9.2%	60.8%	17.5%	17.5%	6.7%	24.2%	24.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.5	77.7	77.7	6.3	68.5		18.1	3.5	24.5	24.5
Actuated g/C Ratio	0.11	0.65	0.65	0.05	0.57		0.15	0.03	0.20	0.20
v/c Ratio	0.90	0.55	0.00	0.44	0.99		0.04	0.72	0.05	0.48
Control Delay	71.5	8.2	0.0	77.1	13.2		30.7	86.5	28.3	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	71.5	8.2	0.0	77.1	13.2		30.7	86.5	28.3	16.8
LOS	E	A	A	E	B		C	F	C	B
Approach Delay		16.0			14.5		30.7		26.4	
Approach LOS		B			B		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 43 (36%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	1143	5	37	1712	79	3	1	6	33	18	210
Future Volume (veh/h)	160	1143	5	37	1712	79	3	1	6	33	18	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	174	1242	5	40	1861	86	3	1	7	36	20	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	2280	1017	51	1936	89	76	37	131	56	380	322
Arrive On Green	0.22	1.00	1.00	0.03	0.57	0.57	0.14	0.14	0.14	0.03	0.21	0.21
Sat Flow, veh/h	1753	3497	1560	1753	3405	156	272	271	950	1753	1841	1560
Grp Volume(v), veh/h	174	1242	5	40	949	998	11	0	0	36	20	228
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1813	1492	0	0	1753	1841	1560
Q Serve(g_s), s	11.5	0.0	0.0	2.7	61.4	63.5	0.0	0.0	0.0	2.4	1.0	16.3
Cycle Q Clear(g_c), s	11.5	0.0	0.0	2.7	61.4	63.5	0.7	0.0	0.0	2.4	1.0	16.3
Prop In Lane	1.00		1.00	1.00		0.09	0.27		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	197	2280	1017	51	994	1030	243	0	0	56	380	322
V/C Ratio(X)	0.88	0.54	0.00	0.79	0.95	0.97	0.05	0.00	0.00	0.65	0.05	0.71
Avail Cap(c_a), veh/h	197	2280	1017	95	998	1035	243	0	0	56	380	322
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.09	0.09	0.09	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	0.0	0.0	57.9	24.4	24.9	44.9	0.0	0.0	57.4	38.2	44.2
Incr Delay (d2), s/veh	26.1	0.2	0.0	2.5	2.8	3.7	0.3	0.0	0.0	23.4	0.3	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.1	0.0	1.2	24.6	26.6	0.3	0.0	0.0	1.4	0.5	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.8	0.2	0.0	60.4	27.2	28.5	45.3	0.0	0.0	80.8	38.4	56.6
LnGrp LOS	E	A	A	E	C	C	D	A	A	F	D	E
Approach Vol, veh/h		1421			1987			11			284	
Approach Delay, s/veh		9.0			28.5			45.3			58.4	
Approach LOS		A			C			D			E	

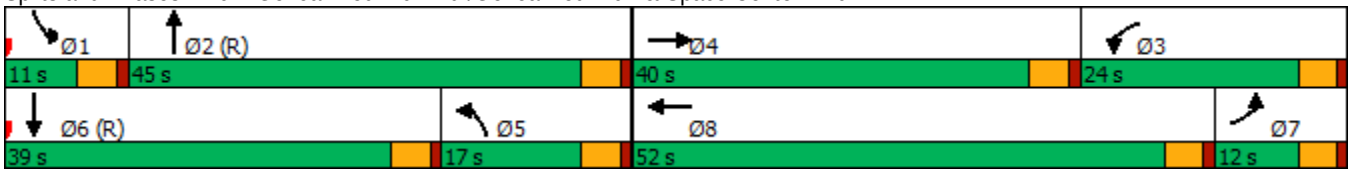
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	8.3	21.0	8.0	82.7		29.3	18.0	72.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	3.5	16.5	6.5	75.5		24.5	13.5	68.5				
Max Q Clear Time (g_c+I1), s	4.4	2.7	4.7	2.0		18.3	13.5	65.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	13.9		0.4	0.0	2.7				

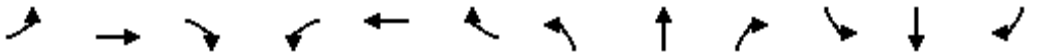
Intersection Summary												
HCM 6th Ctrl Delay			23.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	133	987	410	1408	260	858	122	1105
Future Volume (vph)	133	987	410	1408	260	858	122	1105
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	40.0	24.0	52.0	17.0	45.0	11.0	39.0
Total Split (%)	10.0%	33.3%	20.0%	43.3%	14.2%	37.5%	9.2%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	35.5	19.5	47.5	12.5	40.5	6.5	34.5
Actuated g/C Ratio	0.06	0.30	0.16	0.40	0.10	0.34	0.05	0.29
v/c Ratio	1.29	1.45	1.51	1.12	1.51	1.07	1.35	1.29
Control Delay	220.4	232.2	268.9	79.3	291.2	83.2	243.0	166.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	220.4	232.2	268.9	79.3	291.2	83.2	243.0	166.1
LOS	F	F	F	E	F	F	F	F
Approach Delay		231.2		120.7		120.7		173.0
Approach LOS		F		F		F		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.51	
Intersection Signal Delay: 159.5	Intersection LOS: F
Intersection Capacity Utilization 132.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	987	430	410	1408	62	260	858	325	122	1105	124
Future Volume (veh/h)	133	987	430	410	1408	62	260	858	325	122	1105	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	139	1028	448	427	1467	65	271	894	339	127	1151	129
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	110	706	302	285	1350	60	183	838	316	95	912	102
Arrive On Green	0.06	0.30	0.30	0.16	0.40	0.40	0.10	0.34	0.34	0.04	0.19	0.19
Sat Flow, veh/h	1753	2386	1020	1753	3411	151	1753	2483	937	1753	3171	355
Grp Volume(v), veh/h	139	748	728	427	750	782	271	628	605	127	634	646
Grp Sat Flow(s),veh/h/ln	1753	1749	1657	1753	1749	1814	1753	1749	1672	1753	1749	1777
Q Serve(g_s), s	7.5	35.5	35.5	19.5	47.5	47.5	12.5	40.5	40.5	6.5	34.5	34.5
Cycle Q Clear(g_c), s	7.5	35.5	35.5	19.5	47.5	47.5	12.5	40.5	40.5	6.5	34.5	34.5
Prop In Lane	1.00		0.62	1.00		0.08	1.00		0.56	1.00		0.20
Lane Grp Cap(c), veh/h	110	517	490	285	692	718	183	590	564	95	503	511
V/C Ratio(X)	1.27	1.45	1.49	1.50	1.08	1.09	1.48	1.06	1.07	1.34	1.26	1.26
Avail Cap(c_a), veh/h	110	517	490	285	692	718	183	590	564	95	503	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	0.12	0.12	0.12	1.00	1.00	1.00	0.46	0.46	0.46
Uniform Delay (d), s/veh	56.3	42.3	42.3	50.3	36.3	36.3	53.8	39.8	39.8	57.8	48.4	48.4
Incr Delay (d2), s/veh	174.6	211.3	229.1	226.8	41.4	43.5	244.7	55.4	58.5	180.9	124.8	126.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	45.5	45.5	26.5	27.7	29.1	17.9	26.2	25.5	7.7	33.0	33.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	230.9	253.5	271.3	277.0	77.6	79.7	298.5	95.2	98.3	238.7	173.2	175.0
LnGrp LOS	F	F	F	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h		1615			1959			1504			1407	
Approach Delay, s/veh		259.6			121.9			133.0			179.9	
Approach LOS		F			F			F			F	

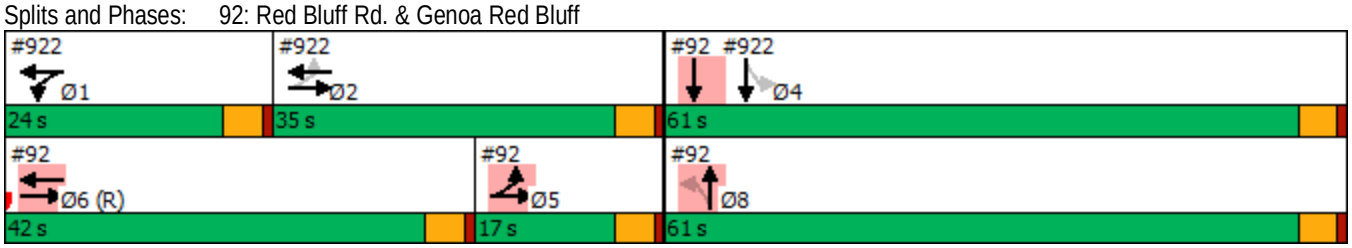
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	45.0	24.0	40.0	17.0	39.0	12.0	52.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	40.5	19.5	35.5	12.5	34.5	7.5	47.5
Max Q Clear Time (g_c+I1), s	8.5	42.5	21.5	37.5	14.5	36.5	9.5	49.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

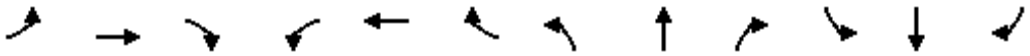
Intersection Summary	
HCM 6th Ctrl Delay	171.4
HCM 6th LOS	F

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	Ø1	Ø2
Lane Configurations								
Traffic Volume (vph)	157	931	1314	806	913	3		
Future Volume (vph)	157	931	1314	806	913	3		
Turn Type	Prot	NA	NA	Perm	NA	NA		
Protected Phases	5	5 6	6		8	4	1	2
Permitted Phases				8				
Detector Phase	5	5 6	6	8	8	4		
Switch Phase								
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	17.0		42.0	61.0	61.0	61.0	24.0	35.0
Total Split (%)	14.2%		35.0%	50.8%	50.8%	50.8%	20%	29%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5			
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None		C-Max	None	None	None	None	None
Act Effct Green (s)	12.5	54.5	37.5	56.5	56.5	0.0		
Actuated g/C Ratio	0.10	0.45	0.31	0.47	0.47	0.00		
v/c Ratio	0.92	0.62	0.92	1.30	0.55	no cap		
Control Delay	63.2	17.0	21.1	177.4	22.6			
Queue Delay	0.8	12.7	25.2	2.6	0.0			
Total Delay	64.0	29.7	46.3	180.0	22.6	Error		
LOS	E	C	D	F	C	F		
Approach Delay		34.6	46.3		85.6	Err		
Approach LOS		C	D		F	F		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





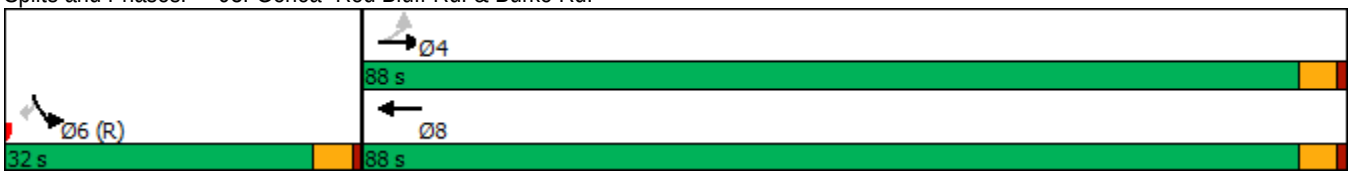
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	931	0	0	1314	46	806	913	295	0	3	0
Future Volume (vph)	157	931	0	0	1314	46	806	913	295	0	3	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95			0.91		1.00	0.91			1.00	
Frt	1.00	1.00			0.99		1.00	0.96			1.00	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3471			4962		1736	4805			0	
Flt Permitted	0.95	1.00			1.00		0.76	1.00			1.00	
Satd. Flow (perm)	1736	3471			4962		1381	4805			0	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	165	980	0	0	1383	48	848	961	311	0	3	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	32	0	0	0	0
Lane Group Flow (vph)	165	980	0	0	1428	0	848	1240	0	0	3	0
Turn Type	Prot	NA			NA		Perm	NA			NA	
Protected Phases	5	5 6			6			8			4	
Permitted Phases							8					
Actuated Green, G (s)	12.5	54.5			37.5		56.5	56.5			56.5	
Effective Green, g (s)	12.5	54.5			37.5		56.5	56.5			56.5	
Actuated g/C Ratio	0.10	0.45			0.31		0.47	0.47			0.47	
Clearance Time (s)	4.5				4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0				3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	180	1576			1550		650	2262			0	
v/s Ratio Prot	c0.10	0.28			c0.29			0.26				
v/s Ratio Perm							c0.61					
v/c Ratio	0.92	0.62			0.92		1.30	0.55			no cap	
Uniform Delay, d1	53.2	24.9			39.8		31.8	22.6			Error	
Progression Factor	0.62	0.64			0.48		1.00	1.00				
Incremental Delay, d2	24.5	0.3			1.2		148.1	0.3			Error	
Delay (s)	57.3	16.3			20.4		179.8	22.9			Error	
Level of Service	E	B			C		F	C			F	
Approach Delay (s)		22.2			20.4			85.7			Error	
Approach LOS		C			C			F			F	

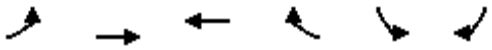
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	316	531	470	356	282
Future Volume (vph)	316	531	470	356	282
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	88.0	88.0	88.0	32.0	32.0
Total Split (%)	73.3%	73.3%	73.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	83.5	83.5	83.5	27.5	27.5
Actuated g/C Ratio	0.70	0.70	0.70	0.23	0.23
v/c Ratio	1.17	0.26	0.42	1.07	0.55
Control Delay	126.4	6.7	4.5	65.1	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	126.4	6.7	4.5	65.1	3.8
LOS	F	A	A	E	A
Approach Delay		51.4	4.5	38.0	
Approach LOS		D	A	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 61 (51%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	316	531	470	361	356	282
Future Volume (veh/h)	316	531	470	361	356	282
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	376	632	560	430	424	336
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	377	2434	1310	1006	402	357
Arrive On Green	0.70	0.70	0.70	0.70	0.23	0.23
Sat Flow, veh/h	560	3589	1975	1446	1753	1560
Grp Volume(v), veh/h	376	632	520	470	424	336
Grp Sat Flow(s),veh/h/ln	560	1749	1749	1580	1753	1560
Q Serve(g_s), s	68.1	8.1	15.4	15.4	27.5	25.4
Cycle Q Clear(g_c), s	83.5	8.1	15.4	15.4	27.5	25.4
Prop In Lane	1.00			0.91	1.00	1.00
Lane Grp Cap(c), veh/h	377	2434	1217	1100	402	357
V/C Ratio(X)	1.00	0.26	0.43	0.43	1.06	0.94
Avail Cap(c_a), veh/h	377	2434	1217	1100	402	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	31.3	6.8	7.9	7.9	46.3	45.4
Incr Delay (d2), s/veh	45.3	0.1	0.2	0.3	31.1	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	2.8	5.4	4.9	15.4	10.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	76.6	6.8	8.1	8.2	77.3	51.3
LnGrp LOS	E	A	A	A	F	D
Approach Vol, veh/h		1008	990		760	
Approach Delay, s/veh		32.8	8.2		65.8	
Approach LOS		C	A		E	

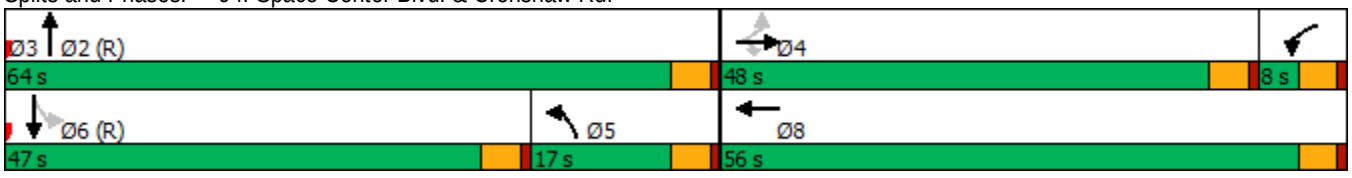
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			88.0		32.0	88.0
Change Period (Y+Rc), s			4.5		4.5	4.5
Max Green Setting (Gmax), s			83.5		27.5	83.5
Max Q Clear Time (g_c+I1), s			85.5		29.5	17.4
Green Ext Time (p_c), s			0.0		0.0	8.9

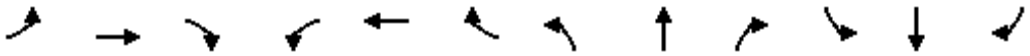
Intersection Summary		
HCM 6th Ctrl Delay	33.1	
HCM 6th LOS	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	424	161	218	10	169	212	720	132	795
Future Volume (vph)	424	161	218	10	169	212	720	132	795
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA
Protected Phases		4		3	8	5	2		6
Permitted Phases	4		4					6	
Detector Phase	4	4	4	3	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	48.0	48.0	48.0	8.0	56.0	17.0	64.0	47.0	47.0
Total Split (%)	40.0%	40.0%	40.0%	6.7%	46.7%	14.2%	53.3%	39.2%	39.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag		Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	43.5	43.5	43.5	3.5	45.1	12.5	65.9	48.9	48.9
Actuated g/C Ratio	0.36	0.36	0.36	0.03	0.38	0.10	0.55	0.41	0.41
v/c Ratio	1.23	0.26	0.32	0.22	0.22	1.24	0.41	0.73	0.92
Control Delay	158.1	28.2	4.6	67.3	15.6	144.4	3.3	35.7	28.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	158.1	28.2	4.6	67.3	15.6	144.4	3.3	35.7	28.3
LOS	F	C	A	E	B	F	A	D	C
Approach Delay		90.4			17.5		34.6		29.1
Approach LOS		F			B		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 102 (85%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 44.2	Intersection LOS: D
Intersection Capacity Utilization 98.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	161	218	10	169	103	212	720	23	132	795	424
Future Volume (veh/h)	424	161	218	10	169	103	212	720	23	132	795	424
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	446	169	229	11	178	108	223	758	24	139	837	446
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	389	667	565	16	873	504	218	1786	57	301	783	414
Arrive On Green	0.36	0.36	0.36	0.01	0.41	0.41	0.25	1.00	1.00	0.35	0.35	0.35
Sat Flow, veh/h	1076	1841	1560	1753	2136	1232	1753	3460	110	680	2212	1168
Grp Volume(v), veh/h	446	169	229	11	144	142	223	383	399	139	660	623
Grp Sat Flow(s),veh/h/ln	1076	1841	1560	1753	1749	1619	1753	1749	1821	680	1749	1631
Q Serve(g_s), s	36.7	7.7	13.2	0.8	6.4	6.8	14.9	0.0	0.0	19.9	42.5	42.5
Cycle Q Clear(g_c), s	43.5	7.7	13.2	0.8	6.4	6.8	14.9	0.0	0.0	19.9	42.5	42.5
Prop In Lane	1.00		1.00	1.00		0.76	1.00		0.06	1.00		0.72
Lane Grp Cap(c), veh/h	389	667	565	16	715	662	218	902	940	301	619	577
V/C Ratio(X)	1.15	0.25	0.40	0.70	0.20	0.21	1.02	0.42	0.42	0.46	1.07	1.08
Avail Cap(c_a), veh/h	389	667	565	51	750	695	218	902	940	301	619	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	26.8	28.6	59.3	22.8	23.0	45.1	0.0	0.0	31.5	38.7	38.8
Incr Delay (d2), s/veh	92.0	0.2	0.5	43.8	0.1	0.2	24.3	0.1	0.1	5.0	55.0	60.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.8	3.4	5.0	0.5	2.7	2.6	7.1	0.0	0.0	3.7	27.3	26.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	136.5	27.0	29.0	103.1	23.0	23.1	69.4	0.1	0.1	36.5	93.8	99.1
LnGrp LOS	F	C	C	F	C	C	F	A	A	D	F	F
Approach Vol, veh/h		844			297			1005			1422	
Approach Delay, s/veh		85.4			26.0			15.5			90.5	
Approach LOS		F			C			B			F	

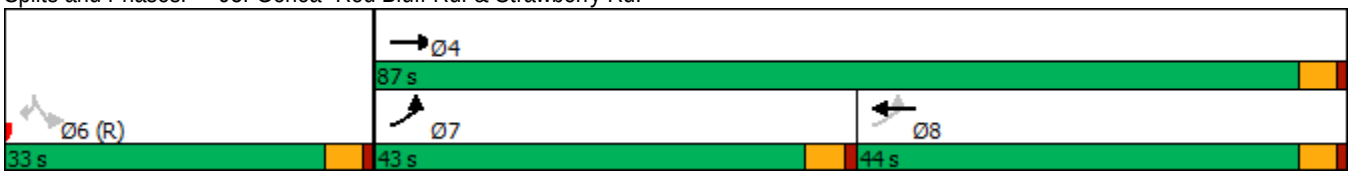
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		66.4	5.6	48.0	19.4	47.0		53.6				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		59.5	3.5	43.5	12.5	42.5		51.5				
Max Q Clear Time (g_c+I1), s		2.0	2.8	45.5	16.9	44.5		8.8				
Green Ext Time (p_c), s		5.9	0.0	0.0	0.0	0.0		1.9				

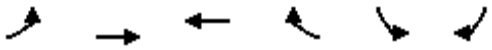
Intersection Summary												
HCM 6th Ctrl Delay			62.8									
HCM 6th LOS			E									

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	488	1097	771	199	447
Future Volume (vph)	488	1097	771	199	447
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	43.0	87.0	44.0	33.0	33.0
Total Split (%)	35.8%	72.5%	36.7%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	73.5	78.0	38.4	33.0	33.0
Actuated g/C Ratio	0.61	0.65	0.32	0.28	0.28
v/c Ratio	0.90	0.51	0.89	0.44	0.61
Control Delay	42.2	4.7	49.5	21.2	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	4.7	49.5	21.2	7.3
LOS	D	A	D	C	A
Approach Delay		16.3	49.5	11.6	
Approach LOS		B	D	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 112 (93%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.





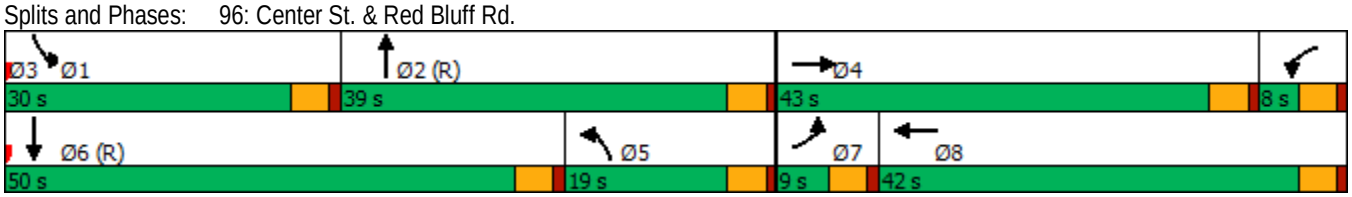
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	488	1097	771	152	199	447
Future Volume (vph)	488	1097	771	152	199	447
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	3471	3385		1736	1553
Flt Permitted	0.10	1.00	1.00		0.95	1.00
Satd. Flow (perm)	190	3471	3385		1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	514	1155	812	160	209	471
RTOR Reduction (vph)	0	0	14	0	0	341
Lane Group Flow (vph)	514	1155	958	0	209	130
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	73.5	78.0	38.4		33.0	33.0
Effective Green, g (s)	73.5	78.0	38.4		33.0	33.0
Actuated g/C Ratio	0.61	0.65	0.32		0.28	0.28
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	568	2256	1083		477	427
v/s Ratio Prot	c0.26	0.33	0.28			
v/s Ratio Perm	c0.29				c0.12	0.08
v/c Ratio	0.90	0.51	0.88		0.44	0.30
Uniform Delay, d1	32.7	11.0	38.7		35.9	34.4
Progression Factor	0.71	0.36	1.04		0.49	1.21
Incremental Delay, d2	16.9	0.2	8.2		2.3	1.5
Delay (s)	40.2	4.2	48.6		20.0	43.1
Level of Service	D	A	D		C	D
Approach Delay (s)		15.3	48.6		36.0	
Approach LOS		B	D		D	

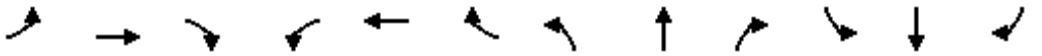
Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	51	696	27	816	151	957	373	1034
Future Volume (vph)	51	696	27	816	151	957	373	1034
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	43.0	8.0	42.0	19.0	39.0	30.0	50.0
Total Split (%)	7.5%	35.8%	6.7%	35.0%	15.8%	32.5%	25.0%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.5	41.7	3.9	37.5	14.5	34.5	25.5	45.5
Actuated g/C Ratio	0.04	0.35	0.03	0.31	0.12	0.29	0.21	0.38
v/c Ratio	0.83	0.85	0.52	1.13	0.77	1.03	1.08	0.84
Control Delay	125.1	32.8	87.8	107.3	32.6	41.6	80.9	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	125.1	32.8	87.8	107.3	32.6	41.6	80.9	16.9
LOS	F	C	F	F	C	D	F	B
Approach Delay		37.5		106.9		40.4		33.9
Approach LOS		D		F		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 24 (20%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 54.3	Intersection LOS: D
Intersection Capacity Utilization 95.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	696	256	27	816	323	151	957	11	373	1034	0
Future Volume (veh/h)	51	696	256	27	816	323	151	957	11	373	1034	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	54	740	272	29	868	344	161	1018	12	397	1100	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	66	788	289	62	765	302	212	1018	12	373	1326	0
Arrive On Green	0.04	0.31	0.31	0.04	0.31	0.31	0.04	0.09	0.09	0.21	0.38	0.00
Sat Flow, veh/h	1753	2504	920	1753	2449	967	1753	3540	42	1753	3589	0
Grp Volume(v), veh/h	54	517	495	29	619	593	161	503	527	397	1100	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1675	1753	1749	1667	1753	1749	1833	1753	1749	0
Q Serve(g_s), s	3.7	34.5	34.5	1.9	37.5	37.5	10.9	34.5	34.5	25.5	34.2	0.0
Cycle Q Clear(g_c), s	3.7	34.5	34.5	1.9	37.5	37.5	10.9	34.5	34.5	25.5	34.2	0.0
Prop In Lane	1.00		0.55	1.00		0.58	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	66	550	527	62	546	521	212	503	527	373	1326	0
V/C Ratio(X)	0.82	0.94	0.94	0.47	1.13	1.14	0.76	1.00	1.00	1.07	0.83	0.00
Avail Cap(c_a), veh/h	66	561	537	62	546	521	212	503	527	373	1326	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.4	40.0	40.0	56.8	41.3	41.3	55.9	54.3	54.3	47.3	33.7	0.0
Incr Delay (d2), s/veh	54.2	23.8	24.5	5.4	80.4	83.7	1.5	12.1	11.8	65.1	6.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	18.3	17.6	1.0	28.1	27.3	5.2	17.9	18.7	17.8	15.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.5	63.8	64.5	62.1	121.7	124.9	57.4	66.4	66.1	112.4	39.9	0.0
LnGrp LOS	F	E	E	E	F	F	E	F	F	F	D	A
Approach Vol, veh/h		1066			1241			1191			1497	
Approach Delay, s/veh		66.5			121.8			65.1			59.1	
Approach LOS		E			F			E			E	

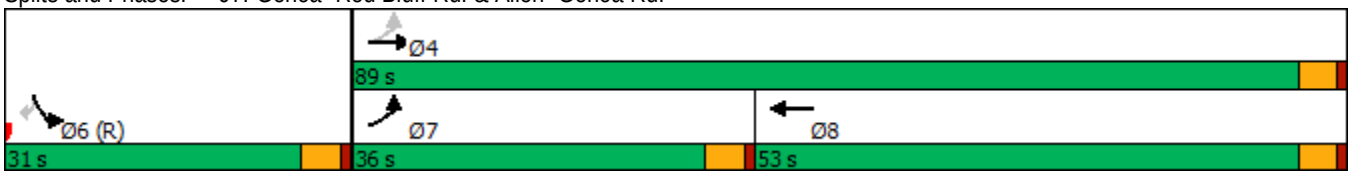
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	39.0	8.7	42.3	19.0	50.0	9.0	42.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.5	34.5	3.5	38.5	14.5	45.5	4.5	37.5
Max Q Clear Time (g_c+I1), s	27.5	36.5	3.9	36.5	12.9	36.2	5.7	39.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.1	5.1	0.0	0.0

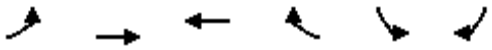
Intersection Summary	
HCM 6th Ctrl Delay	77.7
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	317	1161	889	83	243
Future Volume (vph)	317	1161	889	83	243
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	36.0	89.0	53.0	31.0	31.0
Total Split (%)	30.0%	74.2%	44.2%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	74.9	74.9	44.4	36.1	36.1
Actuated g/C Ratio	0.62	0.62	0.37	0.30	0.30
v/c Ratio	0.79	0.58	0.83	0.17	0.40
Control Delay	42.5	14.1	24.0	31.6	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	14.1	24.0	31.6	9.5
LOS	D	B	C	C	A
Approach Delay		20.2	24.0	15.1	
Approach LOS		C	C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 69 (58%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	317	1161	889	84	83	243
Future Volume (veh/h)	317	1161	889	84	83	243
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	345	1262	966	91	90	264
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	379	1903	1112	105	667	594
Arrive On Green	0.16	0.54	0.34	0.34	0.38	0.38
Sat Flow, veh/h	1753	3589	3322	304	1753	1560
Grp Volume(v), veh/h	345	1262	523	534	90	264
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1786	1753	1560
Q Serve(g_s), s	16.6	30.9	33.6	33.6	4.0	15.1
Cycle Q Clear(g_c), s	16.6	30.9	33.6	33.6	4.0	15.1
Prop In Lane	1.00			0.17	1.00	1.00
Lane Grp Cap(c), veh/h	379	1903	602	615	667	594
V/C Ratio(X)	0.91	0.66	0.87	0.87	0.13	0.44
Avail Cap(c_a), veh/h	554	2463	707	722	667	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	19.5	36.8	36.8	24.3	27.7
Incr Delay (d2), s/veh	14.6	0.4	10.0	9.8	0.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	12.3	15.8	16.1	1.8	14.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.4	19.9	46.8	46.7	24.7	30.1
LnGrp LOS	D	B	D	D	C	C
Approach Vol, veh/h		1607	1057		354	
Approach Delay, s/veh		25.4	46.7		28.7	
Approach LOS		C	D		C	

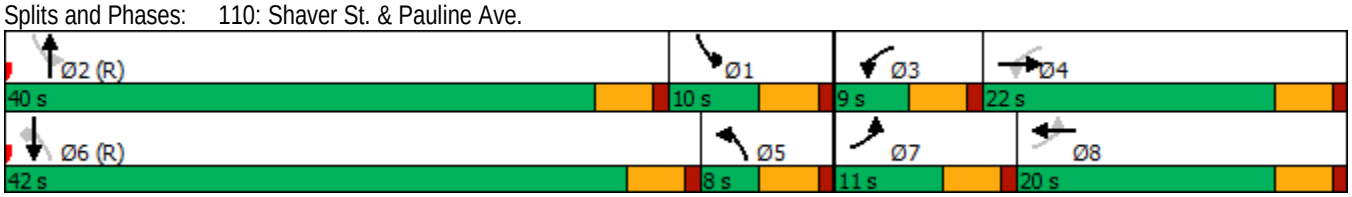
Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		69.8		50.2	24.0	45.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		84.5		26.5	31.5	48.5
Max Q Clear Time (g_c+I1), s		32.9		17.1	18.6	35.6
Green Ext Time (p_c), s		13.6		0.8	0.9	5.7

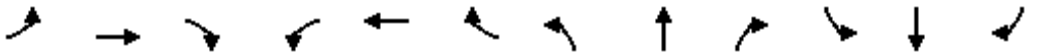
Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	165	183	67	147	58	992	103	1188	189
Future Volume (vph)	165	183	67	147	58	992	103	1188	189
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	11.0	22.0	9.0	20.0	8.0	40.0	10.0	42.0	42.0
Total Split (%)	13.6%	27.2%	11.1%	24.7%	9.9%	49.4%	12.3%	51.9%	51.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.6	17.9	21.5	13.8	44.0	38.9	44.4	40.5	40.5
Actuated g/C Ratio	0.25	0.22	0.27	0.17	0.54	0.48	0.55	0.50	0.50
v/c Ratio	0.69	0.53	0.25	0.77	0.37	0.75	0.56	0.74	0.24
Control Delay	37.8	33.1	22.1	44.7	22.4	21.6	18.5	6.2	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	33.1	22.1	44.7	22.4	21.6	18.5	6.2	1.0
LOS	D	C	C	D	C	C	B	A	A
Approach Delay		35.3		39.6		21.6		6.4	
Approach LOS		D		D		C		A	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 9 (11%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	183	14	67	147	83	58	992	157	103	1188	189
Future Volume (veh/h)	165	183	14	67	147	83	58	992	157	103	1188	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	197	15	72	158	89	62	1067	169	111	1277	203
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	261	341	26	280	185	104	261	1326	210	308	1619	722
Arrive On Green	0.08	0.20	0.20	0.05	0.17	0.17	0.07	0.44	0.44	0.09	0.46	0.46
Sat Flow, veh/h	1753	1689	129	1753	1106	623	1753	3025	478	1753	3497	1560
Grp Volume(v), veh/h	177	0	212	72	0	247	62	616	620	111	1277	203
Grp Sat Flow(s),veh/h/ln	1753	0	1818	1753	0	1729	1753	1749	1755	1753	1749	1560
Q Serve(g_s), s	6.5	0.0	8.5	2.6	0.0	11.2	0.0	24.7	24.9	0.0	25.0	4.2
Cycle Q Clear(g_c), s	6.5	0.0	8.5	2.6	0.0	11.2	0.0	24.7	24.9	0.0	25.0	4.2
Prop In Lane	1.00		0.07	1.00		0.36	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	261	0	367	280	0	289	261	766	769	308	1619	722
V/C Ratio(X)	0.68	0.00	0.58	0.26	0.00	0.85	0.24	0.80	0.81	0.36	0.79	0.28
Avail Cap(c_a), veh/h	261	0	393	297	0	331	261	766	769	308	1619	722
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	29.2	24.4	0.0	32.8	29.8	19.7	19.8	30.6	18.4	5.6
Incr Delay (d2), s/veh	6.8	0.0	1.9	0.5	0.0	17.4	0.4	7.4	7.5	0.7	4.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	3.8	1.1	0.0	6.0	1.1	10.8	10.9	2.0	10.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	31.1	24.9	0.0	50.2	30.2	27.1	27.2	31.3	22.4	6.5
LnGrp LOS	C	A	C	C	A	D	C	C	C	C	C	A
Approach Vol, veh/h		389			319			1298			1591	
Approach Delay, s/veh		32.3			44.5			27.3			21.0	
Approach LOS		C			D			C			C	

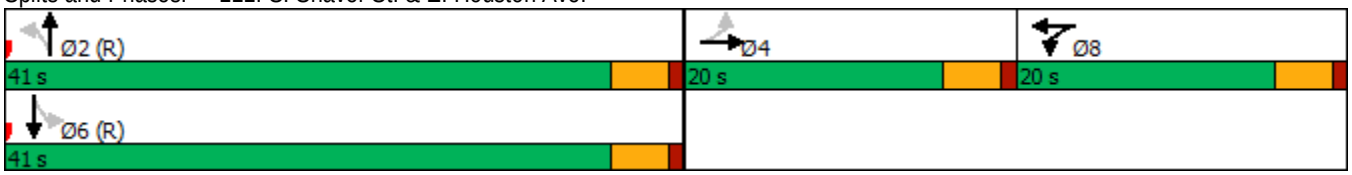
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	40.0	8.2	20.8	10.0	42.0	11.0	18.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	35.5	4.5	17.5	3.5	37.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	26.9	4.6	10.5	2.0	27.0	8.5	13.2
Green Ext Time (p_c), s	0.1	5.1	0.0	0.6	0.0	6.8	0.0	0.3

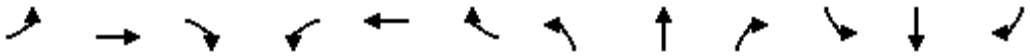
Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	38	20	118	18	19	1039	48	1348
Future Volume (vph)	38	20	118	18	19	1039	48	1348
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	41.0	41.0	41.0	41.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	50.6%	50.6%	50.6%	50.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.5	11.5	11.1	11.1	46.9	46.9	46.9	46.9
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.58	0.58	0.58	0.58
v/c Ratio	0.40	0.15	0.53	0.32	0.20	0.59	0.29	0.73
Control Delay	42.2	20.1	36.0	10.0	15.3	11.4	19.0	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4
Total Delay	42.2	20.1	36.0	10.0	15.3	11.4	19.0	66.8
LOS	D	C	D	B	B	B	B	E
Approach Delay		31.6		25.0		11.4		65.2
Approach LOS		C		C		B		E

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 8 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	20	15	118	18	69	19	1039	69	48	1348	25
Future Volume (veh/h)	38	20	15	118	18	69	19	1039	69	48	1348	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	40	21	16	126	19	73	20	1105	73	51	1434	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	89	49	38	175	33	128	255	2273	150	273	2397	45
Arrive On Green	0.05	0.05	0.05	0.10	0.10	0.10	0.23	0.23	0.23	0.68	0.68	0.68
Sat Flow, veh/h	1753	969	739	1753	333	1278	358	3330	220	468	3511	66
Grp Volume(v), veh/h	40	0	37	126	0	92	20	580	598	51	714	747
Grp Sat Flow(s),veh/h/ln	1753	0	1708	1753	0	1611	358	1749	1801	468	1749	1829
Q Serve(g_s), s	1.8	0.0	1.7	5.6	0.0	4.4	3.9	23.4	23.4	6.0	17.7	17.8
Cycle Q Clear(g_c), s	1.8	0.0	1.7	5.6	0.0	4.4	21.7	23.4	23.4	29.4	17.7	17.8
Prop In Lane	1.00		0.43	1.00		0.79	1.00		0.12	1.00		0.04
Lane Grp Cap(c), veh/h	89	0	87	175	0	161	255	1194	1230	273	1194	1248
V/C Ratio(X)	0.45	0.00	0.43	0.72	0.00	0.57	0.08	0.49	0.49	0.19	0.60	0.60
Avail Cap(c_a), veh/h	335	0	327	335	0	308	255	1194	1230	273	1194	1248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.94	0.00	0.94	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	37.3	35.4	0.0	34.8	26.0	19.0	19.0	16.7	6.9	6.9
Incr Delay (d2), s/veh	3.5	0.0	3.3	5.2	0.0	3.0	0.5	1.1	1.0	1.5	2.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.8	2.6	0.0	1.8	0.4	11.1	11.5	0.7	5.9	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.0	40.6	40.5	0.0	37.8	26.5	20.1	20.1	18.2	9.1	9.0
LnGrp LOS	D	A	D	D	A	D	C	C	C	B	A	A
Approach Vol, veh/h		77			218			1198			1512	
Approach Delay, s/veh		40.7			39.4			20.2			9.4	
Approach LOS		D			D			C			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		59.8		8.6		59.8		12.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		36.5		15.5		36.5		15.5				
Max Q Clear Time (g_c+I1), s		25.4		3.8		31.4		7.6				
Green Ext Time (p_c), s		6.0		0.2		3.9		0.5				

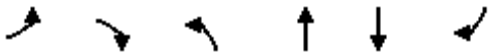
Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	137	65	1653	1893
Future Volume (vph)	137	65	1653	1893
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	20.0	8.0	61.0	53.0
Total Split (%)	24.7%	9.9%	75.3%	65.4%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	13.1	58.9	58.9	52.5
Actuated g/C Ratio	0.16	0.73	0.73	0.65
v/c Ratio	0.72	0.43	0.70	0.97
Control Delay	42.5	13.7	3.8	22.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	42.5	13.7	3.8	22.7
LOS	D	B	A	C
Approach Delay	42.5		4.2	22.7
Approach LOS	D		A	C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	137	61	65	1653	1893	128
Future Volume (vph)	137	61	65	1653	1893	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.96		1.00	1.00	0.99	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1692		1736	3471	3438	
Flt Permitted	0.97		0.07	1.00	1.00	
Satd. Flow (perm)	1692		130	3471	3438	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	147	66	70	1777	2035	138
RTOR Reduction (vph)	21	0	0	0	5	0
Lane Group Flow (vph)	192	0	70	1777	2168	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	13.1		58.9	58.9	51.6	
Effective Green, g (s)	13.1		58.9	58.9	51.6	
Actuated g/C Ratio	0.16		0.73	0.73	0.64	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	273		150	2523	2190	
v/s Ratio Prot			0.02	c0.51	c0.63	
v/s Ratio Perm	c0.11		0.32			
v/c Ratio	0.70		0.47	0.70	0.99	
Uniform Delay, d1	32.1		32.1	6.2	14.4	
Progression Factor	1.00		0.47	0.34	0.44	
Incremental Delay, d2	8.0		2.0	1.4	15.8	
Delay (s)	40.1		17.0	3.5	22.2	
Level of Service	D		B	A	C	
Approach Delay (s)	40.1			4.0	22.2	
Approach LOS	D			A	C	

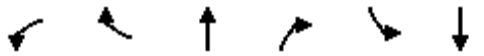
Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	25	960	113	1096
Future Volume (vph)	25	960	113	1096
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	20.0	61.0	61.0	61.0
Total Split (%)	24.7%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	9.6	62.4		62.4
Actuated g/C Ratio	0.12	0.77		0.77
v/c Ratio	0.69	0.38		0.64
Control Delay	21.5	3.9		6.8
Queue Delay	0.0	0.0		0.0
Total Delay	21.5	3.9		6.8
LOS	C	A		A
Approach Delay	21.5	3.9		6.8
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 7.0	Intersection LOS: A
Intersection Capacity Utilization 89.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	201	960	29	113	1096
Future Volume (veh/h)	25	201	960	29	113	1096
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	26	207	990	30	116	1130
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	30	237	2492	76	205	1926
Arrive On Green	0.17	0.17	0.72	0.72	0.72	0.72
Sat Flow, veh/h	176	1398	3558	105	211	2763
Grp Volume(v), veh/h	234	0	500	520	575	671
Grp Sat Flow(s),veh/h/ln	1580	0	1749	1822	1299	1591
Q Serve(g_s), s	11.7	0.0	9.1	9.1	5.6	16.6
Cycle Q Clear(g_c), s	11.7	0.0	9.1	9.1	14.7	16.6
Prop In Lane	0.11	0.88		0.06	0.20	
Lane Grp Cap(c), veh/h	268	0	1257	1310	988	1144
V/C Ratio(X)	0.87	0.00	0.40	0.40	0.58	0.59
Avail Cap(c_a), veh/h	302	0	1257	1310	988	1144
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.85	0.85
Uniform Delay (d), s/veh	32.8	0.0	4.5	4.5	4.9	5.5
Incr Delay (d2), s/veh	21.5	0.0	0.9	0.9	2.1	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	2.6	2.7	3.3	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.2	0.0	5.4	5.4	7.0	7.4
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	234		1020			1246
Approach Delay, s/veh	54.2		5.4			7.2
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		62.7			62.7	18.3
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		56.5			56.5	15.5
Max Q Clear Time (g_c+I1), s		11.1			18.6	13.7
Green Ext Time (p_c), s		8.0			12.4	0.1

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

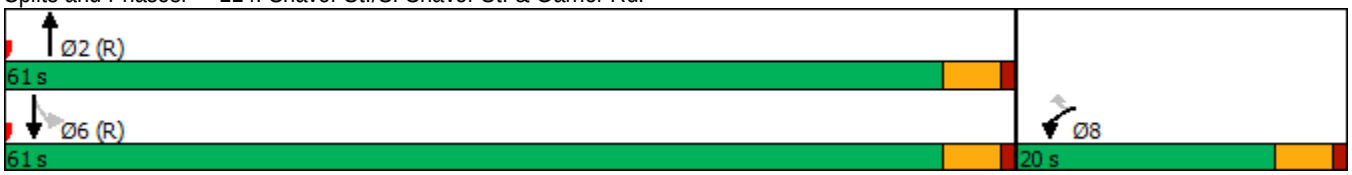
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	165	165	1281	218	1494
Future Volume (vph)	165	165	1281	218	1494
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	61.0	61.0	61.0
Total Split (%)	24.7%	24.7%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	12.8	12.8	59.2	59.2	59.2
Actuated g/C Ratio	0.16	0.16	0.73	0.73	0.73
v/c Ratio	0.64	0.56	0.62	1.40	0.63
Control Delay	42.0	23.4	2.5	225.1	4.5
Queue Delay	3.1	0.0	0.3	0.0	0.1
Total Delay	45.1	23.4	2.8	225.1	4.7
LOS	D	C	A	F	A
Approach Delay	34.2		2.8		32.7
Approach LOS	C		A		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 33 (41%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 77.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	165	165	1281	187	218	1494
Future Volume (veh/h)	165	165	1281	187	218	1494
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	176	176	1363	199	232	1589
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	246	219	2296	332	332	2618
Arrive On Green	0.14	0.14	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	3158	444	324	3589
Grp Volume(v), veh/h	176	176	772	790	232	1589
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1761	324	1749
Q Serve(g_s), s	7.8	8.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.8	8.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		0.25	1.00	
Lane Grp Cap(c), veh/h	246	219	1309	1318	332	2618
V/C Ratio(X)	0.72	0.80	0.59	0.60	0.70	0.61
Avail Cap(c_a), veh/h	335	299	1309	1318	332	2618
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.64	0.64	0.63	0.63
Uniform Delay (d), s/veh	33.3	33.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	4.5	10.8	1.3	1.3	7.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.9	0.5	0.5	0.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.8	44.5	1.3	1.3	7.5	0.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	352		1562			1821
Approach Delay, s/veh	41.2		1.3			1.5
Approach LOS	D		A			A

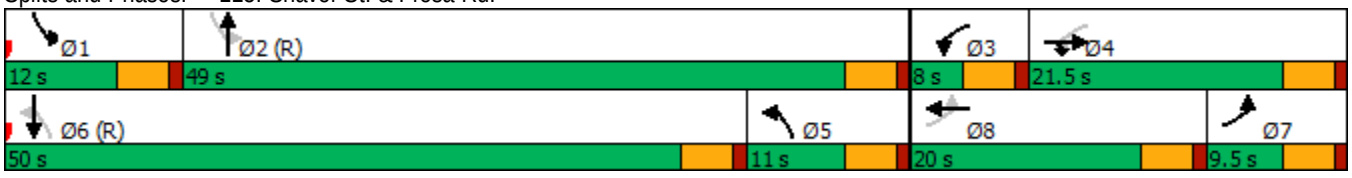
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		65.1			65.1	15.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		56.5			56.5	15.5
Max Q Clear Time (g_c+I1), s		2.0			2.0	10.9
Green Ext Time (p_c), s		18.7			32.2	0.5

Intersection Summary	
HCM 6th Ctrl Delay	5.2
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	3	76	86	43	61	89	1013	99	1089
Future Volume (vph)	3	76	86	43	61	89	1013	99	1089
Turn Type	D.P+P	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	4	3	8	5	2	1	6
Permitted Phases	8			4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.5	21.5	21.5	8.0	20.0	11.0	49.0	12.0	50.0
Total Split (%)	10.5%	23.8%	23.8%	8.8%	22.1%	12.2%	54.1%	13.3%	55.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		9.8	9.8	11.9	14.6	63.3	57.1	63.3	58.1
Actuated g/C Ratio		0.11	0.11	0.13	0.16	0.70	0.63	0.70	0.64
v/c Ratio		0.46	0.29	0.26	0.52	0.30	0.54	0.31	0.53
Control Delay		45.3	2.3	33.8	23.9	10.0	12.7	7.2	11.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		45.3	2.3	33.8	23.9	10.0	12.7	7.2	11.9
LOS		D	A	C	C	A	B	A	B
Approach Delay		22.8			26.0		12.4		11.5
Approach LOS		C			C		B		B

Intersection Summary	
Cycle Length: 90.5	
Actuated Cycle Length: 90.5	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

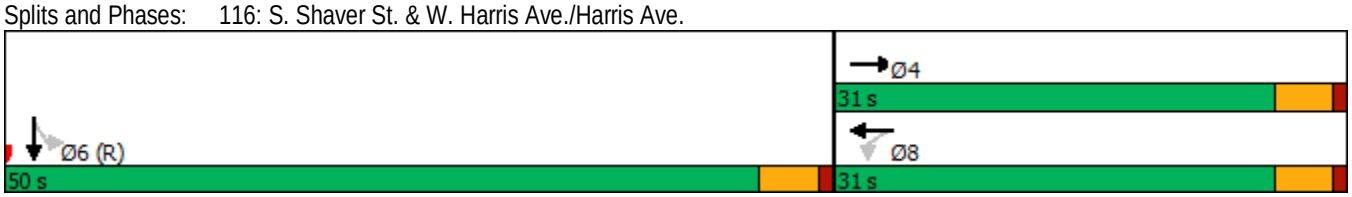
Splits and Phases: 115: Shaver St. & Fresa Rd.

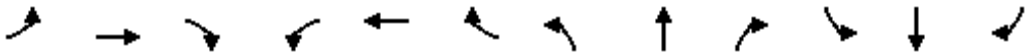


Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	168	124	204	1412
Future Volume (vph)	168	124	204	1412
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	31.0	50.0
Total Split (%)	38.3%	38.3%	38.3%	61.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	18.1		18.1	53.9
Actuated g/C Ratio	0.22		0.22	0.67
v/c Ratio	0.45		0.72	0.53
Control Delay	26.1		26.2	5.8
Queue Delay	0.0		0.0	0.0
Total Delay	26.1		26.2	5.8
LOS	C		C	A
Approach Delay	26.1		26.2	5.8
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 33 (41%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	168	121	124	204	0	0	0	0	121	1412	51
Future Volume (veh/h)	0	168	121	124	204	0	0	0	0	121	1412	51
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	185	133	136	224	0				133	1552	56
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	513	350	241	465	0				241	2996	111
Arrive On Green	0.00	0.26	0.26	0.09	0.09	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	2082	1355	625	1886	0				381	4748	176
Grp Volume(v), veh/h	0	161	157	172	188	0				635	531	574
Grp Sat Flow(s),veh/h/ln	0	1749	1597	835	1591	0				1822	1675	1809
Q Serve(g_s), s	0.0	6.1	6.5	11.1	9.1	0.0				25.3	22.7	22.7
Cycle Q Clear(g_c), s	0.0	6.1	6.5	17.7	9.1	0.0				25.3	22.7	22.7
Prop In Lane	0.00		0.85	0.79		0.00				0.21		0.10
Lane Grp Cap(c), veh/h	0	451	412	295	410	0				1149	1057	1141
V/C Ratio(X)	0.00	0.36	0.38	0.58	0.46	0.00				0.55	0.50	0.50
Avail Cap(c_a), veh/h	0	572	522	375	521	0				1149	1057	1141
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.81	0.81	0.00				0.92	0.92	0.92
Uniform Delay (d), s/veh	0.0	24.6	24.7	38.0	31.7	0.0				21.8	20.8	20.8
Incr Delay (d2), s/veh	0.0	0.5	0.6	1.5	0.6	0.0				1.8	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	2.5	3.8	3.8	0.0				12.6	10.4	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.0	25.3	39.4	32.3	0.0				23.6	22.4	22.3
LnGrp LOS	A	C	C	D	C	A				C	C	C
Approach Vol, veh/h		318			360						1741	
Approach Delay, s/veh		25.2			35.7						22.8	
Approach LOS		C			D						C	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		25.4		55.6		25.4			
Change Period (Y+Rc), s		4.5		4.5		4.5			
Max Green Setting (Gmax), s		26.5		45.5		26.5			
Max Q Clear Time (g_c+I1), s		8.5		27.3		19.7			
Green Ext Time (p_c), s		1.7		11.0		1.2			

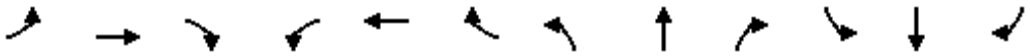
Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	52	248	234	959
Future Volume (vph)	52	248	234	959
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	51.0
Total Split (%)	37.0%	37.0%	37.0%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		15.1	15.1	56.9
Actuated g/C Ratio		0.19	0.19	0.70
v/c Ratio		0.71	0.56	0.38
Control Delay		43.8	25.3	2.2
Queue Delay		0.0	0.0	0.0
Total Delay		43.8	25.3	2.2
LOS		D	C	A
Approach Delay		43.8	25.3	2.2
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 12 (15%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



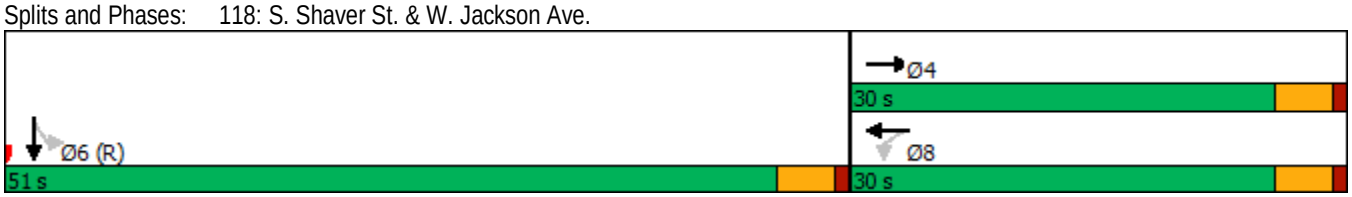


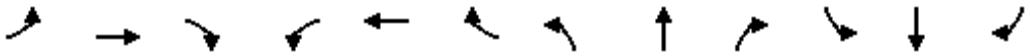
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	248	0	0	234	100	113	959	136	0	0	0
Future Volume (veh/h)	52	248	0	0	234	100	113	959	136	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	56	267	0	0	252	108	122	1031	146			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	108	478	0	0	466	194	321	2888	422			
Arrive On Green	0.06	0.06	0.00	0.00	0.19	0.19	0.23	0.23	0.23			
Sat Flow, veh/h	249	2551	0	0	2499	1002	462	4155	607			
Grp Volume(v), veh/h	160	163	0	0	181	179	480	403	416			
Grp Sat Flow(s),veh/h/ln	1124	1591	0	0	1749	1660	1818	1675	1731			
Q Serve(g_s), s	4.4	8.1	0.0	0.0	7.5	7.9	18.1	16.3	16.3			
Cycle Q Clear(g_c), s	12.3	8.1	0.0	0.0	7.5	7.9	18.1	16.3	16.3			
Prop In Lane	0.35		0.00	0.00		0.60	0.25		0.35			
Lane Grp Cap(c), veh/h	278	308	0	0	339	322	1264	1164	1204			
V/C Ratio(X)	0.57	0.53	0.00	0.00	0.53	0.56	0.38	0.35	0.35			
Avail Cap(c_a), veh/h	450	501	0	0	551	523	1264	1164	1204			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.89	0.89	0.00	0.00	0.75	0.75	0.65	0.65	0.65			
Uniform Delay (d), s/veh	36.0	34.3	0.0	0.0	29.4	29.5	16.5	15.8	15.8			
Incr Delay (d2), s/veh	1.7	1.3	0.0	0.0	1.0	1.1	0.6	0.5	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	3.4	0.0	0.0	3.2	3.2	8.8	7.3	7.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	35.6	0.0	0.0	30.4	30.6	17.0	16.3	16.3			
LnGrp LOS	D	D	A	A	C	C	B	B	B			
Approach Vol, veh/h		323			360			1299				
Approach Delay, s/veh		36.6			30.5			16.6				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		60.8		20.2				20.2				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		46.5		25.5				25.5				
Max Q Clear Time (g_c+I1), s		20.1		14.3				9.9				
Green Ext Time (p_c), s		9.4		1.4				1.9				
Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	133	71	245	1241
Future Volume (vph)	133	71	245	1241
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	51.0
Total Split (%)	37.0%	37.0%	37.0%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	15.6		15.6	56.4
Actuated g/C Ratio	0.19		0.19	0.70
v/c Ratio	0.49		0.71	0.40
Control Delay	26.0		24.6	6.0
Queue Delay	0.0		0.0	0.0
Total Delay	26.0		24.6	6.0
LOS	C		C	A
Approach Delay	26.0		24.6	6.0
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 75 (93%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	133	151	71	245	0	0	0	0	58	1241	24
Future Volume (veh/h)	0	133	151	71	245	0	0	0	0	58	1241	24
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	140	159	75	258	0				61	1306	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	354	315	136	458	0				151	3439	68
Arrive On Green	0.00	0.20	0.20	0.40	0.40	0.00				0.69	0.69	0.69
Sat Flow, veh/h	0	1841	1560	349	2349	0				220	5009	99
Grp Volume(v), veh/h	0	140	159	163	170	0				508	423	461
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1024	1591	0				1830	1675	1823
Q Serve(g_s), s	0.0	5.6	7.3	5.7	6.5	0.0				9.8	8.6	8.6
Cycle Q Clear(g_c), s	0.0	5.6	7.3	13.0	6.5	0.0				9.8	8.6	8.6
Prop In Lane	0.00		1.00	0.46		0.00				0.12		0.05
Lane Grp Cap(c), veh/h	0	354	315	272	322	0				1256	1150	1252
V/C Ratio(X)	0.00	0.40	0.50	0.60	0.53	0.00				0.40	0.37	0.37
Avail Cap(c_a), veh/h	0	551	491	427	501	0				1256	1150	1252
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.84	0.84	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.0	28.7	23.5	21.2	0.0				5.5	5.3	5.3
Incr Delay (d2), s/veh	0.0	0.7	1.2	1.8	1.1	0.0				1.0	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	2.7	2.3	2.1	0.0				3.1	2.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.7	29.9	25.3	22.3	0.0				6.5	6.2	6.2
LnGrp LOS	A	C	C	C	C	A				A	A	A
Approach Vol, veh/h		299			333						1392	
Approach Delay, s/veh		29.4			23.8						6.3	
Approach LOS		C			C						A	

Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				20.9		60.1		20.9				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				25.5		46.5		25.5				
Max Q Clear Time (g_c+I1), s				9.3		11.8		15.0				
Green Ext Time (p_c), s				1.5		11.1		1.4				

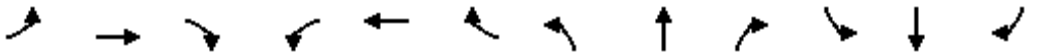
Intersection Summary												
HCM 6th Ctrl Delay			12.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	20	166	198	709
Future Volume (vph)	20	166	198	709
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	31.0	50.0
Total Split (%)	38.3%	38.3%	38.3%	61.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		10.9	10.9	61.1
Actuated g/C Ratio		0.13	0.13	0.75
v/c Ratio		0.50	0.53	0.27
Control Delay		46.2	34.1	2.0
Queue Delay		0.0	0.0	0.0
Total Delay		46.2	34.1	2.0
LOS		D	C	A
Approach Delay		46.2	34.1	2.0
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 62 (77%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 44.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



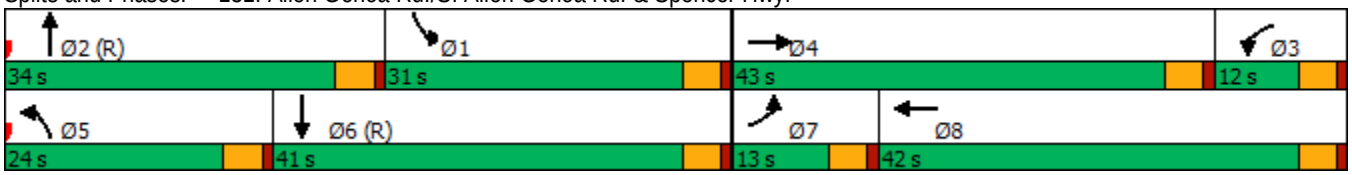


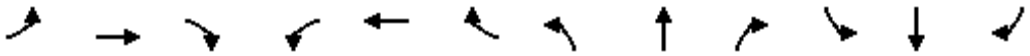
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	166	0	0	198	25	127	709	94	0	0	0
Future Volume (veh/h)	20	166	0	0	198	25	127	709	94	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	21	175	0	0	208	26	134	746	99			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	70	322	0	0	354	44	522	3108	423			
Arrive On Green	0.04	0.04	0.00	0.00	0.11	0.11	0.26	0.26	0.26			
Sat Flow, veh/h	148	2932	0	0	3225	387	673	4007	545			
Grp Volume(v), veh/h	101	95	0	0	115	119	360	303	317			
Grp Sat Flow(s),veh/h/ln	1405	1591	0	0	1749	1771	1807	1675	1743			
Q Serve(g_s), s	1.0	4.8	0.0	0.0	5.1	5.2	12.8	11.6	11.7			
Cycle Q Clear(g_c), s	6.2	4.8	0.0	0.0	5.1	5.2	12.8	11.6	11.7			
Prop In Lane	0.21		0.00	0.00		0.22	0.37		0.31			
Lane Grp Cap(c), veh/h	213	180	0	0	198	200	1402	1300	1352			
V/C Ratio(X)	0.47	0.53	0.00	0.00	0.58	0.59	0.26	0.23	0.23			
Avail Cap(c_a), veh/h	561	521	0	0	572	579	1402	1300	1352			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.87	0.87	0.00	0.00	1.00	1.00	0.93	0.93	0.93			
Uniform Delay (d), s/veh	37.0	36.9	0.0	0.0	34.1	34.2	11.5	11.1	11.1			
Incr Delay (d2), s/veh	1.4	2.1	0.0	0.0	2.7	2.8	0.4	0.4	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	2.0	0.0	0.0	2.2	2.3	6.2	5.0	5.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	39.0	0.0	0.0	36.8	37.0	11.9	11.5	11.5			
LnGrp LOS	D	D	A	A	D	D	B	B	B			
Approach Vol, veh/h		196			234			979				
Approach Delay, s/veh		38.7			36.9			11.6				
Approach LOS		D			D			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		67.3		13.7				13.7				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		45.5		26.5				26.5				
Max Q Clear Time (g_c+I1), s		14.8		8.2				7.2				
Green Ext Time (p_c), s		6.7		1.0				1.2				
Intersection Summary												
HCM 6th Ctrl Delay			19.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	110	1060	66	1153	264	658	354	719
Future Volume (vph)	110	1060	66	1153	264	658	354	719
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	43.0	12.0	42.0	24.0	34.0	31.0	41.0
Total Split (%)	10.8%	35.8%	10.0%	35.0%	20.0%	28.3%	25.8%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.5	40.9	7.3	37.5	19.5	29.5	26.5	36.5
Actuated g/C Ratio	0.07	0.34	0.06	0.31	0.16	0.25	0.22	0.30
v/c Ratio	0.94	0.82	0.66	1.01	0.98	0.94	0.96	0.82
Control Delay	114.5	19.3	41.0	31.5	76.3	50.3	69.5	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	114.5	19.3	41.0	31.5	76.3	50.3	69.5	32.0
LOS	F	B	D	C	E	D	E	C
Approach Delay		26.8		31.9		57.2		43.6
Approach LOS		C		C		E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 95.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1060	220	66	1153	305	264	658	79	354	719	74
Future Volume (veh/h)	110	1060	220	66	1153	305	264	658	79	354	719	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	115	1104	229	69	1201	318	275	685	82	369	749	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	124	1280	265	133	1233	326	285	773	92	389	976	100
Arrive On Green	0.02	0.10	0.10	0.15	0.62	0.62	0.16	0.25	0.25	0.22	0.30	0.30
Sat Flow, veh/h	1753	4171	865	1753	3955	1047	1753	3145	376	1753	3201	329
Grp Volume(v), veh/h	115	887	446	69	1017	502	275	381	386	369	409	417
Grp Sat Flow(s),veh/h/ln	1753	1675	1685	1753	1675	1652	1753	1749	1773	1753	1749	1782
Q Serve(g_s), s	7.9	31.3	31.3	4.4	34.9	35.0	18.7	25.2	25.2	24.9	25.5	25.5
Cycle Q Clear(g_c), s	7.9	31.3	31.3	4.4	34.9	35.0	18.7	25.2	25.2	24.9	25.5	25.5
Prop In Lane	1.00		0.51	1.00		0.63	1.00		0.21	1.00		0.18
Lane Grp Cap(c), veh/h	124	1028	517	133	1044	515	285	430	436	389	533	543
V/C Ratio(X)	0.93	0.86	0.86	0.52	0.97	0.97	0.97	0.89	0.89	0.95	0.77	0.77
Avail Cap(c_a), veh/h	124	1075	541	133	1047	516	285	430	436	389	533	543
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.37	0.37	0.37	0.85	0.85	0.85	0.85	0.85	0.85
Uniform Delay (d), s/veh	58.3	51.4	51.4	48.9	22.1	22.1	49.9	43.6	43.6	46.0	37.8	37.8
Incr Delay (d2), s/veh	50.8	5.8	10.9	1.3	11.5	18.2	39.8	19.8	19.8	29.7	8.7	8.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	14.9	15.7	1.9	9.9	10.7	11.3	13.2	13.4	14.0	12.1	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	109.1	57.3	62.3	50.2	33.7	40.3	89.7	63.4	63.4	75.7	46.6	46.4
LnGrp LOS	F	E	E	D	C	D	F	E	E	E	D	D
Approach Vol, veh/h		1448			1588			1042			1195	
Approach Delay, s/veh		62.9			36.5			70.4			55.5	
Approach LOS		E			D			E			E	

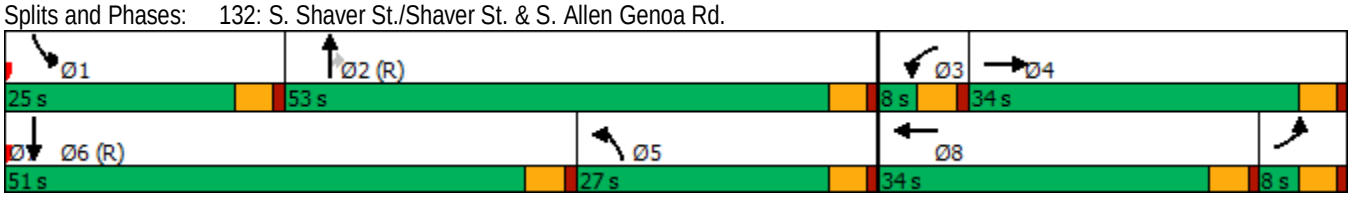
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.1	34.0	13.6	41.3	24.0	41.1	13.0	41.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	26.5	29.5	7.5	38.5	19.5	36.5	8.5	37.5
Max Q Clear Time (g_c+I1), s	26.9	27.2	6.4	33.3	20.7	27.5	9.9	37.0
Green Ext Time (p_c), s	0.0	1.1	0.0	3.5	0.0	3.5	0.0	0.5

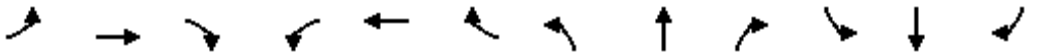
Intersection Summary	
HCM 6th Ctrl Delay	54.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	15	423	20	518	255	978	28	166	1128
Future Volume (vph)	15	423	20	518	255	978	28	166	1128
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases							2		
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	34.0	8.0	34.0	27.0	53.0	53.0	25.0	51.0
Total Split (%)	6.7%	28.3%	6.7%	28.3%	22.5%	44.2%	44.2%	20.8%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	3.9	28.8	3.5	30.4	22.5	56.2	56.2	16.7	50.4
Actuated g/C Ratio	0.03	0.24	0.03	0.25	0.19	0.47	0.47	0.14	0.42
v/c Ratio	0.29	0.87	0.42	0.87	0.82	0.63	0.04	0.73	0.82
Control Delay	50.1	29.6	76.4	48.1	47.1	16.4	0.0	66.5	37.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	29.6	76.4	48.1	47.1	16.4	0.0	66.5	37.3
LOS	D	C	E	D	D	B	A	E	D
Approach Delay		30.0		48.9		22.3			41.0
Approach LOS		C		D		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 43 (36%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 34.6	Intersection LOS: C
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	423	320	20	518	206	255	978	28	166	1128	3
Future Volume (veh/h)	15	423	320	20	518	206	255	978	28	166	1128	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	16	445	337	21	545	217	268	1029	0	175	1187	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	35	467	352	26	588	233	354	1655		204	1387	4
Arrive On Green	0.02	0.25	0.25	0.01	0.24	0.24	0.20	0.47	0.00	0.12	0.39	0.39
Sat Flow, veh/h	1753	1900	1432	1753	2445	970	1753	3497	1560	1753	3579	9
Grp Volume(v), veh/h	16	409	373	21	389	373	268	1029	0	175	580	610
Grp Sat Flow(s),veh/h/ln	1753	1749	1583	1753	1749	1666	1753	1749	1560	1753	1749	1839
Q Serve(g_s), s	1.1	27.7	27.9	1.4	26.1	26.3	17.3	26.4	0.0	11.8	36.5	36.5
Cycle Q Clear(g_c), s	1.1	27.7	27.9	1.4	26.1	26.3	17.3	26.4	0.0	11.8	36.5	36.5
Prop In Lane	1.00		0.90	1.00		0.58	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	35	430	389	26	421	401	354	1655		204	678	713
V/C Ratio(X)	0.46	0.95	0.96	0.82	0.93	0.93	0.76	0.62		0.86	0.86	0.86
Avail Cap(c_a), veh/h	51	430	389	51	430	410	354	1655		299	678	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.40	0.40	0.00	0.25	0.25	0.25
Uniform Delay (d), s/veh	58.2	44.6	44.6	59.0	44.5	44.6	45.1	23.6	0.0	52.0	33.7	33.7
Incr Delay (d2), s/veh	9.0	31.4	34.6	43.8	25.7	27.4	3.8	0.7	0.0	4.4	3.7	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	15.6	14.6	0.9	14.1	13.7	7.8	10.7	0.0	5.4	15.7	16.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.1	76.0	79.2	102.8	70.2	72.0	48.9	24.3	0.0	56.4	37.4	37.2
LnGrp LOS	E	E	E	F	E	E	D	C		E	D	D
Approach Vol, veh/h		798			783			1297	A		1365	
Approach Delay, s/veh		77.3			71.9			29.4			39.8	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	61.3	6.3	34.0	28.7	51.0	6.9	33.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	48.5	3.5	29.5	22.5	46.5	3.5	29.5
Max Q Clear Time (g_c+I1), s	13.8	28.4	3.4	29.9	19.3	38.5	3.1	28.3
Green Ext Time (p_c), s	0.2	7.3	0.0	0.0	0.2	4.5	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	49.6
HCM 6th LOS	D

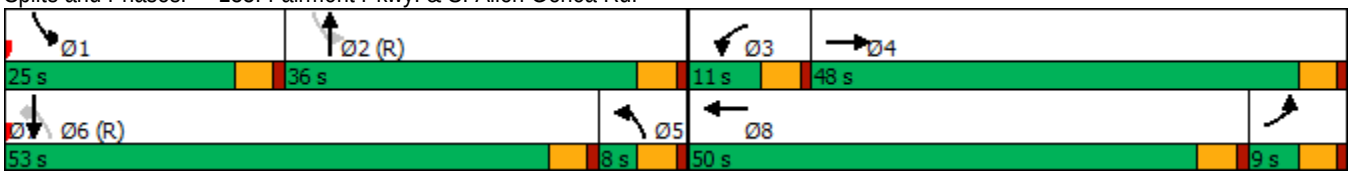
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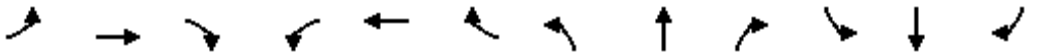
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	41	771	34	778	52	288	301	284	50
Future Volume (vph)	41	771	34	778	52	288	301	284	50
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	9.0	48.0	11.0	50.0	8.0	36.0	25.0	53.0	53.0
Total Split (%)	7.5%	40.0%	9.2%	41.7%	6.7%	30.0%	20.8%	44.2%	44.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	4.8	45.1	6.3	44.4	55.7	37.4	54.8	52.9	52.9
Actuated g/C Ratio	0.04	0.38	0.05	0.37	0.46	0.31	0.46	0.44	0.44
v/c Ratio	0.59	0.47	0.37	0.91	0.12	0.59	0.69	0.36	0.07
Control Delay	54.6	4.5	36.5	41.0	14.2	26.5	12.8	5.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	4.5	36.5	41.0	14.2	26.5	12.8	5.8	0.1
LOS	D	A	D	D	B	C	B	A	A
Approach Delay		6.7		40.9		24.8		8.7	
Approach LOS		A		D		C		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 44 (37%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	771	88	34	778	359	52	288	41	301	284	50
Future Volume (veh/h)	41	771	88	34	778	359	52	288	41	301	284	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	41	779	89	34	786	363	53	291	41	304	287	51
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	52	1698	193	43	850	392	450	505	71	467	744	630
Arrive On Green	0.03	0.37	0.37	0.02	0.37	0.37	0.05	0.32	0.32	0.13	0.40	0.40
Sat Flow, veh/h	1753	4577	520	1753	2325	1071	1753	1578	222	1753	1841	1560
Grp Volume(v), veh/h	41	569	299	34	591	558	53	0	332	304	287	51
Grp Sat Flow(s),veh/h/ln	1753	1675	1747	1753	1749	1648	1753	0	1801	1753	1841	1560
Q Serve(g_s), s	2.8	15.4	15.6	2.3	38.8	39.0	0.0	0.0	18.4	13.7	13.2	2.4
Cycle Q Clear(g_c), s	2.8	15.4	15.6	2.3	38.8	39.0	0.0	0.0	18.4	13.7	13.2	2.4
Prop In Lane	1.00		0.30	1.00		0.65	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	52	1243	648	43	639	603	450	0	577	467	744	630
V/C Ratio(X)	0.79	0.46	0.46	0.79	0.92	0.93	0.12	0.00	0.58	0.65	0.39	0.08
Avail Cap(c_a), veh/h	66	1243	648	95	663	625	450	0	577	531	744	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.19	0.19	0.19	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	28.6	28.6	58.2	36.5	36.5	27.2	0.0	34.0	23.6	25.2	22.0
Incr Delay (d2), s/veh	25.6	0.2	0.3	6.2	4.7	5.2	0.1	0.0	4.1	2.3	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.2	6.6	1.1	17.1	16.3	1.1	0.0	8.6	5.8	6.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.4	28.8	29.0	64.5	41.2	41.7	27.3	0.0	38.1	25.9	26.7	22.3
LnGrp LOS	F	C	C	E	D	D	C	A	D	C	C	C
Approach Vol, veh/h		909			1183			385			642	
Approach Delay, s/veh		31.3			42.1			36.6			26.0	
Approach LOS		C			D			D			C	

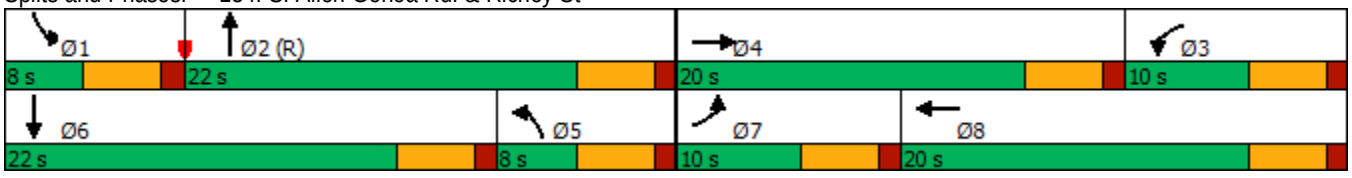
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	42.9	7.4	49.0	10.6	53.0	8.1	48.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	31.5	6.5	43.5	3.5	48.5	4.5	45.5
Max Q Clear Time (g_c+I1), s	15.7	20.4	4.3	17.6	2.0	15.2	4.8	41.0
Green Ext Time (p_c), s	0.4	1.4	0.0	6.3	0.0	1.9	0.0	2.9

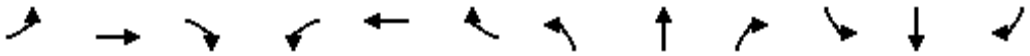
Intersection Summary	
HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	203	660	203	726	55	683	51	895
Future Volume (vph)	203	660	203	726	55	683	51	895
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	10.0	20.0	8.0	22.0	8.0	22.0
Total Split (%)	16.7%	33.3%	16.7%	33.3%	13.3%	36.7%	13.3%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	5.5	15.5	5.5	15.5	3.5	20.7	3.5	20.7
Actuated g/C Ratio	0.09	0.26	0.09	0.26	0.06	0.34	0.06	0.34
v/c Ratio	1.35	0.89	1.35	0.89	0.57	0.71	0.53	0.95
Control Delay	220.0	35.4	217.0	34.1	48.2	18.7	48.3	38.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	220.0	35.4	217.0	34.1	48.2	18.7	48.3	38.5
LOS	F	D	F	C	D	B	D	D
Approach Delay		74.4		72.9		20.6		39.0
Approach LOS		E		E		C		D

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 24 (40%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.35	
Intersection Signal Delay: 52.0	Intersection LOS: D
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	660	99	203	726	29	55	683	116	51	895	187
Future Volume (veh/h)	203	660	99	203	726	29	55	683	116	51	895	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	214	695	104	214	764	31	58	719	122	54	942	197
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	161	781	117	161	876	36	107	941	160	66	840	175
Arrive On Green	0.09	0.26	0.26	0.09	0.26	0.26	0.06	0.31	0.31	0.04	0.29	0.29
Sat Flow, veh/h	1753	3051	456	1753	3425	139	1753	2991	507	1753	2880	602
Grp Volume(v), veh/h	214	398	401	214	390	405	58	420	421	54	572	567
Grp Sat Flow(s),veh/h/ln	1753	1749	1759	1753	1749	1816	1753	1749	1749	1753	1749	1732
Q Serve(g_s), s	5.5	13.2	13.2	5.5	12.8	12.8	1.9	13.0	13.0	1.8	17.5	17.5
Cycle Q Clear(g_c), s	5.5	13.2	13.2	5.5	12.8	12.8	1.9	13.0	13.0	1.8	17.5	17.5
Prop In Lane	1.00		0.26	1.00		0.08	1.00		0.29	1.00		0.35
Lane Grp Cap(c), veh/h	161	447	450	161	447	465	107	550	550	66	510	505
V/C Ratio(X)	1.33	0.89	0.89	1.33	0.87	0.87	0.54	0.76	0.76	0.81	1.12	1.12
Avail Cap(c_a), veh/h	161	452	454	161	452	469	107	550	550	102	510	505
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	21.5	21.5	27.3	21.4	21.4	27.4	18.6	18.6	28.7	21.3	21.3
Incr Delay (d2), s/veh	185.5	19.1	19.2	185.5	16.7	16.2	5.6	9.7	9.7	23.8	77.4	78.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	7.2	7.2	10.4	6.7	6.9	0.9	6.1	6.1	1.2	17.2	17.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	212.7	40.6	40.7	212.7	38.0	37.6	33.0	28.3	28.3	52.4	98.6	99.5
LnGrp LOS	F	D	D	F	D	D	C	C	C	D	F	F
Approach Vol, veh/h		1013			1009			899			1193	
Approach Delay, s/veh		77.0			74.9			28.6			97.0	
Approach LOS		E			E			C			F	

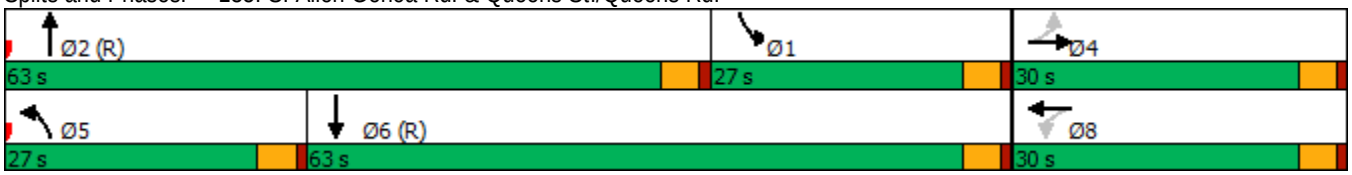
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	23.4	10.0	19.9	8.1	22.0	10.0	19.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	17.5	5.5	15.5	3.5	17.5	5.5	15.5
Max Q Clear Time (g_c+I1), s	3.8	15.0	7.5	15.2	3.9	19.5	7.5	14.8
Green Ext Time (p_c), s	0.0	1.2	0.0	0.2	0.0	0.0	0.0	0.3

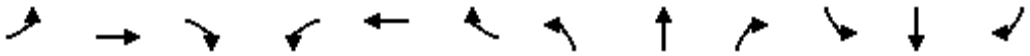
Intersection Summary	
HCM 6th Ctrl Delay	71.7
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	206	3	147	143	646	147	984
Future Volume (vph)	29	206	3	147	143	646	147	984
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	30.0	30.0	30.0	30.0	27.0	63.0	27.0	63.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	22.5%	52.5%	22.5%	52.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		18.1		18.1	15.5	65.9	22.5	72.8
Actuated g/C Ratio		0.15		0.15	0.13	0.55	0.19	0.61
v/c Ratio		0.79		0.51	0.67	0.36	0.47	0.51
Control Delay		51.7		27.8	34.2	15.5	35.6	9.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		51.7		27.8	34.2	15.5	35.6	9.3
LOS		D		C	C	B	D	A
Approach Delay		51.7		27.8		18.9		12.6
Approach LOS		D		C		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 113 (94%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 21.5	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	206	124	3	147	123	143	646	4	147	984	44
Future Volume (veh/h)	29	206	124	3	147	123	143	646	4	147	984	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	215	129	3	153	128	149	673	4	153	1025	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	56	281	176	32	305	233	178	1738	10	411	2114	95
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.10	0.49	0.49	0.23	0.62	0.62
Sat Flow, veh/h	128	1695	1063	9	1839	1407	1753	3564	21	1753	3409	153
Grp Volume(v), veh/h	194	0	180	155	0	129	149	330	347	153	526	545
Grp Sat Flow(s),veh/h/ln	1401	0	1484	1833	0	1422	1753	1749	1837	1753	1749	1813
Q Serve(g_s), s	6.7	0.0	13.8	0.0	0.0	10.0	10.0	14.3	14.3	8.8	19.6	19.6
Cycle Q Clear(g_c), s	16.7	0.0	13.8	9.2	0.0	10.0	10.0	14.3	14.3	8.8	19.6	19.6
Prop In Lane	0.15		0.72	0.02		0.99	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	267	0	246	335	0	236	178	852	895	411	1084	1124
V/C Ratio(X)	0.73	0.00	0.73	0.46	0.00	0.55	0.84	0.39	0.39	0.37	0.48	0.48
Avail Cap(c_a), veh/h	344	0	315	419	0	302	329	852	895	411	1084	1124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.23	0.23	0.23	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	0.0	47.5	45.6	0.0	45.9	52.9	19.4	19.4	38.5	12.4	12.4
Incr Delay (d2), s/veh	5.4	0.0	6.2	1.0	0.0	2.0	2.5	0.3	0.3	0.6	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	5.4	4.2	0.0	3.6	4.5	5.8	6.0	3.8	7.6	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	0.0	53.8	46.6	0.0	47.9	55.4	19.7	19.7	39.1	13.9	13.9
LnGrp LOS	D	A	D	D	A	D	E	B	B	D	B	B
Approach Vol, veh/h		374			284			826			1224	
Approach Delay, s/veh		53.9			47.2			26.2			17.1	
Approach LOS		D			D			C			B	

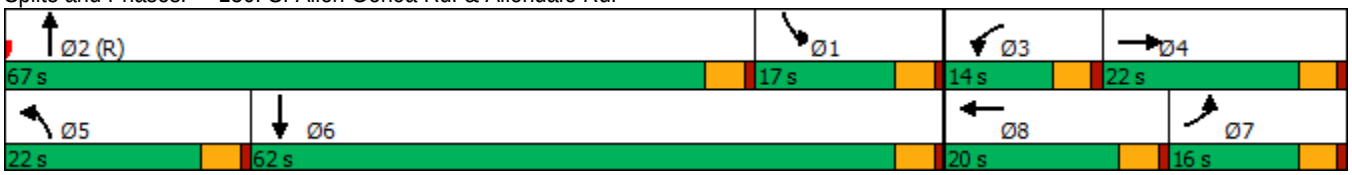
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.6	63.0		24.4	16.7	78.9		24.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	22.5	58.5		25.5	22.5	58.5		25.5				
Max Q Clear Time (g_c+I1), s	10.8	16.3		18.7	12.0	21.6		12.0				
Green Ext Time (p_c), s	0.3	4.5		1.1	0.3	8.4		1.2				

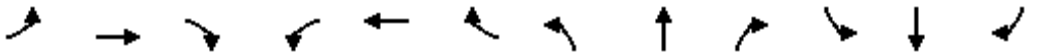
Intersection Summary			
HCM 6th Ctrl Delay		28.1	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	221	55	197	128	705	88	1035
Future Volume (vph)	76	221	55	197	128	705	88	1035
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	22.0	14.0	20.0	22.0	67.0	17.0	62.0
Total Split (%)	13.3%	18.3%	11.7%	16.7%	18.3%	55.8%	14.2%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	10.1	15.1	8.4	13.6	14.1	69.9	10.7	66.4
Actuated g/C Ratio	0.08	0.13	0.07	0.11	0.12	0.58	0.09	0.55
v/c Ratio	0.54	0.72	0.49	0.65	0.68	0.41	0.60	0.63
Control Delay	66.5	52.4	54.5	44.1	66.5	10.2	68.2	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	52.4	54.5	44.1	66.5	10.2	68.2	21.9
LOS	E	D	D	D	E	B	E	C
Approach Delay		55.1		46.0		18.0		25.2
Approach LOS		E		D		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 22 (18%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 29.2	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	221	96	55	197	43	128	705	89	88	1035	110
Future Volume (veh/h)	76	221	96	55	197	43	128	705	89	88	1035	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	79	230	100	57	205	45	133	734	0	92	1078	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	119	286	120	73	266	57	162	1822		295	2087	
Arrive On Green	0.07	0.12	0.12	0.04	0.09	0.09	0.09	0.52	0.00	0.17	0.60	0.00
Sat Flow, veh/h	1753	2398	1010	1753	2863	616	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	79	166	164	57	124	126	133	734	0	92	1078	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1659	1753	1749	1730	1753	1749	0	1753	1749	0
Q Serve(g_s), s	5.3	11.1	11.6	3.9	8.3	8.6	8.9	15.3	0.0	5.5	21.6	0.0
Cycle Q Clear(g_c), s	5.3	11.1	11.6	3.9	8.3	8.6	8.9	15.3	0.0	5.5	21.6	0.0
Prop In Lane	1.00		0.61	1.00		0.36	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	119	208	198	73	162	161	162	1822		295	2087	
V/C Ratio(X)	0.66	0.80	0.83	0.78	0.76	0.79	0.82	0.40		0.31	0.52	
Avail Cap(c_a), veh/h	168	255	242	139	226	223	256	1822		295	2087	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.6	51.4	51.7	56.9	53.1	53.3	53.5	17.4	0.0	43.8	14.1	0.0
Incr Delay (d2), s/veh	6.2	13.3	18.0	15.7	9.1	11.4	11.0	0.7	0.0	0.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.6	5.8	2.0	4.0	4.2	4.4	6.2	0.0	2.5	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	64.7	69.7	72.6	62.3	64.7	64.5	18.1	0.0	44.4	14.3	0.0
LnGrp LOS	E	E	E	E	E	E	E	B		D	B	
Approach Vol, veh/h		409			307			867	A		1170	A
Approach Delay, s/veh		66.0			65.2			25.2			16.7	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.7	67.0	9.5	18.8	15.6	76.1	12.7	15.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	62.5	9.5	17.5	17.5	57.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	7.5	17.3	5.9	13.6	10.9	23.6	7.3	10.6
Green Ext Time (p_c), s	0.1	6.1	0.0	0.7	0.2	9.8	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

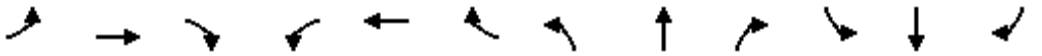
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	147	137	74	104	11	818	85	20	923	150
Future Volume (vph)	147	137	74	104	11	818	85	20	923	150
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	24.0	10.0	20.0	86.0	86.0	86.0	86.0	86.0	86.0
Total Split (%)	11.7%	20.0%	8.3%	16.7%	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	23.2	15.6	15.1	9.6	87.4	87.4	87.4		87.4	87.4
Actuated g/C Ratio	0.19	0.13	0.13	0.08	0.73	0.73	0.73		0.73	0.73
v/c Ratio	0.71	0.47	0.50	0.46	0.04	0.68	0.08		0.46	0.15
Control Delay	48.7	29.2	53.3	54.0	2.8	11.2	0.6		7.7	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	48.7	29.2	53.3	54.0	2.8	11.2	0.6		7.7	1.7
LOS	D	C	D	D	A	B	A		A	A
Approach Delay		37.3		53.7		10.1			6.8	
Approach LOS		D		D		B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 76 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 72.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	137	69	74	104	13	11	818	85	20	923	150
Future Volume (veh/h)	147	137	69	74	104	13	11	818	85	20	923	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	156	146	0	79	111	0	12	870	90	21	982	160
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	223	293		194	177		377	1395	1182	59	2510	1182
Arrive On Green	0.08	0.08	0.00	0.05	0.05	0.00	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1753	3589	0	1753	3589	0	485	1841	1560	37	3313	1560
Grp Volume(v), veh/h	156	146	0	79	111	0	12	870	90	527	476	160
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	485	1841	1560	1759	1591	1560
Q Serve(g_s), s	9.5	4.8	0.0	5.1	3.7	0.0	1.1	26.1	1.8	0.0	12.4	3.3
Cycle Q Clear(g_c), s	9.5	4.8	0.0	5.1	3.7	0.0	13.5	26.1	1.8	11.7	12.4	3.3
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.04		1.00
Lane Grp Cap(c), veh/h	223	293		194	177		377	1395	1182	1364	1206	1182
V/C Ratio(X)	0.70	0.50		0.41	0.63		0.03	0.62	0.08	0.39	0.39	0.14
Avail Cap(c_a), veh/h	223	568		194	452		377	1395	1182	1364	1206	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	52.5	0.0	51.3	55.9	0.0	7.3	6.7	3.7	4.9	5.0	3.9
Incr Delay (d2), s/veh	6.2	0.9	0.0	1.4	3.6	0.0	0.2	2.1	0.1	0.8	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	2.1	0.0	2.3	1.7	0.0	0.1	9.0	0.5	4.0	3.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	53.4	0.0	52.7	59.5	0.0	7.5	8.8	3.9	5.8	6.0	4.2
LnGrp LOS	E	D		D	E		A	A	A	A	A	A
Approach Vol, veh/h		302	A		190	A		972			1163	
Approach Delay, s/veh		54.3			56.7			8.3			5.6	
Approach LOS		D			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		95.4	10.0	14.6		95.4	14.0	10.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		81.5	5.5	19.5		81.5	9.5	15.5				
Max Q Clear Time (g_c+I1), s		28.1	7.1	6.8		14.4	11.5	5.7				
Green Ext Time (p_c), s		8.9	0.0	0.6		9.1	0.0	0.3				

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

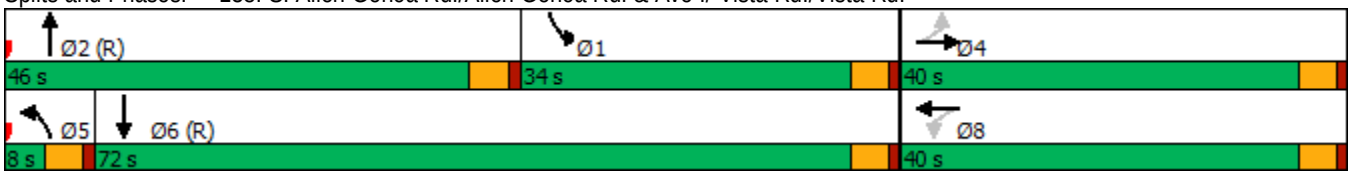
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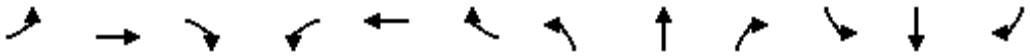
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	14	30	17	48	9	693	229	717
Future Volume (vph)	14	30	17	48	9	693	229	717
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	40.0	40.0	40.0	40.0	8.0	46.0	34.0	72.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	6.7%	38.3%	28.3%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		21.3		21.3	6.0	55.7	29.5	87.6
Actuated g/C Ratio		0.18		0.18	0.05	0.46	0.25	0.73
v/c Ratio		0.31		0.85	0.12	0.50	0.58	0.31
Control Delay		32.4		41.4	53.2	13.5	25.4	4.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		32.4		41.4	53.2	13.5	25.4	4.0
LOS		C		D	D	B	C	A
Approach Delay		32.4		41.4		13.9		9.1
Approach LOS		C		D		B		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 50 (42%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 16.8	Intersection LOS: B
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	30	19	17	48	277	9	693	48	229	717	5
Future Volume (veh/h)	14	30	19	17	48	277	9	693	48	229	717	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	15	33	21	18	52	301	10	753	52	249	779	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	81	169	94	42	66	328	14	1148	79	505	2229	14
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.01	0.35	0.35	0.58	1.00	1.00
Sat Flow, veh/h	176	668	370	41	260	1292	1753	3319	229	1753	3562	23
Grp Volume(v), veh/h	69	0	0	371	0	0	10	397	408	249	382	402
Grp Sat Flow(s),veh/h/ln	1214	0	0	1592	0	0	1753	1749	1799	1753	1749	1837
Q Serve(g_s), s	0.0	0.0	0.0	12.9	0.0	0.0	0.7	23.0	23.0	10.1	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	0.0	27.2	0.0	0.0	0.7	23.0	23.0	10.1	0.0	0.0
Prop In Lane	0.22		0.30	0.05		0.81	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	344	0	0	435	0	0	14	605	622	505	1094	1149
V/C Ratio(X)	0.20	0.00	0.00	0.85	0.00	0.00	0.69	0.66	0.66	0.49	0.35	0.35
Avail Cap(c_a), veh/h	407	0	0	502	0	0	51	605	622	505	1094	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	0.71	0.00	0.00	1.00	1.00	1.00	0.49	0.49	0.49
Uniform Delay (d), s/veh	34.8	0.0	0.0	43.5	0.0	0.0	59.4	33.2	33.2	20.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	8.8	0.0	0.0	45.1	5.5	5.3	0.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	11.7	0.0	0.0	0.5	10.6	10.9	3.4	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	0.0	0.0	52.3	0.0	0.0	104.5	38.7	38.6	20.6	0.4	0.4
LnGrp LOS	D	A	A	D	A	A	F	D	D	C	A	A
Approach Vol, veh/h		69			371			815			1033	
Approach Delay, s/veh		35.1			52.3			39.4			5.3	
Approach LOS		D			D			D			A	

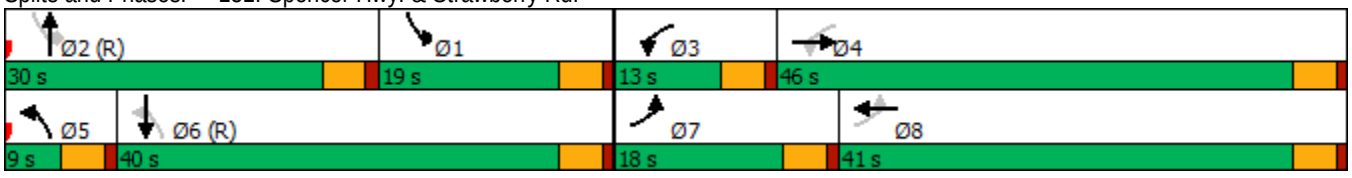
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.1	46.0		34.9	5.5	79.6		34.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	29.5	41.5		35.5	3.5	67.5		35.5				
Max Q Clear Time (g_c+I1), s	12.1	25.0		5.7	2.7	2.0		29.2				
Green Ext Time (p_c), s	0.7	4.7		0.4	0.0	5.9		1.3				

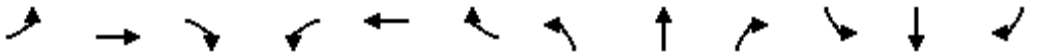
Intersection Summary			
HCM 6th Ctrl Delay		26.0	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	249	1481	141	1416	113	615	193	282	664
Future Volume (vph)	249	1481	141	1416	113	615	193	282	664
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	18.0	46.0	13.0	41.0	9.0	30.0	30.0	19.0	40.0
Total Split (%)	16.7%	42.6%	12.0%	38.0%	8.3%	27.8%	27.8%	17.6%	37.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	50.0	41.7	50.0	36.5	40.0	25.5	25.5	40.0	35.5
Actuated g/C Ratio	0.46	0.39	0.46	0.34	0.37	0.24	0.24	0.37	0.33
v/c Ratio	0.92	0.88	0.72	1.02	0.88	0.79	0.41	0.99	0.83
Control Delay	66.2	37.4	40.1	63.4	80.0	47.2	8.4	76.8	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	37.4	40.1	63.4	80.0	47.2	8.4	76.8	27.4
LOS	E	D	D	E	F	D	A	E	C
Approach Delay		41.3		61.5		43.1			39.0
Approach LOS		D		E		D			D

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 77 (71%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 47.3	Intersection LOS: D
Intersection Capacity Utilization 98.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	1481	112	141	1416	201	113	615	193	282	664	254
Future Volume (veh/h)	249	1481	112	141	1416	201	113	615	193	282	664	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	254	1511	114	144	1445	205	115	628	197	288	678	259
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	282	1865	141	216	1503	213	188	826	368	356	826	316
Arrive On Green	0.12	0.39	0.39	0.07	0.34	0.34	0.04	0.24	0.24	0.14	0.33	0.33
Sat Flow, veh/h	1753	4767	360	1753	4447	630	1753	3497	1560	1753	2474	945
Grp Volume(v), veh/h	254	1062	563	144	1088	562	115	628	197	288	479	458
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1727	1753	1749	1560	1753	1749	1671
Q Serve(g_s), s	10.9	30.5	30.5	5.2	34.4	34.5	4.5	18.1	9.6	10.0	27.2	27.2
Cycle Q Clear(g_c), s	10.9	30.5	30.5	5.2	34.4	34.5	4.5	18.1	9.6	10.0	27.2	27.2
Prop In Lane	1.00		0.20	1.00		0.36	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	282	1311	695	216	1132	584	188	826	368	356	584	558
V/C Ratio(X)	0.90	0.81	0.81	0.67	0.96	0.96	0.61	0.76	0.53	0.81	0.82	0.82
Avail Cap(c_a), veh/h	291	1311	695	238	1132	584	188	826	368	356	584	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.19	0.19	0.19	0.31	0.31	0.31	0.80	0.80	0.80
Uniform Delay (d), s/veh	28.4	29.3	29.3	24.2	35.1	35.1	27.8	38.4	23.3	41.8	33.0	33.0
Incr Delay (d2), s/veh	24.8	3.3	6.1	1.2	5.4	9.2	1.8	2.1	1.7	10.6	10.0	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	12.2	13.5	2.1	14.2	15.3	2.0	7.8	3.6	8.2	12.8	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	32.6	35.4	25.4	40.5	44.2	29.6	40.5	25.0	52.4	43.0	43.5
LnGrp LOS	D	C	D	C	D	D	C	D	C	D	D	D
Approach Vol, veh/h		1879			1794			940			1225	
Approach Delay, s/veh		36.2			40.4			35.9			45.4	
Approach LOS		D			D			D			D	

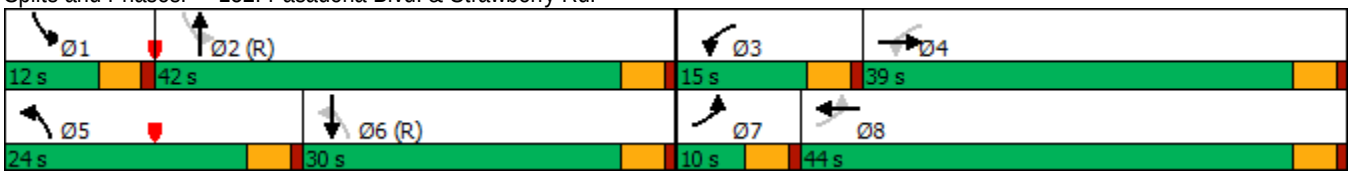
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	30.0	11.7	46.8	9.0	40.6	17.4	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	25.5	8.5	41.5	4.5	35.5	13.5	36.5
Max Q Clear Time (g_c+I1), s	12.0	20.1	7.2	32.5	6.5	29.2	12.9	36.5
Green Ext Time (p_c), s	0.2	2.3	0.0	6.2	0.0	3.1	0.0	0.0

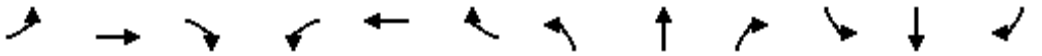
Intersection Summary	
HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	66	681	221	597	347	650	113	733
Future Volume (vph)	66	681	221	597	347	650	113	733
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	39.0	15.0	44.0	24.0	42.0	12.0	30.0
Total Split (%)	9.3%	36.1%	13.9%	40.7%	22.2%	38.9%	11.1%	27.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	45.9	34.5	45.0	41.5	45.0	37.7	45.0	25.5
Actuated g/C Ratio	0.42	0.32	0.42	0.38	0.42	0.35	0.42	0.24
v/c Ratio	0.25	1.03	0.97	0.54	1.00	0.73	0.50	0.99
Control Delay	19.1	64.9	80.7	27.5	79.5	23.5	19.9	66.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.1	64.9	80.7	27.5	79.5	23.5	19.9	66.2
LOS	B	E	F	C	E	C	B	E
Approach Delay		62.4		40.5		40.6		60.4
Approach LOS		E		D		D		E

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 69 (64%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 51.2	Intersection LOS: D
Intersection Capacity Utilization 107.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	681	467	221	597	88	347	650	138	113	733	52
Future Volume (veh/h)	66	681	467	221	597	88	347	650	138	113	733	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	68	702	481	228	615	91	358	670	142	116	756	54
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	294	636	433	237	1162	172	389	1029	218	258	786	56
Arrive On Green	0.04	0.32	0.32	0.10	0.38	0.38	0.06	0.12	0.12	0.06	0.24	0.24
Sat Flow, veh/h	1753	1990	1356	1753	3057	451	1753	2872	608	1753	3310	236
Grp Volume(v), veh/h	68	617	566	228	351	355	358	408	404	116	399	411
Grp Sat Flow(s),veh/h/ln	1753	1749	1597	1753	1749	1759	1753	1749	1731	1753	1749	1798
Q Serve(g_s), s	2.5	34.5	34.5	9.9	16.8	16.9	17.3	24.1	24.1	4.5	24.4	24.4
Cycle Q Clear(g_c), s	2.5	34.5	34.5	9.9	16.8	16.9	17.3	24.1	24.1	4.5	24.4	24.4
Prop In Lane	1.00		0.85	1.00		0.26	1.00		0.35	1.00		0.13
Lane Grp Cap(c), veh/h	294	559	510	237	664	669	389	627	621	258	415	427
V/C Ratio(X)	0.23	1.10	1.11	0.96	0.53	0.53	0.92	0.65	0.65	0.45	0.96	0.96
Avail Cap(c_a), veh/h	319	559	510	237	664	669	391	627	621	278	415	427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.47	0.47	0.47	0.90	0.90	0.90	0.94	0.94	0.94
Uniform Delay (d), s/veh	20.6	36.8	36.8	28.6	26.0	26.0	35.0	41.2	41.2	22.9	40.7	40.7
Incr Delay (d2), s/veh	0.4	69.1	73.2	30.4	0.4	0.4	24.9	4.7	4.7	1.1	34.2	33.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	25.1	23.5	5.8	6.9	6.9	10.7	12.0	12.0	1.9	14.2	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	105.9	109.9	59.0	26.3	26.4	59.8	45.8	45.9	24.1	74.9	74.5
LnGrp LOS	C	F	F	E	C	C	E	D	D	C	E	E
Approach Vol, veh/h		1251			934			1170			926	
Approach Delay, s/veh		103.1			34.3			50.1			68.4	
Approach LOS		F			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	43.2	15.0	39.0	23.9	30.1	8.5	45.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	37.5	10.5	34.5	19.5	25.5	5.5	39.5
Max Q Clear Time (g_c+I1), s	6.5	26.1	11.9	36.5	19.3	26.4	4.5	18.9
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	0.0	0.0	4.3

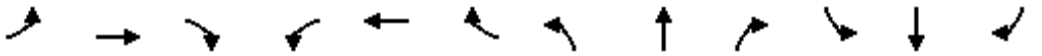
Intersection Summary	
HCM 6th Ctrl Delay	66.1
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	104	3	1	1	141	1065	1	1277
Future Volume (vph)	104	3	1	1	141	1065	1	1277
Turn Type	Perm	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	21.0	21.0	17.0	79.0	8.0	70.0
Total Split (%)	19.4%	19.4%	19.4%	19.4%	15.7%	73.1%	7.4%	64.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.2	13.2		13.2	81.3	84.2	84.9	68.8
Actuated g/C Ratio	0.12	0.12		0.12	0.75	0.78	0.79	0.64
v/c Ratio	0.66	0.54		0.01	0.47	0.42	0.00	0.68
Control Delay	62.9	12.4		39.5	11.8	1.7	2.0	9.5
Queue Delay	0.0	0.0		0.0	0.3	0.2	0.0	0.0
Total Delay	62.9	12.4		39.5	12.1	1.8	2.0	9.5
LOS	E	B		D	B	A	A	A
Approach Delay		30.9		39.5		3.0		9.5
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 107 (99%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	3	178	1	1	0	141	1065	3	1	1277	119
Future Volume (veh/h)	104	3	178	1	1	0	141	1065	3	1	1277	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	3	189	1	1	0	150	1133	3	1	1359	127
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	216	3	217	65	49	0	502	2623	7	426	1962	182
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.00	0.26	1.00	1.00	0.00	1.00	1.00
Sat Flow, veh/h	1394	24	1539	105	346	0	1753	3578	9	1753	3234	301
Grp Volume(v), veh/h	111	0	192	2	0	0	150	554	582	1	732	754
Grp Sat Flow(s),veh/h/ln	1394	0	1564	451	0	0	1753	1749	1839	1753	1749	1787
Q Serve(g_s), s	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.6	0.0	13.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.98	0.50		0.00	1.00		0.01	1.00		0.17
Lane Grp Cap(c), veh/h	216	0	220	113	0	0	502	1282	1348	426	1061	1084
V/C Ratio(X)	0.51	0.00	0.87	0.02	0.00	0.00	0.30	0.43	0.43	0.00	0.69	0.70
Avail Cap(c_a), veh/h	232	0	239	130	0	0	502	1282	1348	481	1061	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.80	0.80	0.80	0.12	0.12	0.12
Uniform Delay (d), s/veh	44.8	0.0	45.4	40.5	0.0	0.0	5.1	0.0	0.0	3.8	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	26.3	0.1	0.0	0.0	0.3	0.9	0.8	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	6.6	0.0	0.0	0.0	1.0	0.3	0.3	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	0.0	71.8	40.5	0.0	0.0	5.4	0.9	0.8	3.8	0.5	0.5
LnGrp LOS	D	A	E	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		303			2			1286			1487	
Approach Delay, s/veh		62.6			40.5			1.4			0.5	
Approach LOS		E			D			A			A	

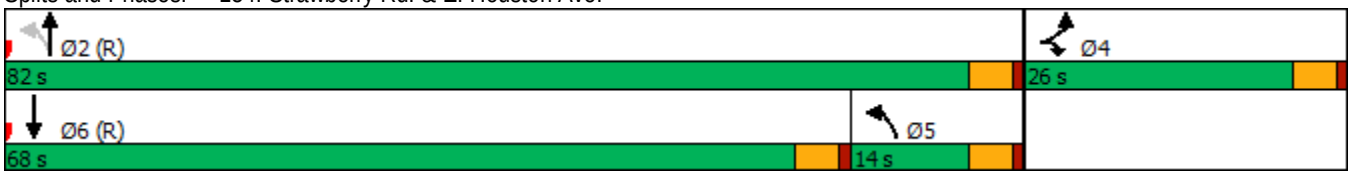
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	83.7		19.7	18.3	70.0		19.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	74.5		16.5	12.5	65.5		16.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		15.0	2.0	2.0		15.0				
Green Ext Time (p_c), s	0.0	9.7		0.2	0.3	17.3		0.0				

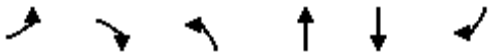
Intersection Summary			
HCM 6th Ctrl Delay		7.0	
HCM 6th LOS		A	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	51	89	48	739	824
Future Volume (vph)	51	89	48	739	824
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	26.0	26.0	14.0	82.0	68.0
Total Split (%)	24.1%	24.1%	13.0%	75.9%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.7	8.7	93.2	93.2	82.0
Actuated g/C Ratio	0.08	0.08	0.86	0.86	0.76
v/c Ratio	0.39	0.45	0.09	0.26	0.36
Control Delay	54.2	16.3	0.6	0.5	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	16.3	0.6	0.5	6.3
LOS	D	B	A	A	A
Approach Delay	30.0			0.5	6.3
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 12 (11%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 5.6	Intersection LOS: A
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	89	48	739	824	51
Future Volume (veh/h)	51	89	48	739	824	51
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	54	95	51	786	877	54
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	141	125	680	2925	1967	121
Arrive On Green	0.08	0.08	0.41	1.00	0.59	0.59
Sat Flow, veh/h	1753	1560	1753	3589	3438	206
Grp Volume(v), veh/h	54	95	51	786	458	473
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1804
Q Serve(g_s), s	3.2	6.4	0.0	0.0	15.8	15.8
Cycle Q Clear(g_c), s	3.2	6.4	0.0	0.0	15.8	15.8
Prop In Lane	1.00	1.00	1.00			0.11
Lane Grp Cap(c), veh/h	141	125	680	2925	1028	1060
V/C Ratio(X)	0.38	0.76	0.08	0.27	0.45	0.45
Avail Cap(c_a), veh/h	349	311	680	2925	1028	1060
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.66	0.66	0.68	0.68
Uniform Delay (d), s/veh	47.1	48.6	5.8	0.0	12.4	12.4
Incr Delay (d2), s/veh	1.6	8.3	0.0	0.1	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.8	0.3	0.1	6.0	6.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.7	56.9	5.9	0.1	13.4	13.3
LnGrp LOS	D	E	A	A	B	B
Approach Vol, veh/h	149			837	931	
Approach Delay, s/veh	54.0			0.5	13.4	
Approach LOS	D			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.8		13.2	26.8	68.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		77.5		21.5	9.5	63.5
Max Q Clear Time (g_c+I1), s		2.0		8.4	2.0	17.8
Green Ext Time (p_c), s		6.5		0.3	0.0	7.0

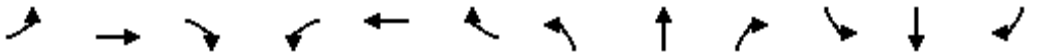
Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	255	46	230	77	474	221	899
Future Volume (vph)	29	255	46	230	77	474	221	899
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	27.0	15.0	29.0	18.0	42.0	36.0	60.0
Total Split (%)	10.8%	22.5%	12.5%	24.2%	15.0%	35.0%	30.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	16.9	8.4	20.2	10.7	57.6	21.2	70.2
Actuated g/C Ratio	0.06	0.14	0.07	0.17	0.09	0.48	0.18	0.58
v/c Ratio	0.29	0.71	0.40	0.63	0.52	0.35	0.75	0.48
Control Delay	60.4	52.4	62.4	34.7	63.2	22.4	61.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	52.4	62.4	34.7	63.2	22.4	61.8	18.1
LOS	E	D	E	C	E	C	E	B
Approach Delay		53.0		37.6		27.4		26.5
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	255	84	46	230	173	77	474	75	221	899	32
Future Volume (veh/h)	29	255	84	46	230	173	77	474	75	221	899	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	266	88	48	240	180	80	494	78	230	936	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	37	364	118	62	299	215	102	1590	250	262	2126	75
Arrive On Green	0.02	0.14	0.14	0.04	0.15	0.15	0.06	0.53	0.53	0.15	0.62	0.62
Sat Flow, veh/h	1753	2598	840	1753	1940	1397	1753	3028	476	1753	3446	121
Grp Volume(v), veh/h	30	177	177	48	215	205	80	284	288	230	475	494
Grp Sat Flow(s),veh/h/ln	1753	1749	1689	1753	1749	1589	1753	1749	1755	1753	1749	1819
Q Serve(g_s), s	2.0	11.6	12.1	3.3	14.3	15.0	5.4	11.1	11.2	15.4	17.1	17.1
Cycle Q Clear(g_c), s	2.0	11.6	12.1	3.3	14.3	15.0	5.4	11.1	11.2	15.4	17.1	17.1
Prop In Lane	1.00		0.50	1.00		0.88	1.00		0.27	1.00		0.07
Lane Grp Cap(c), veh/h	37	245	237	62	269	245	102	919	922	262	1079	1122
V/C Ratio(X)	0.80	0.72	0.75	0.78	0.80	0.84	0.79	0.31	0.31	0.88	0.44	0.44
Avail Cap(c_a), veh/h	124	328	317	153	357	324	197	919	922	460	1079	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	49.4	49.6	57.4	49.0	49.3	55.8	16.1	16.2	50.0	12.1	12.1
Incr Delay (d2), s/veh	21.6	3.3	4.3	18.7	9.2	13.5	12.5	0.9	0.9	9.1	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.3	5.3	1.8	6.8	6.8	2.7	4.5	4.6	7.3	6.7	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.0	52.7	53.8	76.1	58.2	62.8	68.3	17.0	17.1	59.1	13.4	13.4
LnGrp LOS	F	D	D	E	E	E	E	B	B	E	B	B
Approach Vol, veh/h		384			468			652			1199	
Approach Delay, s/veh		55.4			62.0			23.3			22.1	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	67.5	8.7	21.3	11.5	78.5	7.1	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	31.5	37.5	10.5	22.5	13.5	55.5	8.5	24.5
Max Q Clear Time (g_c+I1), s	17.4	13.2	5.3	14.1	7.4	19.1	4.0	17.0
Green Ext Time (p_c), s	0.5	3.5	0.0	1.3	0.1	7.2	0.0	1.5

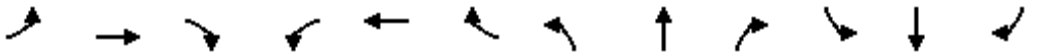
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	10	117	10	28	1086	151	1288
Future Volume (vph)	10	117	10	28	1086	151	1288
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	25.0	25.0	25.0	8.0	65.0	18.0	75.0
Total Split (%)	23.1%	23.1%	23.1%	7.4%	60.2%	16.7%	69.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.2	15.2	15.2	81.1	70.5	79.3	79.0
Actuated g/C Ratio	0.14	0.14	0.14	0.75	0.65	0.73	0.73
v/c Ratio	0.12	0.68	0.42	0.12	0.57	0.50	0.56
Control Delay	22.1	61.2	12.5	2.0	5.3	12.1	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	22.1	61.2	12.5	2.0	5.3	12.1	2.1
LOS	C	E	B	A	A	B	A
Approach Delay	22.1		36.0		5.2		3.1
Approach LOS	C		D		A		A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 4 (4%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	10	17	117	10	116	28	1086	80	151	1288	3
Future Volume (veh/h)	0	10	17	117	10	116	28	1086	80	151	1288	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	11	19	129	11	127	31	1193	88	166	1415	3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	81	139	226	17	194	466	2287	169	373	2337	5
Arrive On Green	0.00	0.13	0.13	0.13	0.13	0.13	0.09	0.69	0.69	0.10	1.00	1.00
Sat Flow, veh/h	0	606	1046	1358	126	1453	1753	3302	243	1753	3580	8
Grp Volume(v), veh/h	0	0	30	129	0	138	31	631	650	166	691	727
Grp Sat Flow(s),veh/h/ln	0	0	1652	1358	0	1579	1753	1749	1797	1753	1749	1839
Q Serve(g_s), s	0.0	0.0	1.7	10.0	0.0	9.0	0.0	18.7	18.8	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.7	11.7	0.0	9.0	0.0	18.7	18.8	3.1	0.0	0.0
Prop In Lane	0.00		0.63	1.00		0.92	1.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	220	226	0	210	466	1211	1245	373	1142	1201
V/C Ratio(X)	0.00	0.00	0.14	0.57	0.00	0.66	0.07	0.52	0.52	0.44	0.61	0.61
Avail Cap(c_a), veh/h	0	0	314	303	0	300	466	1211	1245	506	1142	1201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.45	0.45	0.45	0.68	0.68	0.68
Uniform Delay (d), s/veh	0.0	0.0	41.3	46.5	0.0	44.5	3.9	8.0	8.0	6.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	2.3	0.0	3.5	0.0	0.7	0.7	0.6	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	3.5	0.0	3.7	0.2	6.3	6.5	0.9	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	41.6	48.8	0.0	47.9	4.0	8.7	8.7	6.8	1.6	1.6
LnGrp LOS	A	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		30			267			1312			1584	
Approach Delay, s/veh		41.6			48.3			8.6			2.1	
Approach LOS		D			D			A			A	

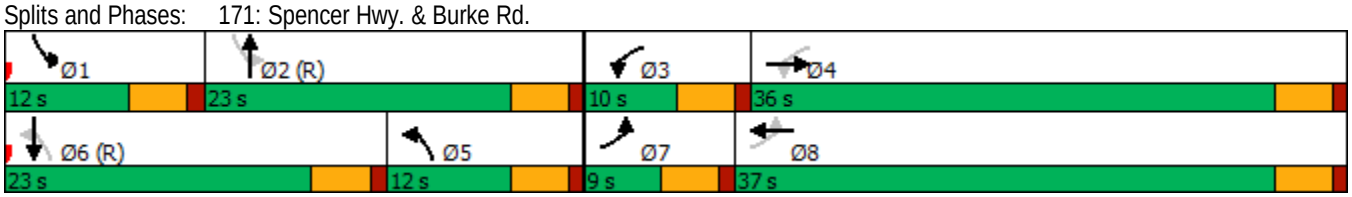
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	79.3		18.9	14.1	75.0		18.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	60.5		20.5	3.5	70.5		20.5				
Max Q Clear Time (g_c+I1), s	5.1	20.8		3.7	2.0	2.0		13.7				
Green Ext Time (p_c), s	0.3	11.3		0.1	0.0	14.6		0.6				

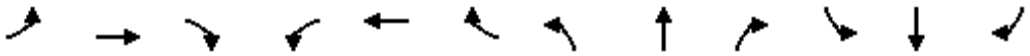
Intersection Summary			
HCM 6th Ctrl Delay		9.0	
HCM 6th LOS		A	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	145	1451	166	1609	190	401	206	359
Future Volume (vph)	145	1451	166	1609	190	401	206	359
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	36.0	10.0	37.0	12.0	23.0	12.0	23.0
Total Split (%)	11.1%	44.4%	12.3%	45.7%	14.8%	28.4%	14.8%	28.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	37.0	31.5	37.0	32.5	26.0	18.5	26.0	18.5
Actuated g/C Ratio	0.46	0.39	0.46	0.40	0.32	0.23	0.32	0.23
v/c Ratio	0.84	0.93	0.86	0.98	0.77	0.76	0.90	0.67
Control Delay	51.4	34.3	51.0	40.9	36.2	24.8	55.1	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	34.3	51.0	40.9	36.2	24.8	55.1	20.3
LOS	D	C	D	D	D	C	E	C
Approach Delay		35.7		41.7		27.7		30.7
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 4 (5%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 36.1	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	1451	166	166	1609	141	190	401	150	206	359	123
Future Volume (veh/h)	145	1451	166	166	1609	141	190	401	150	206	359	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	156	1560	178	178	1730	152	204	431	161	222	386	132
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	1765	201	226	1872	164	335	579	214	308	586	198
Arrive On Green	0.06	0.39	0.39	0.07	0.40	0.40	0.10	0.23	0.23	0.09	0.23	0.23
Sat Flow, veh/h	1753	4576	521	1753	4704	412	1753	2499	924	1753	2567	867
Grp Volume(v), veh/h	156	1142	596	178	1231	651	204	300	292	222	261	257
Grp Sat Flow(s),veh/h/ln	1753	1675	1747	1753	1675	1767	1753	1749	1674	1753	1749	1685
Q Serve(g_s), s	4.3	25.7	25.8	5.0	28.3	28.5	0.9	12.9	13.1	7.5	11.0	11.2
Cycle Q Clear(g_c), s	4.3	25.7	25.8	5.0	28.3	28.5	0.9	12.9	13.1	7.5	11.0	11.2
Prop In Lane	1.00		0.30	1.00		0.23	1.00		0.55	1.00		0.51
Lane Grp Cap(c), veh/h	197	1292	674	226	1333	703	335	405	388	308	399	385
V/C Ratio(X)	0.79	0.88	0.89	0.79	0.92	0.93	0.61	0.74	0.75	0.72	0.65	0.67
Avail Cap(c_a), veh/h	197	1303	679	226	1344	709	335	405	388	308	399	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.47	0.47	0.47	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	23.2	23.2	19.2	23.2	23.2	31.8	28.9	29.0	23.3	28.4	28.4
Incr Delay (d2), s/veh	8.7	3.3	6.1	8.4	5.7	10.1	3.2	11.6	12.6	8.0	8.1	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	9.7	10.6	2.3	11.0	12.5	3.8	6.4	6.4	3.7	5.3	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	26.5	29.3	27.6	28.9	33.4	34.9	40.5	41.6	31.3	36.5	37.3
LnGrp LOS	C	C	C	C	C	C	C	D	D	C	D	D
Approach Vol, veh/h		1894			2060			796			740	
Approach Delay, s/veh		27.5			30.2			39.5			35.2	
Approach LOS		C			C			D			D	

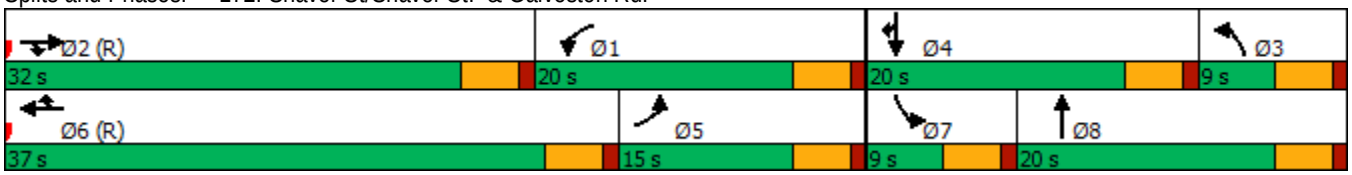
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.3	10.0	35.7	12.3	23.0	9.0	36.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	5.5	31.5	7.5	18.5	4.5	32.5
Max Q Clear Time (g_c+I1), s	9.5	15.1	7.0	27.8	2.9	13.2	6.3	30.5
Green Ext Time (p_c), s	0.0	1.1	0.0	3.0	0.2	1.4	0.0	1.8

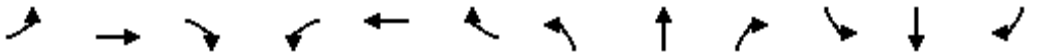
Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	203	1143	114	419	1030	160	109	599	145	630	243
Future Volume (vph)	203	1143	114	419	1030	160	109	599	145	630	243
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	Prot	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8	7	4	4
Permitted Phases											
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	15.0	32.0	32.0	20.0	37.0	37.0	9.0	20.0	9.0	20.0	20.0
Total Split (%)	18.5%	39.5%	39.5%	24.7%	45.7%	45.7%	11.1%	24.7%	11.1%	24.7%	24.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	10.5	27.5	27.5	15.5	32.5	32.5	4.5	15.5	4.5	15.5	15.5
Actuated g/C Ratio	0.13	0.34	0.34	0.19	0.40	0.40	0.06	0.19	0.06	0.19	0.19
v/c Ratio	0.93	1.00	0.17	1.30	0.76	0.22	1.17	1.28	1.55	0.98	0.52
Control Delay	82.1	54.6	0.5	186.5	25.4	2.2	182.0	166.3	323.6	64.3	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.1	54.6	0.5	186.5	25.4	2.2	182.0	166.3	323.6	64.3	9.5
LOS	F	D	A	F	C	A	F	F	F	E	A
Approach Delay		54.2			65.0			168.1		88.0	
Approach LOS		D			E			F		F	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.55	
Intersection Signal Delay: 86.4	Intersection LOS: F
Intersection Capacity Utilization 107.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1143	114	419	1030	160	109	599	267	145	630	243
Future Volume (veh/h)	203	1143	114	419	1030	160	109	599	267	145	630	243
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	209	1178	118	432	1062	165	112	618	275	149	649	251
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	227	1187	530	335	1403	626	97	450	200	97	669	299
Arrive On Green	0.13	0.34	0.34	0.19	0.40	0.40	0.06	0.19	0.19	0.06	0.19	0.19
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	2354	1047	1753	3497	1560
Grp Volume(v), veh/h	209	1178	118	432	1062	165	112	459	434	149	649	251
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1652	1753	1749	1560
Q Serve(g_s), s	9.5	27.2	4.4	15.5	21.1	4.1	4.5	15.5	15.5	4.5	14.9	12.6
Cycle Q Clear(g_c), s	9.5	27.2	4.4	15.5	21.1	4.1	4.5	15.5	15.5	4.5	14.9	12.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	227	1187	530	335	1403	626	97	335	316	97	669	299
V/C Ratio(X)	0.92	0.99	0.22	1.29	0.76	0.26	1.15	1.37	1.37	1.53	0.97	0.84
Avail Cap(c_a), veh/h	227	1187	530	335	1403	626	97	335	316	97	669	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	26.6	19.1	32.7	20.9	8.5	38.3	32.8	32.8	38.3	32.5	31.6
Incr Delay (d2), s/veh	38.4	24.3	1.0	150.2	3.9	1.0	137.2	185.2	186.5	283.4	27.3	18.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	14.4	1.7	20.3	8.8	2.1	5.6	23.5	22.4	9.6	8.6	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	50.9	20.1	182.9	24.7	9.5	175.5	217.9	219.3	321.6	59.8	50.5
LnGrp LOS	E	D	C	F	C	A	F	F	F	F	E	D
Approach Vol, veh/h		1505			1659			1005			1049	
Approach Delay, s/veh		51.6			64.4			213.8			94.8	
Approach LOS		D			E			F			F	

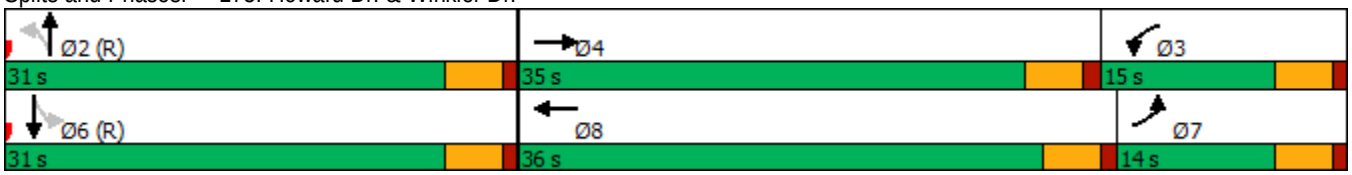
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	32.0	9.0	20.0	15.0	37.0	9.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	27.5	4.5	15.5	10.5	32.5	4.5	15.5
Max Q Clear Time (g_c+I1), s	17.5	29.2	6.5	16.9	11.5	23.1	6.5	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0

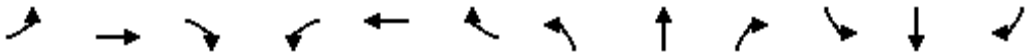
Intersection Summary	
HCM 6th Ctrl Delay	95.6
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	66	596	77	479	127	265	13	51
Future Volume (vph)	66	596	77	479	127	265	13	51
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	35.0	15.0	36.0	31.0	31.0	31.0	31.0
Total Split (%)	17.3%	43.2%	18.5%	44.4%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.6	25.7	8.6	21.7		35.2		35.2
Actuated g/C Ratio	0.16	0.32	0.11	0.27		0.43		0.43
v/c Ratio	0.25	0.76	0.43	0.68		0.40		0.10
Control Delay	31.1	27.0	35.5	15.7		17.9		10.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	31.1	27.0	35.5	15.7		17.9		10.0
LOS	C	C	D	B		B		B
Approach Delay		27.3		17.9		17.9		10.0
Approach LOS		C		B		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 59 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 61.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	596	232	77	479	143	127	265	96	13	51	61
Future Volume (veh/h)	66	596	232	77	479	143	127	265	96	13	51	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	608	237	79	489	146	130	270	98	13	52	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	209	740	288	102	637	189	411	814	297	172	654	673
Arrive On Green	0.12	0.30	0.30	0.06	0.24	0.24	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1753	2459	958	1753	2659	789	725	1715	626	250	1379	1420
Grp Volume(v), veh/h	67	432	413	79	321	314	253	0	245	65	0	62
Grp Sat Flow(s),veh/h/ln	1753	1749	1668	1753	1749	1699	1503	0	1562	1629	0	1420
Q Serve(g_s), s	2.8	18.6	18.6	3.6	13.8	14.0	6.3	0.0	7.9	0.0	0.0	1.9
Cycle Q Clear(g_c), s	2.8	18.6	18.6	3.6	13.8	14.0	8.3	0.0	7.9	7.9	0.0	1.9
Prop In Lane	1.00		0.57	1.00		0.46	0.51		0.40	0.20		1.00
Lane Grp Cap(c), veh/h	209	526	502	102	419	407	780	0	741	826	0	673
V/C Ratio(X)	0.32	0.82	0.82	0.78	0.77	0.77	0.32	0.00	0.33	0.08	0.00	0.09
Avail Cap(c_a), veh/h	209	658	628	227	680	661	780	0	741	826	0	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	26.3	26.3	37.6	28.7	28.7	13.3	0.0	13.3	11.6	0.0	11.7
Incr Delay (d2), s/veh	0.9	6.7	7.1	11.9	2.9	3.1	1.1	0.0	1.2	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.2	7.9	1.8	5.8	5.8	2.9	0.0	2.8	0.6	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	33.0	33.4	49.5	31.6	31.9	14.4	0.0	14.5	11.8	0.0	12.0
LnGrp LOS	C	C	C	D	C	C	B	A	B	B	A	B
Approach Vol, veh/h		912			714			498			127	
Approach Delay, s/veh		33.2			33.7			14.4			11.9	
Approach LOS		C			C			B			B	

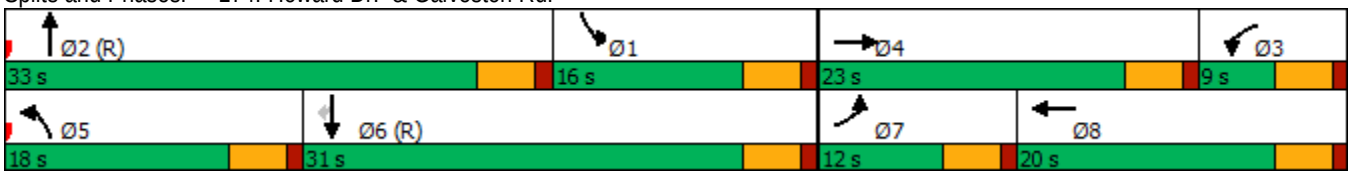
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.9	9.2	28.9		42.9	14.2	23.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	10.5	30.5		26.5	9.5	31.5				
Max Q Clear Time (g_c+I1), s		10.3	5.6	20.6		9.9	4.8	16.0				
Green Ext Time (p_c), s		2.7	0.1	3.7		0.5	0.0	3.4				

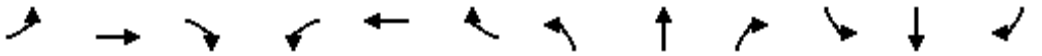
Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	146	386	53	449	288	810	175	1063	348
Future Volume (vph)	146	386	53	449	288	810	175	1063	348
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	12.0	23.0	9.0	20.0	18.0	33.0	16.0	31.0	31.0
Total Split (%)	14.8%	28.4%	11.1%	24.7%	22.2%	40.7%	19.8%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	7.5	19.6	5.2	15.3	13.7	28.7	11.5	26.5	26.5
Actuated g/C Ratio	0.09	0.24	0.06	0.19	0.17	0.35	0.14	0.33	0.33
v/c Ratio	0.94	0.72	0.51	0.88	1.01	0.76	0.73	0.97	0.50
Control Delay	87.6	10.5	55.9	46.7	92.3	27.6	49.3	45.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.6	10.5	55.9	46.7	92.3	27.6	49.3	45.0	5.2
LOS	F	B	E	D	F	C	D	D	A
Approach Delay		24.4		47.5		43.3		36.8	
Approach LOS		C		D		D		D	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 72 (89%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 37.8	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	386	279	53	449	119	288	810	93	175	1063	348
Future Volume (veh/h)	146	386	279	53	449	119	288	810	93	175	1063	348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	398	288	55	463	123	297	835	96	180	1096	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	442	316	99	523	138	292	1112	128	249	1145	
Arrive On Green	0.09	0.23	0.23	0.06	0.19	0.19	0.17	0.35	0.35	0.14	0.33	0.00
Sat Flow, veh/h	1753	1946	1393	1753	2737	722	1753	3161	363	1753	3497	1560
Grp Volume(v), veh/h	151	357	329	55	295	291	297	462	469	180	1096	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1590	1753	1749	1711	1753	1749	1775	1753	1749	1560
Q Serve(g_s), s	6.9	16.1	16.3	2.5	13.3	13.5	13.5	18.8	18.9	7.9	24.9	0.0
Cycle Q Clear(g_c), s	6.9	16.1	16.3	2.5	13.3	13.5	13.5	18.8	18.9	7.9	24.9	0.0
Prop In Lane	1.00		0.88	1.00		0.42	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	162	397	361	99	334	327	292	615	625	249	1145	
V/C Ratio(X)	0.93	0.90	0.91	0.56	0.88	0.89	1.02	0.75	0.75	0.72	0.96	
Avail Cap(c_a), veh/h	162	399	363	99	335	327	292	615	625	249	1145	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.5	30.4	30.5	37.2	31.9	31.9	33.8	23.1	23.1	33.2	26.7	0.0
Incr Delay (d2), s/veh	50.5	22.5	26.1	6.7	22.9	24.9	56.9	8.2	8.1	9.8	18.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	8.9	8.5	1.2	7.5	7.6	10.0	8.5	8.6	3.9	12.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.0	52.9	56.6	43.9	54.7	56.8	90.7	31.3	31.2	43.0	44.7	0.0
LnGrp LOS	F	D	E	D	D	E	F	C	C	D	D	
Approach Vol, veh/h		837			641			1228			1276	A
Approach Delay, s/veh		60.5			54.8			45.6			44.5	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	33.0	9.1	22.9	18.0	31.0	12.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	28.5	4.5	18.5	13.5	26.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	9.9	20.9	4.5	18.3	15.5	26.9	8.9	15.5
Green Ext Time (p_c), s	0.1	3.3	0.0	0.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	49.9
HCM 6th LOS	D

Notes

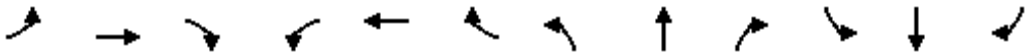
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	28	344	223	397	179	20	1268	147	1409
Future Volume (vph)	28	344	223	397	179	20	1268	147	1409
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	23.0	23.0	10.0	33.0	33.0	8.0	39.0	9.0	40.0
Total Split (%)	28.4%	28.4%	12.3%	40.7%	40.7%	9.9%	48.1%	11.1%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		18.5	28.5	28.5	28.5	38.0	34.5	42.1	40.3
Actuated g/C Ratio		0.23	0.35	0.35	0.35	0.47	0.43	0.52	0.50
v/c Ratio		1.81	0.98	0.68	0.32	0.13	1.06	0.87	0.92
Control Delay		405.3	66.8	14.1	3.4	10.8	64.5	56.7	31.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		405.3	66.8	14.1	3.4	10.8	64.5	56.7	31.2
LOS		F	E	B	A	B	E	E	C
Approach Delay		405.3		26.4			63.8		33.5
Approach LOS		F		C			E		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 24 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.81	
Intersection Signal Delay: 77.0	Intersection LOS: E
Intersection Capacity Utilization 109.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	344	20	223	397	179	20	1268	142	147	1409	37
Future Volume (veh/h)	28	344	20	223	397	179	20	1268	142	147	1409	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	378	22	245	436	197	22	1393	156	162	1548	41
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	51	192	10	283	629	533	135	1384	154	186	1653	44
Arrive On Green	0.23	0.23	0.23	0.06	0.34	0.34	0.02	0.44	0.44	0.06	0.47	0.47
Sat Flow, veh/h	13	838	46	1753	1841	1560	1753	3173	353	1753	3481	92
Grp Volume(v), veh/h	431	0	0	245	436	197	22	764	785	162	776	813
Grp Sat Flow(s),veh/h/ln	897	0	0	1753	1841	1560	1753	1749	1777	1753	1749	1824
Q Serve(g_s), s	1.9	0.0	0.0	2.6	16.6	7.7	0.6	35.3	35.3	4.1	34.0	34.2
Cycle Q Clear(g_c), s	18.5	0.0	0.0	2.6	16.6	7.7	0.6	35.3	35.3	4.1	34.0	34.2
Prop In Lane	0.07		0.05	1.00		1.00	1.00		0.20	1.00		0.05
Lane Grp Cap(c), veh/h	252	0	0	283	629	533	135	763	775	186	830	866
V/C Ratio(X)	1.71	0.00	0.00	0.87	0.69	0.37	0.16	1.00	1.01	0.87	0.93	0.94
Avail Cap(c_a), veh/h	252	0	0	301	648	549	181	763	775	186	830	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.00	0.00	1.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	0.0	33.1	23.0	20.1	18.7	22.8	22.8	19.2	20.1	20.1
Incr Delay (d2), s/veh	332.0	0.0	0.0	21.4	3.1	0.4	0.4	28.3	31.2	32.9	18.9	18.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.1	0.0	0.0	6.1	7.1	2.6	0.2	18.9	19.9	3.1	16.5	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	362.7	0.0	0.0	54.5	26.1	20.5	19.1	51.1	54.0	52.0	39.0	39.0
LnGrp LOS	F	A	A	D	C	C	B	F	F	D	D	D
Approach Vol, veh/h		431			878			1571			1751	
Approach Delay, s/veh		362.7			32.8			52.1			40.2	
Approach LOS		F			C			D			D	

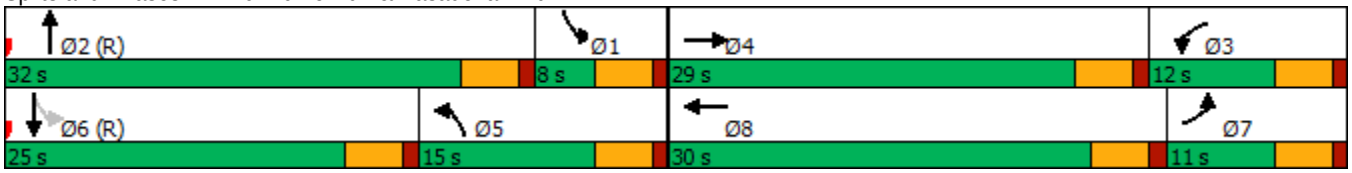
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	39.8	9.2	23.0	5.9	43.0		32.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	4.5	34.5	5.5	18.5	3.5	35.5		28.5				
Max Q Clear Time (g_c+I1), s	6.1	37.3	4.6	20.5	2.6	36.2		18.6				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0		2.3				

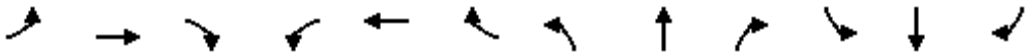
Intersection Summary	
HCM 6th Ctrl Delay	72.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	625	71	688	116	302	48	286
Future Volume (vph)	63	625	71	688	116	302	48	286
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	29.0	12.0	30.0	15.0	32.0	8.0	25.0
Total Split (%)	13.6%	35.8%	14.8%	37.0%	18.5%	39.5%	9.9%	30.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.4	23.6	7.3	24.4	9.5	38.6		26.9
Actuated g/C Ratio	0.08	0.29	0.09	0.30	0.12	0.48		0.33
v/c Ratio	0.49	0.83	0.51	0.85	0.62	0.28		0.50
Control Delay	48.4	33.8	47.4	35.7	41.9	11.0		18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	48.4	33.8	47.4	35.7	41.9	11.0		18.5
LOS	D	C	D	D	D	B		B
Approach Delay		34.9		36.7		17.7		18.5
Approach LOS		C		D		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 31 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





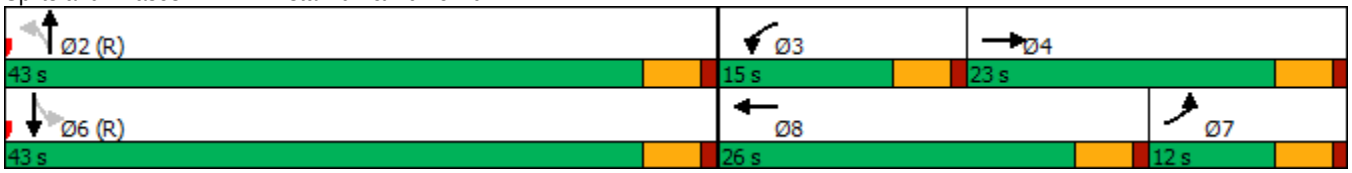
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	625	141	71	688	72	116	302	113	48	286	84
Future Volume (vph)	63	625	141	71	688	72	116	302	113	48	286	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.96			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1736	3375		1678	3194		1736	3329			3124	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.85	
Satd. Flow (perm)	1736	3375		1678	3194		1736	3329			2680	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	679	153	77	748	78	126	328	123	52	311	91
RTOR Reduction (vph)	0	24	0	0	10	0	0	39	0	0	27	0
Lane Group Flow (vph)	68	808	0	77	816	0	126	412	0	0	427	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	5.4	23.6		6.2	24.4		8.2	37.7			25.0	
Effective Green, g (s)	5.4	23.6		6.2	24.4		8.2	37.7			25.0	
Actuated g/C Ratio	0.07	0.29		0.08	0.30		0.10	0.47			0.31	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	115	983		128	962		175	1549			827	
v/s Ratio Prot	0.04	0.24		c0.05	c0.26		c0.07	0.12				
v/s Ratio Perm											c0.16	
v/c Ratio	0.59	0.82		0.60	0.85		0.72	0.27			0.52	
Uniform Delay, d1	36.7	26.7		36.2	26.6		35.3	13.2			23.0	
Progression Factor	1.00	1.00		1.00	1.00		1.01	0.92			0.73	
Incremental Delay, d2	7.9	5.6		7.7	7.1		7.5	0.2			0.5	
Delay (s)	44.6	32.4		43.9	33.6		43.1	12.4			17.3	
Level of Service	D	C		D	C		D	B			B	
Approach Delay (s)		33.3			34.5			19.1			17.3	
Approach LOS		C			C			B			B	

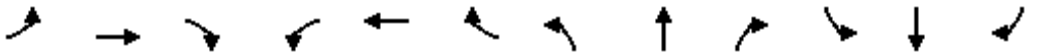
Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	74	430	140	503	119	519	99	609
Future Volume (vph)	74	430	140	503	119	519	99	609
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	23.0	15.0	26.0	43.0	43.0	43.0	43.0
Total Split (%)	14.8%	28.4%	18.5%	32.1%	53.1%	53.1%	53.1%	53.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	17.5	10.0	22.1		40.0		40.0
Actuated g/C Ratio	0.09	0.22	0.12	0.27		0.49		0.49
v/c Ratio	0.51	0.81	0.71	0.74		0.73		0.73
Control Delay	38.6	30.2	30.0	14.5		21.4		11.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	38.6	30.2	30.0	14.5		21.4		11.5
LOS	D	C	C	B		C		B
Approach Delay		31.1		17.3		21.4		11.5
Approach LOS		C		B		C		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 37 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 88.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	430	146	140	503	151	119	519	74	99	609	124
Future Volume (veh/h)	74	430	146	140	503	151	119	519	74	99	609	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	80	462	157	151	541	162	128	558	80	106	655	133
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	136	541	182	186	635	189	199	968	152	170	1075	235
Arrive On Green	0.08	0.21	0.21	0.11	0.24	0.24	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1753	2568	866	1753	2655	792	265	1873	295	222	2080	456
Grp Volume(v), veh/h	80	314	305	151	356	347	326	0	440	429	0	465
Grp Sat Flow(s),veh/h/ln	1753	1749	1685	1753	1749	1698	811	0	1622	1164	0	1593
Q Serve(g_s), s	3.6	14.0	14.2	6.8	15.7	15.9	16.0	0.0	14.6	12.5	0.0	16.1
Cycle Q Clear(g_c), s	3.6	14.0	14.2	6.8	15.7	15.9	32.1	0.0	14.6	27.1	0.0	16.1
Prop In Lane	1.00		0.51	1.00		0.47	0.39		0.18	0.25		0.29
Lane Grp Cap(c), veh/h	136	368	355	186	418	406	481	0	838	657	0	823
V/C Ratio(X)	0.59	0.85	0.86	0.81	0.85	0.86	0.68	0.00	0.53	0.65	0.00	0.56
Avail Cap(c_a), veh/h	162	399	385	227	464	451	481	0	838	657	0	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	30.7	30.8	35.4	29.4	29.5	19.5	0.0	13.0	16.2	0.0	13.4
Incr Delay (d2), s/veh	4.0	15.1	16.7	1.8	1.4	1.5	7.5	0.0	2.3	5.0	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.2	7.2	2.9	6.5	6.4	6.1	0.0	5.4	7.0	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	45.9	47.6	37.2	30.8	31.0	26.9	0.0	15.3	21.2	0.0	16.2
LnGrp LOS	D	D	D	D	C	C	C	A	B	C	A	B
Approach Vol, veh/h		699			854			766			894	
Approach Delay, s/veh		45.9			32.0			20.3			18.6	
Approach LOS		D			C			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.3	13.1	21.6		46.3	10.8	23.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	10.5	18.5		38.5	7.5	21.5				
Max Q Clear Time (g_c+I1), s		34.1	8.8	16.2		29.1	5.6	17.9				
Green Ext Time (p_c), s		2.1	0.1	0.9		4.2	0.0	1.5				

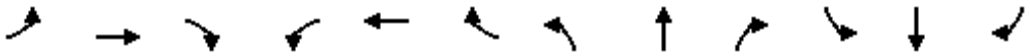
Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	56	4	3	1	163	669	3	1022
Future Volume (vph)	56	4	3	1	163	669	3	1022
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	61.0	61.0	61.0	61.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	75.3%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		9.2		9.2		62.8		62.8
Actuated g/C Ratio		0.11		0.11		0.78		0.78
v/c Ratio		0.60		0.02		0.57		0.46
Control Delay		21.5		0.0		3.3		4.1
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		21.5		0.0		3.3		4.1
LOS		C		A		A		A
Approach Delay		21.5				3.3		4.1
Approach LOS		C				A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 72 (89%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	4	184	3	1	5	163	669	3	3	1022	79
Future Volume (veh/h)	56	4	184	3	1	5	163	669	3	3	1022	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	60	4	196	3	1	5	173	712	3	3	1087	84
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	297	17	231	120	39	201	314	1371	6	46	2337	180
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1294	105	1420	202	238	1232	332	1889	8	1	3220	248
Grp Volume(v), veh/h	64	0	196	3	0	6	271	0	617	622	0	552
Grp Sat Flow(s),veh/h/ln	1398	0	1420	219	0	1453	555	0	1674	1839	0	1630
Q Serve(g_s), s	3.1	0.0	10.9	0.1	0.0	0.3	18.7	0.0	13.0	0.0	0.0	11.4
Cycle Q Clear(g_c), s	3.3	0.0	10.9	11.0	0.0	0.3	30.1	0.0	13.0	11.3	0.0	11.4
Prop In Lane	0.94		1.00	0.97		0.85	0.64		0.00	0.00		0.15
Lane Grp Cap(c), veh/h	314	0	231	123	0	237	476	0	1215	1379	0	1183
V/C Ratio(X)	0.20	0.00	0.85	0.03	0.00	0.02	0.57	0.00	0.51	0.45	0.00	0.47
Avail Cap(c_a), veh/h	354	0	272	156	0	278	476	0	1215	1379	0	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	32.9	32.8	0.0	28.5	8.9	0.0	4.8	4.6	0.0	4.6
Incr Delay (d2), s/veh	0.3	0.0	19.0	0.1	0.0	0.0	4.9	0.0	1.5	1.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	4.8	0.1	0.0	0.1	3.0	0.0	3.3	3.1	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	51.9	32.9	0.0	28.5	13.8	0.0	6.3	5.7	0.0	5.9
LnGrp LOS	C	A	D	C	A	C	B	A	A	A	A	A
Approach Vol, veh/h		260			9			888			1174	
Approach Delay, s/veh		46.6			30.0			8.6			5.8	
Approach LOS		D			C			A			A	

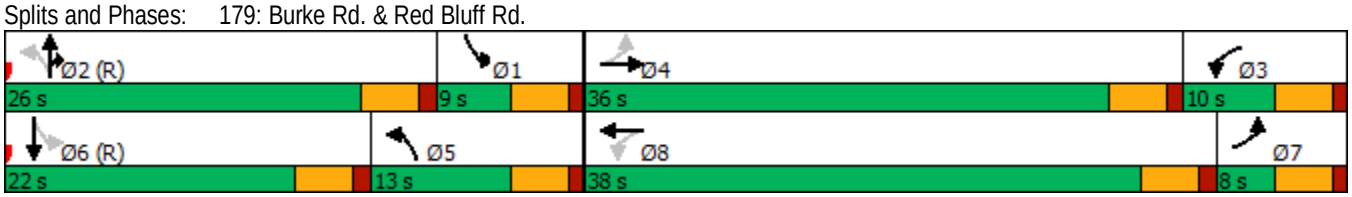
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.3		17.7		63.3		17.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		56.5		15.5		56.5		15.5				
Max Q Clear Time (g_c+I1), s		32.1		12.9		13.4		13.0				
Green Ext Time (p_c), s		8.0		0.4		9.4		0.0				

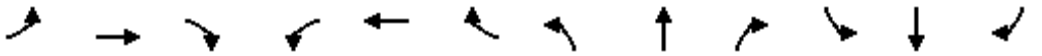
Intersection Summary												
HCM 6th Ctrl Delay			11.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	32	853	135	905	245	296	102	122	239
Future Volume (vph)	32	853	135	905	245	296	102	122	239
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	36.0	10.0	38.0	13.0	26.0	26.0	9.0	22.0
Total Split (%)	9.9%	44.4%	12.3%	46.9%	16.0%	32.1%	32.1%	11.1%	27.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	34.4	31.4	39.9	36.6	30.0	21.5	21.5	22.0	17.5
Actuated g/C Ratio	0.42	0.39	0.49	0.45	0.37	0.27	0.27	0.27	0.22
v/c Ratio	0.19	0.93	0.73	0.69	0.80	0.67	0.22	0.65	0.79
Control Delay	15.8	36.5	21.7	4.4	42.4	32.3	5.6	41.9	45.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	36.5	21.7	4.4	42.4	32.3	5.6	41.9	45.5
LOS	B	D	C	A	D	C	A	D	D
Approach Delay		35.9		6.4		31.9			44.4
Approach LOS		D		A		C			D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 56 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 26.1	Intersection LOS: C
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	853	317	135	905	133	245	296	102	122	239	51
Future Volume (veh/h)	32	853	317	135	905	133	245	296	102	122	239	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	33	879	327	139	933	137	253	305	105	126	246	53
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	244	952	353	177	1104	162	370	489	414	309	317	68
Arrive On Green	0.06	0.38	0.38	0.04	0.36	0.36	0.14	0.27	0.27	0.09	0.22	0.22
Sat Flow, veh/h	1753	2497	926	1753	3059	449	1753	1841	1560	1753	1468	316
Grp Volume(v), veh/h	33	615	591	139	533	537	253	305	105	126	0	299
Grp Sat Flow(s),veh/h/ln	1753	1749	1674	1753	1749	1760	1753	1841	1560	1753	0	1784
Q Serve(g_s), s	0.0	27.2	27.4	1.7	22.7	22.7	4.7	11.8	4.3	0.0	0.0	12.8
Cycle Q Clear(g_c), s	0.0	27.2	27.4	1.7	22.7	22.7	4.7	11.8	4.3	0.0	0.0	12.8
Prop In Lane	1.00		0.55	1.00		0.26	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	244	667	638	177	631	635	370	489	414	309	0	385
V/C Ratio(X)	0.14	0.92	0.93	0.79	0.84	0.85	0.68	0.62	0.25	0.41	0.00	0.78
Avail Cap(c_a), veh/h	244	680	651	218	723	728	370	489	414	309	0	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.87	0.87	0.87	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	23.9	24.0	37.1	23.8	23.8	30.8	26.2	23.4	32.2	0.0	29.9
Incr Delay (d2), s/veh	0.2	17.9	19.3	1.4	0.8	0.8	4.5	5.2	1.3	0.9	0.0	14.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	13.8	13.5	2.7	9.0	9.0	4.8	5.6	1.7	2.3	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	41.8	43.2	38.6	24.6	24.6	35.2	31.4	24.7	33.1	0.0	44.1
LnGrp LOS	C	D	D	D	C	C	D	C	C	C	A	D
Approach Vol, veh/h		1239			1209			663			425	
Approach Delay, s/veh		42.2			26.2			31.8			40.8	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	26.0	8.1	35.4	15.5	22.0	9.7	33.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	21.5	5.5	31.5	8.5	17.5	3.5	33.5
Max Q Clear Time (g_c+I1), s	2.0	13.8	3.7	29.4	6.7	14.8	2.0	24.7
Green Ext Time (p_c), s	0.1	1.3	0.1	1.5	0.1	0.4	0.0	4.5

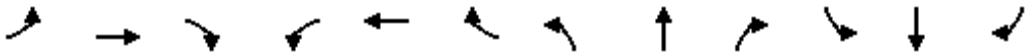
Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	60	4	60	25	250	15	800
Future Volume (vph)	20	60	4	60	25	250	15	800
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	25.0	25.0	25.0	56.0	56.0	56.0	56.0
Total Split (%)	30.9%	30.9%	30.9%	30.9%	69.1%	69.1%	69.1%	69.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	8.6	8.6		66.3		66.3
Actuated g/C Ratio	0.11	0.11	0.11	0.11		0.82		0.82
v/c Ratio	0.16	0.43	0.03	0.35		0.13		0.34
Control Delay	24.7	22.6	31.0	36.1		2.6		1.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	24.7	22.6	31.0	36.1		2.6		1.1
LOS	C	C	C	D		A		A
Approach Delay		23.1		35.8		2.6		1.1
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 5.0	Intersection LOS: A
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Future Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	22	65	22	4	65	4	27	272	27	16	870	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	106	36	131	138	8	211	2114	215	66	2749	50
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	1.00	1.00	1.00
Sat Flow, veh/h	1311	1315	445	1289	1716	106	197	2615	266	25	3399	62
Grp Volume(v), veh/h	22	0	87	4	0	69	161	0	165	472	0	430
Grp Sat Flow(s),veh/h/ln	1311	0	1761	1289	0	1822	1451	0	1627	1822	0	1664
Q Serve(g_s), s	1.3	0.0	3.9	0.2	0.0	2.9	0.0	0.0	1.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.3	0.0	3.9	4.1	0.0	2.9	1.5	0.0	1.8	0.0	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.06	0.17		0.16	0.03		0.04
Lane Grp Cap(c), veh/h	147	0	141	131	0	146	1225	0	1316	1519	0	1345
V/C Ratio(X)	0.15	0.00	0.62	0.03	0.00	0.47	0.13	0.00	0.13	0.31	0.00	0.32
Avail Cap(c_a), veh/h	373	0	446	354	0	461	1225	0	1316	1519	0	1345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.98	0.00	0.98	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.00	0.09
Uniform Delay (d), s/veh	37.6	0.0	36.0	38.0	0.0	35.6	1.6	0.0	1.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	4.2	0.1	0.0	2.3	0.2	0.0	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.8	0.1	0.0	1.4	0.3	0.0	0.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	40.2	38.1	0.0	38.0	1.8	0.0	1.8	0.0	0.0	0.1
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		109			73			326			902	
Approach Delay, s/veh		39.8			38.0			1.8			0.1	
Approach LOS		D			D			A			A	

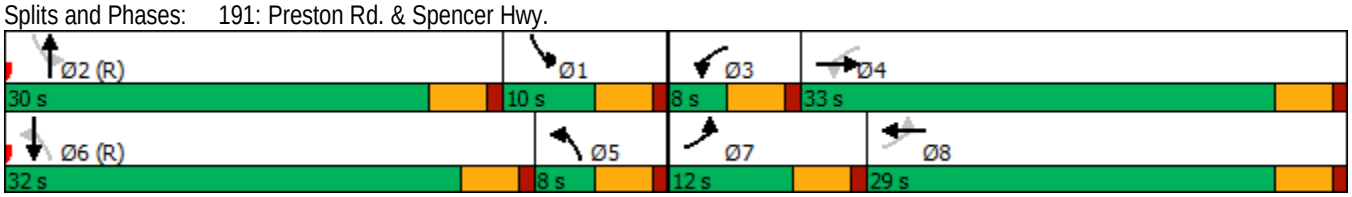
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		11.0		70.0		11.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		51.5		20.5		51.5		20.5				
Max Q Clear Time (g_c+I1), s		3.8		6.3		2.0		6.1				
Green Ext Time (p_c), s		2.3		0.4		7.2		0.2				

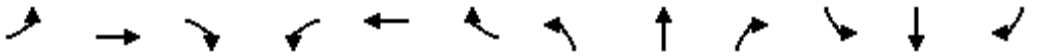
Intersection Summary												
HCM 6th Ctrl Delay			5.5									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	368	1679	193	1708	193	886	258	1049
Future Volume (vph)	368	1679	193	1708	193	886	258	1049
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	33.0	8.0	29.0	8.0	30.0	10.0	32.0
Total Split (%)	14.8%	40.7%	9.9%	35.8%	9.9%	37.0%	12.3%	39.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	32.0	28.5	32.0	24.5	31.0	25.5	31.0	27.5
Actuated g/C Ratio	0.40	0.35	0.40	0.30	0.38	0.31	0.38	0.34
v/c Ratio	1.50	1.22	1.19	1.29	1.20	0.98	1.26	1.26
Control Delay	267.2	128.7	155.1	162.6	135.5	32.0	173.6	145.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	267.2	128.7	155.1	162.6	135.5	32.0	173.6	145.5
LOS	F	F	F	F	F	C	F	F
Approach Delay		150.1		161.9		48.2		149.8
Approach LOS		F		F		D		F

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 39 (48%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.50	
Intersection Signal Delay: 136.5	Intersection LOS: F
Intersection Capacity Utilization 130.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	368	1679	336	193	1708	190	193	886	152	258	1049	409
Future Volume (veh/h)	368	1679	336	193	1708	190	193	886	152	258	1049	409
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	376	1713	343	197	1743	194	197	904	155	263	1070	417
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	251	1480	293	165	1388	154	165	940	161	217	840	321
Arrive On Green	0.09	0.35	0.35	0.04	0.30	0.30	0.04	0.31	0.31	0.07	0.34	0.34
Sat Flow, veh/h	1753	4207	833	1753	4590	509	1753	2986	512	1753	2473	946
Grp Volume(v), veh/h	376	1360	696	197	1270	667	197	529	530	263	751	736
Grp Sat Flow(s),veh/h/ln	1753	1675	1691	1753	1675	1749	1753	1749	1749	1753	1749	1670
Q Serve(g_s), s	7.5	28.5	28.5	3.5	24.5	24.5	3.5	24.1	24.1	5.5	27.5	27.5
Cycle Q Clear(g_c), s	7.5	28.5	28.5	3.5	24.5	24.5	3.5	24.1	24.1	5.5	27.5	27.5
Prop In Lane	1.00		0.49	1.00		0.29	1.00		0.29	1.00		0.57
Lane Grp Cap(c), veh/h	251	1179	595	165	1013	529	165	551	550	217	594	567
V/C Ratio(X)	1.50	1.15	1.17	1.20	1.25	1.26	1.20	0.96	0.96	1.21	1.26	1.30
Avail Cap(c_a), veh/h	251	1179	595	165	1013	529	165	551	550	217	594	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.32	0.32	0.32	0.43	0.43	0.43	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	22.2	26.2	26.3	26.6	28.3	28.3	37.8	27.3	27.3	36.5	26.8	26.8
Incr Delay (d2), s/veh	230.2	72.7	82.6	111.2	117.8	123.8	132.8	30.0	30.0	126.7	130.6	145.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.1	22.1	23.9	6.5	25.5	27.6	9.1	14.1	14.1	11.6	32.3	33.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	252.5	99.0	108.8	137.8	146.0	152.1	170.6	57.2	57.3	163.2	157.3	172.0
LnGrp LOS	F	F	F	F	F	F	F	E	E	F	F	F
Approach Vol, veh/h		2432			2134			1256			1750	
Approach Delay, s/veh		125.5			147.1			75.0			164.4	
Approach LOS		F			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	30.0	8.0	33.0	8.0	32.0	12.0	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	25.5	3.5	28.5	3.5	27.5	7.5	24.5
Max Q Clear Time (g_c+I1), s	7.5	26.1	5.5	30.5	5.5	29.5	9.5	26.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

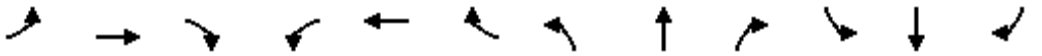
Intersection Summary	
HCM 6th Ctrl Delay	132.2
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	130	457	165	541	157	872	126	1008
Future Volume (vph)	130	457	165	541	157	872	126	1008
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	13.2	26.2	14.0	27.0	14.0	46.1	13.7	45.8
Total Split (%)	13.2%	26.2%	14.0%	27.0%	14.0%	46.1%	13.7%	45.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	30.3	21.0	30.3	21.9	51.7	43.3	51.7	42.7
Actuated g/C Ratio	0.30	0.21	0.30	0.22	0.52	0.43	0.52	0.43
v/c Ratio	0.61	0.84	0.71	0.90	0.70	0.69	0.48	0.83
Control Delay	35.4	46.9	42.2	52.7	35.0	25.8	17.3	31.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	46.9	42.2	52.7	35.0	25.8	17.3	31.4
LOS	D	D	D	D	C	C	B	C
Approach Delay		44.8		50.6		27.1		30.1
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 36.1	Intersection LOS: D
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	457	147	165	541	127	157	872	128	126	1008	179
Future Volume (veh/h)	130	457	147	165	541	127	157	872	128	126	1008	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	133	466	150	168	552	130	160	890	131	129	1029	183
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	227	530	169	259	621	146	266	1425	210	306	1350	240
Arrive On Green	0.08	0.20	0.20	0.09	0.22	0.22	0.07	0.47	0.47	0.06	0.46	0.46
Sat Flow, veh/h	1753	2607	833	1753	2811	660	1753	3058	450	1753	2968	527
Grp Volume(v), veh/h	133	311	305	168	343	339	160	509	512	129	606	606
Grp Sat Flow(s),veh/h/ln	1753	1749	1691	1753	1749	1722	1753	1749	1760	1753	1749	1746
Q Serve(g_s), s	5.8	17.3	17.5	7.5	19.0	19.1	4.8	21.9	21.9	3.8	28.9	29.0
Cycle Q Clear(g_c), s	5.8	17.3	17.5	7.5	19.0	19.1	4.8	21.9	21.9	3.8	28.9	29.0
Prop In Lane	1.00		0.49	1.00		0.38	1.00		0.26	1.00		0.30
Lane Grp Cap(c), veh/h	227	355	344	259	386	380	266	815	820	306	796	794
V/C Ratio(X)	0.58	0.88	0.89	0.65	0.89	0.89	0.60	0.62	0.62	0.42	0.76	0.76
Avail Cap(c_a), veh/h	247	379	367	261	393	387	313	815	820	367	796	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	38.6	38.7	29.2	37.8	37.8	19.0	20.1	20.1	15.4	22.7	22.8
Incr Delay (d2), s/veh	3.0	19.2	21.2	5.5	20.8	21.8	1.8	2.8	2.8	0.9	6.8	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	9.1	9.1	3.4	10.1	10.1	1.9	9.1	9.1	1.5	12.8	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	57.8	59.9	34.7	58.5	59.6	20.8	22.9	22.9	16.3	29.5	29.6
LnGrp LOS	C	E	E	C	E	E	C	C	C	B	C	C
Approach Vol, veh/h		749			850			1181			1341	
Approach Delay, s/veh		54.1			54.2			22.6			28.3	
Approach LOS		D			D			C			C	

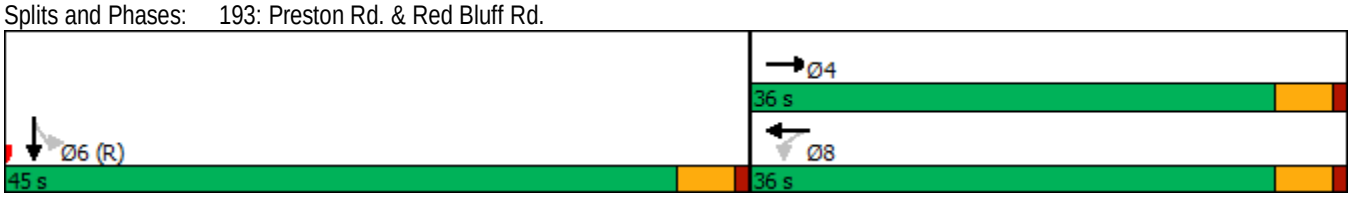
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	51.1	13.9	24.8	11.3	50.0	12.1	26.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.2	41.6	9.5	21.7	9.5	41.3	8.7	22.5
Max Q Clear Time (g_c+I1), s	5.8	23.9	9.5	19.5	6.8	31.0	7.8	21.1
Green Ext Time (p_c), s	0.1	6.3	0.0	0.8	0.1	5.7	0.0	0.6

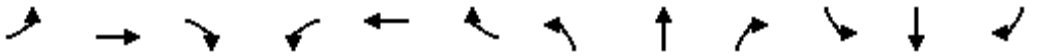
Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	872	67	1322	1194
Future Volume (vph)	872	67	1322	1194
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	36.0	36.0	36.0	45.0
Total Split (%)	44.4%	44.4%	44.4%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	31.5	31.5	31.5	40.5
Actuated g/C Ratio	0.39	0.39	0.39	0.50
v/c Ratio	1.01	0.79	1.03	1.01
Control Delay	37.5	71.2	54.8	46.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.5	71.2	54.8	46.3
LOS	D	E	D	D
Approach Delay	37.5		55.6	46.3
Approach LOS	D		E	D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 44 (54%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 46.7	Intersection LOS: D
Intersection Capacity Utilization 103.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	872	386	67	1322	0	0	0	0	326	1194	116
Future Volume (veh/h)	0	872	386	67	1322	0	0	0	0	326	1194	116
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	918	406	71	1392	0				343	1257	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	920	403	89	1360	0				363	1414	
Arrive On Green	0.00	0.39	0.39	0.52	0.52	0.00				0.50	0.50	0.00
Sat Flow, veh/h	0	2458	1036	408	3589	0				725	2920	0
Grp Volume(v), veh/h	0	676	648	71	1392	0				853	747	0
Grp Sat Flow(s),veh/h/ln	0	1749	1654	408	1749	0				1804	1749	0
Q Serve(g_s), s	0.0	31.2	31.5	0.0	31.5	0.0				36.3	30.2	0.0
Cycle Q Clear(g_c), s	0.0	31.2	31.5	31.5	31.5	0.0				36.3	30.2	0.0
Prop In Lane	0.00		0.63	1.00		0.00				0.40		0.00
Lane Grp Cap(c), veh/h	0	680	643	89	1360	0				902	874	
V/C Ratio(X)	0.00	0.99	1.01	0.80	1.02	0.00				0.95	0.85	
Avail Cap(c_a), veh/h	0	680	643	89	1360	0				902	874	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.40	0.40	0.66	0.66	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	24.7	24.8	35.3	19.6	0.0				19.2	17.7	0.0
Incr Delay (d2), s/veh	0.0	20.4	24.2	27.8	26.0	0.0				19.4	10.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.8	15.7	2.0	14.8	0.0				18.4	13.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	45.0	49.0	63.1	45.6	0.0				38.6	28.1	0.0
LnGrp LOS	A	D	F	E	F	A				D	C	
Approach Vol, veh/h		1324			1463						1600	A
Approach Delay, s/veh		47.0			46.4						33.7	
Approach LOS		D			D						C	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		36.0		45.0		36.0						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		31.5		40.5		31.5						
Max Q Clear Time (g_c+I1), s		33.5		38.3		33.5						
Green Ext Time (p_c), s		0.0		1.8		0.0						

Intersection Summary												
HCM 6th Ctrl Delay		41.9										
HCM 6th LOS		D										

Notes

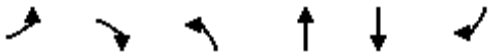
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	122	225	244	1456	1629
Future Volume (vph)	122	225	244	1456	1629
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	13.0	61.0	48.0
Total Split (%)	24.7%	24.7%	16.0%	75.3%	59.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.3	11.3	60.7	60.7	47.7
Actuated g/C Ratio	0.14	0.14	0.75	0.75	0.59
v/c Ratio	0.54	0.62	0.97	0.61	0.98
Control Delay	40.8	15.3	70.5	3.0	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	15.3	70.5	3.0	35.1
LOS	D	B	E	A	D
Approach Delay	24.3			12.7	35.1
Approach LOS	C			B	D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 20 (25%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 24.3	Intersection LOS: C
Intersection Capacity Utilization 86.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	122	225	244	1456	1629	203
Future Volume (veh/h)	122	225	244	1456	1629	203
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	227	246	1471	1645	205
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	297	264	312	2517	1684	206
Arrive On Green	0.17	0.17	0.25	1.00	0.54	0.54
Sat Flow, veh/h	1753	1560	1753	3589	3228	384
Grp Volume(v), veh/h	123	227	246	1471	905	945
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1772
Q Serve(g_s), s	5.1	11.5	6.1	0.0	40.2	42.9
Cycle Q Clear(g_c), s	5.1	11.5	6.1	0.0	40.2	42.9
Prop In Lane	1.00	1.00	1.00			0.22
Lane Grp Cap(c), veh/h	297	264	312	2517	939	951
V/C Ratio(X)	0.41	0.86	0.79	0.58	0.96	0.99
Avail Cap(c_a), veh/h	335	299	312	2517	939	951
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.89	0.89	0.47	0.47
Uniform Delay (d), s/veh	30.1	32.7	27.5	0.0	18.0	18.6
Incr Delay (d2), s/veh	0.9	19.9	11.5	0.9	13.2	18.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	10.8	4.7	0.3	17.1	19.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.0	52.6	39.1	0.9	31.1	37.2
LnGrp LOS	C	D	D	A	C	D
Approach Vol, veh/h	350			1717	1850	
Approach Delay, s/veh	45.0			6.4	34.2	
Approach LOS	D			A	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		62.8		18.2	14.8	48.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		56.5		15.5	8.5	43.5
Max Q Clear Time (g_c+I1), s		2.0		13.5	8.1	44.9
Green Ext Time (p_c), s		16.9		0.3	0.0	0.0

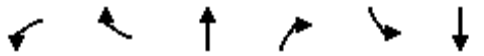
Intersection Summary		
HCM 6th Ctrl Delay		23.0
HCM 6th LOS		C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	43	124	1007	121	1389
Future Volume (vph)	43	124	1007	121	1389
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	46.0	13.0	59.0
Total Split (%)	27.2%	27.2%	56.8%	16.0%	72.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.7	7.7	56.8	67.2	67.2
Actuated g/C Ratio	0.10	0.10	0.70	0.83	0.83
v/c Ratio	0.27	0.49	0.45	0.27	0.50
Control Delay	37.2	13.3	2.7	1.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.3
Total Delay	37.2	13.3	2.7	1.0	0.9
LOS	D	B	A	A	A
Approach Delay	19.4		2.7		0.9
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 28 (35%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 2.7	Intersection LOS: A
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	43	124	1007	55	121	1389
Future Volume (veh/h)	43	124	1007	55	121	1389
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	44	128	1038	57	125	1432
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	186	166	1727	95	603	2737
Arrive On Green	0.11	0.11	0.51	0.51	0.43	1.00
Sat Flow, veh/h	1753	1560	3463	185	1753	3589
Grp Volume(v), veh/h	44	128	538	557	125	1432
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1807	1753	1749
Q Serve(g_s), s	1.9	6.5	17.6	17.6	0.0	0.0
Cycle Q Clear(g_c), s	1.9	6.5	17.6	17.6	0.0	0.0
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	186	166	896	926	603	2737
V/C Ratio(X)	0.24	0.77	0.60	0.60	0.21	0.52
Avail Cap(c_a), veh/h	379	337	896	926	603	2737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	0.23	0.23
Uniform Delay (d), s/veh	33.2	35.2	13.9	13.9	9.5	0.0
Incr Delay (d2), s/veh	0.6	7.4	0.3	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.7	6.3	6.6	1.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.8	42.7	14.2	14.2	9.5	0.2
LnGrp LOS	C	D	B	B	A	A
Approach Vol, veh/h	172		1095			1557
Approach Delay, s/veh	40.4		14.2			0.9
Approach LOS	D		B			A

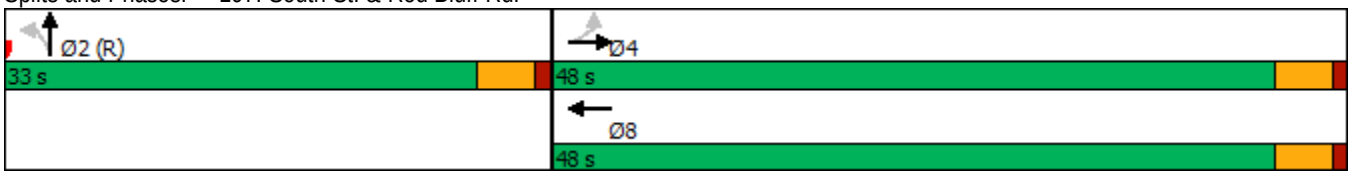
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	21.9	46.0			67.9	13.1
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	41.5			54.5	17.5
Max Q Clear Time (g_c+I1), s	2.0	19.6			2.0	8.5
Green Ext Time (p_c), s	0.1	7.8			17.0	0.3

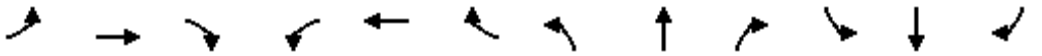
Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	94	924	860	428	649
Future Volume (vph)	94	924	860	428	649
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	48.0	48.0	48.0	33.0	33.0
Total Split (%)	59.3%	59.3%	59.3%	40.7%	40.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	37.4	37.4	37.4	34.6	34.6
Actuated g/C Ratio	0.46	0.46	0.46	0.43	0.43
v/c Ratio	0.90	0.60	0.73	0.60	0.47
Control Delay	28.2	12.2	18.9	15.8	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	12.2	18.9	15.8	12.1
LOS	C	B	B	B	B
Approach Delay		13.7	18.9		13.6
Approach LOS		B	B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 57 (70%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 103.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	924	0	0	860	246	428	649	17	0	0	0
Future Volume (veh/h)	94	924	0	0	860	246	428	649	17	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	98	962	0	0	896	0	446	676	0			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	233	1509	0	0	1509		802	1600				
Arrive On Green	0.86	0.86	0.00	0.00	0.43	0.00	0.15	0.15	0.00			
Sat Flow, veh/h	611	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	98	962	0	0	896	0	446	676	0			
Grp Sat Flow(s),veh/h/ln	611	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	10.1	6.8	0.0	0.0	15.9	0.0	19.1	14.2	0.0			
Cycle Q Clear(g_c), s	26.0	6.8	0.0	0.0	15.9	0.0	19.1	14.2	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	233	1509	0	0	1509		802	1600				
V/C Ratio(X)	0.42	0.64	0.00	0.00	0.59		0.56	0.42				
Avail Cap(c_a), veh/h	298	1878	0	0	1878		802	1600				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.09	0.09	0.00	0.00	0.86	0.00	0.87	0.87	0.00			
Uniform Delay (d), s/veh	11.1	3.6	0.0	0.0	17.6	0.0	26.8	24.7	0.0			
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.3	0.0	2.4	0.7	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	1.2	0.0	0.0	6.0	0.0	9.4	6.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.2	3.7	0.0	0.0	17.9	0.0	29.2	25.4	0.0			
LnGrp LOS	B	A	A	A	B		C	C				
Approach Vol, veh/h		1060			896	A		1122	A			
Approach Delay, s/veh		4.4			17.9			26.9				
Approach LOS		A			B			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		41.5		39.5				39.5				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		28.5		43.5				43.5				
Max Q Clear Time (g_c+I1), s		21.1		28.0				17.9				
Green Ext Time (p_c), s		3.6		7.0				7.1				

Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

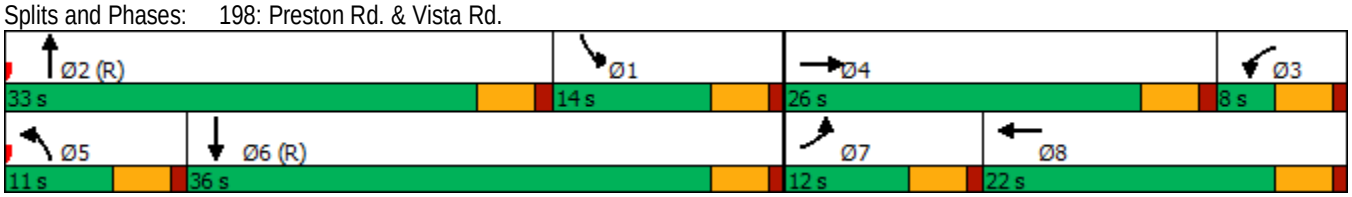
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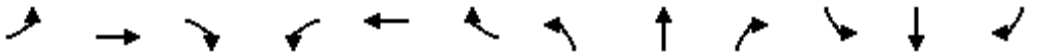
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	132	602	63	518	118	848	174	1058
Future Volume (vph)	132	602	63	518	118	848	174	1058
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	26.0	8.0	22.0	11.0	33.0	14.0	36.0
Total Split (%)	14.8%	32.1%	9.9%	27.2%	13.6%	40.7%	17.3%	44.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	21.5	3.5	17.5	6.5	28.5	9.5	31.5
Actuated g/C Ratio	0.09	0.27	0.04	0.22	0.08	0.35	0.12	0.39
v/c Ratio	0.88	0.95	0.93	1.05	0.94	0.82	0.91	0.95
Control Delay	76.4	45.5	132.1	75.8	104.4	30.6	34.7	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.4	45.5	132.1	75.8	104.4	30.6	34.7	15.2
LOS	E	D	F	E	F	C	C	B
Approach Delay		49.8		80.2		38.9		17.7
Approach LOS		D		F		D		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 72 (89%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 42.4	Intersection LOS: D
Intersection Capacity Utilization 88.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	602	231	63	518	220	118	848	91	174	1058	138
Future Volume (veh/h)	132	602	231	63	518	220	118	848	91	174	1058	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	140	640	246	67	551	234	126	902	97	185	1126	147
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	656	252	76	517	219	141	1121	121	206	1210	158
Arrive On Green	0.09	0.27	0.27	0.04	0.22	0.22	0.08	0.35	0.35	0.12	0.39	0.39
Sat Flow, veh/h	1753	2470	949	1753	2393	1014	1753	3185	343	1753	3111	405
Grp Volume(v), veh/h	140	453	433	67	402	383	126	495	504	185	632	641
Grp Sat Flow(s),veh/h/ln	1753	1749	1670	1753	1749	1658	1753	1749	1779	1753	1749	1768
Q Serve(g_s), s	6.4	20.8	20.8	3.1	17.5	17.5	5.8	20.7	20.7	8.4	28.0	28.2
Cycle Q Clear(g_c), s	6.4	20.8	20.8	3.1	17.5	17.5	5.8	20.7	20.7	8.4	28.0	28.2
Prop In Lane	1.00		0.57	1.00		0.61	1.00		0.19	1.00		0.23
Lane Grp Cap(c), veh/h	162	464	443	76	378	358	141	615	626	206	680	687
V/C Ratio(X)	0.86	0.98	0.98	0.88	1.06	1.07	0.90	0.80	0.80	0.90	0.93	0.93
Avail Cap(c_a), veh/h	162	464	443	76	378	358	141	615	626	206	680	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	1.00	1.00	1.00	0.35	0.35	0.35	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	29.5	29.5	38.5	31.7	31.8	36.9	23.7	23.7	35.3	23.7	23.7
Incr Delay (d2), s/veh	19.8	23.2	24.0	65.8	64.5	66.9	21.9	4.0	4.0	36.6	20.9	21.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	11.1	10.7	2.6	13.6	13.2	3.2	8.4	8.6	5.5	14.3	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	52.7	53.5	104.3	96.2	98.7	58.8	27.8	27.7	71.9	44.6	45.0
LnGrp LOS	E	D	D	F	F	F	E	C	C	E	D	D
Approach Vol, veh/h		1026			852			1125			1458	
Approach Delay, s/veh		53.5			98.0			31.2			48.3	
Approach LOS		D			F			C			D	

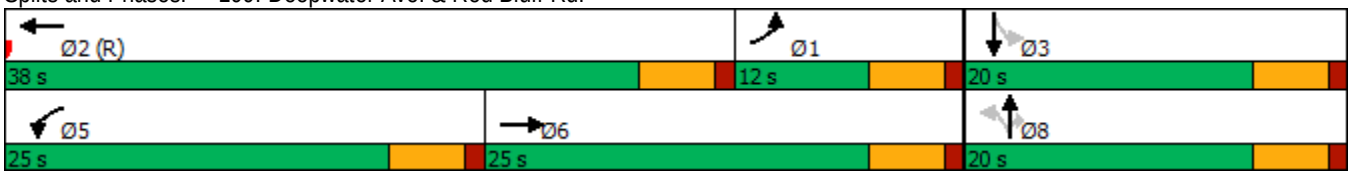
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	33.0	8.0	26.0	11.0	36.0	12.0	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	28.5	3.5	21.5	6.5	31.5	7.5	17.5
Max Q Clear Time (g_c+I1), s	10.4	22.7	5.1	22.8	7.8	30.2	8.4	19.5
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0	0.0	1.0	0.0	0.0

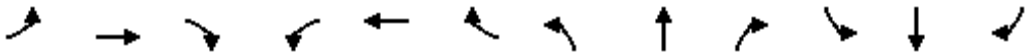
Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	74	654	324	847	10	143	320	51	197
Future Volume (vph)	74	654	324	847	10	143	320	51	197
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	25.0	25.0	38.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	17.1%	35.7%	35.7%	54.3%	28.6%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lag	Lag	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)	6.7	25.2	17.5	38.0		12.4	12.4		12.4
Actuated g/C Ratio	0.10	0.36	0.25	0.54		0.18	0.18		0.18
v/c Ratio	0.46	0.57	0.77	0.49		0.51	0.60		0.61
Control Delay	39.2	21.4	36.8	12.2		31.6	8.4		27.1
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	39.2	21.4	36.8	12.2		31.6	8.4		27.1
LOS	D	C	D	B		C	A		C
Approach Delay		23.1		18.7		15.9			27.1
Approach LOS		C		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





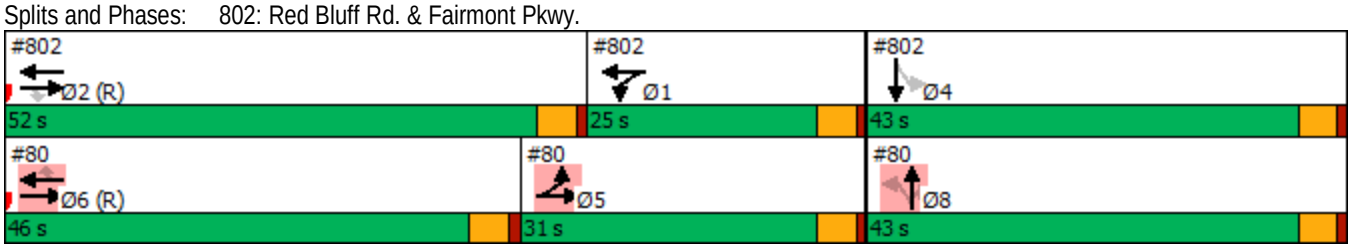
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	654	28	324	847	50	10	143	320	51	197	75
Future Volume (vph)	74	654	28	324	847	50	10	143	320	51	197	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	0.99		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3450		1736	3442			1821	1553		3324	
Flt Permitted	0.95	1.00		0.95	1.00			0.96	1.00		0.85	
Satd. Flow (perm)	1736	3450		1736	3442			1755	1553		2863	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	76	674	29	334	873	52	10	147	330	53	203	77
RTOR Reduction (vph)	0	4	0	0	6	0	0	0	272	0	42	0
Lane Group Flow (vph)	76	699	0	334	919	0	0	157	58	0	291	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	5.6	25.1		17.5	37.0			12.4	12.4		12.4	
Effective Green, g (s)	5.6	25.1		17.5	37.0			12.4	12.4		12.4	
Actuated g/C Ratio	0.08	0.36		0.25	0.53			0.18	0.18		0.18	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	138	1237		434	1819			310	275		507	
v/s Ratio Prot	0.04	c0.20		c0.19	0.27							
v/s Ratio Perm								0.09	0.04		c0.10	
v/c Ratio	0.55	0.57		0.77	0.51			0.51	0.21		0.57	
Uniform Delay, d1	31.0	18.1		24.4	10.6			26.0	24.6		26.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	4.7	0.6		8.0	1.0			1.3	0.4		1.6	
Delay (s)	35.7	18.7		32.4	11.6			27.3	25.0		28.0	
Level of Service	D	B		C	B			C	C		C	
Approach Delay (s)		20.3			17.1			25.8			28.0	
Approach LOS		C			B			C			C	

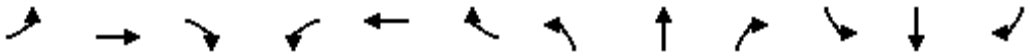
Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	1379	215	193	1674	232	697			
Future Volume (vph)	1379	215	193	1674	232	697			
Turn Type	NA	Perm	Prot	NA	Perm	NA			
Protected Phases	2		1	1 2		4	5	6	8
Permitted Phases		2			4				
Detector Phase	2	2	1	1 2	4	4			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	52.0	52.0	25.0		43.0	43.0	31.0	46.0	43.0
Total Split (%)	43.3%	43.3%	20.8%		35.8%	35.8%	26%	38%	36%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5			
Lead/Lag	Lead	Lead	Lag				Lag	Lead	
Lead-Lag Optimize?							Yes		
Recall Mode	C-Max	C-Max	None		None	None	None	C-Max	None
Act Effct Green (s)	51.1	51.1	20.2	75.8	35.2	35.2			
Actuated g/C Ratio	0.43	0.43	0.17	0.63	0.29	0.29			
v/c Ratio	0.57	0.33	0.37	0.58	0.50	0.80			
Control Delay	20.4	10.0	40.9	6.4	38.3	45.5			
Queue Delay	0.1	0.0	0.0	1.4	0.0	0.7			
Total Delay	20.5	10.0	40.9	7.8	38.3	46.1			
LOS	C	A	D	A	D	D			
Approach Delay	19.1			11.2		44.3			
Approach LOS	B			B		D			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38 (32%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





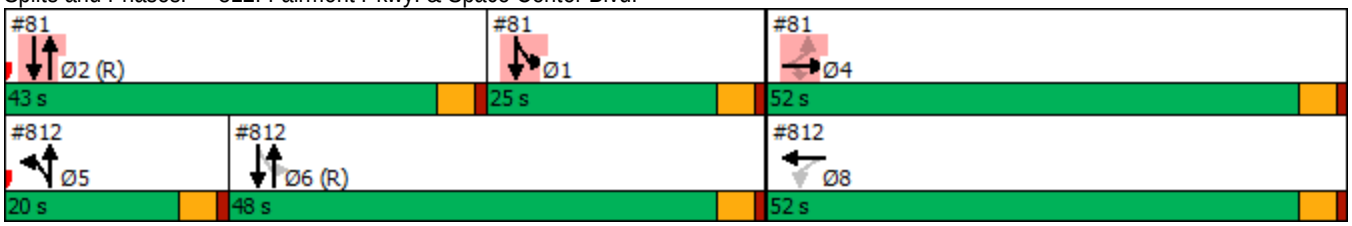
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1379	215	193	1674	0	0	0	0	232	697	43
Future Volume (vph)	0	1379	215	193	1674	0	0	0	0	232	697	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91					1.00	0.95	
Frt		1.00	0.85	1.00	1.00					1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988					1736	3441	
Flt Permitted		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (perm)		6285	1553	3367	4988					1736	3441	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	1515	236	212	1840	0	0	0	0	255	766	47
RTOR Reduction (vph)	0	0	60	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	1515	176	212	1840	0	0	0	0	255	809	0
Turn Type		NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases			2							4		
Actuated Green, G (s)		51.1	51.1	20.2	75.8					35.2	35.2	
Effective Green, g (s)		51.1	51.1	20.2	75.8					35.2	35.2	
Actuated g/C Ratio		0.43	0.43	0.17	0.63					0.29	0.29	
Clearance Time (s)		4.5	4.5	4.5						4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0						3.0	3.0	
Lane Grp Cap (vph)		2676	661	566	3150					509	1009	
v/s Ratio Prot		0.24		0.06	c0.37						c0.24	
v/s Ratio Perm			0.11							0.15		
v/c Ratio		0.57	0.27	0.37	0.58					0.50	0.80	
Uniform Delay, d1		26.1	22.3	44.3	12.9					35.1	39.2	
Progression Factor		0.73	0.66	0.89	0.43					1.00	1.00	
Incremental Delay, d2		0.7	0.8	0.3	0.2					0.8	4.7	
Delay (s)		19.9	15.6	39.6	5.8					35.9	43.9	
Level of Service		B	B	D	A					D	D	
Approach Delay (s)		19.3			9.2			0.0			42.0	
Approach LOS		B			A			A			D	

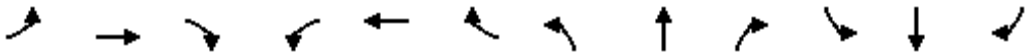
Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	453	2174	306	655	1	895			
Future Volume (vph)	453	2174	306	655	1	895			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	52.0	52.0	20.0		48.0	48.0	25.0	43.0	52.0
Total Split (%)	43.3%	43.3%	16.7%		40.0%	40.0%	21%	36%	43%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	47.5	47.5	15.5	63.5		43.5			
Actuated g/C Ratio	0.40	0.40	0.13	0.53		0.36			
v/c Ratio	0.69	1.00	0.74	0.37		0.70			
Control Delay	36.4	53.8	64.4	9.9		29.3			
Queue Delay	57.9	0.0	59.3	13.8		1.9			
Total Delay	94.2	53.8	123.7	23.7		31.2			
LOS	F	D	F	C		C			
Approach Delay		60.3		55.6		31.2			
Approach LOS		E		E		C			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 97 (81%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 52.7	Intersection LOS: D
Intersection Capacity Utilization 90.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





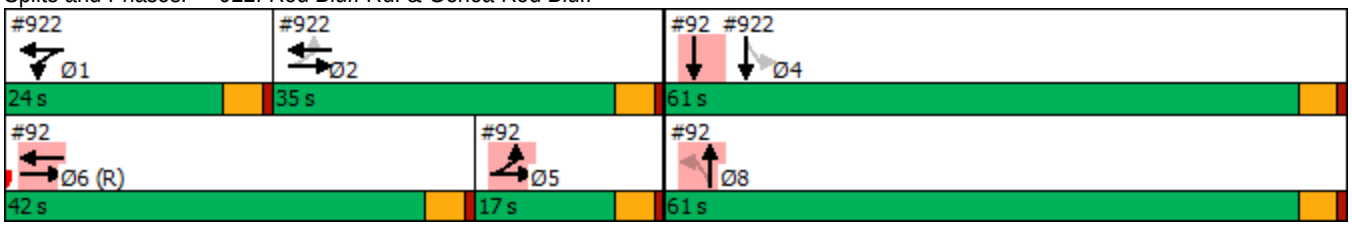
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	453	2174	192	306	655	0	1	895	222
Future Volume (vph)	0	0	0	453	2174	192	306	655	0	1	895	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.99		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6208		3367	3471			4839	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6208		3367	3471			4547	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	472	2265	200	319	682	0	1	932	231
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	0	0	472	2454	0	319	682	0	0	1158	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				47.5	47.5		15.5	63.5			43.5	
Effective Green, g (s)				47.5	47.5		15.5	63.5			43.5	
Actuated g/C Ratio				0.40	0.40		0.13	0.53			0.36	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				687	2457		434	1836			1648	
v/s Ratio Prot					c0.40		c0.09	0.20				
v/s Ratio Perm				0.27							c0.25	
v/c Ratio				0.69	1.00		0.74	0.37			0.70	
Uniform Delay, d1				30.1	36.2		50.3	16.6			32.7	
Progression Factor				1.00	1.00		1.16	0.57			0.89	
Incremental Delay, d2				2.9	17.7		3.5	0.1			0.2	
Delay (s)				32.9	53.9		61.6	9.5			29.3	
Level of Service				C	D		E	A			C	
Approach Delay (s)		0.0			50.5			26.1			29.3	
Approach LOS		A			D			C			C	

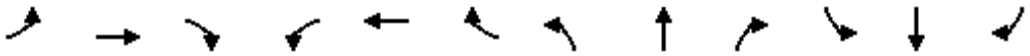
Intersection Summary			
HCM 2000 Control Delay	40.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations								
Traffic Volume (vph)	1	865	353	1464	663			
Future Volume (vph)	1	865	353	1464	663			
Turn Type	Perm	NA	Prot	NA	NA			
Protected Phases		2	1	2 1	4	5	6	8
Permitted Phases	2							
Detector Phase	2	2	1	2 1	4			
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	35.0	35.0	24.0		61.0	17.0	42.0	61.0
Total Split (%)	29.2%	29.2%	20.0%		50.8%	14%	35%	51%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0			
Total Lost Time (s)		4.5	4.5		4.5			
Lead/Lag	Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None		None	None	C-Max	None
Act Effct Green (s)		30.5	19.5	54.5	56.5			
Actuated g/C Ratio		0.25	0.16	0.45	0.47			
v/c Ratio		1.08	1.33	0.99	0.40			
Control Delay		59.2	191.5	28.6	9.5			
Queue Delay		7.4	2.7	39.5	0.0			
Total Delay		66.6	194.2	68.1	9.5			
LOS		E	F	E	A			
Approach Delay		66.6		92.6	9.5			
Approach LOS		E		F	A			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 66.1	Intersection LOS: E
Intersection Capacity Utilization 96.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	865	320	353	1464	0	0	0	0	56	663	142
Future Volume (vph)	1	865	320	353	1464	0	0	0	0	56	663	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.91		1.00	0.95						0.91	
Frt		0.96		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		4786		1736	3471						4848	
Flt Permitted		0.91		0.95	1.00						1.00	
Satd. Flow (perm)		4365		1736	3471						4848	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1	920	340	376	1557	0	0	0	0	60	705	151
RTOR Reduction (vph)	0	55	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	1206	0	376	1557	0	0	0	0	0	911	0
Turn Type	Perm	NA		Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases	2									4		
Actuated Green, G (s)		30.5		19.5	54.5						56.5	
Effective Green, g (s)		30.5		19.5	54.5						56.5	
Actuated g/C Ratio		0.25		0.16	0.45						0.47	
Clearance Time (s)		4.5		4.5							4.5	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		1109		282	1576						2282	
v/s Ratio Prot				c0.22	c0.45							
v/s Ratio Perm		c0.28									0.19	
v/c Ratio		1.09		1.33	0.99						0.40	
Uniform Delay, d1		44.8		50.2	32.4						20.7	
Progression Factor		0.43		0.99	0.71						0.44	
Incremental Delay, d2		41.0		152.3	4.5						0.1	
Delay (s)		60.2		201.9	27.4						9.2	
Level of Service		E		F	C						A	
Approach Delay (s)		60.2			61.4			0.0			9.2	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM 2000 Control Delay	49.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

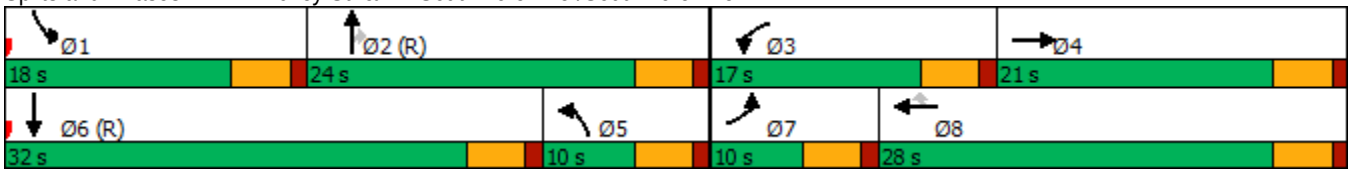
Synchro Report

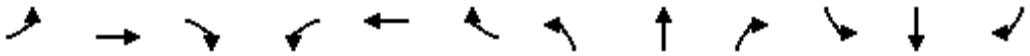
Long-Term Improved Network 2045 AM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	41	281	310	430	203	47	429	155	149	352
Future Volume (vph)	41	281	310	430	203	47	429	155	149	352
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	21.0	17.0	28.0	28.0	10.0	24.0	24.0	18.0	32.0
Total Split (%)	12.5%	26.3%	21.3%	35.0%	35.0%	12.5%	30.0%	30.0%	22.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	5.5	12.8	11.6	22.9	22.9	5.5	26.0	26.0	11.6	36.1
Actuated g/C Ratio	0.07	0.16	0.14	0.29	0.29	0.07	0.32	0.32	0.14	0.45
v/c Ratio	0.35	0.61	0.65	0.45	0.35	0.40	0.39	0.25	0.62	0.26
Control Delay	42.0	32.7	27.2	18.8	5.9	40.4	19.3	2.0	42.7	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	32.7	27.2	18.8	5.9	40.4	19.3	2.0	42.7	15.7
LOS	D	C	C	B	A	D	B	A	D	B
Approach Delay		33.7		18.8			16.6			23.1
Approach LOS		C		B			B			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 10 (13%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 21.4	Intersection LOS: C
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	281	52	310	430	203	47	429	155	149	352	38
Future Volume (veh/h)	41	281	52	310	430	203	47	429	155	149	352	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	42	290	54	320	443	209	48	442	160	154	363	39
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	52	395	73	411	786	351	310	1439	642	191	1096	117
Arrive On Green	0.03	0.13	0.13	0.12	0.22	0.22	0.18	0.41	0.41	0.11	0.34	0.34
Sat Flow, veh/h	1753	2950	542	3401	3497	1560	1753	3497	1560	1753	3188	340
Grp Volume(v), veh/h	42	170	174	320	443	209	48	442	160	154	198	204
Grp Sat Flow(s),veh/h/ln	1753	1749	1743	1700	1749	1560	1753	1749	1560	1753	1749	1779
Q Serve(g_s), s	1.9	7.5	7.7	7.3	9.0	9.6	1.9	6.8	5.4	6.9	6.7	6.8
Cycle Q Clear(g_c), s	1.9	7.5	7.7	7.3	9.0	9.6	1.9	6.8	5.4	6.9	6.7	6.8
Prop In Lane	1.00		0.31	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	52	234	233	411	786	351	310	1439	642	191	601	612
V/C Ratio(X)	0.81	0.73	0.74	0.78	0.56	0.60	0.15	0.31	0.25	0.81	0.33	0.33
Avail Cap(c_a), veh/h	121	361	360	531	1027	458	310	1439	642	296	601	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	33.2	33.3	34.1	27.5	27.8	27.9	15.9	15.4	34.8	19.4	19.5
Incr Delay (d2), s/veh	20.1	3.4	3.7	5.5	0.6	1.6	0.2	0.6	0.9	8.8	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.3	3.4	3.2	3.7	3.6	0.8	2.6	1.9	3.3	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	36.7	37.0	39.7	28.2	29.4	28.1	16.4	16.4	43.6	20.9	20.9
LnGrp LOS	E	D	D	D	C	C	C	B	B	D	C	C
Approach Vol, veh/h		386			972			650			556	
Approach Delay, s/veh		39.2			32.2			17.3			27.2	
Approach LOS		D			C			B			C	

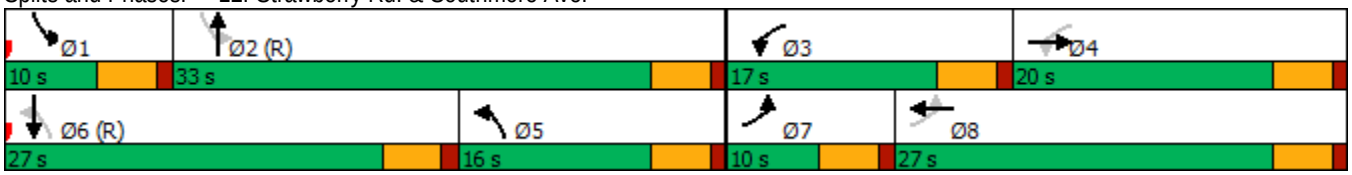
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	37.4	14.2	15.2	18.6	32.0	6.9	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	19.5	12.5	16.5	5.5	27.5	5.5	23.5
Max Q Clear Time (g_c+I1), s	8.9	8.8	9.3	9.7	3.9	8.8	3.9	11.6
Green Ext Time (p_c), s	0.1	2.5	0.4	1.0	0.0	2.1	0.0	2.8

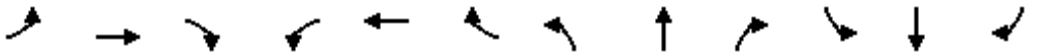
Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	91	413	235	559	220	486	57	504
Future Volume (vph)	91	413	235	559	220	486	57	504
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	17.0	27.0	16.0	33.0	10.0	27.0
Total Split (%)	12.5%	25.0%	21.3%	33.8%	20.0%	41.3%	12.5%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	27.4	14.5	26.5	23.0	35.5	31.8	36.4	24.0
Actuated g/C Ratio	0.34	0.18	0.33	0.29	0.44	0.40	0.46	0.30
v/c Ratio	0.45	0.75	0.74	0.70	0.67	0.57	0.23	0.68
Control Delay	19.1	37.3	23.9	19.9	30.3	16.4	13.3	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.1	37.3	23.9	19.9	30.3	16.4	13.3	28.2
LOS	B	D	C	B	C	B	B	C
Approach Delay		34.1		21.0		19.7		26.9
Approach LOS		C		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 10 (13%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	413	6	235	559	57	220	486	218	57	504	107
Future Volume (veh/h)	91	413	6	235	559	57	220	486	218	57	504	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	102	464	7	264	628	64	247	546	245	64	566	120
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	245	574	9	381	800	81	489	1010	452	400	808	171
Arrive On Green	0.06	0.16	0.16	0.15	0.25	0.25	0.37	0.86	0.86	0.03	0.28	0.28
Sat Flow, veh/h	1753	3527	53	1753	3205	326	1753	2349	1051	1753	2873	607
Grp Volume(v), veh/h	102	230	241	264	342	350	247	406	385	64	344	342
Grp Sat Flow(s),veh/h/ln	1753	1749	1831	1753	1749	1782	1753	1749	1652	1753	1749	1731
Q Serve(g_s), s	3.4	10.1	10.2	9.8	14.6	14.7	0.0	4.8	4.9	1.6	14.1	14.2
Cycle Q Clear(g_c), s	3.4	10.1	10.2	9.8	14.6	14.7	0.0	4.8	4.9	1.6	14.1	14.2
Prop In Lane	1.00		0.03	1.00		0.18	1.00		0.64	1.00		0.35
Lane Grp Cap(c), veh/h	245	284	298	381	437	445	489	752	710	400	492	487
V/C Ratio(X)	0.42	0.81	0.81	0.69	0.78	0.79	0.51	0.54	0.54	0.16	0.70	0.70
Avail Cap(c_a), veh/h	260	339	355	396	492	501	489	752	710	460	492	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	32.3	32.3	23.3	28.0	28.0	19.4	3.5	3.5	12.1	25.7	25.8
Incr Delay (d2), s/veh	1.1	11.7	11.3	3.2	4.8	4.8	0.8	2.6	2.8	0.2	8.0	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.0	5.2	4.1	6.4	6.5	3.0	1.6	1.5	0.6	6.6	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	43.9	43.6	26.5	32.8	32.9	20.2	6.2	6.3	12.2	33.7	34.0
LnGrp LOS	C	D	D	C	C	C	C	A	A	B	C	C
Approach Vol, veh/h		573			956			1038			750	
Approach Delay, s/veh		40.0			31.1			9.6			32.0	
Approach LOS		D			C			A			C	

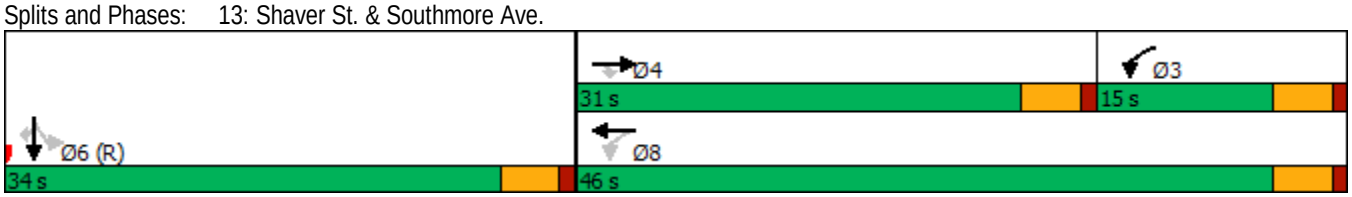
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	38.9	16.3	17.5	19.2	27.0	9.3	24.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	28.5	12.5	15.5	11.5	22.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	3.6	6.9	11.8	12.2	2.0	16.2	5.4	16.7
Green Ext Time (p_c), s	0.0	5.1	0.1	0.9	0.5	2.2	0.0	2.1

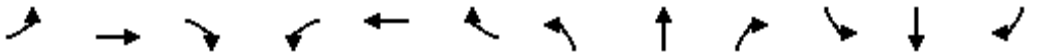
Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	521	123	119	617	152	496	208
Future Volume (vph)	521	123	119	617	152	496	208
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	15.0	46.0	34.0	34.0	34.0
Total Split (%)	38.8%	38.8%	18.8%	57.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	20.6	20.6	30.6	30.6	40.4	40.4	40.4
Actuated g/C Ratio	0.26	0.26	0.38	0.38	0.50	0.50	0.50
v/c Ratio	0.68	0.29	0.49	0.56	0.20	0.33	0.31
Control Delay	29.9	10.8	13.6	8.0	8.8	8.9	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	10.8	13.6	8.0	8.8	8.9	9.6
LOS	C	B	B	A	A	A	A
Approach Delay	26.3			8.9		9.0	
Approach LOS	C			A		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 38 (48%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	521	123	119	617	0	0	0	0	152	496	208
Future Volume (veh/h)	0	521	123	119	617	0	0	0	0	152	496	208
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	606	143	138	717	0				177	577	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	804	358	194	1146	0				981	1958	
Arrive On Green	0.00	0.23	0.23	0.08	0.66	0.00				0.56	0.56	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	606	143	138	717	0				177	577	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	12.9	6.2	0.3	9.6	0.0				4.0	7.0	0.0
Cycle Q Clear(g_c), s	0.0	12.9	6.2	0.3	9.6	0.0				4.0	7.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	804	358	194	1146	0				981	1958	
V/C Ratio(X)	0.00	0.75	0.40	0.71	0.63	0.00				0.18	0.29	
Avail Cap(c_a), veh/h	0	1159	517	351	1814	0				981	1958	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.58	0.58	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	28.7	26.1	34.8	10.9	0.0				8.6	9.3	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.7	2.8	0.3	0.0				0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	2.3	2.6	2.5	0.0				1.4	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.4	26.8	37.6	11.2	0.0				9.0	9.7	0.0
LnGrp LOS	A	C	C	D	B	A				A	A	
Approach Vol, veh/h		749			855						754	A
Approach Delay, s/veh		29.7			15.5						9.5	
Approach LOS		C			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		7.8	22.9		49.3		30.7					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		10.5	26.5		29.5		41.5					
Max Q Clear Time (g_c+I1), s		2.3	14.9		9.0		11.6					
Green Ext Time (p_c), s		0.2	3.5		4.3		5.3					

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

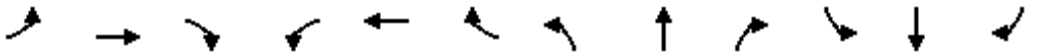
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	95	469	236	57	549	173	291	750	114	456
Future Volume (vph)	95	469	236	57	549	173	291	750	114	456
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	24.0	24.0	11.0	22.0	22.0	24.0	31.0	14.0	21.0
Total Split (%)	16.3%	30.0%	30.0%	13.8%	27.5%	27.5%	30.0%	38.8%	17.5%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.1	20.6	20.6	6.5	16.9	16.9	18.0	30.2	9.0	21.2
Actuated g/C Ratio	0.10	0.26	0.26	0.08	0.21	0.21	0.22	0.38	0.11	0.26
v/c Ratio	0.61	0.58	0.44	0.44	0.83	0.39	0.83	0.68	0.65	0.56
Control Delay	36.0	19.8	5.7	44.0	39.9	14.1	48.5	25.3	39.1	31.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	19.8	5.7	44.0	39.9	14.1	48.5	25.3	39.1	31.7
LOS	D	B	A	D	D	B	D	C	D	C
Approach Delay		17.6			34.5			31.5		33.2
Approach LOS		B			C			C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 33 (41%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	469	236	57	549	173	291	750	44	114	456	4
Future Volume (veh/h)	95	469	236	57	549	173	291	750	44	114	456	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	106	521	262	63	610	192	323	833	49	127	507	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	135	680	303	153	717	320	355	1350	79	159	1032	8
Arrive On Green	0.08	0.19	0.19	0.09	0.21	0.21	0.41	0.80	0.80	0.09	0.29	0.29
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3356	197	1753	3556	28
Grp Volume(v), veh/h	106	521	262	63	610	192	323	434	448	127	249	262
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1805	1753	1749	1836
Q Serve(g_s), s	4.8	11.3	7.9	2.7	13.4	8.9	13.9	7.7	7.7	5.7	9.4	9.4
Cycle Q Clear(g_c), s	4.8	11.3	7.9	2.7	13.4	8.9	13.9	7.7	7.7	5.7	9.4	9.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.02
Lane Grp Cap(c), veh/h	135	680	303	153	717	320	355	703	726	159	508	533
V/C Ratio(X)	0.79	0.77	0.86	0.41	0.85	0.60	0.91	0.62	0.62	0.80	0.49	0.49
Avail Cap(c_a), veh/h	186	852	380	153	765	341	427	703	726	208	508	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	30.5	11.6	34.6	30.6	28.8	23.1	5.4	5.4	35.6	23.5	23.5
Incr Delay (d2), s/veh	14.0	3.3	15.4	1.8	8.6	2.6	20.7	4.0	3.9	14.8	3.4	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.8	1.3	1.2	6.2	3.4	6.1	2.4	2.4	3.0	4.2	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	33.8	26.9	36.3	39.2	31.4	43.8	9.5	9.3	50.5	26.9	26.7
LnGrp LOS	D	C	C	D	D	C	D	A	A	D	C	C
Approach Vol, veh/h		889			865			1205			638	
Approach Delay, s/veh		33.7			37.3			18.6			31.5	
Approach LOS		C			D			B			C	

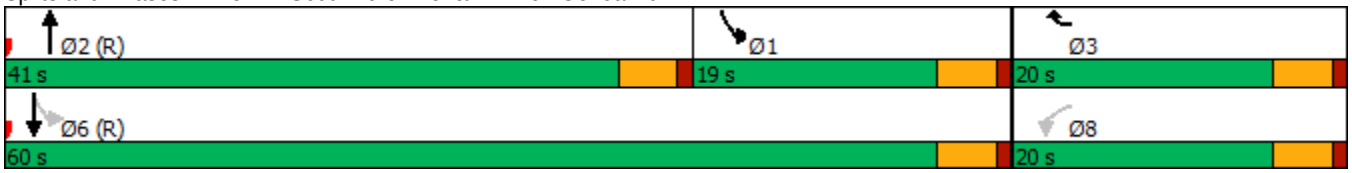
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	36.7	11.5	20.1	20.7	27.7	10.6	20.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	26.5	6.5	19.5	19.5	16.5	8.5	17.5
Max Q Clear Time (g_c+I1), s	7.7	9.7	4.7	13.3	15.9	11.4	6.8	15.4
Green Ext Time (p_c), s	0.0	5.1	0.0	2.3	0.4	1.3	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	90	330	1097	244	485
Future Volume (vph)	90	330	1097	244	485
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	41.0	19.0	60.0
Total Split (%)	25.0%	25.0%	51.3%	23.8%	75.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.2	10.2	41.8	60.8	60.8
Actuated g/C Ratio	0.13	0.13	0.52	0.76	0.76
v/c Ratio	0.44	0.74	0.67	0.58	0.21
Control Delay	17.5	17.7	9.1	21.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	17.7	9.1	21.1	3.3
LOS	B	B	A	C	A
Approach Delay	17.7		9.1		9.3
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 10.7	Intersection LOS: B
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	90	330	1097	22	244	485
Future Volume (veh/h)	90	330	1097	22	244	485
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	98	359	1192	24	265	527
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	340	302	1600	32	476	2426
Arrive On Green	0.19	0.19	0.46	0.46	0.18	0.69
Sat Flow, veh/h	1753	1560	3598	71	1753	3589
Grp Volume(v), veh/h	98	359	594	622	265	527
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1828	1753	1749
Q Serve(g_s), s	3.8	15.5	22.4	22.4	3.2	4.3
Cycle Q Clear(g_c), s	3.8	15.5	22.4	22.4	3.2	4.3
Prop In Lane	1.00	1.00		0.04	1.00	
Lane Grp Cap(c), veh/h	340	302	798	834	476	2426
V/C Ratio(X)	0.29	1.19	0.74	0.75	0.56	0.22
Avail Cap(c_a), veh/h	340	302	798	834	476	2426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	32.3	17.9	17.9	25.6	4.4
Incr Delay (d2), s/veh	0.4	110.5	6.3	6.0	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	14.7	9.5	9.8	4.2	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.0	142.7	24.2	23.9	27.0	4.6
LnGrp LOS	C	F	C	C	C	A
Approach Vol, veh/h	457		1216			792
Approach Delay, s/veh	118.1		24.0			12.1
Approach LOS	F		C			B

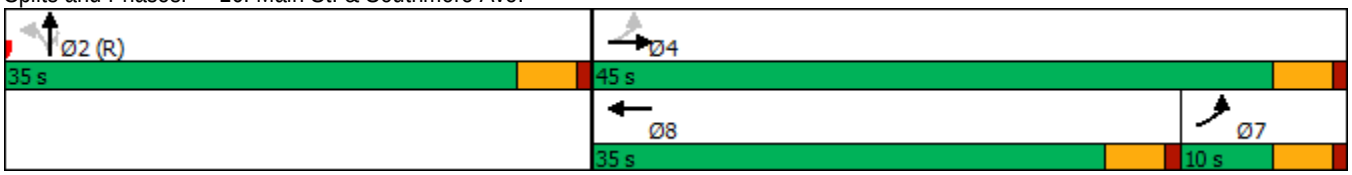
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	19.0	41.0			60.0	20.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	14.5	36.5			55.5	15.5
Max Q Clear Time (g_c+I1), s	5.2	24.4			6.3	17.5
Green Ext Time (p_c), s	0.5	6.1			3.9	0.0

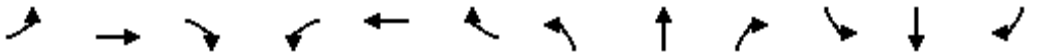
Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	80	564	569	786	154
Future Volume (vph)	80	564	569	786	154
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	45.0	35.0	35.0	35.0
Total Split (%)	12.5%	56.3%	43.8%	43.8%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	34.8	33.7	25.4	37.3	37.3
Actuated g/C Ratio	0.44	0.42	0.32	0.47	0.47
v/c Ratio	0.35	0.46	0.75	0.47	0.22
Control Delay	8.1	11.0	12.2	17.0	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	11.0	12.2	17.0	4.4
LOS	A	B	B	B	A
Approach Delay		10.6	12.2	15.2	
Approach LOS		B	B	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



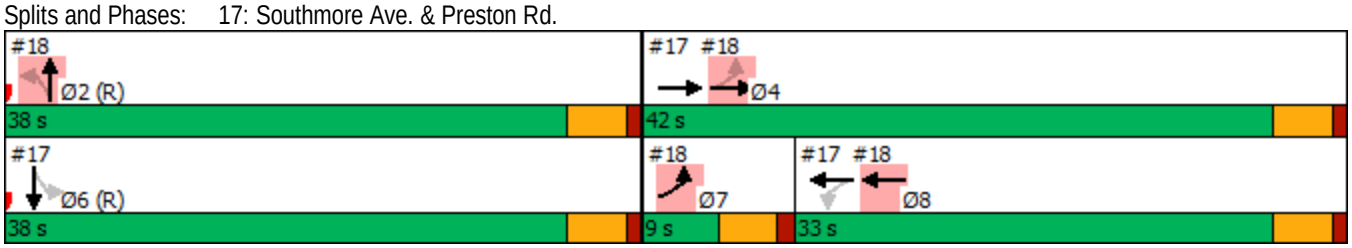


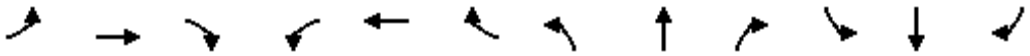
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	564	0	0	569	124	163	786	154	0	0	0
Future Volume (veh/h)	80	564	0	0	569	124	163	786	154	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	92	648	0	0	654	143	187	903	177			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	189	1328	0	0	814	178	422	2193	792			
Arrive On Green	0.08	0.76	0.00	0.00	0.29	0.29	0.51	0.51	0.51			
Sat Flow, veh/h	1753	3589	0	0	2946	623	831	4318	1560			
Grp Volume(v), veh/h	92	648	0	0	400	397	405	685	177			
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1729	1799	1675	1560			
Q Serve(g_s), s	0.0	5.7	0.0	0.0	17.0	17.0	11.4	10.1	5.0			
Cycle Q Clear(g_c), s	0.0	5.7	0.0	0.0	17.0	17.0	11.4	10.1	5.0			
Prop In Lane	1.00		0.00	0.00		0.36	0.46		1.00			
Lane Grp Cap(c), veh/h	189	1328	0	0	499	493	914	1701	792			
V/C Ratio(X)	0.49	0.49	0.00	0.00	0.80	0.80	0.44	0.40	0.22			
Avail Cap(c_a), veh/h	242	1771	0	0	667	659	914	1701	792			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.80	0.80	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	34.9	6.7	0.0	0.0	26.5	26.5	12.5	12.2	10.9			
Incr Delay (d2), s/veh	1.6	0.2	0.0	0.0	5.2	5.3	1.6	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	1.5	0.0	0.0	7.3	7.3	4.5	3.5	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	6.9	0.0	0.0	31.7	31.8	14.1	12.9	11.6			
LnGrp LOS	D	A	A	A	C	C	B	B	B			
Approach Vol, veh/h		740			797			1267				
Approach Delay, s/veh		10.6			31.8			13.1				
Approach LOS		B			C			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		45.1		34.9			7.5	27.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		30.5		40.5			5.5	30.5				
Max Q Clear Time (g_c+I1), s		13.4		7.7			2.0	19.0				
Green Ext Time (p_c), s		7.3		4.8			0.1	3.8				
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	391	112	397	675		
Future Volume (vph)	391	112	397	675		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	42.0	33.0	33.0	38.0	38.0	9.0
Total Split (%)	52.5%	41.3%	41.3%	47.5%	48%	11%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lag	Lag			Lead
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	30.2	21.2	21.2	40.8		
Actuated g/C Ratio	0.38	0.26	0.26	0.51		
v/c Ratio	0.48	0.62	0.51	0.59		
Control Delay	24.4	28.3	18.9	11.7		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	24.4	28.3	18.9	11.7		
LOS	C	C	B	B		
Approach Delay	24.4		20.9	11.7		
Approach LOS	C		C	B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





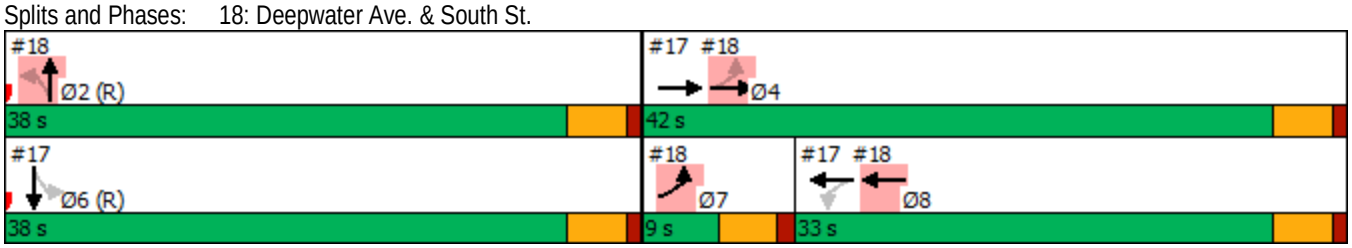
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	391	141	112	397	0	0	0	0	43	675	182
Future Volume (vph)	0	391	141	112	397	0	0	0	0	43	675	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.96		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3222		1736	3355						3358	
Flt Permitted		1.00		0.42	1.00						1.00	
Satd. Flow (perm)		3222		774	3355						3358	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	444	160	127	451	0	0	0	0	49	767	207
RTOR Reduction (vph)	0	54	0	0	0	0	0	0	0	0	24	0
Lane Group Flow (vph)	0	550	0	127	451	0	0	0	0	0	999	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		30.2		21.2	21.2						40.8	
Effective Green, g (s)		30.2		21.2	21.2						40.8	
Actuated g/C Ratio		0.38		0.26	0.26						0.51	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1216		205	889						1712	
v/s Ratio Prot		c0.17			0.13							
v/s Ratio Perm				c0.16							0.30	
v/c Ratio		0.45		0.62	0.51						0.58	
Uniform Delay, d1		18.7		25.9	25.0						13.7	
Progression Factor		1.52		0.63	0.71						0.74	
Incremental Delay, d2		0.3		5.2	0.4						1.0	
Delay (s)		28.7		21.4	18.0						11.1	
Level of Service		C		C	B						B	
Approach Delay (s)		28.7			18.8			0.0			11.1	
Approach LOS		C			B			A			B	

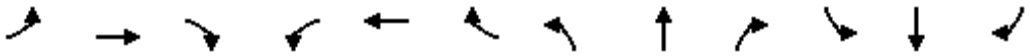
Intersection Summary			
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	123	289	377	606	
Future Volume (vph)	123	289	377	606	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	42.0	33.0	38.0	38.0
Total Split (%)	11.3%	52.5%	41.3%	47.5%	48%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.2	30.2	21.2	40.8	
Actuated g/C Ratio	0.38	0.38	0.26	0.51	
v/c Ratio	0.50	0.26	0.52	0.38	
Control Delay	11.6	3.7	25.6	13.1	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	11.6	3.7	25.6	13.1	
LOS	B	A	C	B	
Approach Delay		6.0	25.6	13.1	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





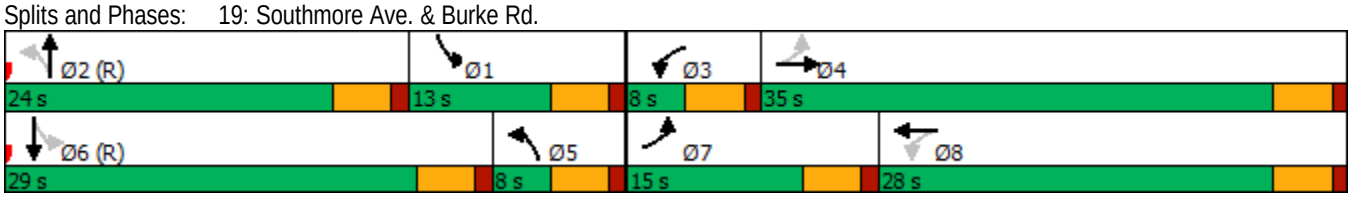
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	289	0	0	377	34	118	606	93	0	0	0
Future Volume (vph)	123	289	0	0	377	34	118	606	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.98				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3200			4543				
Flt Permitted	0.32	1.00			1.00			0.99				
Satd. Flow (perm)	552	3240			3200			4543				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	314	0	0	410	37	128	659	101	0	0	0
RTOR Reduction (vph)	0	0	0	0	10	0	0	17	0	0	0	0
Lane Group Flow (vph)	134	314	0	0	437	0	0	871	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	30.2	30.2			21.2			40.8				
Effective Green, g (s)	30.2	30.2			21.2			40.8				
Actuated g/C Ratio	0.38	0.38			0.26			0.51				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	268	1223			848			2316				
v/s Ratio Prot	c0.03	0.10			0.14							
v/s Ratio Perm	c0.16							0.19				
v/c Ratio	0.50	0.26			0.52			0.38				
Uniform Delay, d1	17.5	17.2			25.0			11.9				
Progression Factor	0.35	0.20			1.00			1.00				
Incremental Delay, d2	1.4	0.1			0.5			0.5				
Delay (s)	7.5	3.5			25.6			12.4				
Level of Service	A	A			C			B				
Approach Delay (s)		4.7			25.6			12.4			0.0	
Approach LOS		A			C			B			A	

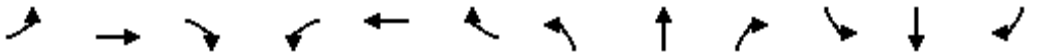
Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	126	353	38	401	48	198	151	216
Future Volume (vph)	126	353	38	401	48	198	151	216
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	35.0	8.0	28.0	8.0	24.0	13.0	29.0
Total Split (%)	18.8%	43.8%	10.0%	35.0%	10.0%	30.0%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	34.3	29.5	24.4	20.0	28.4	24.9	36.7	31.9
Actuated g/C Ratio	0.43	0.37	0.30	0.25	0.36	0.31	0.46	0.40
v/c Ratio	0.49	0.40	0.15	0.75	0.19	0.27	0.35	0.32
Control Delay	14.6	13.8	8.4	20.2	18.0	17.9	22.7	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	13.8	8.4	20.2	18.0	17.9	22.7	13.0
LOS	B	B	A	C	B	B	C	B
Approach Delay		14.0		19.4		18.0		15.8
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 15 (19%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	353	44	38	401	131	48	198	34	151	216	154
Future Volume (veh/h)	126	353	44	38	401	131	48	198	34	151	216	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	150	420	52	45	477	156	57	236	40	180	257	183
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	281	895	110	298	593	193	471	731	122	637	607	417
Arrive On Green	0.09	0.29	0.29	0.03	0.23	0.23	0.15	0.24	0.24	0.07	0.10	0.10
Sat Flow, veh/h	1753	3134	386	1753	2595	843	1753	2998	501	1753	1982	1362
Grp Volume(v), veh/h	150	233	239	45	320	313	57	136	140	180	226	214
Grp Sat Flow(s),veh/h/ln	1753	1749	1771	1753	1749	1689	1753	1749	1751	1753	1749	1596
Q Serve(g_s), s	4.9	8.8	8.9	1.6	13.8	14.0	0.0	5.1	5.3	0.0	9.7	10.1
Cycle Q Clear(g_c), s	4.9	8.8	8.9	1.6	13.8	14.0	0.0	5.1	5.3	0.0	9.7	10.1
Prop In Lane	1.00		0.22	1.00		0.50	1.00		0.29	1.00		0.85
Lane Grp Cap(c), veh/h	281	499	506	298	400	386	471	426	427	637	536	489
V/C Ratio(X)	0.53	0.47	0.47	0.15	0.80	0.81	0.12	0.32	0.33	0.28	0.42	0.44
Avail Cap(c_a), veh/h	362	667	675	325	514	496	471	426	427	637	536	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.67	0.67	0.67	0.85	0.85	0.85	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	21.1	23.6	23.6	22.8	29.1	29.2	22.6	24.8	24.9	23.4	29.3	29.5
Incr Delay (d2), s/veh	1.1	0.5	0.5	0.2	5.9	6.6	0.1	2.0	2.0	0.2	1.8	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.5	3.6	0.6	6.2	6.1	0.8	2.3	2.3	2.9	4.6	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.2	24.0	24.1	23.0	35.1	35.8	22.7	26.8	26.9	23.6	31.1	31.7
LnGrp LOS	C	C	C	C	D	D	C	C	C	C	C	C
Approach Vol, veh/h		622			678			333			620	
Approach Delay, s/veh		23.6			34.6			26.1			29.1	
Approach LOS		C			C			C			C	

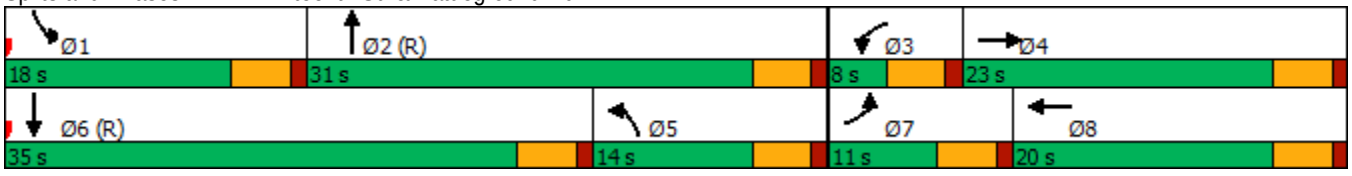
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	24.0	6.8	27.3	16.9	29.0	11.3	22.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	19.5	3.5	30.5	3.5	24.5	10.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	7.3	3.6	10.9	2.0	12.1	6.9	16.0
Green Ext Time (p_c), s	0.2	1.1	0.0	2.6	0.0	2.1	0.1	2.3

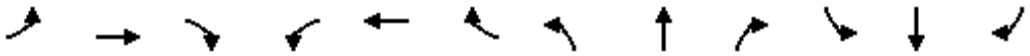
Intersection Summary	
HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	70	15	4	5	80	755	165	665
Future Volume (vph)	70	15	4	5	80	755	165	665
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	23.0	8.0	20.0	14.0	31.0	18.0	35.0
Total Split (%)	13.8%	28.8%	10.0%	25.0%	17.5%	38.8%	22.5%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.3	11.2	3.5	6.0	8.7	42.5	13.2	49.9
Actuated g/C Ratio	0.08	0.14	0.04	0.08	0.11	0.53	0.16	0.62
v/c Ratio	0.54	0.15	0.05	0.16	0.45	0.45	0.62	0.35
Control Delay	55.4	14.0	38.2	15.8	34.9	13.0	39.8	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.4	14.0	38.2	15.8	34.9	13.0	39.8	10.9
LOS	E	B	D	B	C	B	D	B
Approach Delay		35.1		17.8		15.0		16.4
Approach LOS		D		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 54 (68%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	15	52	4	5	34	80	755	18	165	665	38
Future Volume (veh/h)	70	15	52	4	5	34	80	755	18	165	665	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	16	55	4	5	36	85	803	19	176	707	40
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	189	168	7	101	90	494	1889	45	214	1283	73
Arrive On Green	0.05	0.11	0.11	0.00	0.06	0.06	0.28	0.54	0.54	0.12	0.38	0.38
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3492	83	1753	3365	190
Grp Volume(v), veh/h	74	16	55	4	5	36	85	402	420	176	367	380
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1826	1753	1749	1806
Q Serve(g_s), s	3.3	0.7	2.6	0.2	0.2	1.8	2.9	11.0	11.0	7.8	13.2	13.2
Cycle Q Clear(g_c), s	3.3	0.7	2.6	0.2	0.2	1.8	2.9	11.0	11.0	7.8	13.2	13.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.11
Lane Grp Cap(c), veh/h	95	189	168	7	101	90	494	946	988	214	667	689
V/C Ratio(X)	0.78	0.08	0.33	0.61	0.05	0.40	0.17	0.42	0.43	0.82	0.55	0.55
Avail Cap(c_a), veh/h	142	404	361	77	339	302	494	946	988	296	667	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	32.1	33.0	39.8	35.6	36.4	21.7	10.9	10.9	34.3	19.4	19.4
Incr Delay (d2), s/veh	14.2	0.2	1.1	68.0	0.2	2.8	0.2	1.4	1.3	12.2	3.3	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.3	1.0	0.2	0.1	0.7	1.1	3.8	4.0	3.8	5.3	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	32.3	34.1	107.8	35.8	39.2	21.8	12.3	12.3	46.5	22.6	22.6
LnGrp LOS	D	C	C	F	D	D	C	B	B	D	C	C
Approach Vol, veh/h		145			45			907			923	
Approach Delay, s/veh		42.8			44.9			13.2			27.1	
Approach LOS		D			D			B			C	

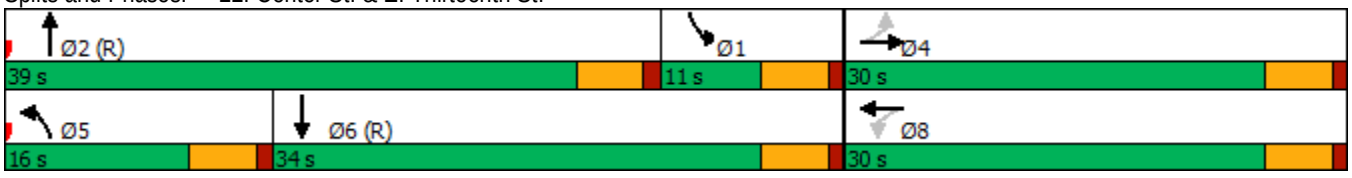
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	47.8	4.8	13.1	27.1	35.0	8.8	9.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	26.5	3.5	18.5	9.5	30.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	9.8	13.0	2.2	4.6	4.9	15.2	5.3	3.8
Green Ext Time (p_c), s	0.1	3.9	0.0	0.2	0.1	3.7	0.0	0.1

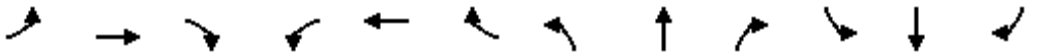
Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	142	145	307	230	239	1218	130	948
Future Volume (vph)	142	145	307	230	239	1218	130	948
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	30.0	30.0	30.0	30.0	16.0	39.0	11.0	34.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	20.0%	48.8%	13.8%	42.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.0	25.0	25.0	25.0	11.0	34.0	6.0	29.0
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.14	0.42	0.08	0.36
v/c Ratio	0.60	0.28	1.04	0.38	1.08	1.02	1.08	0.96
Control Delay	34.9	11.2	72.1	6.4	117.4	53.4	140.5	43.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	11.2	72.1	6.4	117.4	53.4	140.5	43.7
LOS	C	B	E	A	F	D	F	D
Approach Delay		19.1		35.1		62.8		53.8
Approach LOS		B		D		E		D

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 53 (66%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 50.5	Intersection LOS: D
Intersection Capacity Utilization 94.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	145	138	307	230	166	239	1218	171	130	948	168
Future Volume (veh/h)	142	145	138	307	230	166	239	1218	171	130	948	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	153	156	148	330	247	178	257	1310	184	140	1019	181
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	289	550	485	344	617	428	241	1310	183	131	1076	191
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.14	0.43	0.43	0.08	0.36	0.36
Sat Flow, veh/h	947	1760	1551	1058	1974	1369	1753	3082	430	1753	2968	526
Grp Volume(v), veh/h	153	155	149	330	218	207	257	739	755	140	600	600
Grp Sat Flow(s),veh/h/ln	947	1749	1562	1058	1749	1594	1753	1749	1763	1753	1749	1746
Q Serve(g_s), s	12.2	5.3	5.8	19.2	7.8	8.2	11.0	33.7	34.0	6.0	26.6	26.7
Cycle Q Clear(g_c), s	20.4	5.3	5.8	25.0	7.8	8.2	11.0	33.7	34.0	6.0	26.6	26.7
Prop In Lane	1.00		0.99	1.00		0.86	1.00		0.24	1.00		0.30
Lane Grp Cap(c), veh/h	289	546	488	344	546	498	241	743	749	131	634	633
V/C Ratio(X)	0.53	0.28	0.31	0.96	0.40	0.42	1.07	0.99	1.01	1.06	0.95	0.95
Avail Cap(c_a), veh/h	289	546	488	344	546	498	241	743	749	131	634	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	20.7	20.9	32.6	21.6	21.7	34.5	22.9	23.0	37.0	24.7	24.8
Incr Delay (d2), s/veh	1.8	0.3	0.4	28.8	0.3	0.4	38.2	8.8	11.6	96.9	24.7	25.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.1	2.1	9.1	3.1	3.0	7.0	13.9	14.7	6.0	14.2	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	21.0	21.3	61.4	21.9	22.1	72.7	31.7	34.6	133.9	49.4	49.9
LnGrp LOS	C	C	C	E	C	C	F	C	F	F	D	D
Approach Vol, veh/h		457			755			1751			1340	
Approach Delay, s/veh		24.6			39.2			39.0			58.5	
Approach LOS		C			D			D			E	

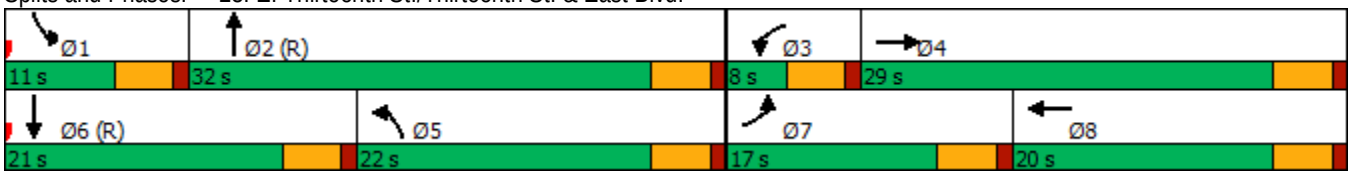
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	39.0		30.0	16.0	34.0		30.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	6.0	34.0		25.0	11.0	29.0		25.0				
Max Q Clear Time (g_c+I1), s	8.0	36.0		22.4	13.0	28.7		27.0				
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.2		0.0				

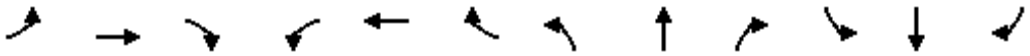
Intersection Summary												
HCM 6th Ctrl Delay			43.6									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	137	96	8	71	192	541	52	353
Future Volume (vph)	137	96	8	71	192	541	52	353
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	17.0	29.0	8.0	20.0	22.0	32.0	11.0	21.0
Total Split (%)	21.3%	36.3%	10.0%	25.0%	27.5%	40.0%	13.8%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.0	19.2	3.5	7.3	17.5	41.9	8.1	28.2
Actuated g/C Ratio	0.14	0.24	0.04	0.09	0.22	0.52	0.10	0.35
v/c Ratio	0.63	0.32	0.12	0.29	0.57	0.38	0.33	0.42
Control Delay	35.0	6.4	57.2	15.6	24.6	7.9	37.8	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	6.4	57.2	15.6	24.6	7.9	37.8	20.6
LOS	D	A	E	B	C	A	D	C
Approach Delay		16.5		19.2		11.9		22.3
Approach LOS		B		B		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 6 (8%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	96	159	8	71	14	192	541	76	52	353	107
Future Volume (veh/h)	137	96	159	8	71	14	192	541	76	52	353	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	105	175	9	78	15	211	595	84	57	388	118
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	187	282	252	14	184	34	700	1737	245	72	547	164
Arrive On Green	0.11	0.16	0.16	0.01	0.06	0.06	0.40	0.56	0.56	0.04	0.21	0.21
Sat Flow, veh/h	1753	1749	1560	1753	2940	551	1753	3078	434	1753	2650	796
Grp Volume(v), veh/h	151	105	175	9	46	47	211	337	342	57	254	252
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1742	1753	1749	1763	1753	1749	1697
Q Serve(g_s), s	6.7	4.3	8.5	0.4	2.0	2.1	6.6	8.3	8.4	2.6	10.8	11.0
Cycle Q Clear(g_c), s	6.7	4.3	8.5	0.4	2.0	2.1	6.6	8.3	8.4	2.6	10.8	11.0
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.25	1.00		0.47
Lane Grp Cap(c), veh/h	187	282	252	14	109	109	700	987	995	72	361	350
V/C Ratio(X)	0.81	0.37	0.69	0.65	0.42	0.44	0.30	0.34	0.34	0.79	0.71	0.72
Avail Cap(c_a), veh/h	274	536	478	77	339	337	700	987	995	142	361	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	29.9	31.7	39.6	36.1	36.1	16.4	9.4	9.4	38.0	29.5	29.6
Incr Delay (d2), s/veh	8.5	0.6	2.7	38.8	2.4	2.6	0.2	0.9	0.9	17.0	11.0	12.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.8	3.3	0.3	0.9	1.0	2.4	2.9	2.9	1.4	5.4	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	30.6	34.4	78.4	38.5	38.7	16.6	10.3	10.4	55.0	40.5	41.6
LnGrp LOS	D	C	C	E	D	D	B	B	B	E	D	D
Approach Vol, veh/h		431			102			890			563	
Approach Delay, s/veh		36.6			42.1			11.8			42.5	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	49.7	5.1	17.4	36.5	21.0	13.1	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	27.5	3.5	24.5	17.5	16.5	12.5	15.5
Max Q Clear Time (g_c+I1), s	4.6	10.4	2.4	10.5	8.6	13.0	8.7	4.1
Green Ext Time (p_c), s	0.0	3.6	0.0	1.4	0.4	0.9	0.1	0.3

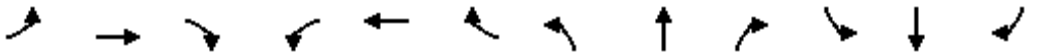
Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	292	109	419	312	131	93	119
Future Volume (vph)	6	292	109	419	312	131	93	119
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	27.0	27.0	53.0	53.0	53.0	53.0
Total Split (%)	33.8%	33.8%	33.8%	33.8%	66.3%	66.3%	66.3%	66.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	21.7	21.7	21.7	21.7		49.3		49.3
Actuated g/C Ratio	0.27	0.27	0.27	0.27		0.62		0.62
v/c Ratio	0.07	0.58	0.95	0.70		0.91		0.39
Control Delay	27.7	25.5	91.1	22.9		33.8		9.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	27.7	25.5	91.1	22.9		33.8		9.8
LOS	C	C	F	C		C		A
Approach Delay		25.5		34.6		33.8		9.8
Approach LOS		C		C		C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 63 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 79.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	292	159	109	419	104	312	131	102	93	119	13
Future Volume (veh/h)	6	292	159	109	419	104	312	131	102	93	119	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	8	370	201	138	530	132	395	166	129	118	151	16
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	619	331	200	781	194	549	201	156	396	486	49
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	761	2201	1177	828	2777	689	788	331	257	548	802	80
Grp Volume(v), veh/h	8	293	278	138	333	329	690	0	0	285	0	0
Grp Sat Flow(s),veh/h/ln	761	1749	1629	828	1749	1717	1377	0	0	1430	0	0
Q Serve(g_s), s	0.8	11.6	11.8	10.7	13.5	13.6	24.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.4	11.6	11.8	22.5	13.5	13.6	31.6	0.0	0.0	7.0	0.0	0.0
Prop In Lane	1.00		0.72	1.00		0.40	0.57		0.19	0.41		0.06
Lane Grp Cap(c), veh/h	174	492	458	200	492	483	906	0	0	931	0	0
V/C Ratio(X)	0.05	0.60	0.61	0.69	0.68	0.68	0.76	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	174	492	458	200	492	483	906	0	0	931	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.87	0.87	0.87	0.78	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.0	24.8	24.9	35.7	25.5	25.6	12.4	0.0	0.0	7.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.6	1.9	8.4	3.2	3.4	4.8	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.8	4.6	3.1	5.8	5.8	9.3	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	26.4	26.8	44.1	28.7	29.0	17.1	0.0	0.0	8.3	0.0	0.0
LnGrp LOS	C	C	C	D	C	C	B	A	A	A	A	A
Approach Vol, veh/h		579			800			690			285	
Approach Delay, s/veh		26.7			31.5			17.1			8.3	
Approach LOS		C			C			B			A	

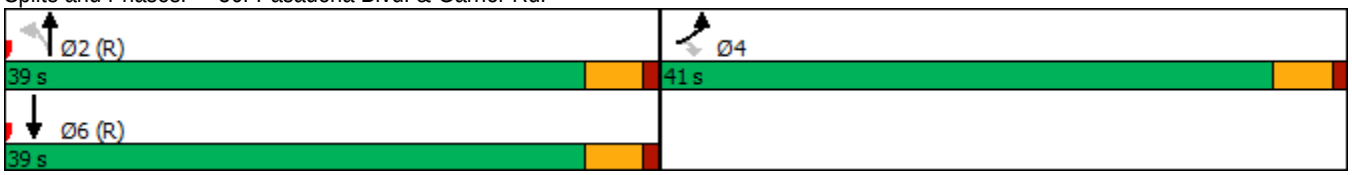
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.0		27.0		53.0		27.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		48.5		22.5		48.5		22.5				
Max Q Clear Time (g_c+I1), s		33.6		16.4		9.0		24.5				
Green Ext Time (p_c), s		4.7		1.9		2.1		0.0				

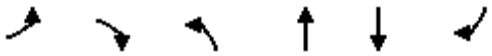
Intersection Summary												
HCM 6th Ctrl Delay			23.3									
HCM 6th LOS			C									

Lane Group	Ø2	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	2	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0
Total Split (%)	49%	51%	49%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	2	2	0	3301	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1560	0	3681	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1560	0	1749	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	2	2	0	3301	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	800	712	0	3301	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0			0	0	
Approach Delay, s/veh	0.0			0.0	0.0	
Approach LOS						

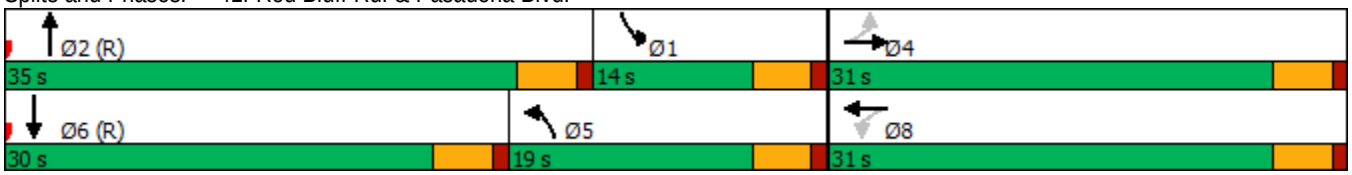
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		34.5		36.5		34.5
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0
Green Ext Time (p_c), s		0.0		0.0		0.0

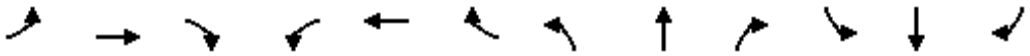
Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	334	14	443	143	835	98	637
Future Volume (vph)	334	14	443	143	835	98	637
Turn Type	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8					
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	31.0	31.0	31.0	19.0	35.0	14.0	30.0
Total Split (%)	38.8%	38.8%	38.8%	23.8%	43.8%	17.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lead	Lag	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	23.0		23.0	13.0	36.9	8.7	30.5
Actuated g/C Ratio	0.29		0.29	0.16	0.46	0.11	0.38
v/c Ratio	0.51		0.80	0.58	0.62	0.58	0.55
Control Delay	15.8		29.1	43.4	15.4	46.5	22.7
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	15.8		29.1	43.4	15.4	46.5	22.7
LOS	B		C	D	B	D	C
Approach Delay	15.8		29.1		19.4		25.8
Approach LOS	B		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 17 (21%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	334	109	14	443	222	143	835	28	98	637	11
Future Volume (veh/h)	0	334	109	14	443	222	143	835	28	98	637	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	371	121	16	492	247	159	928	0	109	708	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	714	230	55	599	295	418	1333		308	1115	
Arrive On Green	0.00	0.27	0.27	0.27	0.27	0.27	0.24	0.38	0.00	0.18	0.32	0.00
Sat Flow, veh/h	0	2694	837	30	2185	1076	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	0	248	244	415	0	340	159	928	0	109	708	0
Grp Sat Flow(s),veh/h/ln	0	1749	1690	1809	0	1481	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	9.6	9.8	4.7	0.0	17.3	6.1	17.9	0.0	4.4	13.8	0.0
Cycle Q Clear(g_c), s	0.0	9.6	9.8	17.1	0.0	17.3	6.1	17.9	0.0	4.4	13.8	0.0
Prop In Lane	0.00		0.50	0.04		0.73	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	480	464	543	0	406	418	1333		308	1115	
V/C Ratio(X)	0.00	0.52	0.53	0.76	0.00	0.84	0.38	0.70		0.35	0.64	
Avail Cap(c_a), veh/h	0	579	560	644	0	491	418	1333		308	1115	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	24.5	24.6	27.2	0.0	27.3	25.5	20.8	0.0	29.0	23.3	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.9	4.6	0.0	10.3	0.6	3.0	0.0	0.7	2.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	3.8	7.5	0.0	6.8	2.5	7.4	0.0	1.9	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.4	25.6	31.8	0.0	37.7	26.1	23.9	0.0	29.7	26.0	0.0
LnGrp LOS	A	C	C	C	A	D	C	C		C	C	
Approach Vol, veh/h		492			755			1087	A		817	A
Approach Delay, s/veh		25.5			34.4			24.2			26.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.6	35.0		26.4	23.6	30.0		26.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	30.5		26.5	14.5	25.5		26.5				
Max Q Clear Time (g_c+I1), s	6.4	19.9		11.8	8.1	15.8		19.3				
Green Ext Time (p_c), s	0.1	4.7		2.4	0.2	3.4		2.6				

Intersection Summary			
HCM 6th Ctrl Delay		27.5	
HCM 6th LOS		C	

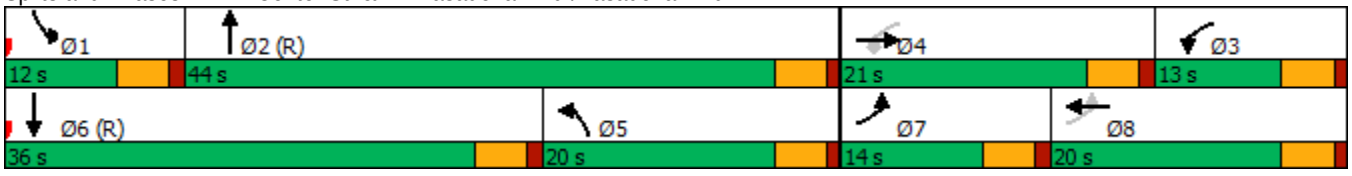
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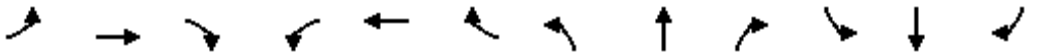
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	248	357	302	263	439	260	1381	164	980
Future Volume (vph)	248	357	302	263	439	260	1381	164	980
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4					
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	21.0	21.0	13.0	20.0	20.0	44.0	12.0	36.0
Total Split (%)	15.6%	23.3%	23.3%	14.4%	22.2%	22.2%	48.9%	13.3%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.0	14.9	14.9	25.0	15.5	15.5	39.5	7.5	31.5
Actuated g/C Ratio	0.28	0.17	0.17	0.28	0.17	0.17	0.44	0.08	0.35
v/c Ratio	1.05	0.67	0.62	0.94	1.14	0.97	1.14	1.22	0.93
Control Delay	98.4	41.2	9.5	75.7	109.8	85.8	99.0	184.7	42.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.4	41.2	9.5	75.7	109.8	85.8	99.0	184.7	42.3
LOS	F	D	A	E	F	F	F	F	D
Approach Delay		46.3			100.9		97.1		61.7
Approach LOS		D			F		F		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 79.9	Intersection LOS: E
Intersection Capacity Utilization 108.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	357	302	263	439	307	260	1381	170	164	980	62
Future Volume (veh/h)	248	357	302	263	439	307	260	1381	170	164	980	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	267	384	325	283	472	330	280	1485	183	176	1054	67
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	265	641	286	306	339	236	302	1377	168	146	1169	74
Arrive On Green	0.11	0.18	0.18	0.09	0.17	0.17	0.17	0.44	0.44	0.08	0.35	0.35
Sat Flow, veh/h	1753	3497	1560	1753	1970	1372	1753	3138	383	1753	3339	212
Grp Volume(v), veh/h	267	384	325	283	419	383	280	820	848	176	552	569
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1594	1753	1749	1772	1753	1749	1803
Q Serve(g_s), s	9.5	9.1	16.5	7.1	15.5	15.5	14.2	39.5	39.5	7.5	27.0	27.0
Cycle Q Clear(g_c), s	9.5	9.1	16.5	7.1	15.5	15.5	14.2	39.5	39.5	7.5	27.0	27.0
Prop In Lane	1.00		1.00	1.00		0.86	1.00		0.22	1.00		0.12
Lane Grp Cap(c), veh/h	265	641	286	306	301	274	302	767	778	146	612	631
V/C Ratio(X)	1.01	0.60	1.14	0.93	1.39	1.40	0.93	1.07	1.09	1.20	0.90	0.90
Avail Cap(c_a), veh/h	265	641	286	306	301	274	302	767	778	146	612	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.44	0.44	0.44	0.23	0.23	0.23	0.14	0.14	0.14
Uniform Delay (d), s/veh	30.9	33.7	36.8	37.6	37.3	37.3	36.7	25.3	25.3	41.3	27.8	27.8
Incr Delay (d2), s/veh	57.2	1.5	95.2	18.4	184.6	188.0	11.5	37.9	46.1	101.4	3.5	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	3.8	13.5	7.0	21.8	20.1	6.7	22.7	24.8	7.3	11.2	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.0	35.3	131.9	56.0	221.9	225.2	48.2	63.2	71.3	142.6	31.3	31.2
LnGrp LOS	F	D	F	E	F	F	D	F	F	F	C	C
Approach Vol, veh/h		976			1085			1948			1297	
Approach Delay, s/veh		81.9			179.8			64.6			46.4	
Approach LOS		F			F			E			D	

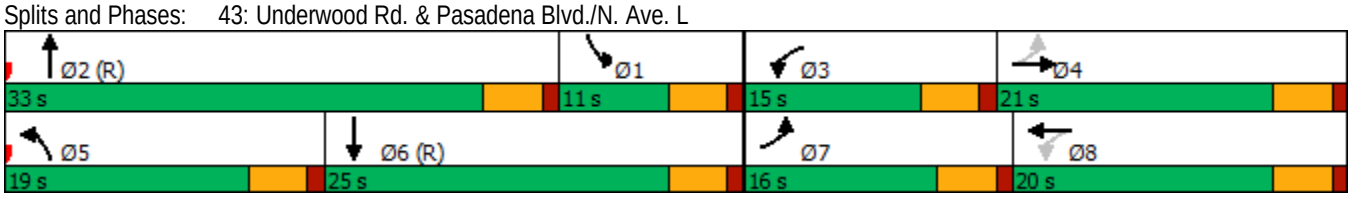
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	44.0	13.0	21.0	20.0	36.0	14.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	39.5	8.5	16.5	15.5	31.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	9.5	41.5	9.1	18.5	16.2	29.0	11.5	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0

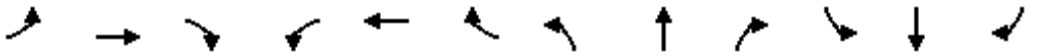
Intersection Summary	
HCM 6th Ctrl Delay	86.9
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	229	188	198	189	180	755	50	521
Future Volume (vph)	229	188	198	189	180	755	50	521
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	21.0	15.0	20.0	19.0	33.0	11.0	25.0
Total Split (%)	20.0%	26.3%	18.8%	25.0%	23.8%	41.3%	13.8%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	23.4	12.2	21.4	11.1	13.8	37.5	6.3	25.8
Actuated g/C Ratio	0.29	0.15	0.27	0.14	0.17	0.47	0.08	0.32
v/c Ratio	0.80	0.65	0.74	0.64	0.71	0.65	0.43	0.64
Control Delay	36.4	24.3	33.6	20.4	44.9	20.7	33.6	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	24.3	33.6	20.4	44.9	20.7	33.6	18.2
LOS	D	C	C	C	D	C	C	B
Approach Delay		28.9		25.4		24.8		19.4
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	188	185	198	189	130	180	755	138	50	521	79
Future Volume (veh/h)	229	188	185	198	189	130	180	755	138	50	521	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	269	221	218	233	222	153	212	888	162	59	613	93
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	391	299	267	354	320	211	252	1052	192	204	1003	152
Arrive On Green	0.14	0.17	0.17	0.13	0.16	0.16	0.14	0.36	0.36	0.12	0.33	0.33
Sat Flow, veh/h	1753	1749	1560	1753	2018	1332	1753	2954	539	1753	3045	461
Grp Volume(v), veh/h	269	221	218	233	191	184	212	526	524	59	351	355
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1601	1753	1749	1744	1753	1749	1758
Q Serve(g_s), s	10.1	9.6	10.8	8.7	8.3	8.7	9.4	22.1	22.1	2.5	13.5	13.6
Cycle Q Clear(g_c), s	10.1	9.6	10.8	8.7	8.3	8.7	9.4	22.1	22.1	2.5	13.5	13.6
Prop In Lane	1.00		1.00	1.00		0.83	1.00		0.31	1.00		0.26
Lane Grp Cap(c), veh/h	391	299	267	354	277	254	252	623	621	204	576	579
V/C Ratio(X)	0.69	0.74	0.82	0.66	0.69	0.72	0.84	0.84	0.84	0.29	0.61	0.61
Avail Cap(c_a), veh/h	391	361	322	354	339	310	318	623	621	204	576	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.14	0.14	0.14	0.99	0.99	0.99	0.41	0.41	0.41	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	31.5	32.0	24.1	31.8	32.0	33.4	23.7	23.7	32.3	22.5	22.5
Incr Delay (d2), s/veh	0.7	0.9	2.0	4.4	4.4	6.4	6.8	5.9	5.9	0.8	4.8	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.0	4.0	3.7	3.6	3.6	4.2	8.9	8.9	1.0	5.8	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	32.4	34.0	28.4	36.2	38.4	40.2	29.6	29.6	33.1	27.3	27.3
LnGrp LOS	C	C	C	C	D	D	D	C	C	C	C	C
Approach Vol, veh/h		708			608			1262			765	
Approach Delay, s/veh		29.8			33.9			31.4			27.8	
Approach LOS		C			C			C			C	

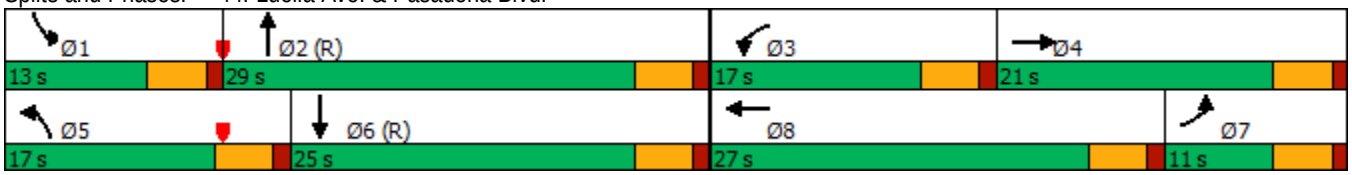
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	33.0	15.0	18.2	16.0	30.8	16.0	17.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	28.5	10.5	16.5	14.5	20.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	4.5	24.1	10.7	12.8	11.4	15.6	12.1	10.7
Green Ext Time (p_c), s	0.0	2.3	0.0	0.9	0.2	1.8	0.0	0.8

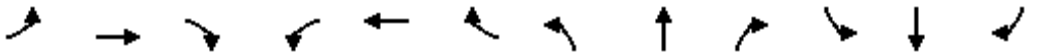
Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	70	484	145	655	141	149	86	132
Future Volume (vph)	70	484	145	655	141	149	86	132
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	11.0	21.0	17.0	27.0	17.0	29.0	13.0	25.0
Total Split (%)	13.8%	26.3%	21.3%	33.8%	21.3%	36.3%	16.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.4	16.7	11.3	23.7	11.2	28.2	8.0	22.8
Actuated g/C Ratio	0.08	0.21	0.14	0.30	0.14	0.35	0.10	0.28
v/c Ratio	0.58	0.88	0.68	0.86	0.67	0.59	0.58	0.55
Control Delay	53.5	45.6	36.0	30.2	47.6	33.0	38.5	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	45.6	36.0	30.2	47.6	33.0	38.5	18.3
LOS	D	D	D	C	D	C	D	B
Approach Delay		46.5		31.1		37.4		23.5
Approach LOS		D		C		D		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 22 (28%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 35.4	Intersection LOS: D
Intersection Capacity Utilization 69.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	484	72	145	655	113	141	149	180	86	132	117
Future Volume (veh/h)	70	484	72	145	655	113	141	149	180	86	132	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	80	556	83	167	753	130	162	171	207	99	152	134
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	102	665	99	204	823	142	199	279	338	126	295	260
Arrive On Green	0.06	0.22	0.22	0.12	0.28	0.28	0.11	0.37	0.37	0.07	0.33	0.33
Sat Flow, veh/h	1753	3053	454	1753	2982	515	1753	758	918	1753	902	795
Grp Volume(v), veh/h	80	318	321	167	441	442	162	0	378	99	0	286
Grp Sat Flow(s),veh/h/ln	1753	1749	1759	1753	1749	1748	1753	0	1676	1753	0	1698
Q Serve(g_s), s	3.6	13.9	14.0	7.4	19.6	19.6	7.2	0.0	14.7	4.4	0.0	10.9
Cycle Q Clear(g_c), s	3.6	13.9	14.0	7.4	19.6	19.6	7.2	0.0	14.7	4.4	0.0	10.9
Prop In Lane	1.00		0.26	1.00		0.29	1.00		0.55	1.00		0.47
Lane Grp Cap(c), veh/h	102	381	383	204	483	483	199	0	618	126	0	555
V/C Ratio(X)	0.78	0.83	0.84	0.82	0.91	0.92	0.81	0.00	0.61	0.78	0.00	0.52
Avail Cap(c_a), veh/h	142	381	383	274	492	492	274	0	618	186	0	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.42	0.42	0.42	0.09	0.09	0.09	0.86	0.00	0.86	0.79	0.00	0.79
Uniform Delay (d), s/veh	37.2	29.9	29.9	34.5	28.0	28.1	34.6	0.0	20.6	36.5	0.0	21.8
Incr Delay (d2), s/veh	7.7	6.8	7.0	1.4	2.8	2.8	10.8	0.0	3.9	9.9	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.2	6.3	3.1	7.9	7.9	3.6	0.0	6.1	2.2	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	36.7	36.9	35.9	30.9	30.9	45.4	0.0	24.5	46.4	0.0	24.5
LnGrp LOS	D	D	D	D	C	C	D	A	C	D	A	C
Approach Vol, veh/h		719			1050			540			385	
Approach Delay, s/veh		37.7			31.7			30.7			30.1	
Approach LOS		D			C			C			C	

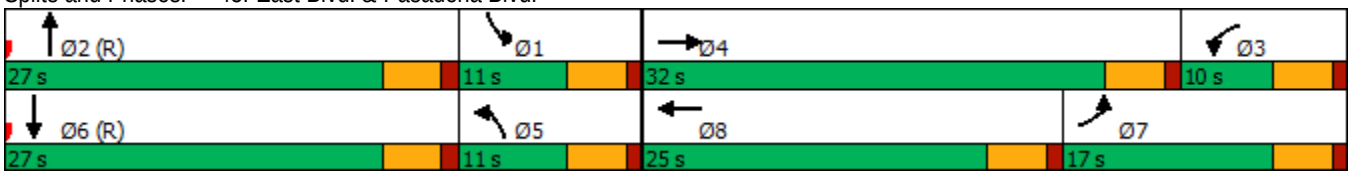
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	34.0	13.8	21.9	13.6	30.7	9.2	26.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	24.5	12.5	16.5	12.5	20.5	6.5	22.5
Max Q Clear Time (g_c+I1), s	6.4	16.7	9.4	16.0	9.2	12.9	5.6	21.6
Green Ext Time (p_c), s	0.0	1.5	0.1	0.2	0.1	0.9	0.0	0.5

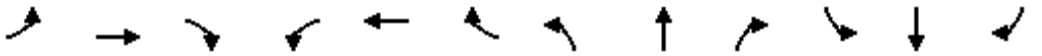
Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	215	335	65	317	117	636	117	733
Future Volume (vph)	215	335	65	317	117	636	117	733
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	9.5	20.0	8.0	20.0	8.0	20.0
Total Split (s)	17.0	32.0	10.0	25.0	11.0	27.0	11.0	27.0
Total Split (%)	21.3%	40.0%	12.5%	31.3%	13.8%	33.8%	13.8%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.5	29.5	5.5	20.5	6.5	22.5	6.5	22.5
Actuated g/C Ratio	0.16	0.37	0.07	0.26	0.08	0.28	0.08	0.28
v/c Ratio	0.91	0.98	0.63	1.05	0.95	0.92	0.95	1.02
Control Delay	52.9	45.6	55.2	86.9	89.5	40.2	108.4	67.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	45.6	55.2	86.9	89.5	40.2	108.4	67.6
LOS	D	D	E	F	F	D	F	E
Approach Delay		47.6		82.7		46.6		72.4
Approach LOS		D		F		D		E

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 8 (10%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 60.6	Intersection LOS: E
Intersection Capacity Utilization 88.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	335	231	65	317	109	117	636	138	117	733	130
Future Volume (veh/h)	215	335	231	65	317	109	117	636	138	117	733	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	247	385	266	75	364	125	134	731	159	134	843	149
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	274	349	241	121	336	115	142	803	175	142	835	148
Arrive On Green	0.16	0.34	0.34	0.07	0.26	0.26	0.08	0.28	0.28	0.08	0.28	0.28
Sat Flow, veh/h	1753	1014	701	1753	1310	450	1753	2856	621	1753	2970	525
Grp Volume(v), veh/h	247	0	651	75	0	489	134	447	443	134	496	496
Grp Sat Flow(s),veh/h/ln	1753	0	1715	1753	0	1760	1753	1749	1729	1753	1749	1746
Q Serve(g_s), s	11.1	0.0	27.5	3.3	0.0	20.5	6.1	19.8	19.8	6.1	22.5	22.5
Cycle Q Clear(g_c), s	11.1	0.0	27.5	3.3	0.0	20.5	6.1	19.8	19.8	6.1	22.5	22.5
Prop In Lane	1.00		0.41	1.00		0.26	1.00		0.36	1.00		0.30
Lane Grp Cap(c), veh/h	274	0	589	121	0	451	142	492	486	142	492	491
V/C Ratio(X)	0.90	0.00	1.10	0.62	0.00	1.08	0.94	0.91	0.91	0.94	1.01	1.01
Avail Cap(c_a), veh/h	274	0	589	121	0	451	142	492	486	142	492	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.43	0.00	0.43	0.69	0.00	0.69	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	0.0	26.3	36.2	0.0	29.8	36.6	27.8	27.8	36.6	28.8	28.8
Incr Delay (d2), s/veh	16.1	0.0	58.2	6.7	0.0	60.3	47.3	18.3	18.5	57.6	42.9	42.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	19.4	1.6	0.0	15.4	4.3	9.8	9.8	4.7	14.2	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	0.0	84.5	42.9	0.0	90.0	83.8	46.1	46.3	94.2	71.6	71.7
LnGrp LOS	D	A	F	D	A	F	F	D	D	F	F	F
Approach Vol, veh/h		898			564			1024			1126	
Approach Delay, s/veh		74.8			83.8			51.1			74.3	
Approach LOS		E			F			D			E	

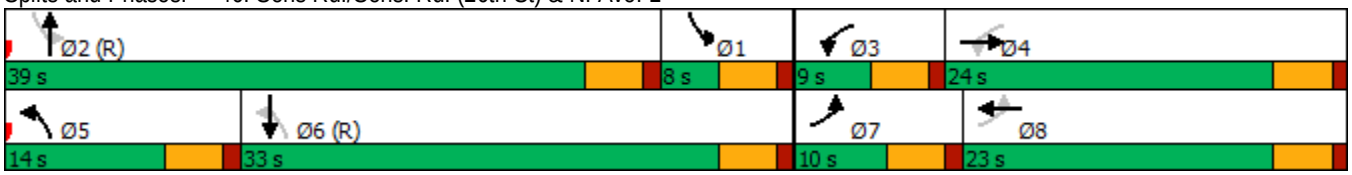
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	27.0	10.0	32.0	11.0	27.0	17.0	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.5	5.5	27.5	6.5	22.5	12.5	20.5
Max Q Clear Time (g_c+I1), s	8.1	21.8	5.3	29.5	8.1	24.5	13.1	22.5
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

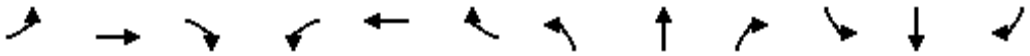
Intersection Summary	
HCM 6th Ctrl Delay	69.3
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	75	3	8	0	119	466	404	
Future Volume (vph)	75	3	8	0	119	466	404	
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	NA	
Protected Phases	7	4	3	8	5	2	6	1
Permitted Phases	8		4		6			
Detector Phase	7	4	3	8	5	2	6	
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0
Total Split (s)	10.0	24.0	9.0	23.0	14.0	39.0	33.0	8.0
Total Split (%)	12.5%	30.0%	11.3%	28.8%	17.5%	48.8%	41.3%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	7.7	6.8	7.5	6.2	60.8	65.3	55.7	
Actuated g/C Ratio	0.10	0.08	0.09	0.08	0.76	0.82	0.70	
v/c Ratio	0.49	0.44	0.06	0.01	0.18	0.19	0.21	
Control Delay	37.5	14.4	29.1	0.0	2.9	2.5	7.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	37.5	14.4	29.1	0.0	2.9	2.5	7.0	
LOS	D	B	C	A	A	A	A	
Approach Delay		25.2		21.8		2.6	7.0	
Approach LOS		C		C		A	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 56 (70%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 7.3	Intersection LOS: A
Intersection Capacity Utilization 47.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	3	83	8	0	3	119	466	9	0	404	38
Future Volume (veh/h)	75	3	83	8	0	3	119	466	9	0	404	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	83	3	92	9	0	3	132	518	10	0	449	42
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	268	5	162	167	0	88	666	1513	29	778	1969	183
Arrive On Green	0.06	0.11	0.11	0.01	0.00	0.06	0.05	0.43	0.43	0.00	0.61	0.61
Sat Flow, veh/h	1753	49	1518	1753	0	1560	1753	3510	68	1753	3234	301
Grp Volume(v), veh/h	83	0	95	9	0	3	132	258	270	0	242	249
Grp Sat Flow(s),veh/h/ln	1753	0	1567	1753	0	1560	1753	1749	1829	1753	1749	1786
Q Serve(g_s), s	3.5	0.0	4.6	0.4	0.0	0.1	2.2	7.9	7.9	0.0	5.0	5.1
Cycle Q Clear(g_c), s	3.5	0.0	4.6	0.4	0.0	0.1	2.2	7.9	7.9	0.0	5.0	5.1
Prop In Lane	1.00		0.97	1.00		1.00	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	268	0	167	167	0	88	666	754	789	778	1065	1088
V/C Ratio(X)	0.31	0.00	0.57	0.05	0.00	0.03	0.20	0.34	0.34	0.00	0.23	0.23
Avail Cap(c_a), veh/h	287	0	382	252	0	361	784	754	789	778	1065	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.00	0.74	1.00	0.00	1.00	0.86	0.86	0.86	0.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	0.0	34.0	31.6	0.0	35.7	5.2	15.2	15.2	0.0	7.1	7.1
Incr Delay (d2), s/veh	0.5	0.0	2.2	0.1	0.0	0.2	0.1	1.1	1.0	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.8	0.2	0.0	0.1	0.6	3.0	3.2	0.0	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	36.2	31.8	0.0	35.8	5.3	16.2	16.2	0.0	7.6	7.6
LnGrp LOS	C	A	D	C	A	D	A	B	B	A	A	A
Approach Vol, veh/h		178			12			660			491	
Approach Delay, s/veh		34.9			32.8			14.0			7.6	
Approach LOS		C			C			B			A	

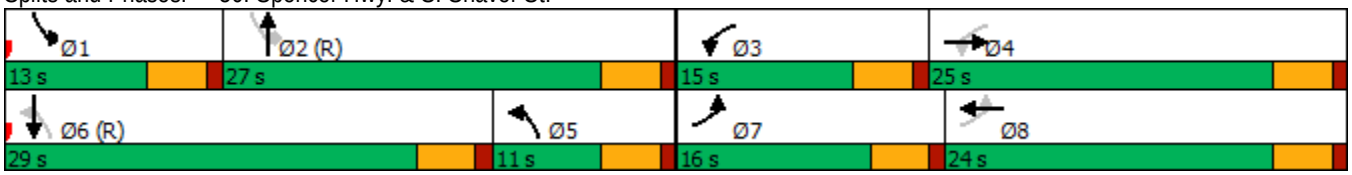
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.8	39.0	5.1	13.0	8.6	53.2	9.1	9.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	34.5	4.5	19.5	9.5	28.5	5.5	18.5
Max Q Clear Time (g_c+I1), s	0.0	9.9	2.4	6.6	4.2	7.1	5.5	2.1
Green Ext Time (p_c), s	0.0	3.0	0.0	0.3	0.1	2.7	0.0	0.0

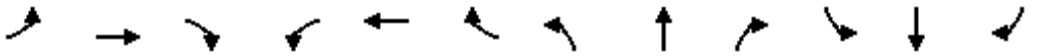
Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	187	841	155	899	109	488	187	159	472
Future Volume (vph)	187	841	155	899	109	488	187	159	472
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	16.0	25.0	15.0	24.0	11.0	27.0	27.0	13.0	29.0
Total Split (%)	20.0%	31.3%	18.8%	30.0%	13.8%	33.8%	33.8%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	31.0	21.4	31.0	20.4	31.9	22.7	22.7	31.0	26.7
Actuated g/C Ratio	0.39	0.27	0.39	0.26	0.40	0.28	0.28	0.39	0.33
v/c Ratio	0.69	0.81	0.61	0.93	0.53	0.60	0.38	0.56	0.69
Control Delay	27.7	33.1	16.0	35.7	24.2	21.0	5.3	16.3	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	33.1	16.0	35.7	24.2	21.0	5.3	16.3	15.3
LOS	C	C	B	D	C	C	A	B	B
Approach Delay		32.2		33.0		17.7			15.5
Approach LOS		C		C		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 71 (89%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 76.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	841	74	155	899	104	109	488	187	159	472	218
Future Volume (veh/h)	187	841	74	155	899	104	109	488	187	159	472	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	220	989	87	182	1058	122	128	574	220	187	555	256
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	302	1236	109	297	1114	128	337	1118	499	380	712	328
Arrive On Green	0.12	0.26	0.26	0.03	0.08	0.08	0.11	0.32	0.32	0.09	0.31	0.31
Sat Flow, veh/h	1753	4704	413	1753	4570	526	1753	3497	1560	1753	2326	1071
Grp Volume(v), veh/h	220	704	372	182	775	405	128	574	220	187	417	394
Grp Sat Flow(s),veh/h/ln	1753	1675	1766	1753	1675	1746	1753	1749	1560	1753	1749	1648
Q Serve(g_s), s	7.3	15.7	15.7	5.9	18.4	18.5	0.0	10.7	8.9	5.6	17.4	17.4
Cycle Q Clear(g_c), s	7.3	15.7	15.7	5.9	18.4	18.5	0.0	10.7	8.9	5.6	17.4	17.4
Prop In Lane	1.00		0.23	1.00		0.30	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	302	880	464	297	817	426	337	1118	499	380	536	505
V/C Ratio(X)	0.73	0.80	0.80	0.61	0.95	0.95	0.38	0.51	0.44	0.49	0.78	0.78
Avail Cap(c_a), veh/h	348	880	464	354	817	426	337	1118	499	402	536	505
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	27.5	27.5	22.0	36.3	36.3	30.2	22.1	21.5	16.4	25.3	25.3
Incr Delay (d2), s/veh	5.1	4.2	7.8	1.7	16.5	26.1	0.7	1.7	2.8	1.0	10.7	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	6.3	7.1	2.5	10.0	11.6	2.2	4.5	3.4	2.2	8.4	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	31.7	35.3	23.7	52.8	62.4	31.0	23.8	24.4	17.4	36.0	36.7
LnGrp LOS	C	C	D	C	D	E	C	C	C	B	D	D
Approach Vol, veh/h		1296			1362			922			998	
Approach Delay, s/veh		31.8			51.8			24.9			32.8	
Approach LOS		C			D			C			C	

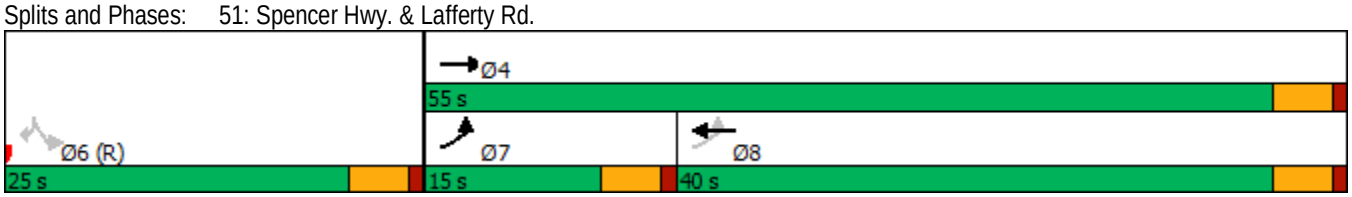
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	30.1	12.4	25.5	13.1	29.0	13.9	24.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	22.5	10.5	20.5	6.5	24.5	11.5	19.5
Max Q Clear Time (g_c+I1), s	7.6	12.7	7.9	17.7	2.0	19.4	9.3	20.5
Green Ext Time (p_c), s	0.0	3.3	0.1	1.7	0.1	2.3	0.1	0.0

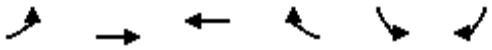
Intersection Summary	
HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	85	1114	1089	138	100
Future Volume (vph)	85	1114	1089	138	100
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	55.0	40.0	25.0	25.0
Total Split (%)	18.8%	68.8%	50.0%	31.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	38.9	42.5	32.4	28.5	28.5
Actuated g/C Ratio	0.49	0.53	0.40	0.36	0.36
v/c Ratio	0.40	0.49	0.71	0.26	0.19
Control Delay	9.5	7.7	20.8	23.0	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	7.7	20.8	23.0	5.9
LOS	A	A	C	C	A
Approach Delay		7.8	20.8	15.8	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 4 (5%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 51.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





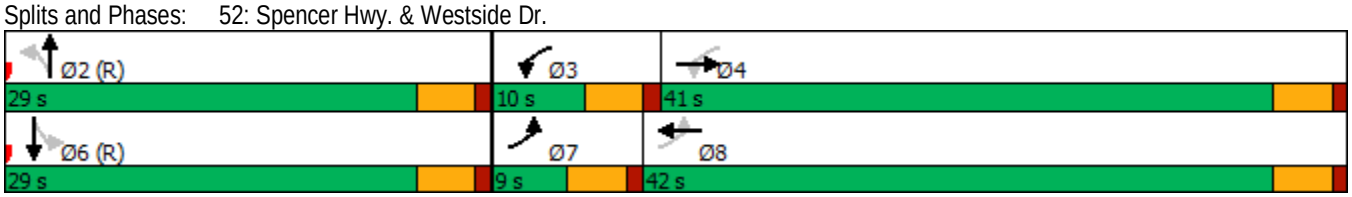
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	85	1114	1089	128	138	100
Future Volume (vph)	85	1114	1089	128	138	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4745		1678	1501
Flt Permitted	0.12	1.00	1.00		0.95	1.00
Satd. Flow (perm)	218	4821	4745		1678	1501
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	97	1266	1238	145	157	114
RTOR Reduction (vph)	0	0	19	0	0	75
Lane Group Flow (vph)	97	1266	1364	0	157	39
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	38.8	43.3	32.4		27.7	27.7
Effective Green, g (s)	38.8	43.3	32.4		27.7	27.7
Actuated g/C Ratio	0.48	0.54	0.40		0.35	0.35
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	222	2609	1921		581	519
v/s Ratio Prot	0.03	c0.26	c0.29			
v/s Ratio Perm	0.18				c0.09	0.03
v/c Ratio	0.44	0.49	0.71		0.27	0.08
Uniform Delay, d1	12.9	11.4	19.9		18.9	17.6
Progression Factor	0.67	0.62	1.03		1.00	1.00
Incremental Delay, d2	1.2	0.1	0.6		1.1	0.3
Delay (s)	9.9	7.1	21.2		20.0	17.8
Level of Service	A	A	C		C	B
Approach Delay (s)		7.3	21.2		19.1	
Approach LOS		A	C		B	

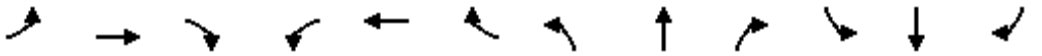
Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	1065	32	1093	33	52	85	47
Future Volume (vph)	10	1065	32	1093	33	52	85	47
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	41.0	10.0	42.0	29.0	29.0	29.0	29.0
Total Split (%)	11.3%	51.3%	12.5%	52.5%	36.3%	36.3%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	35.9	30.8	34.1	35.0		34.2		34.2
Actuated g/C Ratio	0.45	0.38	0.43	0.44		0.43		0.43
v/c Ratio	0.06	0.65	0.16	0.62		0.22		0.26
Control Delay	4.5	12.5	3.2	3.8		14.2		21.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	4.5	12.5	3.2	3.8		14.2		21.7
LOS	A	B	A	A		B		C
Approach Delay		12.4		3.8		14.2		21.7
Approach LOS		B		A		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 40 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 49.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1065	38	32	1093	89	33	52	53	85	47	11
Future Volume (veh/h)	10	1065	38	32	1093	89	33	52	53	85	47	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	11	1170	42	35	1201	98	36	57	58	93	52	12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	1688	61	220	1672	136	202	317	289	461	246	53
Arrive On Green	0.02	0.68	0.68	0.02	0.35	0.35	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1753	4980	179	1753	4735	386	313	675	617	830	526	112
Grp Volume(v), veh/h	11	787	425	35	850	449	151	0	0	157	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1771	1605	0	0	1469	0	0
Q Serve(g_s), s	0.3	11.4	11.4	1.0	17.6	17.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	11.4	11.4	1.0	17.6	17.6	4.1	0.0	0.0	4.1	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.22	0.24		0.38	0.59		0.08
Lane Grp Cap(c), veh/h	162	1136	613	220	1183	625	808	0	0	760	0	0
V/C Ratio(X)	0.07	0.69	0.69	0.16	0.72	0.72	0.19	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	244	1528	825	299	1570	830	808	0	0	760	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	0.69	0.69	0.69	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	10.4	10.4	17.5	22.4	22.4	12.4	0.0	0.0	12.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	1.0	0.2	0.7	1.4	0.5	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.5	2.8	0.4	6.7	7.2	1.6	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	10.9	11.4	17.7	23.2	23.8	12.9	0.0	0.0	13.0	0.0	0.0
LnGrp LOS	B	B	B	B	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1223			1334			151			157	
Approach Delay, s/veh		11.1			23.3			12.9			13.0	
Approach LOS		B			C			B			B	

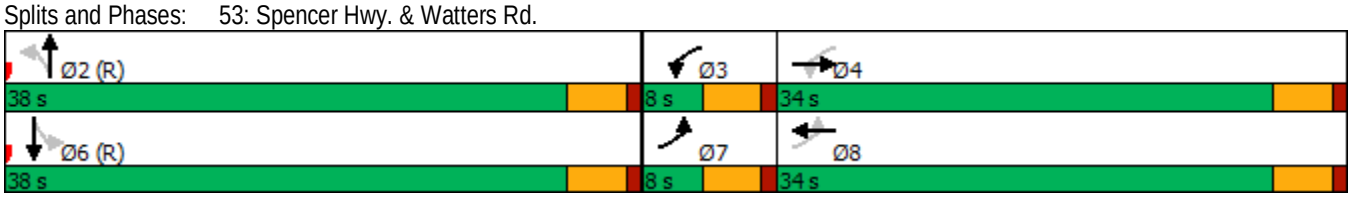
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.0	6.4	31.6		42.0	5.3	32.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.5	5.5	36.5		24.5	4.5	37.5				
Max Q Clear Time (g_c+I1), s		6.1	3.0	13.4		6.1	2.3	19.6				
Green Ext Time (p_c), s		0.7	0.0	8.3		0.8	0.0	8.7				

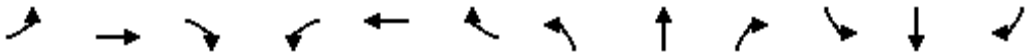
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	62	1390	81	1404	223	41	65	44
Future Volume (vph)	62	1390	81	1404	223	41	65	44
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	34.0	8.0	34.0	38.0	38.0	38.0	38.0
Total Split (%)	10.0%	42.5%	10.0%	42.5%	47.5%	47.5%	47.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	33.6	30.8	33.6	30.8		33.8		33.8
Actuated g/C Ratio	0.42	0.38	0.42	0.38		0.42		0.42
v/c Ratio	0.41	0.94	0.53	0.84		0.87		0.50
Control Delay	12.9	18.2	15.1	7.4		42.3		13.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	12.9	18.2	15.1	7.4		42.3		13.7
LOS	B	B	B	A		D		B
Approach Delay		18.0		7.8		42.3		13.7
Approach LOS		B		A		D		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 76 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 95.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	1390	254	81	1404	76	223	41	90	65	44	202
Future Volume (veh/h)	62	1390	254	81	1404	76	223	41	90	65	44	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	1511	276	88	1526	83	242	45	98	71	48	220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	205	1565	285	177	1817	99	370	69	125	164	128	439
Arrive On Green	0.08	0.73	0.73	0.09	0.75	0.75	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1753	4273	778	1753	4878	265	704	163	296	260	303	1041
Grp Volume(v), veh/h	67	1184	603	88	1048	561	385	0	0	339	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1701	1753	1675	1793	1163	0	0	1605	0	0
Q Serve(g_s), s	1.9	25.8	26.1	2.5	17.0	17.0	11.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.9	25.8	26.1	2.5	17.0	17.0	24.0	0.0	0.0	12.0	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.15	0.63		0.25	0.21		0.65
Lane Grp Cap(c), veh/h	205	1227	623	177	1248	668	563	0	0	730	0	0
V/C Ratio(X)	0.33	0.96	0.97	0.50	0.84	0.84	0.68	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	216	1235	627	177	1248	668	563	0	0	730	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.1	10.2	10.3	18.9	8.6	8.6	20.8	0.0	0.0	16.9	0.0	0.0
Incr Delay (d2), s/veh	0.4	10.1	16.8	0.2	0.5	0.9	6.6	0.0	0.0	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.9	6.1	0.9	2.7	2.9	6.9	0.0	0.0	4.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	20.3	27.0	19.1	9.1	9.5	27.4	0.0	0.0	19.0	0.0	0.0
LnGrp LOS	B	C	C	B	A	A	C	A	A	B	A	A
Approach Vol, veh/h		1854			1697			385			339	
Approach Delay, s/veh		22.3			9.7			27.4			19.0	
Approach LOS		C			A			C			B	

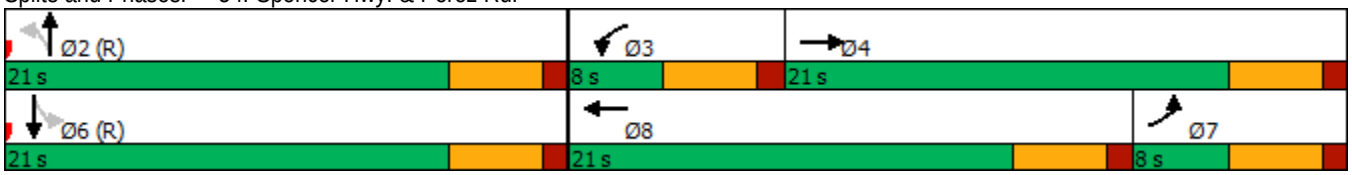
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		38.2	8.0	33.8		38.2	7.5	34.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		33.5	3.5	29.5		33.5	3.5	29.5				
Max Q Clear Time (g_c+I1), s		26.0	4.5	28.1		14.0	3.9	19.0				
Green Ext Time (p_c), s		1.6	0.0	1.2		2.2	0.0	7.0				

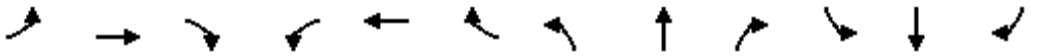
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	33	921	1	1133	9	135	4
Future Volume (vph)	33	921	1	1133	9	135	4
Turn Type	Prot	NA	Prot	NA	NA	Perm	NA
Protected Phases	7	4	3	8	2		6
Permitted Phases						6	
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	21.0	8.0	21.0	21.0	21.0	21.0
Total Split (%)	16.0%	42.0%	16.0%	42.0%	42.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	3.5	18.6	3.5	17.0	20.8		20.8
Actuated g/C Ratio	0.07	0.37	0.07	0.34	0.42		0.42
v/c Ratio	0.32	0.59	0.01	0.88	0.03		0.38
Control Delay	29.5	14.2	22.0	23.6	8.3		12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	29.5	14.2	22.0	23.6	8.3		12.1
LOS	C	B	C	C	A		B
Approach Delay		14.7		23.6	8.3		12.1
Approach LOS		B		C	A		B

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	921	0	1	1133	121	0	9	10	135	4	50
Future Volume (veh/h)	33	921	0	1	1133	121	0	9	10	135	4	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	1096	0	1	1349	144	0	11	12	161	5	60
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	51	1789	0	4	1511	161	0	300	327	485	32	142
Arrive On Green	0.03	0.36	0.00	0.00	0.33	0.33	0.00	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1753	5191	0	1753	4610	492	0	805	878	969	86	381
Grp Volume(v), veh/h	39	1096	0	1	980	513	0	0	23	226	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	0	1753	1675	1752	0	0	1683	1436	0	0
Q Serve(g_s), s	1.1	9.0	0.0	0.0	13.9	13.9	0.0	0.0	0.4	4.9	0.0	0.0
Cycle Q Clear(g_c), s	1.1	9.0	0.0	0.0	13.9	13.9	0.0	0.0	0.4	5.7	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.28	0.00		0.52	0.71		0.27
Lane Grp Cap(c), veh/h	51	1789	0	4	1098	574	0	0	628	659	0	0
V/C Ratio(X)	0.76	0.61	0.00	0.29	0.89	0.89	0.00	0.00	0.04	0.34	0.00	0.00
Avail Cap(c_a), veh/h	123	1789	0	123	1106	578	0	0	628	659	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.00	0.33	0.33	0.33	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.1	13.3	0.0	24.9	16.0	16.0	0.0	0.0	10.0	11.6	0.0	0.0
Incr Delay (d2), s/veh	8.9	0.2	0.0	14.0	3.5	6.3	0.0	0.0	0.1	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.6	0.0	0.0	4.7	5.4	0.0	0.0	0.2	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	13.5	0.0	38.9	19.4	22.2	0.0	0.0	10.1	13.0	0.0	0.0
LnGrp LOS	C	B	A	D	B	C	A	A	B	B	A	A
Approach Vol, veh/h		1135			1494			23			226	
Approach Delay, s/veh		14.2			20.4			10.1			13.0	
Approach LOS		B			C			B			B	

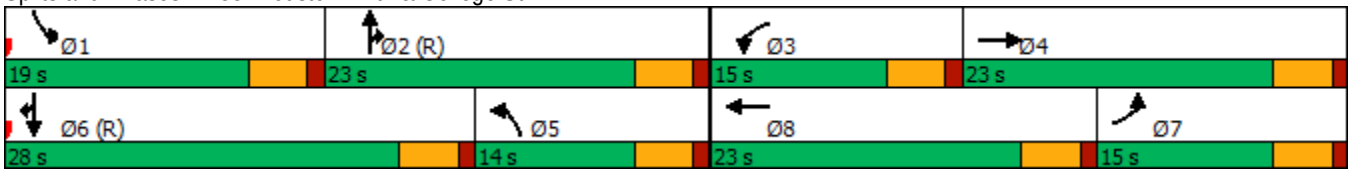
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.2	4.5	22.3		23.2	6.0	20.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.5	3.5	16.5		16.5	3.5	16.5				
Max Q Clear Time (g_c+I1), s		2.4	2.0	11.0		7.7	3.1	15.9				
Green Ext Time (p_c), s		0.0	0.0	3.2		0.8	0.0	0.5				

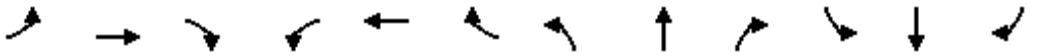
Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	165	568	132	950	122	648	132	229	442	212
Future Volume (vph)	165	568	132	950	122	648	132	229	442	212
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	Prot	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases										
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	15.0	23.0	15.0	23.0	14.0	23.0	23.0	19.0	28.0	28.0
Total Split (%)	18.8%	28.8%	18.8%	28.8%	17.5%	28.8%	28.8%	23.8%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.2	18.9	9.8	18.5	9.5	19.4	19.4	13.8	23.8	23.8
Actuated g/C Ratio	0.13	0.24	0.12	0.23	0.12	0.24	0.24	0.17	0.30	0.30
v/c Ratio	0.80	0.63	0.67	1.06	0.64	0.83	0.27	0.82	0.46	0.37
Control Delay	44.7	14.2	29.1	63.2	49.1	39.3	2.6	55.0	24.8	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	14.2	29.1	63.2	49.1	39.3	2.6	55.0	24.8	5.2
LOS	D	B	C	E	D	D	A	D	C	A
Approach Delay		20.2		59.5		35.3			27.9	
Approach LOS		C		E		D			C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 53 (66%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	568	104	132	950	157	122	648	132	229	442	212
Future Volume (veh/h)	165	568	104	132	950	157	122	648	132	229	442	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	611	112	142	1022	169	131	697	142	246	475	228
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	213	1079	195	176	1005	166	225	908	405	285	1027	458
Arrive On Green	0.12	0.25	0.25	0.10	0.23	0.23	0.13	0.26	0.26	0.16	0.29	0.29
Sat Flow, veh/h	1753	4279	773	1753	4345	717	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	177	476	247	142	788	403	131	697	142	246	475	228
Grp Sat Flow(s),veh/h/ln	1753	1675	1702	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	7.9	9.9	10.1	6.3	18.5	18.5	5.6	14.7	5.9	10.9	8.9	9.7
Cycle Q Clear(g_c), s	7.9	9.9	10.1	6.3	18.5	18.5	5.6	14.7	5.9	10.9	8.9	9.7
Prop In Lane	1.00		0.45	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	845	429	176	775	396	225	908	405	285	1027	458
V/C Ratio(X)	0.83	0.56	0.57	0.80	1.02	1.02	0.58	0.77	0.35	0.86	0.46	0.50
Avail Cap(c_a), veh/h	230	845	429	230	775	396	225	908	405	318	1027	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	26.1	26.2	35.2	30.7	30.8	32.8	27.4	24.1	32.6	23.1	23.4
Incr Delay (d2), s/veh	20.8	0.9	1.9	14.5	36.6	50.2	3.8	6.2	2.4	19.6	1.5	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	3.8	4.1	3.3	10.8	12.6	2.6	6.7	2.3	6.0	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	26.9	28.0	49.7	67.3	80.9	36.6	33.6	26.5	52.2	24.6	27.2
LnGrp LOS	E	C	C	D	F	F	D	C	C	D	C	C
Approach Vol, veh/h		900			1333			970			949	
Approach Delay, s/veh		32.8			69.6			32.9			32.4	
Approach LOS		C			E			C			C	

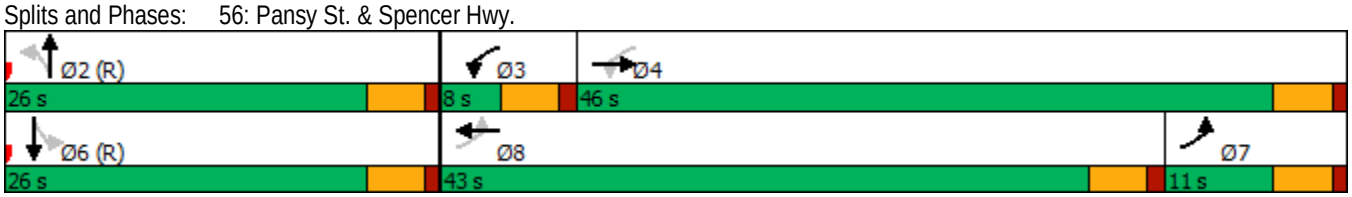
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	25.3	12.6	24.7	14.8	28.0	14.2	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	18.5	10.5	18.5	9.5	23.5	10.5	18.5
Max Q Clear Time (g_c+I1), s	12.9	16.7	8.3	12.1	7.6	11.7	9.9	20.5
Green Ext Time (p_c), s	0.1	0.9	0.1	2.3	0.1	3.2	0.0	0.0

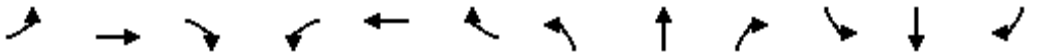
Intersection Summary	
HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	88	1169	36	1609	17	81	46	66
Future Volume (vph)	88	1169	36	1609	17	81	46	66
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	46.0	8.0	43.0	26.0	26.0	26.0	26.0
Total Split (%)	13.8%	57.5%	10.0%	53.8%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	43.5	41.2	43.3	37.6		25.0		25.0
Actuated g/C Ratio	0.54	0.52	0.54	0.47		0.31		0.31
v/c Ratio	0.45	0.52	0.18	0.77		0.25		0.38
Control Delay	12.2	9.9	4.1	9.2		21.4		21.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	12.2	9.9	4.1	9.2		21.4		21.4
LOS	B	A	A	A		C		C
Approach Delay		10.1		9.1		21.4		21.4
Approach LOS		B		A		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 2 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1169	32	36	1609	53	17	81	25	46	66	72
Future Volume (veh/h)	88	1169	32	36	1609	53	17	81	25	46	66	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	95	1257	34	39	1730	57	18	87	27	49	71	77
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	192	2247	61	300	2167	71	101	438	125	166	237	223
Arrive On Green	0.08	0.89	0.89	0.03	0.43	0.43	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1753	5030	136	1753	4997	165	139	1219	349	306	661	620
Grp Volume(v), veh/h	95	837	454	39	1160	627	132	0	0	197	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1816	1753	1675	1811	1707	0	0	1587	0	0
Q Serve(g_s), s	0.0	4.3	4.3	1.0	24.0	24.0	0.0	0.0	0.0	0.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.3	4.3	1.0	24.0	24.0	4.1	0.0	0.0	6.7	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.09	0.14		0.20	0.25		0.39
Lane Grp Cap(c), veh/h	192	1497	811	300	1453	785	664	0	0	626	0	0
V/C Ratio(X)	0.49	0.56	0.56	0.13	0.80	0.80	0.20	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	267	1738	942	332	1612	872	664	0	0	626	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	0.49	0.49	0.49	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.5	2.6	2.6	11.5	19.6	19.6	17.7	0.0	0.0	18.6	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.2	0.4	0.1	1.3	2.4	0.7	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.8	0.9	0.3	8.5	9.4	1.7	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	2.8	2.9	11.6	20.9	22.1	18.4	0.0	0.0	19.9	0.0	0.0
LnGrp LOS	C	A	A	B	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1386			1826			132			197	
Approach Delay, s/veh		5.0			21.1			18.4			19.9	
Approach LOS		A			C			B			B	

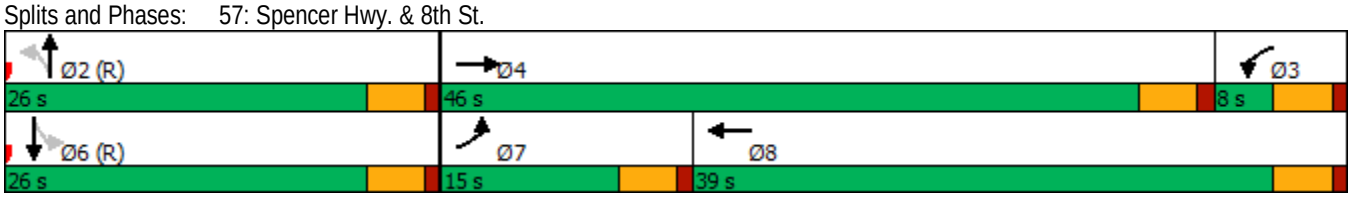
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.2	6.5	40.2		33.2	7.6	39.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	6.5	38.5				
Max Q Clear Time (g_c+I1), s		6.1	3.0	6.3		8.7	2.0	26.0				
Green Ext Time (p_c), s		0.6	0.0	10.3		0.9	0.1	8.7				

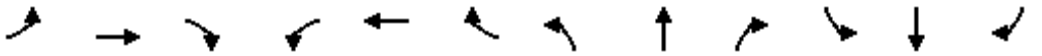
Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	69	867	14	1214	20	34	33	19
Future Volume (vph)	69	867	14	1214	20	34	33	19
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	46.0	8.0	39.0	26.0	26.0	26.0	26.0
Total Split (%)	18.8%	57.5%	10.0%	48.8%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.4	38.3	7.7	31.3		28.8		28.8
Actuated g/C Ratio	0.10	0.48	0.10	0.39		0.36		0.36
v/c Ratio	0.40	0.41	0.09	0.71		0.18		0.28
Control Delay	22.1	7.3	32.4	23.1		13.9		9.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	22.1	7.3	32.4	23.1		13.9		9.7
LOS	C	A	C	C		B		A
Approach Delay		8.3		23.2		13.9		9.7
Approach LOS		A		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	867	20	14	1214	36	20	34	46	33	19	114
Future Volume (veh/h)	69	867	20	14	1214	36	20	34	46	33	19	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	932	22	15	1305	39	22	37	49	35	20	123
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	1367	32	227	1733	52	160	268	311	153	107	462
Arrive On Green	0.05	0.27	0.27	0.13	0.35	0.35	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1753	5050	119	1753	5014	150	246	621	720	230	249	1071
Grp Volume(v), veh/h	74	618	336	15	872	472	108	0	0	178	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1819	1753	1675	1814	1587	0	0	1550	0	0
Q Serve(g_s), s	3.3	13.2	13.2	0.6	18.4	18.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	13.2	13.2	0.6	18.4	18.4	3.1	0.0	0.0	5.6	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.08	0.20		0.45	0.20		0.69
Lane Grp Cap(c), veh/h	95	907	493	227	1158	627	739	0	0	722	0	0
V/C Ratio(X)	0.78	0.68	0.68	0.07	0.75	0.75	0.15	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	230	1738	944	227	1445	782	739	0	0	722	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.43	0.43	0.43	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.3	26.1	26.1	30.6	23.2	23.2	13.8	0.0	0.0	14.5	0.0	0.0
Incr Delay (d2), s/veh	12.6	0.9	1.7	0.1	0.8	1.4	0.4	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.0	5.5	0.2	6.7	7.4	1.2	0.0	0.0	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	27.0	27.8	30.6	23.9	24.6	14.2	0.0	0.0	15.3	0.0	0.0
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1028			1359			108			178	
Approach Delay, s/veh		28.9			24.2			14.2			15.3	
Approach LOS		C			C			B			B	

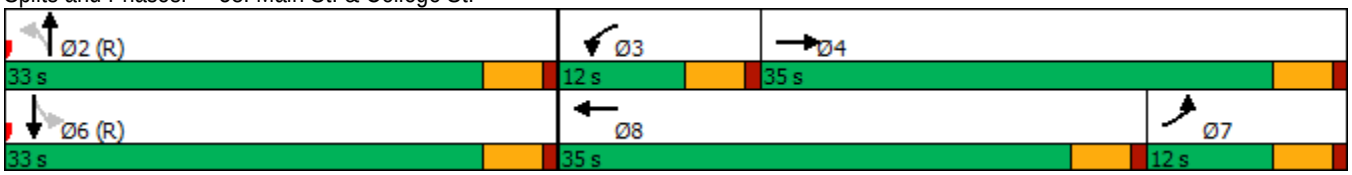
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.0	14.8	26.2		39.0	8.8	32.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	10.5	34.5				
Max Q Clear Time (g_c+I1), s		5.1	2.6	15.2		7.6	5.3	20.4				
Green Ext Time (p_c), s		0.5	0.0	6.4		0.8	0.1	7.2				

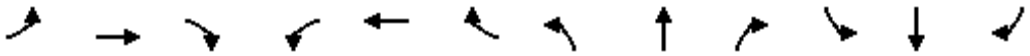
Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	55	848	55	1079	99	47	28	48
Future Volume (vph)	55	848	55	1079	99	47	28	48
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	35.0	12.0	35.0	33.0	33.0	33.0	33.0
Total Split (%)	15.0%	43.8%	15.0%	43.8%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.1	28.1	7.0	28.0		35.7		35.7
Actuated g/C Ratio	0.09	0.35	0.09	0.35		0.45		0.45
v/c Ratio	0.39	0.62	0.39	0.71		0.37		0.24
Control Delay	41.8	21.7	52.2	5.7		24.9		10.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	41.8	21.7	52.2	5.7		24.9		10.5
LOS	D	C	D	A		C		B
Approach Delay		22.8		7.9		24.9		10.5
Approach LOS		C		A		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	848	161	55	1079	27	99	47	72	28	48	93
Future Volume (veh/h)	55	848	161	55	1079	27	99	47	72	28	48	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	59	912	173	59	1160	29	106	51	77	30	52	100
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	75	1310	247	75	1556	39	361	178	232	144	252	420
Arrive On Green	0.04	0.31	0.31	0.04	0.31	0.31	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1753	4245	802	1753	5042	126	616	370	484	192	525	874
Grp Volume(v), veh/h	59	719	366	59	771	418	234	0	0	182	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1696	1753	1675	1818	1470	0	0	1591	0	0
Q Serve(g_s), s	2.7	15.1	15.2	2.7	16.5	16.5	1.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	15.1	15.2	2.7	16.5	16.5	6.7	0.0	0.0	5.1	0.0	0.0
Prop In Lane	1.00		0.47	1.00		0.07	0.45		0.33	0.16		0.55
Lane Grp Cap(c), veh/h	75	1034	523	75	1034	561	771	0	0	816	0	0
V/C Ratio(X)	0.79	0.70	0.70	0.79	0.75	0.75	0.30	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	164	1277	647	164	1277	693	771	0	0	816	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.9	24.4	24.4	37.9	24.8	24.8	12.5	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	16.3	1.2	2.5	16.3	1.9	3.5	1.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.9	6.2	1.5	6.5	7.3	2.6	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	25.6	26.9	54.2	26.7	28.3	13.5	0.0	0.0	12.8	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1144			1248			234			182	
Approach Delay, s/veh		27.5			28.6			13.5			12.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.9	7.9	29.2		42.9	7.9	29.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	7.5	30.5		28.5	7.5	30.5				
Max Q Clear Time (g_c+I1), s		8.7	4.7	17.2		7.1	4.7	18.5				
Green Ext Time (p_c), s		1.4	0.0	6.1		1.0	0.0	6.1				

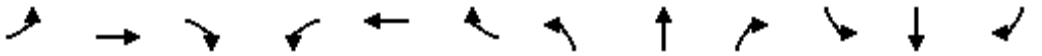
Intersection Summary												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	5	861	5	1128	85	4	3	0
Future Volume (vph)	5	861	5	1128	85	4	3	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	42.0	10.0	42.0	28.0	28.0	28.0	28.0
Total Split (%)	12.5%	52.5%	12.5%	52.5%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.5	32.8	7.0	34.1		34.9		34.9
Actuated g/C Ratio	0.07	0.41	0.09	0.43		0.44		0.44
v/c Ratio	0.04	0.50	0.03	0.72		0.16		0.04
Control Delay	40.4	10.6	15.0	4.8		17.6		0.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	40.4	10.6	15.0	4.8		17.6		0.1
LOS	D	B	B	A		B		A
Approach Delay		10.7		4.9		17.6		0.1
Approach LOS		B		A		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 27 (34%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	861	38	5	1128	213	85	4	0	3	0	27
Future Volume (veh/h)	5	861	38	5	1128	213	85	4	0	3	0	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	5	946	42	5	1240	234	93	4	0	3	0	30
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	8	1364	60	197	1632	308	673	27	0	83	29	627
Arrive On Green	0.00	0.28	0.28	0.11	0.38	0.38	0.44	0.44	0.00	0.44	0.00	0.44
Sat Flow, veh/h	1753	4933	219	1753	4245	801	1322	61	0	76	66	1419
Grp Volume(v), veh/h	5	642	346	5	978	496	97	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1801	1753	1675	1697	1383	0	0	1561	0	0
Q Serve(g_s), s	0.2	13.7	13.8	0.2	20.3	20.3	2.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	13.7	13.8	0.2	20.3	20.3	3.1	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.47	0.96		0.00	0.09		0.91
Lane Grp Cap(c), veh/h	8	926	498	197	1288	652	700	0	0	739	0	0
V/C Ratio(X)	0.62	0.69	0.69	0.03	0.76	0.76	0.14	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	121	1570	844	197	1570	795	700	0	0	739	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.7	25.9	25.9	31.6	21.4	21.4	13.3	0.0	0.0	12.7	0.0	0.0
Incr Delay (d2), s/veh	58.6	0.9	1.8	0.1	1.8	3.5	0.4	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.2	5.7	0.1	7.5	7.9	1.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.3	26.8	27.7	31.6	23.2	24.9	13.7	0.0	0.0	12.8	0.0	0.0
LnGrp LOS	F	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		993			1479			97			33	
Approach Delay, s/veh		27.5			23.8			13.7			12.8	
Approach LOS		C			C			B			B	

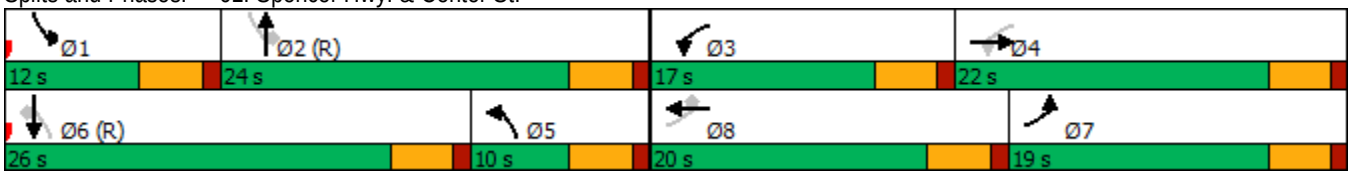
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.9	13.5	26.6		39.9	4.9	35.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.5	37.5		23.5	5.5	37.5				
Max Q Clear Time (g_c+I1), s		5.1	2.2	15.8		3.0	2.2	22.3				
Green Ext Time (p_c), s		0.4	0.0	6.4		0.1	0.0	8.4				

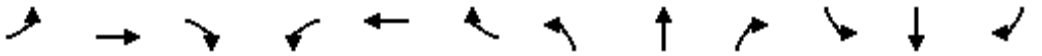
Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	345	814	169	932	237	57	910	103	187	696	362
Future Volume (vph)	345	814	169	932	237	57	910	103	187	696	362
Turn Type	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	8		4		8	6		2	2		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	19.0	22.0	17.0	20.0	20.0	10.0	24.0	24.0	12.0	26.0	26.0
Total Split (%)	25.3%	29.3%	22.7%	26.7%	26.7%	13.3%	32.0%	32.0%	16.0%	34.7%	34.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.4	19.3	29.4	15.5	15.5	29.4	20.0	20.0	27.6	26.1	26.1
Actuated g/C Ratio	0.39	0.26	0.39	0.21	0.21	0.39	0.27	0.27	0.37	0.35	0.35
v/c Ratio	0.89	0.80	0.56	0.98	0.49	0.25	1.07	0.21	0.74	0.63	0.49
Control Delay	51.2	31.5	19.7	55.7	7.3	19.4	79.5	2.9	34.4	24.6	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.2	31.5	19.7	55.7	7.3	19.4	79.5	2.9	34.4	24.6	4.9
LOS	D	C	B	E	A	B	E	A	C	C	A
Approach Delay		36.8		42.6			68.9			20.4	
Approach LOS		D		D			E			C	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 41.2	Intersection LOS: D
Intersection Capacity Utilization 92.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	345	814	137	169	932	237	57	910	103	187	696	362
Future Volume (veh/h)	345	814	137	169	932	237	57	910	103	187	696	362
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	375	885	149	184	1013	258	62	989	112	203	757	393
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	415	1247	209	326	1039	322	291	955	426	271	1003	447
Arrive On Green	0.18	0.29	0.29	0.10	0.21	0.21	0.09	0.27	0.27	0.10	0.29	0.29
Sat Flow, veh/h	1753	4334	726	1753	5025	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	375	683	351	184	1013	258	62	989	112	203	757	393
Grp Sat Flow(s),veh/h/ln	1753	1675	1710	1753	1675	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	11.4	13.7	13.8	5.4	15.0	8.5	0.0	20.5	4.2	6.2	14.8	18.0
Cycle Q Clear(g_c), s	11.4	13.7	13.8	5.4	15.0	8.5	0.0	20.5	4.2	6.2	14.8	18.0
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	964	492	326	1039	322	291	955	426	271	1003	447
V/C Ratio(X)	0.90	0.71	0.71	0.56	0.98	0.80	0.21	1.04	0.26	0.75	0.76	0.88
Avail Cap(c_a), veh/h	438	964	492	444	1039	322	291	955	426	271	1003	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.52	0.52	0.52	1.00	1.00	1.00	0.37	0.37	0.37
Uniform Delay (d), s/veh	28.4	23.9	23.9	17.7	29.6	14.8	29.0	27.3	21.3	19.5	24.4	25.5
Incr Delay (d2), s/veh	16.2	1.7	3.4	0.8	14.7	7.4	0.4	38.6	1.5	4.3	2.0	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	5.4	5.7	2.1	7.2	3.5	1.0	13.2	1.7	2.6	6.1	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	25.6	27.4	18.5	44.3	22.2	29.3	65.9	22.8	23.7	26.4	34.7
LnGrp LOS	D	C	C	B	D	C	C	F	C	C	C	C
Approach Vol, veh/h		1409			1455			1163			1353	
Approach Delay, s/veh		31.1			37.1			59.8			28.4	
Approach LOS		C			D			E			C	

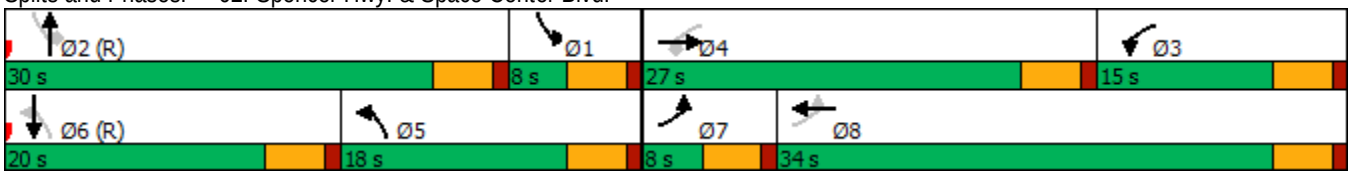
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	25.0	11.9	26.1	11.0	26.0	18.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	19.5	12.5	17.5	5.5	21.5	14.5	15.5
Max Q Clear Time (g_c+I1), s	8.2	22.5	7.4	15.8	2.0	20.0	13.4	17.0
Green Ext Time (p_c), s	0.0	0.0	0.2	1.1	0.0	1.0	0.2	0.0

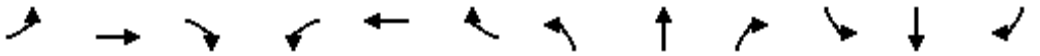
Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	29	1096	216	220	1403	353	394	241	34	267
Future Volume (vph)	29	1096	216	220	1403	353	394	241	34	267
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases	8		4	4		6		2	2	
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	27.0	27.0	15.0	34.0	18.0	30.0	30.0	8.0	20.0
Total Split (%)	10.0%	33.8%	33.8%	18.8%	42.5%	22.5%	37.5%	37.5%	10.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	34.9	22.5	22.5	32.2	33.5	29.8	29.5	29.5	32.3	17.0
Actuated g/C Ratio	0.44	0.28	0.28	0.40	0.42	0.37	0.37	0.37	0.40	0.21
v/c Ratio	0.19	0.88	0.39	0.80	0.78	0.90	0.35	0.36	0.10	0.51
Control Delay	20.0	46.5	15.9	39.7	19.0	55.5	23.0	7.6	15.4	28.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	46.5	15.9	39.7	19.0	55.5	23.0	7.6	15.4	28.5
LOS	C	D	B	D	B	E	C	A	B	C
Approach Delay		41.0			21.8		30.9			27.3
Approach LOS		D			C		C			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 60 (75%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 30.2	Intersection LOS: C
Intersection Capacity Utilization 82.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1096	216	220	1403	38	353	394	241	34	267	70
Future Volume (veh/h)	29	1096	216	220	1403	38	353	394	241	34	267	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	1191	235	239	1525	41	384	428	262	37	290	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	152	1371	426	285	1771	48	550	1115	497	400	533	137
Arrive On Green	0.02	0.27	0.27	0.10	0.35	0.35	0.21	0.32	0.32	0.08	0.19	0.19
Sat Flow, veh/h	1753	5025	1560	1753	5031	135	1753	3497	1560	1753	2753	709
Grp Volume(v), veh/h	32	1191	235	239	1015	551	384	428	262	37	182	184
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1816	1753	1749	1560	1753	1749	1713
Q Serve(g_s), s	0.9	18.1	10.3	5.7	22.5	22.5	6.9	7.6	11.0	0.0	7.5	7.7
Cycle Q Clear(g_c), s	0.9	18.1	10.3	5.7	22.5	22.5	6.9	7.6	11.0	0.0	7.5	7.7
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	152	1371	426	285	1179	639	550	1115	497	400	339	332
V/C Ratio(X)	0.21	0.87	0.55	0.84	0.86	0.86	0.70	0.38	0.53	0.09	0.54	0.55
Avail Cap(c_a), veh/h	189	1413	439	337	1235	670	550	1115	497	400	339	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.44	0.44	0.44	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	27.7	24.9	33.4	24.1	24.1	25.2	21.2	22.3	20.3	29.0	29.1
Incr Delay (d2), s/veh	0.6	5.1	1.2	7.1	2.9	5.1	3.9	1.0	4.0	0.1	6.0	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	7.2	3.6	4.7	8.4	9.5	6.6	3.1	4.2	0.5	3.6	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	32.8	26.1	40.6	27.0	29.2	29.1	22.2	26.3	20.4	35.0	35.6
LnGrp LOS	C	C	C	D	C	C	C	C	C	C	D	D
Approach Vol, veh/h		1458			1805			1074			403	
Approach Delay, s/veh		31.4			29.5			25.6			34.0	
Approach LOS		C			C			C			C	

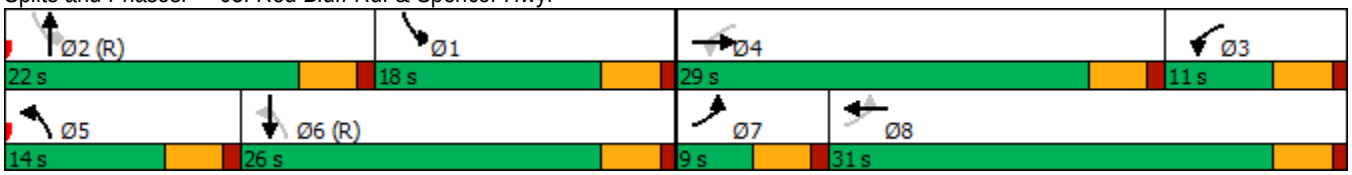
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	30.0	12.6	26.3	21.1	20.0	6.3	32.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	25.5	10.5	22.5	13.5	15.5	3.5	29.5
Max Q Clear Time (g_c+I1), s	2.0	13.0	7.7	20.1	8.9	9.7	2.9	24.5
Green Ext Time (p_c), s	0.0	3.0	0.2	1.8	0.5	1.0	0.0	3.6

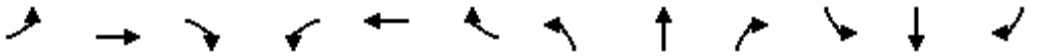
Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	95	844	76	993	165	338	46	314	376
Future Volume (vph)	95	844	76	993	165	338	46	314	376
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	9.0	29.0	11.0	31.0	14.0	22.0	22.0	18.0	26.0
Total Split (%)	11.3%	36.3%	13.8%	38.8%	17.5%	27.5%	27.5%	22.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	30.3	24.5	30.3	26.7	32.6	19.1	19.1	32.6	23.7
Actuated g/C Ratio	0.38	0.31	0.38	0.33	0.41	0.24	0.24	0.41	0.30
v/c Ratio	0.54	0.68	0.34	0.88	0.44	0.45	0.09	0.68	0.46
Control Delay	16.4	17.0	24.6	31.1	27.8	27.6	3.2	14.0	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	17.0	24.6	31.1	27.8	27.6	3.2	14.0	7.9
LOS	B	B	C	C	C	C	A	B	A
Approach Delay		17.0		30.8		25.6			10.5
Approach LOS		B		C		C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 56 (70%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 22.1	Intersection LOS: C
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	844	135	76	993	357	165	338	46	314	376	63
Future Volume (veh/h)	95	844	135	76	993	357	165	338	46	314	376	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	101	898	144	81	1056	380	176	360	49	334	400	67
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	206	1141	182	336	1182	425	428	765	341	522	907	151
Arrive On Green	0.06	0.26	0.26	0.12	0.32	0.32	0.09	0.22	0.22	0.18	0.30	0.30
Sat Flow, veh/h	1753	4368	697	1753	3644	1311	1753	3497	1560	1753	3001	499
Grp Volume(v), veh/h	101	688	354	81	971	465	176	360	49	334	232	235
Grp Sat Flow(s),veh/h/ln	1753	1675	1715	1753	1675	1605	1753	1749	1560	1753	1749	1751
Q Serve(g_s), s	3.0	15.3	15.4	0.0	22.1	22.1	5.4	7.2	2.0	3.5	8.5	8.7
Cycle Q Clear(g_c), s	3.0	15.3	15.4	0.0	22.1	22.1	5.4	7.2	2.0	3.5	8.5	8.7
Prop In Lane	1.00		0.41	1.00		0.82	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	206	875	448	336	1087	521	428	765	341	522	529	529
V/C Ratio(X)	0.49	0.79	0.79	0.24	0.89	0.89	0.41	0.47	0.14	0.64	0.44	0.44
Avail Cap(c_a), veh/h	207	1026	525	336	1110	532	475	765	341	522	529	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.46	0.46	0.46	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	27.5	27.5	29.8	25.7	25.7	16.9	27.2	25.2	25.6	22.4	22.5
Incr Delay (d2), s/veh	1.0	2.0	3.9	0.2	4.7	9.0	0.6	2.1	0.9	2.6	2.6	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.8	6.2	1.4	9.0	9.2	2.1	3.1	0.8	5.6	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	29.4	31.4	29.9	30.4	34.7	17.5	29.3	26.1	28.2	25.1	25.2
LnGrp LOS	C	C	C	C	C	C	B	C	C	C	C	C
Approach Vol, veh/h		1143			1517			585			801	
Approach Delay, s/veh		29.3			31.7			25.5			26.4	
Approach LOS		C			C			C			C	

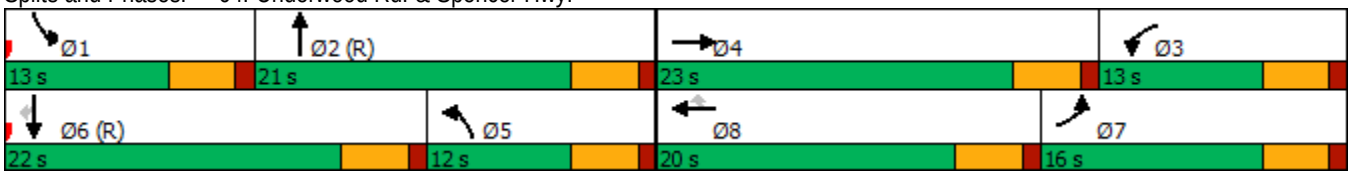
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	22.0	14.1	25.4	11.9	28.7	9.0	30.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	17.5	6.5	24.5	9.5	21.5	4.5	26.5
Max Q Clear Time (g_c+I1), s	5.5	9.2	2.0	17.4	7.4	10.7	5.0	24.1
Green Ext Time (p_c), s	0.7	1.6	0.1	3.5	0.1	2.1	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	309	599	90	658	366	147	507	222	390	193
Future Volume (vph)	309	599	90	658	366	147	507	222	390	193
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	16.0	23.0	13.0	20.0	20.0	12.0	21.0	13.0	22.0	22.0
Total Split (%)	22.9%	32.9%	18.6%	28.6%	28.6%	17.1%	30.0%	18.6%	31.4%	31.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.0	20.3	8.8	15.0	15.0	7.5	16.5	8.5	17.5	17.5
Actuated g/C Ratio	0.17	0.29	0.13	0.21	0.21	0.11	0.24	0.12	0.25	0.25
v/c Ratio	1.14	0.56	0.46	0.70	0.65	0.91	0.82	1.16	0.49	0.39
Control Delay	128.2	22.3	35.6	29.5	10.2	81.6	33.9	145.2	24.8	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.2	22.3	35.6	29.5	10.2	81.6	33.9	145.2	24.8	5.9
LOS	F	C	D	C	B	F	C	F	C	A
Approach Delay		54.4		23.6			43.2		53.5	
Approach LOS		D		C			D		D	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 42.6	Intersection LOS: D
Intersection Capacity Utilization 79.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	599	110	90	658	366	147	507	104	222	390	193
Future Volume (veh/h)	309	599	110	90	658	366	147	507	104	222	390	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	340	658	121	99	723	402	162	557	114	244	429	212
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	288	894	162	263	980	304	234	758	155	213	874	390
Arrive On Green	0.16	0.21	0.21	0.15	0.20	0.20	0.13	0.26	0.26	0.12	0.25	0.25
Sat Flow, veh/h	1753	4275	776	1753	5025	1560	1753	2893	590	1753	3497	1560
Grp Volume(v), veh/h	340	514	265	99	723	402	162	336	335	244	429	212
Grp Sat Flow(s),veh/h/ln	1753	1675	1701	1753	1675	1560	1753	1749	1734	1753	1749	1560
Q Serve(g_s), s	11.5	10.0	10.2	3.6	9.5	9.4	6.2	12.3	12.4	8.5	7.3	8.3
Cycle Q Clear(g_c), s	11.5	10.0	10.2	3.6	9.5	9.4	6.2	12.3	12.4	8.5	7.3	8.3
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	288	701	356	263	980	304	234	458	454	213	874	390
V/C Ratio(X)	1.18	0.73	0.75	0.38	0.74	1.32	0.69	0.73	0.74	1.15	0.49	0.54
Avail Cap(c_a), veh/h	288	885	450	263	1113	345	234	458	454	213	874	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	0.73	0.73	0.73	0.58	0.58	0.58	0.70	0.70	0.70
Uniform Delay (d), s/veh	29.3	25.9	25.9	26.8	26.5	13.4	29.0	23.6	23.6	30.8	22.4	22.8
Incr Delay (d2), s/veh	102.6	1.6	3.4	0.6	1.7	160.3	5.0	6.0	6.1	97.2	1.4	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	3.7	4.0	1.4	3.6	17.8	2.7	5.2	5.3	9.0	2.9	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	131.9	27.4	29.3	27.4	28.2	173.7	34.0	29.6	29.8	128.0	23.8	26.6
LnGrp LOS	F	C	C	C	C	F	C	C	C	F	C	C
Approach Vol, veh/h		1119			1224			833			885	
Approach Delay, s/veh		59.6			75.9			30.5			53.2	
Approach LOS		E			E			C			D	

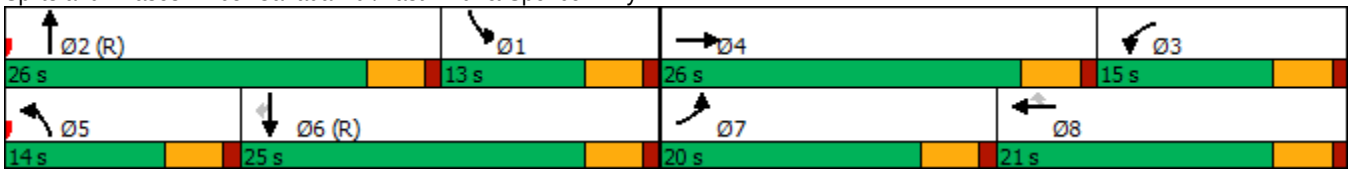
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.8	15.0	19.1	13.8	22.0	16.0	18.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	16.5	8.5	18.5	7.5	17.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	10.5	14.4	5.6	12.2	8.2	10.3	13.5	11.5
Green Ext Time (p_c), s	0.0	0.8	0.0	2.4	0.0	1.9	0.0	2.2

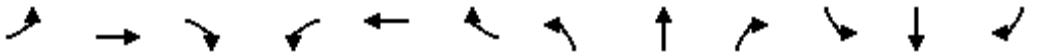
Intersection Summary	
HCM 6th Ctrl Delay	57.1
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	210	598	123	670	216	95	488	229	512	201
Future Volume (vph)	210	598	123	670	216	95	488	229	512	201
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	26.0	15.0	21.0	21.0	14.0	26.0	13.0	25.0	25.0
Total Split (%)	25.0%	32.5%	18.8%	26.3%	26.3%	17.5%	32.5%	16.3%	31.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.0	17.5	12.7	16.2	16.2	8.6	23.3	8.5	25.3	25.3
Actuated g/C Ratio	0.18	0.22	0.16	0.20	0.20	0.11	0.29	0.11	0.32	0.32
v/c Ratio	0.75	0.69	0.48	0.74	0.46	0.57	0.67	0.69	0.50	0.34
Control Delay	22.0	9.8	37.9	35.1	7.5	53.0	19.9	22.4	11.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	9.8	37.9	35.1	7.5	53.0	19.9	22.4	11.0	0.6
LOS	C	A	D	D	A	D	B	C	B	A
Approach Delay		12.7		29.5			24.3		11.5	
Approach LOS		B		C			C		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	598	83	123	670	216	95	488	140	229	512	201
Future Volume (veh/h)	210	598	83	123	670	216	95	488	140	229	512	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	226	643	89	132	720	232	102	525	151	246	551	216
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	266	879	120	244	923	287	130	721	206	580	1277	569
Arrive On Green	0.15	0.20	0.20	0.14	0.18	0.18	0.07	0.27	0.27	0.17	0.37	0.37
Sat Flow, veh/h	1753	4469	612	1753	5025	1560	1753	2683	768	3401	3497	1560
Grp Volume(v), veh/h	226	480	252	132	720	232	102	341	335	246	551	216
Grp Sat Flow(s),veh/h/ln	1753	1675	1731	1753	1675	1560	1753	1749	1702	1700	1749	1560
Q Serve(g_s), s	10.0	10.8	10.9	5.6	10.9	7.5	4.6	14.2	14.3	5.2	9.5	8.2
Cycle Q Clear(g_c), s	10.0	10.8	10.9	5.6	10.9	7.5	4.6	14.2	14.3	5.2	9.5	8.2
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	266	659	341	244	923	287	130	470	458	580	1277	569
V/C Ratio(X)	0.85	0.73	0.74	0.54	0.78	0.81	0.78	0.73	0.73	0.42	0.43	0.38
Avail Cap(c_a), veh/h	340	900	465	244	1036	322	208	470	458	580	1277	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.69	0.69	0.69	0.81	0.81	0.81	0.10	0.10	0.10
Uniform Delay (d), s/veh	33.0	30.1	30.2	32.1	31.1	13.4	36.4	26.6	26.6	29.7	19.1	18.7
Incr Delay (d2), s/veh	9.7	1.2	2.6	1.7	2.4	9.3	8.1	7.7	8.1	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	4.1	4.5	2.3	4.3	4.5	2.2	6.5	6.4	2.0	3.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	31.3	32.8	33.8	33.5	22.7	44.5	34.3	34.8	29.7	19.2	18.9
LnGrp LOS	D	C	C	C	C	C	D	C	C	C	B	B
Approach Vol, veh/h		958			1084			778			1013	
Approach Delay, s/veh		34.4			31.2			35.8			21.7	
Approach LOS		C			C			D			C	

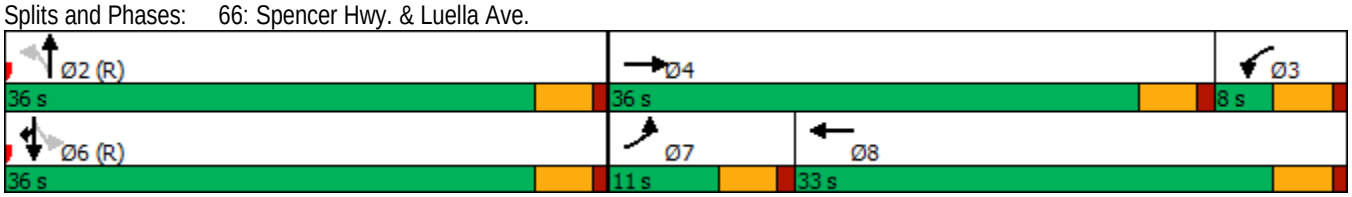
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	26.0	15.6	20.2	10.4	33.7	16.7	19.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	21.5	10.5	21.5	9.5	20.5	15.5	16.5
Max Q Clear Time (g_c+I1), s	7.2	16.3	7.6	12.9	6.6	11.5	12.0	12.9
Green Ext Time (p_c), s	0.1	1.8	0.1	2.8	0.1	2.9	0.2	1.8

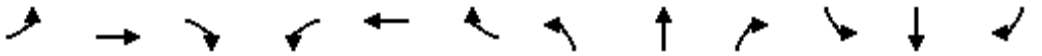
Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	67	903	4	1051	5	0	265	5	203
Future Volume (vph)	67	903	4	1051	5	0	265	5	203
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	36.0	8.0	33.0	36.0	36.0	36.0	36.0	36.0
Total Split (%)	13.8%	45.0%	10.0%	41.3%	45.0%	45.0%	45.0%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.3	35.1	5.5	28.1		34.1		34.1	34.1
Actuated g/C Ratio	0.08	0.44	0.07	0.35		0.43		0.43	0.43
v/c Ratio	0.54	0.47	0.03	0.86		0.01		0.53	0.29
Control Delay	50.9	16.8	21.5	13.8		0.0		22.8	5.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	50.9	16.8	21.5	13.8		0.0		22.8	5.8
LOS	D	B	C	B		A		C	A
Approach Delay		19.1		13.8				15.5	
Approach LOS		B		B				B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	903	22	4	1051	317	5	0	1	265	5	203
Future Volume (veh/h)	67	903	22	4	1051	317	5	0	1	265	5	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	1003	24	4	1168	352	6	0	1	294	6	226
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	1381	33	202	1282	386	399	6	54	720	13	690
Arrive On Green	0.05	0.27	0.27	0.23	0.67	0.67	0.44	0.00	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	5048	121	1753	3829	1154	712	15	121	1427	29	1560
Grp Volume(v), veh/h	74	665	362	4	1022	498	7	0	0	300	0	226
Grp Sat Flow(s),veh/h/ln	1753	1675	1819	1753	1675	1633	848	0	0	1456	0	1560
Q Serve(g_s), s	3.3	14.4	14.4	0.1	20.7	20.7	0.1	0.0	0.0	0.0	0.0	7.6
Cycle Q Clear(g_c), s	3.3	14.4	14.4	0.1	20.7	20.7	10.5	0.0	0.0	10.4	0.0	7.6
Prop In Lane	1.00		0.07	1.00		0.71	0.86		0.14	0.98		1.00
Lane Grp Cap(c), veh/h	95	917	498	202	1122	547	459	0	0	733	0	690
V/C Ratio(X)	0.78	0.73	0.73	0.02	0.91	0.91	0.02	0.00	0.00	0.41	0.00	0.33
Avail Cap(c_a), veh/h	142	1319	716	202	1193	582	459	0	0	733	0	690
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	0.79	0.79	0.79	1.00	0.00	0.00	0.77	0.00	0.77
Uniform Delay (d), s/veh	37.4	26.3	26.3	27.3	12.2	12.2	13.1	0.0	0.0	15.3	0.0	14.5
Incr Delay (d2), s/veh	9.1	0.7	1.3	0.0	8.3	15.0	0.1	0.0	0.0	1.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	5.3	5.8	0.1	4.6	5.5	0.1	0.0	0.0	3.8	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	27.0	27.6	27.3	20.5	27.2	13.2	0.0	0.0	16.6	0.0	15.5
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	B
Approach Vol, veh/h		1101			1524			7			526	
Approach Delay, s/veh		28.5			22.7			13.2			16.2	
Approach LOS		C			C			B			B	

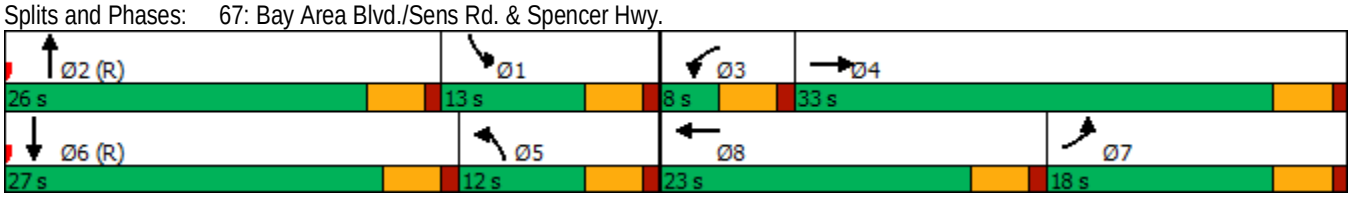
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.9	13.7	26.4		39.9	8.8	31.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		31.5	3.5	31.5		31.5	6.5	28.5				
Max Q Clear Time (g_c+I1), s		12.5	2.1	16.4		12.4	5.3	22.7				
Green Ext Time (p_c), s		0.0	0.0	5.5		2.5	0.0	4.1				

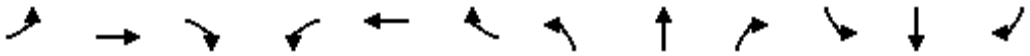
Intersection Summary												
HCM 6th Ctrl Delay			23.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	202	587	39	446	84	307	133	291
Future Volume (vph)	202	587	39	446	84	307	133	291
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	33.0	8.0	23.0	12.0	26.0	13.0	27.0
Total Split (%)	22.5%	41.3%	10.0%	28.8%	15.0%	32.5%	16.3%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.3	28.1	3.5	15.1	7.2	25.1	8.5	28.5
Actuated g/C Ratio	0.17	0.35	0.04	0.19	0.09	0.31	0.11	0.36
v/c Ratio	0.74	0.43	0.54	0.64	0.61	0.36	0.79	0.34
Control Delay	48.4	19.4	64.8	28.4	48.1	7.2	62.7	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	19.4	64.8	28.4	48.1	7.2	62.7	14.2
LOS	D	B	E	C	D	A	E	B
Approach Delay		26.0		30.7		14.7		26.5
Approach LOS		C		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 60.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	587	94	39	446	130	84	307	65	133	291	104
Future Volume (veh/h)	202	587	94	39	446	130	84	307	65	133	291	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	213	618	99	41	469	137	88	323	68	140	306	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	252	1250	198	51	665	188	314	775	161	336	715	250
Arrive On Green	0.14	0.29	0.29	0.03	0.17	0.17	0.18	0.27	0.27	0.19	0.28	0.28
Sat Flow, veh/h	1753	4375	691	1753	3892	1101	1753	2882	599	1753	2542	888
Grp Volume(v), veh/h	213	471	246	41	402	204	88	194	197	140	209	206
Grp Sat Flow(s),veh/h/ln	1753	1675	1716	1753	1675	1643	1753	1749	1733	1753	1749	1681
Q Serve(g_s), s	9.5	9.4	9.5	1.9	9.0	9.4	3.5	7.3	7.5	5.6	7.8	8.0
Cycle Q Clear(g_c), s	9.5	9.4	9.5	1.9	9.0	9.4	3.5	7.3	7.5	5.6	7.8	8.0
Prop In Lane	1.00		0.40	1.00		0.67	1.00		0.35	1.00		0.53
Lane Grp Cap(c), veh/h	252	957	490	51	572	281	314	470	466	336	492	473
V/C Ratio(X)	0.85	0.49	0.50	0.81	0.70	0.73	0.28	0.41	0.42	0.42	0.42	0.44
Avail Cap(c_a), veh/h	296	1193	611	77	775	380	314	470	466	336	492	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	1.00	1.00	1.00	0.91	0.91	0.91	0.99	0.99	0.99
Uniform Delay (d), s/veh	33.4	23.8	23.8	38.6	31.2	31.4	28.4	24.1	24.1	28.4	23.5	23.6
Incr Delay (d2), s/veh	12.2	0.3	0.5	30.3	1.8	4.6	0.4	2.4	2.5	0.8	2.6	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	3.6	3.8	1.2	3.7	4.0	1.4	3.1	3.2	2.4	3.5	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	24.0	24.3	69.0	33.0	36.0	28.8	26.5	26.7	29.2	26.1	26.4
LnGrp LOS	D	C	C	E	C	D	C	C	C	C	C	C
Approach Vol, veh/h		930			647			479			555	
Approach Delay, s/veh		29.0			36.2			27.0			27.0	
Approach LOS		C			D			C			C	

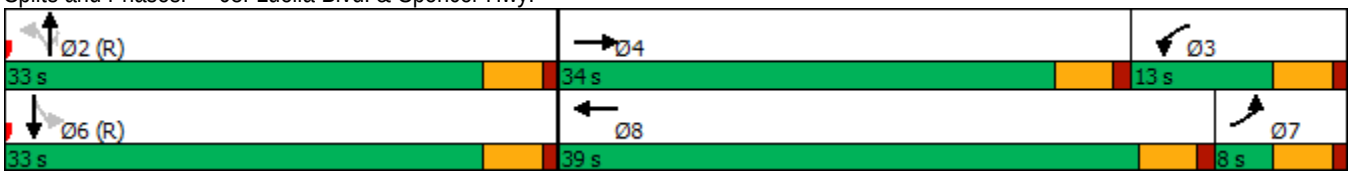
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	26.0	6.8	27.4	18.8	27.0	16.0	18.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	21.5	3.5	28.5	7.5	22.5	13.5	18.5
Max Q Clear Time (g_c+I1), s	7.6	9.5	3.9	11.5	5.5	10.0	11.5	11.4
Green Ext Time (p_c), s	0.0	1.7	0.0	4.4	0.0	2.0	0.1	2.2

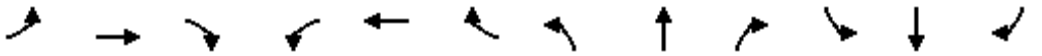
Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	8	1022	66	1220	188	4	63	4	4
Future Volume (vph)	8	1022	66	1220	188	4	63	4	4
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	7	4	3	8		2			6
Permitted Phases					2		2	6	
Detector Phase	7	4	3	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	34.0	13.0	39.0	33.0	33.0	33.0	33.0	33.0
Total Split (%)	10.0%	42.5%	16.3%	48.8%	41.3%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.2	28.3	7.7	36.9	32.5	32.5	32.5		32.5
Actuated g/C Ratio	0.06	0.35	0.10	0.46	0.41	0.41	0.41		0.41
v/c Ratio	0.08	0.76	0.44	0.61	0.39	0.01	0.10		0.02
Control Delay	32.1	15.1	38.4	11.8	26.7	20.5	7.1		14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	32.1	15.1	38.4	11.8	26.7	20.5	7.1		14.3
LOS	C	B	D	B	C	C	A		B
Approach Delay		15.2		13.1		21.7			14.3
Approach LOS		B		B		C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 38 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	1022	137	66	1220	5	188	4	63	4	4	4
Future Volume (veh/h)	8	1022	137	66	1220	5	188	4	63	4	4	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	9	1136	152	73	1356	6	209	4	70	4	4	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	14	1354	181	94	1797	8	750	875	741	278	276	247
Arrive On Green	0.02	0.60	0.60	0.05	0.35	0.35	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1753	4483	600	1753	5164	23	1385	1841	1560	459	580	520
Grp Volume(v), veh/h	9	849	439	73	880	482	209	4	70	12	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1733	1753	1675	1837	1385	1841	1560	1559	0	0
Q Serve(g_s), s	0.4	16.3	16.3	3.3	18.6	18.6	7.1	0.1	2.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	16.3	16.3	3.3	18.6	18.6	7.4	0.1	2.0	0.3	0.0	0.0
Prop In Lane	1.00		0.35	1.00		0.01	1.00		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	14	1012	523	94	1166	639	750	875	741	801	0	0
V/C Ratio(X)	0.65	0.84	0.84	0.77	0.75	0.75	0.28	0.00	0.09	0.01	0.00	0.00
Avail Cap(c_a), veh/h	77	1235	639	186	1445	792	750	875	741	801	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.73	0.73	0.73	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.3	14.3	14.3	37.4	23.1	23.1	12.9	11.0	11.5	11.1	0.0	0.0
Incr Delay (d2), s/veh	36.7	3.9	7.3	9.4	1.3	2.4	0.9	0.0	0.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.9	4.5	1.6	6.9	7.7	2.3	0.0	0.7	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.0	18.2	21.6	46.8	24.4	25.5	13.8	11.0	11.8	11.1	0.0	0.0
LnGrp LOS	E	B	C	D	C	C	B	B	B	B	A	A
Approach Vol, veh/h		1297			1435			283			12	
Approach Delay, s/veh		19.7			25.9			13.3			11.1	
Approach LOS		B			C			B			B	

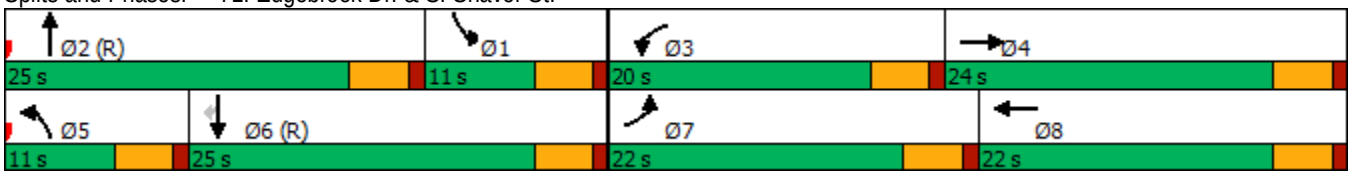
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.5	8.8	28.7		42.5	5.1	32.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	8.5	29.5		28.5	3.5	34.5				
Max Q Clear Time (g_c+I1), s		9.4	5.3	18.3		2.3	2.4	20.6				
Green Ext Time (p_c), s		0.8	0.0	5.9		0.0	0.0	7.3				

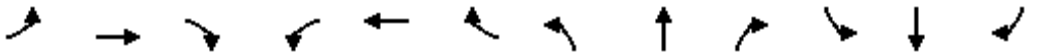
Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	234	687	204	566	63	485	72	522	269
Future Volume (vph)	234	687	204	566	63	485	72	522	269
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	22.0	24.0	20.0	22.0	11.0	25.0	11.0	25.0	25.0
Total Split (%)	27.5%	30.0%	25.0%	27.5%	13.8%	31.3%	13.8%	31.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.6	19.5	14.0	17.9	6.3	24.2	6.4	24.2	24.2
Actuated g/C Ratio	0.20	0.24	0.18	0.22	0.08	0.30	0.08	0.30	0.30
v/c Ratio	0.77	0.66	0.75	0.87	0.51	0.69	0.58	0.55	0.47
Control Delay	35.6	25.8	26.5	37.1	35.8	13.1	43.8	19.6	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	25.8	26.5	37.1	35.8	13.1	43.8	19.6	4.9
LOS	D	C	C	D	D	B	D	B	A
Approach Delay		28.2		34.4		15.1		17.0	
Approach LOS		C		C		B		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 73 (91%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 72.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	687	38	204	566	38	63	485	165	72	522	269
Future Volume (veh/h)	234	687	38	204	566	38	63	485	165	72	522	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	260	763	42	227	629	42	70	539	183	80	580	299
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	302	1134	62	271	716	48	89	657	222	230	1177	525
Arrive On Green	0.17	0.23	0.23	0.05	0.07	0.07	0.05	0.26	0.26	0.04	0.11	0.11
Sat Flow, veh/h	1753	4875	267	1753	3328	222	1753	2566	868	1753	3497	1560
Grp Volume(v), veh/h	260	523	282	227	330	341	70	367	355	80	580	299
Grp Sat Flow(s),veh/h/ln	1753	1675	1793	1753	1749	1801	1753	1749	1685	1753	1749	1560
Q Serve(g_s), s	11.5	11.4	11.4	10.3	15.0	15.0	3.2	15.8	15.9	3.5	12.5	14.6
Cycle Q Clear(g_c), s	11.5	11.4	11.4	10.3	15.0	15.0	3.2	15.8	15.9	3.5	12.5	14.6
Prop In Lane	1.00		0.15	1.00		0.12	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	302	779	417	271	377	388	89	448	432	230	1177	525
V/C Ratio(X)	0.86	0.67	0.68	0.84	0.88	0.88	0.78	0.82	0.82	0.35	0.49	0.57
Avail Cap(c_a), veh/h	383	817	437	340	383	394	142	448	432	230	1177	525
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	32.2	27.9	27.9	36.9	36.1	36.1	37.5	28.0	28.0	34.9	29.1	30.1
Incr Delay (d2), s/veh	14.8	2.0	3.9	7.1	10.8	10.7	13.8	15.3	16.1	0.8	1.3	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	4.6	5.2	5.3	8.1	8.3	1.7	8.1	8.0	1.6	6.0	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	29.9	31.8	44.1	46.9	46.8	51.3	43.3	44.2	35.8	30.5	34.1
LnGrp LOS	D	C	C	D	D	D	D	D	D	D	C	C
Approach Vol, veh/h		1065			898			792			959	
Approach Delay, s/veh		34.6			46.1			44.4			32.1	
Approach LOS		C			D			D			C	

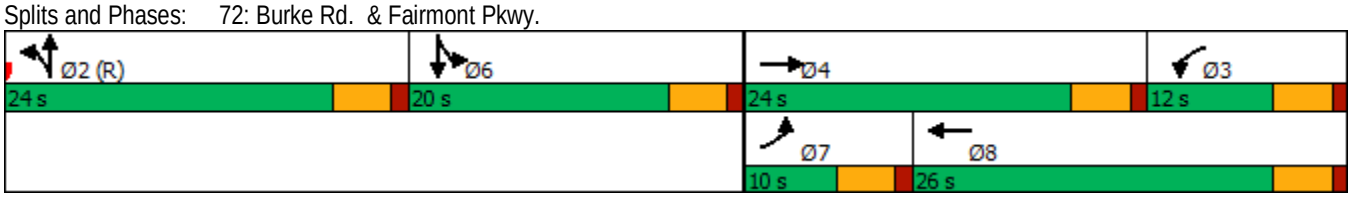
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	25.0	16.9	23.1	8.6	31.4	18.3	21.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	20.5	15.5	19.5	6.5	20.5	17.5	17.5
Max Q Clear Time (g_c+I1), s	5.5	17.9	12.3	13.4	5.2	16.6	13.5	17.0
Green Ext Time (p_c), s	0.0	1.1	0.2	2.6	0.0	1.8	0.3	0.2

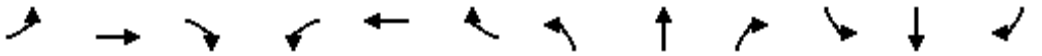
Intersection Summary	
HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	794	121	675	230	403	165	342
Future Volume (vph)	76	794	121	675	230	403	165	342
Turn Type	Prot	NA	Prot	NA	Split	NA	Split	NA
Protected Phases	7	4	3	8	2	2	6	6
Permitted Phases								
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	24.0	12.0	26.0	24.0	24.0	20.0	20.0
Total Split (%)	12.5%	30.0%	15.0%	32.5%	30.0%	30.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	Max	Max
Act Effct Green (s)	5.5	19.5	7.5	23.5	19.5	19.5	15.5	15.5
Actuated g/C Ratio	0.07	0.24	0.09	0.29	0.24	0.24	0.19	0.19
v/c Ratio	0.68	1.15	0.80	0.85	0.58	0.73	0.52	0.66
Control Delay	54.0	103.5	56.9	28.6	26.2	21.9	30.5	28.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	103.5	56.9	28.6	26.2	21.9	30.5	28.3
LOS	D	F	E	C	C	C	C	C
Approach Delay		99.7		32.3		23.1		28.9
Approach LOS		F		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 69 (86%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 49.4	Intersection LOS: D
Intersection Capacity Utilization 79.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	794	119	121	675	133	230	403	196	165	342	77
Future Volume (veh/h)	76	794	119	121	675	133	230	403	196	165	342	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	81	845	127	129	718	141	245	429	0	176	364	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	103	743	112	162	808	159	429	857		340	678	
Arrive On Green	0.06	0.24	0.24	0.03	0.09	0.09	0.24	0.24	0.00	0.19	0.19	0.00
Sat Flow, veh/h	1753	3049	458	1753	2914	572	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	81	485	487	129	431	428	245	429	0	176	364	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1758	1753	1749	1738	1753	1749	0	1753	1749	0
Q Serve(g_s), s	3.6	19.5	19.5	5.8	19.5	19.5	9.8	8.4	0.0	7.2	7.5	0.0
Cycle Q Clear(g_c), s	3.6	19.5	19.5	5.8	19.5	19.5	9.8	8.4	0.0	7.2	7.5	0.0
Prop In Lane	1.00		0.26	1.00		0.33	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	103	426	429	162	485	482	429	857		340	678	
V/C Ratio(X)	0.78	1.14	1.14	0.80	0.89	0.89	0.57	0.50		0.52	0.54	
Avail Cap(c_a), veh/h	121	426	429	164	485	482	429	857		340	678	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.59	0.59	0.59	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.1	30.3	30.3	38.0	35.1	35.1	26.5	26.0	0.0	28.9	29.0	0.0
Incr Delay (d2), s/veh	18.8	81.1	81.0	14.6	11.6	11.8	0.5	0.2	0.0	5.6	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	17.4	17.5	3.2	10.6	10.6	4.0	3.4	0.0	3.5	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.0	111.4	111.3	52.6	46.7	46.9	27.0	26.2	0.0	34.5	32.1	0.0
LnGrp LOS	E	F	F	D	D	D	C	C		C	C	
Approach Vol, veh/h		1053			988			674	A		540	A
Approach Delay, s/veh		107.1			47.6			26.5			32.8	
Approach LOS		F			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.1	11.9	24.0		20.0	9.2	26.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	7.5	19.5		15.5	5.5	21.5				
Max Q Clear Time (g_c+I1), s		11.8	7.8	21.5		9.5	5.6	21.5				
Green Ext Time (p_c), s		2.2	0.0	0.0		1.5	0.0	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	60.0
HCM 6th LOS	E

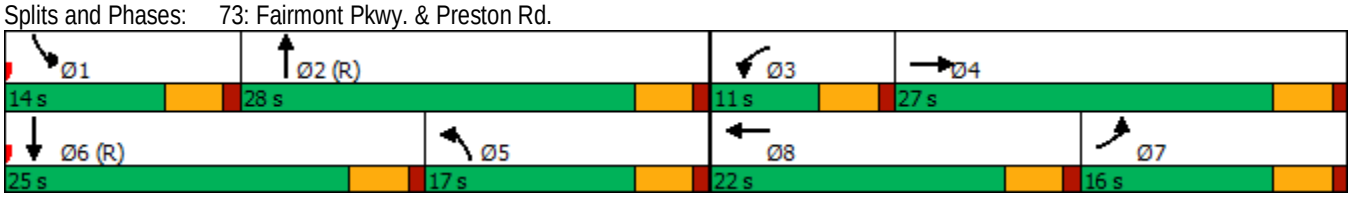
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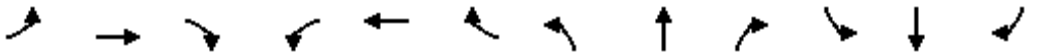
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	166	861	72	794	180	580	268	631
Future Volume (vph)	166	861	72	794	180	580	268	631
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	27.0	11.0	22.0	17.0	28.0	14.0	25.0
Total Split (%)	20.0%	33.8%	13.8%	27.5%	21.3%	35.0%	17.5%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.9	24.1	6.3	17.5	12.5	24.2	9.4	21.1
Actuated g/C Ratio	0.14	0.30	0.08	0.22	0.16	0.30	0.12	0.26
v/c Ratio	0.74	0.71	0.55	0.93	0.70	0.74	0.72	0.82
Control Delay	30.5	8.3	51.8	45.0	47.3	29.0	27.6	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	8.3	51.8	45.0	47.3	29.0	27.6	23.7
LOS	C	A	D	D	D	C	C	C
Approach Delay		11.4		45.5		32.6		24.8
Approach LOS		B		D		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 63 (79%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 28.0	Intersection LOS: C
Intersection Capacity Utilization 78.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	861	150	72	794	189	180	580	159	268	631	80
Future Volume (veh/h)	166	861	150	72	794	189	180	580	159	268	631	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	175	906	158	76	836	199	189	611	167	282	664	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	208	1215	211	97	888	210	318	898	245	364	800	101
Arrive On Green	0.24	0.56	0.56	0.06	0.22	0.22	0.18	0.33	0.33	0.11	0.26	0.26
Sat Flow, veh/h	1753	4308	748	1753	4058	960	1753	2715	741	3401	3124	395
Grp Volume(v), veh/h	175	704	360	76	689	346	189	393	385	282	371	377
Grp Sat Flow(s),veh/h/ln	1753	1675	1706	1753	1675	1668	1753	1749	1707	1700	1749	1770
Q Serve(g_s), s	7.6	12.6	12.8	3.4	16.2	16.3	7.9	15.5	15.6	6.5	16.0	16.1
Cycle Q Clear(g_c), s	7.6	12.6	12.8	3.4	16.2	16.3	7.9	15.5	15.6	6.5	16.0	16.1
Prop In Lane	1.00		0.44	1.00		0.58	1.00		0.43	1.00		0.22
Lane Grp Cap(c), veh/h	208	945	481	97	733	365	318	578	564	364	448	453
V/C Ratio(X)	0.84	0.74	0.75	0.78	0.94	0.95	0.59	0.68	0.68	0.78	0.83	0.83
Avail Cap(c_a), veh/h	252	945	481	142	733	365	318	578	564	404	448	453
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.09	0.09	0.09	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	29.8	15.3	15.3	37.3	30.7	30.8	30.1	23.1	23.1	34.8	28.1	28.1
Incr Delay (d2), s/veh	12.6	2.0	4.0	1.6	2.9	5.9	3.0	6.3	6.5	5.2	10.4	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.5	3.8	1.5	6.6	6.9	3.5	7.1	7.0	2.9	7.7	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	17.3	19.3	38.9	33.6	36.7	33.0	29.5	29.7	40.0	38.5	38.5
LnGrp LOS	D	B	B	D	C	D	C	C	C	D	D	D
Approach Vol, veh/h		1239			1111			967			1030	
Approach Delay, s/veh		21.4			34.9			30.2			38.9	
Approach LOS		C			C			C			D	

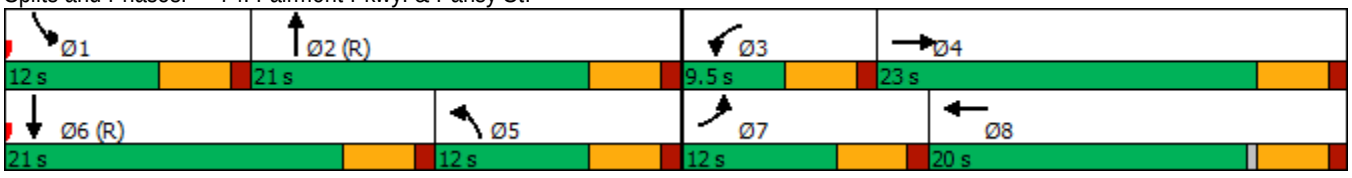
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	30.9	8.9	27.1	19.0	25.0	14.0	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	23.5	6.5	22.5	12.5	20.5	11.5	17.5
Max Q Clear Time (g_c+I1), s	8.5	17.6	5.4	14.8	9.9	18.1	9.6	18.3
Green Ext Time (p_c), s	0.1	2.5	0.0	4.1	0.1	1.1	0.1	0.0

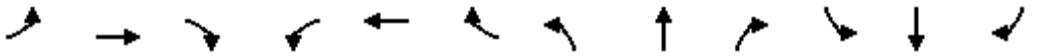
Intersection Summary	
HCM 6th Ctrl Delay	31.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	220	1148	56	1045	221	207	90	217
Future Volume (vph)	220	1148	56	1045	221	207	90	217
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	8.0	20.0	9.5	20.0
Total Split (s)	12.0	23.0	9.5	20.0	12.0	21.0	12.0	21.0
Total Split (%)	18.3%	35.1%	14.5%	30.5%	18.3%	32.1%	18.3%	32.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	22.3	5.0	16.0	7.5	18.9	7.1	16.5
Actuated g/C Ratio	0.11	0.34	0.08	0.24	0.11	0.29	0.11	0.25
v/c Ratio	1.26	0.91	0.48	1.07	1.27	0.33	0.54	0.40
Control Delay	182.2	32.9	42.5	72.2	184.1	14.7	38.7	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	182.2	32.9	42.5	72.2	184.1	14.7	38.7	14.8
LOS	F	C	D	E	F	B	D	B
Approach Delay		53.7		70.8		87.0		19.9
Approach LOS		D		E		F		B

Intersection Summary	
Cycle Length: 65.5	
Actuated Cycle Length: 65.5	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 60.1	Intersection LOS: E
Intersection Capacity Utilization 76.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1148	210	56	1045	100	221	207	90	90	217	110
Future Volume (veh/h)	220	1148	210	56	1045	100	221	207	90	90	217	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	250	1305	239	64	1188	114	251	235	102	102	247	125
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	1264	231	92	1095	105	226	730	307	130	569	279
Arrive On Green	0.11	0.30	0.30	0.05	0.23	0.23	0.13	0.30	0.30	0.07	0.25	0.25
Sat Flow, veh/h	1753	4269	782	1753	4663	447	1753	2399	1009	1753	2275	1114
Grp Volume(v), veh/h	250	1024	520	64	853	449	251	169	168	102	188	184
Grp Sat Flow(s),veh/h/ln	1753	1675	1700	1753	1675	1760	1753	1749	1659	1753	1749	1640
Q Serve(g_s), s	7.5	19.5	19.5	2.4	15.5	15.5	8.5	4.9	5.2	3.8	6.0	6.3
Cycle Q Clear(g_c), s	7.5	19.5	19.5	2.4	15.5	15.5	8.5	4.9	5.2	3.8	6.0	6.3
Prop In Lane	1.00		0.46	1.00		0.25	1.00		0.61	1.00		0.68
Lane Grp Cap(c), veh/h	199	992	503	92	787	413	226	532	505	130	437	410
V/C Ratio(X)	1.25	1.03	1.03	0.70	1.08	1.09	1.11	0.32	0.33	0.78	0.43	0.45
Avail Cap(c_a), veh/h	199	992	503	133	787	413	226	532	505	199	437	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	23.2	23.2	30.8	25.2	25.3	28.7	17.7	17.8	30.0	20.8	20.9
Incr Delay (d2), s/veh	138.3	31.6	40.7	9.2	57.5	69.1	93.1	1.6	1.8	10.5	3.1	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	11.4	12.9	1.2	12.0	14.0	9.2	2.1	2.1	1.9	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	167.6	54.8	64.0	39.9	82.8	94.4	121.9	19.3	19.5	40.5	23.9	24.4
LnGrp LOS	F	F	F	D	F	F	F	B	B	D	C	C
Approach Vol, veh/h		1794			1366			588			474	
Approach Delay, s/veh		73.2			84.6			63.1			27.7	
Approach LOS		E			F			E			C	

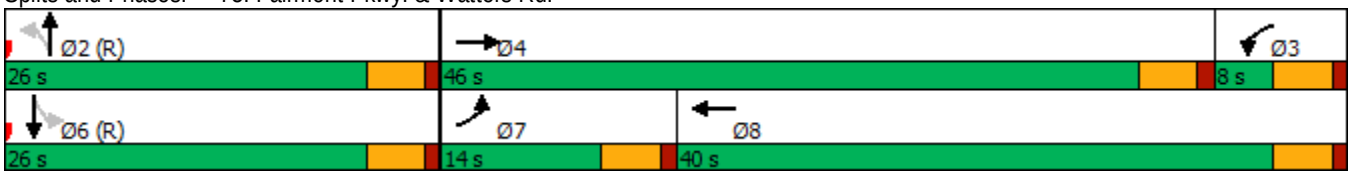
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	24.6	8.0	24.0	13.0	21.0	12.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	16.5	5.0	18.5	7.5	16.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	5.8	7.2	4.4	21.5	10.5	8.3	9.5	17.5
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.0	1.4	0.0	0.0

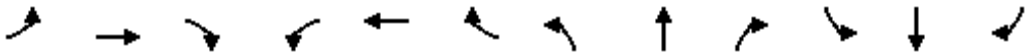
Intersection Summary	
HCM 6th Ctrl Delay	70.4
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	77	1159	19	894	17	8	66	10
Future Volume (vph)	77	1159	19	894	17	8	66	10
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	46.0	8.0	40.0	26.0	26.0	26.0	26.0
Total Split (%)	17.5%	57.5%	10.0%	50.0%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.3	40.8	4.9	33.2		27.0		27.0
Actuated g/C Ratio	0.10	0.51	0.06	0.42		0.34		0.34
v/c Ratio	0.46	0.72	0.20	0.74		0.07		0.33
Control Delay	49.3	8.0	18.6	10.0		17.6		15.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	49.3	8.0	18.6	10.0		17.6		15.8
LOS	D	A	B	A		B		B
Approach Delay		10.5		10.2		17.6		15.8
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1159	17	19	894	83	17	8	9	66	10	88
Future Volume (veh/h)	77	1159	17	19	894	83	17	8	9	66	10	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	84	1260	18	21	972	90	18	9	10	72	11	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	108	1529	22	29	1255	116	325	163	156	270	60	309
Arrive On Green	0.06	0.43	0.43	0.02	0.39	0.39	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1753	3530	50	1753	3236	300	676	426	408	542	158	810
Grp Volume(v), veh/h	84	624	654	21	525	537	37	0	0	179	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1832	1753	1749	1787	1511	0	0	1510	0	0
Q Serve(g_s), s	3.8	25.2	25.2	1.0	21.0	21.0	0.0	0.0	0.0	3.4	0.0	0.0
Cycle Q Clear(g_c), s	3.8	25.2	25.2	1.0	21.0	21.0	1.1	0.0	0.0	6.3	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.17	0.49		0.27	0.40		0.54
Lane Grp Cap(c), veh/h	108	758	794	29	678	693	644	0	0	639	0	0
V/C Ratio(X)	0.78	0.82	0.82	0.73	0.77	0.77	0.06	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	208	907	950	77	776	793	644	0	0	639	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.32	0.32	0.32	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.0	20.0	20.0	39.2	21.4	21.4	15.6	0.0	0.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.5	0.5	11.0	1.4	1.4	0.2	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.5	10.0	0.5	8.3	8.5	0.4	0.0	0.0	2.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	20.5	20.5	50.2	22.8	22.8	15.8	0.0	0.0	18.3	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1362			1083			37			179	
Approach Delay, s/veh		21.6			23.4			15.8			18.3	
Approach LOS		C			C			B			B	

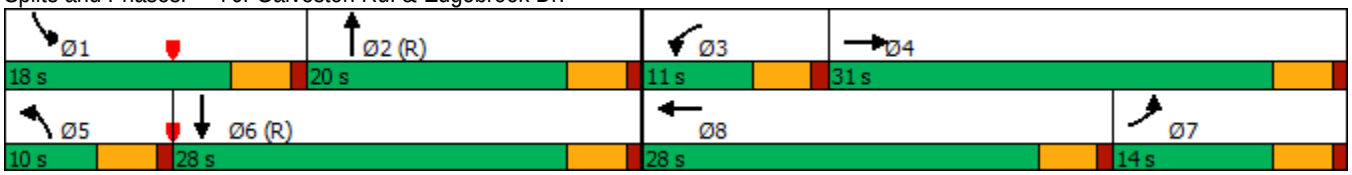
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.0	5.8	39.2		35.0	9.4	35.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	9.5	35.5				
Max Q Clear Time (g_c+I1), s		3.1	3.0	27.2		8.3	5.8	23.0				
Green Ext Time (p_c), s		0.1	0.0	7.5		0.8	0.1	5.6				

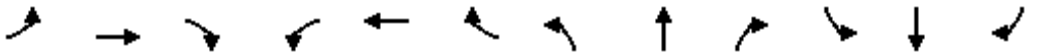
Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	145	730	75	725	52	463	215	378
Future Volume (vph)	145	730	75	725	52	463	215	378
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	31.0	11.0	28.0	10.0	20.0	18.0	28.0
Total Split (%)	17.5%	38.8%	13.8%	35.0%	12.5%	25.0%	22.5%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.2	28.4	6.3	23.5	5.5	16.5	12.8	27.8
Actuated g/C Ratio	0.12	0.36	0.08	0.29	0.07	0.21	0.16	0.35
v/c Ratio	0.74	0.67	0.56	1.02	0.45	0.76	0.79	0.42
Control Delay	47.8	19.6	65.2	47.0	48.1	36.9	53.6	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	19.6	65.2	47.0	48.1	36.9	53.6	20.3
LOS	D	B	E	D	D	D	D	C
Approach Delay		23.9		48.3		37.9		30.4
Approach LOS		C		D		D		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 35.8	Intersection LOS: D
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	730	75	75	725	305	52	463	70	215	378	112
Future Volume (veh/h)	145	730	75	75	725	305	52	463	70	215	378	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	148	745	77	77	740	311	53	472	71	219	386	114
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	182	1093	113	98	705	296	67	702	105	258	905	264
Arrive On Green	0.10	0.34	0.34	0.06	0.29	0.29	0.04	0.23	0.23	0.15	0.34	0.34
Sat Flow, veh/h	1753	3199	331	1753	2400	1008	1753	3051	457	1753	2670	779
Grp Volume(v), veh/h	148	407	415	77	539	512	53	270	273	219	251	249
Grp Sat Flow(s),veh/h/ln	1753	1749	1781	1753	1749	1659	1753	1749	1759	1753	1749	1700
Q Serve(g_s), s	6.6	16.0	16.0	3.5	23.5	23.5	2.4	11.2	11.3	9.7	8.9	9.1
Cycle Q Clear(g_c), s	6.6	16.0	16.0	3.5	23.5	23.5	2.4	11.2	11.3	9.7	8.9	9.1
Prop In Lane	1.00		0.19	1.00		0.61	1.00		0.26	1.00		0.46
Lane Grp Cap(c), veh/h	182	597	608	98	514	487	67	403	405	258	593	577
V/C Ratio(X)	0.81	0.68	0.68	0.78	1.05	1.05	0.79	0.67	0.68	0.85	0.42	0.43
Avail Cap(c_a), veh/h	208	597	608	142	514	487	121	403	405	296	593	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.1	22.6	22.6	37.3	28.3	28.3	38.2	28.0	28.1	33.3	20.4	20.5
Incr Delay (d2), s/veh	19.0	3.2	3.1	15.8	53.3	54.6	18.6	8.6	8.7	18.4	2.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	6.8	6.9	1.9	16.9	16.2	1.4	5.5	5.6	5.3	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	25.8	25.7	53.1	81.6	82.8	56.8	36.6	36.8	51.7	22.6	22.8
LnGrp LOS	D	C	C	D	F	F	E	D	D	D	C	C
Approach Vol, veh/h		970			1128			596			719	
Approach Delay, s/veh		30.1			80.2			38.5			31.5	
Approach LOS		C			F			D			C	

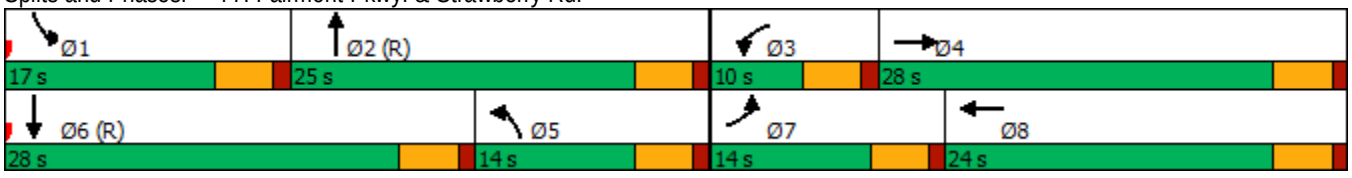
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	22.9	9.0	31.8	7.5	31.6	12.8	28.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	15.5	6.5	26.5	5.5	23.5	9.5	23.5
Max Q Clear Time (g_c+I1), s	11.7	13.3	5.5	18.0	4.4	11.1	8.6	25.5
Green Ext Time (p_c), s	0.1	0.7	0.0	3.4	0.0	2.5	0.0	0.0

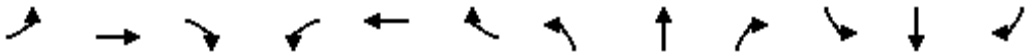
Intersection Summary	
HCM 6th Ctrl Delay	48.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	141	616	33	562	105	569	189	361
Future Volume (vph)	141	616	33	562	105	569	189	361
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	28.0	10.0	24.0	14.0	25.0	17.0	28.0
Total Split (%)	17.5%	35.0%	12.5%	30.0%	17.5%	31.3%	21.3%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.2	27.5	5.5	19.8	8.9	21.1	11.9	26.3
Actuated g/C Ratio	0.12	0.34	0.07	0.25	0.11	0.26	0.15	0.33
v/c Ratio	0.76	0.60	0.29	0.97	0.59	0.78	0.79	0.51
Control Delay	46.3	17.2	35.2	41.0	39.3	29.2	40.4	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	17.2	35.2	41.0	39.3	29.2	40.4	13.2
LOS	D	B	D	D	D	C	D	B
Approach Delay		22.3		40.8		30.6		20.2
Approach LOS		C		D		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 67 (84%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 28.7	Intersection LOS: C
Intersection Capacity Utilization 79.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	616	44	33	562	230	105	569	94	189	361	184
Future Volume (veh/h)	141	616	44	33	562	230	105	569	94	189	361	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	152	662	47	35	604	247	113	612	101	203	388	198
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	187	1079	77	43	590	241	230	864	142	241	661	333
Arrive On Green	0.11	0.33	0.33	0.01	0.08	0.08	0.13	0.29	0.29	0.14	0.29	0.29
Sat Flow, veh/h	1753	3312	235	1753	2422	989	1753	3005	495	1753	2252	1134
Grp Volume(v), veh/h	152	349	360	35	436	415	113	356	357	203	300	286
Grp Sat Flow(s),veh/h/ln	1753	1749	1798	1753	1749	1663	1753	1749	1752	1753	1749	1637
Q Serve(g_s), s	6.8	13.5	13.5	1.6	19.5	19.5	4.8	14.6	14.6	9.0	11.7	12.0
Cycle Q Clear(g_c), s	6.8	13.5	13.5	1.6	19.5	19.5	4.8	14.6	14.6	9.0	11.7	12.0
Prop In Lane	1.00		0.13	1.00		0.60	1.00		0.28	1.00		0.69
Lane Grp Cap(c), veh/h	187	570	586	43	426	405	230	502	503	241	514	481
V/C Ratio(X)	0.81	0.61	0.61	0.82	1.02	1.02	0.49	0.71	0.71	0.84	0.58	0.59
Avail Cap(c_a), veh/h	208	570	586	121	426	405	230	502	503	274	514	481
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	0.52	0.52	0.52	1.00	1.00	1.00	0.63	0.63	0.63
Uniform Delay (d), s/veh	35.0	22.7	22.7	39.5	36.8	36.8	32.3	25.5	25.5	33.7	24.1	24.2
Incr Delay (d2), s/veh	14.2	1.3	1.3	17.8	37.3	38.5	1.6	8.2	8.2	12.7	3.1	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	5.5	5.7	0.9	13.4	12.9	2.1	6.9	7.0	4.6	5.1	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	24.0	24.0	57.3	74.1	75.3	33.9	33.7	33.8	46.3	27.1	27.6
LnGrp LOS	D	C	C	E	F	F	C	C	C	D	C	C
Approach Vol, veh/h		861			886			826			789	
Approach Delay, s/veh		28.5			74.0			33.7			32.2	
Approach LOS		C			E			C			C	

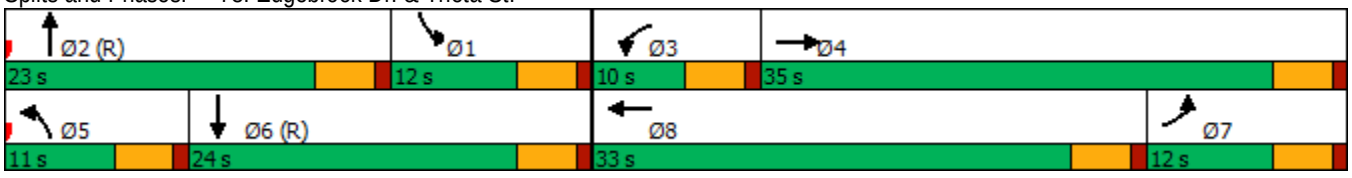
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	27.5	6.4	30.6	15.0	28.0	13.0	24.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	20.5	5.5	23.5	9.5	23.5	9.5	19.5
Max Q Clear Time (g_c+I1), s	11.0	16.6	3.6	15.5	6.8	14.0	8.8	21.5
Green Ext Time (p_c), s	0.1	1.6	0.0	2.7	0.1	2.6	0.0	0.0

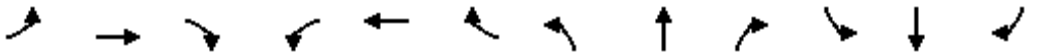
Intersection Summary	
HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	105	888	36	1021	61	41	91	41
Future Volume (vph)	105	888	36	1021	61	41	91	41
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	35.0	10.0	33.0	11.0	23.0	12.0	24.0
Total Split (%)	15.0%	43.8%	12.5%	41.3%	13.8%	28.8%	15.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	34.5	5.5	28.5	6.3	20.9	7.3	21.7
Actuated g/C Ratio	0.09	0.43	0.07	0.36	0.08	0.26	0.09	0.27
v/c Ratio	0.74	0.71	0.34	1.03	0.50	0.28	0.65	0.38
Control Delay	63.5	22.8	41.8	53.3	48.6	12.0	46.0	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	22.8	41.8	53.3	48.6	12.0	46.0	5.7
LOS	E	C	D	D	D	B	D	A
Approach Delay		27.0		52.9		24.2		19.0
Approach LOS		C		D		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 37.3	Intersection LOS: D
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	888	38	36	1021	96	61	41	80	91	41	143
Future Volume (veh/h)	105	888	38	36	1021	96	61	41	80	91	41	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	119	1009	43	41	1160	109	69	47	91	103	47	162
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	149	1410	60	51	1151	108	88	130	251	179	103	355
Arrive On Green	0.09	0.41	0.41	0.03	0.36	0.36	0.05	0.23	0.23	0.10	0.28	0.28
Sat Flow, veh/h	1753	3418	146	1753	3232	303	1753	560	1085	1753	363	1252
Grp Volume(v), veh/h	119	516	536	41	627	642	69	0	138	103	0	209
Grp Sat Flow(s),veh/h/ln	1753	1749	1815	1753	1749	1786	1753	0	1645	1753	0	1615
Q Serve(g_s), s	5.3	19.7	19.7	1.9	28.5	28.5	3.1	0.0	5.6	4.5	0.0	8.5
Cycle Q Clear(g_c), s	5.3	19.7	19.7	1.9	28.5	28.5	3.1	0.0	5.6	4.5	0.0	8.5
Prop In Lane	1.00		0.08	1.00		0.17	1.00		0.66	1.00		0.78
Lane Grp Cap(c), veh/h	149	721	749	51	623	636	88	0	381	179	0	458
V/C Ratio(X)	0.80	0.72	0.72	0.81	1.01	1.01	0.78	0.00	0.36	0.57	0.00	0.46
Avail Cap(c_a), veh/h	164	721	749	121	623	636	142	0	381	179	0	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.9	19.6	19.6	38.6	25.7	25.8	37.6	0.0	25.8	34.2	0.0	23.6
Incr Delay (d2), s/veh	21.7	3.4	3.3	25.2	37.6	37.9	13.9	0.0	2.7	4.4	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	7.4	7.7	1.1	16.7	17.1	1.6	0.0	2.4	2.1	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	23.0	22.9	63.8	63.4	63.7	51.5	0.0	28.5	38.6	0.0	26.9
LnGrp LOS	E	C	C	E	F	F	D	A	C	D	A	C
Approach Vol, veh/h		1171			1310			207			312	
Approach Delay, s/veh		26.4			63.5			36.1			30.7	
Approach LOS		C			E			D			C	

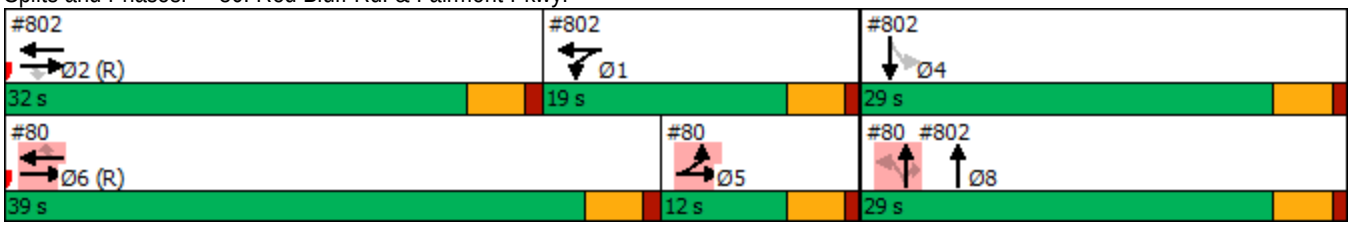
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	23.0	6.8	37.5	8.5	27.2	11.3	33.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	5.5	30.5	6.5	19.5	7.5	28.5
Max Q Clear Time (g_c+I1), s	6.5	7.6	3.9	21.7	5.1	10.5	7.3	30.5
Green Ext Time (p_c), s	0.0	0.5	0.0	3.9	0.0	0.7	0.0	0.0

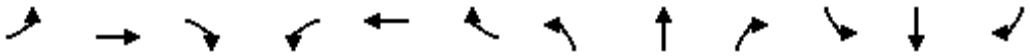
Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	10	829	832	119	141	427	67			
Future Volume (vph)	10	829	832	119	141	427	67			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	12.0		39.0	39.0	29.0	29.0	29.0	19.0	32.0	29.0
Total Split (%)	15.0%		48.8%	48.8%	36.3%	36.3%	36.3%	24%	40%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	7.4	49.5	37.5	37.5	21.5	21.5	21.5			
Actuated g/C Ratio	0.09	0.62	0.47	0.47	0.27	0.27	0.27			
v/c Ratio	0.07	0.28	0.25	0.16	0.32	0.48	0.14			
Control Delay	26.9	1.9	20.5	12.0	11.6	13.2	1.3			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	26.9	1.9	20.5	12.0	11.6	13.2	1.3			
LOS	C	A	C	B	B	B	A			
Approach Delay		2.2	19.5			11.6				
Approach LOS		A	B			B				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 11.4	Intersection LOS: B
Intersection Capacity Utilization 38.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





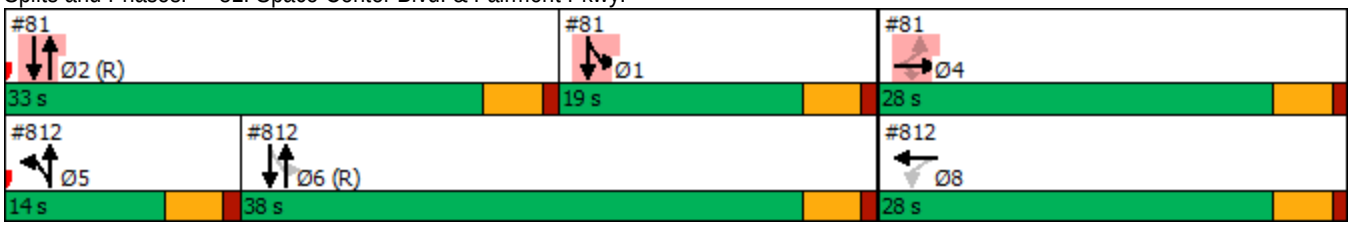
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	829	0	0	832	119	141	427	67	0	0	0
Future Volume (vph)	10	829	0	0	832	119	141	427	67	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	873	0	0	876	125	148	449	71	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	66	0	0	52	0	0	0
Lane Group Flow (vph)	11	873	0	0	876	59	148	449	19	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	7.4	49.5			37.6	37.6	21.5	21.5	21.5			
Effective Green, g (s)	7.4	49.5			37.6	37.6	21.5	21.5	21.5			
Actuated g/C Ratio	0.09	0.62			0.47	0.47	0.27	0.27	0.27			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	160	3086			3477	729	466	932	417			
v/s Ratio Prot	0.01	c0.18			0.12			c0.13				
v/s Ratio Perm						0.04	0.09		0.01			
v/c Ratio	0.07	0.28			0.25	0.08	0.32	0.48	0.05			
Uniform Delay, d1	33.2	7.0			12.7	11.7	23.4	24.6	21.7			
Progression Factor	0.78	0.22			1.52	3.96	0.45	0.49	1.00			
Incremental Delay, d2	0.2	0.0			0.1	0.2	0.3	0.3	0.0			
Delay (s)	26.1	1.6			19.5	46.4	10.8	12.3	21.7			
Level of Service	C	A			B	D	B	B	C			
Approach Delay (s)		1.9			22.9			13.0			0.0	
Approach LOS		A			C			B			A	

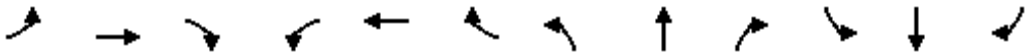
Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	107	1588	174	908	178	721			
Future Volume (vph)	107	1588	174	908	178	721			
Turn Type	Perm	NA	Perm	NA	Prot	NA			
Protected Phases		4		2	1	1 2	5	6	8
Permitted Phases	4		4						
Detector Phase	4	4	4	2	1	1 2			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	28.0	28.0	28.0	33.0	19.0		14.0	38.0	28.0
Total Split (%)	35.0%	35.0%	35.0%	41.3%	23.8%		18%	48%	35%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	23.5	23.5	23.5	28.5	14.5	47.5			
Actuated g/C Ratio	0.29	0.29	0.29	0.36	0.18	0.59			
v/c Ratio	0.24	0.98	0.34	0.88	0.64	0.40			
Control Delay	23.0	45.4	7.4	24.6	38.6	8.8			
Queue Delay	0.2	0.0	0.0	0.7	47.0	1.4			
Total Delay	23.2	45.4	7.4	25.3	85.6	10.2			
LOS	C	D	A	C	F	B			
Approach Delay		40.6		25.3		25.1			
Approach LOS		D		C		C			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 61 (76%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 32.2	Intersection LOS: C
Intersection Capacity Utilization 75.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





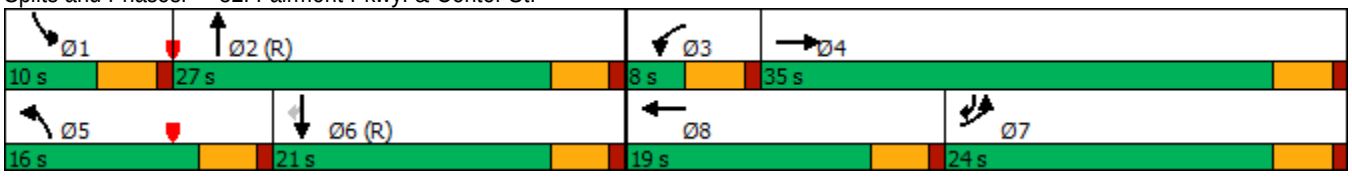
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	1588	174	0	0	0	0	908	447	178	721	0
Future Volume (vph)	107	1588	174	0	0	0	0	908	447	178	721	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91		1.00	0.95	
Frt	1.00	1.00	0.85					0.95		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4741		1736	3471	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4741		1736	3471	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	122	1805	198	0	0	0	0	1032	508	202	819	0
RTOR Reduction (vph)	0	0	119	0	0	0	0	62	0	0	0	0
Lane Group Flow (vph)	122	1805	79	0	0	0	0	1478	0	202	819	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4									
Actuated Green, G (s)	23.5	23.5	23.5					28.5		14.5	47.5	
Effective Green, g (s)	23.5	23.5	23.5					28.5		14.5	47.5	
Actuated g/C Ratio	0.29	0.29	0.29					0.36		0.18	0.59	
Clearance Time (s)	4.5	4.5	4.5					4.5		4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		
Lane Grp Cap (vph)	509	1846	456					1688		314	2060	
v/s Ratio Prot		c0.29						c0.31		c0.12	0.24	
v/s Ratio Perm	0.07		0.05									
v/c Ratio	0.24	0.98	0.17					0.88		0.64	0.40	
Uniform Delay, d1	21.5	28.0	21.0					24.1		30.4	8.6	
Progression Factor	1.00	1.00	1.00					0.77		0.93	0.94	
Incremental Delay, d2	0.2	15.8	0.2					6.5		4.3	0.1	
Delay (s)	21.7	43.8	21.2					25.2		32.6	8.2	
Level of Service	C	D	C					C		C	A	
Approach Delay (s)		40.4			0.0			25.2			13.0	
Approach LOS		D			A			C			B	

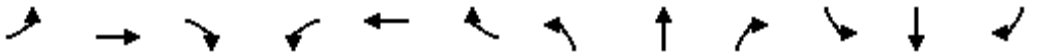
Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	766	1258	20	846	225	133	32	41	621
Future Volume (vph)	766	1258	20	846	225	133	32	41	621
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	24.0	35.0	8.0	19.0	16.0	27.0	10.0	21.0	24.0
Total Split (%)	30.0%	43.8%	10.0%	23.8%	20.0%	33.8%	12.5%	26.3%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	19.5	35.3	3.5	14.5	11.5	26.5	5.5	16.5	36.0
Actuated g/C Ratio	0.24	0.44	0.04	0.18	0.14	0.33	0.07	0.21	0.45
v/c Ratio	1.00	0.74	0.29	1.02	0.97	0.15	0.29	0.12	0.50
Control Delay	64.7	21.3	34.4	58.0	87.7	17.8	44.9	43.6	14.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.7	21.3	34.4	58.0	87.7	17.8	44.9	43.6	14.6
LOS	E	C	C	E	F	B	D	D	B
Approach Delay		36.0		57.5		58.9		17.7	
Approach LOS		D		E		E		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 39.5	Intersection LOS: D
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	766	1258	237	20	846	9	225	133	24	32	41	621
Future Volume (veh/h)	766	1258	237	20	846	9	225	133	24	32	41	621
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	824	1353	255	22	910	10	242	143	26	34	44	668
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	829	1733	326	30	929	10	252	968	172	41	380	1235
Arrive On Green	0.32	0.54	0.54	0.01	0.06	0.06	0.14	0.33	0.33	0.02	0.21	0.21
Sat Flow, veh/h	3401	4247	800	1753	5124	56	1753	2966	528	1753	1841	2745
Grp Volume(v), veh/h	824	1067	541	22	595	325	242	83	86	34	44	668
Grp Sat Flow(s),veh/h/ln	1700	1675	1697	1753	1675	1831	1753	1749	1746	1753	1841	1373
Q Serve(g_s), s	19.3	20.2	20.2	1.0	14.2	14.2	11.0	2.7	2.8	1.5	1.6	5.1
Cycle Q Clear(g_c), s	19.3	20.2	20.2	1.0	14.2	14.2	11.0	2.7	2.8	1.5	1.6	5.1
Prop In Lane	1.00		0.47	1.00		0.03	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	829	1367	692	30	607	332	252	571	570	41	380	1235
V/C Ratio(X)	0.99	0.78	0.78	0.74	0.98	0.98	0.96	0.15	0.15	0.82	0.12	0.54
Avail Cap(c_a), veh/h	829	1367	692	77	607	332	252	571	570	121	380	1235
HCM Platoon Ratio	1.33	1.33	1.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	27.0	15.4	15.5	39.6	37.5	37.5	34.0	19.1	19.1	38.9	25.8	5.1
Incr Delay (d2), s/veh	29.7	3.0	5.8	26.9	29.1	40.9	45.6	0.5	0.6	25.4	0.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	6.4	7.0	0.6	8.7	10.6	7.6	1.1	1.1	0.9	0.7	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	18.4	21.2	66.5	66.5	78.4	79.6	19.6	19.6	64.3	26.3	6.4
LnGrp LOS	E	B	C	E	E	E	E	B	B	E	C	A
Approach Vol, veh/h		2432			942			411			746	
Approach Delay, s/veh		32.0			70.6			55.0			10.2	
Approach LOS		C			E			D			B	

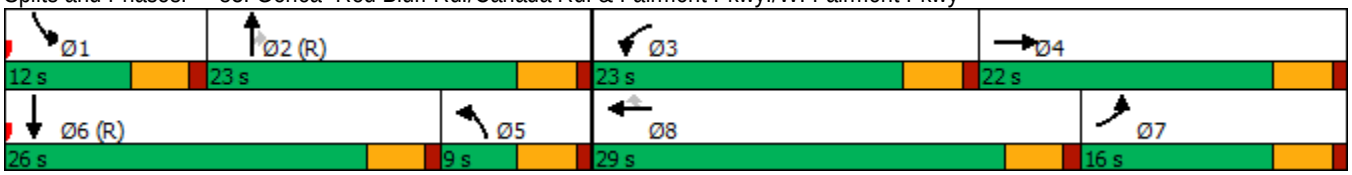
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	30.6	5.9	37.1	16.0	21.0	24.0	19.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	22.5	3.5	30.5	11.5	16.5	19.5	14.5
Max Q Clear Time (g_c+I1), s	3.5	4.8	3.0	22.2	13.0	7.1	21.3	16.2
Green Ext Time (p_c), s	0.0	0.7	0.0	6.0	0.0	2.2	0.0	0.0

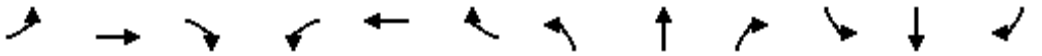
Intersection Summary	
HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	204	841	453	833	184	34	369	603	171	448
Future Volume (vph)	204	841	453	833	184	34	369	603	171	448
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	16.0	22.0	23.0	29.0	29.0	9.0	23.0	23.0	12.0	26.0
Total Split (%)	20.0%	27.5%	28.8%	36.3%	36.3%	11.3%	28.8%	28.8%	15.0%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.9	17.5	18.5	24.1	24.1	4.5	18.5	18.5	7.5	25.1
Actuated g/C Ratio	0.15	0.22	0.23	0.30	0.30	0.06	0.23	0.23	0.09	0.31
v/c Ratio	0.87	1.27	1.24	0.88	0.33	0.38	0.50	0.86	1.16	0.63
Control Delay	48.9	151.1	158.4	37.6	4.9	39.2	21.3	16.1	151.8	26.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	151.1	158.4	37.6	4.9	39.2	21.3	16.1	151.8	26.2
LOS	D	F	F	D	A	D	C	B	F	C
Approach Delay		131.9		70.8			18.8			53.1
Approach LOS		F		E			B			D

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 22 (28%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 70.7	Intersection LOS: E
Intersection Capacity Utilization 92.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	841	37	453	833	184	34	369	603	171	448	180
Future Volume (veh/h)	204	841	37	453	833	184	34	369	603	171	448	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	224	924	41	498	915	202	37	405	663	188	492	198
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	272	746	33	405	1031	460	99	809	361	164	655	262
Arrive On Green	0.16	0.22	0.22	0.23	0.29	0.29	0.06	0.23	0.23	0.09	0.27	0.27
Sat Flow, veh/h	1753	3411	151	1753	3497	1560	1753	3497	1560	1753	2438	976
Grp Volume(v), veh/h	224	474	491	498	915	202	37	405	663	188	352	338
Grp Sat Flow(s),veh/h/ln	1753	1749	1813	1753	1749	1560	1753	1749	1560	1753	1749	1665
Q Serve(g_s), s	9.9	17.5	17.5	18.5	20.0	5.9	1.6	8.1	18.5	7.5	14.7	14.9
Cycle Q Clear(g_c), s	9.9	17.5	17.5	18.5	20.0	5.9	1.6	8.1	18.5	7.5	14.7	14.9
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	272	383	397	405	1031	460	99	809	361	164	470	448
V/C Ratio(X)	0.82	1.24	1.24	1.23	0.89	0.44	0.38	0.50	1.84	1.14	0.75	0.76
Avail Cap(c_a), veh/h	272	383	397	405	1071	478	99	809	361	164	470	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.09	0.09	0.09	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	32.7	31.3	31.3	30.7	26.9	11.4	36.4	26.7	30.8	36.3	26.8	26.8
Incr Delay (d2), s/veh	14.9	124.0	123.5	104.9	0.9	0.1	2.3	2.2	387.7	109.2	9.1	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	20.3	20.9	19.3	8.1	2.8	0.7	3.4	45.5	8.1	7.1	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	155.2	154.7	135.6	27.9	11.5	38.7	28.9	418.5	145.4	35.9	36.6
LnGrp LOS	D	F	F	F	C	B	D	C	F	F	D	D
Approach Vol, veh/h		1189			1615			1105			878	
Approach Delay, s/veh		134.8			59.1			263.0			59.6	
Approach LOS		F			E			F			E	

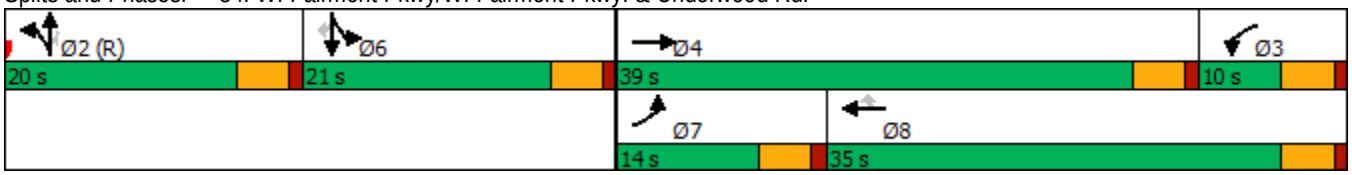
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.0	23.0	22.0	9.0	26.0	16.9	28.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	18.5	17.5	4.5	21.5	11.5	24.5
Max Q Clear Time (g_c+I1), s	9.5	20.5	20.5	19.5	3.6	16.9	11.9	22.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.8	0.0	1.6

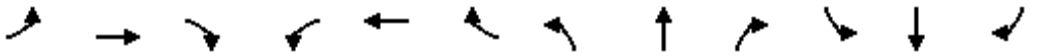
Intersection Summary	
HCM 6th Ctrl Delay	125.0
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	210	1447	110	1300	276	29	38	364	112	253
Future Volume (vph)	210	1447	110	1300	276	29	38	364	112	253
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Split	NA	Perm
Protected Phases	7	4	3	8		2		6	6	
Permitted Phases					8		2			6
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	39.0	10.0	35.0	35.0	20.0	20.0	21.0	21.0	21.0
Total Split (%)	15.6%	43.3%	11.1%	38.9%	38.9%	22.2%	22.2%	23.3%	23.3%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	9.5	34.5	5.5	30.5	30.5	15.5	15.5	16.5	16.5	16.5
Actuated g/C Ratio	0.11	0.38	0.06	0.34	0.34	0.17	0.17	0.18	0.18	0.18
v/c Ratio	1.25	1.28	1.13	1.20	0.49	0.24	0.10	1.25	0.19	0.54
Control Delay	184.3	157.9	168.9	128.1	16.4	34.6	0.5	167.8	32.1	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	184.3	157.9	168.9	128.1	16.4	34.6	0.5	167.8	32.1	8.6
LOS	F	F	F	F	B	C	A	F	C	A
Approach Delay		161.0		112.5		22.3			91.7	
Approach LOS		F		F		C			F	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.28	
Intersection Signal Delay: 126.7	Intersection LOS: F
Intersection Capacity Utilization 93.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	1447	108	110	1300	276	38	29	38	364	112	253
Future Volume (veh/h)	210	1447	108	110	1300	276	38	29	38	364	112	253
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	228	1573	117	120	1413	300	41	32	41	396	122	275
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	185	1266	93	107	1185	529	173	135	269	321	641	286
Arrive On Green	0.11	0.38	0.38	0.06	0.34	0.34	0.17	0.17	0.17	0.18	0.18	0.18
Sat Flow, veh/h	1753	3302	244	1753	3497	1560	1006	785	1560	1753	3497	1560
Grp Volume(v), veh/h	228	828	862	120	1413	300	73	0	41	396	122	275
Grp Sat Flow(s),veh/h/ln	1753	1749	1797	1753	1749	1560	1790	0	1560	1753	1749	1560
Q Serve(g_s), s	9.5	34.5	34.5	5.5	30.5	14.2	3.2	0.0	2.0	16.5	2.7	15.7
Cycle Q Clear(g_c), s	9.5	34.5	34.5	5.5	30.5	14.2	3.2	0.0	2.0	16.5	2.7	15.7
Prop In Lane	1.00		0.14	1.00		1.00	0.56		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	670	689	107	1185	529	308	0	269	321	641	286
V/C Ratio(X)	1.23	1.24	1.25	1.12	1.19	0.57	0.24	0.00	0.15	1.23	0.19	0.96
Avail Cap(c_a), veh/h	185	670	689	107	1185	529	308	0	269	321	641	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.48	0.48	0.48	1.00	0.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	40.3	27.8	27.8	42.3	29.8	24.4	32.1	0.0	31.7	36.8	31.1	36.4
Incr Delay (d2), s/veh	108.9	107.1	114.3	96.3	90.8	0.7	1.8	0.0	1.2	125.9	0.6	40.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	33.6	35.9	5.2	27.2	5.2	1.5	0.0	0.8	18.1	1.2	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	149.2	134.9	142.1	138.5	120.5	25.0	33.9	0.0	32.9	162.7	31.7	77.2
LnGrp LOS	F	F	F	F	F	C	C	A	C	F	C	E
Approach Vol, veh/h		1918			1833			114			793	
Approach Delay, s/veh		139.8			106.1			33.6			112.9	
Approach LOS		F			F			C			F	

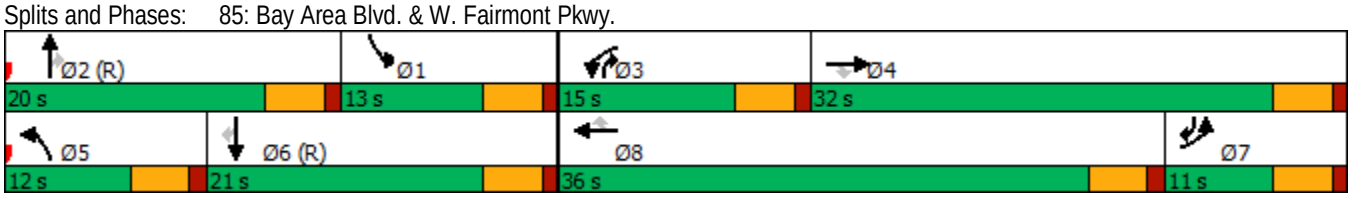
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	10.0	39.0		21.0	14.0	35.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	5.5	34.5		16.5	9.5	30.5				
Max Q Clear Time (g_c+I1), s		5.2	7.5	36.5		18.5	11.5	32.5				
Green Ext Time (p_c), s		0.3	0.0	0.0		0.0	0.0	0.0				

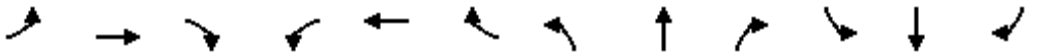
Intersection Summary												
HCM 6th Ctrl Delay			119.4									
HCM 6th LOS			F									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	1322	213	215	1326	124	142	245	147	164	267	216
Future Volume (vph)	112	1322	213	215	1326	124	142	245	147	164	267	216
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	11.0	32.0	32.0	15.0	36.0	36.0	12.0	20.0	15.0	13.0	21.0	11.0
Total Split (%)	13.8%	40.0%	40.0%	18.8%	45.0%	45.0%	15.0%	25.0%	18.8%	16.3%	26.3%	13.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	6.5	27.5	27.5	10.5	31.5	31.5	7.5	15.5	26.0	8.5	16.5	23.0
Actuated g/C Ratio	0.08	0.34	0.34	0.13	0.39	0.39	0.09	0.19	0.32	0.11	0.21	0.29
v/c Ratio	0.80	1.12	0.32	0.96	0.98	0.17	0.88	0.37	0.25	0.90	0.38	0.40
Control Delay	68.9	86.4	2.8	79.2	27.3	0.4	84.4	29.8	3.4	89.4	36.1	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.9	86.4	2.8	79.2	27.3	0.4	84.4	29.8	3.4	89.4	36.1	13.6
LOS	E	F	A	E	C	A	F	C	A	F	D	B
Approach Delay		74.4			32.0			37.1			42.1	
Approach LOS		E			C			D			D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 49.6	Intersection LOS: D
Intersection Capacity Utilization 84.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	1322	213	215	1326	124	142	245	147	164	267	216
Future Volume (veh/h)	112	1322	213	215	1326	124	142	245	147	164	267	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	113	1335	0	217	1339	125	143	247	148	166	270	218
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	1202		230	1377	614	164	678	507	186	721	448
Arrive On Green	0.08	0.34	0.00	0.13	0.39	0.39	0.09	0.19	0.19	0.11	0.21	0.21
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	113	1335	0	217	1339	125	143	247	148	166	270	218
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	5.1	27.5	0.0	9.8	30.1	4.2	6.4	4.9	3.4	7.5	5.3	1.9
Cycle Q Clear(g_c), s	5.1	27.5	0.0	9.8	30.1	4.2	6.4	4.9	3.4	7.5	5.3	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	1202		230	1377	614	164	678	507	186	721	448
V/C Ratio(X)	0.79	1.11		0.94	0.97	0.20	0.87	0.36	0.29	0.89	0.37	0.49
Avail Cap(c_a), veh/h	142	1202		230	1377	614	164	678	507	186	721	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	0.37	0.37	0.37	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	36.1	26.3	0.0	34.5	23.8	16.0	35.8	28.0	8.2	35.3	27.3	10.5
Incr Delay (d2), s/veh	22.2	60.1	0.0	23.0	9.3	0.1	36.1	1.5	1.5	35.7	1.4	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	20.7	0.0	5.5	13.3	1.4	4.3	2.1	1.6	5.0	2.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	86.4	0.0	57.5	33.1	16.0	71.9	29.5	9.7	71.0	28.7	14.0
LnGrp LOS	E	F		E	C	B	E	C	A	E	C	B
Approach Vol, veh/h		1448	A		1681			538			654	
Approach Delay, s/veh		84.2			35.0			35.3			34.5	
Approach LOS		F			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	20.0	15.0	32.0	12.0	21.0	11.0	36.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	15.5	10.5	27.5	7.5	16.5	6.5	31.5
Max Q Clear Time (g_c+I1), s	9.5	6.9	11.8	29.5	8.4	7.3	7.1	32.1
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

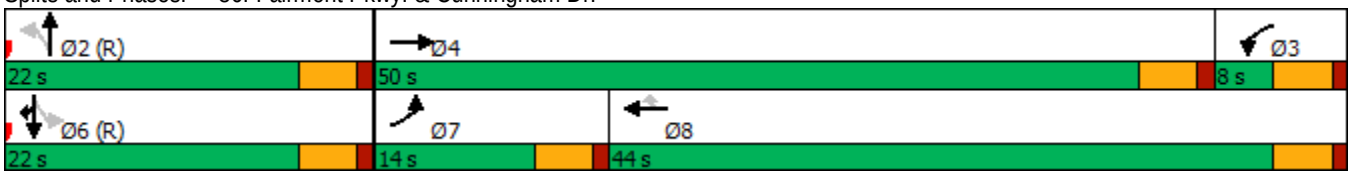
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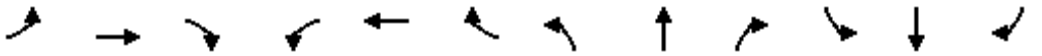
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR	Ø2
Lane Configurations									
Traffic Volume (vph)	81	1194	5	1068	5	5	0	5	
Future Volume (vph)	81	1194	5	1068	5	5	0	5	
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Prot	
Protected Phases	7	4	3	8			6	6	2
Permitted Phases					8	6			
Detector Phase	7	4	3	8	8	6	6	6	
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	50.0	8.0	44.0	44.0	22.0	22.0	22.0	22.0
Total Split (%)	17.5%	62.5%	10.0%	55.0%	55.0%	27.5%	27.5%	27.5%	28%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lead	Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.4	46.1	5.3	36.8	36.8		23.3	23.3	
Actuated g/C Ratio	0.10	0.58	0.07	0.46	0.46		0.29	0.29	
v/c Ratio	0.49	0.66	0.05	0.74	0.01		0.01	0.01	
Control Delay	31.2	16.1	22.2	7.1	0.0		24.6	0.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	31.2	16.1	22.2	7.1	0.0		24.6	0.0	
LOS	C	B	C	A	A		C	A	
Approach Delay		17.1		7.2			12.3		
Approach LOS		B		A			B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 58.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1194	0	5	1068	5	0	0	0	5	0	5
Future Volume (veh/h)	81	1194	0	5	1068	5	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	90	1327	0	6	1187	0	0	0	0	6	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	116	1636	0	22	1449		0	646	0	580	0	
Arrive On Green	0.07	0.47	0.00	0.01	0.41	0.00	0.00	0.00	0.00	0.35	0.00	0.00
Sat Flow, veh/h	1753	3589	0	1753	3497	1560	0	1841	0	1395	0	1560
Grp Volume(v), veh/h	90	1327	0	6	1187	0	0	0	0	6	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	1560	0	1841	0	1395	0	1560
Q Serve(g_s), s	4.0	26.0	0.0	0.3	24.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	4.0	26.0	0.0	0.3	24.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	1636	0	22	1449		0	646	0	580	0	
V/C Ratio(X)	0.78	0.81	0.00	0.28	0.82		0.00	0.00	0.00	0.01	0.00	
Avail Cap(c_a), veh/h	208	1989	0	77	1727		0	646	0	580	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.56	0.56	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	36.8	18.2	0.0	39.1	20.8	0.0	0.0	0.0	0.0	16.9	0.0	0.0
Incr Delay (d2), s/veh	10.7	2.2	0.0	3.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	10.0	0.0	0.1	9.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	20.4	0.0	42.9	22.3	0.0	0.0	0.0	0.0	17.0	0.0	0.0
LnGrp LOS	D	C	A	D	C		A	A	A	B	A	
Approach Vol, veh/h		1417			1193	A		0			6	A
Approach Delay, s/veh		22.2			22.4			0.0			17.0	
Approach LOS		C			C						B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.6	5.5	41.9		32.6	9.8	37.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.5	3.5	45.5		17.5	9.5	39.5				
Max Q Clear Time (g_c+I1), s		0.0	2.3	28.0		2.2	6.0	26.1				
Green Ext Time (p_c), s		0.0	0.0	9.4		0.0	0.1	7.1				

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

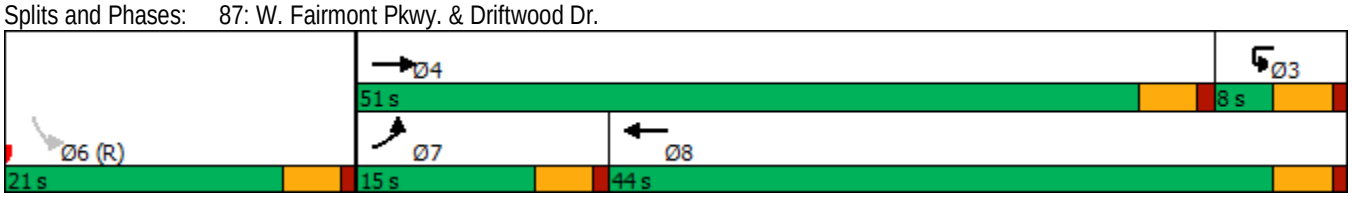
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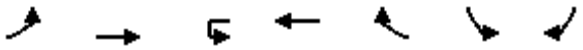
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	100	1200	1218	132	
Future Volume (vph)	100	1200	1218	132	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	15.0	51.0	44.0	21.0	8.0
Total Split (%)	18.8%	63.8%	55.0%	26.3%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lead	Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	9.1	49.3	37.9	21.7	
Actuated g/C Ratio	0.11	0.62	0.47	0.27	
v/c Ratio	0.52	0.58	0.81	0.33	
Control Delay	42.8	10.0	10.2	12.2	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	42.8	10.0	10.2	12.2	
LOS	D	B	B	B	
Approach Delay		12.5	10.2	12.2	
Approach LOS		B	B	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 40 (50%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 66.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





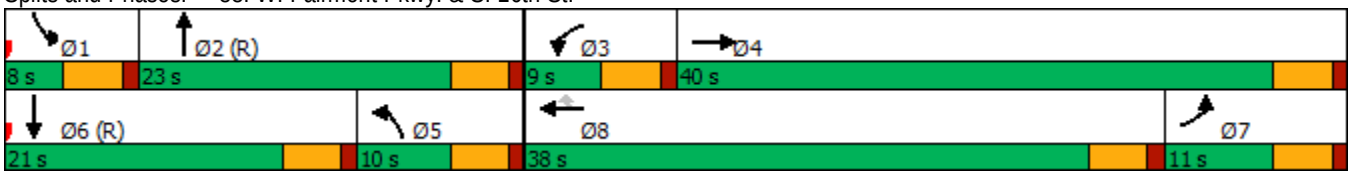
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	100	1200	0	1218	65	132	189
Future Volume (vph)	100	1200	0	1218	65	132	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.91	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3445		3166	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3445		3166	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	103	1237	0	1256	67	136	195
RTOR Reduction (vph)	0	0	0	5	0	145	0
Lane Group Flow (vph)	103	1237	0	1318	0	186	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	7.9	50.3		37.9		20.7	
Effective Green, g (s)	7.9	50.3		37.9		20.7	
Actuated g/C Ratio	0.10	0.63		0.47		0.26	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	171	2182		1632		819	
v/s Ratio Prot	0.06	c0.36		c0.38			
v/s Ratio Perm						c0.06	
v/c Ratio	0.60	0.57		0.81		0.23	
Uniform Delay, d1	34.5	8.6		17.9		23.4	
Progression Factor	1.00	1.00		0.46		1.00	
Incremental Delay, d2	5.9	0.3		1.3		0.6	
Delay (s)	40.4	8.9		9.6		24.0	
Level of Service	D	A		A		C	
Approach Delay (s)		11.3		9.6		24.0	
Approach LOS		B		A		C	

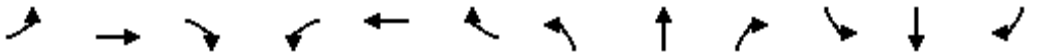
Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	95	1046	61	1219	99	74	19	20	19
Future Volume (vph)	95	1046	61	1219	99	74	19	20	19
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	40.0	9.0	38.0	38.0	10.0	23.0	8.0	21.0
Total Split (%)	13.8%	50.0%	11.3%	47.5%	47.5%	12.5%	28.8%	10.0%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	34.6	4.5	33.0	33.0	5.5	26.0	3.9	21.2
Actuated g/C Ratio	0.08	0.43	0.06	0.41	0.41	0.07	0.32	0.05	0.26
v/c Ratio	0.70	0.83	0.66	0.89	0.14	0.65	0.05	0.25	0.06
Control Delay	23.7	6.7	69.9	31.0	0.4	62.8	12.7	44.5	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	6.7	69.9	31.0	0.4	62.8	12.7	44.5	14.3
LOS	C	A	E	C	A	E	B	D	B
Approach Delay		8.0		30.6			42.4		23.1
Approach LOS		A		C			D		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1046	132	61	1219	99	74	19	32	20	19	30
Future Volume (veh/h)	95	1046	132	61	1219	99	74	19	32	20	19	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	99	1090	138	64	1270	103	77	20	33	21	20	31
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	126	1341	170	81	1413	630	163	495	441	29	361	322
Arrive On Green	0.07	0.43	0.43	0.05	0.40	0.40	0.09	0.28	0.28	0.02	0.21	0.21
Sat Flow, veh/h	1753	3123	395	1753	3497	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	99	610	618	64	1270	103	77	20	33	21	20	31
Grp Sat Flow(s),veh/h/ln	1753	1749	1770	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	4.4	24.4	24.5	2.9	27.2	2.6	3.3	0.7	1.2	1.0	0.7	1.3
Cycle Q Clear(g_c), s	4.4	24.4	24.5	2.9	27.2	2.6	3.3	0.7	1.2	1.0	0.7	1.3
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	751	760	81	1413	630	163	495	441	29	361	322
V/C Ratio(X)	0.79	0.81	0.81	0.79	0.90	0.16	0.47	0.04	0.07	0.73	0.06	0.10
Avail Cap(c_a), veh/h	142	776	785	99	1465	653	163	495	441	77	361	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	20.0	20.0	37.8	22.3	9.3	34.4	20.8	21.0	39.2	25.5	25.7
Incr Delay (d2), s/veh	2.4	0.6	0.6	28.4	7.7	0.1	2.1	0.2	0.3	30.0	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	9.3	9.4	1.9	11.8	1.1	1.5	0.3	0.5	0.6	0.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	20.6	20.6	66.1	30.0	9.5	36.5	21.0	21.3	69.2	25.8	26.3
LnGrp LOS	D	C	C	E	C	A	D	C	C	E	C	C
Approach Vol, veh/h		1327			1437			130			72	
Approach Delay, s/veh		22.0			30.1			30.3			38.7	
Approach LOS		C			C			C			D	

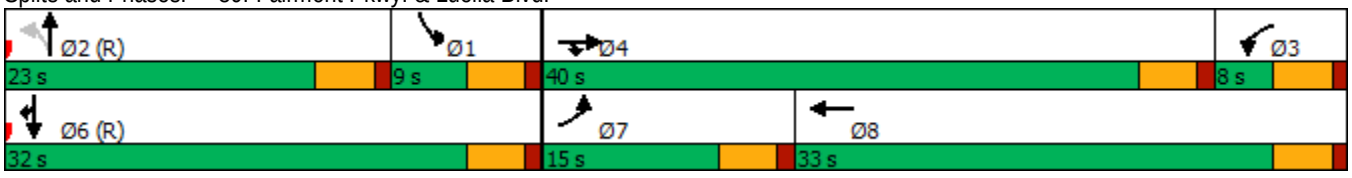
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	27.1	8.2	38.8	11.9	21.0	10.2	36.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	18.5	4.5	35.5	5.5	16.5	6.5	33.5
Max Q Clear Time (g_c+I1), s	3.0	3.2	4.9	26.5	5.3	3.3	6.4	29.2
Green Ext Time (p_c), s	0.0	0.2	0.0	5.2	0.0	0.1	0.0	3.1

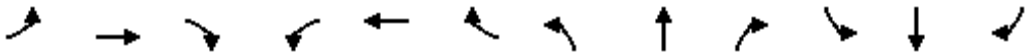
Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBR
Lane Configurations									
Traffic Volume (vph)	118	867	4	5	819	1	0	46	104
Future Volume (vph)	118	867	4	5	819	1	0	46	104
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	Prot
Protected Phases	7	4	4	3	8		2	1	6
Permitted Phases						2			
Detector Phase	7	4	4	3	8	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	15.0	40.0	40.0	8.0	33.0	23.0	23.0	9.0	32.0
Total Split (%)	18.8%	50.0%	50.0%	10.0%	41.3%	28.8%	28.8%	11.3%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.5	37.4	37.4	5.2	27.2		26.6	4.5	32.0
Actuated g/C Ratio	0.12	0.47	0.47	0.06	0.34		0.33	0.06	0.40
v/c Ratio	0.62	0.58	0.00	0.04	0.83		0.00	0.52	0.14
Control Delay	29.1	13.0	0.0	26.2	17.4		0.0	48.0	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	29.1	13.0	0.0	26.2	17.4		0.0	48.0	1.2
LOS	C	B	A	C	B		A	D	A
Approach Delay		14.8			17.5				
Approach LOS		B			B				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	867	4	5	819	79	1	0	1	46	0	104
Future Volume (veh/h)	118	867	4	5	819	79	1	0	1	46	0	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	128	942	4	5	890	86	1	0	1	50	0	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	159	1108	494	167	1036	100	211	21	165	231	772	654
Arrive On Green	0.18	0.63	0.63	0.10	0.32	0.32	0.23	0.00	0.23	0.13	0.00	0.42
Sat Flow, veh/h	1753	3497	1560	1753	3222	311	622	91	713	1753	1841	1560
Grp Volume(v), veh/h	128	942	4	5	483	493	2	0	0	50	0	113
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1785	1426	0	0	1753	1841	1560
Q Serve(g_s), s	5.6	17.1	0.1	0.2	20.7	20.7	0.0	0.0	0.0	2.0	0.0	3.6
Cycle Q Clear(g_c), s	5.6	17.1	0.1	0.2	20.7	20.7	0.1	0.0	0.0	2.0	0.0	3.6
Prop In Lane	1.00		1.00	1.00		0.17	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	159	1108	494	167	562	574	397	0	0	231	772	654
V/C Ratio(X)	0.81	0.85	0.01	0.03	0.86	0.86	0.01	0.00	0.00	0.22	0.00	0.17
Avail Cap(c_a), veh/h	230	1552	692	167	623	636	397	0	0	231	772	654
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.40	0.40	0.40	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.1	13.2	10.0	32.8	25.4	25.4	23.7	0.0	0.0	31.0	0.0	14.5
Incr Delay (d2), s/veh	9.2	2.4	0.0	0.0	4.7	4.6	0.0	0.0	0.0	0.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.0	0.0	0.1	8.9	9.0	0.0	0.0	0.0	0.9	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	15.5	10.0	32.9	30.2	30.1	23.7	0.0	0.0	31.5	0.0	15.1
LnGrp LOS	D	B	B	C	C	C	C	A	A	C	A	B
Approach Vol, veh/h		1074			981			2			163	
Approach Delay, s/veh		18.6			30.1			23.7			20.1	
Approach LOS		B			C			C			C	

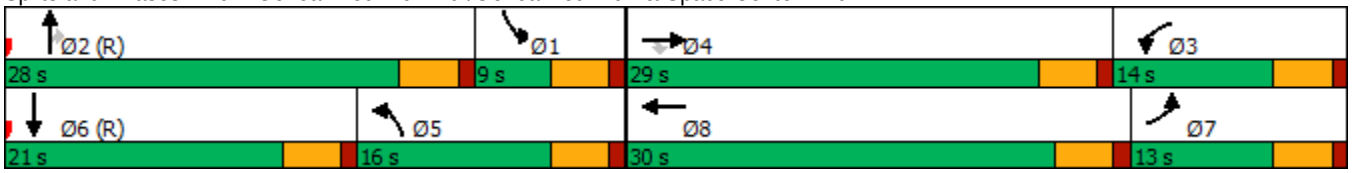
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	15.0	23.0	12.1	29.8		38.0	11.7	30.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.5	18.5	3.5	35.5		27.5	10.5	28.5				
Max Q Clear Time (g_c+I1), s	4.0	2.1	2.2	19.1		5.6	7.6	22.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	6.2		0.3	0.1	3.0				

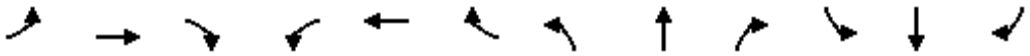
Intersection Summary												
HCM 6th Ctrl Delay			23.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	86	1022	362	255	802	314	786	356	89	580
Future Volume (vph)	86	1022	362	255	802	314	786	356	89	580
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	13.0	29.0	29.0	14.0	30.0	16.0	28.0	28.0	9.0	21.0
Total Split (%)	16.3%	36.3%	36.3%	17.5%	37.5%	20.0%	35.0%	35.0%	11.3%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	8.0	24.5	24.5	9.5	28.1	11.5	23.5	23.5	4.5	16.5
Actuated g/C Ratio	0.10	0.31	0.31	0.12	0.35	0.14	0.29	0.29	0.06	0.21
v/c Ratio	0.53	1.03	0.59	1.33	0.75	1.36	0.83	0.59	0.99	1.15
Control Delay	47.9	67.5	14.8	204.5	13.4	215.6	34.9	11.9	118.7	105.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	67.5	14.8	204.5	13.4	215.6	34.9	11.9	118.7	105.3
LOS	D	E	B	F	B	F	C	B	F	F
Approach Delay		53.4			57.5		68.3			106.7
Approach LOS		D			E		E			F

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 69 (86%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.36	
Intersection Signal Delay: 68.2	Intersection LOS: E
Intersection Capacity Utilization 102.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	1022	362	255	802	47	314	786	356	89	580	196
Future Volume (veh/h)	86	1022	362	255	802	47	314	786	356	89	580	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	92	1099	389	274	862	51	338	845	383	96	624	211
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	228	1071	478	208	989	59	252	1027	458	99	529	179
Arrive On Green	0.13	0.31	0.31	0.12	0.29	0.29	0.14	0.29	0.29	0.11	0.41	0.41
Sat Flow, veh/h	1753	3497	1560	1753	3355	199	1753	3497	1560	1753	2567	867
Grp Volume(v), veh/h	92	1099	389	274	449	464	338	845	383	96	425	410
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1805	1753	1749	1560	1753	1749	1685
Q Serve(g_s), s	3.9	24.5	18.4	9.5	19.5	19.5	11.5	18.0	18.4	4.4	16.5	16.5
Cycle Q Clear(g_c), s	3.9	24.5	18.4	9.5	19.5	19.5	11.5	18.0	18.4	4.4	16.5	16.5
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	1.00		0.51
Lane Grp Cap(c), veh/h	228	1071	478	208	516	532	252	1027	458	99	361	347
V/C Ratio(X)	0.40	1.03	0.81	1.32	0.87	0.87	1.34	0.82	0.84	0.97	1.18	1.18
Avail Cap(c_a), veh/h	228	1071	478	208	557	575	252	1027	458	99	361	347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	31.9	27.7	25.6	35.2	26.8	26.8	34.3	26.3	26.4	35.4	23.5	23.5
Incr Delay (d2), s/veh	1.1	34.3	10.4	170.3	12.6	12.3	177.8	7.4	16.4	71.6	100.7	102.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	14.8	7.9	13.8	9.5	9.8	17.2	8.2	8.6	3.7	14.7	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	62.1	36.1	205.5	39.3	39.0	212.1	33.7	42.8	107.0	124.2	125.6
LnGrp LOS	C	F	D	F	D	D	F	C	D	F	F	F
Approach Vol, veh/h		1580			1187			1566			931	
Approach Delay, s/veh		54.0			77.6			74.4			123.0	
Approach LOS		D			E			E			F	

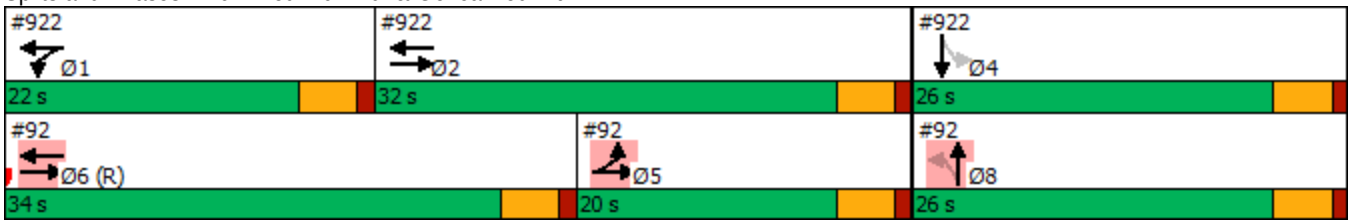
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	28.0	14.0	29.0	16.0	21.0	14.9	28.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	23.5	9.5	24.5	11.5	16.5	8.5	25.5
Max Q Clear Time (g_c+I1), s	6.4	20.4	11.5	26.5	13.5	18.5	5.9	21.5
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.1

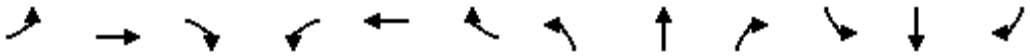
Intersection Summary	
HCM 6th Ctrl Delay	77.6
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	168	946	768	286	541	0			
Future Volume (vph)	168	946	768	286	541	0			
Turn Type	Prot	NA	NA	Perm	NA				
Protected Phases	5	5 6	6		8		1	2	4
Permitted Phases				8					
Detector Phase	5	5 6	6	8	8				
Switch Phase									
Minimum Initial (s)	3.5		5.0	5.0	5.0		3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0		8.0	20.0	20.0
Total Split (s)	20.0		34.0	26.0	26.0		22.0	32.0	26.0
Total Split (%)	25.0%		42.5%	32.5%	32.5%		28%	40%	33%
Yellow Time (s)	3.5		3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0				
Total Lost Time (s)	4.5		4.5	4.5	4.5				
Lead/Lag	Lag		Lead				Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None		C-Max	None	None		None	None	None
Act Effct Green (s)	15.5	51.2	31.2	19.8	19.8	0.0			
Actuated g/C Ratio	0.19	0.64	0.39	0.25	0.25	0.00			
v/c Ratio	0.53	0.45	0.43	0.71	0.65	0.01			
Control Delay	20.9	4.4	20.3	37.0	24.9	0.0			
Queue Delay	1.1	0.6	0.0	0.0	0.0	0.0			
Total Delay	22.0	5.0	20.3	37.0	24.9	0.0			
LOS	C	A	C	D	C	A			
Approach Delay		7.6	20.3		28.1				
Approach LOS		A	C		C				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 67.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





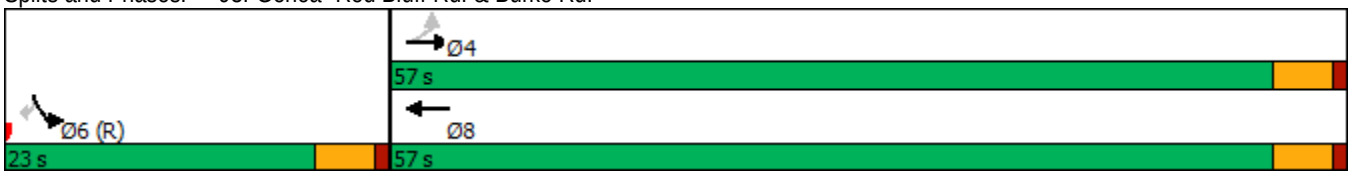
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	168	946	0	0	768	10	286	541	232	0	0	3
Future Volume (vph)	168	946	0	0	768	10	286	541	232	0	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5			4.0	
Lane Util. Factor	1.00	0.95			0.91		1.00	0.91			1.00	
Frt	1.00	1.00			1.00		1.00	0.95			0.85	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3471			4978		1736	4763			0	
Flt Permitted	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (perm)	1736	3471			4978		1736	4763			0	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	179	1006	0	0	817	11	304	576	247	0	0	3
RTOR Reduction (vph)	0	0	0	0	2	0	0	96	0	0	3	0
Lane Group Flow (vph)	179	1006	0	0	826	0	304	727	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	5 6			6			8				
Permitted Phases							8					
Actuated Green, G (s)	15.5	51.2			31.2		19.8	19.8			0.0	
Effective Green, g (s)	15.5	51.2			31.2		19.8	19.8			0.0	
Actuated g/C Ratio	0.19	0.64			0.39		0.25	0.25			0.00	
Clearance Time (s)	4.5				4.5		4.5	4.5				
Vehicle Extension (s)	3.0				3.0		3.0	3.0				
Lane Grp Cap (vph)	336	2221			1941		429	1178			0	
v/s Ratio Prot	c0.10	c0.29			0.17			0.15				
v/s Ratio Perm							c0.18					
v/c Ratio	0.53	0.45			0.43		0.71	0.62			0.00	
Uniform Delay, d1	29.0	7.3			17.8		27.5	26.7			40.0	
Progression Factor	0.54	0.50			1.09		1.00	1.00			1.00	
Incremental Delay, d2	1.3	0.1			0.2		5.3	1.0			0.0	
Delay (s)	17.0	3.8			19.7		32.8	27.7			40.0	
Level of Service	B	A			B		C	C			D	
Approach Delay (s)		5.8			19.7			29.1			40.0	
Approach LOS		A			B			C			D	

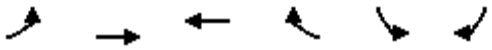
Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	381	592	474	385	232
Future Volume (vph)	381	592	474	385	232
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	57.0	57.0	57.0	23.0	23.0
Total Split (%)	71.3%	71.3%	71.3%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	52.5	52.5	52.5	18.5	18.5
Actuated g/C Ratio	0.66	0.66	0.66	0.23	0.23
v/c Ratio	1.19	0.29	0.39	1.05	0.46
Control Delay	124.4	4.2	0.7	77.7	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	124.4	4.2	0.7	77.7	3.7
LOS	F	A	A	E	A
Approach Delay		51.3	0.7	49.9	
Approach LOS		D	A	D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 34.1	Intersection LOS: C
Intersection Capacity Utilization 80.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	381	592	474	321	385	232
Future Volume (veh/h)	381	592	474	321	385	232
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	419	651	521	353	423	255
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	424	2295	1310	886	405	361
Arrive On Green	0.66	0.66	0.66	0.66	0.23	0.23
Sat Flow, veh/h	624	3589	2088	1351	1753	1560
Grp Volume(v), veh/h	419	651	456	418	423	255
Grp Sat Flow(s),veh/h/ln	624	1749	1749	1598	1753	1560
Q Serve(g_s), s	42.8	6.3	9.7	9.7	18.5	12.0
Cycle Q Clear(g_c), s	52.5	6.3	9.7	9.7	18.5	12.0
Prop In Lane	1.00			0.85	1.00	1.00
Lane Grp Cap(c), veh/h	424	2295	1148	1048	405	361
V/C Ratio(X)	0.99	0.28	0.40	0.40	1.04	0.71
Avail Cap(c_a), veh/h	424	2295	1148	1048	405	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.66	0.66
Uniform Delay (d), s/veh	23.0	5.8	6.4	6.4	30.7	28.3
Incr Delay (d2), s/veh	40.7	0.1	0.2	0.2	48.1	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	1.9	3.0	2.8	12.9	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.7	5.9	6.6	6.6	78.9	35.8
LnGrp LOS	E	A	A	A	F	D
Approach Vol, veh/h		1070	874		678	
Approach Delay, s/veh		28.5	6.6		62.7	
Approach LOS		C	A		E	

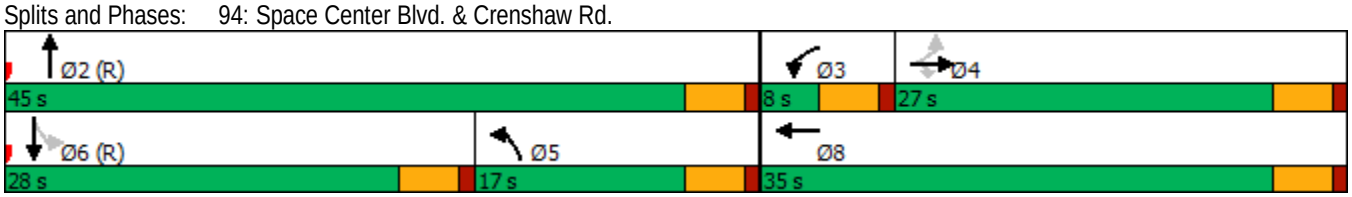
Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		57.0		23.0	57.0
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		52.5		18.5	52.5
Max Q Clear Time (g_c+I1), s		54.5		20.5	11.7
Green Ext Time (p_c), s		0.0		0.0	7.1

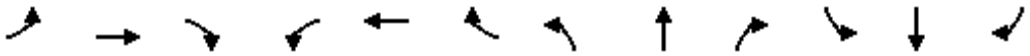
Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	199	108	141	19	103	143	637	102	526
Future Volume (vph)	199	108	141	19	103	143	637	102	526
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA
Protected Phases		4		3	8	5	2		6
Permitted Phases	4		4					6	
Detector Phase	4	4	4	3	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	27.0	8.0	35.0	17.0	45.0	28.0	28.0
Total Split (%)	33.8%	33.8%	33.8%	10.0%	43.8%	21.3%	56.3%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead		Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	20.3	20.3	20.3	3.5	23.5	12.5	47.5	30.5	30.5
Actuated g/C Ratio	0.25	0.25	0.25	0.04	0.29	0.16	0.59	0.38	0.38
v/c Ratio	0.84	0.26	0.31	0.28	0.28	0.59	0.37	0.56	0.65
Control Delay	55.8	24.4	5.8	46.6	8.5	15.8	0.8	30.3	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	24.4	5.8	46.6	8.5	15.8	0.8	30.3	16.0
LOS	E	C	A	D	A	B	A	C	B
Approach Delay		32.6			11.0		3.5		17.7
Approach LOS		C			B		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	108	141	19	103	156	143	637	29	102	526	241
Future Volume (veh/h)	199	108	141	19	103	156	143	637	29	102	526	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	224	121	158	21	116	175	161	716	33	115	591	271
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	343	459	389	29	563	502	378	1925	89	296	684	314
Arrive On Green	0.25	0.25	0.25	0.02	0.32	0.32	0.43	1.00	1.00	0.29	0.29	0.29
Sat Flow, veh/h	1071	1841	1560	1753	1749	1560	1753	3404	157	702	2330	1067
Grp Volume(v), veh/h	224	121	158	21	116	175	161	368	381	115	443	419
Grp Sat Flow(s),veh/h/ln	1071	1841	1560	1753	1749	1560	1753	1749	1812	702	1749	1649
Q Serve(g_s), s	16.2	4.2	3.8	1.0	3.9	6.9	5.1	0.0	0.0	11.1	19.2	19.2
Cycle Q Clear(g_c), s	17.2	4.2	3.8	1.0	3.9	6.9	5.1	0.0	0.0	11.1	19.2	19.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.65
Lane Grp Cap(c), veh/h	343	459	389	29	563	502	378	989	1025	296	514	484
V/C Ratio(X)	0.65	0.26	0.41	0.73	0.21	0.35	0.43	0.37	0.37	0.39	0.86	0.86
Avail Cap(c_a), veh/h	377	518	439	77	667	595	378	989	1025	296	514	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.50	0.50	0.50	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	24.1	7.9	39.2	19.7	20.7	19.3	0.0	0.0	23.9	26.7	26.7
Incr Delay (d2), s/veh	3.5	0.3	0.7	30.0	0.2	0.4	0.4	0.5	0.5	3.8	17.3	18.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	1.8	2.4	0.6	1.5	2.5	1.9	0.1	0.1	2.1	10.1	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	24.4	8.6	69.2	19.9	21.1	19.7	0.5	0.5	27.7	44.0	45.0
LnGrp LOS	C	C	A	E	B	C	B	A	A	C	D	D
Approach Vol, veh/h		503			312			910			977	
Approach Delay, s/veh		23.3			23.9			3.9			42.5	
Approach LOS		C			C			A			D	

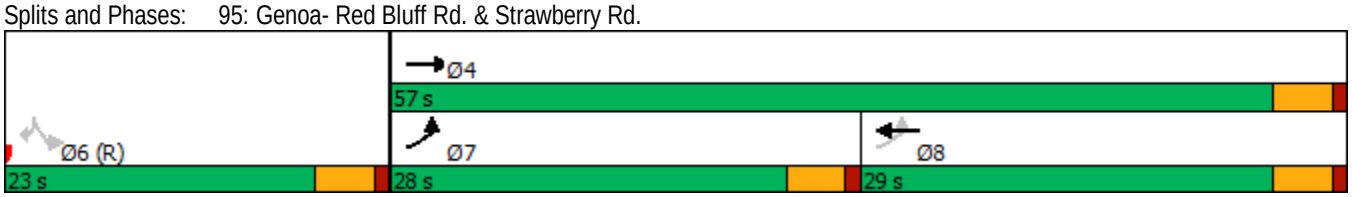
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		49.7	5.8	24.5	21.7	28.0		30.3				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		40.5	3.5	22.5	12.5	23.5		30.5				
Max Q Clear Time (g_c+I1), s		2.0	3.0	19.2	7.1	21.2		8.9				
Green Ext Time (p_c), s		5.4	0.0	0.8	0.2	1.4		1.7				

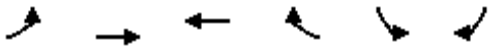
Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	496	1013	724	225	333
Future Volume (vph)	496	1013	724	225	333
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	28.0	57.0	29.0	23.0	23.0
Total Split (%)	35.0%	71.3%	36.3%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	46.6	51.1	24.7	19.9	19.9
Actuated g/C Ratio	0.58	0.64	0.31	0.25	0.25
v/c Ratio	0.90	0.47	0.90	0.54	0.53
Control Delay	36.2	4.9	31.1	37.0	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	4.9	31.1	37.0	15.5
LOS	D	A	C	D	B
Approach Delay		15.2	31.1	24.2	
Approach LOS		B	C	C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 65 (81%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.





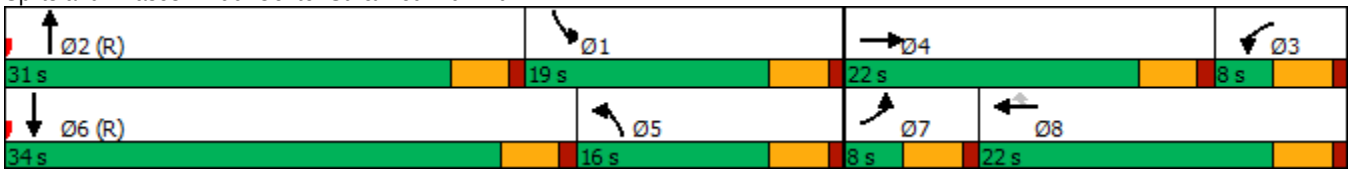
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	496	1013	724	208	225	333
Future Volume (vph)	496	1013	724	208	225	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.97		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	3471	3355		1736	1553
Flt Permitted	0.16	1.00	1.00		0.95	1.00
Satd. Flow (perm)	296	3471	3355		1736	1553
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	511	1044	746	214	232	343
RTOR Reduction (vph)	0	0	33	0	0	258
Lane Group Flow (vph)	511	1044	927	0	232	85
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	46.6	51.1	24.7		19.9	19.9
Effective Green, g (s)	46.6	51.1	24.7		19.9	19.9
Actuated g/C Ratio	0.58	0.64	0.31		0.25	0.25
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	566	2217	1035		431	386
v/s Ratio Prot	c0.25	0.30	0.28			
v/s Ratio Perm	c0.28				c0.13	0.05
v/c Ratio	0.90	0.47	0.90		0.54	0.22
Uniform Delay, d1	19.4	7.5	26.4		26.1	23.9
Progression Factor	0.81	0.56	0.73		1.18	3.62
Incremental Delay, d2	17.0	0.2	9.8		4.4	1.2
Delay (s)	32.8	4.4	29.0		35.3	87.8
Level of Service	C	A	C		D	F
Approach Delay (s)		13.7	29.0		66.6	
Approach LOS		B	C		E	

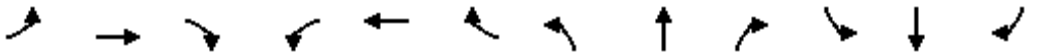
Intersection Summary			
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	57	532	4	438	310	166	914	241	725
Future Volume (vph)	57	532	4	438	310	166	914	241	725
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	22.0	8.0	22.0	22.0	16.0	31.0	19.0	34.0
Total Split (%)	10.0%	27.5%	10.0%	27.5%	27.5%	20.0%	38.8%	23.8%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	3.8	23.1	3.5	16.4	16.4	11.2	27.6	14.2	30.6
Actuated g/C Ratio	0.05	0.29	0.04	0.20	0.20	0.14	0.34	0.18	0.38
v/c Ratio	0.78	0.77	0.05	0.69	0.60	0.77	0.87	0.88	0.61
Control Delay	95.3	29.5	38.2	34.9	9.3	48.0	20.9	62.9	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.3	29.5	38.2	34.9	9.3	48.0	20.9	62.9	22.7
LOS	F	C	D	C	A	D	C	E	C
Approach Delay		34.6		24.4			25.1		32.7
Approach LOS		C		C			C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 29.0	Intersection LOS: C
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	532	150	4	438	310	166	914	8	241	725	0
Future Volume (veh/h)	57	532	150	4	438	310	166	914	8	241	725	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	64	598	169	4	492	348	187	1027	9	271	815	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	77	589	166	15	642	287	313	1177	10	379	1290	0
Arrive On Green	0.04	0.22	0.22	0.01	0.18	0.18	0.06	0.11	0.11	0.22	0.37	0.00
Sat Flow, veh/h	1753	2693	759	1753	3497	1560	1753	3553	31	1753	3589	0
Grp Volume(v), veh/h	64	388	379	4	492	348	187	506	530	271	815	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1704	1753	1749	1560	1753	1749	1835	1753	1749	0
Q Serve(g_s), s	2.9	17.5	17.5	0.2	10.7	8.8	8.3	22.8	22.8	11.5	15.3	0.0
Cycle Q Clear(g_c), s	2.9	17.5	17.5	0.2	10.7	8.8	8.3	22.8	22.8	11.5	15.3	0.0
Prop In Lane	1.00		0.45	1.00		1.00	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	77	383	373	15	642	287	313	579	608	379	1290	0
V/C Ratio(X)	0.83	1.01	1.02	0.26	0.77	1.21	0.60	0.87	0.87	0.71	0.63	0.00
Avail Cap(c_a), veh/h	77	383	373	77	765	341	313	579	608	379	1290	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.39	0.39	0.39	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.0	31.3	31.3	39.4	31.0	11.6	34.8	34.0	34.0	29.1	20.8	0.0
Incr Delay (d2), s/veh	51.7	49.6	51.1	8.8	3.9	124.1	1.2	7.4	7.0	6.3	2.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	12.3	12.2	0.1	4.7	12.7	3.9	11.7	12.2	5.3	6.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.7	80.8	82.3	48.2	34.9	135.8	36.0	41.3	41.0	35.3	23.1	0.0
LnGrp LOS	F	F	F	D	C	F	D	D	D	D	C	A
Approach Vol, veh/h		831			844			1223			1086	
Approach Delay, s/veh		82.2			76.6			40.4			26.2	
Approach LOS		F			E			D			C	

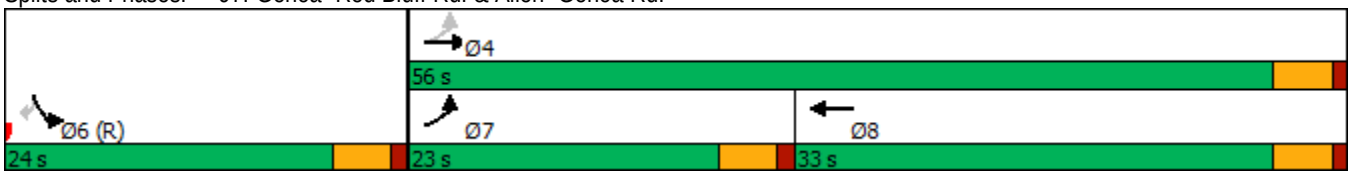
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.8	31.0	5.2	22.0	18.8	34.0	8.0	19.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	26.5	3.5	17.5	11.5	29.5	3.5	17.5
Max Q Clear Time (g_c+I1), s	13.5	24.8	2.2	19.5	10.3	17.3	4.9	12.7
Green Ext Time (p_c), s	0.1	1.1	0.0	0.0	0.1	4.5	0.0	2.0

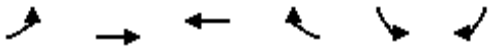
Intersection Summary	
HCM 6th Ctrl Delay	52.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	265	988	747	133	292
Future Volume (vph)	265	988	747	133	292
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	56.0	33.0	24.0	24.0
Total Split (%)	28.8%	70.0%	41.3%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	46.9	46.9	26.8	24.1	24.1
Actuated g/C Ratio	0.59	0.59	0.34	0.30	0.30
v/c Ratio	0.67	0.53	0.80	0.28	0.46
Control Delay	21.8	10.6	12.5	13.9	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	10.6	12.5	13.9	4.0
LOS	C	B	B	B	A
Approach Delay		13.0	12.5	7.1	
Approach LOS		B	B	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	265	988	747	105	133	292
Future Volume (veh/h)	265	988	747	105	133	292
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	288	1074	812	114	145	317
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	366	1761	960	135	673	599
Arrive On Green	0.14	0.50	0.31	0.31	0.38	0.38
Sat Flow, veh/h	1753	3589	3171	432	1753	1560
Grp Volume(v), veh/h	288	1074	461	465	145	317
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1763	1753	1560
Q Serve(g_s), s	8.3	17.6	19.7	19.7	4.4	12.6
Cycle Q Clear(g_c), s	8.3	17.6	19.7	19.7	4.4	12.6
Prop In Lane	1.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	366	1761	545	550	673	599
V/C Ratio(X)	0.79	0.61	0.85	0.85	0.22	0.53
Avail Cap(c_a), veh/h	534	2251	623	628	673	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	14.2	25.7	25.7	16.6	19.1
Incr Delay (d2), s/veh	4.8	0.3	9.4	9.4	0.7	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	6.4	9.2	9.3	1.8	11.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	14.6	35.1	35.1	17.3	22.4
LnGrp LOS	C	B	D	D	B	C
Approach Vol, veh/h		1362	926		462	
Approach Delay, s/veh		16.2	35.1		20.8	
Approach LOS		B	D		C	

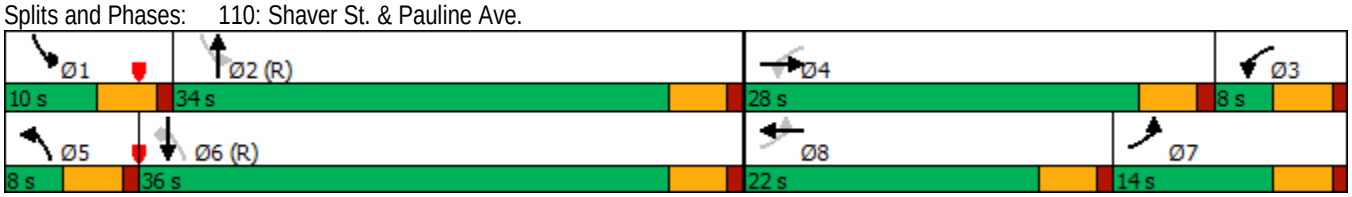
Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		44.8		35.2	15.3	29.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		51.5		19.5	18.5	28.5
Max Q Clear Time (g_c+I1), s		19.6		14.6	10.3	21.7
Green Ext Time (p_c), s		9.6		0.8	0.6	3.2

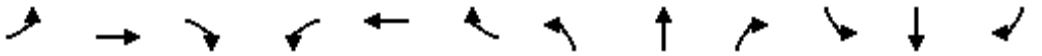
Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	133	103	72	133	44	667	57	621	94
Future Volume (vph)	133	103	72	133	44	667	57	621	94
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	28.0	8.0	22.0	8.0	34.0	10.0	36.0	36.0
Total Split (%)	17.5%	35.0%	10.0%	27.5%	10.0%	42.5%	12.5%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.7	13.8	21.6	14.2	43.1	36.9	42.2	39.7	39.7
Actuated g/C Ratio	0.26	0.17	0.27	0.18	0.54	0.46	0.53	0.50	0.50
v/c Ratio	0.58	0.47	0.22	0.72	0.12	0.49	0.19	0.41	0.12
Control Delay	29.3	17.4	20.6	38.6	3.9	11.1	6.7	7.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.3	17.4	20.6	38.6	3.9	11.1	6.7	7.5	0.5
LOS	C	B	C	D	A	B	A	A	A
Approach Delay		23.3		34.1		10.7		6.6	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	103	30	72	133	83	44	667	33	57	621	94
Future Volume (veh/h)	133	103	30	72	133	83	44	667	33	57	621	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	149	116	34	81	149	93	49	749	37	64	698	106
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	157	46	297	178	111	421	1804	89	375	1874	836
Arrive On Green	0.04	0.11	0.11	0.10	0.17	0.17	0.01	0.18	0.18	0.03	0.54	0.54
Sat Flow, veh/h	1753	1368	401	1753	1060	662	1753	3392	167	1753	3497	1560
Grp Volume(v), veh/h	149	0	150	81	0	242	49	386	400	64	698	106
Grp Sat Flow(s),veh/h/ln	1753	0	1769	1753	0	1722	1753	1749	1811	1753	1749	1560
Q Serve(g_s), s	0.9	0.0	6.6	0.0	0.0	10.9	1.0	15.7	15.7	1.3	9.3	1.8
Cycle Q Clear(g_c), s	0.9	0.0	6.6	0.0	0.0	10.9	1.0	15.7	15.7	1.3	9.3	1.8
Prop In Lane	1.00		0.23	1.00		0.38	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	199	0	203	297	0	289	421	930	963	375	1874	836
V/C Ratio(X)	0.75	0.00	0.74	0.27	0.00	0.84	0.12	0.42	0.42	0.17	0.37	0.13
Avail Cap(c_a), veh/h	334	0	520	297	0	377	447	930	963	438	1874	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	34.2	32.1	0.0	32.2	8.5	21.9	21.9	9.6	10.8	4.1
Incr Delay (d2), s/veh	5.5	0.0	5.2	0.5	0.0	12.1	0.1	1.3	1.2	0.2	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	3.0	1.4	0.0	5.4	0.4	7.6	7.8	0.5	3.4	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	0.0	39.4	32.6	0.0	44.3	8.6	23.2	23.1	9.8	11.3	4.4
LnGrp LOS	D	A	D	C	A	D	A	C	C	A	B	A
Approach Vol, veh/h		299			323			835			868	
Approach Delay, s/veh		40.7			41.4			22.3			10.4	
Approach LOS		D			D			C			B	

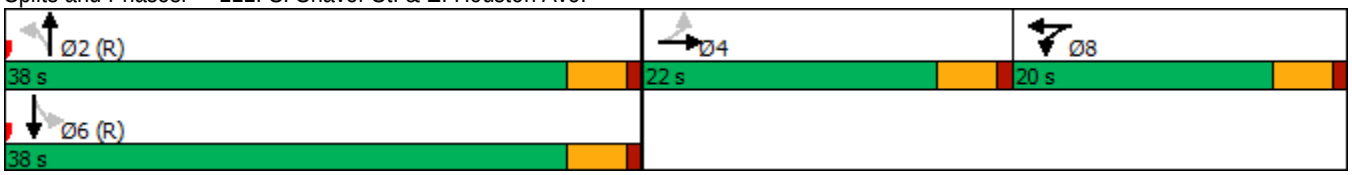
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	47.0	12.1	13.7	6.8	47.4	7.9	17.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	29.5	3.5	23.5	3.5	31.5	9.5	17.5
Max Q Clear Time (g_c+I1), s	3.3	17.7	2.0	8.6	3.0	11.3	2.9	12.9
Green Ext Time (p_c), s	0.0	3.9	0.0	0.6	0.0	5.2	0.2	0.5

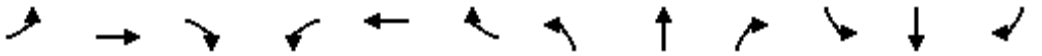
Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	39	25	57	23	6	931	23	598
Future Volume (vph)	39	25	57	23	6	931	23	598
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	22.0	22.0	20.0	20.0	38.0	38.0	38.0	38.0
Total Split (%)	27.5%	27.5%	25.0%	25.0%	47.5%	47.5%	47.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.8	12.8	8.3	8.3	50.3	50.3	50.3	50.3
Actuated g/C Ratio	0.16	0.16	0.10	0.10	0.63	0.63	0.63	0.63
v/c Ratio	0.43	0.16	0.35	0.39	0.02	0.51	0.11	0.31
Control Delay	41.9	18.5	37.9	18.7	8.5	11.3	12.7	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay	41.9	18.5	37.9	18.7	8.5	11.3	12.7	11.0
LOS	D	B	D	B	A	B	B	B
Approach Delay		29.6		26.7		11.3		11.0
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 50.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	25	19	57	23	57	6	931	69	23	598	14
Future Volume (veh/h)	39	25	19	57	23	57	6	931	69	23	598	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	27	21	63	25	63	7	1023	76	25	657	15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	52	40	139	37	93	563	2302	171	374	2438	56
Arrive On Green	0.05	0.05	0.05	0.08	0.08	0.08	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1753	960	747	1753	463	1167	754	3300	245	505	3495	80
Grp Volume(v), veh/h	43	0	48	63	0	88	7	542	557	25	329	343
Grp Sat Flow(s),veh/h/ln	1753	0	1706	1753	0	1631	754	1749	1797	505	1749	1826
Q Serve(g_s), s	1.9	0.0	2.2	2.7	0.0	4.2	0.3	10.9	10.9	1.8	5.6	5.6
Cycle Q Clear(g_c), s	1.9	0.0	2.2	2.7	0.0	4.2	5.9	10.9	10.9	12.7	5.6	5.6
Prop In Lane	1.00		0.44	1.00		0.72	1.00		0.14	1.00		0.04
Lane Grp Cap(c), veh/h	95	0	93	139	0	130	563	1220	1253	374	1220	1274
V/C Ratio(X)	0.45	0.00	0.52	0.45	0.00	0.68	0.01	0.44	0.44	0.07	0.27	0.27
Avail Cap(c_a), veh/h	383	0	373	340	0	316	563	1220	1253	374	1220	1274
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	0.0	36.8	35.2	0.0	35.8	5.6	5.3	5.3	8.1	4.5	4.5
Incr Delay (d2), s/veh	3.3	0.0	4.4	2.3	0.0	6.1	0.0	0.9	0.9	0.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.0	1.2	0.0	1.9	0.0	3.3	3.4	0.2	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.0	41.3	37.4	0.0	41.9	5.6	6.2	6.2	8.4	5.0	5.0
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		91			151			1106			697	
Approach Delay, s/veh		40.7			40.1			6.2			5.2	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.3		8.8		60.3		10.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		33.5		17.5		33.5		15.5				
Max Q Clear Time (g_c+I1), s		12.9		4.2		14.7		6.2				
Green Ext Time (p_c), s		7.7		0.2		4.3		0.4				

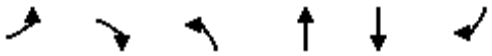
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	147	25	1246	1070
Future Volume (vph)	147	25	1246	1070
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	22.0	8.0	58.0	50.0
Total Split (%)	27.5%	10.0%	72.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	13.9	57.1	57.1	53.9
Actuated g/C Ratio	0.17	0.71	0.71	0.67
v/c Ratio	0.69	0.12	0.58	0.61
Control Delay	28.9	4.6	4.6	10.8
Queue Delay	0.0	0.0	0.0	0.4
Total Delay	28.9	4.6	4.6	11.2
LOS	C	A	A	B
Approach Delay	28.9		4.6	11.2
Approach LOS	C		A	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 54.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	147	38	25	1246	1070	145
Future Volume (vph)	147	38	25	1246	1070	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.97		1.00	1.00	0.98	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1708		1736	3471	3409	
Flt Permitted	0.96		0.14	1.00	1.00	
Satd. Flow (perm)	1708		254	3471	3409	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	169	44	29	1432	1230	167
RTOR Reduction (vph)	12	0	0	0	11	0
Lane Group Flow (vph)	201	0	29	1432	1386	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	13.9		57.1	57.1	51.2	
Effective Green, g (s)	13.9		57.1	57.1	51.2	
Actuated g/C Ratio	0.17		0.71	0.71	0.64	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	296		207	2477	2181	
v/s Ratio Prot			0.00	c0.41	c0.41	
v/s Ratio Perm	c0.12		0.10			
v/c Ratio	0.68		0.14	0.58	0.64	
Uniform Delay, d1	31.0		10.0	5.6	8.7	
Progression Factor	0.61		0.70	0.58	1.12	
Incremental Delay, d2	6.0		0.3	0.9	1.3	
Delay (s)	24.8		7.3	4.2	11.1	
Level of Service	C		A	A	B	
Approach Delay (s)	24.8			4.3	11.1	
Approach LOS	C			A	B	

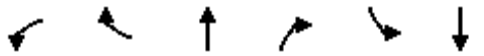
Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	14	658	89	734
Future Volume (vph)	14	658	89	734
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	23.0	57.0	57.0	57.0
Total Split (%)	28.8%	71.3%	71.3%	71.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.8	63.2		63.2
Actuated g/C Ratio	0.10	0.79		0.79
v/c Ratio	0.59	0.29		0.47
Control Delay	21.3	0.7		3.8
Queue Delay	0.0	0.0		0.0
Total Delay	21.3	0.7		3.8
LOS	C	A		A
Approach Delay	21.3	0.7		3.8
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 68 (85%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 4.1	Intersection LOS: A
Intersection Capacity Utilization 65.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	135	658	15	89	734
Future Volume (veh/h)	14	135	658	15	89	734
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	17	161	783	18	106	874
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	20	194	2624	60	259	2017
Arrive On Green	0.14	0.14	0.75	0.75	1.00	1.00
Sat Flow, veh/h	150	1419	3587	80	271	2770
Grp Volume(v), veh/h	179	0	392	409	456	524
Grp Sat Flow(s),veh/h/ln	1578	0	1749	1826	1366	1591
Q Serve(g_s), s	8.8	0.0	5.8	5.8	0.0	0.0
Cycle Q Clear(g_c), s	8.8	0.0	5.8	5.8	0.0	0.0
Prop In Lane	0.09	0.90		0.04	0.23	
Lane Grp Cap(c), veh/h	216	0	1313	1371	1081	1195
V/C Ratio(X)	0.83	0.00	0.30	0.30	0.42	0.44
Avail Cap(c_a), veh/h	365	0	1313	1371	1081	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	33.6	0.0	3.2	3.2	0.0	0.0
Incr Delay (d2), s/veh	8.0	0.0	0.6	0.6	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	1.4	1.5	0.3	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.6	0.0	3.8	3.8	1.1	1.1
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	179		801			980
Approach Delay, s/veh	41.6		3.8			1.1
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		64.6			64.6	15.4
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		52.5			52.5	18.5
Max Q Clear Time (g_c+I1), s		7.8			2.0	10.8
Green Ext Time (p_c), s		5.7			8.7	0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

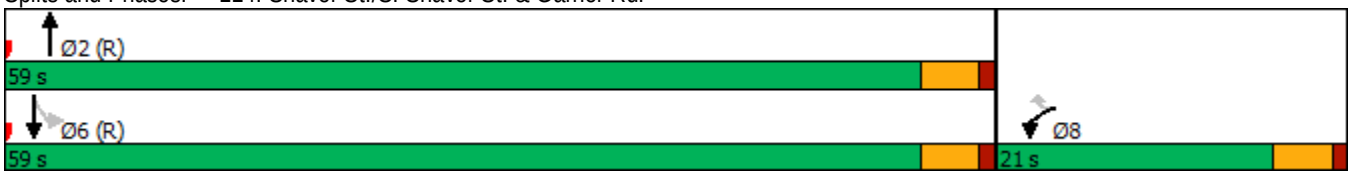
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	232	208	980	105	783
Future Volume (vph)	232	208	980	105	783
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	21.0	21.0	59.0	59.0	59.0
Total Split (%)	26.3%	26.3%	73.8%	73.8%	73.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.3	15.3	55.7	55.7	55.7
Actuated g/C Ratio	0.19	0.19	0.70	0.70	0.70
v/c Ratio	0.80	0.60	0.56	0.58	0.37
Control Delay	50.3	21.2	3.2	17.5	2.8
Queue Delay	1.9	0.0	0.2	0.0	0.1
Total Delay	52.2	21.2	3.5	17.5	2.9
LOS	D	C	A	B	A
Approach Delay	37.6		3.5		4.7
Approach LOS	D		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 49 (61%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 66.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	232	208	980	175	105	783
Future Volume (veh/h)	232	208	980	175	105	783
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	267	239	1126	201	121	900
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	315	280	2100	373	378	2475
Arrive On Green	0.18	0.18	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	3059	527	406	3589
Grp Volume(v), veh/h	267	239	662	665	121	900
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1746	406	1749
Q Serve(g_s), s	11.8	11.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.8	11.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		0.30	1.00	
Lane Grp Cap(c), veh/h	315	280	1238	1236	378	2475
V/C Ratio(X)	0.85	0.85	0.53	0.54	0.32	0.36
Avail Cap(c_a), veh/h	362	322	1238	1236	378	2475
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.78	0.78	0.96	0.96
Uniform Delay (d), s/veh	31.7	31.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	15.3	17.5	1.3	1.3	2.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	5.7	0.4	0.5	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.0	49.3	1.3	1.3	2.1	0.4
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	506		1327			1021
Approach Delay, s/veh	48.1		1.3			0.6
Approach LOS	D		A			A

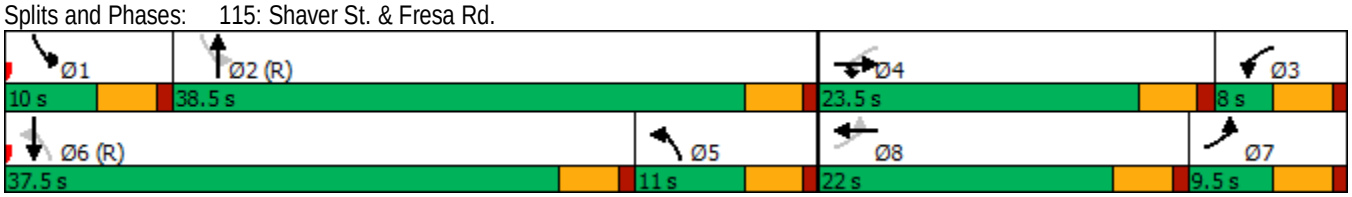
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		61.1			61.1	18.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		54.5			54.5	16.5
Max Q Clear Time (g_c+I1), s		2.0			2.0	13.9
Green Ext Time (p_c), s		13.6			11.7	0.5

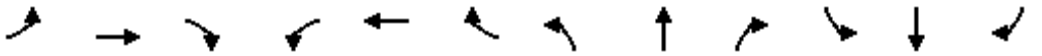
Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	Ø7
Lane Configurations									
Traffic Volume (vph)	33	124	42	56	85	673	52	631	
Future Volume (vph)	33	124	42	56	85	673	52	631	
Turn Type	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA	
Protected Phases	4	4	3	8	5	2	1	6	7
Permitted Phases			4		6		2		
Detector Phase	4	4	3	8	5	2	1	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	9.5
Total Split (s)	23.5	23.5	8.0	22.0	11.0	38.5	10.0	37.5	9.5
Total Split (%)	29.4%	29.4%	10.0%	27.5%	13.8%	48.1%	12.5%	46.9%	12%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	7.6	7.6	13.2	13.7	53.7	50.3	54.6	48.5	
Actuated g/C Ratio	0.10	0.10	0.16	0.17	0.67	0.63	0.68	0.61	
v/c Ratio	0.24	0.45	0.21	0.49	0.22	0.39	0.14	0.37	
Control Delay	36.7	6.5	27.3	18.7	4.3	5.7	12.4	15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.7	6.5	27.3	18.7	4.3	5.7	12.4	15.3	
LOS	D	A	C	B	A	A	B	B	
Approach Delay	12.9			20.6		5.6		15.1	
Approach LOS	B			C		A		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 72 (90%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 11.3	Intersection LOS: B
Intersection Capacity Utilization 50.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 115: Shaver St. & Fresa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	33	124	42	56	86	85	673	28	52	631	1
Future Volume (veh/h)	0	33	124	42	56	86	85	673	28	52	631	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	39	146	49	66	101	100	792	33	61	742	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	0	0	0	0	0	0	0	0	0	0	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Change Period (Y+Rc), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Green Setting (Gmax), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

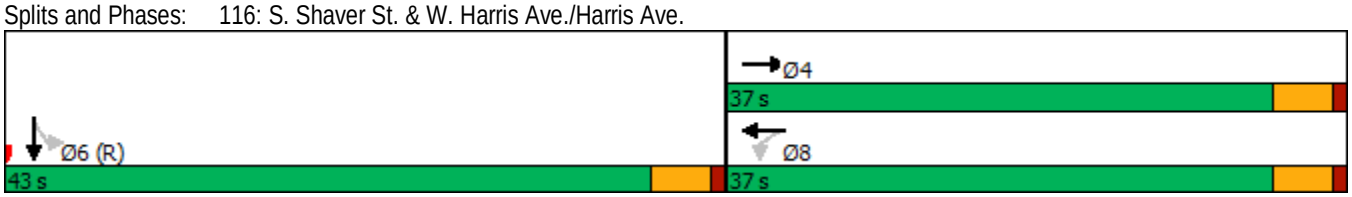
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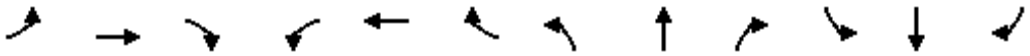
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	262	62	281	697
Future Volume (vph)	262	62	281	697
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	19.2		19.2	51.8
Actuated g/C Ratio	0.24		0.24	0.65
v/c Ratio	0.63		0.81	0.34
Control Delay	24.6		38.9	6.6
Queue Delay	0.0		0.0	0.0
Total Delay	24.6		38.9	6.6
LOS	C		D	A
Approach Delay	24.6		38.9	6.6
Approach LOS	C		D	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 6 (8%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	262	152	62	281	0	0	0	0	85	697	100
Future Volume (veh/h)	0	262	152	62	281	0	0	0	0	85	697	100
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	323	188	77	347	0				105	860	123
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	598	341	136	634	0				289	2520	371
Arrive On Green	0.00	0.28	0.28	0.09	0.09	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	2239	1222	263	2359	0				475	4139	609
Grp Volume(v), veh/h	0	262	249	200	224	0				402	337	349
Grp Sat Flow(s),veh/h/ln	0	1749	1621	947	1591	0				1817	1675	1731
Q Serve(g_s), s	0.0	10.2	10.5	7.6	10.7	0.0				15.2	13.8	13.8
Cycle Q Clear(g_c), s	0.0	10.2	10.5	18.1	10.7	0.0				15.2	13.8	13.8
Prop In Lane	0.00		0.75	0.38		0.00				0.26		0.35
Lane Grp Cap(c), veh/h	0	487	452	326	443	0				1106	1020	1054
V/C Ratio(X)	0.00	0.54	0.55	0.61	0.50	0.00				0.36	0.33	0.33
Avail Cap(c_a), veh/h	0	710	658	491	646	0				1106	1020	1054
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.90	0.90	0.00				0.97	0.97	0.97
Uniform Delay (d), s/veh	0.0	24.5	24.6	34.9	31.1	0.0				18.6	18.0	18.0
Incr Delay (d2), s/veh	0.0	0.9	1.1	1.7	0.8	0.0				0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	4.0	4.3	4.6	0.0				7.5	6.3	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.4	25.7	36.6	31.9	0.0				19.5	18.8	18.8
LnGrp LOS	A	C	C	D	C	A				B	B	B
Approach Vol, veh/h		511			424						1088	
Approach Delay, s/veh		25.5			34.1						19.1	
Approach LOS		C			C						B	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		26.8		53.2		26.8			
Change Period (Y+Rc), s		4.5		4.5		4.5			
Max Green Setting (Gmax), s		32.5		38.5		32.5			
Max Q Clear Time (g_c+I1), s		12.5		17.2		20.1			
Green Ext Time (p_c), s		3.1		6.9		2.2			

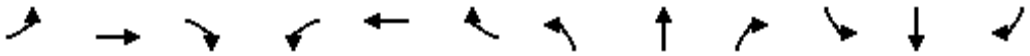
Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	58	278	197	851
Future Volume (vph)	58	278	197	851
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	33.0	33.0	33.0	47.0
Total Split (%)	41.3%	41.3%	41.3%	58.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		17.0	17.0	54.0
Actuated g/C Ratio		0.21	0.21	0.68
v/c Ratio		0.71	0.44	0.38
Control Delay		36.4	17.8	5.9
Queue Delay		0.0	0.0	0.0
Total Delay		36.4	17.8	5.9
LOS		D	B	A
Approach Delay		36.4	17.8	5.9
Approach LOS		D	B	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 49 (61%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.9	Intersection LOS: B
Intersection Capacity Utilization 53.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



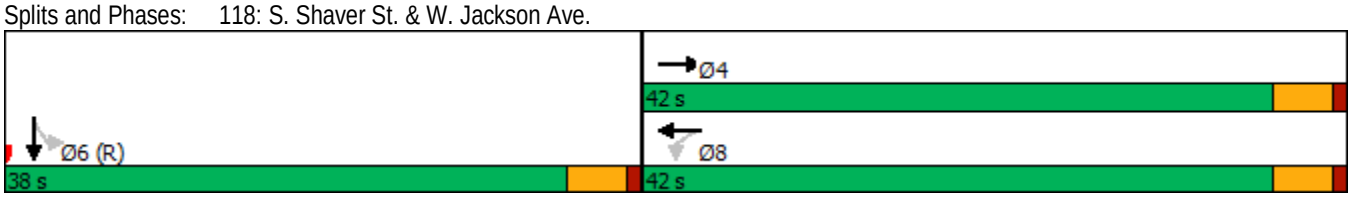


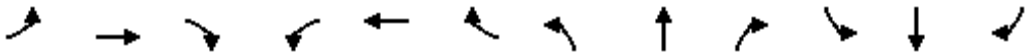
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	278	0	0	197	85	140	851	91	0	0	0
Future Volume (veh/h)	58	278	0	0	197	85	140	851	91	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	67	320	0	0	226	98	161	978	105			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	125	538	0	0	512	215	430	2795	308			
Arrive On Green	0.07	0.07	0.00	0.00	0.21	0.21	0.22	0.22	0.22			
Sat Flow, veh/h	302	2604	0	0	2492	1008	639	4146	457			
Grp Volume(v), veh/h	194	193	0	0	163	161	456	384	404			
Grp Sat Flow(s),veh/h/ln	1231	1591	0	0	1749	1659	1809	1675	1758			
Q Serve(g_s), s	6.4	9.4	0.0	0.0	6.5	6.8	17.1	15.4	15.5			
Cycle Q Clear(g_c), s	13.1	9.4	0.0	0.0	6.5	6.8	17.1	15.4	15.5			
Prop In Lane	0.34		0.00	0.00		0.61	0.35		0.26			
Lane Grp Cap(c), veh/h	323	340	0	0	373	354	1219	1129	1185			
V/C Ratio(X)	0.60	0.57	0.00	0.00	0.44	0.46	0.37	0.34	0.34			
Avail Cap(c_a), veh/h	531	567	0	0	623	591	1219	1129	1185			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.74	0.74	0.00	0.00	0.67	0.67	0.88	0.88	0.88			
Uniform Delay (d), s/veh	35.5	33.6	0.0	0.0	27.3	27.4	16.8	16.1	16.1			
Incr Delay (d2), s/veh	1.3	1.1	0.0	0.0	0.5	0.6	0.8	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.2	4.0	0.0	0.0	2.7	2.7	8.4	7.0	7.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	34.7	0.0	0.0	27.8	28.0	17.6	16.9	16.8			
LnGrp LOS	D	C	A	A	C	C	B	B	B			
Approach Vol, veh/h		387			324			1244				
Approach Delay, s/veh		35.8			27.9			17.1				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		58.4		21.6				21.6				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		42.5		28.5				28.5				
Max Q Clear Time (g_c+I1), s		19.1		15.1				8.8				
Green Ext Time (p_c), s		8.4		1.9				1.8				
Intersection Summary												
HCM 6th Ctrl Delay			22.6									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	180	55	413	551
Future Volume (vph)	180	55	413	551
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	38.0
Total Split (%)	52.5%	52.5%	52.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	21.2		21.2	49.8
Actuated g/C Ratio	0.26		0.26	0.62
v/c Ratio	0.40		0.71	0.27
Control Delay	13.6		26.3	7.6
Queue Delay	0.0		0.0	0.0
Total Delay	13.6		26.3	7.6
LOS	B		C	A
Approach Delay	13.6		26.3	7.6
Approach LOS	B		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 27 (34%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	180	150	55	413	0	0	0	0	123	551	62
Future Volume (veh/h)	0	180	150	55	413	0	0	0	0	123	551	62
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	200	167	61	459	0				137	612	69
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	452	357	107	664	0				531	2547	293
Arrive On Green	0.00	0.24	0.24	0.49	0.49	0.00				0.64	0.64	0.64
Sat Flow, veh/h	0	1948	1469	214	2813	0				825	3954	455
Grp Volume(v), veh/h	0	188	179	265	255	0				299	252	267
Grp Sat Flow(s),veh/h/ln	0	1749	1576	1352	1591	0				1799	1675	1759
Q Serve(g_s), s	0.0	7.3	7.8	6.6	9.7	0.0				5.7	5.0	5.1
Cycle Q Clear(g_c), s	0.0	7.3	7.8	14.4	9.7	0.0				5.7	5.0	5.1
Prop In Lane	0.00		0.93	0.23		0.00				0.46		0.26
Lane Grp Cap(c), veh/h	0	425	383	384	387	0				1159	1079	1133
V/C Ratio(X)	0.00	0.44	0.47	0.69	0.66	0.00				0.26	0.23	0.24
Avail Cap(c_a), veh/h	0	820	739	732	746	0				1159	1079	1133
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.72	0.72	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	25.7	25.8	19.2	18.0	0.0				6.1	6.0	6.0
Incr Delay (d2), s/veh	0.0	0.7	0.9	1.6	1.4	0.0				0.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.0	2.9	3.1	2.8	0.0				1.9	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.4	26.7	20.8	19.4	0.0				6.6	6.5	6.5
LnGrp LOS	A	C	C	C	B	A				A	A	A
Approach Vol, veh/h		367			520						818	
Approach Delay, s/veh		26.6			20.1						6.5	
Approach LOS		C			C						A	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		24.0		56.0		24.0						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		37.5		33.5		37.5						
Max Q Clear Time (g_c+I1), s		9.8		7.7		16.4						
Green Ext Time (p_c), s		2.2		5.2		3.1						

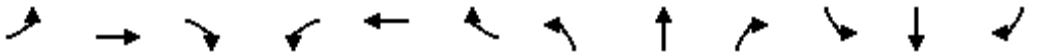
Intersection Summary												
HCM 6th Ctrl Delay		15.0										
HCM 6th LOS		B										

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Configurations					
Traffic Volume (vph)	80	235	1	298	801
Future Volume (vph)	80	235	1	298	801
Turn Type	Perm	NA	Perm	NA	NA
Protected Phases		4		8	2
Permitted Phases	4		8		
Detector Phase	4	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	34.0	34.0	34.0	34.0	46.0
Total Split (%)	42.5%	42.5%	42.5%	42.5%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)		16.4		16.4	54.6
Actuated g/C Ratio		0.20		0.20	0.68
v/c Ratio		0.77		0.65	0.32
Control Delay		37.4		28.4	3.2
Queue Delay		0.0		0.0	0.0
Total Delay		37.4		28.4	3.2
LOS		D		C	A
Approach Delay		37.4		28.4	3.2
Approach LOS		D		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 21 (26%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 55.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



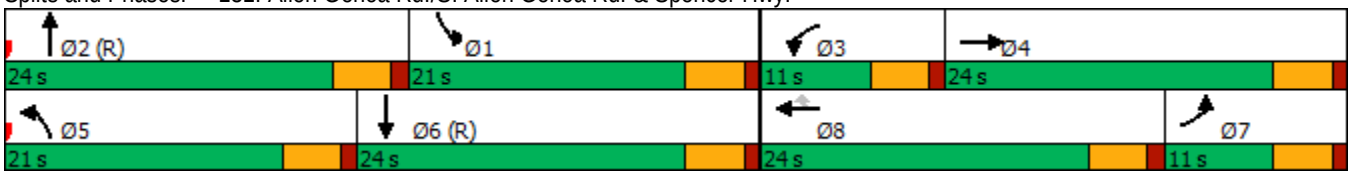


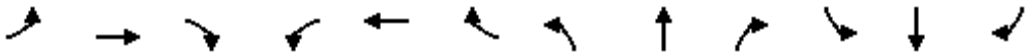
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	235	0	1	298	105	168	801	51	0	0	0
Future Volume (veh/h)	80	235	0	1	298	105	168	801	51	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	1841	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	85	250	0	1	317	112	179	852	54			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	4	4	0	4	4	4	4	4	4			
Cap, veh/h	156	497	0	45	608	210	526	2692	174			
Arrive On Green	0.49	0.49	0.00	0.24	0.24	0.24	0.21	0.21	0.21			
Sat Flow, veh/h	354	2127	0	1	2497	862	817	4179	271			
Grp Volume(v), veh/h	156	179	0	232	0	198	394	333	357			
Grp Sat Flow(s),veh/h/ln	806	1591	0	1840	0	1520	1800	1675	1792			
Q Serve(g_s), s	6.8	6.0	0.0	0.0	0.0	9.0	14.9	13.4	13.4			
Cycle Q Clear(g_c), s	15.9	6.0	0.0	8.7	0.0	9.0	14.9	13.4	13.4			
Prop In Lane	0.55		0.00	0.00		0.57	0.45		0.15			
Lane Grp Cap(c), veh/h	266	387	0	493	0	370	1159	1079	1154			
V/C Ratio(X)	0.59	0.46	0.00	0.47	0.00	0.53	0.34	0.31	0.31			
Avail Cap(c_a), veh/h	418	587	0	723	0	560	1159	1079	1154			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.92	0.92	0.00	1.00	0.00	1.00	0.93	0.93	0.93			
Uniform Delay (d), s/veh	20.9	17.1	0.0	26.2	0.0	26.3	17.1	16.5	16.5			
Incr Delay (d2), s/veh	1.9	0.8	0.0	0.7	0.0	1.2	0.7	0.7	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	1.9	0.0	3.8	0.0	3.3	7.2	6.1	6.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	17.9	0.0	26.9	0.0	27.5	17.8	17.2	17.2			
LnGrp LOS	C	B	A	C	A	C	B	B	B			
Approach Vol, veh/h		335			430			1085				
Approach Delay, s/veh		20.1			27.2			17.4				
Approach LOS		C			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		56.0		24.0				24.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		41.5		29.5				29.5				
Max Q Clear Time (g_c+I1), s		16.9		17.9				11.0				
Green Ext Time (p_c), s		7.2		1.6				2.5				
Intersection Summary												
HCM 6th Ctrl Delay			20.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	81	721	69	872	223	221	524	256	387
Future Volume (vph)	81	721	69	872	223	221	524	256	387
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	24.0	11.0	24.0	24.0	21.0	24.0	21.0	24.0
Total Split (%)	13.8%	30.0%	13.8%	30.0%	30.0%	26.3%	30.0%	26.3%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	19.5	6.3	19.5	19.5	15.0	21.7	16.5	23.2
Actuated g/C Ratio	0.08	0.24	0.08	0.24	0.24	0.19	0.27	0.21	0.29
v/c Ratio	0.66	0.86	0.58	0.85	0.45	0.78	0.69	0.82	0.52
Control Delay	42.0	17.2	53.1	37.5	6.3	37.7	23.2	40.5	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	17.2	53.1	37.5	6.3	37.7	23.2	40.5	16.3
LOS	D	B	D	D	A	D	C	D	B
Approach Delay		19.3		32.4			27.4		25.2
Approach LOS		B		C			C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 26.4	Intersection LOS: C
Intersection Capacity Utilization 71.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	721	174	69	872	223	221	524	23	256	387	53
Future Volume (veh/h)	81	721	174	69	872	223	221	524	23	256	387	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	93	829	200	79	1002	256	254	602	26	294	445	61
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	117	987	237	101	1180	366	295	833	36	403	943	129
Arrive On Green	0.13	0.49	0.49	0.06	0.23	0.23	0.17	0.24	0.24	0.23	0.31	0.31
Sat Flow, veh/h	1753	4047	970	1753	5025	1560	1753	3415	147	1753	3092	422
Grp Volume(v), veh/h	93	685	344	79	1002	256	254	308	320	294	251	255
Grp Sat Flow(s),veh/h/ln	1753	1675	1666	1753	1675	1560	1753	1749	1814	1753	1749	1765
Q Serve(g_s), s	4.1	14.2	14.4	3.6	15.2	12.0	11.3	12.9	13.0	12.4	9.3	9.4
Cycle Q Clear(g_c), s	4.1	14.2	14.4	3.6	15.2	12.0	11.3	12.9	13.0	12.4	9.3	9.4
Prop In Lane	1.00		0.58	1.00		1.00	1.00		0.08	1.00		0.24
Lane Grp Cap(c), veh/h	117	817	407	101	1180	366	295	426	442	403	534	538
V/C Ratio(X)	0.79	0.84	0.85	0.78	0.85	0.70	0.86	0.72	0.72	0.73	0.47	0.47
Avail Cap(c_a), veh/h	142	817	407	142	1225	380	362	426	442	403	534	538
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.35	0.35	0.35	0.96	0.96	0.96	0.91	0.91	0.91
Uniform Delay (d), s/veh	34.1	19.1	19.2	37.2	29.3	28.0	32.4	27.8	27.8	28.5	22.5	22.6
Incr Delay (d2), s/veh	20.2	7.1	13.9	6.4	2.1	1.9	15.5	9.8	9.5	6.1	2.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.5	5.3	1.7	6.0	4.4	5.9	6.4	6.6	5.7	4.1	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	26.2	33.1	43.6	31.3	29.9	47.9	37.6	37.3	34.6	25.2	25.3
LnGrp LOS	D	C	C	D	C	C	D	D	D	C	C	C
Approach Vol, veh/h		1122			1337			882			800	
Approach Delay, s/veh		30.6			31.8			40.4			28.7	
Approach LOS		C			C			D			C	

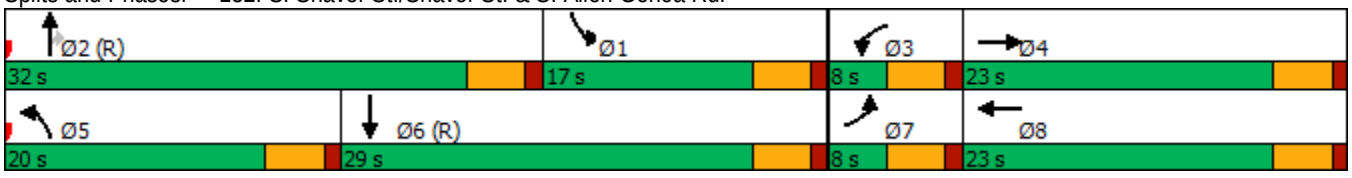
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.9	24.0	9.1	24.0	18.0	28.9	9.8	23.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	19.5	6.5	19.5	16.5	19.5	6.5	19.5
Max Q Clear Time (g_c+I1), s	14.4	15.0	5.6	16.4	13.3	11.4	6.1	17.2
Green Ext Time (p_c), s	0.2	1.6	0.0	1.9	0.2	1.9	0.0	1.5

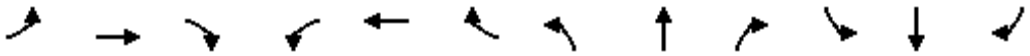
Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	10	340	14	373	176	587	8	126	612
Future Volume (vph)	10	340	14	373	176	587	8	126	612
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases							2		
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	23.0	8.0	23.0	20.0	32.0	32.0	17.0	29.0
Total Split (%)	10.0%	28.8%	10.0%	28.8%	25.0%	40.0%	40.0%	21.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	3.5	16.8	3.5	16.8	13.0	35.6	35.6	12.5	35.1
Actuated g/C Ratio	0.04	0.21	0.04	0.21	0.16	0.44	0.44	0.16	0.44
v/c Ratio	0.15	0.72	0.20	0.76	0.66	0.40	0.01	0.49	0.43
Control Delay	59.5	17.9	47.4	27.7	28.6	16.3	0.0	28.5	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	17.9	47.4	27.7	28.6	16.3	0.0	28.5	12.1
LOS	E	B	D	C	C	B	A	C	B
Approach Delay		18.6		28.2		19.0			14.9
Approach LOS		B		C		B			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 58.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	340	222	14	373	179	176	587	8	126	612	4
Future Volume (veh/h)	10	340	222	14	373	179	176	587	8	126	612	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	11	358	234	15	393	188	185	618	0	133	644	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	17	427	275	22	489	231	225	1202		367	1514	9
Arrive On Green	0.01	0.21	0.21	0.01	0.21	0.21	0.13	0.34	0.00	0.42	0.85	0.85
Sat Flow, veh/h	1753	2041	1312	1753	2305	1088	1753	3497	1560	1753	3563	22
Grp Volume(v), veh/h	11	306	286	15	297	284	185	618	0	133	316	332
Grp Sat Flow(s),veh/h/ln	1753	1749	1605	1753	1749	1645	1753	1749	1560	1753	1749	1837
Q Serve(g_s), s	0.5	13.4	13.7	0.7	12.9	13.2	8.2	11.3	0.0	4.2	3.4	3.4
Cycle Q Clear(g_c), s	0.5	13.4	13.7	0.7	12.9	13.2	8.2	11.3	0.0	4.2	3.4	3.4
Prop In Lane	1.00		0.82	1.00		0.66	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	17	366	336	22	371	349	225	1202		367	743	780
V/C Ratio(X)	0.66	0.84	0.85	0.69	0.80	0.81	0.82	0.51		0.36	0.43	0.43
Avail Cap(c_a), veh/h	77	404	371	77	404	380	340	1202		367	743	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.64	0.64	0.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	39.5	30.3	30.4	39.4	29.9	30.0	34.0	20.9	0.0	19.6	3.7	3.7
Incr Delay (d2), s/veh	36.8	13.1	16.0	32.3	10.2	11.9	6.3	1.0	0.0	0.5	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	6.8	6.6	0.5	6.2	6.1	3.8	4.5	0.0	1.5	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.3	43.4	46.4	71.7	40.1	41.9	40.2	21.9	0.0	20.1	5.3	5.2
LnGrp LOS	E	D	D	E	D	D	D	C		C	A	A
Approach Vol, veh/h		603			596			803	A		781	
Approach Delay, s/veh		45.4			41.8			26.2			7.8	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	32.0	5.5	21.2	14.8	38.5	5.3	21.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	27.5	3.5	18.5	15.5	24.5	3.5	18.5
Max Q Clear Time (g_c+I1), s	6.2	13.3	2.7	15.7	10.2	5.4	2.5	15.2
Green Ext Time (p_c), s	0.2	3.5	0.0	1.0	0.2	3.7	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

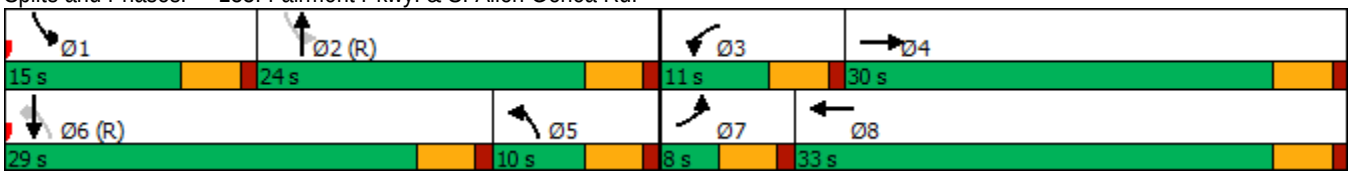
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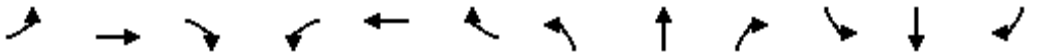
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	33	862	39	700	80	245	225	263	57
Future Volume (vph)	33	862	39	700	80	245	225	263	57
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	8.0	30.0	11.0	33.0	10.0	24.0	15.0	29.0	29.0
Total Split (%)	10.0%	37.5%	13.8%	41.3%	12.5%	30.0%	18.8%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	3.5	27.2	6.3	29.0	33.6	22.2	32.7	29.2	29.2
Actuated g/C Ratio	0.04	0.34	0.08	0.36	0.42	0.28	0.41	0.36	0.36
v/c Ratio	0.52	0.67	0.34	0.90	0.24	0.69	0.72	0.47	0.10
Control Delay	70.1	17.1	43.4	25.5	10.1	26.3	25.2	14.4	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	17.1	43.4	25.5	10.1	26.3	25.2	14.4	1.0
LOS	E	B	D	C	B	C	C	B	A
Approach Delay		18.8		26.2		22.8		17.4	
Approach LOS		B		C		C		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	862	85	39	700	248	80	245	47	225	263	57
Future Volume (veh/h)	33	862	85	39	700	248	80	245	47	225	263	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	1026	101	46	833	295	95	292	56	268	313	68
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	48	1613	159	57	892	316	408	396	76	408	564	478
Arrive On Green	0.03	0.35	0.35	0.03	0.35	0.35	0.09	0.26	0.26	0.13	0.31	0.31
Sat Flow, veh/h	1753	4651	457	1753	2533	896	1753	1501	288	1753	1841	1560
Grp Volume(v), veh/h	39	738	389	46	575	553	95	0	348	268	313	68
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1749	1680	1753	0	1789	1753	1841	1560
Q Serve(g_s), s	1.8	14.8	14.8	2.1	25.4	25.5	0.0	0.0	14.2	8.7	11.4	2.0
Cycle Q Clear(g_c), s	1.8	14.8	14.8	2.1	25.4	25.5	0.0	0.0	14.2	8.7	11.4	2.0
Prop In Lane	1.00		0.26	1.00		0.53	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	48	1162	610	57	616	592	408	0	472	408	564	478
V/C Ratio(X)	0.81	0.64	0.64	0.80	0.93	0.93	0.23	0.00	0.74	0.66	0.56	0.14
Avail Cap(c_a), veh/h	77	1162	610	142	623	598	408	0	472	408	564	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	0.25	0.25	0.25	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	21.9	21.9	38.4	25.0	25.0	24.7	0.0	26.9	19.0	23.2	12.8
Incr Delay (d2), s/veh	21.4	0.8	1.6	6.3	7.2	7.6	0.3	0.0	9.8	3.8	3.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.6	6.1	1.0	11.1	10.8	1.4	0.0	7.0	3.7	5.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	22.7	23.5	44.8	32.2	32.7	25.0	0.0	36.7	22.8	27.1	13.5
LnGrp LOS	E	C	C	D	C	C	C	A	D	C	C	B
Approach Vol, veh/h		1166			1174			443			649	
Approach Delay, s/veh		24.2			32.9			34.2			23.9	
Approach LOS		C			C			C			C	

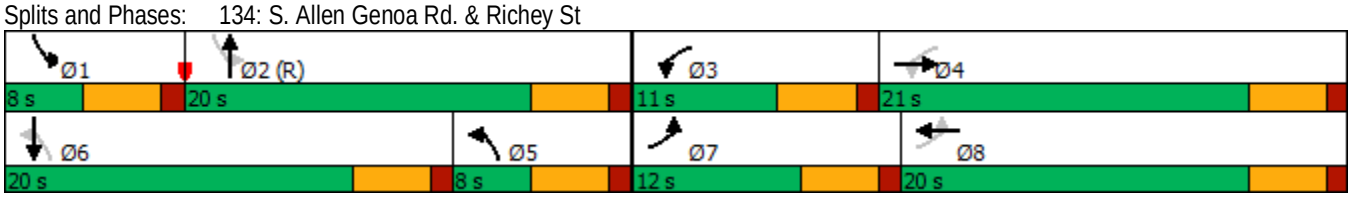
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	25.6	7.1	32.2	11.6	29.0	6.7	32.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	19.5	6.5	25.5	5.5	24.5	3.5	28.5
Max Q Clear Time (g_c+I1), s	10.7	16.2	4.1	16.8	2.0	13.4	3.8	27.5
Green Ext Time (p_c), s	0.0	0.6	0.0	4.7	0.1	1.5	0.0	0.7

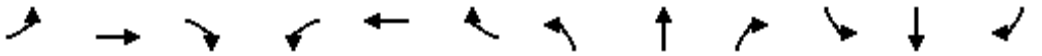
Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	155	380	91	466	41	695	22	428
Future Volume (vph)	155	380	91	466	41	695	22	428
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	21.0	11.0	20.0	8.0	20.0	8.0	20.0
Total Split (%)	20.0%	35.0%	18.3%	33.3%	13.3%	33.3%	13.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	21.4	17.1	22.3	14.1	22.4	21.9	23.3	20.3
Actuated g/C Ratio	0.36	0.28	0.37	0.24	0.37	0.36	0.39	0.34
v/c Ratio	0.53	0.50	0.29	0.69	0.19	0.72	0.10	0.57
Control Delay	16.7	19.8	12.0	25.5	15.4	24.2	12.4	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	19.8	12.0	25.5	15.4	24.2	12.4	18.6
LOS	B	B	B	C	B	C	B	B
Approach Delay		18.9		23.3		23.8		18.3
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	380	32	91	466	5	41	695	63	22	428	136
Future Volume (veh/h)	155	380	32	91	466	5	41	695	63	22	428	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	185	452	38	108	555	6	49	827	75	26	510	162
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	359	766	64	358	723	8	422	1187	108	246	616	195
Arrive On Green	0.11	0.23	0.23	0.08	0.20	0.20	0.15	0.37	0.37	0.02	0.24	0.24
Sat Flow, veh/h	1753	3266	274	1753	3544	38	1753	3242	294	1753	2614	826
Grp Volume(v), veh/h	185	241	249	108	274	287	49	446	456	26	340	332
Grp Sat Flow(s),veh/h/ln	1753	1749	1791	1753	1749	1834	1753	1749	1788	1753	1749	1692
Q Serve(g_s), s	4.9	7.3	7.4	2.7	8.9	8.9	0.0	13.0	13.0	0.6	11.1	11.2
Cycle Q Clear(g_c), s	4.9	7.3	7.4	2.7	8.9	8.9	0.0	13.0	13.0	0.6	11.1	11.2
Prop In Lane	1.00		0.15	1.00		0.02	1.00		0.16	1.00		0.49
Lane Grp Cap(c), veh/h	359	410	420	358	357	374	422	640	654	246	412	399
V/C Ratio(X)	0.52	0.59	0.59	0.30	0.77	0.77	0.12	0.70	0.70	0.11	0.83	0.83
Avail Cap(c_a), veh/h	386	481	493	409	452	474	422	640	654	313	452	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	20.4	20.4	15.6	22.5	22.5	20.5	16.2	16.2	12.9	21.8	21.8
Incr Delay (d2), s/veh	1.1	1.4	1.4	0.5	6.0	5.8	0.1	6.2	6.1	0.2	11.1	12.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.9	3.0	1.0	3.9	4.1	0.6	5.6	5.7	0.2	5.3	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	21.8	21.8	16.1	28.6	28.3	20.6	22.4	22.3	13.1	32.9	33.9
LnGrp LOS	B	C	C	B	C	C	C	C	C	B	C	C
Approach Vol, veh/h		675			669			951			698	
Approach Delay, s/veh		20.7			26.4			22.2			32.6	
Approach LOS		C			C			C			C	

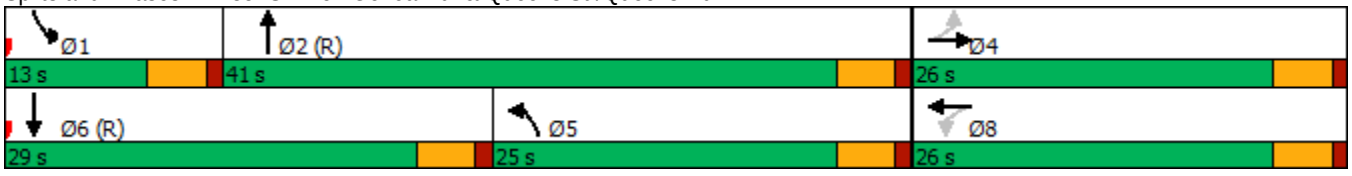
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	26.5	9.2	18.6	13.6	18.6	11.1	16.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	15.5	6.5	16.5	3.5	15.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	2.6	15.0	4.7	9.4	2.0	13.2	6.9	10.9
Green Ext Time (p_c), s	0.0	0.3	0.0	1.6	0.0	0.9	0.0	1.4

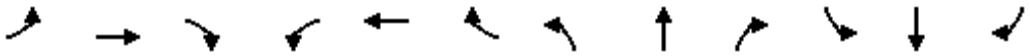
Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	28	248	267	183	589	50	430
Future Volume (vph)	28	248	267	183	589	50	430
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	25.0	41.0	13.0	29.0
Total Split (%)	32.5%	32.5%	32.5%	31.3%	51.3%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		15.1	15.1	20.5	48.0	7.6	30.9
Actuated g/C Ratio		0.19	0.19	0.26	0.60	0.10	0.39
v/c Ratio		0.74	0.62	0.44	0.31	0.33	0.41
Control Delay		29.9	17.4	11.9	2.7	38.7	19.0
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		29.9	17.4	11.9	2.7	38.7	19.0
LOS		C	B	B	A	D	B
Approach Delay		29.9	17.4		4.9		20.8
Approach LOS		C	B		A		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 33 (41%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	248	143	0	267	126	183	589	18	50	430	81
Future Volume (veh/h)	28	248	143	0	267	126	183	589	18	50	430	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	267	154	0	287	135	197	633	19	54	462	87
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	69	363	219	0	478	219	561	2036	61	68	900	169
Arrive On Green	0.21	0.21	0.21	0.00	0.21	0.21	0.32	0.59	0.59	0.04	0.31	0.31
Sat Flow, veh/h	91	1772	1069	0	2421	1068	1753	3467	104	1753	2940	550
Grp Volume(v), veh/h	237	0	214	0	214	208	197	319	333	54	274	275
Grp Sat Flow(s),veh/h/ln	1450	0	1483	0	1749	1648	1753	1749	1822	1753	1749	1742
Q Serve(g_s), s	3.8	0.0	10.7	0.0	8.9	9.2	6.9	7.4	7.4	2.4	10.3	10.4
Cycle Q Clear(g_c), s	13.0	0.0	10.7	0.0	8.9	9.2	6.9	7.4	7.4	2.4	10.3	10.4
Prop In Lane	0.13		0.72	0.00		0.65	1.00		0.06	1.00		0.32
Lane Grp Cap(c), veh/h	348	0	304	0	359	338	561	1027	1070	68	536	533
V/C Ratio(X)	0.68	0.00	0.70	0.00	0.60	0.62	0.35	0.31	0.31	0.79	0.51	0.52
Avail Cap(c_a), veh/h	453	0	398	0	470	443	561	1027	1070	186	536	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	0.0	29.5	0.0	28.8	28.9	20.8	8.3	8.3	38.1	22.8	22.9
Incr Delay (d2), s/veh	2.8	0.0	3.7	0.0	1.6	1.8	0.3	0.6	0.6	17.9	3.5	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	3.9	0.0	3.6	3.6	2.7	2.5	2.6	1.4	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	0.0	33.2	0.0	30.4	30.8	21.1	8.9	8.9	56.0	26.3	26.4
LnGrp LOS	C	A	C	A	C	C	C	A	A	E	C	C
Approach Vol, veh/h		451			422			849			603	
Approach Delay, s/veh		32.9			30.6			11.7			29.0	
Approach LOS		C			C			B			C	

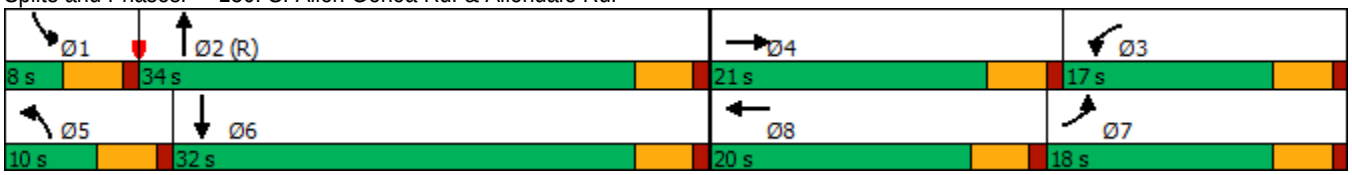
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	51.5		20.9	30.1	29.0		20.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	36.5		21.5	20.5	24.5		21.5				
Max Q Clear Time (g_c+I1), s	4.4	9.4		15.0	8.9	12.4		11.2				
Green Ext Time (p_c), s	0.0	4.1		1.4	0.4	2.6		1.7				

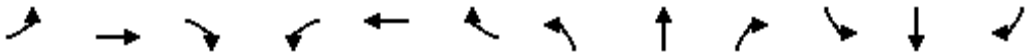
Intersection Summary			
HCM 6th Ctrl Delay		23.8	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	165	143	110	128	34	729	28	419
Future Volume (vph)	165	143	110	128	34	729	28	419
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	21.0	17.0	20.0	10.0	34.0	8.0	32.0
Total Split (%)	22.5%	26.3%	21.3%	25.0%	12.5%	42.5%	10.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	13.7	12.1	13.1	9.2	6.4	37.7	5.5	36.8
Actuated g/C Ratio	0.17	0.15	0.16	0.12	0.08	0.47	0.07	0.46
v/c Ratio	0.66	0.43	0.47	0.54	0.30	0.61	0.28	0.34
Control Delay	30.3	13.8	34.6	19.8	40.8	19.6	41.2	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	13.8	34.6	19.8	40.8	19.6	41.2	20.9
LOS	C	B	C	B	D	B	D	C
Approach Delay		21.1		25.0		20.4		22.1
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 53.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	143	65	110	128	72	34	729	104	28	419	42
Future Volume (veh/h)	165	143	65	110	128	72	34	729	104	28	419	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	194	168	76	129	151	85	40	858	0	33	493	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	233	254	110	229	230	123	83	1801		40	1715	
Arrive On Green	0.13	0.11	0.11	0.13	0.10	0.10	0.05	0.51	0.00	0.02	0.49	0.00
Sat Flow, veh/h	1753	2375	1030	1753	2203	1175	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	194	122	122	129	118	118	40	858	0	33	493	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1655	1753	1749	1629	1753	1749	0	1753	1749	0
Q Serve(g_s), s	8.6	5.3	5.7	5.5	5.2	5.6	1.8	12.6	0.0	1.5	6.7	0.0
Cycle Q Clear(g_c), s	8.6	5.3	5.7	5.5	5.2	5.6	1.8	12.6	0.0	1.5	6.7	0.0
Prop In Lane	1.00		0.62	1.00		0.72	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	233	187	177	229	183	170	83	1801		40	1715	
V/C Ratio(X)	0.83	0.65	0.69	0.56	0.65	0.69	0.48	0.48		0.83	0.29	
Avail Cap(c_a), veh/h	296	361	341	274	339	316	121	1801		77	1715	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.8	34.3	34.5	32.6	34.4	34.6	37.2	12.5	0.0	38.9	12.1	0.0
Incr Delay (d2), s/veh	14.8	3.8	4.8	2.1	3.7	4.9	4.3	0.9	0.0	32.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.4	2.5	2.4	2.3	2.4	0.8	4.7	0.0	1.0	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	38.1	39.2	34.8	38.2	39.5	41.4	13.4	0.0	71.9	12.2	0.0
LnGrp LOS	D	D	D	C	D	D	D	B		E	B	
Approach Vol, veh/h		438			365			898	A		526	A
Approach Delay, s/veh		43.1			37.4			14.6			15.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	45.7	14.9	13.0	8.3	43.7	15.1	12.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	29.5	12.5	16.5	5.5	27.5	13.5	15.5
Max Q Clear Time (g_c+I1), s	3.5	14.6	7.5	7.7	3.8	8.7	10.6	7.6
Green Ext Time (p_c), s	0.0	5.3	0.1	0.9	0.0	3.2	0.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

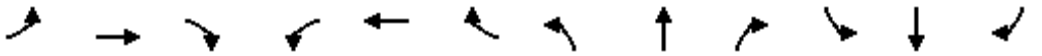
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	84	119	60	130	490	63	10	560	62
Future Volume (vph)	84	119	60	130	490	63	10	560	62
Turn Type	pm+pt	NA	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8	2			6	
Permitted Phases	4		8			2	6		6
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	23.0	8.0	20.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	13.8%	28.8%	10.0%	25.0%	61.3%	61.3%	61.3%	61.3%	61.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	10.4	9.3	52.9	52.9		52.9	52.9
Actuated g/C Ratio	0.11	0.11	0.13	0.12	0.66	0.66		0.66	0.66
v/c Ratio	0.48	0.46	0.28	0.35	0.43	0.06		0.29	0.06
Control Delay	27.0	14.6	25.2	24.2	9.1	0.1		4.0	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	27.0	14.6	25.2	24.2	9.1	0.1		4.0	0.3
LOS	C	B	C	C	A	A		A	A
Approach Delay		18.6		24.5	8.1			3.6	
Approach LOS		B		C	A			A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 10.0	Intersection LOS: A
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	119	57	60	130	3	0	490	63	10	560	62
Future Volume (veh/h)	84	119	57	60	130	3	0	490	63	10	560	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	123	0	62	134	0	0	505	65	10	577	64
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	201	228		206	237		90	1289	1092	60	2372	1092
Arrive On Green	0.06	0.07	0.00	0.07	0.07	0.00	0.00	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1753	3589	0	1753	3589	0	776	1841	1560	20	3388	1560
Grp Volume(v), veh/h	87	123	0	62	134	0	0	505	65	313	274	64
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	776	1841	1560	1816	1591	1560
Q Serve(g_s), s	3.9	2.7	0.0	0.0	3.0	0.0	0.0	9.1	1.0	0.0	5.0	1.0
Cycle Q Clear(g_c), s	3.9	2.7	0.0	0.0	3.0	0.0	0.0	9.1	1.0	4.9	5.0	1.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.03		1.00
Lane Grp Cap(c), veh/h	201	228		206	237		90	1289	1092	1318	1114	1092
V/C Ratio(X)	0.43	0.54		0.30	0.57		0.00	0.39	0.06	0.24	0.25	0.06
Avail Cap(c_a), veh/h	232	809		206	678		90	1289	1092	1318	1114	1092
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	36.2	0.0	34.9	36.1	0.0	0.0	5.0	3.8	4.3	4.3	3.7
Incr Delay (d2), s/veh	1.3	1.8	0.0	0.8	2.1	0.0	0.0	0.9	0.1	0.4	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.2	0.0	1.1	1.3	0.0	0.0	2.8	0.3	1.5	1.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	38.0	0.0	35.7	38.3	0.0	0.0	5.9	3.9	4.8	4.9	3.9
LnGrp LOS	D	D		D	D		A	A	A	A	A	A
Approach Vol, veh/h		210	A		196	A		570			651	
Approach Delay, s/veh		38.1			37.5			5.6			4.7	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		60.5	9.8	9.7		60.5	9.6	9.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		44.5	3.5	18.5		44.5	6.5	15.5				
Max Q Clear Time (g_c+I1), s		11.1	2.0	4.7		7.0	5.9	5.0				
Green Ext Time (p_c), s		3.7	0.0	0.5		4.0	0.0	0.5				

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

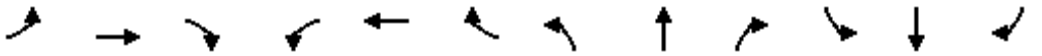
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	34	6	34	4	575	122	494
Future Volume (vph)	4	34	6	34	4	575	122	494
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	26.0	8.0	33.0	21.0	46.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	10.0%	41.3%	26.3%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		9.3		9.3	3.5	48.3	11.2	60.1
Actuated g/C Ratio		0.12		0.12	0.04	0.60	0.14	0.75
v/c Ratio		0.25		0.70	0.05	0.31	0.53	0.20
Control Delay		29.2		18.9	43.5	11.2	38.6	1.3
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		29.2		18.9	43.5	11.2	38.6	1.3
LOS		C		B	D	B	D	A
Approach Delay		29.2		18.9		11.4		8.6
Approach LOS		C		B		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 52 (65%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 12.1	Intersection LOS: B
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	34	8	6	34	218	4	575	33	122	494	3
Future Volume (veh/h)	4	34	8	6	34	218	4	575	33	122	494	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	4	36	8	6	36	229	4	605	35	128	520	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	58	286	59	48	47	268	198	1816	105	161	1849	11
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.11	0.54	0.54	0.18	1.00	1.00
Sat Flow, veh/h	45	1435	296	12	235	1347	1753	3360	194	1753	3565	21
Grp Volume(v), veh/h	48	0	0	271	0	0	4	315	325	128	255	268
Grp Sat Flow(s),veh/h/ln	1777	0	0	1594	0	0	1753	1749	1806	1753	1749	1837
Q Serve(g_s), s	0.0	0.0	0.0	2.6	0.0	0.0	0.2	8.1	8.1	5.6	0.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	13.1	0.0	0.0	0.2	8.1	8.1	5.6	0.0	0.0
Prop In Lane	0.08		0.17	0.02		0.85	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	403	0	0	364	0	0	198	945	976	161	907	953
V/C Ratio(X)	0.12	0.00	0.00	0.75	0.00	0.00	0.02	0.33	0.33	0.80	0.28	0.28
Avail Cap(c_a), veh/h	520	0	0	474	0	0	198	945	976	362	907	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	0.84	0.00	0.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	26.4	0.0	0.0	30.9	0.0	0.0	31.5	10.3	10.3	32.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	3.9	0.0	0.0	0.0	0.9	0.9	7.3	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	5.3	0.0	0.0	0.1	3.1	3.2	2.5	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.0	0.0	34.8	0.0	0.0	31.6	11.3	11.2	39.3	0.6	0.6
LnGrp LOS	C	A	A	C	A	A	C	B	B	D	A	A
Approach Vol, veh/h		48			271			644			651	
Approach Delay, s/veh		26.5			34.8			11.4			8.2	
Approach LOS		C			C			B			A	

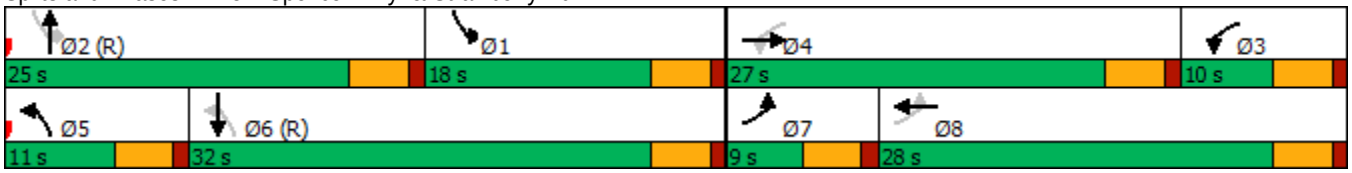
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	47.7		20.4	13.6	46.0		20.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	16.5	28.5		21.5	3.5	41.5		21.5				
Max Q Clear Time (g_c+I1), s	7.6	10.1		3.8	2.2	2.0		15.1				
Green Ext Time (p_c), s	0.2	3.8		0.1	0.0	3.5		0.9				

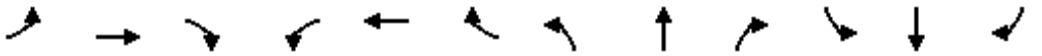
Intersection Summary												
HCM 6th Ctrl Delay			14.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	141	1175	155	942	128	668	184	320	541
Future Volume (vph)	141	1175	155	942	128	668	184	320	541
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	9.0	27.0	10.0	28.0	11.0	25.0	25.0	18.0	32.0
Total Split (%)	11.3%	33.8%	12.5%	35.0%	13.8%	31.3%	31.3%	22.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	28.0	22.5	28.0	23.5	34.0	20.5	20.5	34.0	27.5
Actuated g/C Ratio	0.35	0.28	0.35	0.29	0.42	0.26	0.26	0.42	0.34
v/c Ratio	0.85	1.03	0.81	0.92	0.59	0.85	0.39	0.98	0.70
Control Delay	53.0	46.5	40.2	24.5	22.5	28.5	4.1	63.8	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.0	46.5	40.2	24.5	22.5	28.5	4.1	63.8	15.6
LOS	D	D	D	C	C	C	A	E	B
Approach Delay		47.1		26.3		23.1			29.9
Approach LOS		D		C		C			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 16 (20%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 32.5	Intersection LOS: C
Intersection Capacity Utilization 89.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	1175	89	155	942	259	128	668	184	320	541	216
Future Volume (veh/h)	141	1175	89	155	942	259	128	668	184	320	541	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	155	1291	98	170	1035	285	141	734	202	352	595	237
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	201	1340	102	216	1144	315	311	896	400	423	866	345
Arrive On Green	0.11	0.56	0.56	0.02	0.10	0.10	0.07	0.26	0.26	0.17	0.35	0.35
Sat Flow, veh/h	1753	4764	362	1753	3919	1078	1753	3497	1560	1753	2443	972
Grp Volume(v), veh/h	155	908	481	170	885	435	141	734	202	352	426	406
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1647	1753	1749	1560	1753	1749	1666
Q Serve(g_s), s	4.5	20.7	20.7	3.2	20.9	20.9	4.0	15.8	8.9	9.6	16.6	16.7
Cycle Q Clear(g_c), s	4.5	20.7	20.7	3.2	20.9	20.9	4.0	15.8	8.9	9.6	16.6	16.7
Prop In Lane	1.00		0.20	1.00		0.65	1.00		1.00	1.00		0.58
Lane Grp Cap(c), veh/h	201	942	499	216	978	481	311	896	400	423	620	591
V/C Ratio(X)	0.77	0.96	0.96	0.79	0.90	0.91	0.45	0.82	0.51	0.83	0.69	0.69
Avail Cap(c_a), veh/h	201	942	499	219	984	484	327	896	400	423	620	591
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.56	0.56	0.56	0.53	0.53	0.53	0.82	0.82	0.82
Uniform Delay (d), s/veh	22.7	17.1	17.1	37.1	35.0	35.0	16.5	28.0	25.4	29.6	22.0	22.0
Incr Delay (d2), s/veh	14.9	19.3	28.7	10.1	7.0	12.9	0.5	4.6	2.4	11.0	5.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.7	8.4	3.8	10.2	10.8	1.5	6.8	3.3	7.4	7.2	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	36.4	45.8	47.2	42.1	48.0	17.1	32.6	27.8	40.6	27.1	27.3
LnGrp LOS	D	D	D	D	D	D	B	C	C	D	C	C
Approach Vol, veh/h		1544			1490			1077			1184	
Approach Delay, s/veh		39.4			44.4			29.6			31.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	25.0	9.9	27.0	10.3	32.9	9.0	27.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	20.5	5.5	22.5	6.5	27.5	4.5	23.5
Max Q Clear Time (g_c+I1), s	11.6	17.8	5.2	22.7	6.0	18.7	6.5	22.9
Green Ext Time (p_c), s	0.2	1.4	0.0	0.0	0.0	3.4	0.0	0.4

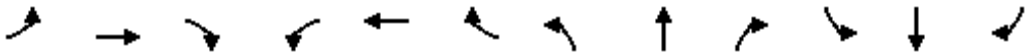
Intersection Summary	
HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	48	418	451	165	541	449	693	116	599
Future Volume (vph)	48	418	451	165	541	449	693	116	599
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	20.0	8.0	20.0	17.0	27.0	10.0	20.0
Total Split (%)	12.3%	30.8%	30.8%	12.3%	30.8%	26.2%	41.5%	15.4%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	20.4	14.5	14.5	18.6	18.3	28.4	24.9	29.3	15.5
Actuated g/C Ratio	0.31	0.22	0.22	0.29	0.28	0.44	0.38	0.45	0.24
v/c Ratio	0.27	0.60	0.68	0.70	0.77	1.14	0.71	0.48	0.83
Control Delay	17.5	26.0	7.8	36.8	28.4	105.1	21.7	22.8	34.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	26.0	7.8	36.8	28.4	105.1	21.7	22.8	34.3
LOS	B	C	A	D	C	F	C	C	C
Approach Delay		16.6			30.0		51.9		32.5
Approach LOS		B			C		D		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 34.5	Intersection LOS: C
Intersection Capacity Utilization 85.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	418	451	165	541	136	449	693	98	116	599	22
Future Volume (veh/h)	48	418	451	165	541	136	449	693	98	116	599	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	53	464	501	183	601	151	499	770	109	129	666	24
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	188	671	299	290	661	166	508	1065	151	375	892	32
Arrive On Green	0.03	0.19	0.19	0.08	0.24	0.24	0.19	0.35	0.35	0.11	0.26	0.26
Sat Flow, veh/h	1753	3497	1560	1753	2770	694	1753	3076	435	1753	3443	124
Grp Volume(v), veh/h	53	464	501	183	379	373	499	438	441	129	338	352
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1716	1753	1749	1762	1753	1749	1818
Q Serve(g_s), s	1.5	8.0	7.4	0.8	13.7	13.8	12.5	14.2	14.2	0.0	11.5	11.6
Cycle Q Clear(g_c), s	1.5	8.0	7.4	0.8	13.7	13.8	12.5	14.2	14.2	0.0	11.5	11.6
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	188	671	299	290	417	409	508	605	610	375	453	471
V/C Ratio(X)	0.28	0.69	1.67	0.63	0.91	0.91	0.98	0.72	0.72	0.34	0.75	0.75
Avail Cap(c_a), veh/h	224	834	372	290	417	409	508	605	610	375	453	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	0.82	0.82	0.82	0.83	0.83	0.83
Uniform Delay (d), s/veh	19.4	24.5	9.2	27.1	24.1	24.1	16.6	18.5	18.5	23.5	22.1	22.1
Incr Delay (d2), s/veh	0.8	1.8	317.1	3.2	18.3	19.1	31.5	6.1	6.0	0.5	9.0	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.3	30.2	2.7	7.3	7.2	9.1	6.1	6.1	1.7	5.4	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	26.3	326.3	30.3	42.4	43.2	48.1	24.6	24.6	23.9	31.1	30.8
LnGrp LOS	C	C	F	C	D	D	D	C	C	C	C	C
Approach Vol, veh/h		1018			935			1378			819	
Approach Delay, s/veh		173.6			40.3			33.1			29.8	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	27.0	9.7	17.0	17.0	21.3	6.7	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	22.5	3.5	15.5	12.5	15.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	16.2	2.8	10.0	14.5	13.6	3.5	15.8
Green Ext Time (p_c), s	0.1	2.8	0.0	2.4	0.0	0.8	0.0	0.0

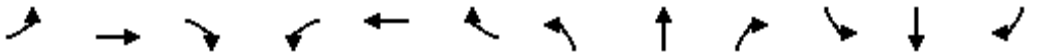
Intersection Summary	
HCM 6th Ctrl Delay	68.5
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	118	11	1	121	1129	13	1079
Future Volume (vph)	118	11	1	121	1129	13	1079
Turn Type	Perm	NA	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4			6		2	
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	21.0	14.0	51.0	8.0	45.0
Total Split (%)	26.3%	26.3%	26.3%	17.5%	63.8%	10.0%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.6	12.6	12.6	53.9	56.8	57.5	46.1
Actuated g/C Ratio	0.16	0.16	0.16	0.67	0.71	0.72	0.58
v/c Ratio	0.62	0.53	0.01	0.47	0.54	0.06	0.69
Control Delay	43.5	10.1	22.5	14.7	1.2	4.8	15.0
Queue Delay	0.0	0.0	0.0	0.3	0.4	0.0	0.0
Total Delay	43.5	10.1	22.5	15.0	1.6	4.8	15.0
LOS	D	B	C	B	A	A	B
Approach Delay		22.6	22.5		2.9		14.9
Approach LOS		C	C		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 6 (8%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 10.3	Intersection LOS: B
Intersection Capacity Utilization 70.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	11	188	0	1	1	121	1129	23	13	1079	104
Future Volume (veh/h)	118	11	188	0	1	1	121	1129	23	13	1079	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	136	13	216	0	1	1	139	1298	26	15	1240	120
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	330	15	257	0	146	146	325	2038	41	462	1946	188
Arrive On Green	0.17	0.17	0.17	0.00	0.17	0.17	0.11	1.00	1.00	0.08	0.60	0.60
Sat Flow, veh/h	1393	89	1484	0	844	844	1753	3507	70	1753	3222	311
Grp Volume(v), veh/h	136	0	229	0	0	2	139	647	677	15	671	689
Grp Sat Flow(s),veh/h/ln	1393	0	1574	0	0	1689	1753	1749	1828	1753	1749	1785
Q Serve(g_s), s	7.2	0.0	11.3	0.0	0.0	0.1	2.4	0.0	0.0	0.0	19.8	19.9
Cycle Q Clear(g_c), s	7.2	0.0	11.3	0.0	0.0	0.1	2.4	0.0	0.0	0.0	19.8	19.9
Prop In Lane	1.00		0.94	0.00		0.50	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	330	0	272	0	0	292	325	1016	1063	462	1056	1078
V/C Ratio(X)	0.41	0.00	0.84	0.00	0.00	0.01	0.43	0.64	0.64	0.03	0.64	0.64
Avail Cap(c_a), veh/h	376	0	325	0	0	348	438	1016	1063	462	1056	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.60	0.60	0.60	0.56	0.56	0.56
Uniform Delay (d), s/veh	30.4	0.0	32.0	0.0	0.0	27.4	8.3	0.0	0.0	4.9	10.2	10.2
Incr Delay (d2), s/veh	0.8	0.0	15.5	0.0	0.0	0.0	0.5	1.8	1.8	0.0	1.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	5.3	0.0	0.0	0.0	0.7	0.5	0.5	0.1	6.9	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	47.5	0.0	0.0	27.4	8.8	1.8	1.8	4.9	11.8	11.9
LnGrp LOS	C	A	D	A	A	C	A	A	A	A	B	B
Approach Vol, veh/h		365			2			1463			1375	
Approach Delay, s/veh		41.4			27.4			2.5			11.8	
Approach LOS		D			C			A			B	

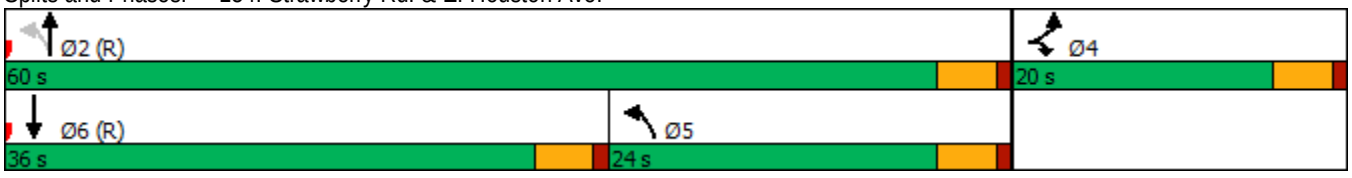
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	51.0		18.3	8.9	52.8		18.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	46.5		16.5	9.5	40.5		16.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		13.3	4.4	21.9		2.1				
Green Ext Time (p_c), s	0.0	12.1		0.6	0.1	9.5		0.0				

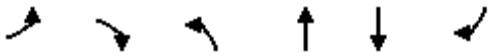
Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	74	116	269	750	642
Future Volume (vph)	74	116	269	750	642
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	24.0	60.0	36.0
Total Split (%)	25.0%	25.0%	30.0%	75.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	9.3	9.3	61.7	61.7	37.7
Actuated g/C Ratio	0.12	0.12	0.77	0.77	0.47
v/c Ratio	0.43	0.45	0.48	0.33	0.55
Control Delay	38.7	11.1	12.1	3.4	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	11.1	12.1	3.4	6.6
LOS	D	B	B	A	A
Approach Delay	21.9			5.7	6.6
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 15 (19%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 7.6	Intersection LOS: A
Intersection Capacity Utilization 56.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	116	269	750	642	110
Future Volume (veh/h)	74	116	269	750	642	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	136	316	882	755	129
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	199	177	819	2707	1176	201
Arrive On Green	0.11	0.11	0.32	0.77	0.79	0.79
Sat Flow, veh/h	1753	1560	1753	3589	3079	510
Grp Volume(v), veh/h	87	136	316	882	442	442
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1749
Q Serve(g_s), s	3.7	6.8	0.0	6.1	8.7	8.7
Cycle Q Clear(g_c), s	3.7	6.8	0.0	6.1	8.7	8.7
Prop In Lane	1.00	1.00	1.00			0.29
Lane Grp Cap(c), veh/h	199	177	819	2707	689	689
V/C Ratio(X)	0.44	0.77	0.39	0.33	0.64	0.64
Avail Cap(c_a), veh/h	340	302	819	2707	689	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.67	0.67	0.65	0.65
Uniform Delay (d), s/veh	33.1	34.4	13.0	2.7	6.1	6.1
Incr Delay (d2), s/veh	1.5	6.9	0.2	0.2	3.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.0	3.8	1.2	2.3	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.6	41.3	13.2	2.9	9.1	9.1
LnGrp LOS	C	D	B	A	A	A
Approach Vol, veh/h	223			1198	884	
Approach Delay, s/veh	38.7			5.6	9.1	
Approach LOS	D			A	A	

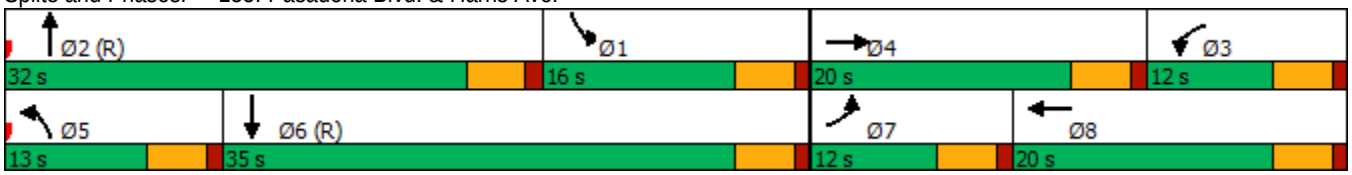
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		66.4		13.6	30.4	36.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		15.5	19.5	31.5
Max Q Clear Time (g_c+I1), s		8.1		8.8	2.0	10.7
Green Ext Time (p_c), s		7.4		0.4	0.9	5.6

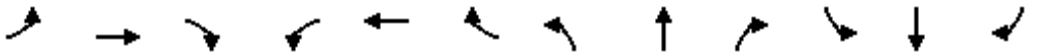
Intersection Summary	
HCM 6th Ctrl Delay	10.2
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	96	232	81	234	62	739	150	456
Future Volume (vph)	96	232	81	234	62	739	150	456
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	20.0	12.0	20.0	13.0	32.0	16.0	35.0
Total Split (%)	15.0%	25.0%	15.0%	25.0%	16.3%	40.0%	20.0%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	12.1	8.1	13.0	7.6	32.4	11.5	38.2
Actuated g/C Ratio	0.09	0.15	0.10	0.16	0.10	0.40	0.14	0.48
v/c Ratio	0.68	0.61	0.51	0.72	0.42	0.66	0.67	0.34
Control Delay	41.4	13.0	45.3	20.2	28.4	13.5	47.4	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	13.0	45.3	20.2	28.4	13.5	47.4	15.9
LOS	D	B	D	C	C	B	D	B
Approach Delay		19.9		23.7		14.5		23.1
Approach LOS		B		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 71.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	232	67	81	234	260	62	739	89	150	456	51
Future Volume (veh/h)	96	232	67	81	234	260	62	739	89	150	456	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	107	258	74	90	260	289	69	821	99	167	507	57
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	135	352	99	246	339	302	88	1080	130	281	1438	161
Arrive On Green	0.08	0.13	0.13	0.14	0.19	0.19	0.05	0.34	0.34	0.16	0.45	0.45
Sat Flow, veh/h	1753	2696	757	1753	1749	1560	1753	3142	379	1753	3170	355
Grp Volume(v), veh/h	107	165	167	90	260	289	69	457	463	167	279	285
Grp Sat Flow(s),veh/h/ln	1753	1749	1704	1753	1749	1560	1753	1749	1773	1753	1749	1777
Q Serve(g_s), s	4.8	7.3	7.5	3.7	11.3	14.7	3.1	18.6	18.6	7.1	8.3	8.4
Cycle Q Clear(g_c), s	4.8	7.3	7.5	3.7	11.3	14.7	3.1	18.6	18.6	7.1	8.3	8.4
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.21	1.00		0.20
Lane Grp Cap(c), veh/h	135	228	222	246	339	302	88	601	609	281	793	806
V/C Ratio(X)	0.79	0.72	0.75	0.37	0.77	0.96	0.78	0.76	0.76	0.59	0.35	0.35
Avail Cap(c_a), veh/h	164	339	330	246	339	302	186	601	609	281	793	806
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	33.4	33.5	31.1	30.5	31.9	37.5	23.3	23.3	31.2	14.2	14.2
Incr Delay (d2), s/veh	12.6	2.8	3.3	0.9	10.2	40.0	13.7	8.8	8.7	3.4	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.1	3.2	1.6	5.5	8.6	1.6	8.6	8.7	3.1	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	36.2	36.8	32.1	40.7	71.9	51.3	32.1	32.0	34.5	15.4	15.4
LnGrp LOS	D	D	D	C	D	E	D	C	C	C	B	B
Approach Vol, veh/h		439			639			989			731	
Approach Delay, s/veh		39.5			53.6			33.4			19.8	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	32.0	15.7	14.9	8.5	40.8	10.7	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	27.5	7.5	15.5	8.5	30.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	9.1	20.6	5.7	9.5	5.1	10.4	6.8	16.7
Green Ext Time (p_c), s	0.1	3.2	0.0	0.9	0.0	3.2	0.0	0.0

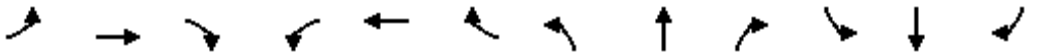
Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	8	86	4	30	1154	150	1124
Future Volume (vph)	8	86	4	30	1154	150	1124
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	20.0	8.0	46.0	14.0	52.0
Total Split (%)	25.0%	25.0%	25.0%	10.0%	57.5%	17.5%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.1	11.1	11.1	57.2	45.9	55.4	54.2
Actuated g/C Ratio	0.14	0.14	0.14	0.72	0.57	0.69	0.68
v/c Ratio	0.16	0.54	0.42	0.11	0.74	0.57	0.55
Control Delay	14.7	42.0	10.3	2.7	6.4	16.6	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	14.7	42.0	10.3	2.7	6.4	16.6	4.3
LOS	B	D	B	A	A	B	A
Approach Delay	14.7		23.5		6.3		5.8
Approach LOS	B		C		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 3 (4%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 7.4	Intersection LOS: A
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	27	86	4	117	30	1154	112	150	1124	1
Future Volume (veh/h)	0	8	27	86	4	117	30	1154	112	150	1124	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	9	31	99	5	134	34	1326	129	172	1292	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	45	156	228	7	189	418	1671	162	483	2450	2
Arrive On Green	0.00	0.12	0.12	0.12	0.12	0.12	0.02	0.52	0.52	0.38	1.00	1.00
Sat Flow, veh/h	0	363	1252	1346	56	1512	1753	3221	312	1753	3586	3
Grp Volume(v), veh/h	0	0	40	99	0	139	34	717	738	172	630	663
Grp Sat Flow(s),veh/h/ln	0	0	1615	1346	0	1569	1753	1749	1785	1753	1749	1840
Q Serve(g_s), s	0.0	0.0	1.8	5.7	0.0	6.8	0.5	26.8	27.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.8	7.5	0.0	6.8	0.5	26.8	27.1	0.0	0.0	0.0
Prop In Lane	0.00		0.77	1.00		0.96	1.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	202	228	0	196	418	907	926	483	1195	1257
V/C Ratio(X)	0.00	0.00	0.20	0.43	0.00	0.71	0.08	0.79	0.80	0.36	0.53	0.53
Avail Cap(c_a), veh/h	0	0	313	321	0	304	454	907	926	483	1195	1257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.40	0.40	0.40	0.67	0.67	0.67
Uniform Delay (d), s/veh	0.0	0.0	31.4	34.8	0.0	33.6	3.5	15.7	15.8	17.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	1.3	0.0	4.7	0.0	2.9	3.0	0.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	1.9	0.0	2.8	0.1	9.9	10.3	2.0	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.9	36.1	0.0	38.3	3.6	18.6	18.7	17.9	1.1	1.1
LnGrp LOS	A	A	C	D	A	D	A	B	B	B	A	A
Approach Vol, veh/h		40			238			1489			1465	
Approach Delay, s/veh		31.9			37.4			18.3			3.1	
Approach LOS		C			D			B			A	

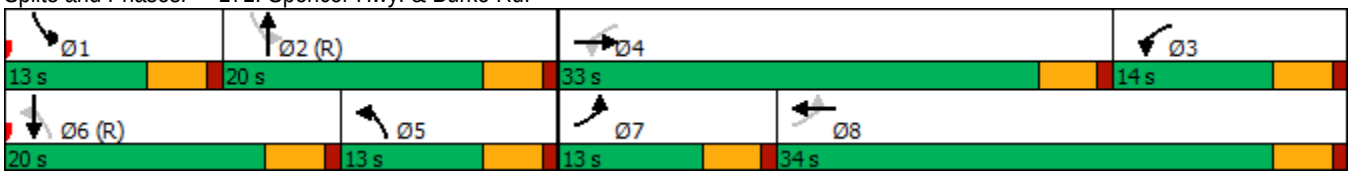
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.5	46.0		14.5	6.4	59.2		14.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	41.5		15.5	3.5	47.5		15.5				
Max Q Clear Time (g_c+I1), s	2.0	29.1		3.8	2.5	2.0		9.5				
Green Ext Time (p_c), s	0.3	7.6		0.1	0.0	11.7		0.5				

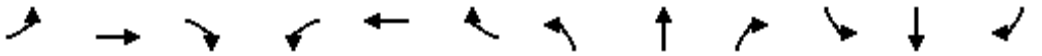
Intersection Summary			
HCM 6th Ctrl Delay		13.0	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	123	1205	168	1144	140	173	182	230
Future Volume (vph)	123	1205	168	1144	140	173	182	230
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	33.0	14.0	34.0	13.0	20.0	13.0	20.0
Total Split (%)	16.3%	41.3%	17.5%	42.5%	16.3%	25.0%	16.3%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	37.1	28.4	37.1	29.2	24.9	16.5	24.9	16.4
Actuated g/C Ratio	0.46	0.36	0.46	0.36	0.31	0.21	0.31	0.20
v/c Ratio	0.52	0.87	0.67	0.79	0.48	0.45	0.59	0.50
Control Delay	18.6	8.2	26.3	19.5	18.9	11.1	17.2	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	8.2	26.3	19.5	18.9	11.1	17.2	20.5
LOS	B	A	C	B	B	B	B	C
Approach Delay		9.1		20.4		13.5		19.3
Approach LOS		A		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 54 (68%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	1205	128	168	1144	104	140	173	141	182	230	93
Future Volume (veh/h)	123	1205	128	168	1144	104	140	173	141	182	230	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	137	1339	142	187	1271	116	156	192	157	202	256	103
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	246	1506	160	273	1600	146	481	478	370	443	476	186
Arrive On Green	0.14	0.65	0.65	0.03	0.11	0.11	0.17	0.25	0.25	0.11	0.19	0.19
Sat Flow, veh/h	1753	4614	489	1753	4686	428	1753	1877	1451	1753	2455	961
Grp Volume(v), veh/h	137	972	509	187	909	478	156	178	171	202	180	179
Grp Sat Flow(s),veh/h/ln	1753	1675	1753	1753	1675	1764	1753	1749	1579	1753	1749	1668
Q Serve(g_s), s	4.0	19.2	19.2	2.9	21.1	21.1	0.0	6.8	7.2	6.7	7.4	7.7
Cycle Q Clear(g_c), s	4.0	19.2	19.2	2.9	21.1	21.1	0.0	6.8	7.2	6.7	7.4	7.7
Prop In Lane	1.00		0.28	1.00		0.24	1.00		0.92	1.00		0.58
Lane Grp Cap(c), veh/h	246	1094	572	273	1144	602	481	446	403	443	339	323
V/C Ratio(X)	0.56	0.89	0.89	0.68	0.79	0.79	0.32	0.40	0.42	0.46	0.53	0.55
Avail Cap(c_a), veh/h	306	1193	624	329	1235	650	481	446	403	443	339	323
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.20	0.20	0.20	0.43	0.43	0.43	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	12.7	12.7	35.4	32.8	32.8	25.3	24.7	24.9	18.9	29.0	29.1
Incr Delay (d2), s/veh	0.4	1.8	3.3	2.0	1.5	2.8	0.4	2.7	3.3	0.7	5.9	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.7	4.1	3.6	9.5	10.3	2.5	3.0	2.9	2.6	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	14.5	16.0	37.3	34.3	35.6	25.7	27.4	28.2	19.6	34.9	35.8
LnGrp LOS	B	B	B	D	C	D	C	C	C	B	C	D
Approach Vol, veh/h		1618			1574			505			561	
Approach Delay, s/veh		15.2			35.0			27.1			29.7	
Approach LOS		B			D			C			C	

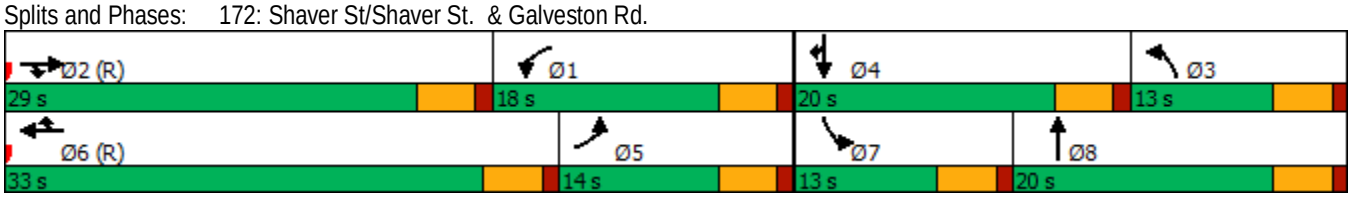
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	24.9	11.5	30.6	17.9	20.0	10.3	31.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	15.5	9.5	28.5	8.5	15.5	8.5	29.5
Max Q Clear Time (g_c+I1), s	8.7	9.2	4.9	21.2	2.0	9.7	6.0	23.1
Green Ext Time (p_c), s	0.0	1.0	0.2	4.9	0.2	1.0	0.1	4.2

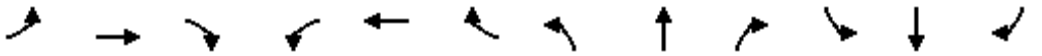
Intersection Summary	
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	184	932	128	264	940	166	96	433	149	472	176
Future Volume (vph)	184	932	128	264	940	166	96	433	149	472	176
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	Prot	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8	7	4	4
Permitted Phases											
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	29.0	29.0	18.0	33.0	33.0	13.0	20.0	13.0	20.0	20.0
Total Split (%)	17.5%	36.3%	36.3%	22.5%	41.3%	41.3%	16.3%	25.0%	16.3%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	9.5	24.5	24.5	13.5	28.5	28.5	8.0	15.5	8.5	18.1	18.1
Actuated g/C Ratio	0.12	0.31	0.31	0.17	0.36	0.36	0.10	0.19	0.11	0.23	0.23
v/c Ratio	0.96	0.94	0.22	0.97	0.82	0.26	0.59	0.97	0.87	0.65	0.38
Control Delay	92.0	45.4	1.8	75.8	24.9	2.2	49.0	57.4	72.1	31.7	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.0	45.4	1.8	75.8	24.9	2.2	49.0	57.4	72.1	31.7	6.4
LOS	F	D	A	E	C	A	D	E	E	C	A
Approach Delay		47.8			32.0			56.3		33.6	
Approach LOS		D			C			E		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 38 (48%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 41.4	Intersection LOS: D
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	932	128	264	940	166	96	433	213	149	472	176
Future Volume (veh/h)	184	932	128	264	940	166	96	433	213	149	472	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	198	1002	138	284	1011	178	103	466	229	160	508	189
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	208	1071	478	296	1246	556	216	441	215	186	618	276
Arrive On Green	0.12	0.31	0.31	0.17	0.36	0.36	0.12	0.19	0.19	0.11	0.18	0.18
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	2278	1112	1753	3497	1560
Grp Volume(v), veh/h	198	1002	138	284	1011	178	103	357	338	160	508	189
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1641	1753	1749	1560
Q Serve(g_s), s	9.0	22.3	5.4	12.9	20.9	4.4	4.4	15.5	15.5	7.2	11.2	9.1
Cycle Q Clear(g_c), s	9.0	22.3	5.4	12.9	20.9	4.4	4.4	15.5	15.5	7.2	11.2	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		1.00
Lane Grp Cap(c), veh/h	208	1071	478	296	1246	556	216	339	318	186	618	276
V/C Ratio(X)	0.95	0.94	0.29	0.96	0.81	0.32	0.48	1.05	1.06	0.86	0.82	0.69
Avail Cap(c_a), veh/h	208	1071	478	296	1246	556	216	339	318	186	678	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	27.0	21.1	33.0	23.3	8.2	32.7	32.3	32.3	35.2	31.7	30.8
Incr Delay (d2), s/veh	48.5	15.8	1.5	41.4	5.8	1.5	1.6	63.7	68.2	30.9	7.5	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	11.0	2.1	8.7	9.1	2.4	1.9	12.3	11.9	4.6	5.2	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.5	42.8	22.6	74.4	29.1	9.7	34.3	96.0	100.4	66.0	39.2	36.5
LnGrp LOS	F	D	C	E	C	A	C	F	F	E	D	D
Approach Vol, veh/h		1338			1473			798			857	
Approach Delay, s/veh		46.7			35.5			89.9			43.6	
Approach LOS		D			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	29.0	14.4	18.6	14.0	33.0	13.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	24.5	8.5	15.5	9.5	28.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	14.9	24.3	6.4	13.2	11.0	22.9	9.2	17.5
Green Ext Time (p_c), s	0.0	0.2	0.0	1.0	0.0	3.4	0.0	0.0

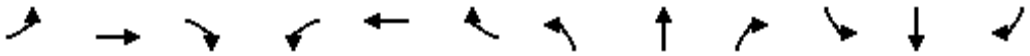
Intersection Summary	
HCM 6th Ctrl Delay	50.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	38	439	41	413	69	223	13	47
Future Volume (vph)	38	439	41	413	69	223	13	47
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	37.0	14.0	37.0	29.0	29.0	29.0	29.0
Total Split (%)	17.5%	46.3%	17.5%	46.3%	36.3%	36.3%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.3	19.5	8.0	20.1		43.2		43.2
Actuated g/C Ratio	0.09	0.24	0.10	0.25		0.54		0.54
v/c Ratio	0.25	0.70	0.25	0.73		0.21		0.07
Control Delay	37.1	29.1	27.8	8.4		12.2		8.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	37.1	29.1	27.8	8.4		12.2		8.3
LOS	D	C	C	A		B		A
Approach Delay		29.6		9.5		12.2		8.3
Approach LOS		C		A		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 65 (81%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	439	126	41	413	287	69	223	33	13	47	47
Future Volume (veh/h)	38	439	126	41	413	287	69	223	33	13	47	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	40	467	134	44	439	305	73	237	35	14	50	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	50	619	176	139	557	385	375	1176	175	217	738	696
Arrive On Green	0.03	0.23	0.23	0.08	0.28	0.28	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1753	2686	765	1753	1978	1365	598	2255	336	310	1416	1335
Grp Volume(v), veh/h	40	303	298	44	388	356	177	0	168	60	0	54
Grp Sat Flow(s),veh/h/ln	1753	1749	1703	1753	1749	1595	1575	0	1615	1627	0	1435
Q Serve(g_s), s	1.8	12.9	13.1	1.9	16.4	16.5	1.5	0.0	4.4	0.0	0.0	1.5
Cycle Q Clear(g_c), s	1.8	12.9	13.1	1.9	16.4	16.5	4.3	0.0	4.4	1.3	0.0	1.5
Prop In Lane	1.00		0.45	1.00		0.86	0.41		0.21	0.23		0.93
Lane Grp Cap(c), veh/h	50	403	392	139	493	449	885	0	842	904	0	748
V/C Ratio(X)	0.81	0.75	0.76	0.32	0.79	0.79	0.20	0.00	0.20	0.07	0.00	0.07
Avail Cap(c_a), veh/h	208	710	692	208	710	648	885	0	842	904	0	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.7	28.7	28.7	34.8	26.5	26.6	10.2	0.0	10.2	9.5	0.0	9.5
Incr Delay (d2), s/veh	25.5	2.8	3.1	1.3	3.7	4.3	0.5	0.0	0.5	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.4	5.4	0.8	6.9	6.4	1.6	0.0	1.5	0.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	31.5	31.8	36.0	30.3	30.9	10.7	0.0	10.8	9.6	0.0	9.7
LnGrp LOS	E	C	C	D	C	C	B	A	B	A	A	A
Approach Vol, veh/h		641			788			345			114	
Approach Delay, s/veh		33.7			30.9			10.7			9.7	
Approach LOS		C			C			B			A	

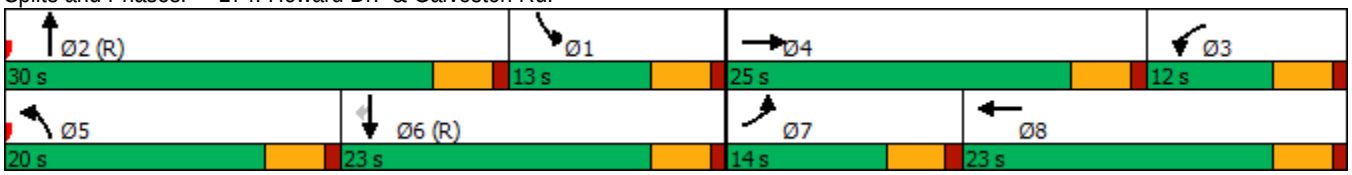
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.2	10.9	22.9		46.2	6.8	27.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.5	9.5	32.5		24.5	9.5	32.5				
Max Q Clear Time (g_c+I1), s		6.4	3.9	15.1		3.5	3.8	18.5				
Green Ext Time (p_c), s		1.8	0.0	3.4		0.5	0.0	4.0				

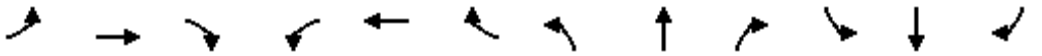
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	135	344	60	469	230	672	117	439	113
Future Volume (vph)	135	344	60	469	230	672	117	439	113
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	25.0	12.0	23.0	20.0	30.0	13.0	23.0	23.0
Total Split (%)	17.5%	31.3%	15.0%	28.8%	25.0%	37.5%	16.3%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.2	23.9	7.6	18.0	14.5	26.3	8.5	20.3	20.3
Actuated g/C Ratio	0.12	0.30	0.10	0.22	0.18	0.33	0.11	0.25	0.25
v/c Ratio	0.74	0.56	0.42	0.89	0.81	0.70	0.70	0.55	0.23
Control Delay	49.0	8.0	42.1	42.1	54.1	25.0	55.4	28.2	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	8.0	42.1	42.1	54.1	25.0	55.4	28.2	1.8
LOS	D	A	D	D	D	C	E	C	A
Approach Delay		15.9		42.1		32.0		28.5	
Approach LOS		B		D		C		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 79 (99%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	344	215	60	469	175	230	672	53	117	439	113
Future Volume (veh/h)	135	344	215	60	469	175	230	672	53	117	439	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	148	378	236	66	515	192	253	738	58	129	482	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	182	458	282	198	571	212	293	1047	82	216	963	
Arrive On Green	0.10	0.22	0.22	0.11	0.23	0.23	0.17	0.32	0.32	0.12	0.28	0.00
Sat Flow, veh/h	1753	2079	1280	1753	2496	926	1753	3285	258	1753	3497	1560
Grp Volume(v), veh/h	148	317	297	66	360	347	253	393	403	129	482	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1610	1753	1749	1674	1753	1749	1794	1753	1749	1560
Q Serve(g_s), s	6.6	13.8	14.1	2.8	16.0	16.1	11.2	15.8	15.8	5.6	9.3	0.0
Cycle Q Clear(g_c), s	6.6	13.8	14.1	2.8	16.0	16.1	11.2	15.8	15.8	5.6	9.3	0.0
Prop In Lane	1.00		0.79	1.00		0.55	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	182	385	354	198	400	383	293	557	572	216	963	
V/C Ratio(X)	0.81	0.82	0.84	0.33	0.90	0.91	0.86	0.70	0.71	0.60	0.50	
Avail Cap(c_a), veh/h	208	448	413	198	404	387	340	557	572	216	963	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.1	29.7	29.8	32.7	30.0	30.0	32.4	23.9	23.9	33.2	24.4	0.0
Incr Delay (d2), s/veh	19.0	10.4	12.6	1.0	22.4	24.1	18.1	7.3	7.1	4.4	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	6.6	6.4	1.2	8.8	8.7	6.0	7.1	7.3	2.5	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	40.2	42.4	33.7	52.3	54.1	50.6	31.2	31.1	37.6	26.2	0.0
LnGrp LOS	D	D	D	C	D	D	D	C	C	D	C	
Approach Vol, veh/h		762			773			1049			611	A
Approach Delay, s/veh		43.7			51.5			35.8			28.6	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	30.0	13.5	22.1	17.9	26.5	12.8	22.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	25.5	7.5	20.5	15.5	18.5	9.5	18.5
Max Q Clear Time (g_c+I1), s	7.6	17.8	4.8	16.1	13.2	11.3	8.6	18.1
Green Ext Time (p_c), s	0.0	2.8	0.0	1.5	0.2	1.7	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

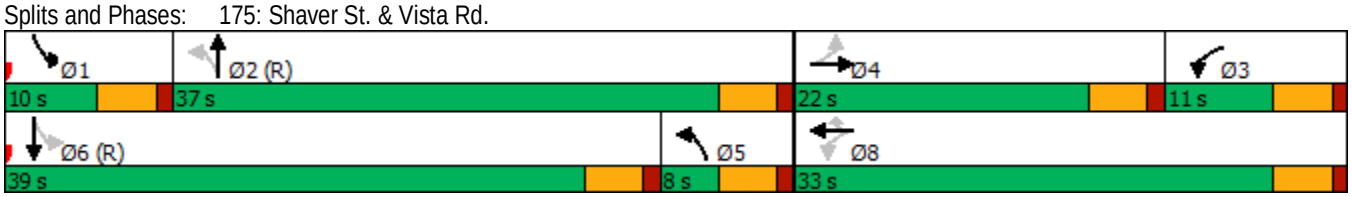
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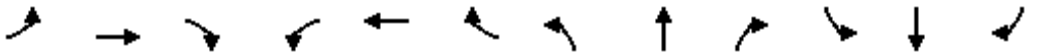
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	23	198	187	292	147	10	738	109	706
Future Volume (vph)	23	198	187	292	147	10	738	109	706
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	11.0	33.0	33.0	8.0	37.0	10.0	39.0
Total Split (%)	27.5%	27.5%	13.8%	41.3%	41.3%	10.0%	46.3%	12.5%	48.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		16.2	26.6	26.6	26.6	35.8	35.8	42.8	42.8
Actuated g/C Ratio		0.20	0.33	0.33	0.33	0.45	0.45	0.54	0.54
v/c Ratio		0.92	0.64	0.54	0.26	0.03	0.68	0.53	0.44
Control Delay		60.8	35.3	26.1	7.9	13.8	13.7	22.9	8.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		60.8	35.3	26.1	7.9	13.8	13.7	22.9	8.2
LOS		E	D	C	A	B	B	C	A
Approach Delay		60.8		24.5			13.7		10.1
Approach LOS		E		C			B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 23 (29%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	198	10	187	292	147	10	738	188	109	706	25
Future Volume (veh/h)	23	198	10	187	292	147	10	738	188	109	706	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	26	222	11	210	328	165	11	829	211	122	793	28
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	61	265	12	264	586	497	388	1236	314	218	1486	52
Arrive On Green	0.22	0.22	0.22	0.04	0.32	0.32	0.03	0.15	0.15	0.07	0.43	0.43
Sat Flow, veh/h	54	1210	56	1753	1841	1560	1753	2760	702	1753	3446	122
Grp Volume(v), veh/h	259	0	0	210	328	165	11	525	515	122	402	419
Grp Sat Flow(s),veh/h/ln	1320	0	0	1753	1841	1560	1753	1749	1714	1753	1749	1819
Q Serve(g_s), s	4.0	0.0	0.0	0.7	11.8	6.5	0.0	22.7	22.7	3.6	13.6	13.6
Cycle Q Clear(g_c), s	15.8	0.0	0.0	0.7	11.8	6.5	0.0	22.7	22.7	3.6	13.6	13.6
Prop In Lane	0.10		0.04	1.00		1.00	1.00		0.41	1.00		0.07
Lane Grp Cap(c), veh/h	338	0	0	264	586	497	388	783	767	218	754	784
V/C Ratio(X)	0.77	0.00	0.00	0.80	0.56	0.33	0.03	0.67	0.67	0.56	0.53	0.53
Avail Cap(c_a), veh/h	338	0	0	330	656	556	388	783	767	224	754	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	0.0	0.0	33.0	22.6	20.8	20.1	28.5	28.5	19.8	16.8	16.8
Incr Delay (d2), s/veh	9.0	0.0	0.0	10.3	0.8	0.4	0.0	4.2	4.3	2.9	2.7	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	0.0	4.5	4.8	2.2	0.1	11.4	11.2	1.5	5.5	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	0.0	0.0	43.3	23.5	21.2	20.1	32.7	32.8	22.8	19.5	19.4
LnGrp LOS	D	A	A	D	C	C	C	C	C	C	B	B
Approach Vol, veh/h		259			703			1051			943	
Approach Delay, s/veh		38.7			28.8			32.6			19.9	
Approach LOS		D			C			C			B	

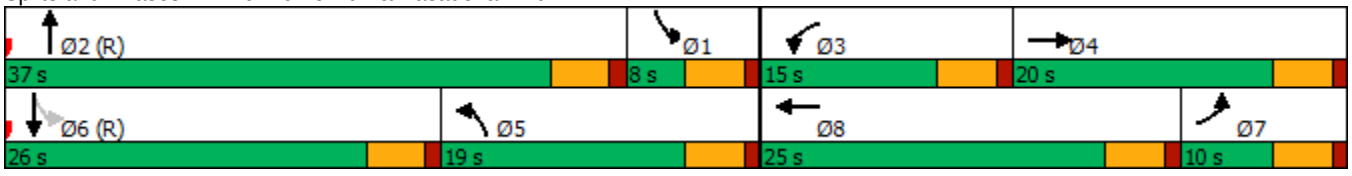
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	40.3	8.0	22.0	11.0	39.0		30.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	32.5	6.5	17.5	3.5	34.5		28.5				
Max Q Clear Time (g_c+I1), s	5.6	24.7	2.7	17.8	2.0	15.6		13.8				
Green Ext Time (p_c), s	0.0	3.9	0.2	0.0	0.0	4.9		2.1				

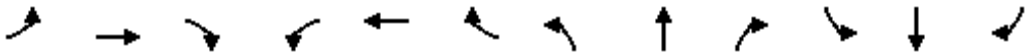
Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	373	117	439	182	244	34	330
Future Volume (vph)	43	373	117	439	182	244	34	330
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	15.0	25.0	19.0	37.0	8.0	26.0
Total Split (%)	12.5%	25.0%	18.8%	31.3%	23.8%	46.3%	10.0%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	14.9	9.6	19.9	12.7	44.3		27.1
Actuated g/C Ratio	0.08	0.19	0.12	0.25	0.16	0.55		0.34
v/c Ratio	0.32	0.81	0.61	0.62	0.70	0.21		0.48
Control Delay	41.4	38.5	31.7	20.8	44.4	6.4		13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	41.4	38.5	31.7	20.8	44.4	6.4		13.4
LOS	D	D	C	C	D	A		B
Approach Delay		38.8		22.9		19.0		13.4
Approach LOS		D		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 7 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 65.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





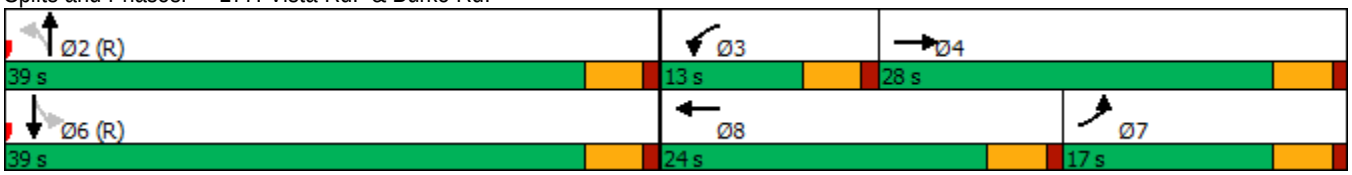
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	373	145	117	439	37	182	244	124	34	330	85
Future Volume (vph)	43	373	145	117	439	37	182	244	124	34	330	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.96		1.00	0.99		1.00	0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3325		1678	3202		1736	3295			3136	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.90	
Satd. Flow (perm)	1736	3325		1678	3202		1736	3295			2830	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	393	153	123	462	39	192	257	131	36	347	89
RTOR Reduction (vph)	0	51	0	0	8	0	0	61	0	0	25	0
Lane Group Flow (vph)	45	495	0	123	493	0	192	327	0	0	447	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	4.1	15.7		8.3	19.9		12.7	42.5			25.3	
Effective Green, g (s)	4.1	15.7		8.3	19.9		12.7	42.5			25.3	
Actuated g/C Ratio	0.05	0.20		0.10	0.25		0.16	0.53			0.32	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	88	652		174	796		275	1750			894	
v/s Ratio Prot	0.03	c0.15		0.07	c0.15		c0.11	0.10				
v/s Ratio Perm											c0.16	
v/c Ratio	0.51	0.76		0.71	0.62		0.70	0.19			0.50	
Uniform Delay, d1	37.0	30.4		34.7	26.7		31.8	9.8			22.2	
Progression Factor	1.00	1.00		0.66	0.69		1.00	0.90			0.54	
Incremental Delay, d2	4.9	5.1		9.1	1.0		7.0	0.2			0.4	
Delay (s)	41.9	35.4		31.9	19.4		38.7	9.0			12.4	
Level of Service	D	D		C	B		D	A			B	
Approach Delay (s)		35.9			21.9			18.8			12.4	
Approach LOS		D			C			B			B	

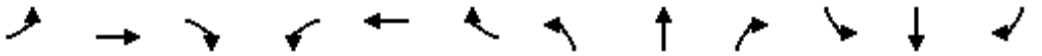
Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	104	386	61	306	98	359	108	306
Future Volume (vph)	104	386	61	306	98	359	108	306
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	17.0	28.0	13.0	24.0	39.0	39.0	39.0	39.0
Total Split (%)	21.3%	35.0%	16.3%	30.0%	48.8%	48.8%	48.8%	48.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.2	17.2	7.6	14.8		43.7		43.7
Actuated g/C Ratio	0.13	0.22	0.10	0.18		0.55		0.55
v/c Ratio	0.50	0.63	0.40	0.63		0.43		0.38
Control Delay	29.2	22.2	36.6	18.5		17.1		7.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	29.2	22.2	36.6	18.5		17.1		7.0
LOS	C	C	D	B		B		A
Approach Delay		23.5		21.0		17.1		7.0
Approach LOS		C		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 13 (16%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 17.3	Intersection LOS: B
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	386	60	61	306	79	98	359	133	108	306	58
Future Volume (veh/h)	104	386	60	61	306	79	98	359	133	108	306	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	411	64	65	326	84	104	382	141	115	326	62
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	584	90	83	438	111	303	1079	406	358	1062	213
Arrive On Green	0.08	0.19	0.19	0.05	0.16	0.16	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	1753	3036	469	1753	2762	701	410	1823	687	490	1795	359
Grp Volume(v), veh/h	111	236	239	65	205	205	308	0	319	225	0	278
Grp Sat Flow(s),veh/h/ln	1753	1749	1756	1753	1749	1714	1369	0	1551	1034	0	1610
Q Serve(g_s), s	5.0	10.1	10.2	2.9	8.9	9.2	4.4	0.0	8.4	6.1	0.0	6.8
Cycle Q Clear(g_c), s	5.0	10.1	10.2	2.9	8.9	9.2	11.3	0.0	8.4	14.5	0.0	6.8
Prop In Lane	1.00		0.27	1.00		0.41	0.34		0.44	0.51		0.22
Lane Grp Cap(c), veh/h	142	336	338	83	278	272	870	0	918	680	0	953
V/C Ratio(X)	0.78	0.70	0.71	0.78	0.74	0.75	0.35	0.00	0.35	0.33	0.00	0.29
Avail Cap(c_a), veh/h	274	514	516	186	426	418	870	0	918	680	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.56	0.56	0.56	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	30.2	30.2	37.7	32.1	32.2	8.8	0.0	8.4	10.1	0.0	8.1
Incr Delay (d2), s/veh	9.0	2.7	2.8	8.6	2.2	2.4	1.1	0.0	1.0	1.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.4	4.4	1.4	3.8	3.9	2.9	0.0	2.7	2.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	32.8	33.0	46.3	34.2	34.6	9.9	0.0	9.4	11.4	0.0	8.8
LnGrp LOS	D	C	C	D	C	C	A	A	A	B	A	A
Approach Vol, veh/h		586			475			627			503	
Approach Delay, s/veh		35.2			36.0			9.7			10.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		51.8	8.3	19.9		51.8	11.0	17.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		34.5	8.5	23.5		34.5	12.5	19.5				
Max Q Clear Time (g_c+I1), s		13.3	4.9	12.2		16.5	7.0	11.2				
Green Ext Time (p_c), s		4.2	0.0	2.2		3.2	0.1	1.5				

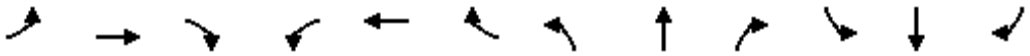
Intersection Summary												
HCM 6th Ctrl Delay			22.3									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	36	1	0	122	618	4	369
Future Volume (vph)	36	1	0	122	618	4	369
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA
Protected Phases		4	8		2		6
Permitted Phases	4			2		6	
Detector Phase	4	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	24.0	24.0	24.0	56.0	56.0	56.0	56.0
Total Split (%)	30.0%	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0
Total Lost Time (s)		4.5	4.5		4.5		4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		7.3	7.3		63.7		63.7
Actuated g/C Ratio		0.09	0.09		0.80		0.80
v/c Ratio		0.53	0.01		0.38		0.17
Control Delay		14.0	0.0		0.4		2.2
Queue Delay		0.0	0.0		0.0		0.0
Total Delay		14.0	0.0		0.4		2.2
LOS		B	A		A		A
Approach Delay		14.0			0.4		2.2
Approach LOS		B			A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 76 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 2.9	Intersection LOS: A
Intersection Capacity Utilization 57.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	1	157	0	0	4	122	618	1	4	369	27
Future Volume (veh/h)	36	1	157	0	0	4	122	618	1	4	369	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	40	1	174	0	0	4	136	687	1	4	410	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	293	6	215	0	265	236	399	1918	3	51	2373	172
Arrive On Green	0.15	0.15	0.15	0.00	0.00	0.15	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	1345	41	1420	0	1841	1560	459	2606	4	7	3223	233
Grp Volume(v), veh/h	41	0	174	0	0	4	380	0	444	234	0	210
Grp Sat Flow(s),veh/h/ln	1386	0	1420	0	1749	1560	1395	0	1674	1831	0	1633
Q Serve(g_s), s	2.0	0.0	9.5	0.0	0.0	0.2	2.8	0.0	7.6	0.0	0.0	3.1
Cycle Q Clear(g_c), s	2.2	0.0	9.5	0.0	0.0	0.2	6.4	0.0	7.6	3.1	0.0	3.1
Prop In Lane	0.98		1.00	0.00		1.00	0.36		0.00	0.02		0.14
Lane Grp Cap(c), veh/h	299	0	215	0	265	236	1088	0	1232	1393	0	1202
V/C Ratio(X)	0.14	0.00	0.81	0.00	0.00	0.02	0.35	0.00	0.36	0.17	0.00	0.17
Avail Cap(c_a), veh/h	428	0	346	0	426	380	1088	0	1232	1393	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	32.8	0.0	0.0	28.9	3.6	0.0	3.8	3.2	0.0	3.2
Incr Delay (d2), s/veh	0.2	0.0	7.2	0.0	0.0	0.0	0.9	0.0	0.8	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	3.6	0.0	0.0	0.1	1.5	0.0	1.8	0.8	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	40.1	0.0	0.0	28.9	4.4	0.0	4.6	3.5	0.0	3.5
LnGrp LOS	C	A	D	A	A	C	A	A	A	A	A	A
Approach Vol, veh/h		215			4			824			444	
Approach Delay, s/veh		38.1			28.9			4.5			3.5	
Approach LOS		D			C			A			A	

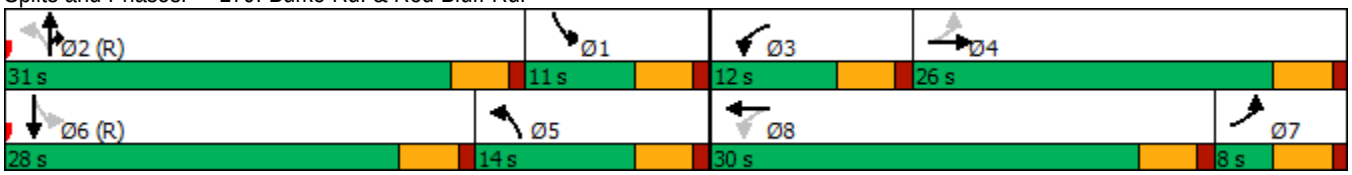
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.4		16.6		63.4		16.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		51.5		19.5		51.5		19.5				
Max Q Clear Time (g_c+I1), s		9.6		11.5		5.1		2.2				
Green Ext Time (p_c), s		6.1		0.7		2.7		0.0				

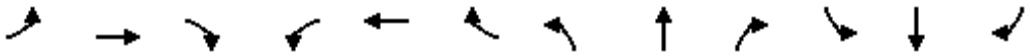
Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	29	543	152	601	223	185	76	127	216
Future Volume (vph)	29	543	152	601	223	185	76	127	216
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	26.0	12.0	30.0	14.0	31.0	31.0	11.0	28.0
Total Split (%)	10.0%	32.5%	15.0%	37.5%	17.5%	38.8%	38.8%	13.8%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.0	21.0	30.0	30.0	36.3	27.2	27.2	30.3	24.2
Actuated g/C Ratio	0.26	0.26	0.38	0.38	0.45	0.34	0.34	0.38	0.30
v/c Ratio	0.14	0.88	0.68	0.56	0.58	0.35	0.13	0.34	0.57
Control Delay	24.7	39.0	27.7	11.9	24.7	24.6	2.6	16.5	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	39.0	27.7	11.9	24.7	24.6	2.6	16.5	27.4
LOS	C	D	C	B	C	C	A	B	C
Approach Delay		38.4		14.8		21.2			24.0
Approach LOS		D		B		C			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	543	170	152	601	60	223	185	76	127	216	61
Future Volume (veh/h)	29	543	170	152	601	60	223	185	76	127	216	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	590	185	165	653	65	242	201	83	138	235	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	286	669	209	254	808	80	474	610	517	485	406	114
Arrive On Green	0.10	0.26	0.26	0.09	0.25	0.25	0.13	0.33	0.33	0.09	0.29	0.29
Sat Flow, veh/h	1753	2622	820	1753	3213	319	1753	1841	1560	1753	1383	388
Grp Volume(v), veh/h	32	393	382	165	355	363	242	201	83	138	0	301
Grp Sat Flow(s),veh/h/ln	1753	1749	1693	1753	1749	1783	1753	1841	1560	1753	0	1771
Q Serve(g_s), s	0.0	17.3	17.4	6.5	15.3	15.3	0.0	6.6	2.1	0.0	0.0	11.6
Cycle Q Clear(g_c), s	0.0	17.3	17.4	6.5	15.3	15.3	0.0	6.6	2.1	0.0	0.0	11.6
Prop In Lane	1.00		0.48	1.00		0.18	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	286	446	432	254	440	449	474	610	517	485	0	520
V/C Ratio(X)	0.11	0.88	0.88	0.65	0.81	0.81	0.51	0.33	0.16	0.28	0.00	0.58
Avail Cap(c_a), veh/h	286	470	455	254	557	568	474	610	517	485	0	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	0.95	0.95	0.95	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.5	28.6	28.7	27.5	28.1	28.1	26.5	20.1	9.0	22.0	0.0	24.0
Incr Delay (d2), s/veh	0.2	16.9	17.8	4.1	5.0	5.0	0.9	1.4	0.6	0.3	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	9.0	8.9	2.9	6.7	6.9	4.0	2.9	1.1	2.0	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	45.6	46.4	31.6	33.1	33.1	27.4	21.5	9.7	22.4	0.0	28.7
LnGrp LOS	C	D	D	C	C	C	C	C	A	C	A	C
Approach Vol, veh/h		807			883			526			439	
Approach Delay, s/veh		45.4			32.8			22.3			26.7	
Approach LOS		D			C			C			C	

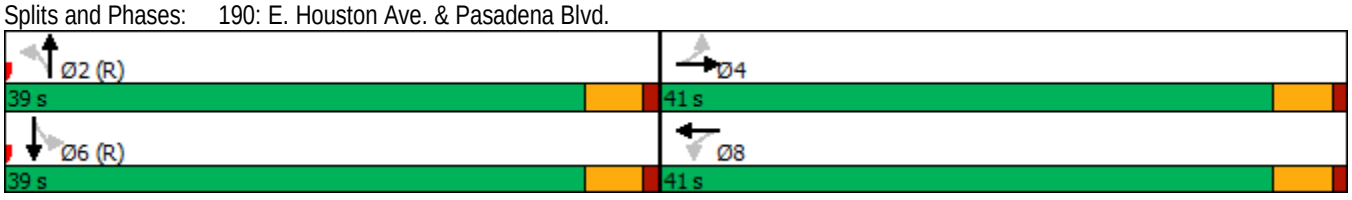
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	31.0	12.0	24.9	15.1	28.0	12.3	24.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	26.5	7.5	21.5	9.5	23.5	3.5	25.5
Max Q Clear Time (g_c+I1), s	2.0	8.6	8.5	19.4	2.0	13.6	2.0	17.3
Green Ext Time (p_c), s	0.1	1.2	0.0	1.0	0.4	1.2	0.0	2.8

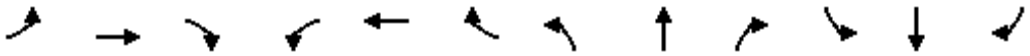
Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Lane Group	Ø2	Ø4	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	2	4	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0	41.0
Total Split (%)	49%	51%	49%	51%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1841	0	1753	1841	0	0	3681	0	0	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1841	0	1753	1841	0	0	1749	0	0	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	988	840	0	988	840	0	0	3301	0	0	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

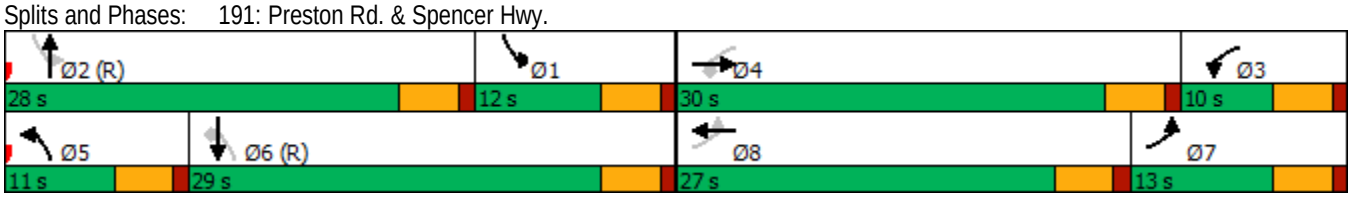
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0		0.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		34.5		36.5		34.5		36.5				
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0		0.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

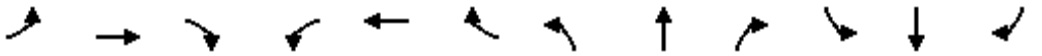
Intersection Summary												
HCM 6th Ctrl Delay			0.0									
HCM 6th LOS			A									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	282	1128	196	88	1455	230	660	201	775	291
Future Volume (vph)	282	1128	196	88	1455	230	660	201	775	291
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	8		4	4		6		2		6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	30.0	30.0	10.0	27.0	11.0	28.0	12.0	29.0	29.0
Total Split (%)	16.3%	37.5%	37.5%	12.5%	33.8%	13.8%	35.0%	15.0%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	31.0	27.5	27.5	31.9	22.5	31.0	23.5	31.0	24.5	24.5
Actuated g/C Ratio	0.39	0.34	0.34	0.40	0.28	0.39	0.29	0.39	0.31	0.31
v/c Ratio	1.10	0.73	0.31	0.46	1.27	1.05	0.77	0.84	0.78	0.51
Control Delay	90.9	9.5	1.1	16.9	144.3	92.3	29.8	51.2	26.3	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.9	9.5	1.1	16.9	144.3	92.3	29.8	51.2	26.3	9.1
LOS	F	A	A	B	F	F	C	D	C	A
Approach Delay		22.8			137.8		44.8		26.3	
Approach LOS		C			F		D		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 63.3	Intersection LOS: E
Intersection Capacity Utilization 102.3%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	1128	196	88	1455	198	230	660	67	201	775	291
Future Volume (veh/h)	282	1128	196	88	1455	198	230	660	67	201	775	291
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	303	1213	211	95	1565	213	247	710	72	216	833	313
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	276	1500	466	271	1258	171	276	942	95	317	1071	478
Arrive On Green	0.07	0.20	0.20	0.12	0.37	0.37	0.08	0.29	0.29	0.09	0.31	0.31
Sat Flow, veh/h	1753	5025	1560	1753	4474	608	1753	3206	325	1753	3497	1560
Grp Volume(v), veh/h	303	1213	211	95	1171	607	247	387	395	216	833	313
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1731	1753	1749	1782	1753	1749	1560
Q Serve(g_s), s	8.5	18.4	6.9	0.0	22.5	22.5	6.5	16.1	16.1	2.2	17.4	9.5
Cycle Q Clear(g_c), s	8.5	18.4	6.9	0.0	22.5	22.5	6.5	16.1	16.1	2.2	17.4	9.5
Prop In Lane	1.00		1.00	1.00		0.35	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	276	1500	466	271	942	487	276	514	524	317	1071	478
V/C Ratio(X)	1.10	0.81	0.45	0.35	1.24	1.25	0.90	0.75	0.75	0.68	0.78	0.66
Avail Cap(c_a), veh/h	276	1602	497	271	942	487	276	514	524	317	1071	478
HCM Platoon Ratio	0.67	0.67	0.67	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.23	0.23	0.23	0.56	0.56	0.56	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	35.8	29.8	13.8	31.4	25.0	25.0	23.4	25.6	25.6	32.0	25.3	11.3
Incr Delay (d2), s/veh	56.6	0.7	0.2	0.4	114.5	120.5	29.1	9.8	9.7	5.5	5.3	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	7.6	3.3	1.6	22.1	23.7	5.3	7.8	7.9	4.2	7.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.4	30.5	13.9	31.8	139.6	145.6	52.5	35.5	35.3	37.5	30.6	17.8
LnGrp LOS	F	C	B	C	F	F	D	D	D	D	C	B
Approach Vol, veh/h		1727			1873			1029			1362	
Approach Delay, s/veh		39.4			136.0			39.5			28.7	
Approach LOS		D			F			D			C	

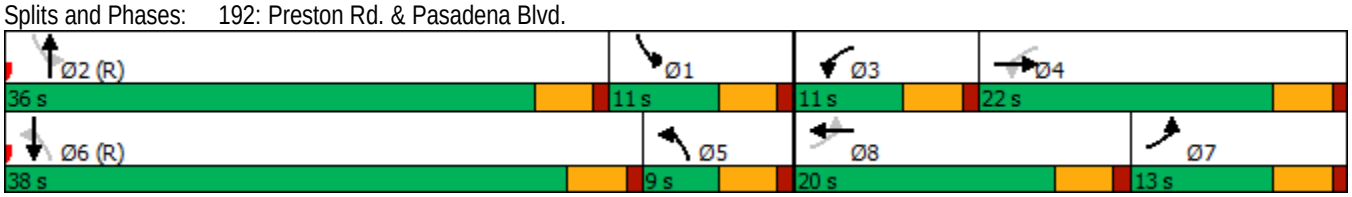
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	28.0	11.6	28.4	11.0	29.0	13.0	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	23.5	5.5	25.5	6.5	24.5	8.5	22.5
Max Q Clear Time (g_c+I1), s	4.2	18.1	2.0	20.4	8.5	19.4	10.5	24.5
Green Ext Time (p_c), s	0.2	2.3	0.1	3.4	0.0	3.0	0.0	0.0

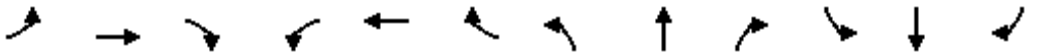
Intersection Summary	
HCM 6th Ctrl Delay	67.2
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	143	292	95	348	100	711	88	848
Future Volume (vph)	143	292	95	348	100	711	88	848
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	13.0	22.0	11.0	20.0	9.0	36.0	11.0	38.0
Total Split (%)	16.3%	27.5%	13.8%	25.0%	11.3%	45.0%	13.8%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.8	17.5	22.7	14.4	42.0	35.9	42.2	37.5
Actuated g/C Ratio	0.27	0.22	0.28	0.18	0.52	0.45	0.53	0.47
v/c Ratio	0.63	0.61	0.41	0.77	0.52	0.57	0.31	0.70
Control Delay	25.9	14.6	17.2	21.5	28.7	16.3	16.0	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	14.6	17.2	21.5	28.7	16.3	16.0	20.3
LOS	C	B	B	C	C	B	B	C
Approach Delay		17.3		20.7		17.7		20.0
Approach LOS		B		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 14 (18%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	292	155	95	348	99	100	711	95	88	848	171
Future Volume (veh/h)	143	292	155	95	348	99	100	711	95	88	848	171
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	157	321	170	104	382	109	110	781	104	97	932	188
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	249	402	208	240	464	131	354	1221	163	423	1214	245
Arrive On Green	0.07	0.18	0.18	0.07	0.17	0.17	0.04	0.13	0.13	0.14	0.42	0.42
Sat Flow, veh/h	1753	2228	1154	1753	2693	759	1753	3102	413	1753	2900	584
Grp Volume(v), veh/h	157	250	241	104	246	245	110	440	445	97	562	558
Grp Sat Flow(s),veh/h/ln	1753	1749	1633	1753	1749	1704	1753	1749	1766	1753	1749	1736
Q Serve(g_s), s	1.3	11.0	11.3	3.8	10.9	11.1	0.0	19.1	19.1	0.0	22.0	22.0
Cycle Q Clear(g_c), s	1.3	11.0	11.3	3.8	10.9	11.1	0.0	19.1	19.1	0.0	22.0	22.0
Prop In Lane	1.00		0.71	1.00		0.45	1.00		0.23	1.00		0.34
Lane Grp Cap(c), veh/h	249	316	295	240	301	294	354	689	696	423	732	727
V/C Ratio(X)	0.63	0.79	0.82	0.43	0.82	0.83	0.31	0.64	0.64	0.23	0.77	0.77
Avail Cap(c_a), veh/h	306	383	357	267	339	330	354	689	696	423	732	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	31.4	31.5	25.1	31.9	32.0	30.6	29.4	29.4	23.9	19.9	19.9
Incr Delay (d2), s/veh	2.9	9.1	11.6	1.2	13.2	15.1	0.4	3.9	3.9	0.3	7.6	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.2	5.2	1.6	5.5	5.6	2.0	9.5	9.6	1.5	9.8	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	40.5	43.1	26.3	45.1	47.1	31.0	33.3	33.3	24.2	27.5	27.6
LnGrp LOS	D	D	D	C	D	D	C	C	C	C	C	C
Approach Vol, veh/h		648			595			995			1217	
Approach Delay, s/veh		40.6			42.6			33.0			27.3	
Approach LOS		D			D			C			C	

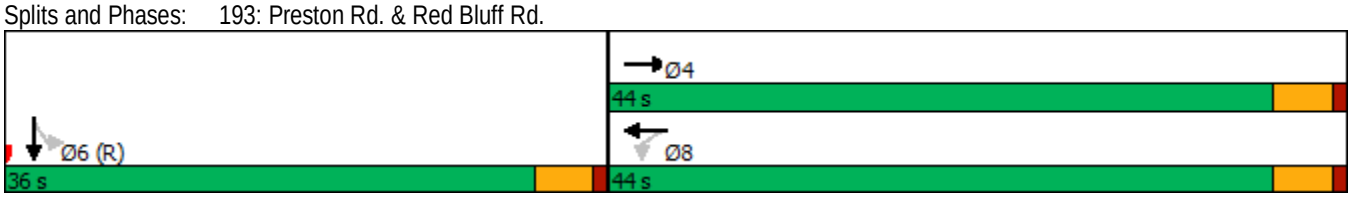
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	36.0	9.7	18.9	13.3	38.0	10.4	18.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	31.5	6.5	17.5	4.5	33.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	21.1	5.8	13.3	2.0	24.0	3.3	13.1
Green Ext Time (p_c), s	0.1	4.0	0.0	1.1	0.1	5.0	0.2	0.7

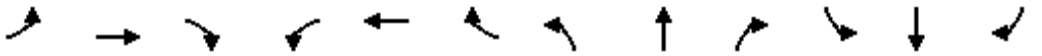
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	729	47	900	659
Future Volume (vph)	729	47	900	659
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	44.0	44.0	44.0	36.0
Total Split (%)	55.0%	55.0%	55.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	36.4	36.4	36.4	34.6
Actuated g/C Ratio	0.46	0.46	0.46	0.43
v/c Ratio	0.79	0.58	0.65	0.73
Control Delay	13.4	37.8	14.3	23.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.4	37.8	14.3	23.0
LOS	B	D	B	C
Approach Delay	13.4		15.5	23.0
Approach LOS	B		B	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	729	354	47	900	0	0	0	0	215	659	71
Future Volume (veh/h)	0	729	354	47	900	0	0	0	0	215	659	71
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	828	402	53	1023	0				244	749	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	1076	520	165	1646	0				347	1132	
Arrive On Green	0.00	0.47	0.47	0.94	0.94	0.00				0.42	0.42	0.00
Sat Flow, veh/h	0	2379	1104	446	3589	0				833	2807	0
Grp Volume(v), veh/h	0	632	598	53	1023	0				527	466	0
Grp Sat Flow(s),veh/h/ln	0	1749	1642	446	1749	0				1799	1749	0
Q Serve(g_s), s	0.0	24.0	24.3	8.3	3.3	0.0				19.3	17.0	0.0
Cycle Q Clear(g_c), s	0.0	24.0	24.3	32.6	3.3	0.0				19.3	17.0	0.0
Prop In Lane	0.00		0.67	1.00		0.00				0.46		0.00
Lane Grp Cap(c), veh/h	0	823	773	165	1646	0				750	729	
V/C Ratio(X)	0.00	0.77	0.77	0.32	0.62	0.00				0.70	0.64	
Avail Cap(c_a), veh/h	0	863	811	175	1727	0				750	729	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.60	0.60	0.84	0.84	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	17.6	17.6	12.8	1.3	0.0				19.2	18.5	0.0
Incr Delay (d2), s/veh	0.0	2.5	2.7	0.9	0.5	0.0				5.4	4.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.4	8.9	0.7	0.6	0.0				8.6	7.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.0	20.4	13.7	1.9	0.0				24.7	22.8	0.0
LnGrp LOS	A	C	C	B	A	A				C	C	
Approach Vol, veh/h		1230			1076						993	A
Approach Delay, s/veh		20.2			2.5						23.8	
Approach LOS		C			A						C	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		42.2		37.8		42.2						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		39.5		31.5		39.5						
Max Q Clear Time (g_c+I1), s		26.3		21.3		34.6						
Green Ext Time (p_c), s		7.0		4.6		3.1						

Intersection Summary		
HCM 6th Ctrl Delay	15.5	
HCM 6th LOS	B	

Notes

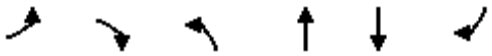
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	182	248	210	1023	1195
Future Volume (vph)	182	248	210	1023	1195
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	15.0	60.0	45.0
Total Split (%)	25.0%	25.0%	18.8%	75.0%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	13.3	13.3	57.7	57.7	43.4
Actuated g/C Ratio	0.17	0.17	0.72	0.72	0.54
v/c Ratio	0.71	0.57	0.77	0.46	0.85
Control Delay	45.9	9.6	41.3	2.2	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	9.6	41.3	2.2	13.3
LOS	D	A	D	A	B
Approach Delay	25.0			8.9	13.3
Approach LOS	C			A	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	182	248	210	1023	1195	218
Future Volume (veh/h)	182	248	210	1023	1195	218
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	190	258	219	1066	1245	227
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	329	292	427	2448	1674	303
Arrive On Green	0.19	0.19	0.16	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	1753	3589	3050	535
Grp Volume(v), veh/h	190	258	219	1066	732	740
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1744
Q Serve(g_s), s	7.9	12.9	4.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.9	12.9	4.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.31
Lane Grp Cap(c), veh/h	329	292	427	2448	990	987
V/C Ratio(X)	0.58	0.88	0.51	0.44	0.74	0.75
Avail Cap(c_a), veh/h	340	302	520	2448	990	987
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.91	0.91	0.69	0.69
Uniform Delay (d), s/veh	29.6	31.6	4.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.3	24.4	0.9	0.5	3.5	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	12.4	1.1	0.2	1.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.9	56.0	5.6	0.5	3.5	3.7
LnGrp LOS	C	E	A	A	A	A
Approach Vol, veh/h	448			1285	1472	
Approach Delay, s/veh	45.8			1.4	3.6	
Approach LOS	D			A	A	

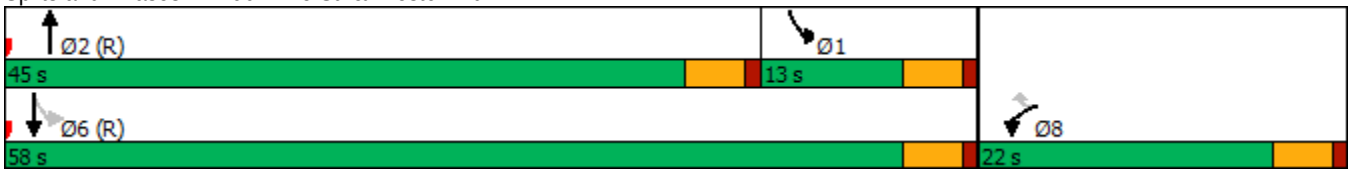
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.5		19.5	10.7	49.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		15.5	10.5	40.5
Max Q Clear Time (g_c+I1), s		2.0		14.9	6.0	2.0
Green Ext Time (p_c), s		9.9		0.1	0.2	14.3

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	27	90	867	93	866
Future Volume (vph)	27	90	867	93	866
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	45.0	13.0	58.0
Total Split (%)	27.5%	27.5%	56.3%	16.3%	72.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.2	7.2	56.3	66.7	66.7
Actuated g/C Ratio	0.09	0.09	0.70	0.83	0.83
v/c Ratio	0.19	0.43	0.41	0.20	0.33
Control Delay	35.8	13.9	2.0	1.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	35.8	13.9	2.0	1.9	1.4
LOS	D	B	A	A	A
Approach Delay	18.9		2.0		1.4
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 34 (43%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 2.8	Intersection LOS: A
Intersection Capacity Utilization 50.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	27	90	867	34	93	866
Future Volume (veh/h)	27	90	867	34	93	866
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	100	963	38	103	962
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	150	133	1736	69	670	2805
Arrive On Green	0.09	0.09	0.51	0.51	0.48	1.00
Sat Flow, veh/h	1753	1560	3522	135	1753	3589
Grp Volume(v), veh/h	30	100	491	510	103	962
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1816	1753	1749
Q Serve(g_s), s	1.3	5.0	15.4	15.4	0.0	0.0
Cycle Q Clear(g_c), s	1.3	5.0	15.4	15.4	0.0	0.0
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	150	133	885	920	670	2805
V/C Ratio(X)	0.20	0.75	0.55	0.55	0.15	0.34
Avail Cap(c_a), veh/h	383	341	885	920	670	2805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.39	0.39	0.49	0.49
Uniform Delay (d), s/veh	34.0	35.7	13.6	13.6	7.0	0.0
Incr Delay (d2), s/veh	0.6	8.1	1.0	0.9	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.2	5.8	6.0	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.7	43.9	14.5	14.5	7.1	0.2
LnGrp LOS	C	D	B	B	A	A
Approach Vol, veh/h	130		1001			1065
Approach Delay, s/veh	41.7		14.5			0.8
Approach LOS	D		B			A

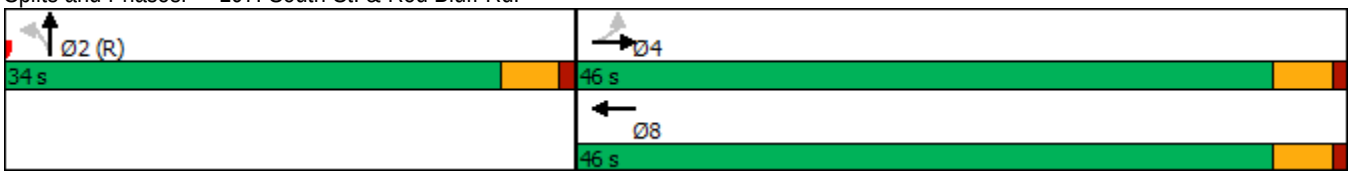
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	23.7	45.0			68.7	11.3
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	40.5			53.5	17.5
Max Q Clear Time (g_c+I1), s	2.0	17.4			2.0	7.0
Green Ext Time (p_c), s	0.1	7.1			8.9	0.2

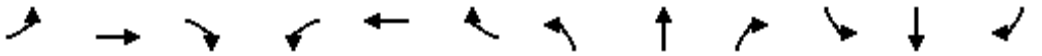
Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	110	734	538	283	630
Future Volume (vph)	110	734	538	283	630
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	46.0	46.0	46.0	34.0	34.0
Total Split (%)	57.5%	57.5%	57.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	28.6	28.6	28.6	42.4	42.4
Actuated g/C Ratio	0.36	0.36	0.36	0.53	0.53
v/c Ratio	0.75	0.64	0.59	0.34	0.38
Control Delay	38.7	21.9	20.3	9.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	21.9	20.3	9.0	8.5
LOS	D	C	C	A	A
Approach Delay		24.1	20.3		8.6
Approach LOS		C	C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 41 (51%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	734	0	0	538	141	283	630	5	0	0	0
Future Volume (veh/h)	110	734	0	0	538	141	283	630	5	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	120	798	0	0	585	0	308	685	0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	271	1230	0	0	1230		939	1874				
Arrive On Green	0.70	0.70	0.00	0.00	0.35	0.00	0.18	0.18	0.00			
Sat Flow, veh/h	817	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	120	798	0	0	585	0	308	685	0			
Grp Sat Flow(s),veh/h/ln	817	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	9.3	10.0	0.0	0.0	10.4	0.0	12.3	13.8	0.0			
Cycle Q Clear(g_c), s	19.7	10.0	0.0	0.0	10.4	0.0	12.3	13.8	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	271	1230	0	0	1230		939	1874				
V/C Ratio(X)	0.44	0.65	0.00	0.00	0.48		0.33	0.37				
Avail Cap(c_a), veh/h	407	1814	0	0	1814		939	1874				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.51	0.51	0.00	0.00	0.97	0.00	0.92	0.92	0.00			
Uniform Delay (d), s/veh	14.7	9.2	0.0	0.0	20.2	0.0	20.3	21.0	0.0			
Incr Delay (d2), s/veh	0.6	0.3	0.0	0.0	0.3	0.0	0.9	0.5	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.2	2.4	0.0	0.0	4.1	0.0	5.9	6.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	9.5	0.0	0.0	20.5	0.0	21.2	21.5	0.0			
LnGrp LOS	B	A	A	A	C		C	C				
Approach Vol, veh/h		918			585	A		993	A			
Approach Delay, s/veh		10.2			20.5			21.4				
Approach LOS		B			C			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		47.4		32.6				32.6				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		29.5		41.5				41.5				
Max Q Clear Time (g_c+I1), s		15.8		21.7				12.4				
Green Ext Time (p_c), s		4.9		6.4				4.4				

Intersection Summary												
HCM 6th Ctrl Delay			17.1									
HCM 6th LOS			B									

Notes

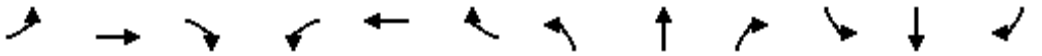
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	85	276	43	311	215	663	112	775
Future Volume (vph)	85	276	43	311	215	663	112	775
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	22.0	10.0	20.0	20.0	34.0	14.0	28.0
Total Split (%)	15.0%	27.5%	12.5%	25.0%	25.0%	42.5%	17.5%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.2	16.6	6.7	14.0	14.2	36.2	8.9	28.7
Actuated g/C Ratio	0.09	0.21	0.08	0.18	0.18	0.45	0.11	0.36
v/c Ratio	0.57	0.58	0.32	0.76	0.76	0.47	0.61	0.75
Control Delay	43.1	17.6	41.2	34.1	52.3	11.9	39.8	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	17.6	41.2	34.1	52.3	11.9	39.8	23.4
LOS	D	B	D	C	D	B	D	C
Approach Delay		21.7		34.7		21.3		25.3
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	276	156	43	311	145	215	663	36	112	775	102
Future Volume (veh/h)	85	276	156	43	311	145	215	663	36	112	775	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	89	291	164	45	327	153	226	698	38	118	816	107
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	114	373	204	115	400	183	267	1529	83	149	1201	157
Arrive On Green	0.06	0.17	0.17	0.07	0.17	0.17	0.15	0.45	0.45	0.09	0.39	0.39
Sat Flow, veh/h	1753	2179	1195	1753	2329	1068	1753	3373	184	1753	3108	408
Grp Volume(v), veh/h	89	232	223	45	244	236	226	362	374	118	459	464
Grp Sat Flow(s),veh/h/ln	1753	1749	1626	1753	1749	1648	1753	1749	1808	1753	1749	1767
Q Serve(g_s), s	4.0	10.1	10.5	2.0	10.7	11.1	10.0	11.4	11.4	5.3	17.5	17.5
Cycle Q Clear(g_c), s	4.0	10.1	10.5	2.0	10.7	11.1	10.0	11.4	11.4	5.3	17.5	17.5
Prop In Lane	1.00		0.74	1.00		0.65	1.00		0.10	1.00		0.23
Lane Grp Cap(c), veh/h	114	299	278	115	300	283	267	793	819	149	676	683
V/C Ratio(X)	0.78	0.78	0.80	0.39	0.81	0.83	0.85	0.46	0.46	0.79	0.68	0.68
Avail Cap(c_a), veh/h	164	383	356	121	339	319	340	793	819	208	676	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	0.59	0.59	0.59	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	31.7	31.9	35.8	31.9	32.0	33.0	15.1	15.1	35.9	20.4	20.4
Incr Delay (d2), s/veh	10.6	5.5	7.4	2.2	12.6	15.6	9.3	1.1	1.1	12.9	5.4	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.5	4.5	0.9	5.3	5.4	4.7	4.3	4.4	2.7	7.4	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	37.2	39.2	38.0	44.5	47.6	42.3	16.2	16.2	48.8	25.9	25.8
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		544			525			962			1041	
Approach Delay, s/veh		39.7			45.3			22.3			28.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	40.8	9.8	18.2	16.7	35.4	9.7	18.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	29.5	5.5	17.5	15.5	23.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	7.3	13.4	4.0	12.5	12.0	19.5	6.0	13.1
Green Ext Time (p_c), s	0.1	3.9	0.0	1.1	0.2	2.0	0.0	0.7

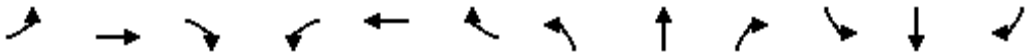
Intersection Summary	
HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	34	554	204	504	1	118	197	38	206
Future Volume (vph)	34	554	204	504	1	118	197	38	206
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	27.0	23.0	40.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	14.3%	38.6%	32.9%	57.1%	28.6%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	5.9	28.7	14.0	43.4		12.3	12.3		12.3
Actuated g/C Ratio	0.08	0.41	0.20	0.62		0.18	0.18		0.18
v/c Ratio	0.26	0.44	0.66	0.27		0.41	0.48		0.61
Control Delay	34.9	17.4	34.6	7.7		29.2	7.8		27.7
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	34.9	17.4	34.6	7.7		29.2	7.8		27.7
LOS	C	B	C	A		C	A		C
Approach Delay		18.4		15.2		15.9			27.7
Approach LOS		B		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





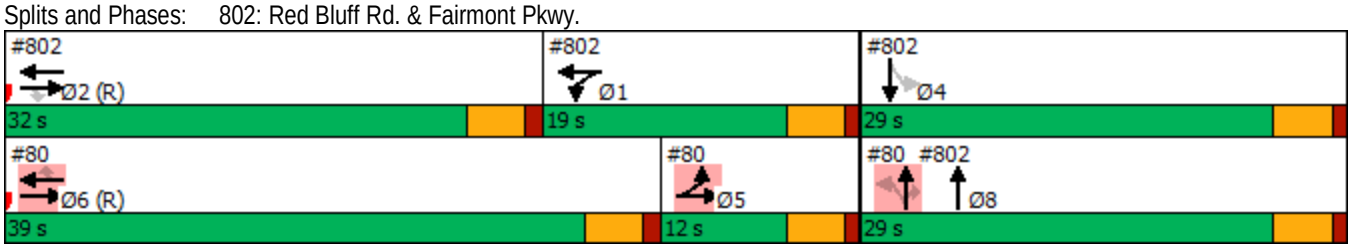
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	554	10	204	504	20	1	118	197	38	206	65
Future Volume (vph)	34	554	10	204	504	20	1	118	197	38	206	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	1.00		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3462		1736	3451			1826	1553		3341	
Flt Permitted	0.95	1.00		0.95	1.00			1.00	1.00		0.90	
Satd. Flow (perm)	1736	3462		1736	3451			1820	1553		3013	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	38	616	11	227	560	22	1	131	219	42	229	72
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	181	0	35	0
Lane Group Flow (vph)	38	625	0	227	579	0	0	132	38	0	308	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	2.2	28.7		14.0	40.5			12.3	12.3		12.3	
Effective Green, g (s)	2.2	28.7		14.0	40.5			12.3	12.3		12.3	
Actuated g/C Ratio	0.03	0.41		0.20	0.58			0.18	0.18		0.18	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	54	1419		347	1996			319	272		529	
v/s Ratio Prot	0.02	c0.18		c0.13	0.17							
v/s Ratio Perm								0.07	0.02		c0.10	
v/c Ratio	0.70	0.44		0.65	0.29			0.41	0.14		0.58	
Uniform Delay, d1	33.6	14.9		25.8	7.5			25.6	24.4		26.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	34.1	1.0		4.4	0.4			0.9	0.2		1.6	
Delay (s)	67.6	15.9		30.2	7.8			26.5	24.6		28.1	
Level of Service	E	B		C	A			C	C		C	
Approach Delay (s)		18.8			14.1			25.3			28.1	
Approach LOS		B			B			C			C	

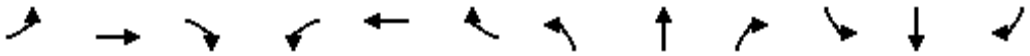
Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	Ø5	Ø6
Lane Configurations									
Traffic Volume (vph)	1070	258	118	1295	1	175	532		
Future Volume (vph)	1070	258	118	1295	1	175	532		
Turn Type	NA	Perm	Prot	NA	NA	Perm	NA		
Protected Phases	2		1	1 2	8		4	5	6
Permitted Phases		2				4			
Detector Phase	2	2	1	1 2	8	4	4		
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	20.0	8.0	20.0
Total Split (s)	32.0	32.0	19.0		29.0	29.0	29.0	12.0	39.0
Total Split (%)	40.0%	40.0%	23.8%		36.3%	36.3%	36.3%	15%	49%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5			4.5	4.5		
Lead/Lag	Lead	Lead	Lag					Lag	Lead
Lead-Lag Optimize?								Yes	
Recall Mode	C-Max	C-Max	None		None	None	None	None	C-Max
Act Effct Green (s)	30.5	30.5	14.4	49.5	0.0	21.5	21.5		
Actuated g/C Ratio	0.38	0.38	0.18	0.62	0.00	0.27	0.27		
v/c Ratio	0.50	0.41	0.22	0.47	no cap	0.53	0.65		
Control Delay	7.7	4.4	25.2	5.8		29.8	29.0		
Queue Delay	0.0	0.0	0.0	0.1		0.0	0.0		
Total Delay	7.7	4.4	25.2	5.9	Error	29.8	29.0		
LOS	A	A	C	A	F	C	C		
Approach Delay	7.1			7.5	Err		29.2		
Approach LOS	A			A	F		C		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





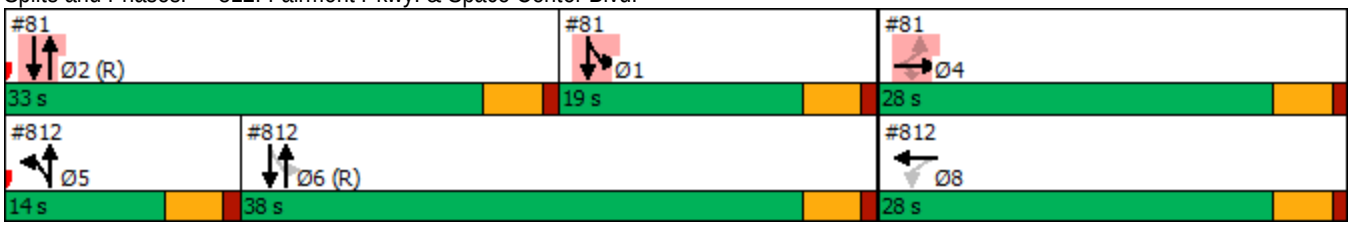
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1070	258	118	1295	0	0	1	0	175	532	11
Future Volume (vph)	0	1070	258	118	1295	0	0	1	0	175	532	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5			4.5		4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91			1.00		1.00	0.95	
Frt		1.00	0.85	1.00	1.00			1.00		1.00	1.00	
Flt Protected		1.00	1.00	0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988			0		1736	3461	
Flt Permitted		1.00	1.00	0.95	1.00			1.00		0.76	1.00	
Satd. Flow (perm)		6285	1553	3367	4988			0		1383	3461	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	1202	290	133	1455	0	0	1	0	197	598	12
RTOR Reduction (vph)	0	0	111	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	1202	179	133	1455	0	0	1	0	197	608	0
Turn Type		NA	Perm	Prot	NA			NA		Perm	NA	
Protected Phases		2		1	1 2			8			4	
Permitted Phases			2							4		
Actuated Green, G (s)		30.6	30.6	14.4	49.5			21.5		21.5	21.5	
Effective Green, g (s)		30.6	30.6	14.4	49.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.38	0.38	0.18	0.62			0.27		0.27	0.27	
Clearance Time (s)		4.5	4.5	4.5				4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0				3.0		3.0	3.0	
Lane Grp Cap (vph)		2404	594	606	3086			0		371	930	
v/s Ratio Prot		0.19		0.04	c0.29						c0.18	
v/s Ratio Perm			0.12							0.14		
v/c Ratio		0.50	0.30	0.22	0.47			no cap		0.53	0.65	
Uniform Delay, d1		18.9	17.2	28.0	8.2			Error		24.9	25.9	
Progression Factor		0.36	0.39	0.86	0.60					1.00	1.00	
Incremental Delay, d2		0.5	0.9	0.2	0.1			Error		1.5	1.7	
Delay (s)		7.4	7.7	24.3	5.0			Error		26.4	27.6	
Level of Service		A	A	C	A			F		C	C	
Approach Delay (s)		7.4			6.7			Error			27.3	
Approach LOS		A			A			F			C	

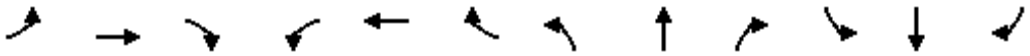
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	276	1168	263	502	1	479			
Future Volume (vph)	276	1168	263	502	1	479			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	28.0	28.0	14.0		38.0	38.0	19.0	33.0	28.0
Total Split (%)	35.0%	35.0%	17.5%		47.5%	47.5%	24%	41%	35%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	23.5	23.5	9.4	47.5		33.6			
Actuated g/C Ratio	0.29	0.29	0.12	0.59		0.42			
v/c Ratio	0.57	0.75	0.70	0.26		0.33			
Control Delay	29.3	27.9	51.7	2.7		19.2			
Queue Delay	3.5	0.0	11.7	1.7		0.1			
Total Delay	32.7	27.9	63.4	4.4		19.3			
LOS	C	C	E	A		B			
Approach Delay		28.8		24.7		19.3			
Approach LOS		C		C		B			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 61 (76%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 25.8	Intersection LOS: C
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





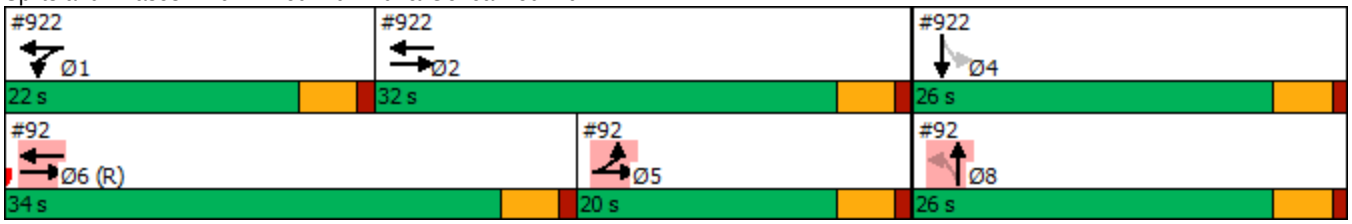
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1168	150	263	502	0	1	479	123
Future Volume (vph)	0	0	0	276	1168	150	263	502	0	1	479	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.98		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6177		3367	3471			4835	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6177		3367	3471			4543	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	291	1229	158	277	528	0	1	504	129
RTOR Reduction (vph)	0	0	0	0	29	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	0	0	291	1358	0	277	528	0	0	625	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				23.5	23.5		9.4	47.5			33.6	
Effective Green, g (s)				23.5	23.5		9.4	47.5			33.6	
Actuated g/C Ratio				0.29	0.29		0.12	0.59			0.42	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				509	1814		395	2060			1908	
v/s Ratio Prot					c0.22		c0.08	0.15				
v/s Ratio Perm				0.17							c0.14	
v/c Ratio				0.57	0.75		0.70	0.26			0.33	
Uniform Delay, d1				24.0	25.6		33.9	7.8			15.6	
Progression Factor				1.00	1.00		1.34	0.32			1.22	
Incremental Delay, d2				1.6	1.7		3.1	0.0			0.4	
Delay (s)				25.5	27.3		48.5	2.5			19.5	
Level of Service				C	C		D	A			B	
Approach Delay (s)		0.0			27.0			18.3			19.5	
Approach LOS		A			C			B			B	

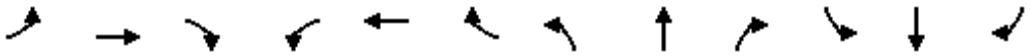
Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	835	229	796	524			
Future Volume (vph)	835	229	796	524			
Turn Type	NA	Prot	NA	NA			
Protected Phases	2	1	2 1	4	5	6	8
Permitted Phases							
Detector Phase	2	1	2 1	4			
Switch Phase							
Minimum Initial (s)	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	32.0	22.0		26.0	20.0	34.0	26.0
Total Split (%)	40.0%	27.5%		32.5%	25%	43%	33%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0			
Total Lost Time (s)	4.5	4.5		4.5			
Lead/Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?							
Recall Mode	None	None		None	None	C-Max	None
Act Effct Green (s)	30.2	16.5	51.2	19.8			
Actuated g/C Ratio	0.38	0.21	0.64	0.25			
v/c Ratio	0.71	0.68	0.38	0.61			
Control Delay	9.3	23.7	4.9	25.2			
Queue Delay	0.0	1.7	0.3	0.0			
Total Delay	9.3	25.4	5.2	25.2			
LOS	A	C	A	C			
Approach Delay	9.3		9.7	25.2			
Approach LOS	A		A	C			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 67.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	835	428	229	796	0	0	0	0	86	524	94
Future Volume (vph)	0	835	428	229	796	0	0	0	0	86	524	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.91		1.00	0.95						0.91	
Frt		0.95		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						0.99	
Satd. Flow (prot)		4734		1736	3471						4858	
Flt Permitted		1.00		0.95	1.00						0.99	
Satd. Flow (perm)		4734		1736	3471						4858	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	888	455	244	847	0	0	0	0	91	557	100
RTOR Reduction (vph)	0	95	0	0	0	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	1248	0	244	847	0	0	0	0	0	722	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases										4		
Actuated Green, G (s)		30.2		16.5	51.2						19.8	
Effective Green, g (s)		30.2		16.5	51.2						19.8	
Actuated g/C Ratio		0.38		0.21	0.64						0.25	
Clearance Time (s)		4.5		4.5							4.5	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		1787		358	2221						1202	
v/s Ratio Prot		c0.26		c0.14	0.24							
v/s Ratio Perm											0.15	
v/c Ratio		0.70		0.68	0.38						0.60	
Uniform Delay, d1		21.1		29.3	6.9						26.6	
Progression Factor		0.43		0.49	0.61						0.92	
Incremental Delay, d2		0.5		4.7	0.1						0.8	
Delay (s)		9.5		19.1	4.3						25.3	
Level of Service		A		B	A						C	
Approach Delay (s)		9.5			7.6			0.0			25.3	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

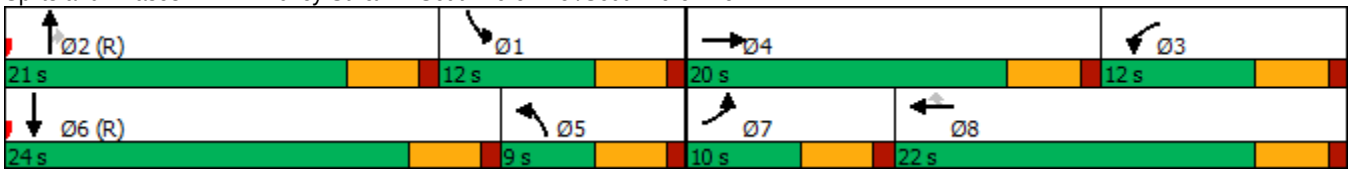
Synchro Report

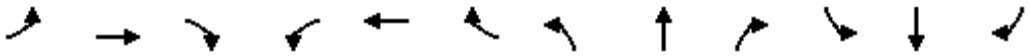
Long-Term Improved Network 2045 PM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	66	508	447	486	286	44	543	422	244	743
Future Volume (vph)	66	508	447	486	286	44	543	422	244	743
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	12.0	22.0	22.0	9.0	21.0	21.0	12.0	24.0
Total Split (%)	15.4%	30.8%	18.5%	33.8%	33.8%	13.8%	32.3%	32.3%	18.5%	36.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	5.5	14.4	8.6	21.5	21.5	4.5	16.5	16.5	7.5	23.1
Actuated g/C Ratio	0.08	0.22	0.13	0.33	0.33	0.07	0.25	0.25	0.12	0.36
v/c Ratio	0.46	0.75	1.02	0.43	0.41	0.38	0.63	0.63	1.25	0.66
Control Delay	39.0	29.5	82.9	19.7	4.8	38.2	25.3	8.1	175.2	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	29.5	82.9	19.7	4.8	38.2	25.3	8.1	175.2	22.0
LOS	D	C	F	B	A	D	C	A	F	C
Approach Delay		30.4		39.4			18.7			57.9
Approach LOS		C		D			B			E

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.25	
Intersection Signal Delay: 37.5	Intersection LOS: D
Intersection Capacity Utilization 77.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	508	57	447	486	286	44	543	422	244	743	55
Future Volume (veh/h)	66	508	57	447	486	286	44	543	422	244	743	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	518	58	456	496	292	45	554	431	249	758	56
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	85	646	72	392	947	422	182	888	396	263	991	73
Arrive On Green	0.05	0.20	0.20	0.12	0.27	0.27	0.10	0.25	0.25	0.15	0.30	0.30
Sat Flow, veh/h	1753	3172	354	3401	3497	1560	1753	3497	1560	1753	3302	244
Grp Volume(v), veh/h	67	285	291	456	496	292	45	554	431	249	401	413
Grp Sat Flow(s),veh/h/ln	1753	1749	1777	1700	1749	1560	1753	1749	1560	1753	1749	1797
Q Serve(g_s), s	2.5	10.1	10.1	7.5	7.8	6.6	1.5	9.1	16.5	9.1	13.6	13.6
Cycle Q Clear(g_c), s	2.5	10.1	10.1	7.5	7.8	6.6	1.5	9.1	16.5	9.1	13.6	13.6
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	85	356	362	392	947	422	182	888	396	263	525	539
V/C Ratio(X)	0.79	0.80	0.80	1.16	0.52	0.69	0.25	0.62	1.09	0.95	0.77	0.77
Avail Cap(c_a), veh/h	148	417	424	392	947	422	182	888	396	263	525	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	24.6	24.7	28.8	20.1	7.8	26.8	21.5	24.3	27.4	20.7	20.7
Incr Delay (d2), s/veh	9.4	5.6	5.8	97.5	0.5	4.8	0.7	3.3	71.1	40.7	10.2	10.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	4.4	4.5	8.2	3.0	3.8	0.6	3.8	13.3	6.5	6.4	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	30.3	30.4	126.3	20.7	12.5	27.5	24.8	95.4	68.1	30.9	30.6
LnGrp LOS	D	C	C	F	C	B	C	C	F	E	C	C
Approach Vol, veh/h		643			1244			1030			1063	
Approach Delay, s/veh		31.4			57.5			54.4			39.5	
Approach LOS		C			E			D			D	

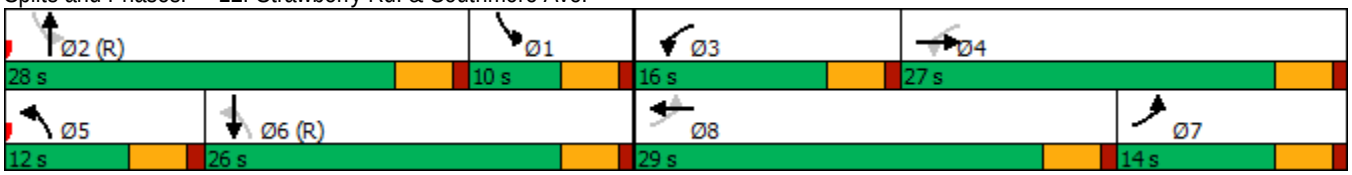
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	21.0	12.0	17.7	11.3	24.0	7.6	22.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	16.5	7.5	15.5	4.5	19.5	5.5	17.5
Max Q Clear Time (g_c+I1), s	11.1	18.5	9.5	12.1	3.5	15.6	4.5	9.8
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	1.8	0.0	2.6

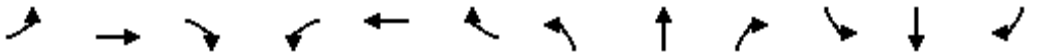
Intersection Summary	
HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	198	790	246	722	171	472	128	484
Future Volume (vph)	198	790	246	722	171	472	128	484
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	27.0	16.0	29.0	12.0	28.0	10.0	26.0
Total Split (%)	17.3%	33.3%	19.8%	35.8%	14.8%	34.6%	12.3%	32.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	33.1	22.0	33.1	22.8	29.9	24.4	29.9	22.5
Actuated g/C Ratio	0.41	0.27	0.41	0.28	0.37	0.30	0.37	0.28
v/c Ratio	0.65	0.88	0.77	0.80	0.58	0.70	0.59	0.64
Control Delay	36.1	40.2	30.7	24.3	24.5	24.5	36.1	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	40.2	30.7	24.3	24.5	24.5	36.1	28.6
LOS	D	D	C	C	C	C	D	C
Approach Delay		39.4		25.8		24.5		29.9
Approach LOS		D		C		C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 24 (30%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 84.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	790	20	246	722	42	171	472	269	128	484	100
Future Volume (veh/h)	198	790	20	246	722	42	171	472	269	128	484	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	202	806	20	251	737	43	174	482	274	131	494	102
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	350	913	23	338	876	51	370	624	353	320	862	177
Arrive On Green	0.13	0.26	0.26	0.13	0.26	0.26	0.09	0.29	0.29	0.10	0.30	0.30
Sat Flow, veh/h	1753	3487	87	1753	3358	196	1753	2152	1218	1753	2889	593
Grp Volume(v), veh/h	202	404	422	251	384	396	174	391	365	131	298	298
Grp Sat Flow(s),veh/h/ln	1753	1749	1825	1753	1749	1805	1753	1749	1622	1753	1749	1734
Q Serve(g_s), s	2.7	18.0	18.0	8.3	16.8	16.8	5.5	16.6	16.7	0.0	11.7	11.8
Cycle Q Clear(g_c), s	2.7	18.0	18.0	8.3	16.8	16.8	5.5	16.6	16.7	0.0	11.7	11.8
Prop In Lane	1.00		0.05	1.00		0.11	1.00		0.75	1.00		0.34
Lane Grp Cap(c), veh/h	350	458	478	338	456	471	370	507	470	320	521	517
V/C Ratio(X)	0.58	0.88	0.88	0.74	0.84	0.84	0.47	0.77	0.78	0.41	0.57	0.58
Avail Cap(c_a), veh/h	350	486	507	364	529	546	375	507	470	320	521	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.55	0.55	0.55	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	28.7	28.7	20.2	28.3	28.4	17.9	26.3	26.3	31.4	24.0	24.1
Incr Delay (d2), s/veh	2.3	16.6	16.0	4.2	6.0	5.9	0.9	10.5	11.5	0.8	4.5	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	9.2	9.5	3.5	7.4	7.6	2.1	8.0	7.6	2.3	5.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	45.3	44.7	24.4	34.4	34.2	18.8	36.8	37.8	32.2	28.5	28.7
LnGrp LOS	C	D	D	C	C	C	B	D	D	C	C	C
Approach Vol, veh/h		1028			1031			930			727	
Approach Delay, s/veh		42.6			31.9			33.8			29.3	
Approach LOS		D			C			C			C	

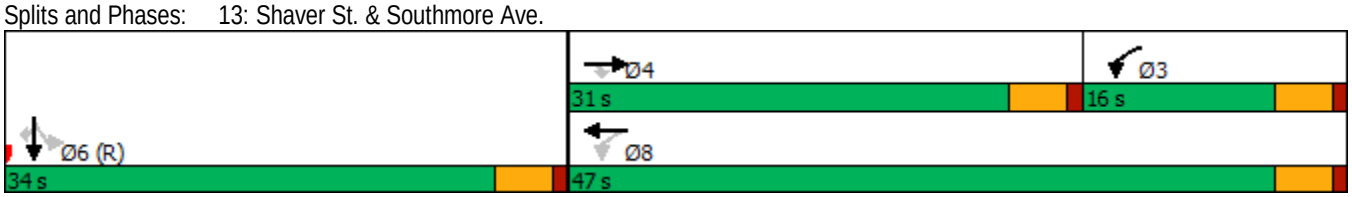
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	28.0	14.8	25.7	11.8	28.7	14.9	25.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	23.5	11.5	22.5	7.5	21.5	9.5	24.5
Max Q Clear Time (g_c+I1), s	2.0	18.7	10.3	20.0	7.5	13.8	4.7	18.8
Green Ext Time (p_c), s	0.1	2.0	0.1	1.2	0.0	2.2	0.2	2.3

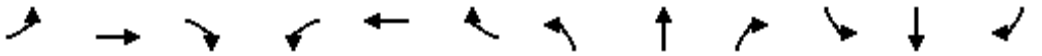
Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	945	215	256	988	292	1027	284
Future Volume (vph)	945	215	256	988	292	1027	284
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	16.0	47.0	34.0	34.0	34.0
Total Split (%)	38.3%	38.3%	19.8%	58.0%	42.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	26.3	26.3	41.7	41.7	30.3	30.3	30.3
Actuated g/C Ratio	0.32	0.32	0.51	0.51	0.37	0.37	0.37
v/c Ratio	0.90	0.41	0.85	0.61	0.48	0.85	0.53
Control Delay	38.5	16.1	35.4	6.0	17.5	24.2	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.5	16.1	35.4	6.0	17.5	24.2	18.4
LOS	D	B	D	A	B	C	B
Approach Delay	34.4			12.1		22.0	
Approach LOS	C			B		C	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 71 (88%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 22.5	Intersection LOS: C
Intersection Capacity Utilization 83.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	945	215	256	988	0	0	0	0	292	1027	284
Future Volume (veh/h)	0	945	215	256	988	0	0	0	0	292	1027	284
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	1016	231	275	1062	0				314	1104	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	1119	499	307	1733	0				690	1376	
Arrive On Green	0.00	0.32	0.32	0.24	0.99	0.00				0.39	0.39	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	1016	231	275	1062	0				314	1104	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	22.6	9.6	7.6	0.6	0.0				10.7	22.7	0.0
Cycle Q Clear(g_c), s	0.0	22.6	9.6	7.6	0.6	0.0				10.7	22.7	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1119	499	307	1733	0				690	1376	
V/C Ratio(X)	0.00	0.91	0.46	0.90	0.61	0.00				0.46	0.80	
Avail Cap(c_a), veh/h	0	1144	510	345	1835	0				690	1376	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.36	0.36	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.4	22.0	28.6	0.2	0.0				18.2	21.8	0.0
Incr Delay (d2), s/veh	0.0	10.5	0.7	10.2	0.2	0.0				2.2	5.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.3	3.4	5.1	0.1	0.0				4.4	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.9	22.7	38.8	0.4	0.0				20.3	26.8	0.0
LnGrp LOS	A	D	C	D	A	A				C	C	
Approach Vol, veh/h		1247			1337						1418	A
Approach Delay, s/veh		34.3			8.3						25.4	
Approach LOS		C			A						C	

Timer - Assigned Phs		3	4		6		8				
Phs Duration (G+Y+Rc), s		14.2	30.4		36.4		44.6				
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		11.5	26.5		29.5		42.5				
Max Q Clear Time (g_c+I1), s		9.6	24.6		24.7		2.6				
Green Ext Time (p_c), s		0.2	1.3		3.3		9.4				

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Notes

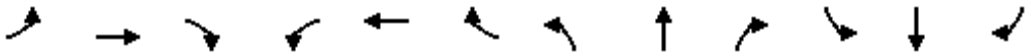
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	109	874	424	85	809	157	386	554	248	726
Future Volume (vph)	109	874	424	85	809	157	386	554	248	726
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	28.0	28.0	11.0	27.0	27.0	26.0	28.0	23.0	25.0
Total Split (%)	13.3%	31.1%	31.1%	12.2%	30.0%	30.0%	28.9%	31.1%	25.6%	27.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	23.5	23.5	6.5	22.5	22.5	21.5	23.5	18.5	20.5
Actuated g/C Ratio	0.08	0.26	0.26	0.07	0.25	0.25	0.24	0.26	0.21	0.23
v/c Ratio	0.83	1.06	0.62	0.74	1.03	0.36	1.02	0.79	0.77	1.02
Control Delay	83.7	80.6	6.9	75.7	71.9	11.3	86.4	37.4	49.6	72.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.7	80.6	6.9	75.7	71.9	11.3	86.4	37.4	49.6	72.6
LOS	F	F	A	E	E	B	F	D	D	E
Approach Delay		58.6			63.1			55.7		66.8
Approach LOS		E			E			E		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 60.8	Intersection LOS: E
Intersection Capacity Utilization 90.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	874	424	85	809	157	386	554	91	248	726	6
Future Volume (veh/h)	109	874	424	85	809	157	386	554	91	248	726	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	120	960	466	93	889	173	424	609	100	273	798	7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	146	913	407	127	874	390	419	785	129	360	809	7
Arrive On Green	0.08	0.26	0.26	0.07	0.25	0.25	0.24	0.26	0.26	0.21	0.23	0.23
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3008	493	1753	3553	31
Grp Volume(v), veh/h	120	960	466	93	889	173	424	354	355	273	393	412
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1752	1753	1749	1835
Q Serve(g_s), s	6.1	23.5	12.7	4.7	22.5	5.0	21.5	16.9	16.9	13.2	20.1	20.1
Cycle Q Clear(g_c), s	6.1	23.5	12.7	4.7	22.5	5.0	21.5	16.9	16.9	13.2	20.1	20.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.02
Lane Grp Cap(c), veh/h	146	913	407	127	874	390	419	457	457	360	398	418
V/C Ratio(X)	0.82	1.05	1.14	0.73	1.02	0.44	1.01	0.77	0.78	0.76	0.99	0.99
Avail Cap(c_a), veh/h	146	913	407	127	874	390	419	457	457	360	398	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	33.3	9.7	40.9	33.8	10.0	34.3	30.8	30.8	33.6	34.6	34.6
Incr Delay (d2), s/veh	29.8	44.2	90.1	19.7	34.7	0.8	47.1	12.1	12.2	8.9	41.8	40.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	15.1	14.0	2.7	13.3	3.0	14.2	8.3	8.4	6.3	12.8	13.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.4	77.4	99.8	60.6	68.4	10.8	81.4	42.9	43.0	42.6	76.4	75.3
LnGrp LOS	E	F	F	E	F	B	F	D	D	D	E	E
Approach Vol, veh/h		1546			1155			1133			1078	
Approach Delay, s/veh		83.6			59.2			57.3			67.4	
Approach LOS		F			E			E			E	

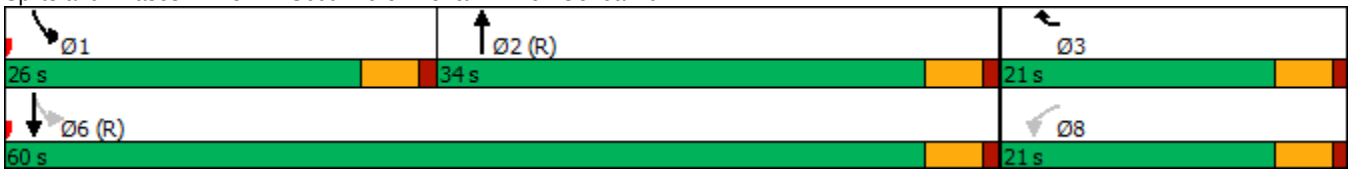
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	28.0	11.0	28.0	26.0	25.0	12.0	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	23.5	6.5	23.5	21.5	20.5	7.5	22.5
Max Q Clear Time (g_c+I1), s	15.2	18.9	6.7	25.5	23.5	22.1	8.1	24.5
Green Ext Time (p_c), s	0.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	68.3
HCM 6th LOS	E

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	161	353	815	373	1331
Future Volume (vph)	161	353	815	373	1331
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	34.0	26.0	60.0
Total Split (%)	25.9%	25.9%	42.0%	32.1%	74.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.7	12.7	38.7	59.3	59.3
Actuated g/C Ratio	0.16	0.16	0.48	0.73	0.73
v/c Ratio	0.62	0.66	0.55	0.74	0.56
Control Delay	41.4	9.9	18.3	17.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	9.9	18.3	17.3	6.5
LOS	D	A	B	B	A
Approach Delay	19.8		18.3		8.9
Approach LOS	B		B		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 19 (23%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 68.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	161	353	815	51	373	1331	
Future Volume (veh/h)	161	353	815	51	373	1331	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	
Adj Flow Rate, veh/h	168	368	849	53	389	1386	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	4	4	4	4	4	4	
Cap, veh/h	357	318	1654	103	522	2396	
Arrive On Green	0.20	0.20	0.49	0.49	0.14	0.69	
Sat Flow, veh/h	1753	1560	3435	209	1753	3589	
Grp Volume(v), veh/h	168	368	444	458	389	1386	
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1803	1753	1749	
Q Serve(g_s), s	6.8	16.5	13.9	13.9	8.0	16.7	
Cycle Q Clear(g_c), s	6.8	16.5	13.9	13.9	8.0	16.7	
Prop In Lane	1.00	1.00		0.12	1.00		
Lane Grp Cap(c), veh/h	357	318	865	892	522	2396	
V/C Ratio(X)	0.47	1.16	0.51	0.51	0.75	0.58	
Avail Cap(c_a), veh/h	357	318	865	892	750	2396	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.91	0.91	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.4	32.3	13.9	13.9	10.6	6.6	
Incr Delay (d2), s/veh	0.9	98.4	2.2	2.1	2.4	1.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.8	14.5	5.4	5.6	2.7	4.9	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	29.3	130.7	16.0	16.0	13.0	7.7	
LnGrp LOS	C	F	B	B	B	A	
Approach Vol, veh/h	536		902			1775	
Approach Delay, s/veh	98.9		16.0			8.8	
Approach LOS	F		B			A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.4	44.6			60.0	21.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	21.5	29.5			55.5	16.5
Max Q Clear Time (g_c+I1), s	10.0	15.9			18.7	18.5
Green Ext Time (p_c), s	1.0	4.7			13.7	0.0

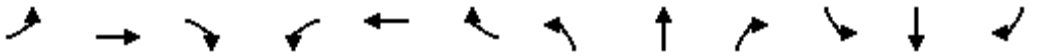
Intersection Summary		
HCM 6th Ctrl Delay	25.9	
HCM 6th LOS	C	

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	138	1041	1001	806	256
Future Volume (vph)	138	1041	1001	806	256
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	52.0	41.0	29.0	29.0
Total Split (%)	13.6%	64.2%	50.6%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	46.4	46.4	35.4	25.6	25.6
Actuated g/C Ratio	0.57	0.57	0.44	0.32	0.32
v/c Ratio	0.63	0.56	0.88	0.71	0.48
Control Delay	16.2	3.2	28.3	27.7	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	3.2	28.3	27.7	18.0
LOS	B	A	C	C	B
Approach Delay		4.7	28.3	25.8	
Approach LOS		A	C	C	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 66 (81%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 78.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



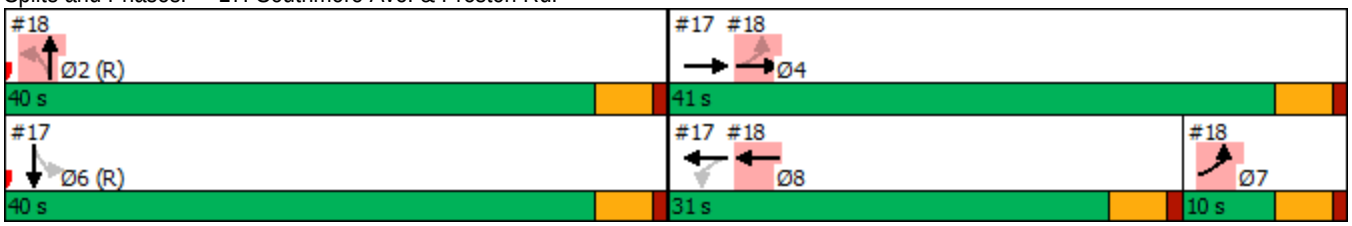


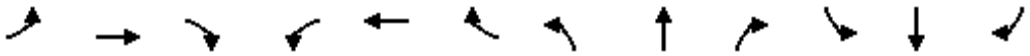
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	1041	1	0	1001	221	249	806	256	0	0	0
Future Volume (veh/h)	138	1041	1	0	1001	221	249	806	256	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	144	1084	1	0	1043	230	259	840	267			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	4	0	4	4	4	4	4			
Cap, veh/h	185	1845	2	0	1190	261	426	1496	584			
Arrive On Green	0.08	1.00	1.00	0.00	0.42	0.42	0.37	0.37	0.37			
Sat Flow, veh/h	1753	3586	3	0	2942	626	1139	3995	1560			
Grp Volume(v), veh/h	144	529	556	0	638	635	406	693	267			
Grp Sat Flow(s),veh/h/ln	1753	1749	1840	0	1749	1728	1784	1675	1560			
Q Serve(g_s), s	1.1	0.0	0.0	0.0	27.1	27.4	14.9	13.2	10.5			
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	27.1	27.4	14.9	13.2	10.5			
Prop In Lane	1.00		0.00	0.00		0.36	0.64		1.00			
Lane Grp Cap(c), veh/h	185	900	947	0	730	721	668	1254	584			
V/C Ratio(X)	0.78	0.59	0.59	0.00	0.87	0.88	0.61	0.55	0.46			
Avail Cap(c_a), veh/h	253	1025	1079	0	788	779	668	1254	584			
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.50	0.50	0.50	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	35.3	0.0	0.0	0.0	21.7	21.7	20.5	20.0	19.1			
Incr Delay (d2), s/veh	5.3	0.3	0.3	0.0	10.2	10.8	4.1	1.8	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	0.1	0.1	0.0	12.1	12.2	6.5	5.1	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.3	0.3	0.0	31.9	32.5	24.6	21.7	21.7			
LnGrp LOS	D	A	A	A	C	C	C	C	C			
Approach Vol, veh/h		1229			1273			1366				
Approach Delay, s/veh		5.0			32.2			22.6				
Approach LOS		A			C			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		34.8		46.2			7.9	38.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		24.5		47.5			6.5	36.5				
Max Q Clear Time (g_c+I1), s		16.9		2.0			3.1	29.4				
Green Ext Time (p_c), s		4.5		8.7			0.1	4.4				
Intersection Summary												
HCM 6th Ctrl Delay			20.2									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	654	109	561	1002		
Future Volume (vph)	654	109	561	1002		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	41.0	31.0	31.0	40.0	40.0	10.0
Total Split (%)	50.6%	38.3%	38.3%	49.4%	49%	12%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lead	Lead			Lag
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	34.4	24.4	24.4	37.6		
Actuated g/C Ratio	0.42	0.30	0.30	0.46		
v/c Ratio	0.57	0.96	0.56	0.82		
Control Delay	36.1	88.2	13.7	17.4		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	36.1	88.2	13.7	17.4		
LOS	D	F	B	B		
Approach Delay	36.1		25.8	17.4		
Approach LOS	D		C	B		

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 55 (68%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





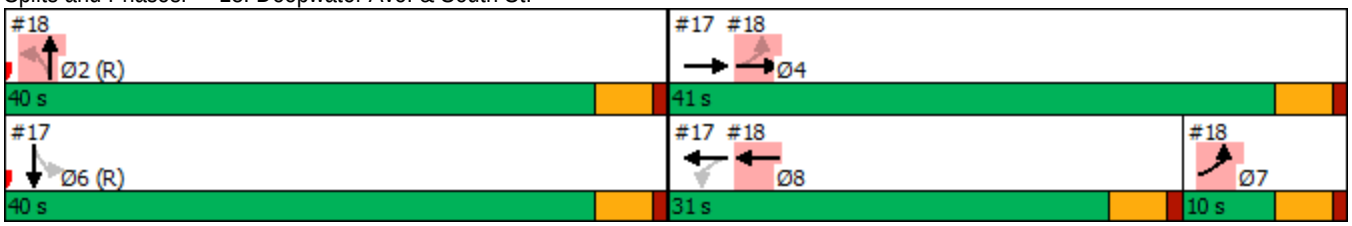
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	654	137	109	561	0	0	0	0	24	1002	263
Future Volume (vph)	0	654	137	109	561	0	0	0	0	24	1002	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.97		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3269		1736	3355						3362	
Flt Permitted		1.00		0.21	1.00						1.00	
Satd. Flow (perm)		3269		386	3355						3362	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	661	138	110	567	0	0	0	0	24	1012	266
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	777	0	110	567	0	0	0	0	0	1275	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		34.5		24.4	24.4						37.5	
Effective Green, g (s)		34.5		24.4	24.4						37.5	
Actuated g/C Ratio		0.43		0.30	0.30						0.46	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1392		116	1010						1556	
v/s Ratio Prot		c0.24			0.17							
v/s Ratio Perm				c0.29							0.38	
v/c Ratio		0.56		0.95	0.56						0.82	
Uniform Delay, d1		17.5		27.7	23.8						18.8	
Progression Factor		2.11		0.46	0.50						0.86	
Incremental Delay, d2		0.4		61.7	0.6						0.5	
Delay (s)		37.3		74.5	12.5						16.6	
Level of Service		D		E	B						B	
Approach Delay (s)		37.3			22.5			0.0			16.6	
Approach LOS		D			C			A			B	

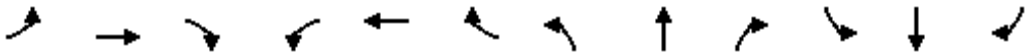
Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	225	460	498	640	
Future Volume (vph)	225	460	498	640	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	41.0	31.0	40.0	40.0
Total Split (%)	12.3%	50.6%	38.3%	49.4%	49%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	34.4	34.4	24.4	37.6	
Actuated g/C Ratio	0.42	0.42	0.30	0.46	
v/c Ratio	0.73	0.35	0.58	0.43	
Control Delay	21.0	2.2	25.7	15.5	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	21.0	2.2	25.7	15.5	
LOS	C	A	C	B	
Approach Delay		8.4	25.7	15.5	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 55 (68%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





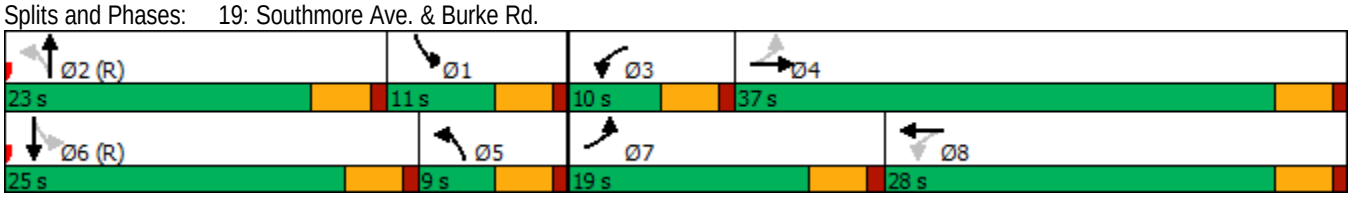
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	460	0	0	498	38	168	640	61	0	0	0
Future Volume (vph)	225	460	0	0	498	38	168	640	61	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.99				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3205			4562				
Flt Permitted	0.34	1.00			1.00			0.99				
Satd. Flow (perm)	583	3240			3205			4562				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	234	479	0	0	519	40	175	667	64	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	10	0	0	0	0
Lane Group Flow (vph)	234	479	0	0	552	0	0	896	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	34.5	34.5			24.4			37.5				
Effective Green, g (s)	34.5	34.5			24.4			37.5				
Actuated g/C Ratio	0.43	0.43			0.30			0.46				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	320	1380			965			2112				
v/s Ratio Prot	c0.05	0.15			0.17							
v/s Ratio Perm	c0.26							0.20				
v/c Ratio	0.73	0.35			0.57			0.42				
Uniform Delay, d1	24.8	15.7			23.9			14.5				
Progression Factor	0.33	0.10			1.00			1.00				
Incremental Delay, d2	7.3	0.1			0.8			0.6				
Delay (s)	15.4	1.8			24.7			15.2				
Level of Service	B	A			C			B				
Approach Delay (s)		6.3			24.7			15.2			0.0	
Approach LOS		A			C			B			A	

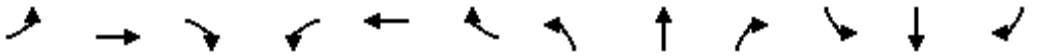
Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	211	611	81	538	66	234	136	277
Future Volume (vph)	211	611	81	538	66	234	136	277
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	19.0	37.0	10.0	28.0	9.0	23.0	11.0	25.0
Total Split (%)	23.5%	45.7%	12.3%	34.6%	11.1%	28.4%	13.6%	30.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	39.1	31.1	27.5	22.0	26.6	22.1	30.9	25.7
Actuated g/C Ratio	0.48	0.38	0.34	0.27	0.33	0.27	0.38	0.32
v/c Ratio	0.67	0.58	0.30	0.82	0.28	0.35	0.36	0.46
Control Delay	18.9	11.1	6.3	17.2	16.9	14.6	16.5	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	11.1	6.3	17.2	16.9	14.6	16.5	11.0
LOS	B	B	A	B	B	B	B	B
Approach Delay		13.0		16.1		15.0		12.2
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 26 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	611	67	81	538	163	66	234	66	136	277	215
Future Volume (veh/h)	211	611	67	81	538	163	66	234	66	136	277	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	224	650	71	86	572	173	70	249	70	145	295	229
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	327	1015	111	283	675	203	447	619	170	557	480	363
Arrive On Green	0.12	0.32	0.32	0.05	0.25	0.25	0.15	0.23	0.23	0.30	0.42	0.42
Sat Flow, veh/h	1753	3180	347	1753	2647	798	1753	2710	746	1753	1898	1433
Grp Volume(v), veh/h	224	357	364	86	377	368	70	159	160	145	271	253
Grp Sat Flow(s),veh/h/ln	1753	1749	1778	1753	1749	1697	1753	1749	1707	1753	1749	1583
Q Serve(g_s), s	7.2	14.2	14.2	2.9	16.6	16.7	0.0	6.2	6.5	0.0	9.8	10.2
Cycle Q Clear(g_c), s	7.2	14.2	14.2	2.9	16.6	16.7	0.0	6.2	6.5	0.0	9.8	10.2
Prop In Lane	1.00		0.20	1.00		0.47	1.00		0.44	1.00		0.91
Lane Grp Cap(c), veh/h	327	558	567	283	446	433	447	399	390	557	443	401
V/C Ratio(X)	0.69	0.64	0.64	0.30	0.85	0.85	0.16	0.40	0.41	0.26	0.61	0.63
Avail Cap(c_a), veh/h	437	702	714	312	507	492	447	399	390	557	443	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	0.43	0.43	0.43	0.81	0.81	0.81	1.00	1.00	1.00	0.55	0.55	0.55
Uniform Delay (d), s/veh	19.8	23.6	23.6	21.0	28.7	28.7	24.4	26.5	26.6	17.8	20.3	20.4
Incr Delay (d2), s/veh	1.2	0.6	0.6	0.5	9.5	10.0	0.2	2.9	3.2	0.1	3.5	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.6	5.7	1.2	7.7	7.6	1.1	2.8	2.9	1.7	3.7	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	24.2	24.2	21.5	38.2	38.7	24.5	29.5	29.8	17.9	23.8	24.5
LnGrp LOS	C	C	C	C	D	D	C	C	C	B	C	C
Approach Vol, veh/h		945			831			389			669	
Approach Delay, s/veh		23.4			36.7			28.7			22.8	
Approach LOS		C			D			C			C	

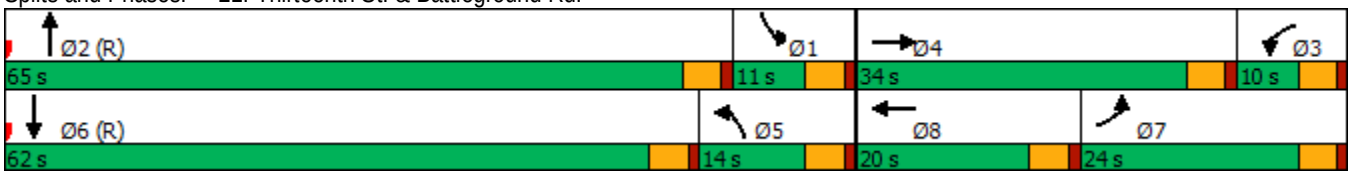
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	23.0	8.7	30.3	17.0	25.0	13.9	25.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	18.5	5.5	32.5	4.5	20.5	14.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	8.5	4.9	16.2	2.0	12.2	9.2	18.7
Green Ext Time (p_c), s	0.1	1.2	0.0	4.0	0.0	2.0	0.3	1.9

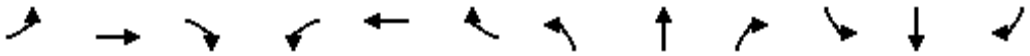
Intersection Summary	
HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	151	20	17	63	63	562	36	999
Future Volume (vph)	151	20	17	63	63	562	36	999
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	24.0	34.0	10.0	20.0	14.0	65.0	11.0	62.0
Total Split (%)	20.0%	28.3%	8.3%	16.7%	11.7%	54.2%	9.2%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.4	18.3	12.8	8.4	8.6	75.2	6.3	70.8
Actuated g/C Ratio	0.14	0.15	0.11	0.07	0.07	0.63	0.05	0.59
v/c Ratio	0.68	0.23	0.10	0.59	0.55	0.28	0.43	0.57
Control Delay	59.0	7.1	44.3	26.7	70.2	12.3	69.7	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	7.1	44.3	26.7	70.2	12.3	69.7	18.6
LOS	E	A	D	C	E	B	E	B
Approach Delay		36.1		28.1		18.2		20.2
Approach LOS		D		C		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 41 (34%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	20	99	17	63	123	63	562	5	36	999	81
Future Volume (veh/h)	151	20	99	17	63	123	63	562	5	36	999	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	162	22	106	18	68	132	68	604	5	39	1074	87
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	190	153	137	216	179	159	281	1792	15	237	1570	127
Arrive On Green	0.11	0.09	0.09	0.12	0.10	0.10	0.16	0.50	0.50	0.14	0.48	0.48
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3555	29	1753	3276	265
Grp Volume(v), veh/h	162	22	106	18	68	132	68	297	312	39	573	588
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1835	1753	1749	1793
Q Serve(g_s), s	10.9	1.4	8.0	1.1	4.4	10.0	4.1	12.2	12.2	2.4	30.5	30.5
Cycle Q Clear(g_c), s	10.9	1.4	8.0	1.1	4.4	10.0	4.1	12.2	12.2	2.4	30.5	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.15
Lane Grp Cap(c), veh/h	190	153	137	216	179	159	281	882	925	237	838	859
V/C Ratio(X)	0.85	0.14	0.77	0.08	0.38	0.83	0.24	0.34	0.34	0.16	0.68	0.68
Avail Cap(c_a), veh/h	285	430	383	216	226	201	281	882	925	237	838	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	50.6	53.6	46.6	50.3	52.8	44.0	17.8	17.8	45.9	24.2	24.2
Incr Delay (d2), s/veh	11.5	0.3	7.0	0.2	1.3	20.0	0.4	1.0	1.0	0.3	4.5	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.6	3.3	0.5	1.9	4.7	1.8	4.9	5.1	1.0	12.8	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	50.9	60.6	46.8	51.7	72.8	44.5	18.8	18.8	46.2	28.7	28.6
LnGrp LOS	E	D	E	D	D	E	D	B	B	D	C	C
Approach Vol, veh/h		290			218			677			1200	
Approach Delay, s/veh		61.8			64.1			21.4			29.2	
Approach LOS		E			E			C			C	

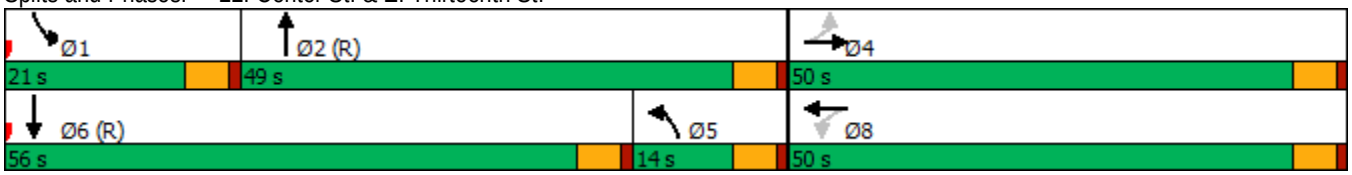
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	65.0	19.3	15.0	23.7	62.0	17.5	16.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	60.5	5.5	29.5	9.5	57.5	19.5	15.5
Max Q Clear Time (g_c+I1), s	4.4	14.2	3.1	10.0	6.1	32.5	12.9	12.0
Green Ext Time (p_c), s	0.0	3.6	0.0	0.5	0.0	7.8	0.2	0.3

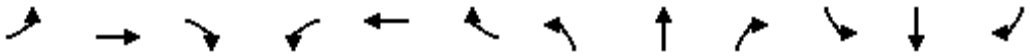
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	171	157	250	164	112	936	198	1008
Future Volume (vph)	171	157	250	164	112	936	198	1008
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	50.0	50.0	50.0	50.0	14.0	49.0	21.0	56.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	11.7%	40.8%	17.5%	46.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	45.0	45.0	45.0	45.0	9.0	44.0	16.0	51.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.08	0.37	0.13	0.42
v/c Ratio	0.82	0.34	1.07	0.37	1.09	1.08	1.09	1.10
Control Delay	59.0	15.2	102.7	5.1	157.2	86.7	132.9	88.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	15.2	102.7	5.1	157.2	86.7	132.9	88.4
LOS	E	B	F	A	F	F	F	F
Approach Delay		29.7		43.0		93.4		94.5
Approach LOS		C		D		F		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 57 (48%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 76.6	Intersection LOS: E
Intersection Capacity Utilization 88.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	157	187	250	164	229	112	936	138	198	1008	249
Future Volume (veh/h)	171	157	187	250	164	229	112	936	138	198	1008	249
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	216	199	237	316	208	290	142	1185	175	251	1276	315
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	266	656	585	307	656	585	131	1121	165	234	1186	288
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.08	0.37	0.37	0.13	0.43	0.43
Sat Flow, veh/h	885	1749	1560	938	1749	1560	1753	3059	450	1753	2790	677
Grp Volume(v), veh/h	216	199	237	316	208	290	142	675	685	251	792	799
Grp Sat Flow(s),veh/h/ln	885	1749	1560	938	1749	1560	1753	1749	1760	1753	1749	1719
Q Serve(g_s), s	27.9	9.6	13.4	31.6	10.1	17.1	9.0	44.0	44.0	16.0	51.0	51.0
Cycle Q Clear(g_c), s	45.0	9.6	13.4	45.0	10.1	17.1	9.0	44.0	44.0	16.0	51.0	51.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.39
Lane Grp Cap(c), veh/h	266	656	585	307	656	585	131	641	645	234	743	730
V/C Ratio(X)	0.81	0.30	0.41	1.03	0.32	0.50	1.08	1.05	1.06	1.07	1.07	1.09
Avail Cap(c_a), veh/h	266	656	585	307	656	585	131	641	645	234	743	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.76	0.76	0.76	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	26.4	27.6	47.3	26.6	28.8	55.5	38.0	38.0	52.0	34.5	34.5
Incr Delay (d2), s/veh	17.3	0.3	0.5	52.9	0.2	0.5	48.4	28.3	31.2	79.8	51.7	62.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	4.1	5.1	13.8	4.3	6.5	5.7	23.0	23.7	12.1	31.1	32.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	26.7	28.1	100.2	26.8	29.3	103.9	66.3	69.2	131.8	86.2	96.5
LnGrp LOS	E	C	C	F	C	C	F	F	F	F	F	F
Approach Vol, veh/h		652			814			1502			1842	
Approach Delay, s/veh		39.6			56.2			71.2			96.9	
Approach LOS		D			E			E			F	

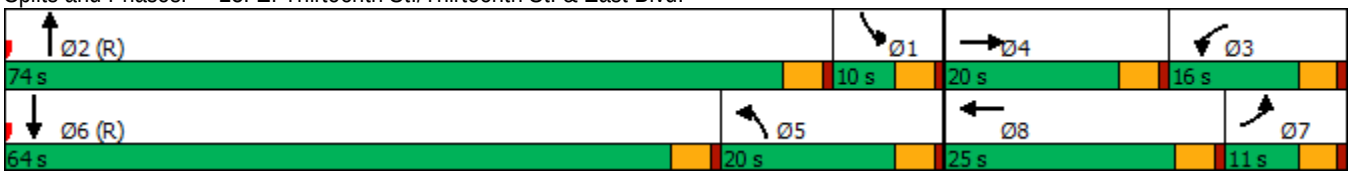
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.0	49.0		50.0	14.0	56.0		50.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	16.0	44.0		45.0	9.0	51.0		45.0				
Max Q Clear Time (g_c+I1), s	18.0	46.0		47.0	11.0	53.0		47.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0				

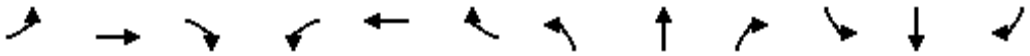
Intersection Summary			
HCM 6th Ctrl Delay		74.2	
HCM 6th LOS		E	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	37	96	79	119	113	207	19	1056
Future Volume (vph)	37	96	79	119	113	207	19	1056
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	20.0	16.0	25.0	20.0	74.0	10.0	64.0
Total Split (%)	9.2%	16.7%	13.3%	20.8%	16.7%	61.7%	8.3%	53.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.7	9.5	10.6	12.5	12.8	84.6	5.5	71.3
Actuated g/C Ratio	0.08	0.08	0.09	0.10	0.11	0.70	0.05	0.59
v/c Ratio	0.27	0.63	0.53	0.47	0.65	0.10	0.25	0.60
Control Delay	58.7	27.9	64.7	38.3	67.8	7.3	63.4	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	27.9	64.7	38.3	67.8	7.3	63.4	19.0
LOS	E	C	E	D	E	A	E	B
Approach Delay		32.1		46.2		27.5		19.7
Approach LOS		C		D		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	96	138	79	119	65	113	207	17	19	1056	135
Future Volume (veh/h)	37	96	138	79	119	65	113	207	17	19	1056	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	38	99	142	81	123	67	116	213	18	20	1089	139
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	153	190	170	103	179	92	328	1892	159	182	1547	197
Arrive On Green	0.09	0.11	0.11	0.06	0.08	0.08	0.19	0.58	0.58	0.10	0.50	0.50
Sat Flow, veh/h	1753	1749	1560	1753	2235	1148	1753	3266	274	1753	3120	398
Grp Volume(v), veh/h	38	99	142	81	95	95	116	113	118	20	610	618
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1634	1753	1749	1791	1753	1749	1769
Q Serve(g_s), s	2.4	6.4	10.7	5.5	6.3	6.8	6.9	3.5	3.6	1.2	32.4	32.5
Cycle Q Clear(g_c), s	2.4	6.4	10.7	5.5	6.3	6.8	6.9	3.5	3.6	1.2	32.4	32.5
Prop In Lane	1.00		1.00	1.00		0.70	1.00		0.15	1.00		0.22
Lane Grp Cap(c), veh/h	153	190	170	103	140	131	328	1013	1038	182	867	877
V/C Ratio(X)	0.25	0.52	0.84	0.79	0.68	0.73	0.35	0.11	0.11	0.11	0.70	0.70
Avail Cap(c_a), veh/h	153	226	201	168	299	279	328	1013	1038	182	867	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	50.5	52.4	55.8	53.7	53.9	42.5	11.4	11.4	48.8	23.4	23.4
Incr Delay (d2), s/veh	0.6	1.7	17.8	10.2	4.5	6.1	0.6	0.2	0.2	0.3	4.7	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.9	5.0	2.7	3.0	3.0	3.0	1.4	1.4	0.6	13.7	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	52.2	70.3	65.9	58.2	60.0	43.1	11.6	11.6	49.0	28.2	28.2
LnGrp LOS	D	D	E	E	E	E	D	B	B	D	C	C
Approach Vol, veh/h		279			271			347			1248	
Approach Delay, s/veh		61.3			61.1			22.1			28.5	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	74.0	11.5	17.6	26.9	64.0	15.0	14.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	69.5	11.5	15.5	15.5	59.5	6.5	20.5
Max Q Clear Time (g_c+I1), s	3.2	5.6	7.5	12.7	8.9	34.5	4.4	8.8
Green Ext Time (p_c), s	0.0	1.3	0.1	0.3	0.1	8.8	0.0	0.7

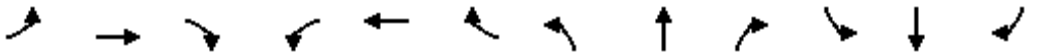
Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	163	63	203	81	104	63	234
Future Volume (vph)	29	163	63	203	81	104	63	234
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	45.0	45.0	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.2	18.2	18.2	18.2		92.8		92.8
Actuated g/C Ratio	0.15	0.15	0.15	0.15		0.77		0.77
v/c Ratio	0.36	0.61	1.05	0.61		0.28		0.31
Control Delay	47.4	24.1	155.5	35.7		5.1		5.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	47.4	24.1	155.5	35.7		5.1		5.5
LOS	D	C	F	D		A		A
Approach Delay		26.1		58.7		5.1		5.5
Approach LOS		C		E		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 104 (87%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 25.5	Intersection LOS: C
Intersection Capacity Utilization 51.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	163	157	63	203	63	81	104	53	63	234	15
Future Volume (veh/h)	29	163	157	63	203	63	81	104	53	63	234	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	36	201	194	78	251	78	100	128	65	78	289	19
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	203	388	346	168	586	178	368	464	226	247	895	57
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1034	1749	1560	974	2642	802	466	660	321	300	1273	81
Grp Volume(v), veh/h	36	201	194	78	164	165	293	0	0	386	0	0
Grp Sat Flow(s),veh/h/ln	1034	1749	1560	974	1749	1696	1447	0	0	1655	0	0
Q Serve(g_s), s	3.7	12.1	13.3	9.3	9.7	10.1	0.0	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	13.8	12.1	13.3	22.5	9.7	10.1	7.6	0.0	0.0	9.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.47	0.34		0.22	0.20		0.05
Lane Grp Cap(c), veh/h	203	388	346	168	388	376	1058	0	0	1199	0	0
V/C Ratio(X)	0.18	0.52	0.56	0.46	0.42	0.44	0.28	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	322	590	526	281	590	572	1058	0	0	1199	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	0.83	0.83	0.83	0.64	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.2	41.0	41.5	51.5	40.1	40.2	6.4	0.0	0.0	6.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.8	1.1	1.6	0.6	0.7	0.4	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.3	5.2	2.3	4.2	4.3	2.6	0.0	0.0	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	41.8	42.6	53.1	40.7	40.9	6.8	0.0	0.0	7.4	0.0	0.0
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		431			407			293			386	
Approach Delay, s/veh		42.6			43.2			6.8			7.4	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		88.9		31.1		88.9		31.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		70.5		40.5		70.5		40.5				
Max Q Clear Time (g_c+I1), s		9.6		15.8		11.8		24.5				
Green Ext Time (p_c), s		2.3		2.7		2.8		2.1				

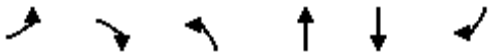
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	31	100	300	800
Future Volume (vph)	1	31	100	300	800
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	4			2	6
Permitted Phases		4	2		
Detector Phase	4	4	2	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	23.0	58.0	58.0	58.0
Total Split (%)	28.4%	28.4%	71.6%	71.6%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	6.2	6.2		71.6	71.6
Actuated g/C Ratio	0.08	0.08		0.88	0.88
v/c Ratio	0.01	0.23		0.22	0.29
Control Delay	42.0	17.4		1.7	0.4
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	42.0	17.4		1.7	0.4
LOS	D	B		A	A
Approach Delay	18.1			1.7	0.4
Approach LOS	B			A	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 68 (84%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 1.3	Intersection LOS: A
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	31	100	300	800	11
Future Volume (veh/h)	1	31	100	300	800	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	34	109	326	870	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	59	52	491	1630	3021	42
Arrive On Green	0.03	0.03	0.86	0.86	0.86	0.86
Sat Flow, veh/h	1753	1560	490	1990	3624	49
Grp Volume(v), veh/h	1	34	172	263	431	451
Grp Sat Flow(s),veh/h/ln	1753	1560	804	1591	1749	1832
Q Serve(g_s), s	0.0	1.7	0.8	2.3	3.8	3.8
Cycle Q Clear(g_c), s	0.0	1.7	4.7	2.3	3.8	3.8
Prop In Lane	1.00	1.00	0.63			0.03
Lane Grp Cap(c), veh/h	59	52	761	1361	1496	1567
V/C Ratio(X)	0.02	0.65	0.23	0.19	0.29	0.29
Avail Cap(c_a), veh/h	400	356	761	1361	1496	1567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.50	0.50	1.00	1.00
Uniform Delay (d), s/veh	37.8	38.7	1.0	1.0	1.1	1.1
Incr Delay (d2), s/veh	0.0	1.2	0.3	0.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.1	0.2	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.9	39.9	1.4	1.2	1.6	1.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	35			435	882	
Approach Delay, s/veh	39.8			1.2	1.6	
Approach LOS	D			A	A	

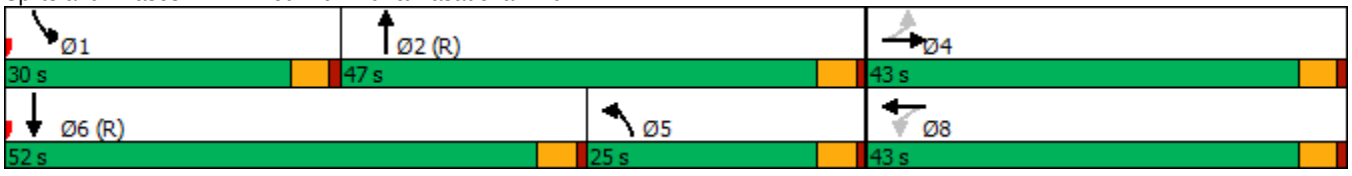
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		73.8		7.2		73.8
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		53.5		18.5		53.5
Max Q Clear Time (g_c+I1), s		6.7		3.7		5.8
Green Ext Time (p_c), s		3.9		0.0		6.9

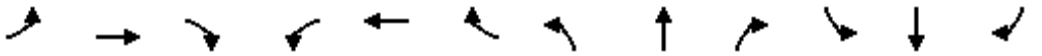
Intersection Summary	
HCM 6th Ctrl Delay	2.5
HCM 6th LOS	A

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	528	8	587	223	908	283	1147
Future Volume (vph)	1	528	8	587	223	908	283	1147
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	43.0	43.0	43.0	43.0	25.0	47.0	30.0	52.0
Total Split (%)	35.8%	35.8%	35.8%	35.8%	20.8%	39.2%	25.0%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		37.0		37.0	20.5	45.8	23.7	49.0
Actuated g/C Ratio		0.31		0.31	0.17	0.38	0.20	0.41
v/c Ratio		0.88		0.94	0.83	0.79	0.88	0.86
Control Delay		46.1		55.7	28.3	12.5	72.8	40.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		46.1		55.7	28.3	12.5	72.8	40.6
LOS		D		E	C	B	E	D
Approach Delay		46.1		55.7		15.5		46.9
Approach LOS		D		E		B		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 13 (11%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 39.8	Intersection LOS: D
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	528	300	8	587	220	223	908	34	283	1147	3
Future Volume (veh/h)	1	528	300	8	587	220	223	908	34	283	1147	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	562	319	9	624	234	237	966	0	301	1220	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	30	671	380	33	692	286	303	1333		329	1384	
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.17	0.38	0.00	0.19	0.40	0.00
Sat Flow, veh/h	0	2107	1193	7	2170	898	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	491	0	391	473	0	394	237	966	0	301	1220	0
Grp Sat Flow(s),veh/h/ln	1840	0	1460	1562	0	1513	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	0.0	29.8	6.1	0.0	28.8	15.5	28.3	0.0	20.2	38.8	0.0
Cycle Q Clear(g_c), s	29.8	0.0	29.8	35.9	0.0	28.8	15.5	28.3	0.0	20.2	38.8	0.0
Prop In Lane	0.00		0.82	0.02		0.59	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	616	0	465	528	0	482	303	1333		329	1384	
V/C Ratio(X)	0.80	0.00	0.84	0.89	0.00	0.82	0.78	0.72		0.92	0.88	
Avail Cap(c_a), veh/h	620	0	469	532	0	486	303	1333		373	1384	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.0	0.0	38.0	38.4	0.0	37.7	47.5	31.7	0.0	47.8	33.6	0.0
Incr Delay (d2), s/veh	7.2	0.0	12.7	17.4	0.0	10.5	12.4	3.5	0.0	25.0	8.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.2	0.0	12.0	14.9	0.0	11.7	7.8	12.5	0.0	11.1	17.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	0.0	50.7	55.8	0.0	48.1	59.8	35.2	0.0	72.8	42.0	0.0
LnGrp LOS	D	A	D	E	A	D	E	D		E	D	
Approach Vol, veh/h		882			867			1203	A		1521	A
Approach Delay, s/veh		47.6			52.3			40.1			48.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	50.2		42.7	25.3	52.0		42.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	25.5	42.5		38.5	20.5	47.5		38.5				
Max Q Clear Time (g_c+I1), s	22.2	30.3		31.8	17.5	40.8		37.9				
Green Ext Time (p_c), s	0.3	5.4		2.9	0.2	4.3		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		46.6
HCM 6th LOS		D

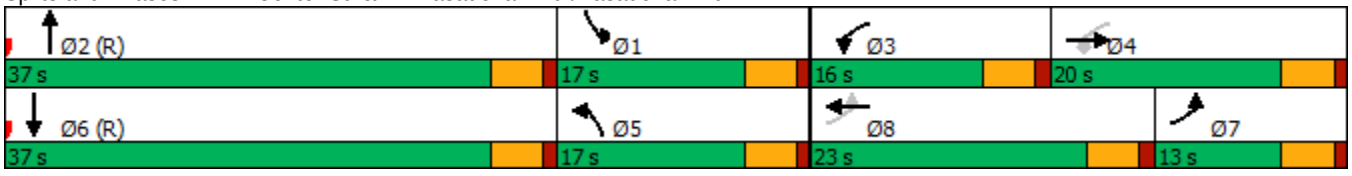
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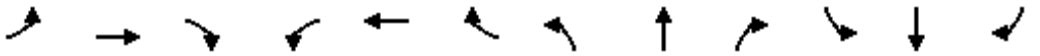
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	236	560	489	363	612	274	1150	273	1234
Future Volume (vph)	236	560	489	363	612	274	1150	273	1234
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4					
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	20.0	20.0	16.0	23.0	17.0	37.0	17.0	37.0
Total Split (%)	14.4%	22.2%	22.2%	17.8%	25.6%	18.9%	41.1%	18.9%	41.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	27.0	15.5	15.5	27.0	18.5	12.5	32.5	12.5	32.5
Actuated g/C Ratio	0.30	0.17	0.17	0.30	0.21	0.14	0.36	0.14	0.36
v/c Ratio	1.04	0.98	1.06	1.25	1.14	1.22	1.24	1.18	1.11
Control Delay	106.6	70.1	77.3	163.7	112.4	147.5	131.4	151.5	88.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	106.6	70.1	77.3	163.7	112.4	147.5	131.4	151.5	88.3
LOS	F	E	E	F	F	F	F	F	F
Approach Delay		79.6			128.6		134.0		99.1
Approach LOS		E			F		F		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.25	
Intersection Signal Delay: 111.0	Intersection LOS: F
Intersection Capacity Utilization 111.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	560	489	363	612	175	274	1150	281	273	1234	88
Future Volume (veh/h)	236	560	489	363	612	175	274	1150	281	273	1234	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	246	583	509	378	638	182	285	1198	293	284	1285	92
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	246	602	269	307	552	157	243	1009	244	243	1195	85
Arrive On Green	0.09	0.17	0.17	0.13	0.21	0.21	0.14	0.36	0.36	0.14	0.36	0.36
Sat Flow, veh/h	1753	3497	1560	1753	2686	765	1753	2793	675	1753	3310	237
Grp Volume(v), veh/h	246	583	509	378	415	405	285	745	746	284	678	699
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1703	1753	1749	1719	1753	1749	1798
Q Serve(g_s), s	8.5	14.9	11.0	11.5	18.5	18.5	12.5	32.5	32.5	12.5	32.5	32.5
Cycle Q Clear(g_c), s	8.5	14.9	11.0	11.5	18.5	18.5	12.5	32.5	32.5	12.5	32.5	32.5
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.39	1.00		0.13
Lane Grp Cap(c), veh/h	246	602	269	307	359	350	243	631	621	243	631	649
V/C Ratio(X)	1.00	0.97	1.89	1.23	1.15	1.16	1.17	1.18	1.20	1.17	1.07	1.08
Avail Cap(c_a), veh/h	246	602	269	307	359	350	243	631	621	243	631	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	39.4	37.0	18.9	29.5	35.7	35.8	38.7	28.8	28.8	38.7	28.8	28.8
Incr Delay (d2), s/veh	57.9	28.7	416.3	106.1	72.8	73.8	81.1	82.4	92.4	79.3	36.2	37.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	8.5	34.8	14.3	14.7	14.5	10.6	26.9	28.2	10.6	19.1	19.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.2	65.7	435.2	135.7	108.6	109.6	119.8	111.2	121.2	118.0	65.0	66.7
LnGrp LOS	F	E	F	F	F	F	F	F	F	F	F	F
Approach Vol, veh/h		1338			1198			1776			1661	
Approach Delay, s/veh		212.0			117.5			116.7			74.8	
Approach LOS		F			F			F			E	

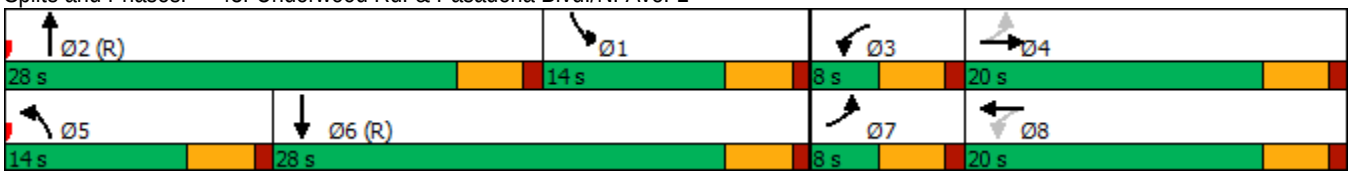
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	37.0	16.0	20.0	17.0	37.0	13.0	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	32.5	11.5	15.5	12.5	32.5	8.5	18.5
Max Q Clear Time (g_c+I1), s	14.5	34.5	13.5	16.9	14.5	34.5	10.5	20.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

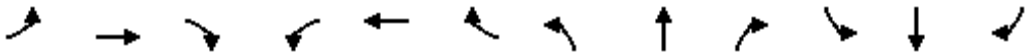
Intersection Summary	
HCM 6th Ctrl Delay	126.6
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	147	268	126	320	246	533	110	964
Future Volume (vph)	147	268	126	320	246	533	110	964
Turn Type	pm+pt	NA	pm+pt	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	14.0	28.0	14.0	28.0
Total Split (%)	11.4%	28.6%	11.4%	28.6%	20.0%	40.0%	20.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.6	13.1	16.6	13.1	11.9	28.7	8.9	23.5
Actuated g/C Ratio	0.24	0.19	0.24	0.19	0.17	0.41	0.13	0.34
v/c Ratio	0.77	0.70	0.75	0.64	0.94	0.48	0.57	1.19
Control Delay	46.2	18.2	45.8	29.2	73.0	17.7	39.1	118.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	18.2	45.8	29.2	73.0	17.7	39.1	118.4
LOS	D	B	D	C	E	B	D	F
Approach Delay		24.5		33.4		33.7		111.9
Approach LOS		C		C		C		F

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 63.1	Intersection LOS: E
Intersection Capacity Utilization 91.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	268	244	126	320	52	246	533	74	110	964	268
Future Volume (veh/h)	147	268	244	126	320	52	246	533	74	110	964	268
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	165	301	274	142	360	58	276	599	83	124	1083	301
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	284	362	321	221	624	100	238	1036	143	264	949	262
Arrive On Green	0.05	0.21	0.21	0.05	0.21	0.21	0.14	0.34	0.34	0.15	0.35	0.35
Sat Flow, veh/h	1753	1754	1556	1753	3020	482	1753	3086	427	1753	2709	746
Grp Volume(v), veh/h	165	300	275	142	207	211	276	339	343	124	696	688
Grp Sat Flow(s),veh/h/ln	1753	1749	1561	1753	1749	1754	1753	1749	1764	1753	1749	1706
Q Serve(g_s), s	3.5	11.5	11.9	3.5	7.5	7.6	9.5	11.2	11.2	4.5	24.5	24.5
Cycle Q Clear(g_c), s	3.5	11.5	11.9	3.5	7.5	7.6	9.5	11.2	11.2	4.5	24.5	24.5
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.24	1.00		0.44
Lane Grp Cap(c), veh/h	284	361	322	221	361	362	238	587	592	264	613	598
V/C Ratio(X)	0.58	0.83	0.85	0.64	0.57	0.58	1.16	0.58	0.58	0.47	1.14	1.15
Avail Cap(c_a), veh/h	284	387	346	221	387	388	238	587	592	264	613	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.96	0.96	0.96	0.42	0.42	0.42	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.5	26.6	26.7	24.7	25.0	25.0	30.2	19.2	19.2	27.2	22.7	22.7
Incr Delay (d2), s/veh	0.3	1.4	1.9	5.9	1.7	1.9	90.4	1.7	1.7	1.3	79.8	85.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.6	4.3	2.0	3.0	3.0	9.5	4.1	4.2	1.8	22.1	22.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	28.0	28.7	30.7	26.7	26.9	120.6	20.9	20.9	28.5	102.5	108.6
LnGrp LOS	C	C	C	C	C	C	F	C	C	C	F	F
Approach Vol, veh/h		740			560			958			1508	
Approach Delay, s/veh		27.5			27.8			49.6			99.2	
Approach LOS		C			C			D			F	

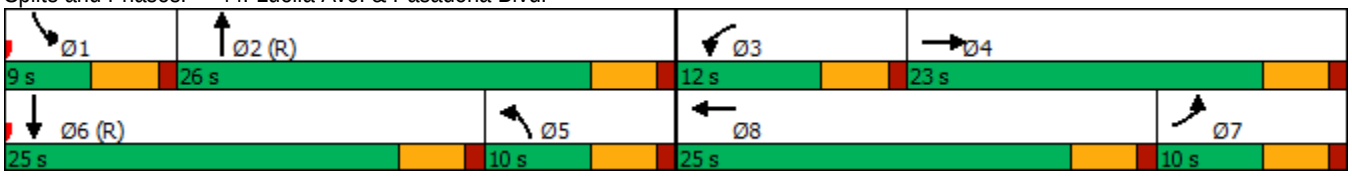
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	28.0	8.0	19.0	14.0	29.0	8.0	19.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	23.5	3.5	15.5	9.5	23.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	6.5	13.2	5.5	13.9	11.5	26.5	5.5	9.6
Green Ext Time (p_c), s	0.1	2.7	0.0	0.6	0.0	0.0	0.0	1.1

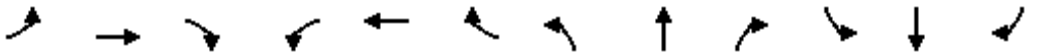
Intersection Summary	
HCM 6th Ctrl Delay	61.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	131	776	180	976	96	190	61	259
Future Volume (vph)	131	776	180	976	96	190	61	259
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	10.0	23.0	12.0	25.0	10.0	26.0	9.0	25.0
Total Split (%)	14.3%	32.9%	17.1%	35.7%	14.3%	37.1%	12.9%	35.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.5	18.5	7.5	20.5	5.5	23.3	4.5	20.5
Actuated g/C Ratio	0.08	0.26	0.11	0.29	0.08	0.33	0.06	0.29
v/c Ratio	1.08	1.14	1.09	1.20	0.79	0.53	0.62	0.89
Control Delay	136.7	103.1	125.4	126.3	72.5	21.4	58.4	43.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	136.7	103.1	125.4	126.3	72.5	21.4	58.4	43.0
LOS	F	F	F	F	E	C	E	D
Approach Delay		107.3		126.1		34.3		44.9
Approach LOS		F		F		C		D

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 96.6	Intersection LOS: F
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	776	157	180	976	108	96	190	95	61	259	165
Future Volume (veh/h)	131	776	157	180	976	108	96	190	95	61	259	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	147	872	176	202	1097	121	108	213	107	69	291	185
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	138	766	155	188	930	102	138	372	187	87	308	196
Arrive On Green	0.08	0.26	0.26	0.11	0.29	0.29	0.08	0.32	0.32	0.05	0.29	0.29
Sat Flow, veh/h	1753	2899	585	1753	3176	350	1753	1156	581	1753	1052	669
Grp Volume(v), veh/h	147	526	522	202	603	615	108	0	320	69	0	476
Grp Sat Flow(s),veh/h/ln	1753	1749	1735	1753	1749	1778	1753	0	1736	1753	0	1720
Q Serve(g_s), s	5.5	18.5	18.5	7.5	20.5	20.5	4.2	0.0	10.7	2.7	0.0	18.9
Cycle Q Clear(g_c), s	5.5	18.5	18.5	7.5	20.5	20.5	4.2	0.0	10.7	2.7	0.0	18.9
Prop In Lane	1.00		0.34	1.00		0.20	1.00		0.33	1.00		0.39
Lane Grp Cap(c), veh/h	138	462	459	188	512	521	138	0	558	87	0	504
V/C Ratio(X)	1.07	1.14	1.14	1.08	1.18	1.18	0.78	0.00	0.57	0.79	0.00	0.94
Avail Cap(c_a), veh/h	138	462	459	188	512	521	138	0	558	113	0	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.09	0.09	0.28	0.00	0.28	0.90	0.00	0.90
Uniform Delay (d), s/veh	32.3	25.8	25.8	31.3	24.8	24.8	31.7	0.0	19.7	32.9	0.0	24.2
Incr Delay (d2), s/veh	43.3	64.8	65.0	43.5	82.2	83.3	8.1	0.0	1.2	22.1	0.0	26.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	15.2	15.1	5.2	19.2	19.7	2.0	0.0	4.2	1.6	0.0	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.5	90.6	90.8	74.8	106.9	108.0	39.8	0.0	21.0	55.0	0.0	50.8
LnGrp LOS	F	F	F	F	F	F	D	A	C	D	A	D
Approach Vol, veh/h		1195			1420			428			545	
Approach Delay, s/veh		88.8			102.8			25.7			51.3	
Approach LOS		F			F			C			D	

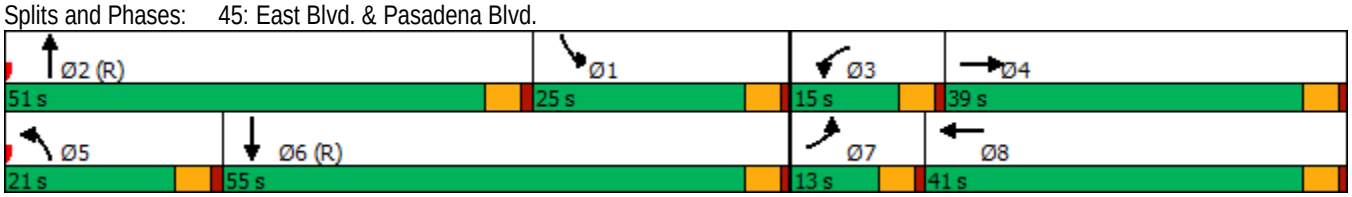
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	27.0	12.0	23.0	10.0	25.0	10.0	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	21.5	7.5	18.5	5.5	20.5	5.5	20.5
Max Q Clear Time (g_c+I1), s	4.7	12.7	9.5	20.5	6.2	20.9	7.5	22.5
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0

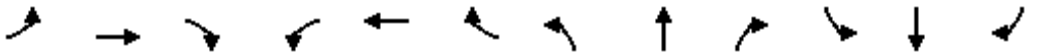
Intersection Summary	
HCM 6th Ctrl Delay	81.1
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	145	361	178	564	295	843	188	1317
Future Volume (vph)	145	361	178	564	295	843	188	1317
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	9.5	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	39.0	15.0	41.0	21.0	51.0	25.0	55.0
Total Split (%)	10.0%	30.0%	11.5%	31.5%	16.2%	39.2%	19.2%	42.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.5	34.5	10.5	36.5	16.5	46.5	20.5	50.5
Actuated g/C Ratio	0.07	0.27	0.08	0.28	0.13	0.36	0.16	0.39
v/c Ratio	1.36	1.41	1.35	1.46	1.43	0.85	0.73	1.33
Control Delay	254.1	232.3	241.3	252.8	256.9	46.1	68.7	185.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	254.1	232.3	241.3	252.8	256.9	46.1	68.7	185.6
LOS	F	F	F	F	F	D	E	F
Approach Delay		236.4		250.5		94.8		173.7
Approach LOS		F		F		F		F

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.46	
Intersection Signal Delay: 176.7	Intersection LOS: F
Intersection Capacity Utilization 129.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	361	268	178	564	130	295	843	140	188	1317	336
Future Volume (veh/h)	145	361	268	178	564	130	295	843	140	188	1317	336
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	154	384	285	189	600	138	314	897	149	200	1401	357
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	115	260	193	142	406	93	223	1074	178	276	1079	267
Arrive On Green	0.07	0.27	0.27	0.08	0.28	0.28	0.13	0.36	0.36	0.16	0.39	0.39
Sat Flow, veh/h	1753	981	728	1753	1448	333	1753	3001	498	1753	2777	688
Grp Volume(v), veh/h	154	0	669	189	0	738	314	523	523	200	867	891
Grp Sat Flow(s),veh/h/ln	1753	0	1710	1753	0	1781	1753	1749	1751	1753	1749	1717
Q Serve(g_s), s	8.5	0.0	34.5	10.5	0.0	36.5	16.5	35.6	35.6	14.1	50.5	50.5
Cycle Q Clear(g_c), s	8.5	0.0	34.5	10.5	0.0	36.5	16.5	35.6	35.6	14.1	50.5	50.5
Prop In Lane	1.00		0.43	1.00		0.19	1.00		0.28	1.00		0.40
Lane Grp Cap(c), veh/h	115	0	454	142	0	500	223	625	626	276	679	667
V/C Ratio(X)	1.34	0.00	1.47	1.33	0.00	1.48	1.41	0.84	0.84	0.72	1.28	1.34
Avail Cap(c_a), veh/h	115	0	454	142	0	500	223	625	626	276	679	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.00	0.09	0.57	0.00	0.57	0.23	0.23	0.23	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.7	0.0	47.8	59.8	0.0	46.8	56.7	38.2	38.3	52.1	39.8	39.8
Incr Delay (d2), s/veh	159.9	0.0	214.6	175.5	0.0	220.4	191.2	3.2	3.2	9.0	135.8	161.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	0.0	41.2	11.5	0.0	46.2	18.9	15.0	15.1	6.7	45.9	49.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	220.7	0.0	262.4	235.2	0.0	267.1	248.0	41.5	41.5	61.1	175.6	200.8
LnGrp LOS	F	A	F	F	A	F	F	D	D	E	F	F
Approach Vol, veh/h		823			927			1360			1958	
Approach Delay, s/veh		254.6			260.6			89.1			175.3	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	51.0	15.0	39.0	21.0	55.0	13.0	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	46.5	10.5	34.5	16.5	50.5	8.5	36.5
Max Q Clear Time (g_c+I1), s	16.1	37.6	12.5	36.5	18.5	52.5	10.5	38.5
Green Ext Time (p_c), s	0.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0

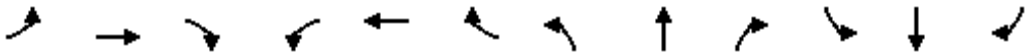
Intersection Summary	
HCM 6th Ctrl Delay	180.7
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	5	9	1	159	606	6	546
Future Volume (vph)	53	5	9	1	159	606	6	546
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	26.0	10.0	26.0	26.0	74.0	10.0	58.0
Total Split (%)	8.3%	21.7%	8.3%	21.7%	21.7%	61.7%	8.3%	48.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.8	10.5	11.6	6.0	94.0	96.5	97.6	85.6
Actuated g/C Ratio	0.09	0.09	0.10	0.05	0.78	0.80	0.81	0.71
v/c Ratio	0.39	0.53	0.09	0.14	0.34	0.26	0.01	0.32
Control Delay	54.2	17.4	45.3	29.9	5.1	4.3	3.5	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	17.4	45.3	29.9	5.1	4.3	3.5	7.6
LOS	D	B	D	C	A	A	A	A
Approach Delay		29.1		37.0		4.4		7.5
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55 (46%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 8.6	Intersection LOS: A
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	5	108	9	1	10	159	606	10	6	546	107
Future Volume (veh/h)	53	5	108	9	1	10	159	606	10	6	546	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	62	6	127	11	1	12	187	713	12	7	642	126
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	230	7	154	100	5	60	562	2038	34	677	2002	392
Arrive On Green	0.07	0.10	0.10	0.01	0.04	0.04	0.05	0.58	0.58	0.16	0.69	0.69
Sat Flow, veh/h	1753	71	1500	1753	121	1457	1753	3520	59	1753	2915	571
Grp Volume(v), veh/h	62	0	133	11	0	13	187	354	371	7	385	383
Grp Sat Flow(s),veh/h/ln	1753	0	1571	1753	0	1578	1753	1749	1830	1753	1749	1738
Q Serve(g_s), s	0.0	0.0	10.0	0.7	0.0	1.0	3.8	12.8	12.8	0.0	10.6	10.6
Cycle Q Clear(g_c), s	0.0	0.0	10.0	0.7	0.0	1.0	3.8	12.8	12.8	0.0	10.6	10.6
Prop In Lane	1.00		0.95	1.00		0.92	1.00		0.03	1.00		0.33
Lane Grp Cap(c), veh/h	230	0	162	100	0	65	562	1013	1060	677	1201	1193
V/C Ratio(X)	0.27	0.00	0.82	0.11	0.00	0.20	0.33	0.35	0.35	0.01	0.32	0.32
Avail Cap(c_a), veh/h	230	0	281	165	0	283	786	1013	1060	677	1201	1193
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.00	0.68	1.00	0.00	1.00	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	0.0	52.7	48.0	0.0	55.6	5.3	13.3	13.3	8.2	7.5	7.6
Incr Delay (d2), s/veh	0.4	0.0	7.0	0.5	0.0	1.5	0.2	0.7	0.6	0.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	4.2	0.3	0.0	0.4	1.2	4.9	5.2	0.1	3.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	0.0	59.7	48.5	0.0	57.1	5.5	14.0	14.0	8.2	8.3	8.3
LnGrp LOS	D	A	E	D	A	E	A	B	B	A	A	A
Approach Vol, veh/h		195			24			912			775	
Approach Delay, s/veh		56.9			53.1			12.2			8.3	
Approach LOS		E			D			B			A	

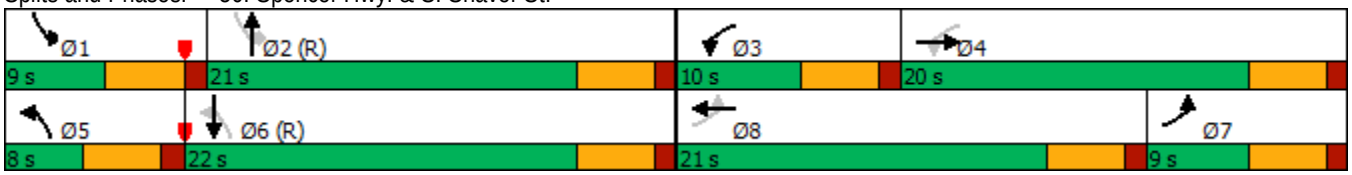
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.6	74.0	5.6	16.9	10.7	86.9	13.0	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	69.5	5.5	21.5	21.5	53.5	5.5	21.5
Max Q Clear Time (g_c+I1), s	2.0	14.8	2.7	12.0	5.8	12.6	2.0	3.0
Green Ext Time (p_c), s	0.0	4.7	0.0	0.4	0.4	5.2	0.0	0.0

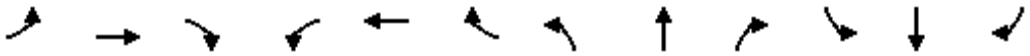
Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	265	1253	356	1432	193	698	305	264	790
Future Volume (vph)	265	1253	356	1432	193	698	305	264	790
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	9.0	20.0	10.0	21.0	8.0	21.0	21.0	9.0	22.0
Total Split (%)	15.0%	33.3%	16.7%	35.0%	13.3%	35.0%	35.0%	15.0%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.0	15.5	21.0	16.5	21.0	16.5	16.5	21.0	17.5
Actuated g/C Ratio	0.35	0.26	0.35	0.28	0.35	0.28	0.28	0.35	0.29
v/c Ratio	1.11	1.16	1.34	1.25	0.91	0.80	0.51	1.11	1.03
Control Delay	115.8	106.2	192.4	142.7	61.4	28.4	6.8	110.2	60.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.8	106.2	192.4	142.7	61.4	28.4	6.8	110.2	60.4
LOS	F	F	F	F	E	C	A	F	E
Approach Delay		107.7		151.6		28.2			70.8
Approach LOS		F		F		C			E

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.34	
Intersection Signal Delay: 98.9	Intersection LOS: F
Intersection Capacity Utilization 107.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	1253	179	356	1432	206	193	698	305	264	790	212
Future Volume (veh/h)	265	1253	179	356	1432	206	193	698	305	264	790	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	279	1319	188	375	1507	217	203	735	321	278	832	223
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	251	1148	164	281	1220	175	222	962	429	295	795	213
Arrive On Green	0.08	0.26	0.26	0.03	0.09	0.09	0.06	0.28	0.28	0.08	0.29	0.29
Sat Flow, veh/h	1753	4444	633	1753	4438	638	1753	3497	1560	1753	2727	731
Grp Volume(v), veh/h	279	994	513	375	1137	587	203	735	321	278	533	522
Grp Sat Flow(s),veh/h/ln	1753	1675	1727	1753	1675	1726	1753	1749	1560	1753	1749	1709
Q Serve(g_s), s	4.5	15.5	15.5	5.5	16.5	16.5	3.5	11.6	11.3	4.5	17.5	17.5
Cycle Q Clear(g_c), s	4.5	15.5	15.5	5.5	16.5	16.5	3.5	11.6	11.3	4.5	17.5	17.5
Prop In Lane	1.00		0.37	1.00		0.37	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	251	865	446	281	921	475	222	962	429	295	510	499
V/C Ratio(X)	1.11	1.15	1.15	1.34	1.23	1.24	0.91	0.76	0.75	0.94	1.05	1.05
Avail Cap(c_a), veh/h	251	865	446	281	921	475	222	962	429	295	510	499
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.53	0.53	0.53	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	22.3	22.3	20.3	27.3	27.3	20.3	20.0	19.9	20.7	21.3	21.3
Incr Delay (d2), s/veh	83.2	78.0	86.2	163.7	110.6	116.2	37.6	5.8	11.3	37.5	52.3	53.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	14.6	16.1	13.8	21.3	22.6	3.4	5.0	4.9	4.7	13.8	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	109.9	100.2	108.5	184.0	137.9	143.4	57.9	25.7	31.2	58.3	73.6	74.2
LnGrp LOS	F	F	F	F	F	F	E	C	C	E	F	F
Approach Vol, veh/h		1786			2099			1259			1333	
Approach Delay, s/veh		104.1			147.7			32.3			70.6	
Approach LOS		F			F			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	21.0	10.0	20.0	8.0	22.0	9.0	21.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	16.5	5.5	15.5	3.5	17.5	4.5	16.5
Max Q Clear Time (g_c+I1), s	6.5	13.6	7.5	17.5	5.5	19.5	6.5	18.5
Green Ext Time (p_c), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0

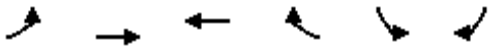
Intersection Summary	
HCM 6th Ctrl Delay	97.4
HCM 6th LOS	F

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	117	1676	1807	132	113
Future Volume (vph)	117	1676	1807	132	113
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	93.0	73.0	27.0	27.0
Total Split (%)	16.7%	77.5%	60.8%	22.5%	22.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	75.8	80.3	65.8	30.7	30.7
Actuated g/C Ratio	0.63	0.67	0.55	0.26	0.26
v/c Ratio	0.61	0.54	0.78	0.32	0.25
Control Delay	24.3	7.9	23.5	41.2	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	7.9	23.5	41.2	8.7
LOS	C	A	C	D	A
Approach Delay		9.0	23.5	26.2	
Approach LOS		A	C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 17.2	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





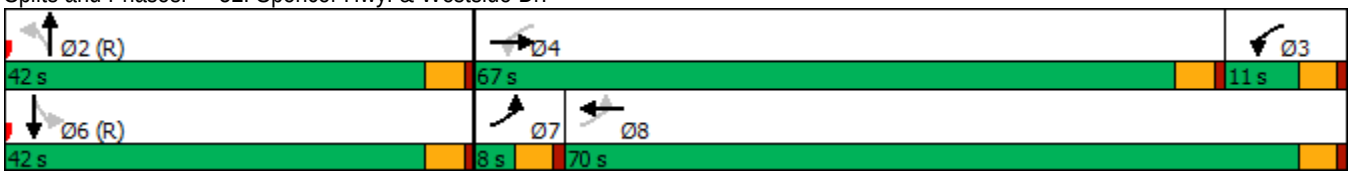
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	117	1676	1807	173	132	113
Future Volume (vph)	117	1676	1807	173	132	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4758		1678	1501
Flt Permitted	0.06	1.00	1.00		0.95	1.00
Satd. Flow (perm)	107	4821	4758		1678	1501
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	121	1728	1863	178	136	116
RTOR Reduction (vph)	0	0	10	0	0	86
Lane Group Flow (vph)	121	1728	2031	0	136	30
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	75.8	80.3	65.8		30.7	30.7
Effective Green, g (s)	75.8	80.3	65.8		30.7	30.7
Actuated g/C Ratio	0.63	0.67	0.55		0.26	0.26
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	198	3226	2608		429	384
v/s Ratio Prot	0.05	c0.36	c0.43			
v/s Ratio Perm	0.33				c0.08	0.02
v/c Ratio	0.61	0.54	0.78		0.32	0.08
Uniform Delay, d1	36.8	10.2	21.4		36.2	33.9
Progression Factor	0.42	0.74	1.00		1.00	1.00
Incremental Delay, d2	4.4	0.1	1.5		1.9	0.4
Delay (s)	20.0	7.7	22.9		38.1	34.3
Level of Service	B	A	C		D	C
Approach Delay (s)		8.5	22.9		36.3	
Approach LOS		A	C		D	

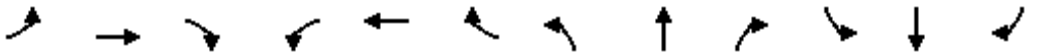
Intersection Summary			
HCM 2000 Control Delay	17.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	1566	60	1788	36	77	119	51
Future Volume (vph)	23	1566	60	1788	36	77	119	51
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	67.0	11.0	70.0	42.0	42.0	42.0	42.0
Total Split (%)	6.7%	55.8%	9.2%	58.3%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	66.5	57.8	65.6	64.4		41.8		41.8
Actuated g/C Ratio	0.55	0.48	0.55	0.54		0.35		0.35
v/c Ratio	0.22	0.72	0.32	0.78		0.28		0.47
Control Delay	11.9	19.9	13.6	8.4		28.6		35.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	11.9	19.9	13.6	8.4		28.6		35.2
LOS	B	B	B	A		C		D
Approach Delay		19.8		8.6		28.6		35.2
Approach LOS		B		A		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 15.3	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1566	41	60	1788	163	36	77	42	119	51	28
Future Volume (veh/h)	23	1566	41	60	1788	163	36	77	42	119	51	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	1614	42	62	1843	168	37	79	43	123	53	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	128	1861	48	244	2040	185	181	378	193	408	172	88
Arrive On Green	0.03	0.74	0.74	0.16	0.87	0.87	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	5036	131	1753	4689	426	330	866	443	826	395	201
Grp Volume(v), veh/h	24	1074	582	62	1315	696	159	0	0	205	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1817	1753	1675	1764	1640	0	0	1423	0	0
Q Serve(g_s), s	0.9	27.9	28.0	0.0	28.4	29.2	0.0	0.0	0.0	4.1	0.0	0.0
Cycle Q Clear(g_c), s	0.9	27.9	28.0	0.0	28.4	29.2	6.7	0.0	0.0	10.8	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.24	0.23		0.27	0.60		0.14
Lane Grp Cap(c), veh/h	128	1238	671	244	1458	768	752	0	0	669	0	0
V/C Ratio(X)	0.19	0.87	0.87	0.25	0.90	0.91	0.21	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	151	1745	946	244	1829	963	752	0	0	669	0	0
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.58	0.58	0.58	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.9	13.5	13.5	40.7	6.2	6.3	21.0	0.0	0.0	22.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.6	0.3	3.4	6.5	0.6	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	4.6	5.0	1.6	3.3	4.2	2.9	0.0	0.0	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	13.9	14.1	41.1	9.6	12.8	21.6	0.0	0.0	23.2	0.0	0.0
LnGrp LOS	C	B	B	D	A	B	C	A	A	C	A	A
Approach Vol, veh/h		1680			2073			159			205	
Approach Delay, s/veh		14.1			11.6			21.6			23.2	
Approach LOS		B			B			C			C	

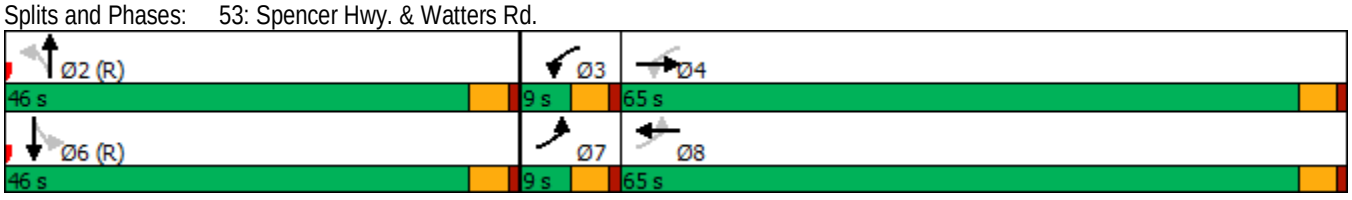
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		56.8	14.3	48.8		56.8	6.4	56.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		37.5	6.5	62.5		37.5	3.5	65.5				
Max Q Clear Time (g_c+I1), s		8.7	2.0	30.0		12.8	2.9	31.2				
Green Ext Time (p_c), s		0.9	0.0	14.4		1.2	0.0	21.1				

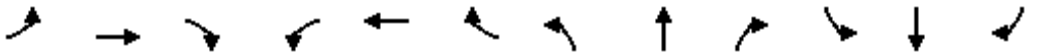
Intersection Summary												
HCM 6th Ctrl Delay			13.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	37	1981	57	1969	157	37	47	38
Future Volume (vph)	37	1981	57	1969	157	37	47	38
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	65.0	9.0	65.0	46.0	46.0	46.0	46.0
Total Split (%)	7.5%	54.2%	7.5%	54.2%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	65.0	60.5	64.1	62.3		43.3		43.3
Actuated g/C Ratio	0.54	0.50	0.53	0.52		0.36		0.36
v/c Ratio	0.31	0.90	0.48	0.82		0.67		0.32
Control Delay	17.7	32.8	24.7	27.7		39.2		23.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	17.7	32.8	24.7	27.7		39.2		23.1
LOS	B	C	C	C		D		C
Approach Delay		32.5		27.6		39.2		23.1
Approach LOS		C		C		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 77.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1981	168	57	1969	62	157	37	104	47	38	81
Future Volume (veh/h)	37	1981	168	57	1969	62	157	37	104	47	38	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	2064	175	59	2051	65	164	39	108	49	40	84
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	125	2316	195	125	2492	79	305	77	179	176	149	271
Arrive On Green	0.02	0.49	0.49	0.03	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1753	4722	397	1753	5004	158	703	209	485	374	405	736
Grp Volume(v), veh/h	39	1460	779	59	1372	744	311	0	0	173	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1769	1753	1675	1812	1397	0	0	1515	0	0
Q Serve(g_s), s	1.3	47.2	48.1	2.0	41.8	42.0	12.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	47.2	48.1	2.0	41.8	42.0	21.8	0.0	0.0	9.2	0.0	0.0
Prop In Lane	1.00		0.22	1.00		0.09	0.53		0.35	0.28		0.49
Lane Grp Cap(c), veh/h	125	1643	868	125	1669	903	560	0	0	596	0	0
V/C Ratio(X)	0.31	0.89	0.90	0.47	0.82	0.82	0.56	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	154	1689	892	141	1689	914	560	0	0	596	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.25	0.25	0.25	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.4	27.6	27.8	27.4	25.6	25.7	30.8	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.7	3.4	0.2	0.3	0.6	3.9	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	18.0	19.8	0.8	15.6	17.1	7.9	0.0	0.0	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	29.3	31.3	27.7	25.9	26.2	34.7	0.0	0.0	28.0	0.0	0.0
LnGrp LOS	C	C	C	C	C	C	C	A	A	C	A	A
Approach Vol, veh/h		2278			2175			311			173	
Approach Delay, s/veh		29.8			26.1			34.7			28.0	
Approach LOS		C			C			C			C	

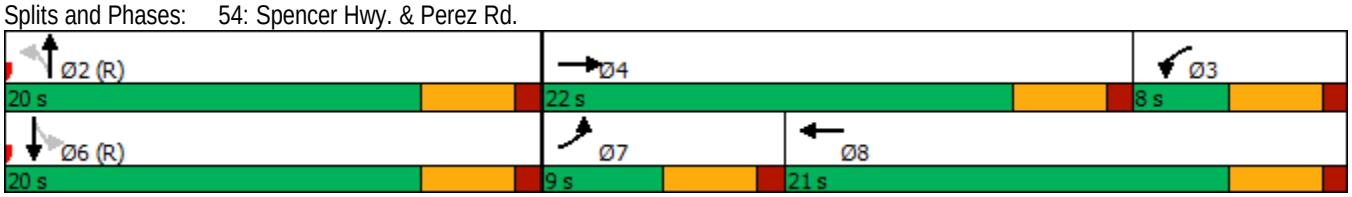
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.7	8.0	63.4		48.7	7.0	64.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		41.5	4.5	60.5		41.5	4.5	60.5				
Max Q Clear Time (g_c+I1), s		23.8	4.0	50.1		11.2	3.3	44.0				
Green Ext Time (p_c), s		1.9	0.0	8.7		1.1	0.0	12.4				

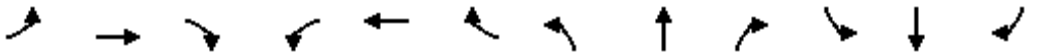
Intersection Summary												
HCM 6th Ctrl Delay			28.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	118	1313	9	1581	4	27	234	9
Future Volume (vph)	118	1313	9	1581	4	27	234	9
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	22.0	8.0	21.0	20.0	20.0	20.0	20.0
Total Split (%)	18.0%	44.0%	16.0%	42.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	4.5	23.9	3.9	18.3		15.5		15.5
Actuated g/C Ratio	0.09	0.48	0.08	0.37		0.31		0.31
v/c Ratio	0.79	0.58	0.07	0.99		0.08		0.78
Control Delay	60.9	11.5	23.0	38.7		10.5		29.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	60.9	11.5	23.0	38.7		10.5		29.9
LOS	E	B	C	D		B		C
Approach Delay		15.6		38.6		10.5		29.9
Approach LOS		B		D		B		C

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 28.1	Intersection LOS: C
Intersection Capacity Utilization 83.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	1313	13	9	1581	145	4	27	11	234	9	90
Future Volume (veh/h)	118	1313	13	9	1581	145	4	27	11	234	9	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	1368	14	9	1647	151	4	28	11	244	9	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	156	1697	17	155	1546	142	95	387	139	424	22	120
Arrive On Green	0.09	0.33	0.33	0.09	0.33	0.33	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	5129	52	1753	4685	429	53	1244	446	970	72	387
Grp Volume(v), veh/h	123	894	488	9	1177	621	43	0	0	347	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1831	1753	1675	1764	1743	0	0	1429	0	0
Q Serve(g_s), s	3.4	12.2	12.2	0.2	16.5	16.5	0.0	0.0	0.0	10.1	0.0	0.0
Cycle Q Clear(g_c), s	3.4	12.2	12.2	0.2	16.5	16.5	0.9	0.0	0.0	11.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.24	0.09		0.26	0.70		0.27
Lane Grp Cap(c), veh/h	156	1108	606	155	1106	582	621	0	0	567	0	0
V/C Ratio(X)	0.79	0.81	0.81	0.06	1.06	1.07	0.07	0.00	0.00	0.61	0.00	0.00
Avail Cap(c_a), veh/h	158	1173	641	155	1106	582	621	0	0	567	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.3	15.3	15.3	20.9	16.8	16.8	12.2	0.0	0.0	15.6	0.0	0.0
Incr Delay (d2), s/veh	2.5	0.4	0.7	0.0	31.3	34.1	0.2	0.0	0.0	4.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.7	4.1	0.1	9.7	10.7	0.3	0.0	0.0	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	15.6	16.0	20.9	48.1	50.8	12.4	0.0	0.0	20.4	0.0	0.0
LnGrp LOS	C	B	B	C	F	F	B	A	A	C	A	A
Approach Vol, veh/h		1505			1807			43			347	
Approach Delay, s/veh		16.5			48.9			12.4			20.4	
Approach LOS		B			D			B			C	

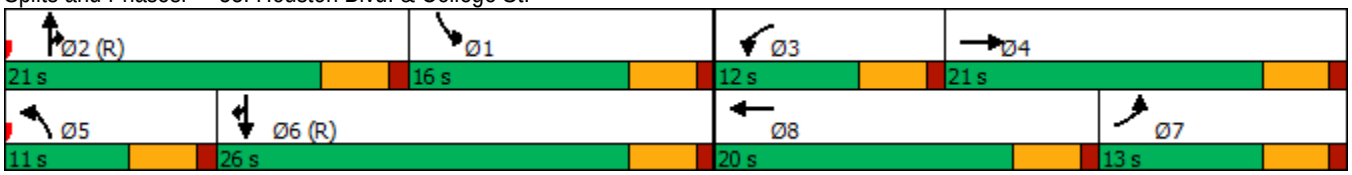
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	8.9	21.0		20.0	9.0	21.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	17.5		15.5	4.5	16.5				
Max Q Clear Time (g_c+I1), s		2.9	2.2	14.2		13.0	5.4	18.5				
Green Ext Time (p_c), s		0.1	0.0	2.4		0.5	0.0	0.0				

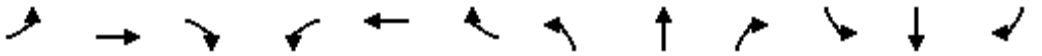
Intersection Summary												
HCM 6th Ctrl Delay			32.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	249	1034	211	1004	130	684	202	323	742	264
Future Volume (vph)	249	1034	211	1004	130	684	202	323	742	264
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	Prot	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases										
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	21.0	12.0	20.0	11.0	21.0	21.0	16.0	26.0	26.0
Total Split (%)	18.6%	30.0%	17.1%	28.6%	15.7%	30.0%	30.0%	22.9%	37.1%	37.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.5	16.5	7.5	15.5	6.5	16.5	16.5	11.5	21.5	21.5
Actuated g/C Ratio	0.12	0.24	0.11	0.22	0.09	0.24	0.24	0.16	0.31	0.31
v/c Ratio	1.22	1.09	1.17	1.12	0.83	0.86	0.38	1.17	0.72	0.43
Control Delay	166.9	81.1	152.9	93.9	72.5	38.5	4.9	137.6	26.1	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	166.9	81.1	152.9	93.9	72.5	38.5	4.9	137.6	26.1	6.6
LOS	F	F	F	F	E	D	A	F	C	A
Approach Delay		95.8		102.9		36.2			49.3	
Approach LOS		F		F		D			D	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 74.1	Intersection LOS: E
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	1034	175	211	1004	166	130	684	202	323	742	264
Future Volume (veh/h)	249	1034	175	211	1004	166	130	684	202	323	742	264
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	257	1066	180	218	1035	171	134	705	208	333	765	272
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	213	1020	172	188	962	159	163	824	368	288	1074	479
Arrive On Green	0.12	0.24	0.24	0.11	0.22	0.22	0.09	0.24	0.24	0.16	0.31	0.31
Sat Flow, veh/h	1753	4329	730	1753	4345	717	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	257	825	421	218	798	408	134	705	208	333	765	272
Grp Sat Flow(s),veh/h/ln	1753	1675	1709	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	8.5	16.5	16.5	7.5	15.5	15.5	5.3	13.5	5.7	11.5	13.6	6.5
Cycle Q Clear(g_c), s	8.5	16.5	16.5	7.5	15.5	15.5	5.3	13.5	5.7	11.5	13.6	6.5
Prop In Lane	1.00		0.43	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	213	790	403	188	742	379	163	824	368	288	1074	479
V/C Ratio(X)	1.21	1.04	1.05	1.16	1.08	1.08	0.82	0.86	0.57	1.16	0.71	0.57
Avail Cap(c_a), veh/h	213	790	403	188	742	379	163	824	368	288	1074	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	26.8	26.8	31.3	27.3	27.3	31.2	25.6	11.3	29.3	21.5	8.3
Incr Delay (d2), s/veh	128.9	44.2	57.3	115.6	55.1	68.5	27.6	11.0	6.2	102.1	4.0	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	10.8	12.5	9.0	11.3	12.9	3.4	6.5	3.2	12.8	5.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	159.7	70.9	84.1	146.8	82.4	95.7	58.8	36.6	17.5	131.4	25.5	13.1
LnGrp LOS	F	F	F	F	F	F	E	D	B	F	C	B
Approach Vol, veh/h		1503			1424			1047			1370	
Approach Delay, s/veh		89.8			96.1			35.7			48.8	
Approach LOS		F			F			D			D	

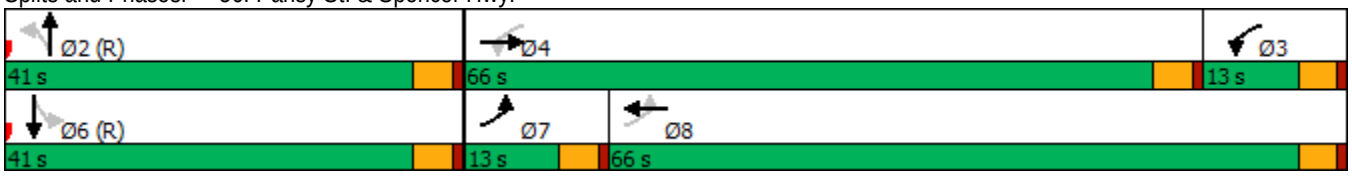
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	21.0	12.0	21.0	11.0	26.0	13.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	16.5	7.5	16.5	6.5	21.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	13.5	15.5	9.5	18.5	7.3	15.6	10.5	17.5
Green Ext Time (p_c), s	0.0	0.6	0.0	0.0	0.0	3.1	0.0	0.0

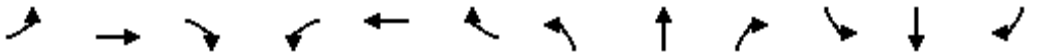
Intersection Summary	
HCM 6th Ctrl Delay	70.4
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	67	1778	70	1991	42	130	38	166
Future Volume (vph)	67	1778	70	1991	42	130	38	166
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	66.0	13.0	66.0	41.0	41.0	41.0	41.0
Total Split (%)	10.8%	55.0%	10.8%	55.0%	34.2%	34.2%	34.2%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	67.7	60.4	68.0	61.5		39.7		39.7
Actuated g/C Ratio	0.56	0.50	0.57	0.51		0.33		0.33
v/c Ratio	0.44	0.80	0.41	0.84		0.52		0.56
Control Delay	21.3	27.6	34.8	28.7		35.2		36.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	21.3	27.6	34.8	28.7		35.2		36.8
LOS	C	C	C	C		D		D
Approach Delay		27.3		28.9		35.2		36.8
Approach LOS		C		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	1778	70	70	1991	60	42	130	88	38	166	90
Future Volume (veh/h)	67	1778	70	70	1991	60	42	130	88	38	166	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	70	1852	73	73	2074	62	44	135	92	40	173	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	140	2250	89	198	2418	72	109	324	205	90	372	189
Arrive On Green	0.03	0.45	0.45	0.06	0.48	0.48	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1753	4960	195	1753	5014	150	199	872	551	152	1002	509
Grp Volume(v), veh/h	70	1250	675	73	1384	752	271	0	0	307	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1806	1753	1675	1814	1622	0	0	1662	0	0
Q Serve(g_s), s	2.4	39.0	39.1	0.0	43.8	44.0	0.0	0.0	0.0	2.1	0.0	0.0
Cycle Q Clear(g_c), s	2.4	39.0	39.1	0.0	43.8	44.0	14.1	0.0	0.0	16.2	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.08	0.16		0.34	0.13		0.31
Lane Grp Cap(c), veh/h	140	1520	819	198	1615	875	638	0	0	652	0	0
V/C Ratio(X)	0.50	0.82	0.82	0.37	0.86	0.86	0.42	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	206	1717	925	213	1717	930	638	0	0	652	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.12	0.12	0.12	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.5	28.6	28.6	49.7	27.4	27.5	28.1	0.0	0.0	28.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.7	0.1	0.4	0.8	2.1	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	14.9	16.2	2.0	16.5	18.1	6.2	0.0	0.0	7.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	29.0	29.3	49.8	27.8	28.3	30.1	0.0	0.0	31.2	0.0	0.0
LnGrp LOS	C	C	C	D	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1995			2209			271			307	
Approach Delay, s/veh		29.0			28.7			30.1			31.2	
Approach LOS		C			C			C			C	

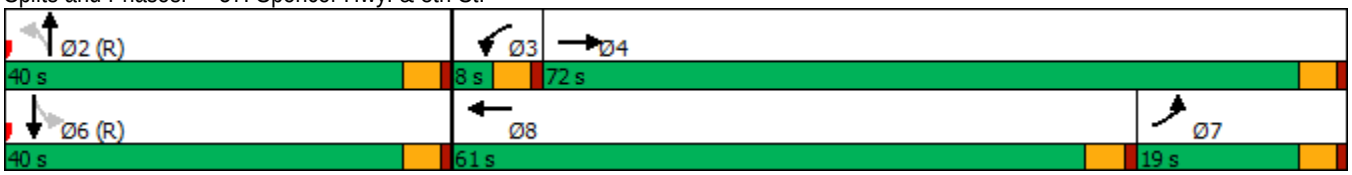
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		49.1	12.0	58.9		49.1	8.5	62.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		36.5	8.5	61.5		36.5	8.5	61.5				
Max Q Clear Time (g_c+I1), s		16.1	2.0	41.1		18.2	4.4	46.0				
Green Ext Time (p_c), s		1.6	0.1	13.3		1.8	0.0	11.9				

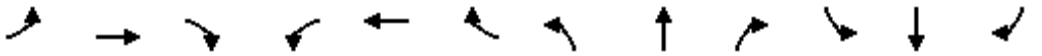
Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	83	1347	11	1503	27	32	41	69
Future Volume (vph)	83	1347	11	1503	27	32	41	69
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	72.0	8.0	61.0	40.0	40.0	40.0	40.0
Total Split (%)	15.8%	60.0%	6.7%	50.8%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.0	63.0	3.5	51.3		46.4		46.4
Actuated g/C Ratio	0.09	0.52	0.03	0.43		0.39		0.39
v/c Ratio	0.54	0.57	0.22	0.77		0.18		0.38
Control Delay	64.0	19.9	67.3	31.9		21.0		25.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	64.0	19.9	67.3	31.9		21.0		25.7
LOS	E	B	E	C		C		C
Approach Delay		22.4		32.2		21.0		25.7
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	1347	48	11	1503	43	27	32	46	41	69	130
Future Volume (veh/h)	83	1347	48	11	1503	43	27	32	46	41	69	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	86	1389	49	11	1549	44	28	33	47	42	71	134
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	109	2180	77	16	1930	55	192	227	294	132	225	381
Arrive On Green	0.06	0.44	0.44	0.01	0.38	0.38	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	4983	176	1753	5022	143	349	515	666	219	510	865
Grp Volume(v), veh/h	86	934	504	11	1033	560	108	0	0	247	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1815	1530	0	0	1594	0	0
Q Serve(g_s), s	5.8	26.1	26.1	0.8	32.9	33.0	0.0	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	26.1	26.1	0.8	32.9	33.0	4.5	0.0	0.0	11.7	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.08	0.26		0.44	0.17		0.54
Lane Grp Cap(c), veh/h	109	1465	791	16	1288	698	713	0	0	738	0	0
V/C Ratio(X)	0.79	0.64	0.64	0.70	0.80	0.80	0.15	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	212	1884	1018	51	1577	855	713	0	0	738	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	55.5	26.3	26.3	59.3	32.9	32.9	20.0	0.0	0.0	22.0	0.0	0.0
Incr Delay (d2), s/veh	12.0	0.5	0.9	5.0	0.2	0.4	0.5	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	10.1	11.0	0.4	12.9	14.0	1.9	0.0	0.0	4.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	26.8	27.2	64.3	33.1	33.3	20.5	0.0	0.0	23.2	0.0	0.0
LnGrp LOS	E	C	C	E	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1524			1604			108			247	
Approach Delay, s/veh		29.2			33.4			20.5			23.2	
Approach LOS		C			C			C			C	

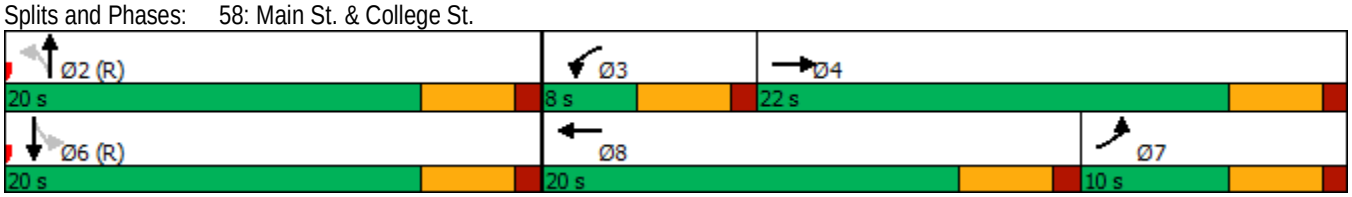
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		57.4	5.6	57.0		57.4	11.9	50.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	3.5	67.5		35.5	14.5	56.5				
Max Q Clear Time (g_c+I1), s		6.5	2.8	28.1		13.7	7.8	35.0				
Green Ext Time (p_c), s		0.6	0.0	12.5		1.5	0.1	11.2				

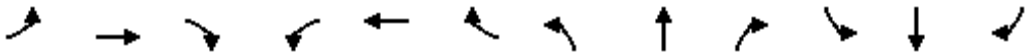
Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	72	1497	27	1294	60	30	23	30
Future Volume (vph)	72	1497	27	1294	60	30	23	30
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	22.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	20.0%	44.0%	16.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.5	23.3	3.5	18.9		16.1		16.1
Actuated g/C Ratio	0.11	0.47	0.07	0.38		0.32		0.32
v/c Ratio	0.38	0.70	0.23	0.75		0.26		0.24
Control Delay	27.1	14.2	26.9	19.1		11.7		7.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	27.1	14.2	26.9	19.1		11.7		7.6
LOS	C	B	C	B		B		A
Approach Delay		14.8		19.3		11.7		7.6
Approach LOS		B		B		B		A

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	1497	83	27	1294	46	60	30	33	23	30	81
Future Volume (veh/h)	72	1497	83	27	1294	46	60	30	33	23	30	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	73	1528	85	28	1320	47	61	31	34	23	31	83
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	114	1696	94	40	1523	54	331	168	145	136	175	350
Arrive On Green	0.07	0.35	0.35	0.02	0.31	0.31	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1753	4871	271	1753	4982	177	625	469	404	146	488	974
Grp Volume(v), veh/h	73	1051	562	28	888	479	126	0	0	137	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1792	1753	1675	1809	1498	0	0	1607	0	0
Q Serve(g_s), s	2.0	14.9	14.9	0.8	12.5	12.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.0	14.9	14.9	0.8	12.5	12.5	2.5	0.0	0.0	2.9	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.10	0.48		0.27	0.17		0.61
Lane Grp Cap(c), veh/h	114	1167	624	40	1024	553	645	0	0	661	0	0
V/C Ratio(X)	0.64	0.90	0.90	0.71	0.87	0.87	0.20	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	193	1173	627	123	1039	561	645	0	0	661	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.8	15.5	15.5	24.3	16.4	16.4	11.1	0.0	0.0	11.2	0.0	0.0
Incr Delay (d2), s/veh	5.8	9.6	16.1	20.6	7.8	13.4	0.7	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	6.3	7.8	0.5	5.2	6.5	0.9	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	25.1	31.6	44.9	24.2	29.8	11.7	0.0	0.0	11.9	0.0	0.0
LnGrp LOS	C	C	C	D	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1686			1395			126			137	
Approach Delay, s/veh		27.4			26.5			11.7			11.9	
Approach LOS		C			C			B			B	

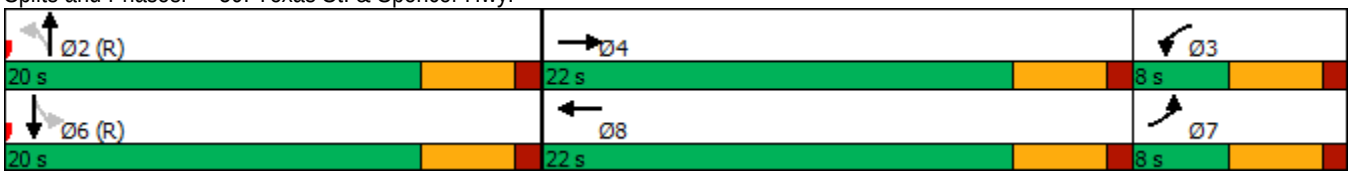
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.5	5.6	21.9		22.5	7.8	19.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	17.5		15.5	5.5	15.5				
Max Q Clear Time (g_c+I1), s		4.5	2.8	16.9		4.9	4.0	14.5				
Green Ext Time (p_c), s		0.4	0.0	0.5		0.5	0.0	0.8				

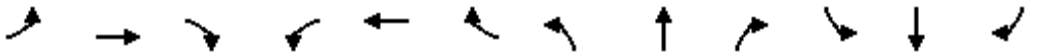
Intersection Summary												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	25	1408	11	1318	46	3	8	4
Future Volume (vph)	25	1408	11	1318	46	3	8	4
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	22.0	8.0	22.0	20.0	20.0	20.0	20.0
Total Split (%)	16.0%	44.0%	16.0%	44.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	3.5	17.5	3.5	17.5		21.9		21.9
Actuated g/C Ratio	0.07	0.35	0.07	0.35		0.44		0.44
v/c Ratio	0.21	0.91	0.09	0.93		0.09		0.06
Control Delay	26.4	25.6	23.5	27.2		9.7		6.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	26.4	25.6	23.5	27.2		9.7		6.2
LOS	C	C	C	C		A		A
Approach Delay		25.6		27.2		9.7		6.2
Approach LOS		C		C		A		A

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1408	76	11	1318	208	46	3	4	8	4	28
Future Volume (veh/h)	25	1408	76	11	1318	208	46	3	4	8	4	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	26	1452	78	11	1359	214	47	3	4	8	4	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	37	1677	90	44	1520	239	568	38	38	152	101	404
Arrive On Green	0.02	0.34	0.34	0.02	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1753	4881	262	1753	4378	689	1198	104	104	183	279	1117
Grp Volume(v), veh/h	26	996	534	11	1040	533	54	0	0	41	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1794	1753	1675	1717	1406	0	0	1580	0	0
Q Serve(g_s), s	0.7	13.9	13.9	0.3	14.7	14.7	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	13.9	13.9	0.3	14.7	14.7	1.0	0.0	0.0	0.8	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.40	0.87		0.07	0.20		0.71
Lane Grp Cap(c), veh/h	37	1151	616	44	1163	596	643	0	0	657	0	0
V/C Ratio(X)	0.70	0.87	0.87	0.25	0.89	0.89	0.08	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	123	1173	628	123	1173	601	643	0	0	657	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.3	15.3	15.3	23.9	15.4	15.5	10.5	0.0	0.0	10.5	0.0	0.0
Incr Delay (d2), s/veh	21.0	6.9	12.0	3.0	9.0	15.8	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.2	6.4	0.1	5.8	7.1	0.4	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	22.3	27.4	26.9	24.5	31.2	10.8	0.0	0.0	10.6	0.0	0.0
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1556			1584			54			41	
Approach Delay, s/veh		24.4			26.8			10.8			10.6	
Approach LOS		C			C			B			B	

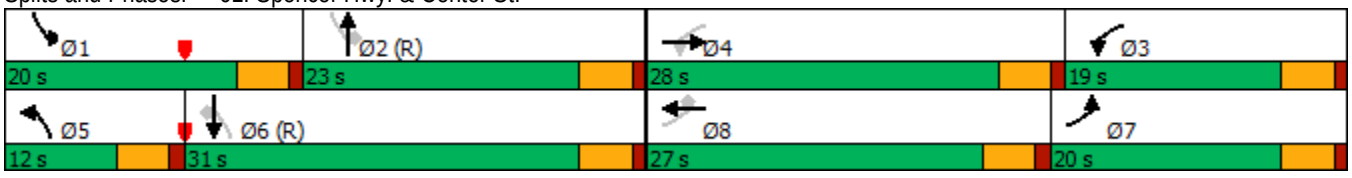
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.6	5.7	21.7		22.6	5.6	21.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	17.5		15.5	3.5	17.5				
Max Q Clear Time (g_c+I1), s		3.0	2.3	15.9		2.8	2.7	16.7				
Green Ext Time (p_c), s		0.1	0.0	1.3		0.1	0.0	0.7				

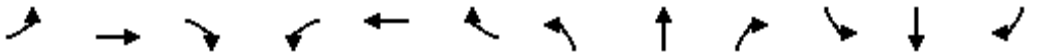
Intersection Summary												
HCM 6th Ctrl Delay			25.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	397	1383	324	1586	305	135	796	262	382	978	401
Future Volume (vph)	397	1383	324	1586	305	135	796	262	382	978	401
Turn Type	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	8		4		8	6		2	2		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	28.0	19.0	27.0	27.0	12.0	23.0	23.0	20.0	31.0	31.0
Total Split (%)	22.2%	31.1%	21.1%	30.0%	30.0%	13.3%	25.6%	25.6%	22.2%	34.4%	34.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	38.0	23.5	38.0	22.5	22.5	34.0	18.5	18.5	34.0	26.6	26.6
Actuated g/C Ratio	0.42	0.26	0.42	0.25	0.25	0.38	0.21	0.21	0.38	0.30	0.30
v/c Ratio	1.10	1.20	0.95	1.34	0.52	0.64	1.18	0.51	1.06	1.00	0.57
Control Delay	108.7	128.5	69.7	188.0	7.7	30.7	127.1	7.8	61.2	47.7	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	108.7	128.5	69.7	188.0	7.7	30.7	127.1	7.8	61.2	47.7	10.2
LOS	F	F	E	F	A	C	F	A	E	D	B
Approach Delay		124.3		145.8			89.9			42.1	
Approach LOS		F		F			F			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.34	
Intersection Signal Delay: 104.7	Intersection LOS: F
Intersection Capacity Utilization 115.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	397	1383	94	324	1586	305	135	796	262	382	978	401
Future Volume (veh/h)	397	1383	94	324	1586	305	135	796	262	382	978	401
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	418	1456	99	341	1669	321	142	838	276	402	1029	422
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	382	1255	85	362	1256	390	216	719	321	382	1059	472
Arrive On Green	0.17	0.26	0.26	0.16	0.25	0.25	0.08	0.21	0.21	0.17	0.30	0.30
Sat Flow, veh/h	1753	4805	327	1753	5025	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	418	1015	540	341	1669	321	142	838	276	402	1029	422
Grp Sat Flow(s),veh/h/ln	1753	1675	1782	1753	1675	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	15.5	23.5	23.5	13.1	22.5	11.1	4.9	18.5	10.3	15.5	26.2	14.2
Cycle Q Clear(g_c), s	15.5	23.5	23.5	13.1	22.5	11.1	4.9	18.5	10.3	15.5	26.2	14.2
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	382	875	465	362	1256	390	216	719	321	382	1059	472
V/C Ratio(X)	1.09	1.16	1.16	0.94	1.33	0.82	0.66	1.17	0.86	1.05	0.97	0.89
Avail Cap(c_a), veh/h	382	875	465	362	1256	390	230	719	321	382	1059	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.13	0.13	0.13	0.15	0.15	0.15	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	35.6	33.3	33.3	35.6	33.8	12.9	23.1	35.7	15.6	24.2	31.0	11.1
Incr Delay (d2), s/veh	48.7	74.1	75.7	8.2	148.7	2.3	6.1	89.3	24.8	30.3	4.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	18.2	19.6	7.5	26.1	3.9	2.3	16.6	5.7	9.4	11.2	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.3	107.3	109.0	43.9	182.4	15.2	29.2	125.0	40.4	54.5	35.0	13.9
LnGrp LOS	F	F	F	D	F	B	C	F	D	F	D	B
Approach Vol, veh/h		1973			2331			1256			1853	
Approach Delay, s/veh		102.9			139.1			95.6			34.4	
Approach LOS		F			F			F			C	

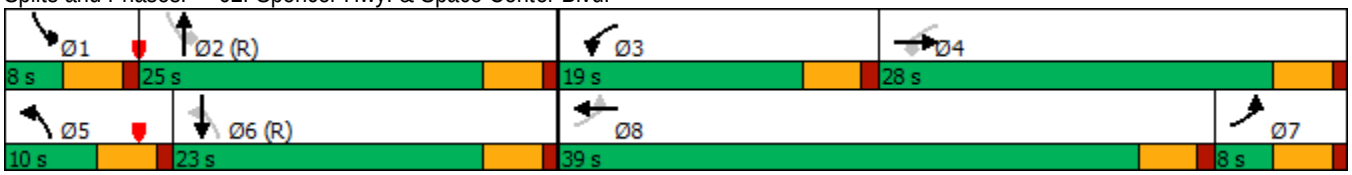
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	23.0	19.0	28.0	11.3	31.7	20.0	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	18.5	14.5	23.5	7.5	26.5	15.5	22.5
Max Q Clear Time (g_c+I1), s	17.5	20.5	15.1	25.5	6.9	28.2	17.5	24.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

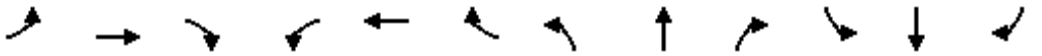
Intersection Summary	
HCM 6th Ctrl Delay	95.9
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	61	1640	415	481	2106	229	403	656	63	528
Future Volume (vph)	61	1640	415	481	2106	229	403	656	63	528
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases	8		4	4		6		2	2	
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	28.0	28.0	19.0	39.0	10.0	25.0	25.0	8.0	23.0
Total Split (%)	10.0%	35.0%	35.0%	23.8%	48.8%	12.5%	31.3%	31.3%	10.0%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	38.9	23.5	23.5	38.0	36.1	24.0	22.1	22.1	24.9	18.5
Actuated g/C Ratio	0.49	0.29	0.29	0.48	0.45	0.30	0.28	0.28	0.31	0.23
v/c Ratio	0.38	1.19	0.76	1.23	1.03	1.10	0.45	0.87	0.23	0.77
Control Delay	24.0	122.7	26.5	148.4	50.2	116.3	26.4	21.9	20.0	35.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	122.7	26.5	148.4	50.2	116.3	26.4	21.9	20.0	35.8
LOS	C	F	C	F	D	F	C	C	B	D
Approach Delay		101.0			68.1		40.1			34.3
Approach LOS		F			E		D			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 69.9	Intersection LOS: E
Intersection Capacity Utilization 107.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	1640	415	481	2106	52	229	403	656	63	528	48
Future Volume (veh/h)	61	1640	415	481	2106	52	229	403	656	63	528	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	63	1691	428	496	2171	54	236	415	676	65	544	49
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	167	1476	458	408	2175	54	272	910	406	241	750	67
Arrive On Green	0.04	0.29	0.29	0.18	0.43	0.43	0.07	0.26	0.26	0.04	0.23	0.23
Sat Flow, veh/h	1753	5025	1560	1753	5043	125	1753	3497	1560	1753	3245	292
Grp Volume(v), veh/h	63	1691	428	496	1441	784	236	415	676	65	293	300
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1818	1753	1749	1560	1753	1749	1788
Q Serve(g_s), s	0.0	23.5	21.4	14.5	34.3	34.5	5.5	8.0	20.8	2.2	12.4	12.4
Cycle Q Clear(g_c), s	0.0	23.5	21.4	14.5	34.3	34.5	5.5	8.0	20.8	2.2	12.4	12.4
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	167	1476	458	408	1445	784	272	910	406	241	404	414
V/C Ratio(X)	0.38	1.15	0.93	1.22	1.00	1.00	0.87	0.46	1.66	0.27	0.72	0.73
Avail Cap(c_a), veh/h	167	1476	458	408	1445	784	272	910	406	248	404	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	28.2	27.5	21.9	22.7	22.8	28.4	24.8	29.6	20.8	28.4	28.4
Incr Delay (d2), s/veh	0.7	70.1	16.4	99.6	6.5	9.7	24.3	1.6	309.9	0.6	10.7	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	18.0	9.2	16.4	12.7	14.6	3.7	3.3	42.0	0.9	6.1	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	98.3	43.9	121.5	29.2	32.5	52.7	26.5	339.5	21.4	39.1	39.1
LnGrp LOS	D	F	D	F	C	F	D	C	F	C	D	D
Approach Vol, veh/h		2182			2721			1327			658	
Approach Delay, s/veh		85.9			46.9			190.6			37.3	
Approach LOS		F			D			F			D	

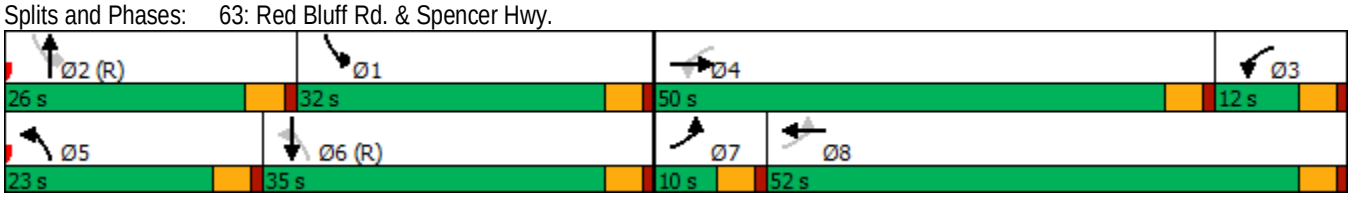
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	25.3	19.0	28.0	10.0	23.0	8.0	39.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	20.5	14.5	23.5	5.5	18.5	3.5	34.5
Max Q Clear Time (g_c+I1), s	4.2	22.8	16.5	25.5	7.5	14.4	2.0	36.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0

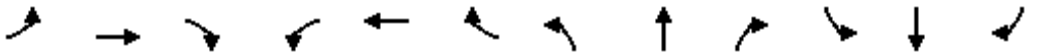
Intersection Summary	
HCM 6th Ctrl Delay	86.0
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	169	1412	131	1643	306	518	94	499	509
Future Volume (vph)	169	1412	131	1643	306	518	94	499	509
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	50.0	12.0	52.0	23.0	26.0	26.0	32.0	35.0
Total Split (%)	8.3%	41.7%	10.0%	43.3%	19.2%	21.7%	21.7%	26.7%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	53.0	45.5	53.0	47.5	49.0	21.5	21.5	49.0	30.5
Actuated g/C Ratio	0.44	0.38	0.44	0.40	0.41	0.18	0.18	0.41	0.25
v/c Ratio	1.33	0.96	0.85	1.20	1.02	0.95	0.26	1.20	0.84
Control Delay	212.0	49.2	82.1	126.9	68.3	37.1	4.0	121.1	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	212.0	49.2	82.1	126.9	68.3	37.1	4.0	121.1	23.3
LOS	F	D	F	F	E	D	A	F	C
Approach Delay		64.5		124.2		44.1			64.9
Approach LOS		E		F		D			E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 83.0	Intersection LOS: F
Intersection Capacity Utilization 112.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	1412	220	131	1643	413	306	518	94	499	509	164
Future Volume (veh/h)	169	1412	220	131	1643	413	306	518	94	499	509	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	186	1552	242	144	1805	454	336	569	103	548	559	180
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	140	1649	257	184	1593	391	365	627	279	477	662	212
Arrive On Green	0.05	0.38	0.38	0.07	0.40	0.40	0.15	0.18	0.18	0.23	0.25	0.25
Sat Flow, veh/h	1753	4386	682	1753	4025	988	1753	3497	1560	1753	2603	836
Grp Volume(v), veh/h	186	1184	610	144	1495	764	336	569	103	548	375	364
Grp Sat Flow(s),veh/h/ln	1753	1675	1718	1753	1675	1663	1753	1749	1560	1753	1749	1690
Q Serve(g_s), s	5.5	40.9	41.2	4.9	47.5	47.5	16.8	19.1	7.0	27.5	24.4	24.6
Cycle Q Clear(g_c), s	5.5	40.9	41.2	4.9	47.5	47.5	16.8	19.1	7.0	27.5	24.4	24.6
Prop In Lane	1.00		0.40	1.00		0.59	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	140	1260	646	184	1326	658	365	627	279	477	444	430
V/C Ratio(X)	1.33	0.94	0.94	0.78	1.13	1.16	0.92	0.91	0.37	1.15	0.84	0.85
Avail Cap(c_a), veh/h	140	1270	651	184	1326	658	365	627	279	477	444	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	36.1	36.2	53.4	36.3	36.3	29.6	48.3	43.3	44.1	42.5	42.5
Incr Delay (d2), s/veh	150.9	1.7	3.3	2.1	58.3	74.1	27.9	19.3	3.7	89.3	17.5	18.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	16.1	16.9	4.3	29.7	32.3	9.8	10.0	3.0	25.1	12.6	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	182.2	37.8	39.5	55.5	94.6	110.4	57.5	67.6	47.0	133.4	60.0	60.9
LnGrp LOS	F	D	D	E	F	F	E	E	D	F	E	E
Approach Vol, veh/h		1980			2403			1008			1287	
Approach Delay, s/veh		51.9			97.3			62.1			91.5	
Approach LOS		D			F			E			F	

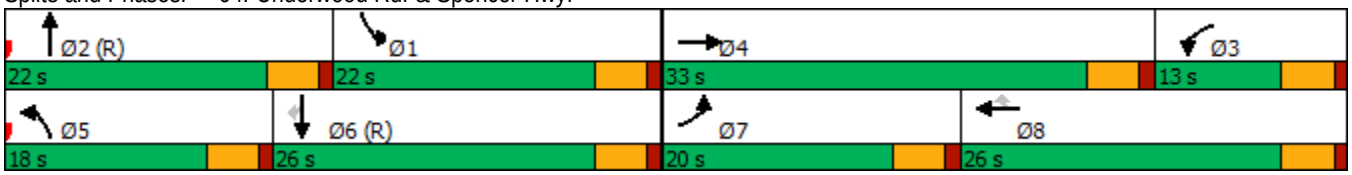
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	26.0	12.4	49.6	23.0	35.0	10.0	52.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	27.5	21.5	7.5	45.5	18.5	30.5	5.5	47.5
Max Q Clear Time (g_c+I1), s	29.5	21.1	6.9	43.2	18.8	26.6	7.5	49.5
Green Ext Time (p_c), s	0.0	0.2	0.0	2.0	0.0	1.7	0.0	0.0

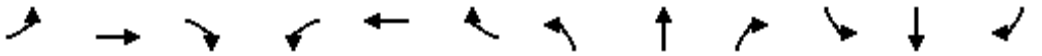
Intersection Summary	
HCM 6th Ctrl Delay	77.4
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	321	1234	138	1260	176	229	395	364	512	397
Future Volume (vph)	321	1234	138	1260	176	229	395	364	512	397
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	33.0	13.0	26.0	26.0	18.0	22.0	22.0	26.0	26.0
Total Split (%)	22.2%	36.7%	14.4%	28.9%	28.9%	20.0%	24.4%	24.4%	28.9%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.5	28.5	8.5	21.5	21.5	13.5	17.5	17.5	21.5	21.5
Actuated g/C Ratio	0.17	0.32	0.09	0.24	0.24	0.15	0.19	0.19	0.24	0.24
v/c Ratio	1.17	1.06	0.92	1.19	0.37	0.99	0.81	1.18	0.67	0.64
Control Delay	142.4	71.0	95.2	126.9	6.7	95.6	43.0	140.2	35.7	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	142.4	71.0	95.2	126.9	6.7	95.6	43.0	140.2	35.7	9.1
LOS	F	E	F	F	A	F	D	F	D	A
Approach Delay		83.7		110.7			59.4		57.3	
Approach LOS		F		F			E		E	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 82.0	Intersection LOS: F
Intersection Capacity Utilization 96.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	321	1234	250	138	1260	176	229	395	110	364	512	397
Future Volume (veh/h)	321	1234	250	138	1260	176	229	395	110	364	512	397
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	349	1341	272	150	1370	191	249	429	120	396	557	432
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	302	1327	269	166	1200	373	263	526	146	341	835	373
Arrive On Green	0.17	0.32	0.32	0.09	0.24	0.24	0.15	0.19	0.19	0.19	0.24	0.24
Sat Flow, veh/h	1753	4189	849	1753	5025	1560	1753	2705	750	1753	3497	1560
Grp Volume(v), veh/h	349	1072	541	150	1370	191	249	276	273	396	557	432
Grp Sat Flow(s),veh/h/ln	1753	1675	1688	1753	1675	1560	1753	1749	1706	1753	1749	1560
Q Serve(g_s), s	15.5	28.5	28.5	7.6	21.5	5.9	12.7	13.6	13.8	17.5	13.0	21.5
Cycle Q Clear(g_c), s	15.5	28.5	28.5	7.6	21.5	5.9	12.7	13.6	13.8	17.5	13.0	21.5
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	302	1061	534	166	1200	373	263	340	332	341	835	373
V/C Ratio(X)	1.16	1.01	1.01	0.91	1.14	0.51	0.95	0.81	0.82	1.16	0.67	1.16
Avail Cap(c_a), veh/h	302	1061	534	166	1200	373	263	340	332	341	835	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.15	0.15	0.15	0.13	0.13	0.13	0.09	0.09	0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh	37.3	30.8	30.8	40.4	34.3	11.2	37.9	34.7	34.8	36.3	31.0	34.3
Incr Delay (d2), s/veh	76.3	13.4	18.0	9.5	65.1	0.2	7.6	2.0	2.2	76.0	0.4	74.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	12.5	13.2	3.6	15.4	3.2	5.7	5.6	5.6	14.2	5.2	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	113.5	44.2	48.8	49.8	99.3	11.3	45.5	36.7	37.0	112.3	31.4	109.0
LnGrp LOS	F	F	F	D	F	B	D	D	D	F	C	F
Approach Vol, veh/h		1962			1711			798			1385	
Approach Delay, s/veh		57.8			85.2			39.5			78.7	
Approach LOS		E			F			D			E	

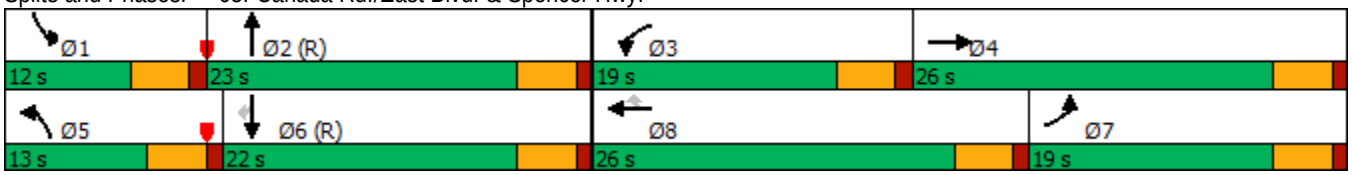
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	22.0	13.0	33.0	18.0	26.0	20.0	26.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	17.5	8.5	28.5	13.5	21.5	15.5	21.5
Max Q Clear Time (g_c+I1), s	19.5	15.8	9.6	30.5	14.7	23.5	17.5	23.5
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0

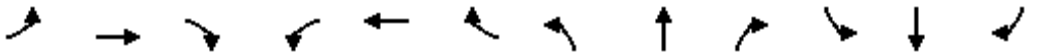
Intersection Summary	
HCM 6th Ctrl Delay	68.3
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	319	932	288	1421	249	179	617	358	747	432
Future Volume (vph)	319	932	288	1421	249	179	617	358	747	432
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	19.0	26.0	19.0	26.0	26.0	13.0	23.0	12.0	22.0	22.0
Total Split (%)	23.8%	32.5%	23.8%	32.5%	32.5%	16.3%	28.8%	15.0%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.5	21.5	14.5	21.5	21.5	8.5	18.5	7.5	17.5	17.5
Actuated g/C Ratio	0.18	0.27	0.18	0.27	0.27	0.11	0.23	0.09	0.22	0.22
v/c Ratio	1.11	0.89	1.00	1.19	0.45	1.10	1.03	1.23	1.07	0.70
Control Delay	115.9	37.4	85.9	123.6	7.2	132.6	70.0	164.0	85.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.9	37.4	85.9	123.6	7.2	132.6	70.0	164.0	85.1	11.0
LOS	F	D	F	F	A	F	E	F	F	B
Approach Delay		55.6		103.2			82.0		82.6	
Approach LOS		E		F			F		F	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 83.1	Intersection LOS: F
Intersection Capacity Utilization 97.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	932	123	288	1421	249	179	617	143	358	747	432
Future Volume (veh/h)	319	932	123	288	1421	249	179	617	143	358	747	432
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	347	1013	134	313	1545	271	195	671	155	389	812	470
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	318	1207	159	318	1351	419	186	652	151	319	765	341
Arrive On Green	0.18	0.27	0.27	0.18	0.27	0.27	0.11	0.23	0.23	0.09	0.22	0.22
Sat Flow, veh/h	1753	4491	593	1753	5025	1560	1753	2821	651	3401	3497	1560
Grp Volume(v), veh/h	347	755	392	313	1545	271	195	416	410	389	812	470
Grp Sat Flow(s),veh/h/ln	1753	1675	1734	1753	1675	1560	1753	1749	1724	1700	1749	1560
Q Serve(g_s), s	14.5	17.0	17.1	14.2	21.5	8.8	8.5	18.5	18.5	7.5	17.5	10.9
Cycle Q Clear(g_c), s	14.5	17.0	17.1	14.2	21.5	8.8	8.5	18.5	18.5	7.5	17.5	10.9
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	318	900	466	318	1351	419	186	404	399	319	765	341
V/C Ratio(X)	1.09	0.84	0.84	0.99	1.14	0.65	1.05	1.03	1.03	1.22	1.06	1.38
Avail Cap(c_a), veh/h	318	900	466	318	1351	419	186	404	399	319	765	341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.34	0.09	0.09	0.09	0.51	0.51	0.51	0.09	0.09	0.09
Uniform Delay (d), s/veh	32.8	27.6	27.6	32.6	29.3	13.3	35.8	30.7	30.8	36.3	31.3	12.2
Incr Delay (d2), s/veh	57.8	2.6	4.9	11.9	65.7	0.3	59.9	39.3	40.0	101.8	30.9	171.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	6.5	7.0	6.6	16.0	3.9	6.5	11.6	11.5	7.5	10.3	19.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.6	30.2	32.5	44.5	95.0	13.7	95.6	70.1	70.7	138.0	62.1	183.7
LnGrp LOS	F	C	C	D	F	B	F	F	F	F	F	F
Approach Vol, veh/h		1494			2129			1021			1671	
Approach Delay, s/veh		44.8			77.2			75.2			114.0	
Approach LOS		D			E			E			F	

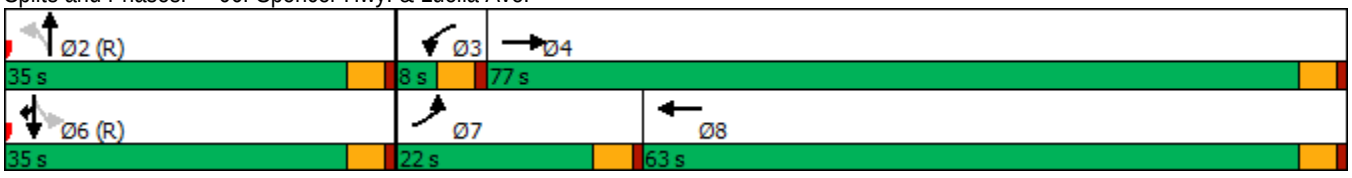
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.0	19.0	26.0	13.0	22.0	19.0	26.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	14.5	21.5	8.5	17.5	14.5	21.5
Max Q Clear Time (g_c+I1), s	9.5	20.5	16.2	19.1	10.5	19.5	16.5	23.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0

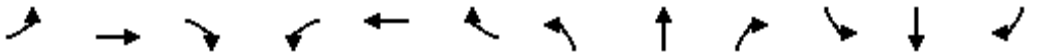
Intersection Summary	
HCM 6th Ctrl Delay	79.0
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	227	1642	4	2024	8	6	287	0	315
Future Volume (vph)	227	1642	4	2024	8	6	287	0	315
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	22.0	77.0	8.0	63.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	18.3%	64.2%	6.7%	52.5%	29.2%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.5	78.9	3.5	58.5		30.5		30.5	30.5
Actuated g/C Ratio	0.15	0.66	0.03	0.49		0.25		0.25	0.25
v/c Ratio	0.98	0.55	0.08	1.02		0.05		0.91	0.64
Control Delay	104.2	12.1	69.8	38.5		29.6		75.0	22.2
Queue Delay	0.0	0.1	0.0	6.4		0.0		0.0	0.0
Total Delay	104.2	12.2	69.8	45.0		29.6		75.0	22.2
LOS	F	B	E	D		C		E	C
Approach Delay		23.4		45.0		29.6		47.4	
Approach LOS		C		D		C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 36.7	Intersection LOS: D
Intersection Capacity Utilization 96.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	1642	4	4	2024	213	8	6	4	287	0	315
Future Volume (veh/h)	227	1642	4	4	2024	213	8	6	4	287	0	315
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	249	1804	4	4	2224	234	9	7	4	315	0	346
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	256	3260	7	6	2255	233	43	29	7	272	0	396
Arrive On Green	0.15	0.63	0.63	0.01	0.98	0.98	0.25	0.25	0.25	0.25	0.00	0.25
Sat Flow, veh/h	1753	5177	11	1753	4626	479	0	114	28	834	0	1560
Grp Volume(v), veh/h	249	1167	641	4	1601	857	20	0	0	315	0	346
Grp Sat Flow(s),veh/h/ln	1753	1675	1839	1753	1675	1755	142	0	0	834	0	1560
Q Serve(g_s), s	17.0	23.8	23.8	0.3	32.3	58.5	0.0	0.0	0.0	0.0	0.0	25.5
Cycle Q Clear(g_c), s	17.0	23.8	23.8	0.3	32.3	58.5	30.5	0.0	0.0	30.5	0.0	25.5
Prop In Lane	1.00		0.01	1.00		0.27	0.45		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	256	2110	1158	6	1633	855	80	0	0	272	0	396
V/C Ratio(X)	0.97	0.55	0.55	0.63	0.98	1.00	0.25	0.00	0.00	1.16	0.00	0.87
Avail Cap(c_a), veh/h	256	2110	1158	51	1633	855	80	0	0	272	0	396
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.50	0.50	0.50	1.00	0.00	0.00	0.21	0.00	0.21
Uniform Delay (d), s/veh	51.0	12.6	12.6	59.5	1.2	1.5	37.0	0.0	0.0	48.1	0.0	42.9
Incr Delay (d2), s/veh	11.5	0.0	0.1	41.1	11.5	22.3	7.4	0.0	0.0	80.4	0.0	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	7.9	8.7	0.2	3.2	5.9	0.6	0.0	0.0	14.3	0.0	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	12.7	12.7	100.6	12.7	23.8	44.4	0.0	0.0	128.5	0.0	48.8
LnGrp LOS	E	B	B	F	B	F	D	A	A	F	A	D
Approach Vol, veh/h		2057			2462			20			661	
Approach Delay, s/veh		18.7			16.7			44.4			86.8	
Approach LOS		B			B			D			F	

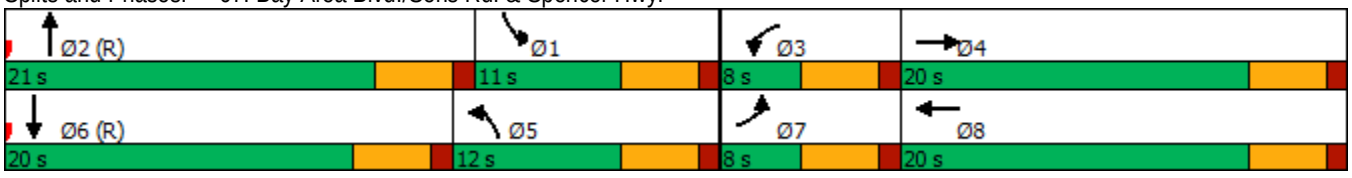
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.0	4.9	80.1		35.0	22.0	63.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	3.5	72.5		30.5	17.5	58.5				
Max Q Clear Time (g_c+I1), s		32.5	2.3	25.8		32.5	19.0	60.5				
Green Ext Time (p_c), s		0.0	0.0	18.0		0.0	0.0	0.0				

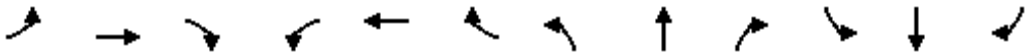
Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	95	532	69	961	237	493	152	321
Future Volume (vph)	95	532	69	961	237	493	152	321
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	12.0	21.0	11.0	20.0
Total Split (%)	13.3%	33.3%	13.3%	33.3%	20.0%	35.0%	18.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	3.5	17.1	3.5	15.5	7.5	16.5	6.5	15.5
Actuated g/C Ratio	0.06	0.28	0.06	0.26	0.12	0.28	0.11	0.26
v/c Ratio	0.98	0.50	0.71	0.93	1.22	0.60	0.87	0.66
Control Delay	121.1	17.0	68.1	36.1	143.8	31.1	67.4	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	121.1	17.0	68.1	36.1	143.8	31.1	67.4	17.8
LOS	F	B	E	D	F	C	E	B
Approach Delay		29.8		37.9		65.2		27.7
Approach LOS		C		D		E		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	532	145	69	961	164	237	493	52	152	321	289
Future Volume (veh/h)	95	532	145	69	961	164	237	493	52	152	321	289
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	99	554	151	72	1001	171	247	514	54	158	334	301
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	102	1046	278	91	1116	190	219	879	92	190	454	401
Arrive On Green	0.06	0.26	0.26	0.05	0.26	0.26	0.13	0.28	0.28	0.11	0.26	0.26
Sat Flow, veh/h	1753	3950	1052	1753	4322	737	1753	3195	335	1753	1756	1554
Grp Volume(v), veh/h	99	468	237	72	775	397	247	281	287	158	333	302
Grp Sat Flow(s),veh/h/ln	1753	1675	1651	1753	1675	1708	1753	1749	1780	1753	1749	1561
Q Serve(g_s), s	3.4	7.2	7.4	2.4	13.4	13.5	7.5	8.3	8.4	5.3	10.5	10.7
Cycle Q Clear(g_c), s	3.4	7.2	7.4	2.4	13.4	13.5	7.5	8.3	8.4	5.3	10.5	10.7
Prop In Lane	1.00		0.64	1.00		0.43	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	102	887	437	91	865	441	219	481	490	190	452	403
V/C Ratio(X)	0.97	0.53	0.54	0.79	0.90	0.90	1.13	0.58	0.59	0.83	0.74	0.75
Avail Cap(c_a), veh/h	102	887	437	102	865	441	219	481	490	190	452	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09	0.96	0.96	0.96
Uniform Delay (d), s/veh	28.2	18.8	18.9	28.1	21.5	21.5	26.2	18.8	18.8	26.2	20.4	20.5
Incr Delay (d2), s/veh	19.4	0.1	0.1	30.9	12.0	21.0	62.4	0.5	0.5	24.7	9.9	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.6	2.6	1.7	6.2	7.5	6.6	3.0	3.1	3.4	5.1	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	18.9	19.1	59.0	33.5	42.5	88.7	19.3	19.3	50.9	30.2	32.1
LnGrp LOS	D	B	B	E	C	D	F	B	B	D	C	C
Approach Vol, veh/h		804			1244			815			793	
Approach Delay, s/veh		22.5			37.8			40.3			35.1	
Approach LOS		C			D			D			D	

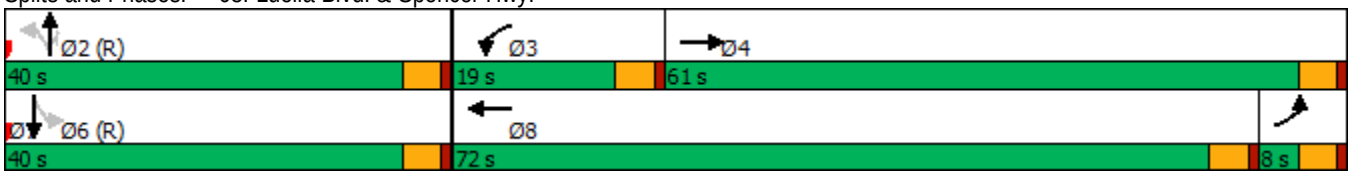
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	21.0	7.6	20.4	12.0	20.0	8.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	16.5	3.5	15.5	7.5	15.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	7.3	10.4	4.4	9.4	9.5	12.7	5.4	15.5
Green Ext Time (p_c), s	0.0	1.7	0.0	2.4	0.0	1.1	0.0	0.0

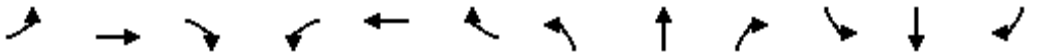
Intersection Summary	
HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	4	1733	145	2162	259	1	117	10
Future Volume (vph)	4	1733	145	2162	259	1	117	10
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		2	
Detector Phase	7	4	3	8	2	2	2	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	61.0	19.0	72.0	40.0	40.0	40.0	40.0
Total Split (%)	6.7%	50.8%	15.8%	60.0%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	3.9	56.7	13.7	73.3	36.1	36.1	36.1	36.1
Actuated g/C Ratio	0.03	0.47	0.11	0.61	0.30	0.30	0.30	0.30
v/c Ratio	0.07	0.93	0.80	0.81	0.73	0.00	0.23	0.05
Control Delay	56.2	32.6	80.1	21.2	60.6	46.0	18.1	18.6
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	56.2	32.6	80.1	21.6	60.6	46.0	18.1	18.6
LOS	E	C	F	C	E	D	B	B
Approach Delay		32.6		25.2		47.3		18.6
Approach LOS		C		C		D		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 88 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	1733	175	145	2162	8	259	1	117	0	10	13
Future Volume (veh/h)	4	1733	175	145	2162	8	259	1	117	0	10	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	4	1904	192	159	2376	9	285	1	129	0	11	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	9	2012	202	186	2761	10	521	641	543	0	256	326
Arrive On Green	0.01	0.87	0.87	0.11	0.53	0.53	0.35	0.35	0.35	0.00	0.35	0.35
Sat Flow, veh/h	1753	4642	465	1753	5168	20	1364	1841	1560	0	736	936
Grp Volume(v), veh/h	4	1371	725	159	1540	845	285	1	129	0	0	25
Grp Sat Flow(s),veh/h/ln	1753	1675	1757	1753	1675	1837	1364	1841	1560	0	0	1672
Q Serve(g_s), s	0.3	36.0	37.8	10.7	47.5	47.6	21.0	0.0	7.1	0.0	0.0	1.2
Cycle Q Clear(g_c), s	0.3	36.0	37.8	10.7	47.5	47.6	22.2	0.0	7.1	0.0	0.0	1.2
Prop In Lane	1.00		0.26	1.00		0.01	1.00		1.00	0.00		0.56
Lane Grp Cap(c), veh/h	9	1452	761	186	1790	981	521	641	543	0	0	582
V/C Ratio(X)	0.45	0.94	0.95	0.86	0.86	0.86	0.55	0.00	0.24	0.00	0.00	0.04
Avail Cap(c_a), veh/h	51	1577	827	212	1884	1033	521	641	543	0	0	582
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.09	0.09	0.09	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	59.2	6.9	7.0	52.8	24.1	24.1	33.2	25.5	27.8	0.0	0.0	25.9
Incr Delay (d2), s/veh	26.2	9.8	17.3	3.0	0.4	0.7	4.1	0.0	1.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.7	6.5	4.8	17.4	19.3	7.5	0.0	2.7	0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.4	16.7	24.3	55.8	24.5	24.8	37.3	25.5	28.8	0.0	0.0	26.0
LnGrp LOS	F	B	C	E	C	C	D	C	C	A	A	C
Approach Vol, veh/h		2100			2544			415			25	
Approach Delay, s/veh		19.5			26.6			34.6			26.0	
Approach LOS		B			C			C			C	

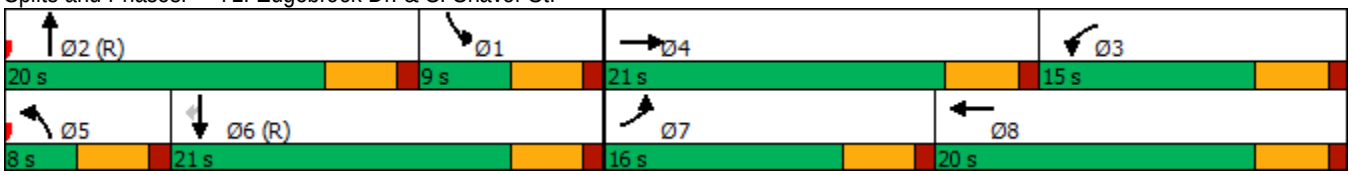
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.3	17.2	56.5		46.3	5.1	68.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	14.5	56.5		35.5	3.5	67.5				
Max Q Clear Time (g_c+I1), s		24.2	12.7	39.8		3.2	2.3	49.6				
Green Ext Time (p_c), s		1.1	0.1	12.2		0.1	0.0	14.5				

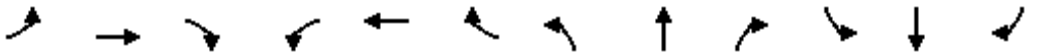
Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	328	635	192	640	88	792	107	867	404
Future Volume (vph)	328	635	192	640	88	792	107	867	404
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	16.0	21.0	15.0	20.0	8.0	20.0	9.0	21.0	21.0
Total Split (%)	24.6%	32.3%	23.1%	30.8%	12.3%	30.8%	13.8%	32.3%	32.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.5	14.8	12.0	15.3	3.7	15.7	4.5	16.5	16.5
Actuated g/C Ratio	0.18	0.23	0.18	0.24	0.06	0.24	0.07	0.25	0.25
v/c Ratio	1.10	0.64	0.62	0.88	0.93	1.14	0.92	1.01	0.69
Control Delay	111.2	24.3	35.9	37.9	112.1	102.3	79.9	59.7	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	111.2	24.3	35.9	37.9	112.1	102.3	79.9	59.7	22.4
LOS	F	C	D	D	F	F	E	E	C
Approach Delay		52.0		37.5		103.2		50.3	
Approach LOS		D		D		F		D	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 60.5	Intersection LOS: E
Intersection Capacity Utilization 89.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	635	67	192	640	57	88	792	135	107	867	404
Future Volume (veh/h)	328	635	67	192	640	57	88	792	135	107	867	404
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	338	655	69	198	660	59	91	816	139	110	894	416
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	310	923	96	367	755	67	94	713	121	132	909	405
Arrive On Green	0.18	0.20	0.20	0.21	0.23	0.23	0.05	0.24	0.24	0.02	0.09	0.09
Sat Flow, veh/h	1753	4621	483	1753	3247	290	1753	2989	509	1753	3497	1560
Grp Volume(v), veh/h	338	473	251	198	355	364	91	477	478	110	894	416
Grp Sat Flow(s),veh/h/ln	1753	1675	1754	1753	1749	1789	1753	1749	1749	1753	1749	1560
Q Serve(g_s), s	11.5	8.6	8.7	6.5	12.7	12.7	3.4	15.5	15.5	4.1	16.6	16.9
Cycle Q Clear(g_c), s	11.5	8.6	8.7	6.5	12.7	12.7	3.4	15.5	15.5	4.1	16.6	16.9
Prop In Lane	1.00		0.28	1.00		0.16	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	310	669	350	367	406	416	94	417	417	132	909	405
V/C Ratio(X)	1.09	0.71	0.72	0.54	0.87	0.88	0.96	1.14	1.14	0.83	0.98	1.03
Avail Cap(c_a), veh/h	310	850	445	367	417	426	94	417	417	132	909	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.43	0.43	0.43	1.00	1.00	1.00	0.18	0.18	0.18
Uniform Delay (d), s/veh	26.8	24.2	24.3	22.9	24.0	24.0	30.7	24.8	24.8	31.3	29.6	29.7
Incr Delay (d2), s/veh	77.2	2.0	4.0	0.7	8.8	8.7	80.6	90.0	90.0	8.2	9.4	25.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	3.4	3.8	2.6	5.9	6.0	3.5	16.2	16.2	2.0	8.8	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.0	26.2	28.2	23.6	32.8	32.8	111.3	114.7	114.7	39.5	38.9	55.6
LnGrp LOS	F	C	C	C	C	C	F	F	F	D	D	F
Approach Vol, veh/h		1062			917			1046			1420	
Approach Delay, s/veh		51.4			30.8			114.4			43.9	
Approach LOS		D			C			F			D	

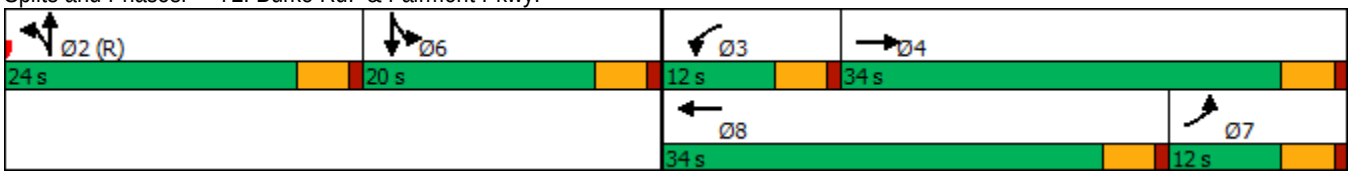
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	20.0	18.1	17.5	8.0	21.4	16.0	19.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	15.5	10.5	16.5	3.5	16.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	6.1	17.5	8.5	10.7	5.4	18.9	13.5	14.7
Green Ext Time (p_c), s	0.0	0.0	0.1	2.3	0.0	0.0	0.0	0.4

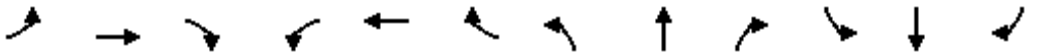
Intersection Summary	
HCM 6th Ctrl Delay	59.6
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	157	1073	175	1143	183	495	231	519
Future Volume (vph)	157	1073	175	1143	183	495	231	519
Turn Type	Prot	NA	Prot	NA	Split	NA	Split	NA
Protected Phases	7	4	3	8	2	2	6	6
Permitted Phases								
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	34.0	12.0	34.0	24.0	24.0	20.0	20.0
Total Split (%)	13.3%	37.8%	13.3%	37.8%	26.7%	26.7%	22.2%	22.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	Max	Max
Act Effct Green (s)	7.5	29.5	7.5	29.5	19.5	19.5	15.5	15.5
Actuated g/C Ratio	0.08	0.33	0.08	0.33	0.22	0.22	0.17	0.17
v/c Ratio	1.10	1.14	1.23	1.23	0.49	0.93	0.78	1.10
Control Delay	146.8	103.3	187.1	138.6	36.1	52.1	55.4	102.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	146.8	103.3	187.1	138.6	36.1	52.1	55.4	102.7
LOS	F	F	F	F	D	D	E	F
Approach Delay		108.0		144.1		48.8		90.4
Approach LOS		F		F		D		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 105.3	Intersection LOS: F
Intersection Capacity Utilization 101.0%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	1073	199	175	1143	225	183	495	220	231	519	142
Future Volume (veh/h)	157	1073	199	175	1143	225	183	495	220	231	519	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	159	1084	201	177	1155	227	185	500	0	233	524	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	146	966	179	146	956	187	380	758		302	602	
Arrive On Green	0.08	0.33	0.33	0.08	0.33	0.33	0.22	0.22	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1753	2947	545	1753	2917	570	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	159	642	643	177	690	692	185	500	0	233	524	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1743	1753	1749	1738	1753	1749	0	1753	1749	0
Q Serve(g_s), s	7.5	29.5	29.5	7.5	29.5	29.5	8.3	11.8	0.0	11.4	13.1	0.0
Cycle Q Clear(g_c), s	7.5	29.5	29.5	7.5	29.5	29.5	8.3	11.8	0.0	11.4	13.1	0.0
Prop In Lane	1.00		0.31	1.00		0.33	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	146	573	571	146	573	570	380	758		302	602	
V/C Ratio(X)	1.09	1.12	1.13	1.21	1.20	1.22	0.49	0.66		0.77	0.87	
Avail Cap(c_a), veh/h	146	573	571	146	573	570	380	758		302	602	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.24	0.24	0.24	0.35	0.35	0.35	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.3	30.3	30.3	41.3	30.3	30.3	30.9	32.2	0.0	35.6	36.3	0.0
Incr Delay (d2), s/veh	62.8	60.2	62.8	115.6	97.6	102.7	0.4	0.4	0.0	17.3	15.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	21.4	21.8	7.9	27.4	28.0	3.5	4.9	0.0	6.2	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	104.1	90.5	93.0	156.8	127.8	133.0	31.3	32.6	0.0	52.8	52.0	0.0
LnGrp LOS	F	F	F	F	F	F	C	C		D	D	
Approach Vol, veh/h		1444			1559			685	A		757	A
Approach Delay, s/veh		93.1			133.4			32.3			52.3	
Approach LOS		F			F			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		24.0	12.0	34.0		20.0	12.0	34.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		19.5	7.5	29.5		15.5	7.5	29.5				
Max Q Clear Time (g_c+I1), s		13.8	9.5	31.5		15.1	9.5	31.5				
Green Ext Time (p_c), s		1.9	0.0	0.0		0.2	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			90.9									
HCM 6th LOS			F									

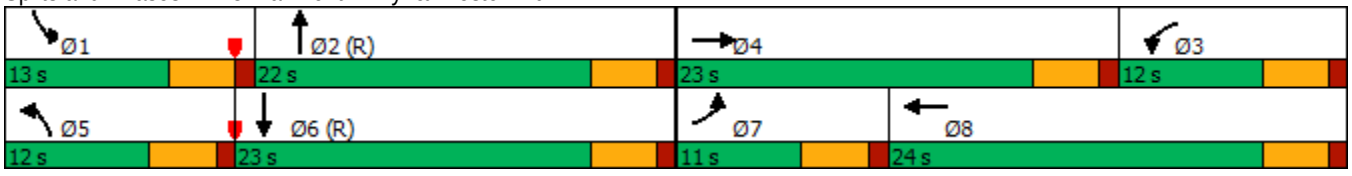
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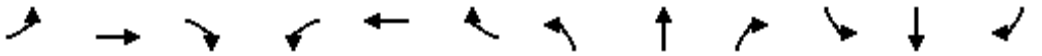
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	165	1331	204	1397	190	571	443	698
Future Volume (vph)	165	1331	204	1397	190	571	443	698
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	23.0	12.0	24.0	12.0	22.0	13.0	23.0
Total Split (%)	15.7%	32.9%	17.1%	34.3%	17.1%	31.4%	18.6%	32.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	18.5	7.5	19.5	7.5	17.5	8.5	18.5
Actuated g/C Ratio	0.09	0.26	0.11	0.28	0.11	0.25	0.12	0.26
v/c Ratio	1.06	1.15	1.13	1.26	1.05	0.87	1.12	0.91
Control Delay	122.5	101.5	138.7	148.8	116.2	36.1	113.4	40.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	122.5	101.5	138.7	148.8	116.2	36.1	113.4	40.2
LOS	F	F	F	F	F	D	F	D
Approach Delay		103.6		147.7		52.5		66.2
Approach LOS		F		F		D		E

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.26	
Intersection Signal Delay: 101.9	Intersection LOS: F
Intersection Capacity Utilization 97.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	1331	132	204	1397	321	190	571	168	443	698	109
Future Volume (veh/h)	165	1331	132	204	1397	321	190	571	168	443	698	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	170	1372	136	210	1440	331	196	589	173	457	720	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	163	1228	122	188	1138	261	188	667	195	413	802	125
Arrive On Green	0.09	0.26	0.26	0.11	0.28	0.28	0.11	0.25	0.25	0.12	0.26	0.26
Sat Flow, veh/h	1753	4647	461	1753	4086	936	1753	2667	782	3401	3033	472
Grp Volume(v), veh/h	170	989	519	210	1180	591	196	386	376	457	415	417
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1675	1672	1753	1749	1700	1700	1749	1756
Q Serve(g_s), s	6.5	18.5	18.5	7.5	19.5	19.5	7.5	14.9	14.9	8.5	16.0	16.0
Cycle Q Clear(g_c), s	6.5	18.5	18.5	7.5	19.5	19.5	7.5	14.9	14.9	8.5	16.0	16.0
Prop In Lane	1.00		0.26	1.00		0.56	1.00		0.46	1.00		0.27
Lane Grp Cap(c), veh/h	163	885	465	188	933	466	188	437	425	413	462	464
V/C Ratio(X)	1.04	1.12	1.12	1.12	1.26	1.27	1.04	0.88	0.89	1.11	0.90	0.90
Avail Cap(c_a), veh/h	163	885	465	188	933	466	188	437	425	413	462	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.45	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	31.8	25.8	25.8	31.3	25.2	25.3	31.3	25.3	25.3	30.8	24.8	24.8
Incr Delay (d2), s/veh	59.3	60.3	66.0	60.3	119.7	122.8	77.6	21.8	22.7	51.7	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	14.3	15.7	6.2	22.7	23.1	7.1	8.4	8.3	6.3	6.6	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.1	86.1	91.7	91.6	144.9	148.1	108.8	47.1	48.0	82.5	27.7	27.8
LnGrp LOS	F	F	F	F	F	F	F	D	D	F	C	C
Approach Vol, veh/h		1678			1981			958			1289	
Approach Delay, s/veh		88.3			140.2			60.1			47.2	
Approach LOS		F			F			E			D	

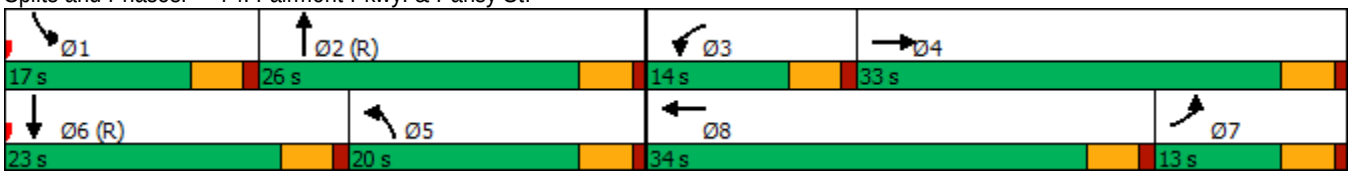
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.0	12.0	23.0	12.0	23.0	11.0	24.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	17.5	7.5	18.5	7.5	18.5	6.5	19.5
Max Q Clear Time (g_c+I1), s	10.5	16.9	9.5	20.5	9.5	18.0	8.5	21.5
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0

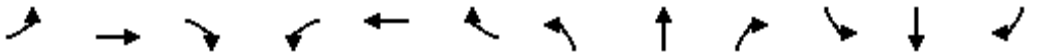
Intersection Summary	
HCM 6th Ctrl Delay	92.2
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	190	1804	176	1561	357	391	210	335
Future Volume (vph)	190	1804	176	1561	357	391	210	335
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	8.0	20.0	9.5	20.0
Total Split (s)	13.0	33.0	14.0	34.0	20.0	26.0	17.0	23.0
Total Split (%)	14.4%	36.7%	15.6%	37.8%	22.2%	28.9%	18.9%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.5	28.5	9.5	29.5	15.5	21.5	12.5	18.5
Actuated g/C Ratio	0.09	0.32	0.11	0.33	0.17	0.24	0.14	0.21
v/c Ratio	1.20	1.30	0.99	1.13	1.23	0.65	0.90	0.68
Control Delay	173.2	170.5	106.8	97.9	165.6	32.1	76.6	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	173.2	170.5	106.8	97.9	165.6	32.1	76.6	33.3
LOS	F	F	F	F	F	C	E	C
Approach Delay		170.7		98.7		86.3		46.4
Approach LOS		F		F		F		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.30	
Intersection Signal Delay: 117.9	Intersection LOS: F
Intersection Capacity Utilization 102.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1804	184	176	1561	225	357	391	132	210	335	152
Future Volume (veh/h)	190	1804	184	176	1561	225	357	391	132	210	335	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	196	1860	190	181	1609	232	368	403	136	216	345	157
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	166	1468	149	185	1455	209	302	615	205	243	483	216
Arrive On Green	0.09	0.32	0.32	0.11	0.33	0.33	0.17	0.24	0.24	0.14	0.21	0.21
Sat Flow, veh/h	1753	4635	471	1753	4438	638	1753	2575	859	1753	2350	1050
Grp Volume(v), veh/h	196	1342	708	181	1213	628	368	272	267	216	255	247
Grp Sat Flow(s),veh/h/ln	1753	1675	1756	1753	1675	1726	1753	1749	1686	1753	1749	1652
Q Serve(g_s), s	8.5	28.5	28.5	9.3	29.5	29.5	15.5	12.6	12.9	10.9	12.2	12.6
Cycle Q Clear(g_c), s	8.5	28.5	28.5	9.3	29.5	29.5	15.5	12.6	12.9	10.9	12.2	12.6
Prop In Lane	1.00		0.27	1.00		0.37	1.00		0.51	1.00		0.64
Lane Grp Cap(c), veh/h	166	1061	556	185	1098	566	302	418	403	243	359	340
V/C Ratio(X)	1.18	1.26	1.27	0.98	1.10	1.11	1.22	0.65	0.66	0.89	0.71	0.73
Avail Cap(c_a), veh/h	166	1061	556	185	1098	566	302	418	403	243	359	340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	30.8	30.8	40.1	30.2	30.3	37.3	30.9	31.0	38.1	33.3	33.4
Incr Delay (d2), s/veh	88.6	119.8	124.7	59.6	60.6	71.5	124.7	7.7	8.3	30.0	11.3	12.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	28.7	30.8	7.0	20.6	22.9	17.0	6.1	6.0	6.6	6.2	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	129.3	150.5	155.5	99.7	90.9	101.8	162.0	38.6	39.3	68.1	44.5	46.2
LnGrp LOS	F	F	F	F	F	F	F	D	D	E	D	D
Approach Vol, veh/h		2246			2022			907			718	
Approach Delay, s/veh		150.2			95.1			88.8			52.2	
Approach LOS		F			F			F			D	

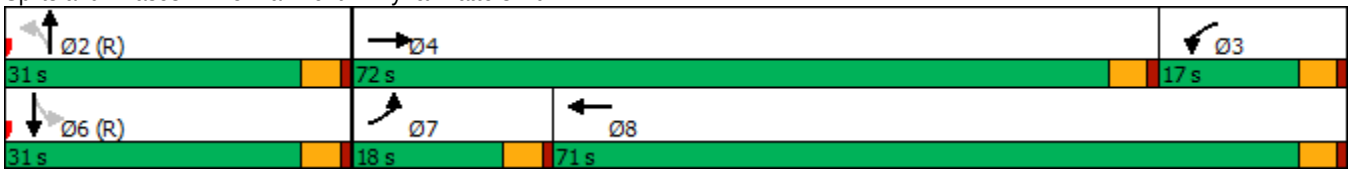
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	26.0	14.0	33.0	20.0	23.0	13.0	34.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	21.5	9.5	28.5	15.5	18.5	8.5	29.5
Max Q Clear Time (g_c+I1), s	12.9	14.9	11.3	30.5	17.5	14.6	10.5	31.5
Green Ext Time (p_c), s	0.0	1.8	0.0	0.0	0.0	1.1	0.0	0.0

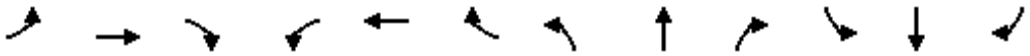
Intersection Summary	
HCM 6th Ctrl Delay	109.9
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	114	1370	85	1566	34	27	71	23
Future Volume (vph)	114	1370	85	1566	34	27	71	23
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	18.0	72.0	17.0	71.0	31.0	31.0	31.0	31.0
Total Split (%)	15.0%	60.0%	14.2%	59.2%	25.8%	25.8%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.9	59.6	17.8	65.5		29.0		29.0
Actuated g/C Ratio	0.10	0.50	0.15	0.55		0.24		0.24
v/c Ratio	0.67	0.83	0.34	0.88		0.28		0.55
Control Delay	71.1	30.1	52.7	30.4		31.7		37.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	71.1	30.1	52.7	30.4		31.7		37.5
LOS	E	C	D	C		C		D
Approach Delay		33.2		31.5		31.7		37.5
Approach LOS		C		C		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 32.6	Intersection LOS: C
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1370	30	85	1566	62	34	27	38	71	23	118
Future Volume (veh/h)	114	1370	30	85	1566	62	34	27	38	71	23	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	116	1398	31	87	1598	63	35	28	39	72	23	120
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	1631	36	234	1781	70	168	136	163	169	66	245
Arrive On Green	0.08	0.47	0.47	0.13	0.52	0.52	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1753	3498	78	1753	3430	135	443	472	566	447	228	853
Grp Volume(v), veh/h	116	698	731	87	812	849	102	0	0	215	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1827	1753	1749	1816	1481	0	0	1528	0	0
Q Serve(g_s), s	7.8	42.6	42.7	5.4	50.0	50.7	0.0	0.0	0.0	7.6	0.0	0.0
Cycle Q Clear(g_c), s	7.8	42.6	42.7	5.4	50.0	50.7	5.8	0.0	0.0	13.4	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.07	0.34		0.38	0.33		0.56
Lane Grp Cap(c), veh/h	142	815	852	234	908	943	466	0	0	480	0	0
V/C Ratio(X)	0.82	0.86	0.86	0.37	0.89	0.90	0.22	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	197	984	1028	234	969	1007	466	0	0	480	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	54.3	28.5	28.5	47.4	25.9	26.1	32.4	0.0	0.0	35.0	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.6	0.6	0.1	1.1	1.1	1.1	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	17.5	18.3	2.4	20.2	21.3	2.4	0.0	0.0	5.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.1	29.1	29.1	47.5	27.0	27.2	33.5	0.0	0.0	38.0	0.0	0.0
LnGrp LOS	E	C	C	D	C	C	C	A	A	D	A	A
Approach Vol, veh/h		1545			1748			102			215	
Approach Delay, s/veh		31.1			28.1			33.5			38.0	
Approach LOS		C			C			C			D	

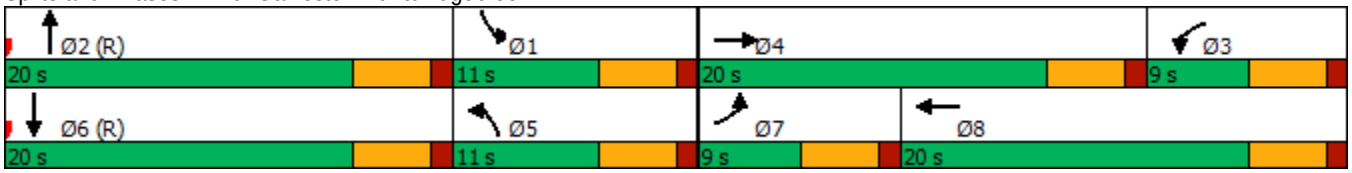
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.0	20.5	60.4		39.0	14.2	66.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	12.5	67.5		26.5	13.5	66.5				
Max Q Clear Time (g_c+I1), s		7.8	7.4	44.7		15.4	9.8	52.7				
Green Ext Time (p_c), s		0.5	0.1	11.2		0.9	0.1	9.6				

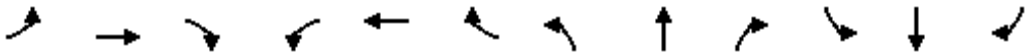
Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	143	837	86	757	89	536	240	543
Future Volume (vph)	143	837	86	757	89	536	240	543
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	20.0	9.0	20.0	11.0	20.0	11.0	20.0
Total Split (%)	15.0%	33.3%	15.0%	33.3%	18.3%	33.3%	18.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.5	17.3	4.5	15.5	6.3	15.5	6.5	17.7
Actuated g/C Ratio	0.08	0.29	0.08	0.26	0.10	0.26	0.11	0.30
v/c Ratio	1.15	0.92	0.69	1.10	0.51	0.74	1.33	0.76
Control Delay	156.2	39.8	57.5	86.1	35.8	25.2	208.3	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	156.2	39.8	57.5	86.1	35.8	25.2	208.3	24.3
LOS	F	D	E	F	D	C	F	C
Approach Delay		56.0		83.7		26.5		68.2
Approach LOS		E		F		C		E

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 61.2	Intersection LOS: E
Intersection Capacity Utilization 86.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	837	48	86	757	204	89	536	102	240	543	222
Future Volume (veh/h)	143	837	48	86	757	204	89	536	102	240	543	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	149	872	50	90	789	212	93	558	106	250	566	231
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	131	869	50	131	704	189	190	758	144	190	626	255
Arrive On Green	0.08	0.26	0.26	0.08	0.26	0.26	0.11	0.26	0.26	0.11	0.26	0.26
Sat Flow, veh/h	1753	3362	193	1753	2725	732	1753	2934	556	1753	2424	987
Grp Volume(v), veh/h	149	454	468	90	506	495	93	332	332	250	408	389
Grp Sat Flow(s),veh/h/ln	1753	1749	1806	1753	1749	1709	1753	1749	1741	1753	1749	1663
Q Serve(g_s), s	4.5	15.5	15.5	3.0	15.5	15.5	3.0	10.4	10.5	6.5	13.5	13.6
Cycle Q Clear(g_c), s	4.5	15.5	15.5	3.0	15.5	15.5	3.0	10.4	10.5	6.5	13.5	13.6
Prop In Lane	1.00		0.11	1.00		0.43	1.00		0.32	1.00		0.59
Lane Grp Cap(c), veh/h	131	452	467	131	452	441	190	452	450	190	452	430
V/C Ratio(X)	1.13	1.00	1.00	0.68	1.12	1.12	0.49	0.73	0.74	1.32	0.90	0.91
Avail Cap(c_a), veh/h	131	452	467	131	452	441	190	452	450	190	452	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	22.3	22.3	27.1	22.3	22.3	25.2	20.4	20.4	26.8	21.5	21.5
Incr Delay (d2), s/veh	118.8	43.3	42.7	13.7	79.5	80.0	1.9	10.2	10.4	174.5	23.9	25.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	11.2	11.5	1.7	15.7	15.4	1.3	5.1	5.2	11.8	8.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	146.5	65.6	64.9	40.7	101.8	102.3	27.1	30.5	30.8	201.3	45.5	46.8
LnGrp LOS	F	F	F	D	F	F	C	C	C	F	D	D
Approach Vol, veh/h		1071			1091			757			1047	
Approach Delay, s/veh		76.6			97.0			30.2			83.2	
Approach LOS		E			F			C			F	

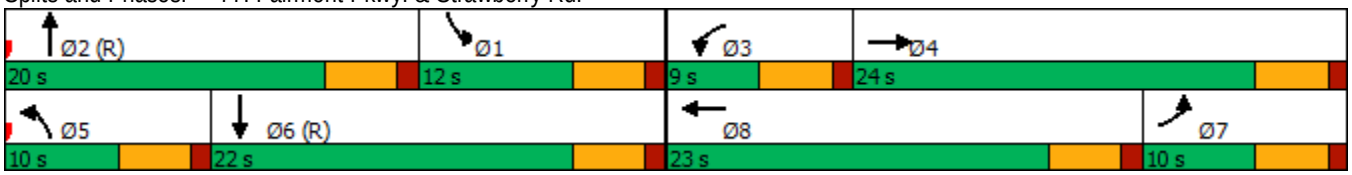
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	20.0	9.0	20.0	11.0	20.0	9.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	15.5	4.5	15.5	6.5	15.5	4.5	15.5
Max Q Clear Time (g_c+I1), s	8.5	12.5	5.0	17.5	5.0	15.6	6.5	17.5
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0

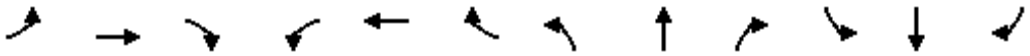
Intersection Summary	
HCM 6th Ctrl Delay	75.1
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	169	882	72	1006	60	552	231	490
Future Volume (vph)	169	882	72	1006	60	552	231	490
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	24.0	9.0	23.0	10.0	20.0	12.0	22.0
Total Split (%)	15.4%	36.9%	13.8%	35.4%	15.4%	30.8%	18.5%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.5	21.3	4.5	18.5	5.5	15.5	7.5	21.5
Actuated g/C Ratio	0.08	0.33	0.07	0.28	0.08	0.24	0.12	0.33
v/c Ratio	1.19	0.87	0.62	1.27	0.42	0.80	1.19	0.59
Control Delay	167.7	32.5	54.1	152.4	37.7	31.1	155.3	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	167.7	32.5	54.1	152.4	37.7	31.1	155.3	19.8
LOS	F	C	D	F	D	C	F	B
Approach Delay		52.7		146.9		31.7		55.1
Approach LOS		D		F		C		E

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 79.8	Intersection LOS: E
Intersection Capacity Utilization 94.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	882	79	72	1006	210	60	552	89	231	490	165
Future Volume (veh/h)	169	882	79	72	1006	210	60	552	89	231	490	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	174	909	81	74	1037	216	62	569	92	238	505	170
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	148	1026	91	94	821	170	78	719	116	202	796	267
Arrive On Green	0.08	0.32	0.32	0.05	0.28	0.28	0.04	0.24	0.24	0.12	0.31	0.31
Sat Flow, veh/h	1753	3248	289	1753	2883	599	1753	3016	486	1753	2573	861
Grp Volume(v), veh/h	174	489	501	74	628	625	62	329	332	238	342	333
Grp Sat Flow(s),veh/h/ln	1753	1749	1789	1753	1749	1733	1753	1749	1753	1753	1749	1686
Q Serve(g_s), s	5.5	17.3	17.3	2.7	18.5	18.5	2.3	11.5	11.6	7.5	10.9	11.0
Cycle Q Clear(g_c), s	5.5	17.3	17.3	2.7	18.5	18.5	2.3	11.5	11.6	7.5	10.9	11.0
Prop In Lane	1.00		0.16	1.00		0.35	1.00		0.28	1.00		0.51
Lane Grp Cap(c), veh/h	148	552	565	94	498	493	78	417	418	202	541	522
V/C Ratio(X)	1.17	0.89	0.89	0.79	1.26	1.27	0.80	0.79	0.79	1.18	0.63	0.64
Avail Cap(c_a), veh/h	148	552	565	121	498	493	148	417	418	202	541	522
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.09	0.09	0.09	1.00	1.00	1.00	0.48	0.48	0.48
Uniform Delay (d), s/veh	29.8	21.1	21.1	30.4	23.3	23.3	30.8	23.2	23.2	28.7	19.3	19.3
Incr Delay (d2), s/veh	122.0	13.8	13.5	2.5	119.2	121.9	16.5	14.1	14.3	101.7	2.7	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	8.5	8.7	1.2	23.4	23.6	1.3	6.0	6.1	8.7	4.5	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	151.7	34.9	34.7	32.9	142.4	145.2	47.3	37.3	37.6	130.5	22.0	22.2
LnGrp LOS	F	C	C	C	F	F	D	D	D	F	C	C
Approach Vol, veh/h		1164			1327			723			913	
Approach Delay, s/veh		52.3			137.6			38.3			50.3	
Approach LOS		D			F			D			D	

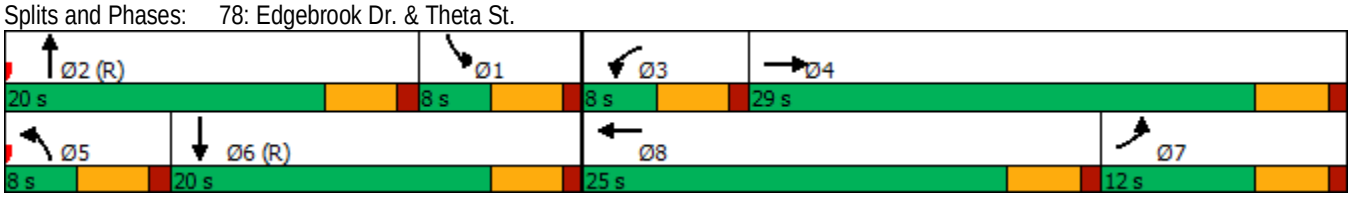
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	20.0	8.0	25.0	7.4	24.6	10.0	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	15.5	4.5	19.5	5.5	17.5	5.5	18.5
Max Q Clear Time (g_c+I1), s	9.5	13.6	4.7	19.3	4.3	13.0	7.5	20.5
Green Ext Time (p_c), s	0.0	0.8	0.0	0.1	0.0	1.7	0.0	0.0

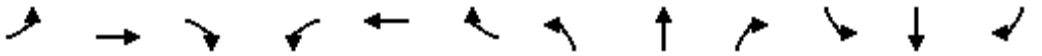
Intersection Summary	
HCM 6th Ctrl Delay	76.8
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	147	1237	47	1030	69	25	75	55
Future Volume (vph)	147	1237	47	1030	69	25	75	55
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	29.0	8.0	25.0	8.0	20.0	8.0	20.0
Total Split (%)	18.5%	44.6%	12.3%	38.5%	12.3%	30.8%	12.3%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	27.7	3.5	20.5	3.5	15.5	3.5	17.1
Actuated g/C Ratio	0.12	0.43	0.05	0.32	0.05	0.24	0.05	0.26
v/c Ratio	0.83	1.04	0.57	1.13	0.84	0.23	0.91	0.45
Control Delay	64.1	57.4	56.4	96.4	93.7	9.8	109.9	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	57.4	56.4	96.4	93.7	9.8	109.9	9.3
LOS	E	E	E	F	F	A	F	A
Approach Delay		58.0		94.8		46.0		34.4
Approach LOS		E		F		D		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 68.6	Intersection LOS: E
Intersection Capacity Utilization 79.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	1237	107	47	1030	61	69	25	66	75	55	170
Future Volume (veh/h)	147	1237	107	47	1030	61	69	25	66	75	55	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	167	1406	122	53	1170	69	78	28	75	85	62	193
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	202	1281	111	66	1058	62	94	105	283	94	94	292
Arrive On Green	0.12	0.39	0.39	0.04	0.32	0.32	0.05	0.24	0.24	0.05	0.24	0.24
Sat Flow, veh/h	1753	3257	281	1753	3356	198	1753	442	1185	1753	394	1226
Grp Volume(v), veh/h	167	752	776	53	609	630	78	0	103	85	0	255
Grp Sat Flow(s),veh/h/ln	1753	1749	1790	1753	1749	1805	1753	0	1627	1753	0	1620
Q Serve(g_s), s	6.1	25.6	25.6	2.0	20.5	20.5	2.9	0.0	3.3	3.1	0.0	9.2
Cycle Q Clear(g_c), s	6.1	25.6	25.6	2.0	20.5	20.5	2.9	0.0	3.3	3.1	0.0	9.2
Prop In Lane	1.00		0.16	1.00		0.11	1.00		0.73	1.00		0.76
Lane Grp Cap(c), veh/h	202	688	704	66	552	569	94	0	388	94	0	386
V/C Ratio(X)	0.83	1.09	1.10	0.81	1.10	1.11	0.83	0.00	0.27	0.90	0.00	0.66
Avail Cap(c_a), veh/h	202	688	704	94	552	569	94	0	388	94	0	386
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.1	19.7	19.7	31.1	22.3	22.3	30.4	0.0	20.1	30.6	0.0	22.4
Incr Delay (d2), s/veh	23.5	62.4	65.5	27.3	70.2	70.2	42.7	0.0	1.7	61.4	0.0	8.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	20.0	21.1	1.2	17.7	18.2	2.3	0.0	1.3	2.9	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	82.1	85.3	58.4	92.4	92.5	73.1	0.0	21.8	92.0	0.0	30.9
LnGrp LOS	D	F	F	E	F	F	E	A	C	F	A	C
Approach Vol, veh/h		1695			1292			181			340	
Approach Delay, s/veh		80.5			91.1			43.9			46.2	
Approach LOS		F			F			D			D	

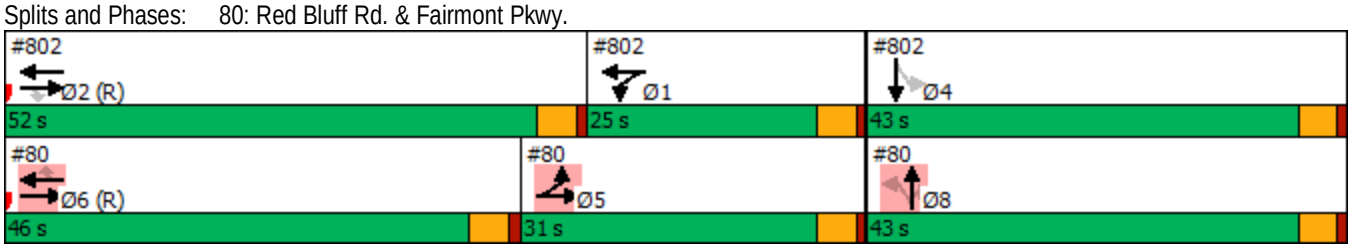
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	20.0	6.9	30.1	8.0	20.0	12.0	25.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	15.5	3.5	24.5	3.5	15.5	7.5	20.5
Max Q Clear Time (g_c+I1), s	5.1	5.3	4.0	27.6	4.9	11.2	8.1	22.5
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.5	0.0	0.0

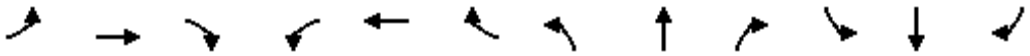
Intersection Summary	
HCM 6th Ctrl Delay	79.2
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	9	1880	1770	256	169	555	132			
Future Volume (vph)	9	1880	1770	256	169	555	132			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	31.0		46.0	46.0	43.0	43.0	43.0	25.0	52.0	43.0
Total Split (%)	25.8%		38.3%	38.3%	35.8%	35.8%	35.8%	21%	43%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	26.2	75.8	45.1	45.1	35.2	35.2	35.2			
Actuated g/C Ratio	0.22	0.63	0.38	0.38	0.29	0.29	0.29			
v/c Ratio	0.03	0.64	0.68	0.41	0.36	0.59	0.27			
Control Delay	27.6	6.4	18.8	7.6	33.3	37.3	18.5			
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0			
Total Delay	27.6	7.0	18.8	7.6	33.3	37.3	18.5			
LOS	C	A	B	A	C	D	B			
Approach Delay		7.1	17.4			33.6				
Approach LOS		A	B			C				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38 (32%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





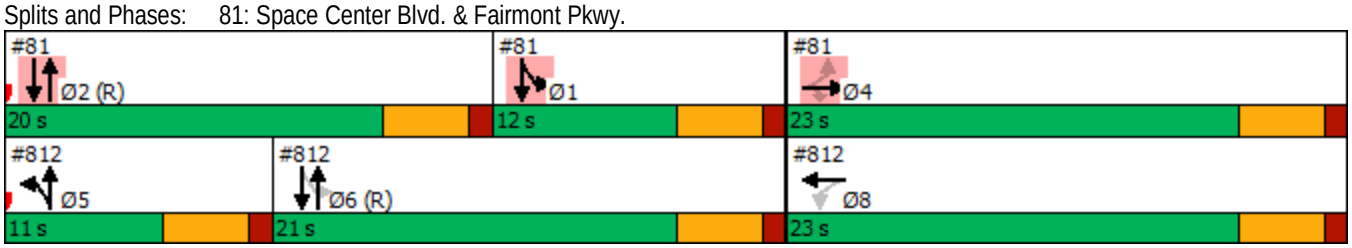
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1880	0	0	1770	256	169	555	132	0	0	0
Future Volume (vph)	9	1880	0	0	1770	256	169	555	132	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	10	2022	0	0	1903	275	182	597	142	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	84	0	0	67	0	0	0
Lane Group Flow (vph)	10	2022	0	0	1903	191	182	597	75	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	26.2	75.8			45.1	45.1	35.2	35.2	35.2			
Effective Green, g (s)	26.2	75.8			45.1	45.1	35.2	35.2	35.2			
Actuated g/C Ratio	0.22	0.63			0.38	0.38	0.29	0.29	0.29			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	379	3150			2780	583	509	1018	455			
v/s Ratio Prot	0.01	c0.41			c0.26			c0.17				
v/s Ratio Perm						0.12	0.10		0.05			
v/c Ratio	0.03	0.64			0.68	0.33	0.36	0.59	0.16			
Uniform Delay, d1	36.9	13.7			31.5	26.7	33.5	36.2	31.5			
Progression Factor	0.74	0.38			0.58	0.50	0.96	0.99	1.53			
Incremental Delay, d2	0.0	0.4			0.1	0.1	0.3	0.7	0.1			
Delay (s)	27.5	5.7			18.4	13.5	32.6	36.3	48.2			
Level of Service	C	A			B	B	C	D	D			
Approach Delay (s)		5.8			17.8			37.4			0.0	
Approach LOS		A			B			D			A	

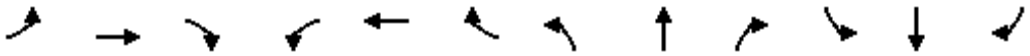
Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	303	2048	490	943	213	1461			
Future Volume (vph)	303	2048	490	943	213	1461			
Turn Type	Perm	NA	Perm	NA	Prot	NA			
Protected Phases		4		2	1	1 2	5	6	8
Permitted Phases	4		4						
Detector Phase	4	4	4	2	1	1 2			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	23.0	23.0	23.0	20.0	12.0		11.0	21.0	23.0
Total Split (%)	41.8%	41.8%	41.8%	36.4%	21.8%		20%	38%	42%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?									
Recall Mode	None	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	18.5	18.5	18.5	15.5	7.5	27.5			
Actuated g/C Ratio	0.34	0.34	0.34	0.28	0.14	0.50			
v/c Ratio	0.54	1.01	0.77	1.07	0.94	0.88			
Control Delay	19.0	42.3	19.8	68.5	63.0	15.3			
Queue Delay	0.3	0.0	0.0	11.4	33.1	47.2			
Total Delay	19.3	42.3	19.8	79.8	96.0	62.6			
LOS	B	D	B	E	F	E			
Approach Delay		36.0		79.8		66.8			
Approach LOS		D		E		E			

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 55	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 55.1	Intersection LOS: E
Intersection Capacity Utilization 85.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	303	2048	490	0	0	0	0	943	461	213	1461	0
Future Volume (vph)	303	2048	490	0	0	0	0	943	461	213	1461	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5		4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91		1.00	0.95	
Frt	1.00	1.00	0.85					0.95		1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4742		1736	3471	
Flt Permitted	0.95	1.00	1.00					1.00		0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4742		1736	3471	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	316	2133	510	0	0	0	0	982	480	222	1522	0
RTOR Reduction (vph)	0	0	138	0	0	0	0	27	0	0	0	0
Lane Group Flow (vph)	316	2133	372	0	0	0	0	1435	0	222	1522	0
Turn Type	Perm	NA	Perm					NA		Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4									
Actuated Green, G (s)	18.5	18.5	18.5					15.5		7.5	27.5	
Effective Green, g (s)	18.5	18.5	18.5					15.5		7.5	27.5	
Actuated g/C Ratio	0.34	0.34	0.34					0.28		0.14	0.50	
Clearance Time (s)	4.5	4.5	4.5					4.5		4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0		
Lane Grp Cap (vph)	583	2114	522					1336		236	1735	
v/s Ratio Prot		c0.34						c0.30		0.13	c0.44	
v/s Ratio Perm	0.18		0.24									
v/c Ratio	0.54	1.01	0.71					1.07		0.94	0.88	
Uniform Delay, d1	14.8	18.2	15.9					19.8		23.5	12.2	
Progression Factor	1.00	1.00	1.00					1.00		0.81	0.74	
Incremental Delay, d2	1.0	21.8	4.6					47.3		34.7	4.0	
Delay (s)	15.8	40.0	20.5					67.0		53.8	13.0	
Level of Service	B	D	C					E		D	B	
Approach Delay (s)		34.1			0.0			67.0			18.2	
Approach LOS		C			A			E			B	

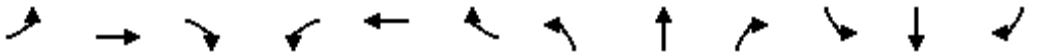
Intersection Summary			
HCM 2000 Control Delay	37.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	865	1520	17	2090	112	65	93	58	973
Future Volume (vph)	865	1520	17	2090	112	65	93	58	973
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	34.0	75.0	8.0	49.0	14.0	24.0	13.0	23.0	34.0
Total Split (%)	28.3%	62.5%	6.7%	40.8%	11.7%	20.0%	10.8%	19.2%	28.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	29.5	74.3	6.0	44.5	9.5	19.5	8.5	18.5	48.0
Actuated g/C Ratio	0.25	0.62	0.05	0.37	0.08	0.16	0.07	0.15	0.40
v/c Ratio	1.09	0.57	0.21	1.19	0.85	0.14	0.80	0.21	0.88
Control Delay	101.2	14.7	38.7	108.9	100.6	39.2	81.7	50.4	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.2	14.7	38.7	108.9	100.6	39.2	81.7	50.4	37.1
LOS	F	B	D	F	F	D	F	D	D
Approach Delay		44.2		108.4		76.4		41.5	
Approach LOS		D		F		E		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 111 (93%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 67.6	Intersection LOS: E
Intersection Capacity Utilization 96.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	865	1520	147	17	2090	23	112	65	8	93	58	973
Future Volume (veh/h)	865	1520	147	17	2090	23	112	65	8	93	58	973
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	901	1583	153	18	2177	24	117	68	8	97	60	1014
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	836	2080	201	299	1900	21	139	519	60	121	284	1098
Arrive On Green	0.25	0.45	0.45	0.34	0.74	0.74	0.08	0.16	0.16	0.02	0.05	0.05
Sat Flow, veh/h	3401	4660	450	1753	5124	56	1753	3158	365	1753	1841	2745
Grp Volume(v), veh/h	901	1138	598	18	1423	778	117	37	39	97	60	1014
Grp Sat Flow(s),veh/h/ln	1700	1675	1760	1753	1675	1831	1753	1749	1775	1753	1841	1373
Q Serve(g_s), s	29.5	34.2	34.2	0.8	44.5	44.5	7.9	2.2	2.2	6.6	3.8	18.5
Cycle Q Clear(g_c), s	29.5	34.2	34.2	0.8	44.5	44.5	7.9	2.2	2.2	6.6	3.8	18.5
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	836	1495	785	299	1242	679	139	288	292	121	284	1098
V/C Ratio(X)	1.08	0.76	0.76	0.06	1.15	1.15	0.84	0.13	0.13	0.80	0.21	0.92
Avail Cap(c_a), veh/h	836	1968	1034	299	1242	679	139	288	292	124	284	1098
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	0.50	0.50	0.50
Uniform Delay (d), s/veh	45.3	27.9	27.9	33.1	15.5	15.5	54.5	42.8	42.8	57.8	49.9	20.4
Incr Delay (d2), s/veh	54.2	1.3	2.4	0.1	73.2	79.5	35.1	0.9	0.9	16.8	0.8	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.6	13.7	14.7	0.4	17.9	20.7	4.8	1.0	1.0	3.5	1.8	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.5	29.1	30.3	33.2	88.7	95.0	89.6	43.7	43.8	74.6	50.8	28.4
LnGrp LOS	F	C	C	C	F	F	F	D	D	E	D	C
Approach Vol, veh/h		2637			2219			193			1171	
Approach Delay, s/veh		53.4			90.5			71.5			33.4	
Approach LOS		D			F			E			C	

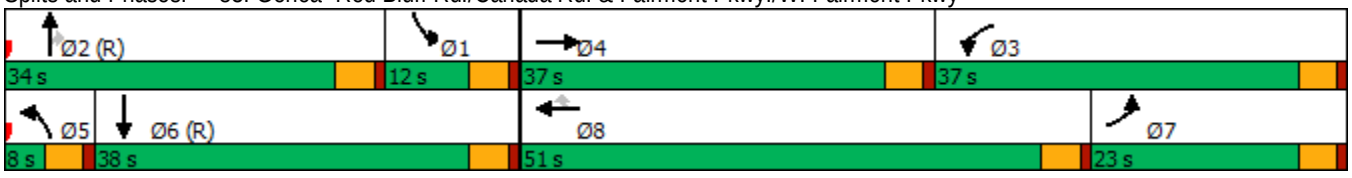
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	24.2	24.9	58.1	14.0	23.0	34.0	49.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	19.5	3.5	70.5	9.5	18.5	29.5	44.5
Max Q Clear Time (g_c+I1), s	8.6	4.2	2.8	36.2	9.9	20.5	31.5	46.5
Green Ext Time (p_c), s	0.0	0.2	0.0	17.3	0.0	0.0	0.0	0.0

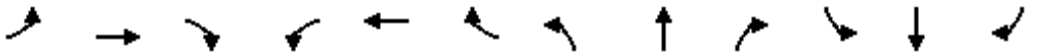
Intersection Summary	
HCM 6th Ctrl Delay	63.4
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	324	933	570	1644	174	53	575	545	119	691
Future Volume (vph)	324	933	570	1644	174	53	575	545	119	691
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	23.0	37.0	37.0	51.0	51.0	8.0	34.0	34.0	12.0	38.0
Total Split (%)	19.2%	30.8%	30.8%	42.5%	42.5%	6.7%	28.3%	28.3%	10.0%	31.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.5	32.5	32.5	46.5	46.5	3.5	29.5	29.5	7.5	33.5
Actuated g/C Ratio	0.15	0.27	0.27	0.39	0.39	0.03	0.25	0.25	0.06	0.28
v/c Ratio	1.25	1.05	1.25	1.26	0.26	1.10	0.70	0.77	1.14	1.09
Control Delay	184.9	64.6	167.2	156.2	8.1	188.9	37.1	21.7	178.8	95.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	184.9	64.6	167.2	156.2	8.1	188.9	37.1	21.7	178.8	95.6
LOS	F	E	F	F	A	F	D	C	F	F
Approach Delay		95.2		148.1			36.8			104.2
Approach LOS		F		F			D			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.26	
Intersection Signal Delay: 106.6	Intersection LOS: F
Intersection Capacity Utilization 117.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	324	933	19	570	1644	174	53	575	545	119	691	338
Future Volume (veh/h)	324	933	19	570	1644	174	53	575	545	119	691	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	334	962	20	588	1695	179	55	593	562	123	712	348
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	270	949	20	475	1355	604	51	860	383	110	636	310
Arrive On Green	0.15	0.27	0.27	0.27	0.39	0.39	0.03	0.25	0.25	0.06	0.28	0.28
Sat Flow, veh/h	1753	3503	73	1753	3497	1560	1753	3497	1560	1753	2277	1112
Grp Volume(v), veh/h	334	480	502	588	1695	179	55	593	562	123	547	513
Grp Sat Flow(s),veh/h/ln	1753	1749	1828	1753	1749	1560	1753	1749	1560	1753	1749	1641
Q Serve(g_s), s	18.5	32.5	32.5	32.5	46.5	9.5	3.5	18.5	29.5	7.5	33.5	33.5
Cycle Q Clear(g_c), s	18.5	32.5	32.5	32.5	46.5	9.5	3.5	18.5	29.5	7.5	33.5	33.5
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	270	474	495	475	1355	604	51	860	383	110	488	458
V/C Ratio(X)	1.24	1.01	1.01	1.24	1.25	0.30	1.08	0.69	1.47	1.12	1.12	1.12
Avail Cap(c_a), veh/h	270	474	495	475	1355	604	51	860	383	110	488	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	50.8	43.8	43.8	43.8	36.8	25.4	58.3	41.1	45.2	56.3	43.3	43.3
Incr Delay (d2), s/veh	129.3	40.7	39.9	109.0	113.4	0.0	148.7	4.5	223.3	66.4	56.9	57.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.8	19.3	20.0	28.3	40.7	3.5	3.6	8.3	35.1	5.3	22.0	20.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	180.1	84.5	83.7	152.8	150.2	25.5	206.9	45.6	268.6	122.7	100.1	100.7
LnGrp LOS	F	F	F	F	F	C	F	D	F	F	F	F
Approach Vol, veh/h		1316			2462			1210			1183	
Approach Delay, s/veh		108.4			141.7			156.5			102.7	
Approach LOS		F			F			F			F	

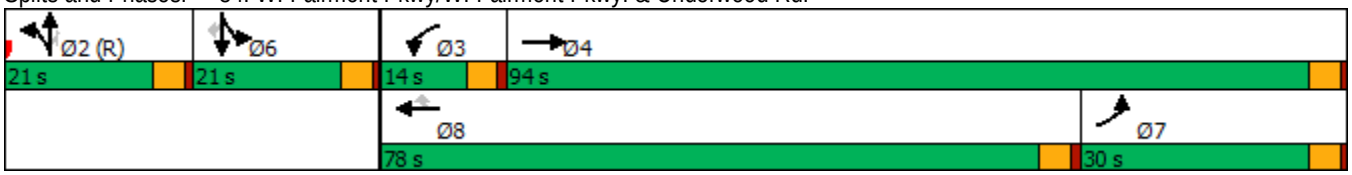
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	34.0	37.0	37.0	8.0	38.0	23.0	51.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	29.5	32.5	32.5	3.5	33.5	18.5	46.5
Max Q Clear Time (g_c+I1), s	9.5	31.5	34.5	34.5	5.5	35.5	20.5	48.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

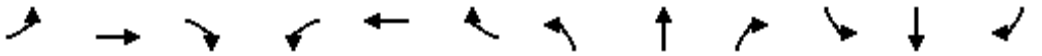
Intersection Summary	
HCM 6th Ctrl Delay	130.0
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	368	1473	52	2099	250	94	63	222	42	418
Future Volume (vph)	368	1473	52	2099	250	94	63	222	42	418
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Split	NA	Perm
Protected Phases	7	4	3	8		2		6	6	
Permitted Phases					8		2			6
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	30.0	94.0	14.0	78.0	78.0	21.0	21.0	21.0	21.0	21.0
Total Split (%)	20.0%	62.7%	9.3%	52.0%	52.0%	14.0%	14.0%	14.0%	14.0%	14.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	25.5	92.5	8.7	73.5	73.5	16.5	16.5	16.5	16.5	16.5
Actuated g/C Ratio	0.17	0.62	0.06	0.49	0.49	0.11	0.11	0.11	0.11	0.11
v/c Ratio	1.36	0.76	0.57	1.34	0.34	1.23	0.25	1.27	0.12	1.08
Control Delay	226.1	24.5	90.6	190.7	17.7	191.3	4.2	206.6	61.2	88.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	226.1	24.5	90.6	190.7	17.7	191.3	4.2	206.6	61.2	88.0
LOS	F	C	F	F	B	F	A	F	E	F
Approach Delay		64.3		170.5		149.9			124.9	
Approach LOS		E		F		F			F	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.36	
Intersection Signal Delay: 125.6	Intersection LOS: F
Intersection Capacity Utilization 114.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	368	1473	23	52	2099	250	126	94	63	222	42	418
Future Volume (veh/h)	368	1473	23	52	2099	250	126	94	63	222	42	418
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	400	1601	25	57	2282	272	137	102	68	241	46	454
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	298	2180	34	73	1714	764	113	84	172	193	385	172
Arrive On Green	0.17	0.62	0.62	0.04	0.49	0.49	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1753	3525	55	1753	3497	1560	1026	764	1560	1753	3497	1560
Grp Volume(v), veh/h	400	793	833	57	2282	272	239	0	68	241	46	454
Grp Sat Flow(s),veh/h/ln	1753	1749	1831	1753	1749	1560	1789	0	1560	1753	1749	1560
Q Serve(g_s), s	25.5	47.5	47.7	4.8	73.5	16.2	16.5	0.0	6.1	16.5	1.8	16.5
Cycle Q Clear(g_c), s	25.5	47.5	47.7	4.8	73.5	16.2	16.5	0.0	6.1	16.5	1.8	16.5
Prop In Lane	1.00		0.03	1.00		1.00	0.57		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	1082	1132	73	1714	764	197	0	172	193	385	172
V/C Ratio(X)	1.34	0.73	0.74	0.78	1.33	0.36	1.21	0.00	0.40	1.25	0.12	2.65
Avail Cap(c_a), veh/h	298	1082	1132	111	1714	764	197	0	172	193	385	172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.18	0.18	0.18	0.27	0.27	0.27	1.00	0.00	1.00	0.62	0.62	0.62
Uniform Delay (d), s/veh	62.2	20.0	20.0	71.2	38.3	23.6	66.8	0.0	62.1	66.8	60.2	66.8
Incr Delay (d2), s/veh	158.1	0.5	0.5	5.5	150.4	0.1	133.7	0.0	6.7	136.3	0.4	750.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.5	19.1	20.0	2.3	66.6	6.1	14.7	0.0	2.8	14.7	0.8	42.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	220.4	20.5	20.5	76.7	188.6	23.7	200.5	0.0	68.8	203.0	60.6	817.7
LnGrp LOS	F	C	C	E	F	C	F	A	E	F	E	F
Approach Vol, veh/h		2026			2611			307			741	
Approach Delay, s/veh		59.9			169.0			171.3			570.8	
Approach LOS		E			F			F			F	

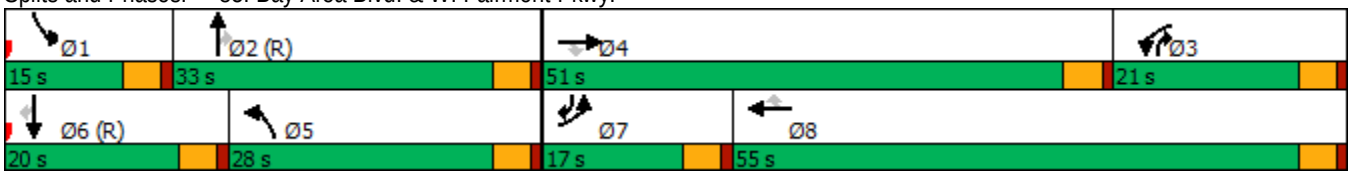
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.0	10.7	97.3		21.0	30.0	78.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.5	9.5	89.5		16.5	25.5	73.5				
Max Q Clear Time (g_c+I1), s		18.5	6.8	49.7		18.5	27.5	75.5				
Green Ext Time (p_c), s		0.0	0.0	17.8		0.0	0.0	0.0				

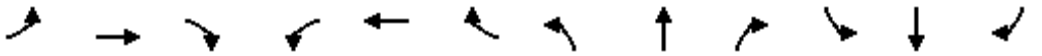
Intersection Summary												
HCM 6th Ctrl Delay			182.6									
HCM 6th LOS			F									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	1477	249	169	1649	258	399	881	669	180	331	254
Future Volume (vph)	198	1477	249	169	1649	258	399	881	669	180	331	254
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	17.0	51.0	51.0	21.0	55.0	55.0	28.0	33.0	21.0	15.0	20.0	17.0
Total Split (%)	14.2%	42.5%	42.5%	17.5%	45.8%	45.8%	23.3%	27.5%	17.5%	12.5%	16.7%	14.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	12.5	46.5	46.5	16.5	50.5	50.5	23.5	28.5	45.0	10.5	15.5	28.0
Actuated g/C Ratio	0.10	0.39	0.39	0.14	0.42	0.42	0.20	0.24	0.38	0.09	0.13	0.23
v/c Ratio	1.22	1.22	0.40	0.79	1.25	0.39	1.31	1.19	1.16	1.32	0.82	0.65
Control Delay	180.0	137.4	13.6	56.6	143.0	4.2	196.9	137.1	114.6	226.0	69.3	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	180.0	137.4	13.6	56.6	143.0	4.2	196.9	137.1	114.6	226.0	69.3	23.4
LOS	F	F	B	E	F	A	F	F	F	F	E	C
Approach Delay		125.7			118.7			141.6			91.0	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.32	
Intersection Signal Delay: 124.2	Intersection LOS: F
Intersection Capacity Utilization 110.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	1477	249	169	1649	258	399	881	669	180	331	254
Future Volume (veh/h)	198	1477	249	169	1649	258	399	881	669	180	331	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	220	1641	0	188	1832	287	443	979	743	200	368	282
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	183	1355		241	1472	656	343	831	585	153	452	364
Arrive On Green	0.10	0.39	0.00	0.14	0.42	0.42	0.20	0.24	0.24	0.09	0.13	0.13
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	220	1641	0	188	1832	287	443	979	743	200	368	282
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	12.5	46.5	0.0	12.4	50.5	15.7	23.5	28.5	23.1	10.5	12.3	12.1
Cycle Q Clear(g_c), s	12.5	46.5	0.0	12.4	50.5	15.7	23.5	28.5	23.1	10.5	12.3	12.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1355		241	1472	656	343	831	585	153	452	364
V/C Ratio(X)	1.20	1.21		0.78	1.24	0.44	1.29	1.18	1.27	1.30	0.81	0.77
Avail Cap(c_a), veh/h	183	1355		241	1472	656	343	831	585	153	452	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.00	0.46	0.46	0.46	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	53.8	36.8	0.0	50.0	34.8	24.7	48.2	45.7	23.5	54.8	50.9	19.4
Incr Delay (d2), s/veh	126.7	100.8	0.0	7.4	112.9	0.2	150.9	92.8	134.6	165.4	10.7	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	38.4	0.0	5.9	43.9	5.8	24.4	22.7	29.2	11.7	6.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	180.5	137.5	0.0	57.4	147.7	24.9	199.1	138.5	158.2	220.2	61.6	30.0
LnGrp LOS	F	F		E	F	C	F	F	F	F	E	C
Approach Vol, veh/h		1861	A		2307			2165			850	
Approach Delay, s/veh		142.6			125.0			157.7			88.4	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	33.0	21.0	51.0	28.0	20.0	17.0	55.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	28.5	16.5	46.5	23.5	15.5	12.5	50.5
Max Q Clear Time (g_c+I1), s	12.5	30.5	14.4	48.5	25.5	14.3	14.5	52.5
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	135.1
HCM 6th LOS	F

Notes

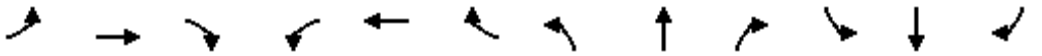
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	51	1558	19	2353	8	25	0	3	0	67
Future Volume (vph)	51	1558	19	2353	8	25	0	3	0	67
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8			2		6	6
Permitted Phases					8	2		6		
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	90.0	10.0	91.0	91.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	7.5%	75.0%	8.3%	75.8%	75.8%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	4.5	91.5	5.9	86.5	86.5		15.5		15.5	15.5
Actuated g/C Ratio	0.04	0.76	0.05	0.72	0.72		0.13		0.13	0.13
v/c Ratio	0.88	0.67	0.25	1.04	0.01		0.16		0.02	0.26
Control Delay	147.5	5.2	53.4	40.2	0.0		49.0		46.0	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	147.5	5.2	53.4	40.2	0.0		49.0		46.0	7.7
LOS	F	A	D	D	A		D		D	A
Approach Delay		9.7		40.1			49.0		9.2	
Approach LOS		A		D			D		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 91.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1558	37	19	2353	8	25	0	0	3	0	67
Future Volume (veh/h)	51	1558	37	19	2353	8	25	0	0	3	0	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	57	1731	41	21	2614	0	28	0	0	3	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	66	2046	48	302	2521		241	0	0	246	0	
Arrive On Green	0.04	0.59	0.59	0.34	1.00	0.00	0.13	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1753	3492	82	1753	3497	1560	1399	0	0	1443	0	1560
Grp Volume(v), veh/h	57	864	908	21	2614	0	28	0	0	3	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1826	1753	1749	1560	1399	0	0	1443	0	1560
Q Serve(g_s), s	3.9	48.6	49.1	1.0	86.5	0.0	1.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.9	48.6	49.1	1.0	86.5	0.0	2.1	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	1025	1070	302	2521		241	0	0	246	0	
V/C Ratio(X)	0.87	0.84	0.85	0.07	1.04		0.12	0.00	0.00	0.01	0.00	
Avail Cap(c_a), veh/h	66	1246	1301	302	2521		241	0	0	246	0	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.24	0.24	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.5	20.3	20.5	32.8	0.0	0.0	46.4	0.0	0.0	45.6	0.0	0.0
Incr Delay (d2), s/veh	66.8	4.6	4.6	0.0	20.5	0.0	1.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	20.0	21.1	0.4	7.2	0.0	0.8	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	124.2	25.0	25.1	32.9	20.5	0.0	47.4	0.0	0.0	45.7	0.0	0.0
LnGrp LOS	F	C	C	C	F		D	A	A	D	A	
Approach Vol, veh/h		1829			2635	A		28			3	A
Approach Delay, s/veh		28.1			20.6			47.4			45.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	25.2	74.8		20.0	9.0	91.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	5.5	85.5		15.5	4.5	86.5				
Max Q Clear Time (g_c+I1), s		4.1	3.0	51.1		2.2	5.9	88.5				
Green Ext Time (p_c), s		0.0	0.0	19.2		0.0	0.0	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

Notes

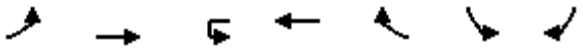
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	179	1389	1632	128	
Future Volume (vph)	179	1389	1632	128	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	21.0	90.0	77.0	22.0	8.0
Total Split (%)	17.5%	75.0%	64.2%	18.3%	7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	15.8	92.6	72.3	18.4	
Actuated g/C Ratio	0.13	0.77	0.60	0.15	
v/c Ratio	0.84	0.56	0.92	0.45	
Control Delay	81.2	6.4	9.0	26.1	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	81.2	6.4	9.0	26.1	
LOS	F	A	A	C	
Approach Delay		14.9	9.0	26.1	
Approach LOS		B	A	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 44 (37%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 82.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





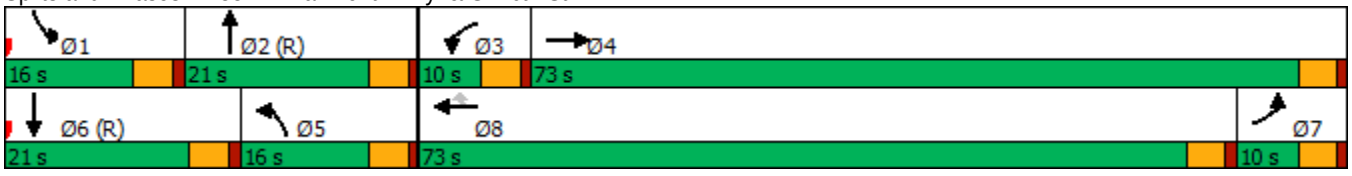
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	179	1389	0	1632	145	128	123
Future Volume (vph)	179	1389	0	1632	145	128	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.93	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3429		3202	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3429		3202	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	192	1494	0	1755	156	138	132
RTOR Reduction (vph)	0	0	0	6	0	112	0
Lane Group Flow (vph)	192	1494	0	1905	0	158	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	15.8	92.6		72.3		18.4	
Effective Green, g (s)	15.8	92.6		72.3		18.4	
Actuated g/C Ratio	0.13	0.77		0.60		0.15	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	228	2678		2065		490	
v/s Ratio Prot	c0.11	0.43		c0.56			
v/s Ratio Perm						c0.05	
v/c Ratio	0.84	0.56		0.92		0.32	
Uniform Delay, d1	50.9	5.5		21.3		45.3	
Progression Factor	1.00	1.00		0.34		1.00	
Incremental Delay, d2	23.5	0.3		0.8		1.7	
Delay (s)	74.4	5.7		8.1		47.0	
Level of Service	E	A		A		D	
Approach Delay (s)		13.6		8.1		47.0	
Approach LOS		B		A		D	

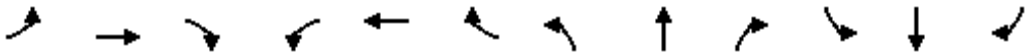
Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	43	1789	66	1409	60	159	29	74	19
Future Volume (vph)	43	1789	66	1409	60	159	29	74	19
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	73.0	10.0	73.0	73.0	16.0	21.0	16.0	21.0
Total Split (%)	8.3%	60.8%	8.3%	60.8%	60.8%	13.3%	17.5%	13.3%	17.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.1	68.5	5.5	70.0	70.0	11.5	20.2	10.1	16.5
Actuated g/C Ratio	0.05	0.57	0.05	0.58	0.58	0.10	0.17	0.08	0.14
v/c Ratio	0.56	1.08	0.95	0.79	0.07	1.09	0.19	0.58	0.23
Control Delay	47.0	52.3	145.5	23.6	0.1	146.5	17.5	68.6	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	52.3	145.5	23.6	0.1	146.5	17.5	68.6	14.9
LOS	D	D	F	C	A	F	B	E	B
Approach Delay		52.1		27.9			96.9		37.7
Approach LOS		D		C			F		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 101 (84%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 44.9	Intersection LOS: D
Intersection Capacity Utilization 79.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1789	84	66	1409	60	159	29	70	74	19	81
Future Volume (veh/h)	43	1789	84	66	1409	60	159	29	70	74	19	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	49	2033	95	75	1601	68	181	33	80	84	22	92
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	169	1943	90	80	1819	811	168	302	270	106	240	214
Arrive On Green	0.10	0.57	0.57	0.05	0.52	0.52	0.10	0.17	0.17	0.06	0.14	0.14
Sat Flow, veh/h	1753	3403	158	1753	3497	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	49	1037	1091	75	1601	68	181	33	80	84	22	92
Grp Sat Flow(s),veh/h/ln	1753	1749	1812	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	3.1	68.5	68.5	5.1	48.6	1.9	11.5	1.9	5.4	5.7	1.3	6.5
Cycle Q Clear(g_c), s	3.1	68.5	68.5	5.1	48.6	1.9	11.5	1.9	5.4	5.7	1.3	6.5
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	998	1035	80	1819	811	168	302	270	106	240	214
V/C Ratio(X)	0.29	1.04	1.05	0.93	0.88	0.08	1.08	0.11	0.30	0.79	0.09	0.43
Avail Cap(c_a), veh/h	169	998	1035	80	1996	890	168	302	270	168	240	214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	25.8	25.8	57.1	25.5	7.4	54.2	41.8	43.3	55.6	45.2	47.4
Incr Delay (d2), s/veh	0.1	21.0	27.4	78.0	4.6	0.0	91.6	0.7	2.8	12.4	0.8	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	32.4	35.4	4.0	20.5	0.9	9.3	0.9	2.3	2.9	0.6	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	46.7	53.1	135.1	30.1	7.5	145.8	42.6	46.1	68.0	46.0	53.6
LnGrp LOS	D	F	F	F	C	A	F	D	D	E	D	D
Approach Vol, veh/h		2177			1744			294			198	
Approach Delay, s/veh		50.0			33.7			107.1			58.9	
Approach LOS		D			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	25.2	10.0	73.0	16.0	21.0	16.1	66.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	16.5	5.5	68.5	11.5	16.5	5.5	68.5
Max Q Clear Time (g_c+I1), s	7.7	7.4	7.1	70.5	13.5	8.5	5.1	50.6
Green Ext Time (p_c), s	0.1	0.3	0.0	0.0	0.0	0.3	0.0	11.8

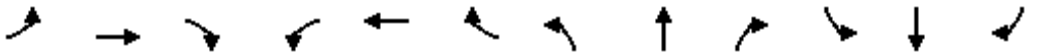
Intersection Summary	
HCM 6th Ctrl Delay	47.8
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	160	1143	5	37	1712	3	1	33	18	210
Future Volume (vph)	160	1143	5	37	1712	3	1	33	18	210
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	NA	Prot
Protected Phases	7	4	4	3	8		2	1	6	6
Permitted Phases						2				
Detector Phase	7	4	4	3	8	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	18.0	80.0	80.0	11.0	73.0	21.0	21.0	8.0	29.0	29.0
Total Split (%)	15.0%	66.7%	66.7%	9.2%	60.8%	17.5%	17.5%	6.7%	24.2%	24.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.5	77.7	77.7	6.3	68.5		18.1	3.5	24.5	24.5
Actuated g/C Ratio	0.11	0.65	0.65	0.05	0.57		0.15	0.03	0.20	0.20
v/c Ratio	0.90	0.55	0.00	0.44	0.99		0.04	0.72	0.05	0.48
Control Delay	71.5	8.2	0.0	76.7	13.3		30.7	86.4	28.3	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	71.5	8.2	0.0	76.7	13.3		30.7	86.4	28.3	16.8
LOS	E	A	A	E	B		C	F	C	B
Approach Delay		16.0			14.6		30.7		26.4	
Approach LOS		B			B		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 43 (36%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	1143	5	37	1712	79	3	1	6	33	18	210
Future Volume (veh/h)	160	1143	5	37	1712	79	3	1	6	33	18	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	174	1242	5	40	1861	86	3	1	7	36	20	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	2280	1017	51	1936	89	76	37	131	56	380	322
Arrive On Green	0.22	1.00	1.00	0.03	0.57	0.57	0.14	0.14	0.14	0.03	0.21	0.21
Sat Flow, veh/h	1753	3497	1560	1753	3405	156	272	271	950	1753	1841	1560
Grp Volume(v), veh/h	174	1242	5	40	949	998	11	0	0	36	20	228
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1813	1492	0	0	1753	1841	1560
Q Serve(g_s), s	11.5	0.0	0.0	2.7	61.4	63.5	0.0	0.0	0.0	2.4	1.0	16.3
Cycle Q Clear(g_c), s	11.5	0.0	0.0	2.7	61.4	63.5	0.7	0.0	0.0	2.4	1.0	16.3
Prop In Lane	1.00		1.00	1.00		0.09	0.27		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	197	2280	1017	51	994	1030	243	0	0	56	380	322
V/C Ratio(X)	0.88	0.54	0.00	0.79	0.95	0.97	0.05	0.00	0.00	0.65	0.05	0.71
Avail Cap(c_a), veh/h	197	2280	1017	95	998	1035	243	0	0	56	380	322
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.09	0.09	0.09	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	0.0	0.0	57.9	24.4	24.9	44.9	0.0	0.0	57.4	38.2	44.2
Incr Delay (d2), s/veh	26.1	0.2	0.0	2.5	2.8	3.7	0.3	0.0	0.0	23.4	0.3	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.1	0.0	1.2	24.6	26.6	0.3	0.0	0.0	1.4	0.5	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.8	0.2	0.0	60.4	27.2	28.5	45.3	0.0	0.0	80.8	38.4	56.6
LnGrp LOS	E	A	A	E	C	C	D	A	A	F	D	E
Approach Vol, veh/h		1421			1987			11			284	
Approach Delay, s/veh		9.0			28.5			45.3			58.4	
Approach LOS		A			C			D			E	

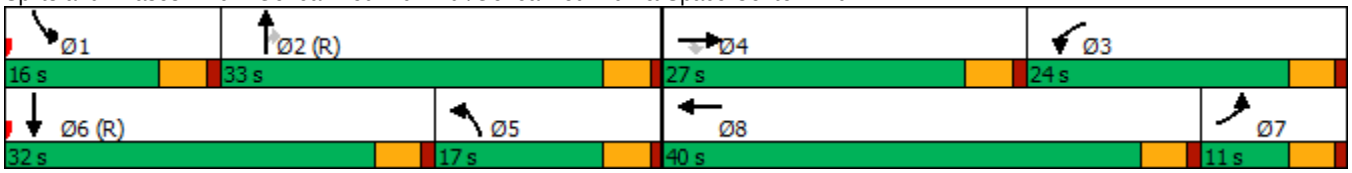
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	8.3	21.0	8.0	82.7		29.3	18.0	72.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	3.5	16.5	6.5	75.5		24.5	13.5	68.5				
Max Q Clear Time (g_c+I1), s	4.4	2.7	4.7	2.0		18.3	13.5	65.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	13.9		0.4	0.0	2.7				

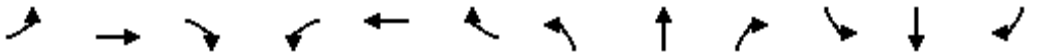
Intersection Summary												
HCM 6th Ctrl Delay			23.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	133	987	430	410	1408	260	858	325	122	1105
Future Volume (vph)	133	987	430	410	1408	260	858	325	122	1105
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	11.0	27.0	27.0	24.0	40.0	17.0	33.0	33.0	16.0	32.0
Total Split (%)	11.0%	27.0%	27.0%	24.0%	40.0%	17.0%	33.0%	33.0%	16.0%	32.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	6.5	22.5	22.5	19.5	35.5	12.5	29.4	29.4	10.6	27.5
Actuated g/C Ratio	0.06	0.22	0.22	0.20	0.36	0.12	0.29	0.29	0.11	0.28
v/c Ratio	1.24	1.32	0.78	1.26	1.25	1.25	0.88	0.49	0.69	1.35
Control Delay	204.1	185.3	23.6	175.5	148.9	182.4	45.2	5.8	62.6	195.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	204.1	185.3	23.6	175.5	148.9	182.4	45.2	5.8	62.6	195.7
LOS	F	F	C	F	F	F	D	A	E	F
Approach Delay		142.1			154.7		61.0			183.7
Approach LOS		F			F		E			F

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.35	
Intersection Signal Delay: 136.1	Intersection LOS: F
Intersection Capacity Utilization 118.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	987	430	410	1408	62	260	858	325	122	1105	124
Future Volume (veh/h)	133	987	430	410	1408	62	260	858	325	122	1105	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	139	1028	448	427	1467	65	271	894	339	127	1151	129
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	114	787	351	342	1211	54	219	1087	485	156	872	98
Arrive On Green	0.06	0.22	0.22	0.19	0.35	0.35	0.13	0.31	0.31	0.09	0.28	0.28
Sat Flow, veh/h	1753	3497	1560	1753	3411	151	1753	3497	1560	1753	3171	355
Grp Volume(v), veh/h	139	1028	448	427	750	782	271	894	339	127	634	646
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1814	1753	1749	1560	1753	1749	1777
Q Serve(g_s), s	6.5	22.5	22.5	19.5	35.5	35.5	12.5	23.7	11.2	7.1	27.5	27.5
Cycle Q Clear(g_c), s	6.5	22.5	22.5	19.5	35.5	35.5	12.5	23.7	11.2	7.1	27.5	27.5
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	114	787	351	342	621	644	219	1087	485	156	481	489
V/C Ratio(X)	1.22	1.31	1.28	1.25	1.21	1.21	1.24	0.82	0.70	0.81	1.32	1.32
Avail Cap(c_a), veh/h	114	787	351	342	621	644	219	1087	485	202	481	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.12	0.12	0.12	1.00	1.00	1.00	0.13	0.13	0.13
Uniform Delay (d), s/veh	46.8	38.8	38.8	40.3	32.3	32.3	43.8	31.9	10.4	44.7	36.3	36.3
Incr Delay (d2), s/veh	154.9	147.0	144.7	115.2	95.8	98.3	139.3	7.0	8.1	2.7	145.1	147.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	25.5	22.5	19.2	31.0	32.6	13.8	10.8	4.7	3.2	30.8	31.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	201.7	185.8	183.5	155.4	128.0	130.6	183.1	38.9	18.6	47.4	181.3	183.3
LnGrp LOS	F	F	F	F	F	F	F	D	B	D	F	F
Approach Vol, veh/h		1615			1959			1504			1407	
Approach Delay, s/veh		186.5			135.0			60.3			170.1	
Approach LOS		F			F			E			F	

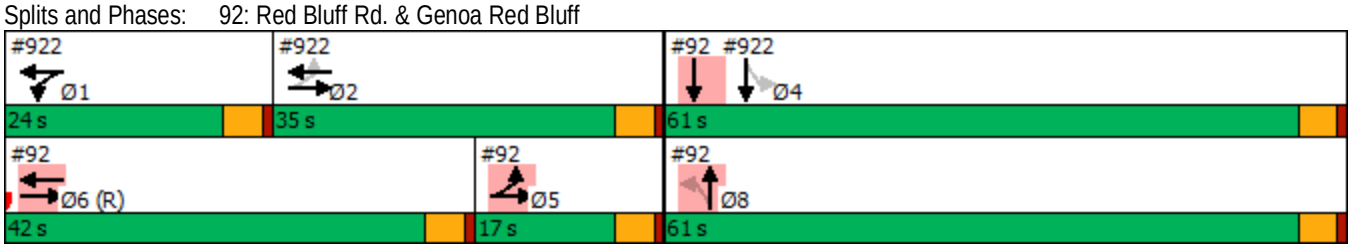
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	35.6	24.0	27.0	17.0	32.0	11.0	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	28.5	19.5	22.5	12.5	27.5	6.5	35.5
Max Q Clear Time (g_c+I1), s	9.1	25.7	21.5	24.5	14.5	29.5	8.5	37.5
Green Ext Time (p_c), s	0.1	1.9	0.0	0.0	0.0	0.0	0.0	0.0

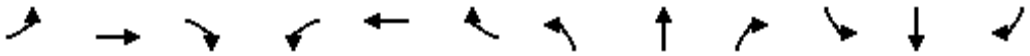
Intersection Summary	
HCM 6th Ctrl Delay	138.1
HCM 6th LOS	F

Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	Ø1	Ø2
Lane Configurations								
Traffic Volume (vph)	157	931	1314	806	913	3		
Future Volume (vph)	157	931	1314	806	913	3		
Turn Type	Prot	NA	NA	Perm	NA	NA		
Protected Phases	5	5 6	6		8	4	1	2
Permitted Phases				8				
Detector Phase	5	5 6	6	8	8	4		
Switch Phase								
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	17.0		42.0	61.0	61.0	61.0	24.0	35.0
Total Split (%)	14.2%		35.0%	50.8%	50.8%	50.8%	20%	29%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5			
Lead/Lag	Lag		Lead				Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None		C-Max	None	None	None	None	None
Act Effct Green (s)	12.5	54.5	37.5	56.5	56.5	0.0		
Actuated g/C Ratio	0.10	0.45	0.31	0.47	0.47	0.00		
v/c Ratio	0.92	0.62	0.92	1.30	0.55	no cap		
Control Delay	62.8	16.6	27.2	177.4	22.6			
Queue Delay	0.8	12.7	25.2	2.6	0.0			
Total Delay	63.6	29.3	52.4	180.0	22.6	Error		
LOS	E	C	D	F	C	F		
Approach Delay		34.2	52.4		85.6	Err		
Approach LOS		C	D		F	F		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





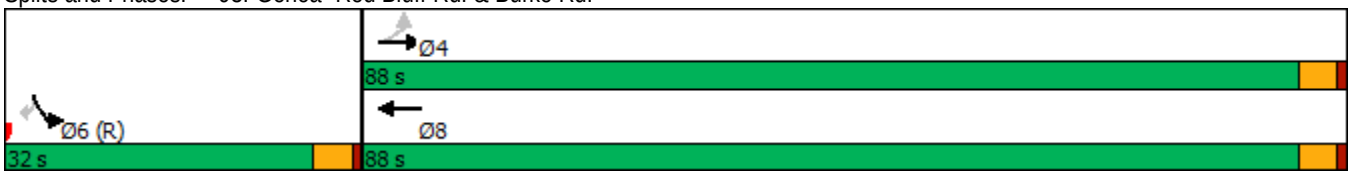
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	931	0	0	1314	46	806	913	295	0	3	0
Future Volume (vph)	157	931	0	0	1314	46	806	913	295	0	3	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95			0.91		1.00	0.91			1.00	
Frt	1.00	1.00			0.99		1.00	0.96			1.00	
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3471			4962		1736	4805			0	
Flt Permitted	0.95	1.00			1.00		0.76	1.00			1.00	
Satd. Flow (perm)	1736	3471			4962		1381	4805			0	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	165	980	0	0	1383	48	848	961	311	0	3	0
RTOR Reduction (vph)	0	0	0	0	3	0	0	32	0	0	0	0
Lane Group Flow (vph)	165	980	0	0	1428	0	848	1240	0	0	3	0
Turn Type	Prot	NA			NA		Perm	NA			NA	
Protected Phases	5	5 6			6			8			4	
Permitted Phases							8					
Actuated Green, G (s)	12.5	54.5			37.5		56.5	56.5			56.5	
Effective Green, g (s)	12.5	54.5			37.5		56.5	56.5			56.5	
Actuated g/C Ratio	0.10	0.45			0.31		0.47	0.47			0.47	
Clearance Time (s)	4.5				4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0				3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	180	1576			1550		650	2262			0	
v/s Ratio Prot	c0.10	0.28			c0.29			0.26				
v/s Ratio Perm							c0.61					
v/c Ratio	0.92	0.62			0.92		1.30	0.55			no cap	
Uniform Delay, d1	53.2	24.9			39.8		31.8	22.6			Error	
Progression Factor	0.61	0.62			0.64		1.00	1.00				
Incremental Delay, d2	24.5	0.3			1.2		148.1	0.3			Error	
Delay (s)	56.9	15.9			26.6		179.8	22.9			Error	
Level of Service	E	B			C		F	C			F	
Approach Delay (s)		21.8			26.6			85.7			Error	
Approach LOS		C			C			F			F	

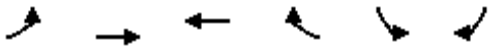
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	316	531	470	356	282
Future Volume (vph)	316	531	470	356	282
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	88.0	88.0	88.0	32.0	32.0
Total Split (%)	73.3%	73.3%	73.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	83.5	83.5	83.5	27.5	27.5
Actuated g/C Ratio	0.70	0.70	0.70	0.23	0.23
v/c Ratio	1.17	0.26	0.42	1.07	0.55
Control Delay	126.6	6.8	5.0	108.8	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	126.6	6.8	5.0	108.8	7.7
LOS	F	A	A	F	A
Approach Delay		51.5	5.0	64.1	
Approach LOS		D	A	E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 61 (51%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 38.3	Intersection LOS: D
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	316	531	470	361	356	282
Future Volume (veh/h)	316	531	470	361	356	282
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	376	632	560	430	424	336
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	377	2434	1310	1006	402	357
Arrive On Green	0.70	0.70	0.70	0.70	0.23	0.23
Sat Flow, veh/h	560	3589	1975	1446	1753	1560
Grp Volume(v), veh/h	376	632	520	470	424	336
Grp Sat Flow(s),veh/h/ln	560	1749	1749	1580	1753	1560
Q Serve(g_s), s	68.1	8.1	15.4	15.4	27.5	25.4
Cycle Q Clear(g_c), s	83.5	8.1	15.4	15.4	27.5	25.4
Prop In Lane	1.00			0.91	1.00	1.00
Lane Grp Cap(c), veh/h	377	2434	1217	1100	402	357
V/C Ratio(X)	1.00	0.26	0.43	0.43	1.06	0.94
Avail Cap(c_a), veh/h	377	2434	1217	1100	402	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	31.3	6.8	7.9	7.9	46.3	45.4
Incr Delay (d2), s/veh	45.3	0.1	0.2	0.3	31.1	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	2.8	5.4	4.9	15.4	10.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	76.6	6.8	8.1	8.2	77.3	51.3
LnGrp LOS	E	A	A	A	F	D
Approach Vol, veh/h		1008	990		760	
Approach Delay, s/veh		32.8	8.2		65.8	
Approach LOS		C	A		E	

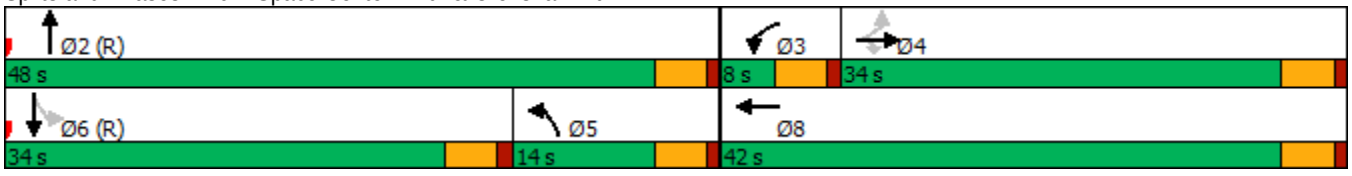
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			88.0		32.0	88.0
Change Period (Y+Rc), s			4.5		4.5	4.5
Max Green Setting (Gmax), s			83.5		27.5	83.5
Max Q Clear Time (g_c+I1), s			85.5		29.5	17.4
Green Ext Time (p_c), s			0.0		0.0	8.9

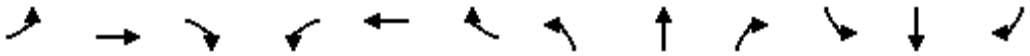
Intersection Summary		
HCM 6th Ctrl Delay	33.1	
HCM 6th LOS	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	424	161	218	10	169	212	720	132	795
Future Volume (vph)	424	161	218	10	169	212	720	132	795
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA
Protected Phases		4		3	8	5	2		6
Permitted Phases	4		4					6	
Detector Phase	4	4	4	3	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	34.0	34.0	34.0	8.0	42.0	14.0	48.0	34.0	34.0
Total Split (%)	37.8%	37.8%	37.8%	8.9%	46.7%	15.6%	53.3%	37.8%	37.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead		Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	35.9	35.9	35.9	3.5	37.5	9.5	43.5	29.5	29.5
Actuated g/C Ratio	0.40	0.40	0.40	0.04	0.42	0.11	0.48	0.33	0.33
v/c Ratio	1.06	0.23	0.30	0.16	0.20	1.22	0.47	1.09	1.11
Control Delay	91.3	19.9	4.1	47.5	10.6	174.6	16.6	141.0	89.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.3	19.9	4.1	47.5	10.6	174.6	16.6	141.0	89.8
LOS	F	B	A	D	B	F	B	F	F
Approach Delay		53.3			12.0		51.6		94.8
Approach LOS		D			B		D		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 65.9	Intersection LOS: E
Intersection Capacity Utilization 98.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	161	218	10	169	103	212	720	23	132	795	424
Future Volume (veh/h)	424	161	218	10	169	103	212	720	23	132	795	424
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	446	169	229	11	178	108	223	758	24	139	837	446
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	433	603	511	16	827	477	237	1775	56	210	725	383
Arrive On Green	0.33	0.33	0.33	0.01	0.39	0.39	0.14	0.51	0.51	0.33	0.33	0.33
Sat Flow, veh/h	1076	1841	1560	1753	2136	1232	1753	3460	110	680	2212	1168
Grp Volume(v), veh/h	446	169	229	11	144	142	223	383	399	139	660	623
Grp Sat Flow(s),veh/h/ln	1076	1841	1560	1753	1749	1619	1753	1749	1821	680	1749	1631
Q Serve(g_s), s	29.5	6.1	6.8	0.6	5.0	5.3	11.3	12.3	12.3	17.2	29.5	29.5
Cycle Q Clear(g_c), s	29.5	6.1	6.8	0.6	5.0	5.3	11.3	12.3	12.3	29.5	29.5	29.5
Prop In Lane	1.00		1.00	1.00		0.76	1.00		0.06	1.00		0.72
Lane Grp Cap(c), veh/h	433	603	511	16	677	627	237	897	934	210	573	534
V/C Ratio(X)	1.03	0.28	0.45	0.67	0.21	0.23	0.94	0.43	0.43	0.66	1.15	1.17
Avail Cap(c_a), veh/h	433	603	511	68	729	675	237	897	934	210	573	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.26	0.26	0.26	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	22.4	10.1	44.4	18.4	18.5	38.6	13.7	13.7	37.0	30.3	30.3
Incr Delay (d2), s/veh	51.4	0.3	0.6	38.4	0.2	0.2	17.4	0.4	0.4	15.3	87.0	93.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.7	2.6	3.6	0.4	2.0	2.0	5.9	4.7	4.9	3.9	25.7	24.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	22.6	10.7	82.9	18.6	18.7	56.0	14.1	14.0	52.2	117.3	123.6
LnGrp LOS	F	C	B	F	B	B	E	B	B	D	F	F
Approach Vol, veh/h		844			297			1005			1422	
Approach Delay, s/veh		52.0			21.0			23.4			113.7	
Approach LOS		D			C			C			F	

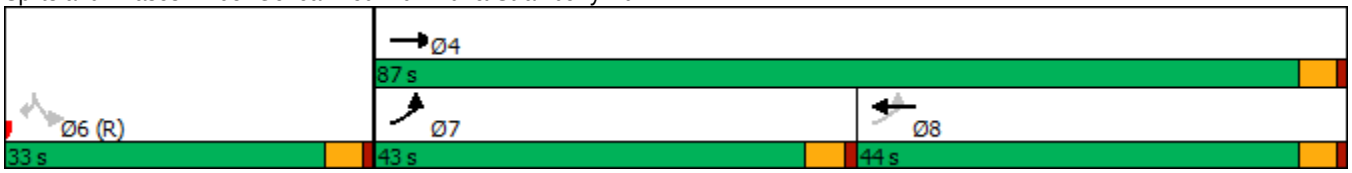
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		50.7	5.3	34.0	16.7	34.0		39.3				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		43.5	3.5	29.5	9.5	29.5		37.5				
Max Q Clear Time (g_c+I1), s		14.3	2.6	31.5	13.3	31.5		7.3				
Green Ext Time (p_c), s		5.5	0.0	0.0	0.0	0.0		1.8				

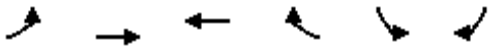
Intersection Summary	
HCM 6th Ctrl Delay	65.9
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	488	1097	771	199	447
Future Volume (vph)	488	1097	771	199	447
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	43.0	87.0	44.0	33.0	33.0
Total Split (%)	35.8%	72.5%	36.7%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	73.5	78.0	38.4	33.0	33.0
Actuated g/C Ratio	0.61	0.65	0.32	0.28	0.28
v/c Ratio	0.90	0.51	0.89	0.44	0.61
Control Delay	42.3	4.7	46.9	41.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	4.7	46.9	41.2	7.2
LOS	D	A	D	D	A
Approach Delay		16.3	46.9	17.7	
Approach LOS		B	D	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 112 (93%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 25.5	Intersection LOS: C
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.





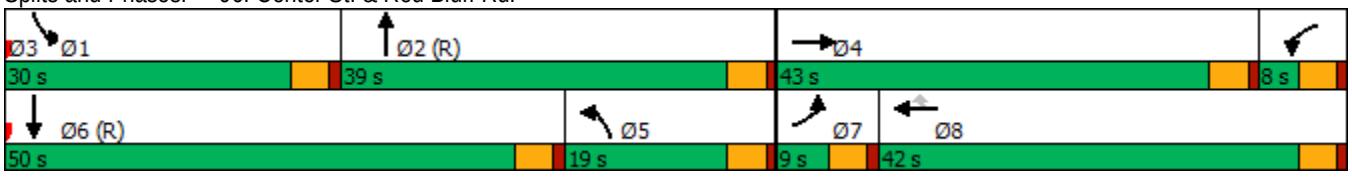
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	488	1097	771	152	199	447
Future Volume (vph)	488	1097	771	152	199	447
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	3471	3385		1736	1553
Flt Permitted	0.10	1.00	1.00		0.95	1.00
Satd. Flow (perm)	190	3471	3385		1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	514	1155	812	160	209	471
RTOR Reduction (vph)	0	0	14	0	0	341
Lane Group Flow (vph)	514	1155	958	0	209	130
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	73.5	78.0	38.4		33.0	33.0
Effective Green, g (s)	73.5	78.0	38.4		33.0	33.0
Actuated g/C Ratio	0.61	0.65	0.32		0.28	0.28
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	568	2256	1083		477	427
v/s Ratio Prot	c0.26	0.33	0.28			
v/s Ratio Perm	c0.29				c0.12	0.08
v/c Ratio	0.90	0.51	0.88		0.44	0.30
Uniform Delay, d1	32.7	11.0	38.7		35.9	34.4
Progression Factor	0.71	0.36	0.98		1.00	1.00
Incremental Delay, d2	16.9	0.2	8.2		2.9	1.8
Delay (s)	40.2	4.2	46.0		38.8	36.2
Level of Service	D	A	D		D	D
Approach Delay (s)		15.3	46.0		37.0	
Approach LOS		B	D		D	

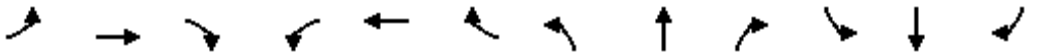
Intersection Summary			
HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	51	696	27	816	323	151	957	373	1034
Future Volume (vph)	51	696	27	816	323	151	957	373	1034
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	43.0	8.0	42.0	42.0	19.0	39.0	30.0	50.0
Total Split (%)	7.5%	35.8%	6.7%	35.0%	35.0%	15.8%	32.5%	25.0%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.5	40.0	3.9	35.8	35.8	14.5	34.5	27.2	47.2
Actuated g/C Ratio	0.04	0.33	0.03	0.30	0.30	0.12	0.29	0.23	0.39
v/c Ratio	0.83	0.89	0.52	0.84	0.49	0.77	1.03	1.01	0.81
Control Delay	125.1	36.0	87.8	47.6	5.7	38.1	46.5	95.0	38.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	125.1	36.0	87.8	47.6	5.7	38.1	46.5	95.0	38.4
LOS	F	D	F	D	A	D	D	F	D
Approach Delay		40.5		36.9			45.4		53.4
Approach LOS		D		D			D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 24 (20%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 44.6	Intersection LOS: D
Intersection Capacity Utilization 94.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	696	256	27	816	323	151	957	11	373	1034	0
Future Volume (veh/h)	51	696	256	27	816	323	151	957	11	373	1034	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	54	740	272	29	868	344	161	1018	12	397	1100	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	66	788	289	36	1041	464	238	1070	13	373	1326	0
Arrive On Green	0.04	0.31	0.31	0.02	0.30	0.30	0.04	0.10	0.10	0.21	0.38	0.00
Sat Flow, veh/h	1753	2504	920	1753	3497	1560	1753	3540	42	1753	3589	0
Grp Volume(v), veh/h	54	517	495	29	868	344	161	503	527	397	1100	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1675	1753	1749	1560	1753	1749	1833	1753	1749	0
Q Serve(g_s), s	3.7	34.5	34.5	2.0	27.8	23.8	10.9	34.3	34.3	25.5	34.2	0.0
Cycle Q Clear(g_c), s	3.7	34.5	34.5	2.0	27.8	23.8	10.9	34.3	34.3	25.5	34.2	0.0
Prop In Lane	1.00		0.55	1.00		1.00	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	66	550	527	36	1041	464	238	529	554	373	1326	0
V/C Ratio(X)	0.82	0.94	0.94	0.81	0.83	0.74	0.68	0.95	0.95	1.07	0.83	0.00
Avail Cap(c_a), veh/h	66	561	537	51	1093	487	238	529	554	373	1326	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.4	40.0	40.0	58.5	39.4	38.0	54.7	53.1	53.1	47.3	33.7	0.0
Incr Delay (d2), s/veh	54.2	23.8	24.5	44.2	5.5	5.7	0.7	4.9	4.7	65.1	6.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	18.3	17.6	1.3	12.6	9.8	5.2	16.9	17.7	17.8	15.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.5	63.8	64.5	102.7	44.8	43.7	55.4	58.0	57.8	112.4	39.9	0.0
LnGrp LOS	F	E	E	F	D	D	E	E	E	F	D	A
Approach Vol, veh/h		1066			1241			1191			1497	
Approach Delay, s/veh		66.5			45.9			57.6			59.1	
Approach LOS		E			D			E			E	

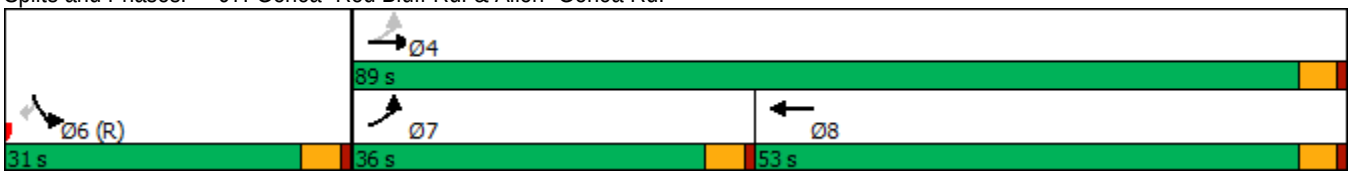
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	40.8	7.0	42.3	20.8	50.0	9.0	40.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.5	34.5	3.5	38.5	14.5	45.5	4.5	37.5
Max Q Clear Time (g_c+I1), s	27.5	36.3	4.0	36.5	12.9	36.2	5.7	29.8
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.1	5.1	0.0	4.2

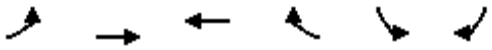
Intersection Summary	
HCM 6th Ctrl Delay	57.0
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	317	1161	889	83	243
Future Volume (vph)	317	1161	889	83	243
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	36.0	89.0	53.0	31.0	31.0
Total Split (%)	30.0%	74.2%	44.2%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	74.9	74.9	44.4	36.1	36.1
Actuated g/C Ratio	0.62	0.62	0.37	0.30	0.30
v/c Ratio	0.79	0.58	0.83	0.17	0.40
Control Delay	42.5	14.1	30.1	35.6	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	14.1	30.1	35.6	12.2
LOS	D	B	C	D	B
Approach Delay		20.2	30.1	18.2	
Approach LOS		C	C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 69 (58%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 23.4	Intersection LOS: C
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	317	1161	889	84	83	243
Future Volume (veh/h)	317	1161	889	84	83	243
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	345	1262	966	91	90	264
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	379	1903	1112	105	667	594
Arrive On Green	0.16	0.54	0.34	0.34	0.38	0.38
Sat Flow, veh/h	1753	3589	3322	304	1753	1560
Grp Volume(v), veh/h	345	1262	523	534	90	264
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1786	1753	1560
Q Serve(g_s), s	16.6	30.9	33.6	33.6	4.0	15.1
Cycle Q Clear(g_c), s	16.6	30.9	33.6	33.6	4.0	15.1
Prop In Lane	1.00			0.17	1.00	1.00
Lane Grp Cap(c), veh/h	379	1903	602	615	667	594
V/C Ratio(X)	0.91	0.66	0.87	0.87	0.13	0.44
Avail Cap(c_a), veh/h	554	2463	707	722	667	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	19.5	36.8	36.8	24.3	27.7
Incr Delay (d2), s/veh	14.6	0.4	10.0	9.8	0.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	12.3	15.8	16.1	1.8	14.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.4	19.9	46.8	46.7	24.7	30.1
LnGrp LOS	D	B	D	D	C	C
Approach Vol, veh/h		1607	1057		354	
Approach Delay, s/veh		25.4	46.7		28.7	
Approach LOS		C	D		C	

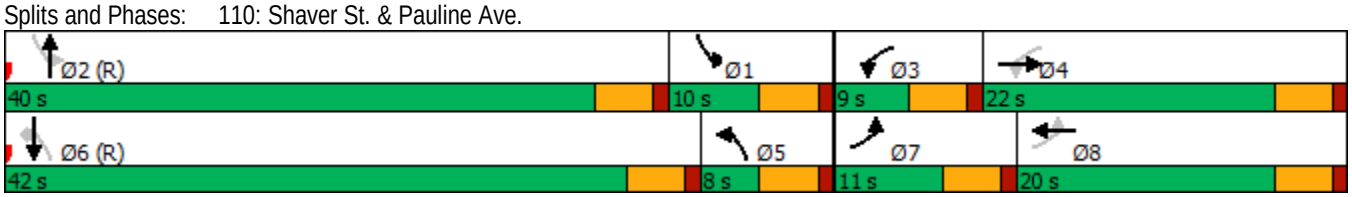
Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		69.8		50.2	24.0	45.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		84.5		26.5	31.5	48.5
Max Q Clear Time (g_c+I1), s		32.9		17.1	18.6	35.6
Green Ext Time (p_c), s		13.6		0.8	0.9	5.7

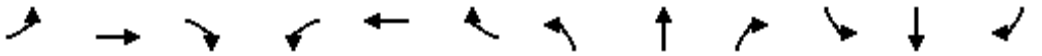
Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	165	183	67	147	58	992	103	1188	189
Future Volume (vph)	165	183	67	147	58	992	103	1188	189
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	11.0	22.0	9.0	20.0	8.0	40.0	10.0	42.0	42.0
Total Split (%)	13.6%	27.2%	11.1%	24.7%	9.9%	49.4%	12.3%	51.9%	51.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.6	17.9	21.5	13.8	44.0	38.9	44.4	40.5	40.5
Actuated g/C Ratio	0.25	0.22	0.27	0.17	0.54	0.48	0.55	0.50	0.50
v/c Ratio	0.69	0.53	0.25	0.77	0.37	0.75	0.56	0.74	0.24
Control Delay	37.8	33.1	22.1	44.7	22.4	21.6	18.5	6.2	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	33.1	22.1	44.7	22.4	21.6	18.5	6.2	1.0
LOS	D	C	C	D	C	C	B	A	A
Approach Delay		35.3		39.6		21.6		6.4	
Approach LOS		D		D		C		A	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 9 (11%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	183	14	67	147	83	58	992	157	103	1188	189
Future Volume (veh/h)	165	183	14	67	147	83	58	992	157	103	1188	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	197	15	72	158	89	62	1067	169	111	1277	203
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	261	341	26	280	185	104	261	1326	210	308	1619	722
Arrive On Green	0.08	0.20	0.20	0.05	0.17	0.17	0.07	0.44	0.44	0.09	0.46	0.46
Sat Flow, veh/h	1753	1689	129	1753	1106	623	1753	3025	478	1753	3497	1560
Grp Volume(v), veh/h	177	0	212	72	0	247	62	616	620	111	1277	203
Grp Sat Flow(s),veh/h/ln	1753	0	1818	1753	0	1729	1753	1749	1755	1753	1749	1560
Q Serve(g_s), s	6.5	0.0	8.5	2.6	0.0	11.2	0.0	24.7	24.9	0.0	25.0	4.2
Cycle Q Clear(g_c), s	6.5	0.0	8.5	2.6	0.0	11.2	0.0	24.7	24.9	0.0	25.0	4.2
Prop In Lane	1.00		0.07	1.00		0.36	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	261	0	367	280	0	289	261	766	769	308	1619	722
V/C Ratio(X)	0.68	0.00	0.58	0.26	0.00	0.85	0.24	0.80	0.81	0.36	0.79	0.28
Avail Cap(c_a), veh/h	261	0	393	297	0	331	261	766	769	308	1619	722
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	29.2	24.4	0.0	32.8	29.8	19.7	19.8	30.6	18.4	5.6
Incr Delay (d2), s/veh	6.8	0.0	1.9	0.5	0.0	17.4	0.4	7.4	7.5	0.7	4.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	3.8	1.1	0.0	6.0	1.1	10.8	10.9	2.0	10.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	31.1	24.9	0.0	50.2	30.2	27.1	27.2	31.3	22.4	6.5
LnGrp LOS	C	A	C	C	A	D	C	C	C	C	C	A
Approach Vol, veh/h		389			319			1298			1591	
Approach Delay, s/veh		32.3			44.5			27.3			21.0	
Approach LOS		C			D			C			C	

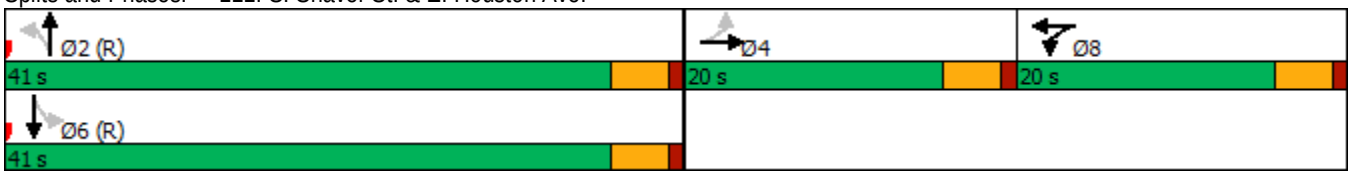
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	40.0	8.2	20.8	10.0	42.0	11.0	18.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	35.5	4.5	17.5	3.5	37.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	26.9	4.6	10.5	2.0	27.0	8.5	13.2
Green Ext Time (p_c), s	0.1	5.1	0.0	0.6	0.0	6.8	0.0	0.3

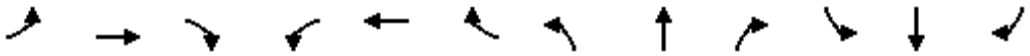
Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	38	20	118	18	19	1039	48	1348
Future Volume (vph)	38	20	118	18	19	1039	48	1348
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	41.0	41.0	41.0	41.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	50.6%	50.6%	50.6%	50.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.5	11.5	11.1	11.1	46.9	46.9	46.9	46.9
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.58	0.58	0.58	0.58
v/c Ratio	0.40	0.15	0.53	0.32	0.20	0.59	0.29	0.73
Control Delay	42.2	20.1	36.1	10.1	15.3	11.4	19.0	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4
Total Delay	42.2	20.1	36.1	10.1	15.3	11.4	19.0	66.8
LOS	D	C	D	B	B	B	B	E
Approach Delay		31.6		25.1		11.4		65.2
Approach LOS		C		C		B		E

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 8 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	20	15	118	18	69	19	1039	69	48	1348	25
Future Volume (veh/h)	38	20	15	118	18	69	19	1039	69	48	1348	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	40	21	16	126	19	73	20	1105	73	51	1434	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	89	49	38	175	33	128	255	2273	150	273	2397	45
Arrive On Green	0.05	0.05	0.05	0.10	0.10	0.10	0.23	0.23	0.23	0.68	0.68	0.68
Sat Flow, veh/h	1753	969	739	1753	333	1278	358	3330	220	468	3511	66
Grp Volume(v), veh/h	40	0	37	126	0	92	20	580	598	51	714	747
Grp Sat Flow(s),veh/h/ln	1753	0	1708	1753	0	1611	358	1749	1801	468	1749	1829
Q Serve(g_s), s	1.8	0.0	1.7	5.6	0.0	4.4	3.9	23.4	23.4	6.0	17.7	17.8
Cycle Q Clear(g_c), s	1.8	0.0	1.7	5.6	0.0	4.4	21.7	23.4	23.4	29.4	17.7	17.8
Prop In Lane	1.00		0.43	1.00		0.79	1.00		0.12	1.00		0.04
Lane Grp Cap(c), veh/h	89	0	87	175	0	161	255	1194	1230	273	1194	1248
V/C Ratio(X)	0.45	0.00	0.43	0.72	0.00	0.57	0.08	0.49	0.49	0.19	0.60	0.60
Avail Cap(c_a), veh/h	335	0	327	335	0	308	255	1194	1230	273	1194	1248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.94	0.00	0.94	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	37.3	35.4	0.0	34.8	26.0	19.0	19.0	16.7	6.9	6.9
Incr Delay (d2), s/veh	3.5	0.0	3.3	5.2	0.0	3.0	0.5	1.1	1.0	1.5	2.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.8	2.6	0.0	1.8	0.4	11.1	11.5	0.7	5.9	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.0	40.6	40.5	0.0	37.8	26.5	20.1	20.1	18.2	9.1	9.0
LnGrp LOS	D	A	D	D	A	D	C	C	C	B	A	A
Approach Vol, veh/h		77			218			1198			1512	
Approach Delay, s/veh		40.7			39.4			20.2			9.4	
Approach LOS		D			D			C			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		59.8		8.6		59.8		12.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		36.5		15.5		36.5		15.5				
Max Q Clear Time (g_c+I1), s		25.4		3.8		31.4		7.6				
Green Ext Time (p_c), s		6.0		0.2		3.9		0.5				

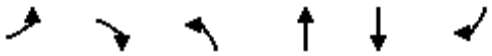
Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	137	65	1653	1893
Future Volume (vph)	137	65	1653	1893
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	20.0	8.0	61.0	53.0
Total Split (%)	24.7%	9.9%	75.3%	65.4%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	13.1	58.9	58.9	52.5
Actuated g/C Ratio	0.16	0.73	0.73	0.65
v/c Ratio	0.72	0.43	0.70	0.97
Control Delay	42.5	13.7	3.8	22.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	42.5	13.7	3.8	22.7
LOS	D	B	A	C
Approach Delay	42.5		4.2	22.7
Approach LOS	D		A	C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	137	61	65	1653	1893	128
Future Volume (vph)	137	61	65	1653	1893	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.96		1.00	1.00	0.99	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1692		1736	3471	3438	
Flt Permitted	0.97		0.07	1.00	1.00	
Satd. Flow (perm)	1692		130	3471	3438	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	147	66	70	1777	2035	138
RTOR Reduction (vph)	21	0	0	0	5	0
Lane Group Flow (vph)	192	0	70	1777	2168	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	13.1		58.9	58.9	51.6	
Effective Green, g (s)	13.1		58.9	58.9	51.6	
Actuated g/C Ratio	0.16		0.73	0.73	0.64	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	273		150	2523	2190	
v/s Ratio Prot			0.02	c0.51	c0.63	
v/s Ratio Perm	c0.11		0.32			
v/c Ratio	0.70		0.47	0.70	0.99	
Uniform Delay, d1	32.1		32.1	6.2	14.4	
Progression Factor	1.00		0.47	0.34	0.44	
Incremental Delay, d2	8.0		2.0	1.4	15.8	
Delay (s)	40.1		17.0	3.5	22.2	
Level of Service	D		B	A	C	
Approach Delay (s)	40.1			4.0	22.2	
Approach LOS	D			A	C	

Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	25	960	113	1096
Future Volume (vph)	25	960	113	1096
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	20.0	61.0	61.0	61.0
Total Split (%)	24.7%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	9.6	62.4		62.4
Actuated g/C Ratio	0.12	0.77		0.77
v/c Ratio	0.69	0.38		0.64
Control Delay	21.5	3.9		6.8
Queue Delay	0.0	0.0		0.0
Total Delay	21.5	3.9		6.8
LOS	C	A		A
Approach Delay	21.5	3.9		6.8
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 7.0	Intersection LOS: A
Intersection Capacity Utilization 89.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	25	201	960	29	113	1096	
Future Volume (veh/h)	25	201	960	29	113	1096	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	
Adj Flow Rate, veh/h	26	207	990	30	116	1130	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	4	4	4	4	4	4	
Cap, veh/h	30	237	2492	76	205	1926	
Arrive On Green	0.17	0.17	0.72	0.72	0.72	0.72	
Sat Flow, veh/h	176	1398	3558	105	211	2763	
Grp Volume(v), veh/h	234	0	500	520	575	671	
Grp Sat Flow(s),veh/h/ln	1580	0	1749	1822	1299	1591	
Q Serve(g_s), s	11.7	0.0	9.1	9.1	5.6	16.6	
Cycle Q Clear(g_c), s	11.7	0.0	9.1	9.1	14.7	16.6	
Prop In Lane	0.11	0.88		0.06	0.20		
Lane Grp Cap(c), veh/h	268	0	1257	1310	988	1144	
V/C Ratio(X)	0.87	0.00	0.40	0.40	0.58	0.59	
Avail Cap(c_a), veh/h	302	0	1257	1310	988	1144	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.85	0.85	
Uniform Delay (d), s/veh	32.8	0.0	4.5	4.5	4.9	5.5	
Incr Delay (d2), s/veh	21.5	0.0	0.9	0.9	2.1	1.9	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	5.9	0.0	2.6	2.7	3.3	4.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	54.2	0.0	5.4	5.4	7.0	7.4	
LnGrp LOS	D	A	A	A	A	A	
Approach Vol, veh/h	234		1020			1246	
Approach Delay, s/veh	54.2		5.4			7.2	
Approach LOS	D		A			A	

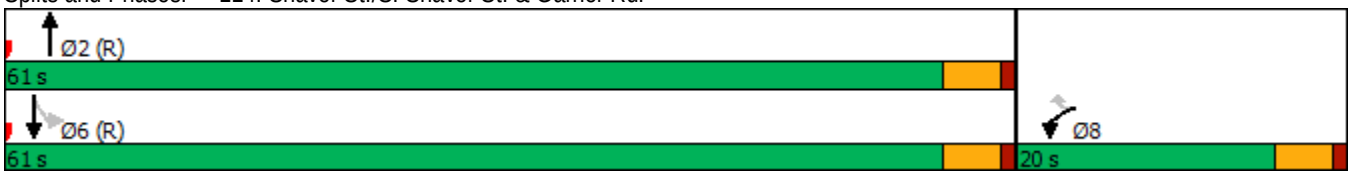
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		62.7			62.7	18.3
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		56.5			56.5	15.5
Max Q Clear Time (g_c+I1), s		11.1			18.6	13.7
Green Ext Time (p_c), s		8.0			12.4	0.1

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	165	165	1281	218	1494
Future Volume (vph)	165	165	1281	218	1494
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	61.0	61.0	61.0
Total Split (%)	24.7%	24.7%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	12.8	12.8	59.2	59.2	59.2
Actuated g/C Ratio	0.16	0.16	0.73	0.73	0.73
v/c Ratio	0.64	0.56	0.62	1.40	0.63
Control Delay	42.2	23.6	2.5	225.1	4.5
Queue Delay	3.1	0.0	0.3	0.0	0.1
Total Delay	45.2	23.6	2.8	225.1	4.7
LOS	D	C	A	F	A
Approach Delay	34.4		2.8		32.7
Approach LOS	C		A		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 33 (41%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 77.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	165	165	1281	187	218	1494
Future Volume (veh/h)	165	165	1281	187	218	1494
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	176	176	1363	199	232	1589
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	246	219	2296	332	332	2618
Arrive On Green	0.14	0.14	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	3158	444	324	3589
Grp Volume(v), veh/h	176	176	772	790	232	1589
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1761	324	1749
Q Serve(g_s), s	7.8	8.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.8	8.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		0.25	1.00	
Lane Grp Cap(c), veh/h	246	219	1309	1318	332	2618
V/C Ratio(X)	0.72	0.80	0.59	0.60	0.70	0.61
Avail Cap(c_a), veh/h	335	299	1309	1318	332	2618
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.64	0.64	0.63	0.63
Uniform Delay (d), s/veh	33.3	33.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	4.5	10.8	1.3	1.3	7.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.9	0.5	0.5	0.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.8	44.5	1.3	1.3	7.5	0.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	352		1562			1821
Approach Delay, s/veh	41.2		1.3			1.5
Approach LOS	D		A			A

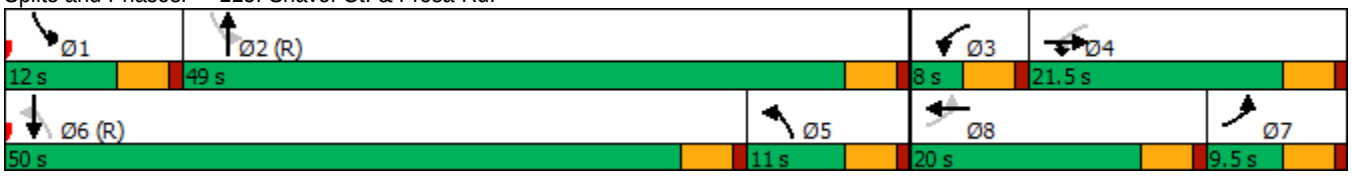
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		65.1			65.1	15.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		56.5			56.5	15.5
Max Q Clear Time (g_c+I1), s		2.0			2.0	10.9
Green Ext Time (p_c), s		18.7			32.2	0.5

Intersection Summary	
HCM 6th Ctrl Delay	5.2
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	3	76	86	43	61	89	1013	99	1089
Future Volume (vph)	3	76	86	43	61	89	1013	99	1089
Turn Type	D.P+P	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	4	3	8	5	2	1	6
Permitted Phases	8			4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.5	21.5	21.5	8.0	20.0	11.0	49.0	12.0	50.0
Total Split (%)	10.5%	23.8%	23.8%	8.8%	22.1%	12.2%	54.1%	13.3%	55.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		9.8	9.8	11.9	14.6	63.3	57.1	63.3	58.1
Actuated g/C Ratio		0.11	0.11	0.13	0.16	0.70	0.63	0.70	0.64
v/c Ratio		0.46	0.29	0.26	0.52	0.30	0.54	0.31	0.53
Control Delay		45.3	2.3	33.8	23.9	10.0	12.7	7.2	11.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		45.3	2.3	33.8	23.9	10.0	12.7	7.2	11.9
LOS		D	A	C	C	A	B	A	B
Approach Delay		22.8			26.0		12.4		11.5
Approach LOS		C			C		B		B

Intersection Summary	
Cycle Length: 90.5	
Actuated Cycle Length: 90.5	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

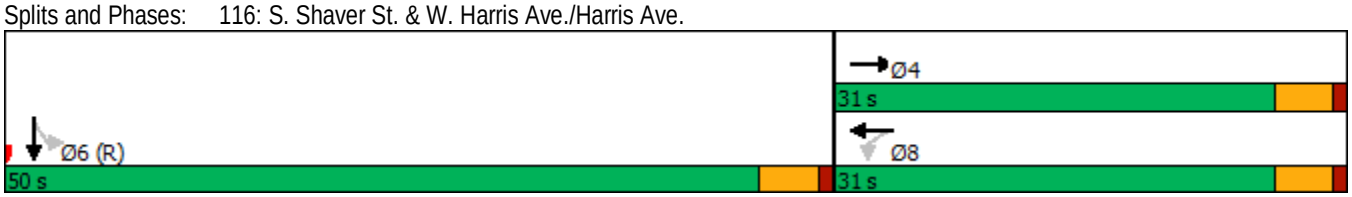
Splits and Phases: 115: Shaver St. & Fresa Rd.

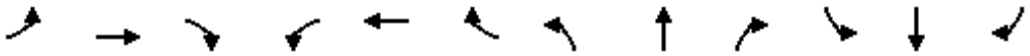


Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	168	124	204	1412
Future Volume (vph)	168	124	204	1412
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	31.0	50.0
Total Split (%)	38.3%	38.3%	38.3%	61.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	18.1		18.1	53.9
Actuated g/C Ratio	0.22		0.22	0.67
v/c Ratio	0.45		0.72	0.53
Control Delay	26.1		26.1	5.8
Queue Delay	0.0		0.0	0.0
Total Delay	26.1		26.1	5.8
LOS	C		C	A
Approach Delay	26.1		26.1	5.8
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 33 (41%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	168	121	124	204	0	0	0	0	121	1412	51
Future Volume (veh/h)	0	168	121	124	204	0	0	0	0	121	1412	51
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	185	133	136	224	0				133	1552	56
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	513	350	241	465	0				241	2996	111
Arrive On Green	0.00	0.26	0.26	0.09	0.09	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	2082	1355	625	1886	0				381	4748	176
Grp Volume(v), veh/h	0	161	157	172	188	0				635	531	574
Grp Sat Flow(s),veh/h/ln	0	1749	1597	835	1591	0				1822	1675	1809
Q Serve(g_s), s	0.0	6.1	6.5	11.1	9.1	0.0				25.3	22.7	22.7
Cycle Q Clear(g_c), s	0.0	6.1	6.5	17.7	9.1	0.0				25.3	22.7	22.7
Prop In Lane	0.00		0.85	0.79		0.00				0.21		0.10
Lane Grp Cap(c), veh/h	0	451	412	295	410	0				1149	1057	1141
V/C Ratio(X)	0.00	0.36	0.38	0.58	0.46	0.00				0.55	0.50	0.50
Avail Cap(c_a), veh/h	0	572	522	375	521	0				1149	1057	1141
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.81	0.81	0.00				0.92	0.92	0.92
Uniform Delay (d), s/veh	0.0	24.6	24.7	38.0	31.7	0.0				21.8	20.8	20.8
Incr Delay (d2), s/veh	0.0	0.5	0.6	1.5	0.6	0.0				1.8	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	2.5	3.8	3.8	0.0				12.6	10.4	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.0	25.3	39.4	32.3	0.0				23.6	22.4	22.3
LnGrp LOS	A	C	C	D	C	A				C	C	C
Approach Vol, veh/h		318			360						1741	
Approach Delay, s/veh		25.2			35.7						22.8	
Approach LOS		C			D						C	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		25.4		55.6		25.4			
Change Period (Y+Rc), s		4.5		4.5		4.5			
Max Green Setting (Gmax), s		26.5		45.5		26.5			
Max Q Clear Time (g_c+I1), s		8.5		27.3		19.7			
Green Ext Time (p_c), s		1.7		11.0		1.2			

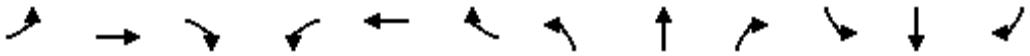
Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	52	248	234	959
Future Volume (vph)	52	248	234	959
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	51.0
Total Split (%)	37.0%	37.0%	37.0%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		15.1	15.1	56.9
Actuated g/C Ratio		0.19	0.19	0.70
v/c Ratio		0.71	0.56	0.38
Control Delay		43.8	25.3	2.2
Queue Delay		0.0	0.0	0.0
Total Delay		43.8	25.3	2.2
LOS		D	C	A
Approach Delay		43.8	25.3	2.2
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 12 (15%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



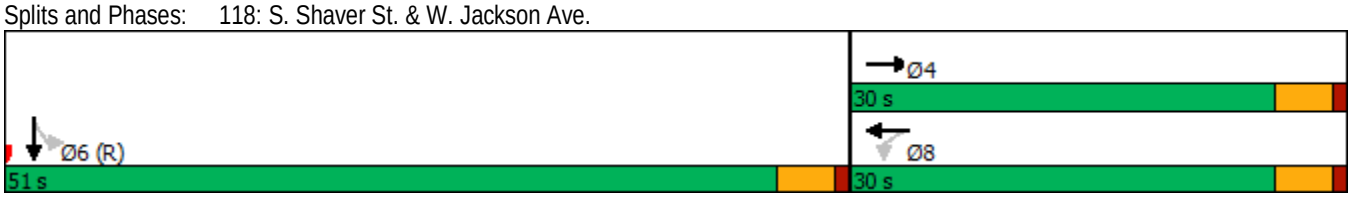


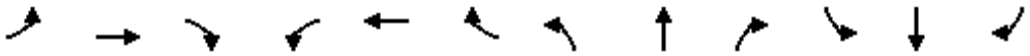
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	248	0	0	234	100	113	959	136	0	0	0
Future Volume (veh/h)	52	248	0	0	234	100	113	959	136	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	56	267	0	0	252	108	122	1031	146			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	108	478	0	0	466	194	321	2888	422			
Arrive On Green	0.06	0.06	0.00	0.00	0.19	0.19	0.23	0.23	0.23			
Sat Flow, veh/h	249	2551	0	0	2499	1002	462	4155	607			
Grp Volume(v), veh/h	160	163	0	0	181	179	480	403	416			
Grp Sat Flow(s),veh/h/ln	1124	1591	0	0	1749	1660	1818	1675	1731			
Q Serve(g_s), s	4.4	8.1	0.0	0.0	7.5	7.9	18.1	16.3	16.3			
Cycle Q Clear(g_c), s	12.3	8.1	0.0	0.0	7.5	7.9	18.1	16.3	16.3			
Prop In Lane	0.35		0.00	0.00		0.60	0.25		0.35			
Lane Grp Cap(c), veh/h	278	308	0	0	339	322	1264	1164	1204			
V/C Ratio(X)	0.57	0.53	0.00	0.00	0.53	0.56	0.38	0.35	0.35			
Avail Cap(c_a), veh/h	450	501	0	0	551	523	1264	1164	1204			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.89	0.89	0.00	0.00	0.75	0.75	0.65	0.65	0.65			
Uniform Delay (d), s/veh	36.0	34.3	0.0	0.0	29.4	29.5	16.5	15.8	15.8			
Incr Delay (d2), s/veh	1.7	1.3	0.0	0.0	1.0	1.1	0.6	0.5	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	3.4	0.0	0.0	3.2	3.2	8.8	7.3	7.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	35.6	0.0	0.0	30.4	30.6	17.0	16.3	16.3			
LnGrp LOS	D	D	A	A	C	C	B	B	B			
Approach Vol, veh/h		323			360			1299				
Approach Delay, s/veh		36.6			30.5			16.6				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		60.8		20.2				20.2				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		46.5		25.5				25.5				
Max Q Clear Time (g_c+I1), s		20.1		14.3				9.9				
Green Ext Time (p_c), s		9.4		1.4				1.9				
Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	133	71	245	1241
Future Volume (vph)	133	71	245	1241
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	51.0
Total Split (%)	37.0%	37.0%	37.0%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	15.6		15.6	56.4
Actuated g/C Ratio	0.19		0.19	0.70
v/c Ratio	0.49		0.71	0.40
Control Delay	26.0		24.7	6.0
Queue Delay	0.0		0.0	0.0
Total Delay	26.0		24.7	6.0
LOS	C		C	A
Approach Delay	26.0		24.7	6.0
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 75 (93%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	133	151	71	245	0	0	0	0	58	1241	24
Future Volume (veh/h)	0	133	151	71	245	0	0	0	0	58	1241	24
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	140	159	75	258	0				61	1306	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	354	315	136	458	0				151	3439	68
Arrive On Green	0.00	0.20	0.20	0.40	0.40	0.00				0.69	0.69	0.69
Sat Flow, veh/h	0	1841	1560	349	2349	0				220	5009	99
Grp Volume(v), veh/h	0	140	159	163	170	0				508	423	461
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1024	1591	0				1830	1675	1823
Q Serve(g_s), s	0.0	5.6	7.3	5.7	6.5	0.0				9.8	8.6	8.6
Cycle Q Clear(g_c), s	0.0	5.6	7.3	13.0	6.5	0.0				9.8	8.6	8.6
Prop In Lane	0.00		1.00	0.46		0.00				0.12		0.05
Lane Grp Cap(c), veh/h	0	354	315	272	322	0				1256	1150	1252
V/C Ratio(X)	0.00	0.40	0.50	0.60	0.53	0.00				0.40	0.37	0.37
Avail Cap(c_a), veh/h	0	551	491	427	501	0				1256	1150	1252
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.84	0.84	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.0	28.7	23.5	21.2	0.0				5.5	5.3	5.3
Incr Delay (d2), s/veh	0.0	0.7	1.2	1.8	1.1	0.0				1.0	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	2.7	2.3	2.1	0.0				3.1	2.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.7	29.9	25.3	22.3	0.0				6.5	6.2	6.2
LnGrp LOS	A	C	C	C	C	A				A	A	A
Approach Vol, veh/h		299			333						1392	
Approach Delay, s/veh		29.4			23.8						6.3	
Approach LOS		C			C						A	

Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				20.9		60.1		20.9				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				25.5		46.5		25.5				
Max Q Clear Time (g_c+I1), s				9.3		11.8		15.0				
Green Ext Time (p_c), s				1.5		11.1		1.4				

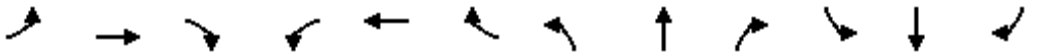
Intersection Summary												
HCM 6th Ctrl Delay			12.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	20	166	198	709
Future Volume (vph)	20	166	198	709
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	31.0	50.0
Total Split (%)	38.3%	38.3%	38.3%	61.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		10.9	10.9	61.1
Actuated g/C Ratio		0.13	0.13	0.75
v/c Ratio		0.50	0.53	0.27
Control Delay		46.2	34.1	2.0
Queue Delay		0.0	0.0	0.0
Total Delay		46.2	34.1	2.0
LOS		D	C	A
Approach Delay		46.2	34.1	2.0
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 62 (77%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 44.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



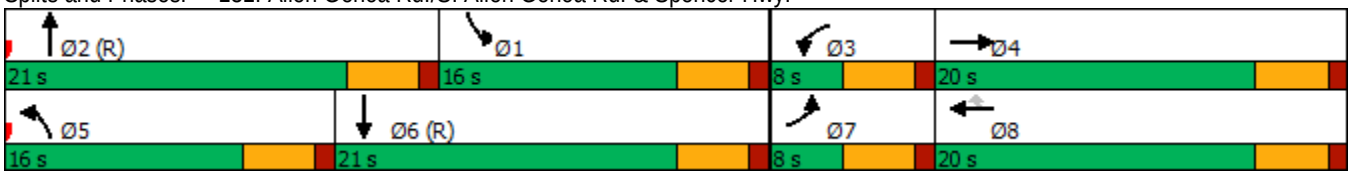


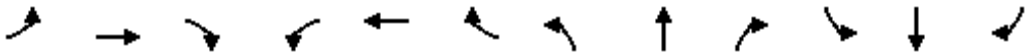
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	166	0	0	198	25	127	709	94	0	0	0
Future Volume (veh/h)	20	166	0	0	198	25	127	709	94	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	21	175	0	0	208	26	134	746	99			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	70	322	0	0	354	44	522	3108	423			
Arrive On Green	0.04	0.04	0.00	0.00	0.11	0.11	0.26	0.26	0.26			
Sat Flow, veh/h	148	2932	0	0	3225	387	673	4007	545			
Grp Volume(v), veh/h	101	95	0	0	115	119	360	303	317			
Grp Sat Flow(s),veh/h/ln	1405	1591	0	0	1749	1771	1807	1675	1743			
Q Serve(g_s), s	1.0	4.8	0.0	0.0	5.1	5.2	12.8	11.6	11.7			
Cycle Q Clear(g_c), s	6.2	4.8	0.0	0.0	5.1	5.2	12.8	11.6	11.7			
Prop In Lane	0.21		0.00	0.00		0.22	0.37		0.31			
Lane Grp Cap(c), veh/h	213	180	0	0	198	200	1402	1300	1352			
V/C Ratio(X)	0.47	0.53	0.00	0.00	0.58	0.59	0.26	0.23	0.23			
Avail Cap(c_a), veh/h	561	521	0	0	572	579	1402	1300	1352			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.87	0.87	0.00	0.00	1.00	1.00	0.93	0.93	0.93			
Uniform Delay (d), s/veh	37.0	36.9	0.0	0.0	34.1	34.2	11.5	11.1	11.1			
Incr Delay (d2), s/veh	1.4	2.1	0.0	0.0	2.7	2.8	0.4	0.4	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	2.0	0.0	0.0	2.2	2.3	6.2	5.0	5.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	39.0	0.0	0.0	36.8	37.0	11.9	11.5	11.5			
LnGrp LOS	D	D	A	A	D	D	B	B	B			
Approach Vol, veh/h		196			234			979				
Approach Delay, s/veh		38.7			36.9			11.6				
Approach LOS		D			D			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		67.3		13.7				13.7				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		45.5		26.5				26.5				
Max Q Clear Time (g_c+I1), s		14.8		8.2				7.2				
Green Ext Time (p_c), s		6.7		1.0				1.2				
Intersection Summary												
HCM 6th Ctrl Delay			19.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	110	1060	66	1153	305	264	658	354	719
Future Volume (vph)	110	1060	66	1153	305	264	658	354	719
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	20.0	16.0	21.0	16.0	21.0
Total Split (%)	12.3%	30.8%	12.3%	30.8%	30.8%	24.6%	32.3%	24.6%	32.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	3.5	17.1	3.5	15.5	15.5	11.5	16.5	11.5	16.5
Actuated g/C Ratio	0.05	0.26	0.05	0.24	0.24	0.18	0.25	0.18	0.25
v/c Ratio	1.24	1.04	0.74	1.05	0.52	0.90	0.90	1.20	0.97
Control Delay	203.3	62.8	76.8	66.0	6.4	60.4	39.1	146.5	50.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	203.3	62.8	76.8	66.0	6.4	60.4	39.1	146.5	50.6
LOS	F	E	E	E	A	E	D	F	D
Approach Delay		73.9		54.5			44.7		80.2
Approach LOS		E		D			D		F

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 63.7	Intersection LOS: E
Intersection Capacity Utilization 90.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1060	220	66	1153	305	264	658	79	354	719	74
Future Volume (veh/h)	110	1060	220	66	1153	305	264	658	79	354	719	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	115	1104	229	69	1201	318	275	685	82	369	749	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	94	1012	210	87	1198	372	310	798	95	310	813	84
Arrive On Green	0.05	0.24	0.24	0.05	0.24	0.24	0.18	0.25	0.25	0.18	0.25	0.25
Sat Flow, veh/h	1753	4171	865	1753	5025	1560	1753	3145	376	1753	3201	329
Grp Volume(v), veh/h	115	887	446	69	1201	318	275	381	386	369	409	417
Grp Sat Flow(s),veh/h/ln	1753	1675	1685	1753	1675	1560	1753	1749	1773	1753	1749	1782
Q Serve(g_s), s	3.5	15.8	15.8	2.5	15.5	7.4	10.0	13.5	13.5	11.5	14.8	14.8
Cycle Q Clear(g_c), s	3.5	15.8	15.8	2.5	15.5	7.4	10.0	13.5	13.5	11.5	14.8	14.8
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.21	1.00		0.18
Lane Grp Cap(c), veh/h	94	813	409	87	1198	372	310	444	450	310	444	452
V/C Ratio(X)	1.22	1.09	1.09	0.79	1.00	0.85	0.89	0.86	0.86	1.19	0.92	0.92
Avail Cap(c_a), veh/h	94	813	409	94	1198	372	310	444	450	310	444	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.12	0.12	0.12	0.85	0.85	0.85	0.85	0.85	0.85
Uniform Delay (d), s/veh	30.8	24.6	24.6	30.6	24.8	8.1	26.1	23.1	23.1	26.8	23.6	23.6
Incr Delay (d2), s/veh	152.9	56.3	67.0	5.2	9.5	2.5	22.1	16.5	16.4	109.5	24.1	23.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	12.0	13.3	1.1	6.6	4.0	5.8	7.2	7.3	13.9	8.6	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	183.7	80.9	91.6	35.8	34.3	10.7	48.2	39.6	39.6	136.2	47.7	47.5
LnGrp LOS	F	F	F	D	F	B	D	D	D	F	D	D
Approach Vol, veh/h		1448			1588			1042			1195	
Approach Delay, s/veh		92.4			29.6			41.9			74.9	
Approach LOS		F			C			D			E	

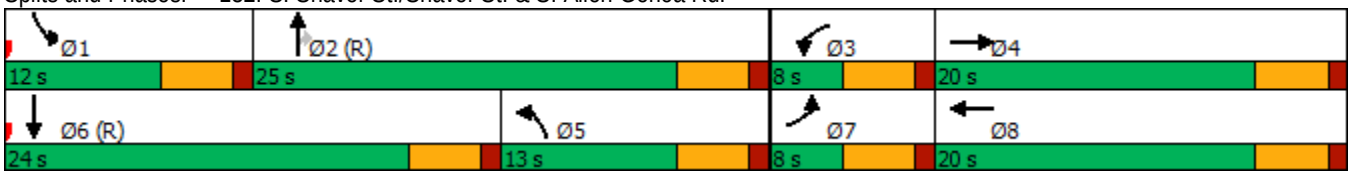
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	21.0	7.7	20.3	16.0	21.0	8.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	16.5	3.5	15.5	11.5	16.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	13.5	15.5	4.5	17.8	12.0	16.8	5.5	17.5
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0

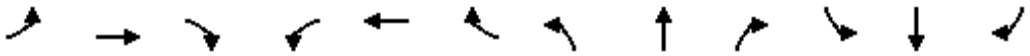
Intersection Summary	
HCM 6th Ctrl Delay	59.5
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	15	423	20	518	255	978	28	166	1128
Future Volume (vph)	15	423	20	518	255	978	28	166	1128
Turn Type	Prot	NA	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases							2		
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	13.0	25.0	25.0	12.0	24.0
Total Split (%)	12.3%	30.8%	12.3%	30.8%	20.0%	38.5%	38.5%	18.5%	36.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	3.5	18.5	3.5	18.5	8.5	22.2	22.2	9.2	22.9
Actuated g/C Ratio	0.05	0.28	0.05	0.28	0.13	0.34	0.34	0.14	0.35
v/c Ratio	0.17	0.70	0.23	0.76	1.18	0.87	0.04	0.71	0.97
Control Delay	33.7	17.4	35.5	25.4	118.9	27.7	0.2	47.8	45.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.7	17.4	35.5	25.4	118.9	27.7	0.2	47.8	45.4
LOS	C	B	D	C	F	C	A	D	D
Approach Delay		17.7		25.6		45.5			45.7
Approach LOS		B		C		D			D

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay: 36.7	Intersection LOS: D
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	423	320	20	518	206	255	978	28	166	1128	3
Future Volume (veh/h)	15	423	320	20	518	206	255	978	28	166	1128	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	16	445	337	21	545	217	268	1029	0	175	1187	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	24	453	341	30	591	235	294	1232		202	1074	3
Arrive On Green	0.01	0.24	0.24	0.02	0.24	0.24	0.17	0.35	0.00	0.12	0.30	0.30
Sat Flow, veh/h	1753	1900	1432	1753	2445	970	1753	3497	1560	1753	3579	9
Grp Volume(v), veh/h	16	409	373	21	389	373	268	1029	0	175	580	610
Grp Sat Flow(s),veh/h/ln	1753	1749	1583	1753	1749	1666	1753	1749	1560	1753	1749	1839
Q Serve(g_s), s	0.6	15.1	15.2	0.8	14.1	14.2	9.8	17.6	0.0	6.4	19.5	19.5
Cycle Q Clear(g_c), s	0.6	15.1	15.2	0.8	14.1	14.2	9.8	17.6	0.0	6.4	19.5	19.5
Prop In Lane	1.00		0.90	1.00		0.58	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	24	417	377	30	423	403	294	1232		202	525	552
V/C Ratio(X)	0.68	0.98	0.99	0.70	0.92	0.92	0.91	0.84		0.87	1.11	1.11
Avail Cap(c_a), veh/h	94	417	377	94	423	403	294	1232		202	525	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.00	0.25	0.25	0.25
Uniform Delay (d), s/veh	31.9	24.6	24.7	31.8	24.0	24.1	26.6	19.3	0.0	28.3	22.7	22.8
Incr Delay (d2), s/veh	28.6	39.1	42.7	26.1	25.2	26.9	4.4	0.7	0.0	9.7	55.2	54.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	10.3	9.8	0.5	8.3	8.1	4.1	6.4	0.0	3.0	15.2	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	63.7	67.4	57.9	49.3	50.9	31.0	20.0	0.0	38.0	78.0	77.7
LnGrp LOS	E	E	E	E	D	D	C	B		D	F	F
Approach Vol, veh/h		798			783			1297	A		1365	
Approach Delay, s/veh		65.4			50.3			22.3			72.7	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	27.4	5.6	20.0	15.4	24.0	5.4	20.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	20.5	3.5	15.5	8.5	19.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	8.4	19.6	2.8	17.2	11.8	21.5	2.6	16.2
Green Ext Time (p_c), s	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.8
HCM 6th LOS	D

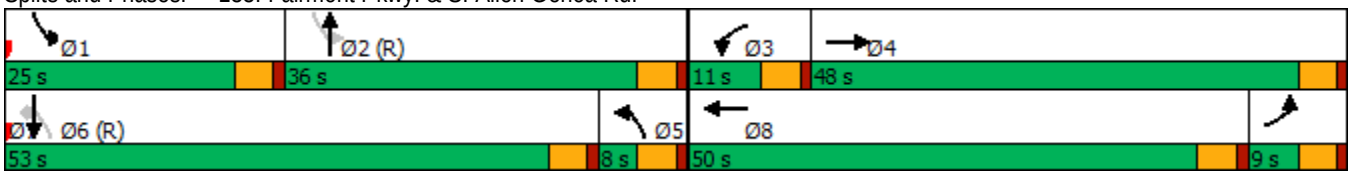
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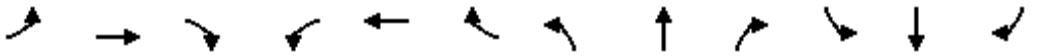
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	41	771	34	778	52	288	301	284	50
Future Volume (vph)	41	771	34	778	52	288	301	284	50
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	9.0	48.0	11.0	50.0	8.0	36.0	25.0	53.0	53.0
Total Split (%)	7.5%	40.0%	9.2%	41.7%	6.7%	30.0%	20.8%	44.2%	44.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	4.8	45.1	6.3	44.4	55.7	37.4	54.8	52.9	52.9
Actuated g/C Ratio	0.04	0.38	0.05	0.37	0.46	0.31	0.46	0.44	0.44
v/c Ratio	0.59	0.47	0.37	0.91	0.12	0.59	0.69	0.36	0.07
Control Delay	90.0	28.9	66.7	44.5	14.2	26.6	28.7	25.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.0	28.9	66.7	44.5	14.2	26.6	28.7	25.5	0.2
LOS	F	C	E	D	B	C	C	C	A
Approach Delay		31.7		45.1		24.9		25.0	
Approach LOS		C		D		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 44 (37%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 34.6	Intersection LOS: C
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	771	88	34	778	359	52	288	41	301	284	50
Future Volume (veh/h)	41	771	88	34	778	359	52	288	41	301	284	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	41	779	89	34	786	363	53	291	41	304	287	51
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	52	1698	193	43	850	392	450	505	71	467	744	630
Arrive On Green	0.03	0.37	0.37	0.02	0.37	0.37	0.05	0.32	0.32	0.13	0.40	0.40
Sat Flow, veh/h	1753	4577	520	1753	2325	1071	1753	1578	222	1753	1841	1560
Grp Volume(v), veh/h	41	569	299	34	591	558	53	0	332	304	287	51
Grp Sat Flow(s),veh/h/ln	1753	1675	1747	1753	1749	1648	1753	0	1801	1753	1841	1560
Q Serve(g_s), s	2.8	15.4	15.6	2.3	38.8	39.0	0.0	0.0	18.4	13.7	13.2	2.4
Cycle Q Clear(g_c), s	2.8	15.4	15.6	2.3	38.8	39.0	0.0	0.0	18.4	13.7	13.2	2.4
Prop In Lane	1.00		0.30	1.00		0.65	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	52	1243	648	43	639	603	450	0	577	467	744	630
V/C Ratio(X)	0.79	0.46	0.46	0.79	0.92	0.93	0.12	0.00	0.58	0.65	0.39	0.08
Avail Cap(c_a), veh/h	66	1243	648	95	663	625	450	0	577	531	744	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.09	0.09	0.09	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	28.6	28.6	58.2	36.5	36.5	27.2	0.0	34.0	23.6	25.2	22.0
Incr Delay (d2), s/veh	27.9	0.2	0.4	3.1	2.4	2.6	0.1	0.0	4.1	2.3	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.2	6.6	1.1	16.7	15.9	1.1	0.0	8.6	5.8	6.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.8	28.8	29.0	61.3	38.8	39.2	27.3	0.0	38.1	25.9	26.7	22.3
LnGrp LOS	F	C	C	E	D	D	C	A	D	C	C	C
Approach Vol, veh/h		909			1183			385			642	
Approach Delay, s/veh		31.4			39.6			36.6			26.0	
Approach LOS		C			D			D			C	

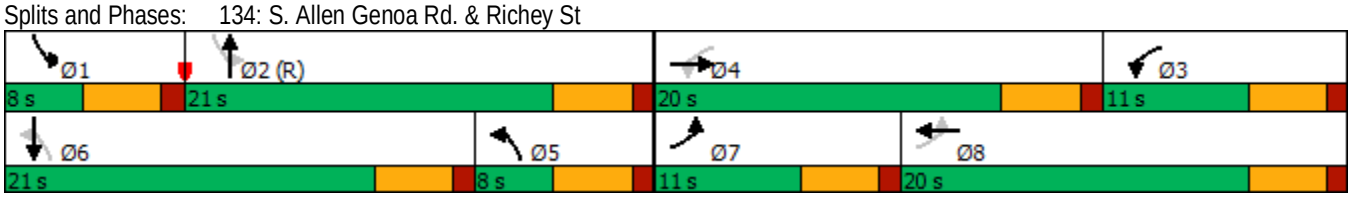
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	42.9	7.4	49.0	10.6	53.0	8.1	48.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	31.5	6.5	43.5	3.5	48.5	4.5	45.5
Max Q Clear Time (g_c+I1), s	15.7	20.4	4.3	17.6	2.0	15.2	4.8	41.0
Green Ext Time (p_c), s	0.4	1.4	0.0	6.3	0.0	1.9	0.0	2.9

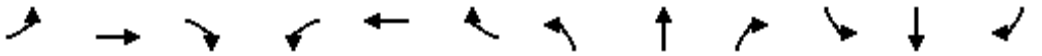
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	203	660	203	726	55	683	51	895
Future Volume (vph)	203	660	203	726	55	683	51	895
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	20.0	11.0	20.0	8.0	21.0	8.0	21.0
Total Split (%)	18.3%	33.3%	18.3%	33.3%	13.3%	35.0%	13.3%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	22.0	15.5	22.0	15.5	21.8	19.7	21.8	19.7
Actuated g/C Ratio	0.37	0.26	0.37	0.26	0.36	0.33	0.36	0.33
v/c Ratio	0.69	0.89	0.69	0.89	0.26	0.74	0.24	1.00
Control Delay	25.9	35.4	28.7	34.1	15.0	20.7	10.6	49.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	35.4	28.7	34.1	15.0	20.7	10.6	49.9
LOS	C	D	C	C	B	C	B	D
Approach Delay		33.4		33.0		20.3		48.1
Approach LOS		C		C		C		D

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 24 (40%), Referenced to phase 2:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 34.7	Intersection LOS: C
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	660	99	203	726	29	55	683	116	51	895	187
Future Volume (veh/h)	203	660	99	203	726	29	55	683	116	51	895	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	214	695	104	214	764	31	58	719	122	54	942	197
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	336	781	117	329	867	35	231	909	154	234	792	165
Arrive On Green	0.11	0.26	0.26	0.11	0.25	0.25	0.06	0.30	0.30	0.03	0.28	0.28
Sat Flow, veh/h	1753	3051	456	1753	3425	139	1753	2991	507	1753	2880	602
Grp Volume(v), veh/h	214	398	401	214	390	405	58	420	421	54	572	567
Grp Sat Flow(s),veh/h/ln	1753	1749	1759	1753	1749	1816	1753	1749	1749	1753	1749	1732
Q Serve(g_s), s	5.3	13.2	13.2	1.8	12.9	12.9	0.0	13.2	13.2	1.3	16.5	16.5
Cycle Q Clear(g_c), s	5.3	13.2	13.2	1.8	12.9	12.9	0.0	13.2	13.2	1.3	16.5	16.5
Prop In Lane	1.00		0.26	1.00		0.08	1.00		0.29	1.00		0.35
Lane Grp Cap(c), veh/h	336	447	450	329	443	460	231	531	532	234	481	476
V/C Ratio(X)	0.64	0.89	0.89	0.65	0.88	0.88	0.25	0.79	0.79	0.23	1.19	1.19
Avail Cap(c_a), veh/h	336	452	454	334	452	469	231	531	532	276	481	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	21.5	21.5	24.1	21.5	21.5	26.3	19.1	19.1	15.1	21.8	21.8
Incr Delay (d2), s/veh	4.0	19.1	19.2	4.3	17.7	17.2	0.6	11.4	11.5	0.5	104.2	105.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	7.2	7.2	2.9	6.9	7.1	0.8	6.4	6.4	0.5	19.9	19.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	40.6	40.7	28.4	39.3	38.8	26.9	30.6	30.6	15.6	125.9	126.9
LnGrp LOS	B	D	D	C	D	D	C	C	C	B	F	F
Approach Vol, veh/h		1013			1009			899			1193	
Approach Delay, s/veh		36.2			36.8			30.3			121.4	
Approach LOS		D			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	22.7	10.8	19.9	8.3	21.0	11.0	19.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	16.5	6.5	15.5	3.5	16.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	3.3	15.2	3.8	15.2	2.0	18.5	7.3	14.9
Green Ext Time (p_c), s	0.0	0.7	0.2	0.2	0.0	0.0	0.0	0.3

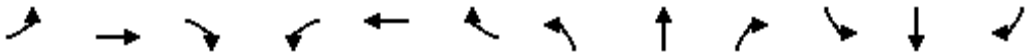
Intersection Summary	
HCM 6th Ctrl Delay	59.8
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	206	3	147	143	646	147	984
Future Volume (vph)	29	206	3	147	143	646	147	984
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	30.0	30.0	30.0	30.0	27.0	63.0	27.0	63.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	22.5%	52.5%	22.5%	52.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		18.1		18.1	15.5	65.9	22.5	72.8
Actuated g/C Ratio		0.15		0.15	0.13	0.55	0.19	0.61
v/c Ratio		0.79		0.51	0.67	0.36	0.47	0.51
Control Delay		51.7		27.8	63.5	16.4	38.2	10.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		51.7		27.8	63.5	16.4	38.2	10.2
LOS		D		C	E	B	D	B
Approach Delay		51.7		27.8		24.9		13.7
Approach LOS		D		C		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 113 (94%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	206	124	3	147	123	143	646	4	147	984	44
Future Volume (veh/h)	29	206	124	3	147	123	143	646	4	147	984	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	215	129	3	153	128	149	673	4	153	1025	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	56	281	176	32	305	233	178	1738	10	411	2114	95
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.10	0.49	0.49	0.23	0.62	0.62
Sat Flow, veh/h	128	1695	1063	9	1839	1407	1753	3564	21	1753	3409	153
Grp Volume(v), veh/h	194	0	180	155	0	129	149	330	347	153	526	545
Grp Sat Flow(s),veh/h/ln	1401	0	1484	1833	0	1422	1753	1749	1837	1753	1749	1813
Q Serve(g_s), s	6.7	0.0	13.8	0.0	0.0	10.0	10.0	14.3	14.3	8.8	19.6	19.6
Cycle Q Clear(g_c), s	16.7	0.0	13.8	9.2	0.0	10.0	10.0	14.3	14.3	8.8	19.6	19.6
Prop In Lane	0.15		0.72	0.02		0.99	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	267	0	246	335	0	236	178	852	895	411	1084	1124
V/C Ratio(X)	0.73	0.00	0.73	0.46	0.00	0.55	0.84	0.39	0.39	0.37	0.48	0.48
Avail Cap(c_a), veh/h	344	0	315	419	0	302	329	852	895	411	1084	1124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.44	0.44	0.44	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	0.0	47.5	45.6	0.0	45.9	52.9	19.4	19.4	38.5	12.4	12.4
Incr Delay (d2), s/veh	5.4	0.0	6.2	1.0	0.0	2.0	4.6	0.6	0.6	0.6	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	5.4	4.2	0.0	3.6	4.6	5.8	6.1	3.8	7.6	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	0.0	53.8	46.6	0.0	47.9	57.6	20.0	20.0	39.1	13.9	13.9
LnGrp LOS	D	A	D	D	A	D	E	C	B	D	B	B
Approach Vol, veh/h		374			284			826			1224	
Approach Delay, s/veh		53.9			47.2			26.8			17.1	
Approach LOS		D			D			C			B	

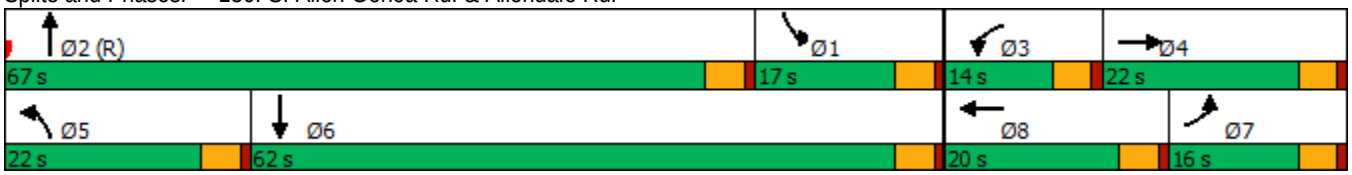
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.6	63.0		24.4	16.7	78.9		24.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	22.5	58.5		25.5	22.5	58.5		25.5				
Max Q Clear Time (g_c+I1), s	10.8	16.3		18.7	12.0	21.6		12.0				
Green Ext Time (p_c), s	0.3	4.5		1.1	0.3	8.4		1.2				

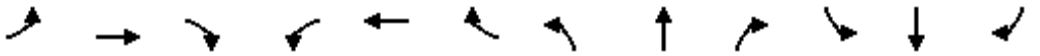
Intersection Summary			
HCM 6th Ctrl Delay		28.3	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	221	55	197	128	705	88	1035
Future Volume (vph)	76	221	55	197	128	705	88	1035
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	22.0	14.0	20.0	22.0	67.0	17.0	62.0
Total Split (%)	13.3%	18.3%	11.7%	16.7%	18.3%	55.8%	14.2%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	10.1	15.1	8.4	13.6	14.1	69.9	10.7	66.4
Actuated g/C Ratio	0.08	0.13	0.07	0.11	0.12	0.58	0.09	0.55
v/c Ratio	0.54	0.72	0.49	0.65	0.68	0.41	0.60	0.63
Control Delay	66.5	52.4	54.5	44.2	66.9	13.3	68.2	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	52.4	54.5	44.2	66.9	13.3	68.2	21.9
LOS	E	D	D	D	E	B	E	C
Approach Delay		55.1		46.1		20.7		25.2
Approach LOS		E		D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 22 (18%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	221	96	55	197	43	128	705	89	88	1035	110
Future Volume (veh/h)	76	221	96	55	197	43	128	705	89	88	1035	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	79	230	100	57	205	45	133	734	0	92	1078	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	119	286	120	73	266	57	162	1822		295	2087	
Arrive On Green	0.07	0.12	0.12	0.04	0.09	0.09	0.09	0.52	0.00	0.17	0.60	0.00
Sat Flow, veh/h	1753	2398	1010	1753	2863	616	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	79	166	164	57	124	126	133	734	0	92	1078	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1659	1753	1749	1730	1753	1749	0	1753	1749	0
Q Serve(g_s), s	5.3	11.1	11.6	3.9	8.3	8.6	8.9	15.3	0.0	5.5	21.6	0.0
Cycle Q Clear(g_c), s	5.3	11.1	11.6	3.9	8.3	8.6	8.9	15.3	0.0	5.5	21.6	0.0
Prop In Lane	1.00		0.61	1.00		0.36	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	119	208	198	73	162	161	162	1822		295	2087	
V/C Ratio(X)	0.66	0.80	0.83	0.78	0.76	0.79	0.82	0.40		0.31	0.52	
Avail Cap(c_a), veh/h	168	255	242	139	226	223	256	1822		295	2087	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.6	51.4	51.7	56.9	53.1	53.3	53.5	17.4	0.0	43.8	14.1	0.0
Incr Delay (d2), s/veh	6.2	13.3	18.0	15.7	9.1	11.4	11.0	0.7	0.0	0.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.6	5.8	2.0	4.0	4.2	4.4	6.2	0.0	2.5	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	64.7	69.7	72.6	62.3	64.7	64.5	18.1	0.0	44.4	14.3	0.0
LnGrp LOS	E	E	E	E	E	E	E	B		D	B	
Approach Vol, veh/h		409			307			867	A		1170	A
Approach Delay, s/veh		66.0			65.2			25.2			16.7	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.7	67.0	9.5	18.8	15.6	76.1	12.7	15.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	62.5	9.5	17.5	17.5	57.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	7.5	17.3	5.9	13.6	10.9	23.6	7.3	10.6
Green Ext Time (p_c), s	0.1	6.1	0.0	0.7	0.2	9.8	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

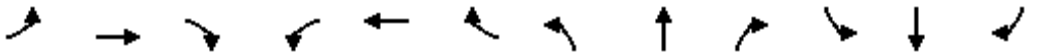
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	147	137	74	104	11	818	85	20	923	150
Future Volume (vph)	147	137	74	104	11	818	85	20	923	150
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	24.0	10.0	20.0	86.0	86.0	86.0	86.0	86.0	86.0
Total Split (%)	11.7%	20.0%	8.3%	16.7%	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	23.2	15.6	15.1	9.6	87.4	87.4	87.4		87.4	87.4
Actuated g/C Ratio	0.19	0.13	0.13	0.08	0.73	0.73	0.73		0.73	0.73
v/c Ratio	0.71	0.47	0.50	0.46	0.04	0.68	0.08		0.46	0.15
Control Delay	47.5	28.2	53.3	54.0	2.5	10.5	0.5		7.7	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	47.5	28.2	53.3	54.0	2.5	10.5	0.5		7.7	1.7
LOS	D	C	D	D	A	B	A		A	A
Approach Delay		36.2		53.7		9.5			6.8	
Approach LOS		D		D		A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 76 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 72.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	137	69	74	104	13	11	818	85	20	923	150
Future Volume (veh/h)	147	137	69	74	104	13	11	818	85	20	923	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	156	146	0	79	111	0	12	870	90	21	982	160
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	223	293		194	177		377	1395	1182	59	2510	1182
Arrive On Green	0.08	0.08	0.00	0.05	0.05	0.00	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1753	3589	0	1753	3589	0	485	1841	1560	37	3313	1560
Grp Volume(v), veh/h	156	146	0	79	111	0	12	870	90	527	476	160
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	485	1841	1560	1759	1591	1560
Q Serve(g_s), s	9.5	4.8	0.0	5.1	3.7	0.0	1.1	26.1	1.8	0.0	12.4	3.3
Cycle Q Clear(g_c), s	9.5	4.8	0.0	5.1	3.7	0.0	13.5	26.1	1.8	11.7	12.4	3.3
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.04		1.00
Lane Grp Cap(c), veh/h	223	293		194	177		377	1395	1182	1364	1206	1182
V/C Ratio(X)	0.70	0.50		0.41	0.63		0.03	0.62	0.08	0.39	0.39	0.14
Avail Cap(c_a), veh/h	223	568		194	452		377	1395	1182	1364	1206	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	52.5	0.0	51.3	55.9	0.0	7.3	6.7	3.7	4.9	5.0	3.9
Incr Delay (d2), s/veh	6.2	0.9	0.0	1.4	3.6	0.0	0.2	2.1	0.1	0.8	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	2.1	0.0	2.3	1.7	0.0	0.1	9.0	0.5	4.0	3.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	53.4	0.0	52.7	59.5	0.0	7.5	8.8	3.9	5.8	6.0	4.2
LnGrp LOS	E	D		D	E		A	A	A	A	A	A
Approach Vol, veh/h		302	A		190	A		972			1163	
Approach Delay, s/veh		54.3			56.7			8.3			5.6	
Approach LOS		D			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		95.4	10.0	14.6		95.4	14.0	10.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		81.5	5.5	19.5		81.5	9.5	15.5				
Max Q Clear Time (g_c+I1), s		28.1	7.1	6.8		14.4	11.5	5.7				
Green Ext Time (p_c), s		8.9	0.0	0.6		9.1	0.0	0.3				

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

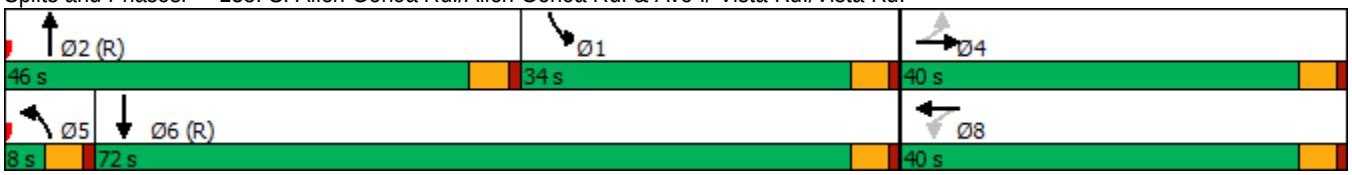
Notes

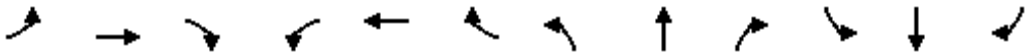
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	14	30	17	48	9	693	229	717
Future Volume (vph)	14	30	17	48	9	693	229	717
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	40.0	40.0	40.0	40.0	8.0	46.0	34.0	72.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	6.7%	38.3%	28.3%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		21.3		21.3	6.0	55.7	29.5	87.6
Actuated g/C Ratio		0.18		0.18	0.05	0.46	0.25	0.73
v/c Ratio		0.31		0.85	0.12	0.50	0.58	0.31
Control Delay		32.4		41.4	57.4	25.3	46.3	7.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		32.4		41.4	57.4	25.3	46.3	7.7
LOS		C		D	E	C	D	A
Approach Delay		32.4		41.4		25.7		17.0
Approach LOS		C		D		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 50 (42%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	30	19	17	48	277	9	693	48	229	717	5
Future Volume (veh/h)	14	30	19	17	48	277	9	693	48	229	717	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	15	33	21	18	52	301	10	753	52	249	779	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	81	169	94	42	66	328	14	1148	79	505	2229	14
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.01	0.35	0.35	0.29	0.63	0.63
Sat Flow, veh/h	176	668	370	41	260	1292	1753	3319	229	1753	3562	23
Grp Volume(v), veh/h	69	0	0	371	0	0	10	397	408	249	382	402
Grp Sat Flow(s),veh/h/ln	1214	0	0	1592	0	0	1753	1749	1799	1753	1749	1837
Q Serve(g_s), s	0.0	0.0	0.0	12.9	0.0	0.0	0.7	23.0	23.0	14.1	12.6	12.6
Cycle Q Clear(g_c), s	3.7	0.0	0.0	27.2	0.0	0.0	0.7	23.0	23.0	14.1	12.6	12.6
Prop In Lane	0.22		0.30	0.05		0.81	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	344	0	0	435	0	0	14	605	622	505	1094	1149
V/C Ratio(X)	0.20	0.00	0.00	0.85	0.00	0.00	0.69	0.66	0.66	0.49	0.35	0.35
Avail Cap(c_a), veh/h	407	0	0	502	0	0	51	605	622	505	1094	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.71	0.00	0.00	1.00	1.00	1.00	0.20	0.20	0.20
Uniform Delay (d), s/veh	34.8	0.0	0.0	43.5	0.0	0.0	59.4	33.2	33.2	35.4	10.8	10.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	8.8	0.0	0.0	45.1	5.5	5.3	0.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	11.7	0.0	0.0	0.5	10.6	10.9	6.1	4.7	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	0.0	0.0	52.3	0.0	0.0	104.5	38.7	38.6	35.6	10.9	10.9
LnGrp LOS	D	A	A	D	A	A	F	D	D	D	B	B
Approach Vol, veh/h		69			371			815			1033	
Approach Delay, s/veh		35.1			52.3			39.4			16.9	
Approach LOS		D			D			D			B	

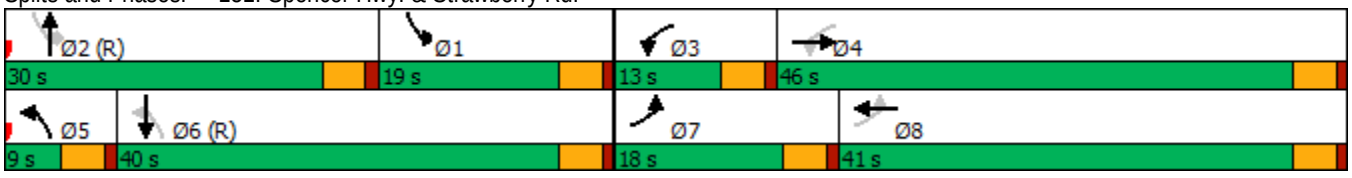
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.1	46.0		34.9	5.5	79.6		34.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	29.5	41.5		35.5	3.5	67.5		35.5				
Max Q Clear Time (g_c+I1), s	16.1	25.0		5.7	2.7	14.6		29.2				
Green Ext Time (p_c), s	0.6	4.7		0.4	0.0	5.9		1.3				

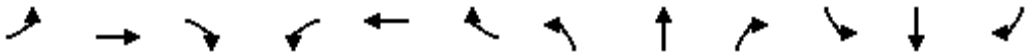
Intersection Summary												
HCM 6th Ctrl Delay			31.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	249	1481	141	1416	113	615	193	282	664
Future Volume (vph)	249	1481	141	1416	113	615	193	282	664
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	18.0	46.0	13.0	41.0	9.0	30.0	30.0	19.0	40.0
Total Split (%)	16.7%	42.6%	12.0%	38.0%	8.3%	27.8%	27.8%	17.6%	37.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	50.0	41.7	50.0	36.5	40.0	25.5	25.5	40.0	35.5
Actuated g/C Ratio	0.46	0.39	0.46	0.34	0.37	0.24	0.24	0.37	0.33
v/c Ratio	0.92	0.88	0.72	1.02	0.88	0.79	0.41	0.99	0.83
Control Delay	66.2	37.4	40.1	63.4	80.0	47.2	8.4	78.8	29.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	37.4	40.1	63.4	80.0	47.2	8.4	78.8	29.2
LOS	E	D	D	E	F	D	A	E	C
Approach Delay		41.3		61.5		43.1			40.9
Approach LOS		D		E		D			D

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 77 (71%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 47.7	Intersection LOS: D
Intersection Capacity Utilization 98.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	1481	112	141	1416	201	113	615	193	282	664	254
Future Volume (veh/h)	249	1481	112	141	1416	201	113	615	193	282	664	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	254	1511	114	144	1445	205	115	628	197	288	678	259
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	282	1865	141	216	1503	213	188	826	368	356	826	316
Arrive On Green	0.12	0.39	0.39	0.07	0.34	0.34	0.04	0.24	0.24	0.14	0.33	0.33
Sat Flow, veh/h	1753	4767	360	1753	4447	630	1753	3497	1560	1753	2474	945
Grp Volume(v), veh/h	254	1062	563	144	1088	562	115	628	197	288	479	458
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1727	1753	1749	1560	1753	1749	1671
Q Serve(g_s), s	10.9	30.5	30.5	5.2	34.4	34.5	4.5	18.1	9.6	10.0	27.2	27.2
Cycle Q Clear(g_c), s	10.9	30.5	30.5	5.2	34.4	34.5	4.5	18.1	9.6	10.0	27.2	27.2
Prop In Lane	1.00		0.20	1.00		0.36	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	282	1311	695	216	1132	584	188	826	368	356	584	558
V/C Ratio(X)	0.90	0.81	0.81	0.67	0.96	0.96	0.61	0.76	0.53	0.81	0.82	0.82
Avail Cap(c_a), veh/h	291	1311	695	238	1132	584	188	826	368	356	584	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.19	0.19	0.19	0.36	0.36	0.36	0.80	0.80	0.80
Uniform Delay (d), s/veh	28.4	29.3	29.3	24.2	35.1	35.1	27.8	38.4	23.3	41.8	33.0	33.0
Incr Delay (d2), s/veh	24.8	3.3	6.1	1.2	5.4	9.2	2.1	2.4	2.0	10.6	10.0	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	12.2	13.5	2.1	14.2	15.3	2.0	7.9	3.6	8.2	12.8	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	32.6	35.4	25.4	40.5	44.2	29.9	40.8	25.3	52.4	43.0	43.5
LnGrp LOS	D	C	D	C	D	D	C	D	C	D	D	D
Approach Vol, veh/h		1879			1794			940			1225	
Approach Delay, s/veh		36.2			40.4			36.2			45.4	
Approach LOS		D			D			D			D	

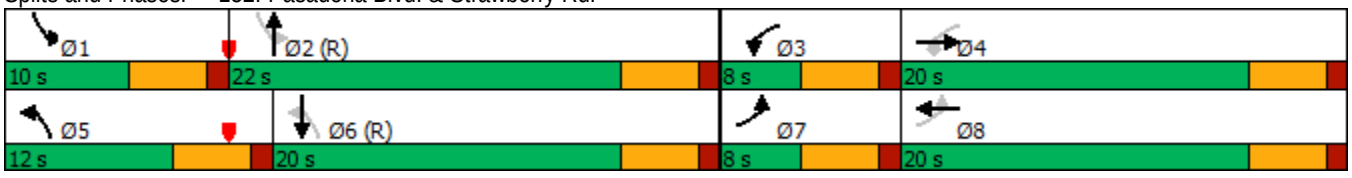
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	30.0	11.7	46.8	9.0	40.6	17.4	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	25.5	8.5	41.5	4.5	35.5	13.5	36.5
Max Q Clear Time (g_c+I1), s	12.0	20.1	7.2	32.5	6.5	29.2	12.9	36.5
Green Ext Time (p_c), s	0.2	2.3	0.0	6.2	0.0	3.1	0.0	0.0

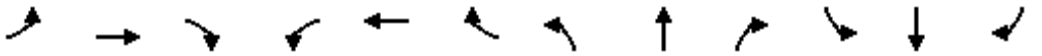
Intersection Summary	
HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	66	681	467	221	597	347	650	113	733
Future Volume (vph)	66	681	467	221	597	347	650	113	733
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	20.0	8.0	20.0	12.0	22.0	10.0	20.0
Total Split (%)	13.3%	33.3%	33.3%	13.3%	33.3%	20.0%	36.7%	16.7%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	20.6	15.3	15.3	18.8	18.5	23.2	19.7	24.1	15.5
Actuated g/C Ratio	0.34	0.26	0.26	0.31	0.31	0.39	0.33	0.40	0.26
v/c Ratio	0.29	0.79	0.80	1.08	0.66	1.07	0.76	0.40	0.90
Control Delay	15.2	28.9	21.7	106.8	22.4	88.2	24.8	14.0	37.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	28.9	21.7	106.8	22.4	88.2	24.8	14.0	37.5
LOS	B	C	C	F	C	F	C	B	D
Approach Delay		25.4			43.0		44.2		34.5
Approach LOS		C			D		D		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 36.3	Intersection LOS: D
Intersection Capacity Utilization 92.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	681	467	221	597	88	347	650	138	113	733	52
Future Volume (veh/h)	66	681	467	221	597	88	347	650	138	113	733	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	68	702	481	228	615	91	358	670	142	116	756	54
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	260	903	403	256	842	124	365	911	193	308	855	61
Arrive On Green	0.04	0.26	0.26	0.06	0.28	0.28	0.13	0.32	0.32	0.07	0.26	0.26
Sat Flow, veh/h	1753	3497	1560	1753	3057	451	1753	2872	608	1753	3310	236
Grp Volume(v), veh/h	68	702	481	228	351	355	358	408	404	116	399	411
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1759	1753	1749	1731	1753	1749	1798
Q Serve(g_s), s	1.7	11.2	15.5	3.5	10.9	11.0	7.5	12.5	12.5	2.6	13.2	13.2
Cycle Q Clear(g_c), s	1.7	11.2	15.5	3.5	10.9	11.0	7.5	12.5	12.5	2.6	13.2	13.2
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.35	1.00		0.13
Lane Grp Cap(c), veh/h	260	903	403	256	482	484	365	555	549	308	452	465
V/C Ratio(X)	0.26	0.78	1.19	0.89	0.73	0.73	0.98	0.74	0.74	0.38	0.88	0.88
Avail Cap(c_a), veh/h	290	903	403	256	482	484	365	555	549	353	452	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.47	0.47	0.47	0.90	0.90	0.90	0.94	0.94	0.94
Uniform Delay (d), s/veh	15.7	20.6	22.2	21.9	19.7	19.7	18.1	18.2	18.3	13.8	21.4	21.4
Incr Delay (d2), s/veh	0.5	4.2	108.6	16.7	2.7	2.7	39.6	7.6	7.7	0.7	20.5	20.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.7	17.2	2.6	4.3	4.3	7.2	5.6	5.5	0.9	7.3	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	24.8	130.8	38.7	22.4	22.4	57.8	25.9	26.0	14.5	41.8	41.5
LnGrp LOS	B	C	F	D	C	C	E	C	C	B	D	D
Approach Vol, veh/h		1251			934			1170			926	
Approach Delay, s/veh		65.1			26.4			35.7			38.3	
Approach LOS		E			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	23.5	8.0	20.0	12.0	20.0	7.0	21.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	17.5	3.5	15.5	7.5	15.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	4.6	14.5	5.5	17.5	9.5	15.2	3.7	13.0
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.2	0.0	1.1

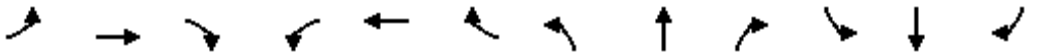
Intersection Summary	
HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	104	3	1	1	141	1065	1	1277
Future Volume (vph)	104	3	1	1	141	1065	1	1277
Turn Type	Perm	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	21.0	21.0	17.0	79.0	8.0	70.0
Total Split (%)	19.4%	19.4%	19.4%	19.4%	15.7%	73.1%	7.4%	64.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.2	13.2		13.2	81.3	84.2	84.9	68.8
Actuated g/C Ratio	0.12	0.12		0.12	0.75	0.78	0.79	0.64
v/c Ratio	0.66	0.54		0.01	0.47	0.42	0.00	0.68
Control Delay	62.9	12.4		39.5	11.8	1.7	3.0	14.9
Queue Delay	0.0	0.0		0.0	0.3	0.2	0.0	0.0
Total Delay	62.9	12.4		39.5	12.1	1.8	3.0	15.0
LOS	E	B		D	B	A	A	B
Approach Delay		30.9		39.5		3.0		15.0
Approach LOS		C		D		A		B

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 107 (99%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	3	178	1	1	0	141	1065	3	1	1277	119
Future Volume (veh/h)	104	3	178	1	1	0	141	1065	3	1	1277	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	3	189	1	1	0	150	1133	3	1	1359	127
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	216	3	217	65	49	0	402	2623	7	426	1962	182
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.00	0.26	1.00	1.00	0.00	0.61	0.61
Sat Flow, veh/h	1394	24	1539	105	346	0	1753	3578	9	1753	3234	301
Grp Volume(v), veh/h	111	0	192	2	0	0	150	554	582	1	732	754
Grp Sat Flow(s),veh/h/ln	1394	0	1564	451	0	0	1753	1749	1839	1753	1749	1787
Q Serve(g_s), s	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.6	31.0
Cycle Q Clear(g_c), s	11.6	0.0	13.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	30.6	31.0
Prop In Lane	1.00		0.98	0.50		0.00	1.00		0.01	1.00		0.17
Lane Grp Cap(c), veh/h	216	0	220	113	0	0	402	1282	1348	426	1061	1084
V/C Ratio(X)	0.51	0.00	0.87	0.02	0.00	0.00	0.37	0.43	0.43	0.00	0.69	0.70
Avail Cap(c_a), veh/h	232	0	239	130	0	0	402	1282	1348	481	1061	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.80	0.80	0.80	0.32	0.32	0.32
Uniform Delay (d), s/veh	44.8	0.0	45.4	40.5	0.0	0.0	22.3	0.0	0.0	3.8	14.4	14.5
Incr Delay (d2), s/veh	1.9	0.0	26.3	0.1	0.0	0.0	0.5	0.9	0.8	0.0	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	6.6	0.0	0.0	0.0	2.8	0.3	0.3	0.0	11.6	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	0.0	71.8	40.5	0.0	0.0	22.7	0.9	0.8	3.8	15.6	15.7
LnGrp LOS	D	A	E	D	A	A	C	A	A	A	B	B
Approach Vol, veh/h		303			2			1286			1487	
Approach Delay, s/veh		62.6			40.5			3.4			15.6	
Approach LOS		E			D			A			B	

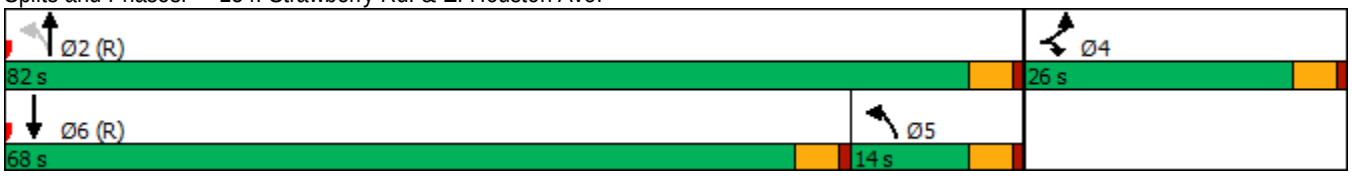
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	83.7		19.7	18.3	70.0		19.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	74.5		16.5	12.5	65.5		16.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		15.0	2.0	33.0		15.0				
Green Ext Time (p_c), s	0.0	9.7		0.2	0.3	14.2		0.0				

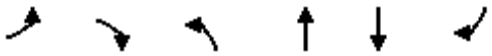
Intersection Summary			
HCM 6th Ctrl Delay		15.1	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	51	89	48	739	824
Future Volume (vph)	51	89	48	739	824
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	26.0	26.0	14.0	82.0	68.0
Total Split (%)	24.1%	24.1%	13.0%	75.9%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.7	8.7	93.2	93.2	82.0
Actuated g/C Ratio	0.08	0.08	0.86	0.86	0.76
v/c Ratio	0.39	0.45	0.09	0.26	0.36
Control Delay	54.2	16.3	2.4	2.1	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	16.3	2.4	2.1	6.3
LOS	D	B	A	A	A
Approach Delay	30.0			2.1	6.3
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 12 (11%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	89	48	739	824	51
Future Volume (veh/h)	51	89	48	739	824	51
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	54	95	51	786	877	54
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	141	125	680	2925	1967	121
Arrive On Green	0.08	0.08	0.21	0.84	0.59	0.59
Sat Flow, veh/h	1753	1560	1753	3589	3438	206
Grp Volume(v), veh/h	54	95	51	786	458	473
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1804
Q Serve(g_s), s	3.2	6.4	0.0	5.1	15.8	15.8
Cycle Q Clear(g_c), s	3.2	6.4	0.0	5.1	15.8	15.8
Prop In Lane	1.00	1.00	1.00			0.11
Lane Grp Cap(c), veh/h	141	125	680	2925	1028	1060
V/C Ratio(X)	0.38	0.76	0.08	0.27	0.45	0.45
Avail Cap(c_a), veh/h	349	311	680	2925	1028	1060
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.61	0.61	0.68	0.68
Uniform Delay (d), s/veh	47.1	48.6	8.1	1.9	12.4	12.4
Incr Delay (d2), s/veh	1.6	8.3	0.0	0.1	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.8	0.5	1.0	6.0	6.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.7	56.9	8.1	2.0	13.4	13.3
LnGrp LOS	D	E	A	A	B	B
Approach Vol, veh/h	149			837	931	
Approach Delay, s/veh	54.0			2.4	13.4	
Approach LOS	D			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.8		13.2	26.8	68.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		77.5		21.5	9.5	63.5
Max Q Clear Time (g_c+I1), s		7.1		8.4	2.0	17.8
Green Ext Time (p_c), s		6.4		0.3	0.0	7.0

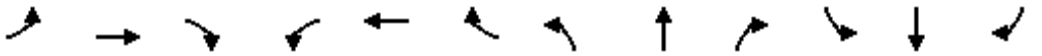
Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	255	46	230	77	474	221	899
Future Volume (vph)	29	255	46	230	77	474	221	899
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	27.0	15.0	29.0	18.0	42.0	36.0	60.0
Total Split (%)	10.8%	22.5%	12.5%	24.2%	15.0%	35.0%	30.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	16.9	8.4	20.2	10.7	57.6	21.2	70.2
Actuated g/C Ratio	0.06	0.14	0.07	0.17	0.09	0.48	0.18	0.58
v/c Ratio	0.29	0.71	0.40	0.63	0.52	0.35	0.75	0.48
Control Delay	60.4	52.4	62.4	34.7	63.2	22.4	61.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	52.4	62.4	34.7	63.2	22.4	61.8	18.1
LOS	E	D	E	C	E	C	E	B
Approach Delay		53.0		37.6		27.4		26.5
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	255	84	46	230	173	77	474	75	221	899	32
Future Volume (veh/h)	29	255	84	46	230	173	77	474	75	221	899	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	266	88	48	240	180	80	494	78	230	936	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	37	364	118	62	299	215	102	1590	250	262	2126	75
Arrive On Green	0.02	0.14	0.14	0.04	0.15	0.15	0.06	0.53	0.53	0.15	0.62	0.62
Sat Flow, veh/h	1753	2598	840	1753	1940	1397	1753	3028	476	1753	3446	121
Grp Volume(v), veh/h	30	177	177	48	215	205	80	284	288	230	475	494
Grp Sat Flow(s),veh/h/ln	1753	1749	1689	1753	1749	1589	1753	1749	1755	1753	1749	1819
Q Serve(g_s), s	2.0	11.6	12.1	3.3	14.3	15.0	5.4	11.1	11.2	15.4	17.1	17.1
Cycle Q Clear(g_c), s	2.0	11.6	12.1	3.3	14.3	15.0	5.4	11.1	11.2	15.4	17.1	17.1
Prop In Lane	1.00		0.50	1.00		0.88	1.00		0.27	1.00		0.07
Lane Grp Cap(c), veh/h	37	245	237	62	269	245	102	919	922	262	1079	1122
V/C Ratio(X)	0.80	0.72	0.75	0.78	0.80	0.84	0.79	0.31	0.31	0.88	0.44	0.44
Avail Cap(c_a), veh/h	124	328	317	153	357	324	197	919	922	460	1079	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	49.4	49.6	57.4	49.0	49.3	55.8	16.1	16.2	50.0	12.1	12.1
Incr Delay (d2), s/veh	21.6	3.3	4.3	18.7	9.2	13.5	12.5	0.9	0.9	9.1	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.3	5.3	1.8	6.8	6.8	2.7	4.5	4.6	7.3	6.7	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.0	52.7	53.8	76.1	58.2	62.8	68.3	17.0	17.1	59.1	13.4	13.4
LnGrp LOS	F	D	D	E	E	E	E	B	B	E	B	B
Approach Vol, veh/h		384			468			652			1199	
Approach Delay, s/veh		55.4			62.0			23.3			22.1	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	67.5	8.7	21.3	11.5	78.5	7.1	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	31.5	37.5	10.5	22.5	13.5	55.5	8.5	24.5
Max Q Clear Time (g_c+I1), s	17.4	13.2	5.3	14.1	7.4	19.1	4.0	17.0
Green Ext Time (p_c), s	0.5	3.5	0.0	1.3	0.1	7.2	0.0	1.5

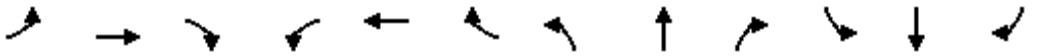
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	10	117	10	28	1086	151	1288
Future Volume (vph)	10	117	10	28	1086	151	1288
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	25.0	25.0	25.0	8.0	65.0	18.0	75.0
Total Split (%)	23.1%	23.1%	23.1%	7.4%	60.2%	16.7%	69.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.2	15.2	15.2	81.1	70.5	79.3	79.0
Actuated g/C Ratio	0.14	0.14	0.14	0.75	0.65	0.73	0.73
v/c Ratio	0.12	0.68	0.42	0.12	0.57	0.50	0.56
Control Delay	22.1	61.2	12.5	2.0	5.3	12.2	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	22.1	61.2	12.5	2.0	5.3	12.2	2.1
LOS	C	E	B	A	A	B	A
Approach Delay	22.1		36.0		5.2		3.2
Approach LOS	C		D		A		A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 4 (4%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	10	17	117	10	116	28	1086	80	151	1288	3
Future Volume (veh/h)	0	10	17	117	10	116	28	1086	80	151	1288	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	11	19	129	11	127	31	1193	88	166	1415	3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	81	139	226	17	194	466	2287	169	373	2337	5
Arrive On Green	0.00	0.13	0.13	0.13	0.13	0.13	0.09	0.69	0.69	0.10	1.00	1.00
Sat Flow, veh/h	0	606	1046	1358	126	1453	1753	3302	243	1753	3580	8
Grp Volume(v), veh/h	0	0	30	129	0	138	31	631	650	166	691	727
Grp Sat Flow(s),veh/h/ln	0	0	1652	1358	0	1579	1753	1749	1797	1753	1749	1839
Q Serve(g_s), s	0.0	0.0	1.7	10.0	0.0	9.0	0.0	18.7	18.8	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.7	11.7	0.0	9.0	0.0	18.7	18.8	3.1	0.0	0.0
Prop In Lane	0.00		0.63	1.00		0.92	1.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	220	226	0	210	466	1211	1245	373	1142	1201
V/C Ratio(X)	0.00	0.00	0.14	0.57	0.00	0.66	0.07	0.52	0.52	0.44	0.61	0.61
Avail Cap(c_a), veh/h	0	0	314	303	0	300	466	1211	1245	506	1142	1201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.45	0.45	0.45	0.68	0.68	0.68
Uniform Delay (d), s/veh	0.0	0.0	41.3	46.5	0.0	44.5	3.9	8.0	8.0	6.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	2.3	0.0	3.5	0.0	0.7	0.7	0.6	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	3.5	0.0	3.7	0.2	6.3	6.5	0.9	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	41.6	48.8	0.0	47.9	4.0	8.7	8.7	6.8	1.6	1.6
LnGrp LOS	A	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		30			267			1312			1584	
Approach Delay, s/veh		41.6			48.3			8.6			2.1	
Approach LOS		D			D			A			A	

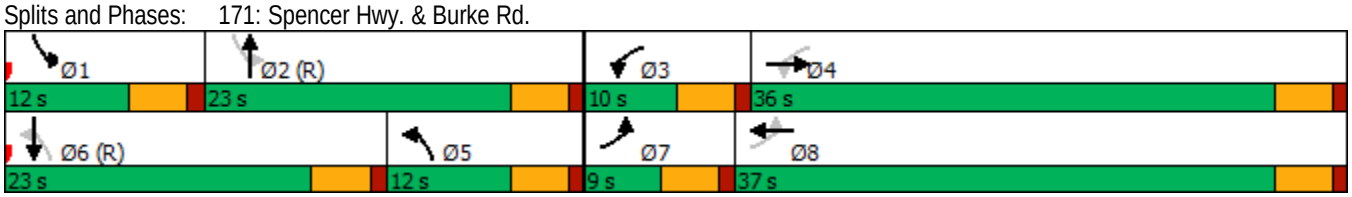
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	79.3		18.9	14.1	75.0		18.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	60.5		20.5	3.5	70.5		20.5				
Max Q Clear Time (g_c+I1), s	5.1	20.8		3.7	2.0	2.0		13.7				
Green Ext Time (p_c), s	0.3	11.3		0.1	0.0	14.6		0.6				

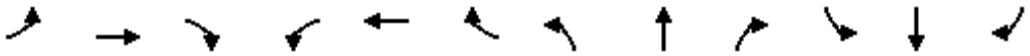
Intersection Summary			
HCM 6th Ctrl Delay		9.0	
HCM 6th LOS		A	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	145	1451	166	1609	190	401	206	359
Future Volume (vph)	145	1451	166	1609	190	401	206	359
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	36.0	10.0	37.0	12.0	23.0	12.0	23.0
Total Split (%)	11.1%	44.4%	12.3%	45.7%	14.8%	28.4%	14.8%	28.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	37.0	31.5	37.0	32.5	26.0	18.5	26.0	18.5
Actuated g/C Ratio	0.46	0.39	0.46	0.40	0.32	0.23	0.32	0.23
v/c Ratio	0.84	0.93	0.86	0.98	0.77	0.76	0.90	0.67
Control Delay	51.4	34.3	51.0	40.9	36.2	24.8	55.1	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	34.3	51.0	40.9	36.2	24.8	55.1	20.3
LOS	D	C	D	D	D	C	E	C
Approach Delay		35.7		41.7		27.7		30.7
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 4 (5%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 36.1	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	1451	166	166	1609	141	190	401	150	206	359	123
Future Volume (veh/h)	145	1451	166	166	1609	141	190	401	150	206	359	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	156	1560	178	178	1730	152	204	431	161	222	386	132
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	1765	201	226	1872	164	335	579	214	308	586	198
Arrive On Green	0.06	0.39	0.39	0.07	0.40	0.40	0.10	0.23	0.23	0.09	0.23	0.23
Sat Flow, veh/h	1753	4576	521	1753	4704	412	1753	2499	924	1753	2567	867
Grp Volume(v), veh/h	156	1142	596	178	1231	651	204	300	292	222	261	257
Grp Sat Flow(s),veh/h/ln	1753	1675	1747	1753	1675	1767	1753	1749	1674	1753	1749	1685
Q Serve(g_s), s	4.3	25.7	25.8	5.0	28.3	28.5	0.9	12.9	13.1	7.5	11.0	11.2
Cycle Q Clear(g_c), s	4.3	25.7	25.8	5.0	28.3	28.5	0.9	12.9	13.1	7.5	11.0	11.2
Prop In Lane	1.00		0.30	1.00		0.23	1.00		0.55	1.00		0.51
Lane Grp Cap(c), veh/h	197	1292	674	226	1333	703	335	405	388	308	399	385
V/C Ratio(X)	0.79	0.88	0.89	0.79	0.92	0.93	0.61	0.74	0.75	0.72	0.65	0.67
Avail Cap(c_a), veh/h	197	1303	679	226	1344	709	335	405	388	308	399	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	0.47	0.47	0.47	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	23.2	23.2	19.2	23.2	23.2	31.8	28.9	29.0	23.3	28.4	28.4
Incr Delay (d2), s/veh	8.7	3.3	6.1	8.4	5.7	10.1	3.2	11.6	12.6	8.0	8.1	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	9.7	10.6	2.3	11.0	12.5	3.8	6.4	6.4	3.7	5.3	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	26.5	29.3	27.6	28.9	33.4	34.9	40.5	41.6	31.3	36.5	37.3
LnGrp LOS	C	C	C	C	C	C	C	D	D	C	D	D
Approach Vol, veh/h		1894			2060			796			740	
Approach Delay, s/veh		27.5			30.2			39.5			35.2	
Approach LOS		C			C			D			D	

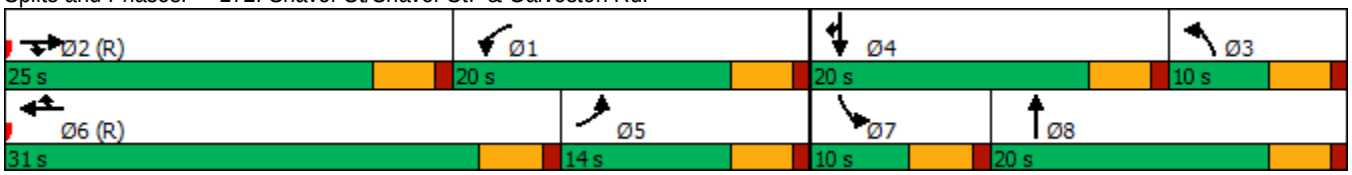
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.3	10.0	35.7	12.3	23.0	9.0	36.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	5.5	31.5	7.5	18.5	4.5	32.5
Max Q Clear Time (g_c+I1), s	9.5	15.1	7.0	27.8	2.9	13.2	6.3	30.5
Green Ext Time (p_c), s	0.0	1.1	0.0	3.0	0.2	1.4	0.0	1.8

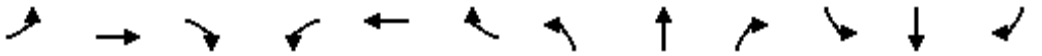
Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	203	1143	114	419	1030	160	109	599	145	630	243
Future Volume (vph)	203	1143	114	419	1030	160	109	599	145	630	243
Turn Type	Prot	NA	Prot	Prot	NA	Prot	Prot	NA	Prot	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8	7	4	4
Permitted Phases											
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	25.0	25.0	20.0	31.0	31.0	10.0	20.0	10.0	20.0	20.0
Total Split (%)	18.7%	33.3%	33.3%	26.7%	41.3%	41.3%	13.3%	26.7%	13.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	9.5	20.5	20.5	15.5	26.5	26.5	5.5	15.5	5.5	15.5	15.5
Actuated g/C Ratio	0.13	0.27	0.27	0.21	0.35	0.35	0.07	0.21	0.07	0.21	0.21
v/c Ratio	0.95	1.24	0.19	1.21	0.87	0.24	0.88	1.19	1.17	0.91	0.48
Control Delay	86.5	145.5	0.7	146.5	31.9	2.0	92.0	125.4	169.6	47.7	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.5	145.5	0.7	146.5	31.9	2.0	92.0	125.4	169.6	47.7	7.3
LOS	F	F	A	F	C	A	F	F	F	D	A
Approach Delay		125.9			58.8			121.7		55.4	
Approach LOS		F			E			F		E	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 89.6	Intersection LOS: F
Intersection Capacity Utilization 107.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1143	114	419	1030	160	109	599	267	145	630	243
Future Volume (veh/h)	203	1143	114	419	1030	160	109	599	267	145	630	243
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	209	1178	118	432	1062	165	112	618	275	149	649	251
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	222	956	426	362	1236	551	129	486	216	129	723	322
Arrive On Green	0.13	0.27	0.27	0.21	0.35	0.35	0.07	0.21	0.21	0.07	0.21	0.21
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	2354	1047	1753	3497	1560
Grp Volume(v), veh/h	209	1178	118	432	1062	165	112	459	434	149	649	251
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1652	1753	1749	1560
Q Serve(g_s), s	8.9	20.5	4.5	15.5	21.1	4.0	4.7	15.5	15.5	5.5	13.6	11.4
Cycle Q Clear(g_c), s	8.9	20.5	4.5	15.5	21.1	4.0	4.7	15.5	15.5	5.5	13.6	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	222	956	426	362	1236	551	129	361	341	129	723	322
V/C Ratio(X)	0.94	1.23	0.28	1.19	0.86	0.30	0.87	1.27	1.27	1.16	0.90	0.78
Avail Cap(c_a), veh/h	222	956	426	362	1236	551	129	361	341	129	723	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	27.3	21.4	29.8	22.5	8.6	34.4	29.7	29.8	34.8	29.0	28.1
Incr Delay (d2), s/veh	44.1	113.7	1.6	110.7	7.9	1.4	43.3	141.6	143.0	128.4	14.1	11.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	23.0	1.8	17.4	9.4	2.1	3.5	20.4	19.4	6.9	6.8	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.6	141.0	23.0	140.4	30.4	10.0	77.7	171.4	172.8	163.2	43.1	39.6
LnGrp LOS	E	F	C	F	C	B	E	F	F	F	D	D
Approach Vol, veh/h		1505			1659			1005			1049	
Approach Delay, s/veh		122.8			57.0			161.5			59.3	
Approach LOS		F			E			F			E	

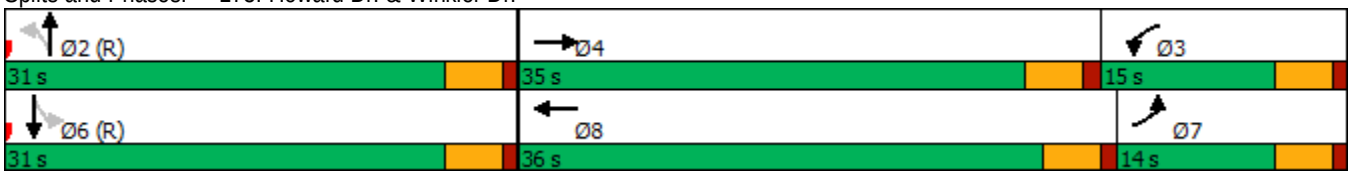
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	25.0	10.0	20.0	14.0	31.0	10.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	20.5	5.5	15.5	9.5	26.5	5.5	15.5
Max Q Clear Time (g_c+I1), s	17.5	22.5	6.7	15.6	10.9	23.1	7.5	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0

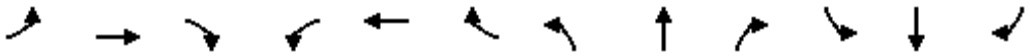
Intersection Summary	
HCM 6th Ctrl Delay	96.6
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	66	596	77	479	127	265	13	51
Future Volume (vph)	66	596	77	479	127	265	13	51
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	35.0	15.0	36.0	31.0	31.0	31.0	31.0
Total Split (%)	17.3%	43.2%	18.5%	44.4%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.6	25.7	8.6	21.7		35.2		35.2
Actuated g/C Ratio	0.16	0.32	0.11	0.27		0.43		0.43
v/c Ratio	0.25	0.76	0.43	0.68		0.40		0.10
Control Delay	31.1	27.0	35.5	15.7		17.9		10.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	31.1	27.0	35.5	15.7		17.9		10.0
LOS	C	C	D	B		B		B
Approach Delay		27.3		17.9		17.9		10.0
Approach LOS		C		B		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 59 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 61.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	596	232	77	479	143	127	265	96	13	51	61
Future Volume (veh/h)	66	596	232	77	479	143	127	265	96	13	51	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	608	237	79	489	146	130	270	98	13	52	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	209	740	288	102	637	189	411	814	297	172	654	673
Arrive On Green	0.12	0.30	0.30	0.06	0.24	0.24	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1753	2459	958	1753	2659	789	725	1715	626	250	1379	1420
Grp Volume(v), veh/h	67	432	413	79	321	314	253	0	245	65	0	62
Grp Sat Flow(s),veh/h/ln	1753	1749	1668	1753	1749	1699	1503	0	1562	1629	0	1420
Q Serve(g_s), s	2.8	18.6	18.6	3.6	13.8	14.0	6.3	0.0	7.9	0.0	0.0	1.9
Cycle Q Clear(g_c), s	2.8	18.6	18.6	3.6	13.8	14.0	8.3	0.0	7.9	7.9	0.0	1.9
Prop In Lane	1.00		0.57	1.00		0.46	0.51		0.40	0.20		1.00
Lane Grp Cap(c), veh/h	209	526	502	102	419	407	780	0	741	826	0	673
V/C Ratio(X)	0.32	0.82	0.82	0.78	0.77	0.77	0.32	0.00	0.33	0.08	0.00	0.09
Avail Cap(c_a), veh/h	209	658	628	227	680	661	780	0	741	826	0	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	26.3	26.3	37.6	28.7	28.7	13.3	0.0	13.3	11.6	0.0	11.7
Incr Delay (d2), s/veh	0.9	6.7	7.1	11.9	2.9	3.1	1.1	0.0	1.2	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.2	7.9	1.8	5.8	5.8	2.9	0.0	2.8	0.6	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	33.0	33.4	49.5	31.6	31.9	14.4	0.0	14.5	11.8	0.0	12.0
LnGrp LOS	C	C	C	D	C	C	B	A	B	B	A	B
Approach Vol, veh/h		912			714			498			127	
Approach Delay, s/veh		33.2			33.7			14.4			11.9	
Approach LOS		C			C			B			B	

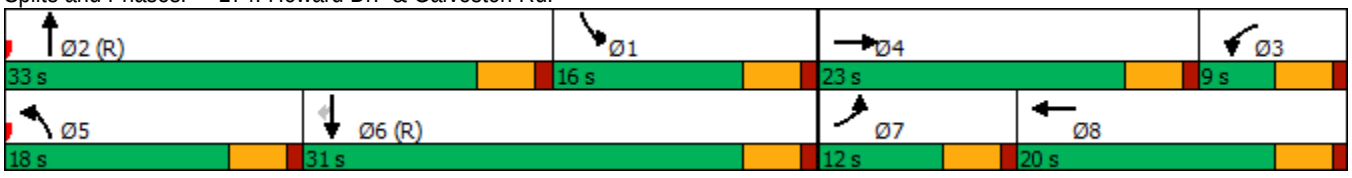
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.9	9.2	28.9		42.9	14.2	23.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	10.5	30.5		26.5	9.5	31.5				
Max Q Clear Time (g_c+I1), s		10.3	5.6	20.6		9.9	4.8	16.0				
Green Ext Time (p_c), s		2.7	0.1	3.7		0.5	0.0	3.4				

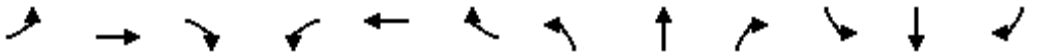
Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	146	386	53	449	288	810	175	1063	348
Future Volume (vph)	146	386	53	449	288	810	175	1063	348
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	12.0	23.0	9.0	20.0	18.0	33.0	16.0	31.0	31.0
Total Split (%)	14.8%	28.4%	11.1%	24.7%	22.2%	40.7%	19.8%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	7.5	19.6	5.2	15.3	13.7	28.7	11.5	26.5	26.5
Actuated g/C Ratio	0.09	0.24	0.06	0.19	0.17	0.35	0.14	0.33	0.33
v/c Ratio	0.94	0.72	0.51	0.88	1.01	0.76	0.73	0.97	0.50
Control Delay	87.6	10.5	55.9	46.7	92.3	27.6	49.3	45.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.6	10.5	55.9	46.7	92.3	27.6	49.3	45.0	5.2
LOS	F	B	E	D	F	C	D	D	A
Approach Delay		24.4		47.5		43.3		36.8	
Approach LOS		C		D		D		D	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 72 (89%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 37.8	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	386	279	53	449	119	288	810	93	175	1063	348
Future Volume (veh/h)	146	386	279	53	449	119	288	810	93	175	1063	348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	398	288	55	463	123	297	835	96	180	1096	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	442	316	99	523	138	292	1112	128	249	1145	
Arrive On Green	0.09	0.23	0.23	0.06	0.19	0.19	0.17	0.35	0.35	0.14	0.33	0.00
Sat Flow, veh/h	1753	1946	1393	1753	2737	722	1753	3161	363	1753	3497	1560
Grp Volume(v), veh/h	151	357	329	55	295	291	297	462	469	180	1096	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1590	1753	1749	1711	1753	1749	1775	1753	1749	1560
Q Serve(g_s), s	6.9	16.1	16.3	2.5	13.3	13.5	13.5	18.8	18.9	7.9	24.9	0.0
Cycle Q Clear(g_c), s	6.9	16.1	16.3	2.5	13.3	13.5	13.5	18.8	18.9	7.9	24.9	0.0
Prop In Lane	1.00		0.88	1.00		0.42	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	162	397	361	99	334	327	292	615	625	249	1145	
V/C Ratio(X)	0.93	0.90	0.91	0.56	0.88	0.89	1.02	0.75	0.75	0.72	0.96	
Avail Cap(c_a), veh/h	162	399	363	99	335	327	292	615	625	249	1145	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.5	30.4	30.5	37.2	31.9	31.9	33.8	23.1	23.1	33.2	26.7	0.0
Incr Delay (d2), s/veh	50.5	22.5	26.1	6.7	22.9	24.9	56.9	8.2	8.1	9.8	18.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	8.9	8.5	1.2	7.5	7.6	10.0	8.5	8.6	3.9	12.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.0	52.9	56.6	43.9	54.7	56.8	90.7	31.3	31.2	43.0	44.7	0.0
LnGrp LOS	F	D	E	D	D	E	F	C	C	D	D	
Approach Vol, veh/h		837			641			1228			1276	A
Approach Delay, s/veh		60.5			54.8			45.6			44.5	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	33.0	9.1	22.9	18.0	31.0	12.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	28.5	4.5	18.5	13.5	26.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	9.9	20.9	4.5	18.3	15.5	26.9	8.9	15.5
Green Ext Time (p_c), s	0.1	3.3	0.0	0.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	49.9
HCM 6th LOS	D

Notes

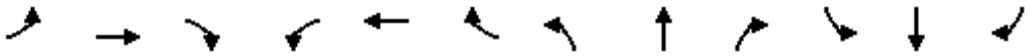
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	28	344	223	397	179	20	1268	147	1409
Future Volume (vph)	28	344	223	397	179	20	1268	147	1409
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	23.0	23.0	10.0	33.0	33.0	8.0	39.0	9.0	40.0
Total Split (%)	28.4%	28.4%	12.3%	40.7%	40.7%	9.9%	48.1%	11.1%	49.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		18.5	28.5	28.5	28.5	38.0	34.5	42.1	40.3
Actuated g/C Ratio		0.23	0.35	0.35	0.35	0.47	0.43	0.52	0.50
v/c Ratio		1.81	0.98	0.68	0.32	0.13	1.06	0.87	0.92
Control Delay		405.3	67.2	14.4	3.4	10.8	64.5	56.7	31.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		405.3	67.2	14.4	3.4	10.8	64.5	56.7	31.2
LOS		F	E	B	A	B	E	E	C
Approach Delay		405.3		26.7			63.8		33.5
Approach LOS		F		C			E		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 24 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.81	
Intersection Signal Delay: 77.1	Intersection LOS: E
Intersection Capacity Utilization 109.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	344	20	223	397	179	20	1268	142	147	1409	37
Future Volume (veh/h)	28	344	20	223	397	179	20	1268	142	147	1409	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	378	22	245	436	197	22	1393	156	162	1548	41
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	51	192	10	283	629	533	135	1384	154	186	1653	44
Arrive On Green	0.23	0.23	0.23	0.06	0.34	0.34	0.02	0.44	0.44	0.06	0.47	0.47
Sat Flow, veh/h	13	838	46	1753	1841	1560	1753	3173	353	1753	3481	92
Grp Volume(v), veh/h	431	0	0	245	436	197	22	764	785	162	776	813
Grp Sat Flow(s),veh/h/ln	897	0	0	1753	1841	1560	1753	1749	1777	1753	1749	1824
Q Serve(g_s), s	1.9	0.0	0.0	2.6	16.6	7.7	0.6	35.3	35.3	4.1	34.0	34.2
Cycle Q Clear(g_c), s	18.5	0.0	0.0	2.6	16.6	7.7	0.6	35.3	35.3	4.1	34.0	34.2
Prop In Lane	0.07		0.05	1.00		1.00	1.00		0.20	1.00		0.05
Lane Grp Cap(c), veh/h	252	0	0	283	629	533	135	763	775	186	830	866
V/C Ratio(X)	1.71	0.00	0.00	0.87	0.69	0.37	0.16	1.00	1.01	0.87	0.93	0.94
Avail Cap(c_a), veh/h	252	0	0	301	648	549	181	763	775	186	830	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.00	0.00	1.00	1.00	1.00	0.39	0.39	0.39	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	0.0	33.1	23.0	20.1	18.7	22.8	22.8	19.2	20.1	20.1
Incr Delay (d2), s/veh	332.0	0.0	0.0	21.4	3.1	0.4	0.2	20.6	23.6	32.9	18.9	18.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.1	0.0	0.0	6.1	7.1	2.6	0.2	17.3	18.2	3.1	16.5	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	362.7	0.0	0.0	54.5	26.1	20.5	18.9	43.5	46.4	52.0	39.0	39.0
LnGrp LOS	F	A	A	D	C	C	B	F	F	D	D	D
Approach Vol, veh/h		431			878			1571			1751	
Approach Delay, s/veh		362.7			32.8			44.6			40.2	
Approach LOS		F			C			D			D	

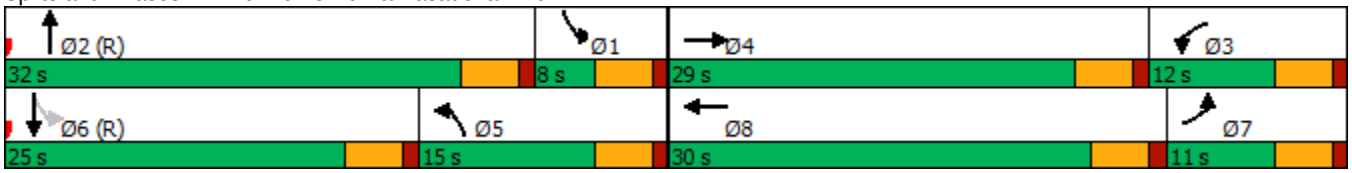
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	39.8	9.2	23.0	5.9	43.0		32.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	4.5	34.5	5.5	18.5	3.5	35.5		28.5				
Max Q Clear Time (g_c+I1), s	6.1	37.3	4.6	20.5	2.6	36.2		18.6				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0		2.3				

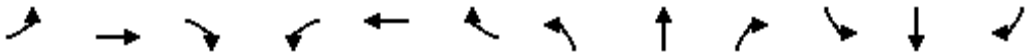
Intersection Summary	
HCM 6th Ctrl Delay	70.3
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	625	71	688	116	302	48	286
Future Volume (vph)	63	625	71	688	116	302	48	286
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	29.0	12.0	30.0	15.0	32.0	8.0	25.0
Total Split (%)	13.6%	35.8%	14.8%	37.0%	18.5%	39.5%	9.9%	30.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.4	23.6	7.3	24.4	9.5	38.6		26.9
Actuated g/C Ratio	0.08	0.29	0.09	0.30	0.12	0.48		0.33
v/c Ratio	0.49	0.83	0.51	0.85	0.62	0.28		0.50
Control Delay	48.4	33.8	47.4	35.7	41.9	11.0		18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	48.4	33.8	47.4	35.7	41.9	11.0		18.5
LOS	D	C	D	D	D	B		B
Approach Delay		34.9		36.7		17.7		18.5
Approach LOS		C		D		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 31 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





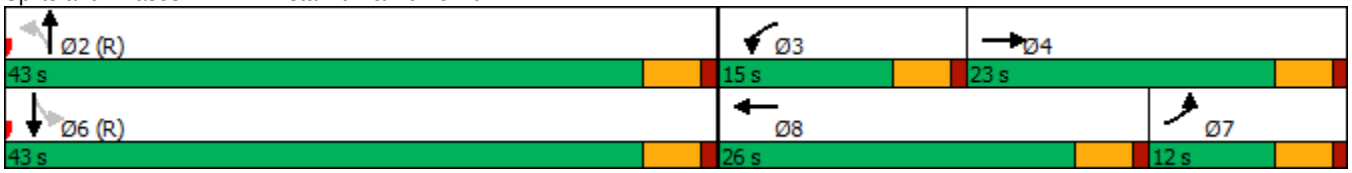
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	625	141	71	688	72	116	302	113	48	286	84
Future Volume (vph)	63	625	141	71	688	72	116	302	113	48	286	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.96			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1736	3375		1678	3194		1736	3329			3124	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.85	
Satd. Flow (perm)	1736	3375		1678	3194		1736	3329			2680	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	679	153	77	748	78	126	328	123	52	311	91
RTOR Reduction (vph)	0	24	0	0	10	0	0	39	0	0	27	0
Lane Group Flow (vph)	68	808	0	77	816	0	126	412	0	0	427	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	5.4	23.6		6.2	24.4		8.2	37.7			25.0	
Effective Green, g (s)	5.4	23.6		6.2	24.4		8.2	37.7			25.0	
Actuated g/C Ratio	0.07	0.29		0.08	0.30		0.10	0.47			0.31	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	115	983		128	962		175	1549			827	
v/s Ratio Prot	0.04	0.24		c0.05	c0.26		c0.07	0.12				
v/s Ratio Perm											c0.16	
v/c Ratio	0.59	0.82		0.60	0.85		0.72	0.27			0.52	
Uniform Delay, d1	36.7	26.7		36.2	26.6		35.3	13.2			23.0	
Progression Factor	1.00	1.00		1.00	1.00		1.01	0.92			0.73	
Incremental Delay, d2	7.9	5.6		7.7	7.1		7.5	0.2			0.5	
Delay (s)	44.6	32.4		43.9	33.6		43.1	12.4			17.3	
Level of Service	D	C		D	C		D	B			B	
Approach Delay (s)		33.3			34.5			19.1			17.3	
Approach LOS		C			C			B			B	

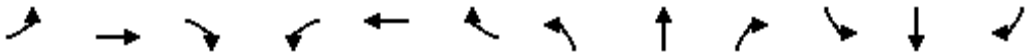
Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	74	430	140	503	119	519	99	609
Future Volume (vph)	74	430	140	503	119	519	99	609
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	23.0	15.0	26.0	43.0	43.0	43.0	43.0
Total Split (%)	14.8%	28.4%	18.5%	32.1%	53.1%	53.1%	53.1%	53.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	17.5	10.0	22.1		40.0		40.0
Actuated g/C Ratio	0.09	0.22	0.12	0.27		0.49		0.49
v/c Ratio	0.51	0.81	0.71	0.74		0.73		0.73
Control Delay	38.6	30.2	53.1	30.9		21.4		11.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	38.6	30.2	53.1	30.9		21.4		11.5
LOS	D	C	D	C		C		B
Approach Delay		31.1		34.8		21.4		11.5
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 37 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 24.3	Intersection LOS: C
Intersection Capacity Utilization 88.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	430	146	140	503	151	119	519	74	99	609	124
Future Volume (veh/h)	74	430	146	140	503	151	119	519	74	99	609	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	80	462	157	151	541	162	128	558	80	106	655	133
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	136	541	182	186	635	189	199	968	152	170	1075	235
Arrive On Green	0.08	0.21	0.21	0.11	0.24	0.24	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1753	2568	866	1753	2655	792	265	1873	295	222	2080	456
Grp Volume(v), veh/h	80	314	305	151	356	347	326	0	440	429	0	465
Grp Sat Flow(s),veh/h/ln	1753	1749	1685	1753	1749	1698	811	0	1622	1164	0	1593
Q Serve(g_s), s	3.6	14.0	14.2	6.8	15.7	15.9	16.0	0.0	14.6	12.5	0.0	16.1
Cycle Q Clear(g_c), s	3.6	14.0	14.2	6.8	15.7	15.9	32.1	0.0	14.6	27.1	0.0	16.1
Prop In Lane	1.00		0.51	1.00		0.47	0.39		0.18	0.25		0.29
Lane Grp Cap(c), veh/h	136	368	355	186	418	406	481	0	838	657	0	823
V/C Ratio(X)	0.59	0.85	0.86	0.81	0.85	0.86	0.68	0.00	0.53	0.65	0.00	0.56
Avail Cap(c_a), veh/h	162	399	385	227	464	451	481	0	838	657	0	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.19	0.19	0.19	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	30.7	30.8	35.4	29.4	29.5	19.5	0.0	13.0	16.2	0.0	13.4
Incr Delay (d2), s/veh	4.0	15.1	16.7	3.6	2.8	3.1	7.5	0.0	2.3	5.0	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.2	7.2	3.0	6.7	6.6	6.1	0.0	5.4	7.0	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	45.9	47.6	39.0	32.3	32.5	26.9	0.0	15.3	21.2	0.0	16.2
LnGrp LOS	D	D	D	D	C	C	C	A	B	C	A	B
Approach Vol, veh/h		699			854			766			894	
Approach Delay, s/veh		45.9			33.6			20.3			18.6	
Approach LOS		D			C			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.3	13.1	21.6		46.3	10.8	23.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	10.5	18.5		38.5	7.5	21.5				
Max Q Clear Time (g_c+I1), s		34.1	8.8	16.2		29.1	5.6	17.9				
Green Ext Time (p_c), s		2.1	0.1	0.9		4.2	0.0	1.5				

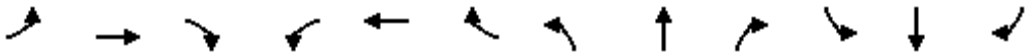
Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	56	4	3	1	163	669	3	1022
Future Volume (vph)	56	4	3	1	163	669	3	1022
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	61.0	61.0	61.0	61.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	75.3%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		9.2		9.2		62.8		62.8
Actuated g/C Ratio		0.11		0.11		0.78		0.78
v/c Ratio		0.60		0.02		0.57		0.46
Control Delay		21.5		0.0		3.3		4.1
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		21.5		0.0		3.3		4.1
LOS		C		A		A		A
Approach Delay		21.5				3.3		4.1
Approach LOS		C				A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 72 (89%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	4	184	3	1	5	163	669	3	3	1022	79
Future Volume (veh/h)	56	4	184	3	1	5	163	669	3	3	1022	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	60	4	196	3	1	5	173	712	3	3	1087	84
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	297	17	231	120	39	201	314	1371	6	46	2337	180
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1294	105	1420	202	238	1232	332	1889	8	1	3220	248
Grp Volume(v), veh/h	64	0	196	3	0	6	271	0	617	622	0	552
Grp Sat Flow(s),veh/h/ln	1398	0	1420	219	0	1453	555	0	1674	1839	0	1630
Q Serve(g_s), s	3.1	0.0	10.9	0.1	0.0	0.3	18.7	0.0	13.0	0.0	0.0	11.4
Cycle Q Clear(g_c), s	3.3	0.0	10.9	11.0	0.0	0.3	30.1	0.0	13.0	11.3	0.0	11.4
Prop In Lane	0.94		1.00	0.97		0.85	0.64		0.00	0.00		0.15
Lane Grp Cap(c), veh/h	314	0	231	123	0	237	476	0	1215	1379	0	1183
V/C Ratio(X)	0.20	0.00	0.85	0.03	0.00	0.02	0.57	0.00	0.51	0.45	0.00	0.47
Avail Cap(c_a), veh/h	354	0	272	156	0	278	476	0	1215	1379	0	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	32.9	32.8	0.0	28.5	8.9	0.0	4.8	4.6	0.0	4.6
Incr Delay (d2), s/veh	0.3	0.0	19.0	0.1	0.0	0.0	4.9	0.0	1.5	1.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	4.8	0.1	0.0	0.1	3.0	0.0	3.3	3.1	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	51.9	32.9	0.0	28.5	13.8	0.0	6.3	5.7	0.0	5.9
LnGrp LOS	C	A	D	C	A	C	B	A	A	A	A	A
Approach Vol, veh/h		260			9			888			1174	
Approach Delay, s/veh		46.6			30.0			8.6			5.8	
Approach LOS		D			C			A			A	

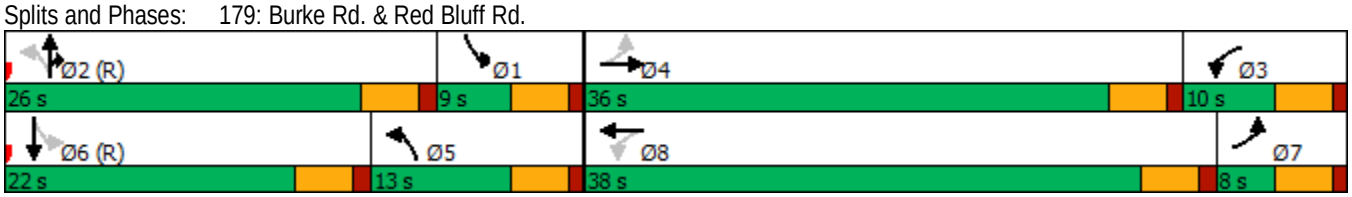
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.3		17.7		63.3		17.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		56.5		15.5		56.5		15.5				
Max Q Clear Time (g_c+I1), s		32.1		12.9		13.4		13.0				
Green Ext Time (p_c), s		8.0		0.4		9.4		0.0				

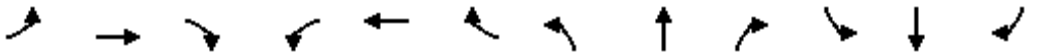
Intersection Summary												
HCM 6th Ctrl Delay			11.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	32	853	135	905	245	296	102	122	239
Future Volume (vph)	32	853	135	905	245	296	102	122	239
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	36.0	10.0	38.0	13.0	26.0	26.0	9.0	22.0
Total Split (%)	9.9%	44.4%	12.3%	46.9%	16.0%	32.1%	32.1%	11.1%	27.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	34.4	31.4	39.9	36.6	30.0	21.5	21.5	22.0	17.5
Actuated g/C Ratio	0.42	0.39	0.49	0.45	0.37	0.27	0.27	0.27	0.22
v/c Ratio	0.19	0.93	0.73	0.69	0.80	0.67	0.22	0.65	0.79
Control Delay	15.8	36.5	21.7	4.4	42.3	32.3	5.6	41.9	45.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	36.5	21.7	4.4	42.3	32.3	5.6	41.9	45.5
LOS	B	D	C	A	D	C	A	D	D
Approach Delay		35.9		6.4		31.9			44.4
Approach LOS		D		A		C			D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 56 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 26.1	Intersection LOS: C
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	853	317	135	905	133	245	296	102	122	239	51
Future Volume (veh/h)	32	853	317	135	905	133	245	296	102	122	239	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	33	879	327	139	933	137	253	305	105	126	246	53
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	244	952	353	177	1104	162	370	489	414	309	317	68
Arrive On Green	0.06	0.38	0.38	0.04	0.36	0.36	0.14	0.27	0.27	0.09	0.22	0.22
Sat Flow, veh/h	1753	2497	926	1753	3059	449	1753	1841	1560	1753	1468	316
Grp Volume(v), veh/h	33	615	591	139	533	537	253	305	105	126	0	299
Grp Sat Flow(s),veh/h/ln	1753	1749	1674	1753	1749	1760	1753	1841	1560	1753	0	1784
Q Serve(g_s), s	0.0	27.2	27.4	1.7	22.7	22.7	4.7	11.8	4.3	0.0	0.0	12.8
Cycle Q Clear(g_c), s	0.0	27.2	27.4	1.7	22.7	22.7	4.7	11.8	4.3	0.0	0.0	12.8
Prop In Lane	1.00		0.55	1.00		0.26	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	244	667	638	177	631	635	370	489	414	309	0	385
V/C Ratio(X)	0.14	0.92	0.93	0.79	0.84	0.85	0.68	0.62	0.25	0.41	0.00	0.78
Avail Cap(c_a), veh/h	244	680	651	218	723	728	370	489	414	309	0	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.87	0.87	0.87	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	23.9	24.0	37.1	23.8	23.8	30.8	26.2	23.4	32.2	0.0	29.9
Incr Delay (d2), s/veh	0.2	17.9	19.3	1.4	0.8	0.8	4.5	5.2	1.3	0.9	0.0	14.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	13.8	13.5	2.7	9.0	9.0	4.8	5.6	1.7	2.3	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	41.8	43.2	38.6	24.6	24.6	35.2	31.4	24.7	33.1	0.0	44.1
LnGrp LOS	C	D	D	D	C	C	D	C	C	C	A	D
Approach Vol, veh/h		1239			1209			663			425	
Approach Delay, s/veh		42.2			26.2			31.8			40.8	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	26.0	8.1	35.4	15.5	22.0	9.7	33.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	21.5	5.5	31.5	8.5	17.5	3.5	33.5
Max Q Clear Time (g_c+I1), s	2.0	13.8	3.7	29.4	6.7	14.8	2.0	24.7
Green Ext Time (p_c), s	0.1	1.3	0.1	1.5	0.1	0.4	0.0	4.5

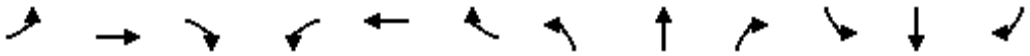
Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	60	4	60	25	250	15	800
Future Volume (vph)	20	60	4	60	25	250	15	800
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	25.0	25.0	25.0	56.0	56.0	56.0	56.0
Total Split (%)	30.9%	30.9%	30.9%	30.9%	69.1%	69.1%	69.1%	69.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	8.6	8.6		66.3		66.3
Actuated g/C Ratio	0.11	0.11	0.11	0.11		0.82		0.82
v/c Ratio	0.16	0.43	0.03	0.35		0.13		0.34
Control Delay	24.7	22.6	31.0	36.1		2.6		3.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	24.7	22.6	31.0	36.1		2.6		3.0
LOS	C	C	C	D		A		A
Approach Delay		23.1		35.8		2.6		3.0
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Future Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	22	65	22	4	65	4	27	272	27	16	870	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	106	36	131	138	8	211	2114	215	66	2749	50
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1311	1315	445	1289	1716	106	197	2615	266	25	3399	62
Grp Volume(v), veh/h	22	0	87	4	0	69	161	0	165	472	0	430
Grp Sat Flow(s),veh/h/ln	1311	0	1761	1289	0	1822	1451	0	1627	1822	0	1664
Q Serve(g_s), s	1.3	0.0	3.9	0.2	0.0	2.9	0.0	0.0	1.8	0.0	0.0	5.4
Cycle Q Clear(g_c), s	4.3	0.0	3.9	4.1	0.0	2.9	1.5	0.0	1.8	5.3	0.0	5.4
Prop In Lane	1.00		0.25	1.00		0.06	0.17		0.16	0.03		0.04
Lane Grp Cap(c), veh/h	147	0	141	131	0	146	1225	0	1316	1519	0	1345
V/C Ratio(X)	0.15	0.00	0.62	0.03	0.00	0.47	0.13	0.00	0.13	0.31	0.00	0.32
Avail Cap(c_a), veh/h	373	0	446	354	0	461	1225	0	1316	1519	0	1345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.00	0.98	1.00	0.00	1.00	1.00	0.00	1.00	0.38	0.00	0.38
Uniform Delay (d), s/veh	37.6	0.0	36.0	38.0	0.0	35.6	1.6	0.0	1.7	2.0	0.0	2.0
Incr Delay (d2), s/veh	0.5	0.0	4.2	0.1	0.0	2.3	0.2	0.0	0.2	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.8	0.1	0.0	1.4	0.3	0.0	0.3	1.0	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	40.2	38.1	0.0	38.0	1.8	0.0	1.8	2.2	0.0	2.2
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		109			73			326			902	
Approach Delay, s/veh		39.8			38.0			1.8			2.2	
Approach LOS		D			D			A			A	

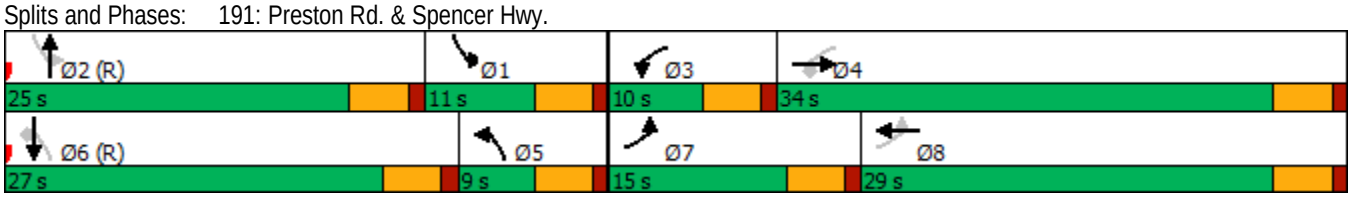
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		11.0		70.0		11.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		51.5		20.5		51.5		20.5				
Max Q Clear Time (g_c+I1), s		3.8		6.3		7.4		6.1				
Green Ext Time (p_c), s		2.3		0.4		7.1		0.2				

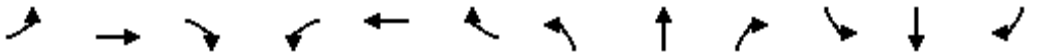
Intersection Summary		
HCM 6th Ctrl Delay		6.9
HCM 6th LOS		A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	368	1679	336	193	1708	193	886	258	1049	409
Future Volume (vph)	368	1679	336	193	1708	193	886	258	1049	409
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	8		4	4		6		2		6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	15.0	34.0	34.0	10.0	29.0	9.0	25.0	11.0	27.0	27.0
Total Split (%)	18.8%	42.5%	42.5%	12.5%	36.3%	11.3%	31.3%	13.8%	33.8%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	35.0	29.5	29.5	35.0	24.5	27.0	20.5	27.0	22.5	22.5
Actuated g/C Ratio	0.44	0.37	0.37	0.44	0.31	0.34	0.26	0.34	0.28	0.28
v/c Ratio	1.18	0.96	0.50	0.94	1.27	1.04	1.19	1.13	1.10	0.71
Control Delay	130.5	40.2	11.3	67.0	155.3	109.6	127.2	131.1	88.3	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	130.5	40.2	11.3	67.0	155.3	109.6	127.2	131.1	88.3	20.7
LOS	F	D	B	E	F	F	F	F	F	C
Approach Delay		50.1			147.1		124.4		78.6	
Approach LOS		D			F		F		E	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 96.4	Intersection LOS: F
Intersection Capacity Utilization 121.3%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	368	1679	336	193	1708	190	193	886	152	258	1049	409
Future Volume (veh/h)	368	1679	336	193	1708	190	193	886	152	258	1049	409
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	376	1713	343	197	1743	194	197	904	155	263	1070	417
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	320	1853	575	219	1406	156	189	765	131	232	984	439
Arrive On Green	0.13	0.37	0.37	0.07	0.31	0.31	0.06	0.26	0.26	0.08	0.28	0.28
Sat Flow, veh/h	1753	5025	1560	1753	4590	509	1753	2986	512	1753	3497	1560
Grp Volume(v), veh/h	376	1713	343	197	1270	667	197	529	530	263	1070	417
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1749	1753	1749	1749	1753	1749	1560
Q Serve(g_s), s	10.5	26.1	10.4	5.5	24.5	24.5	4.5	20.5	20.5	6.5	22.5	13.9
Cycle Q Clear(g_c), s	10.5	26.1	10.4	5.5	24.5	24.5	4.5	20.5	20.5	6.5	22.5	13.9
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	320	1853	575	219	1026	536	189	448	448	232	984	439
V/C Ratio(X)	1.17	0.92	0.60	0.90	1.24	1.24	1.04	1.18	1.18	1.13	1.09	0.95
Avail Cap(c_a), veh/h	320	1853	575	219	1026	536	189	448	448	232	984	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.32	0.32	0.32	0.43	0.43	0.43	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	20.6	24.2	11.0	20.2	27.8	27.8	36.7	29.7	29.8	35.5	28.8	12.3
Incr Delay (d2), s/veh	89.3	3.1	0.5	18.8	110.9	117.0	77.7	102.5	102.7	95.2	54.0	29.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	9.8	3.1	3.2	24.7	26.7	7.5	21.0	21.0	10.2	16.3	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	109.9	27.3	11.5	39.0	138.7	144.8	114.4	132.2	132.4	130.7	82.7	41.8
LnGrp LOS	F	C	B	D	F	F	F	F	F	F	F	D
Approach Vol, veh/h		2432			2134			1256			1750	
Approach Delay, s/veh		37.8			131.4			129.5			80.2	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	25.0	10.0	34.0	9.0	27.0	15.0	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	20.5	5.5	29.5	4.5	22.5	10.5	24.5
Max Q Clear Time (g_c+I1), s	8.5	22.5	7.5	28.1	6.5	24.5	12.5	26.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0

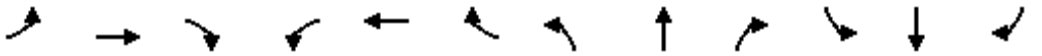
Intersection Summary	
HCM 6th Ctrl Delay	89.2
HCM 6th LOS	F

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	130	457	165	541	157	872	126	1008
Future Volume (vph)	130	457	165	541	157	872	126	1008
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	13.2	26.2	14.0	27.0	14.0	46.1	13.7	45.8
Total Split (%)	13.2%	26.2%	14.0%	27.0%	14.0%	46.1%	13.7%	45.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	30.3	21.0	30.3	21.9	51.7	43.3	51.7	42.7
Actuated g/C Ratio	0.30	0.21	0.30	0.22	0.52	0.43	0.52	0.43
v/c Ratio	0.61	0.84	0.71	0.90	0.70	0.69	0.48	0.83
Control Delay	35.4	46.9	42.2	52.7	35.0	25.8	17.3	31.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	46.9	42.2	52.7	35.0	25.8	17.3	31.4
LOS	D	D	D	D	C	C	B	C
Approach Delay		44.8		50.6		27.1		30.1
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 36.1	Intersection LOS: D
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	457	147	165	541	127	157	872	128	126	1008	179
Future Volume (veh/h)	130	457	147	165	541	127	157	872	128	126	1008	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	133	466	150	168	552	130	160	890	131	129	1029	183
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	227	530	169	259	621	146	266	1425	210	306	1350	240
Arrive On Green	0.08	0.20	0.20	0.09	0.22	0.22	0.07	0.47	0.47	0.06	0.46	0.46
Sat Flow, veh/h	1753	2607	833	1753	2811	660	1753	3058	450	1753	2968	527
Grp Volume(v), veh/h	133	311	305	168	343	339	160	509	512	129	606	606
Grp Sat Flow(s),veh/h/ln	1753	1749	1691	1753	1749	1722	1753	1749	1760	1753	1749	1746
Q Serve(g_s), s	5.8	17.3	17.5	7.5	19.0	19.1	4.8	21.9	21.9	3.8	28.9	29.0
Cycle Q Clear(g_c), s	5.8	17.3	17.5	7.5	19.0	19.1	4.8	21.9	21.9	3.8	28.9	29.0
Prop In Lane	1.00		0.49	1.00		0.38	1.00		0.26	1.00		0.30
Lane Grp Cap(c), veh/h	227	355	344	259	386	380	266	815	820	306	796	794
V/C Ratio(X)	0.58	0.88	0.89	0.65	0.89	0.89	0.60	0.62	0.62	0.42	0.76	0.76
Avail Cap(c_a), veh/h	247	379	367	261	393	387	313	815	820	367	796	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	38.6	38.7	29.2	37.8	37.8	19.0	20.1	20.1	15.4	22.7	22.8
Incr Delay (d2), s/veh	3.0	19.2	21.2	5.5	20.8	21.8	1.8	2.8	2.8	0.9	6.8	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	9.1	9.1	3.4	10.1	10.1	1.9	9.1	9.1	1.5	12.8	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	57.8	59.9	34.7	58.5	59.6	20.8	22.9	22.9	16.3	29.5	29.6
LnGrp LOS	C	E	E	C	E	E	C	C	C	B	C	C
Approach Vol, veh/h		749			850			1181			1341	
Approach Delay, s/veh		54.1			54.2			22.6			28.3	
Approach LOS		D			D			C			C	

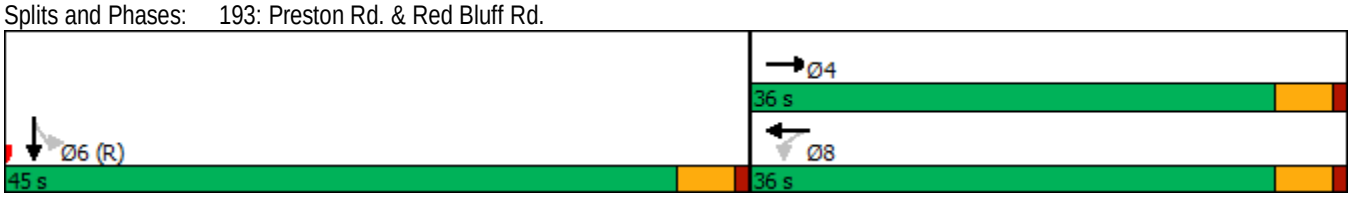
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	51.1	13.9	24.8	11.3	50.0	12.1	26.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.2	41.6	9.5	21.7	9.5	41.3	8.7	22.5
Max Q Clear Time (g_c+I1), s	5.8	23.9	9.5	19.5	6.8	31.0	7.8	21.1
Green Ext Time (p_c), s	0.1	6.3	0.0	0.8	0.1	5.7	0.0	0.6

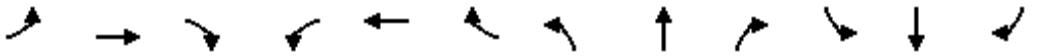
Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	872	67	1322	1194
Future Volume (vph)	872	67	1322	1194
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	36.0	36.0	36.0	45.0
Total Split (%)	44.4%	44.4%	44.4%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	31.5	31.5	31.5	40.5
Actuated g/C Ratio	0.39	0.39	0.39	0.50
v/c Ratio	1.01	0.79	1.03	1.01
Control Delay	37.5	71.2	54.8	46.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.5	71.2	54.8	46.3
LOS	D	E	D	D
Approach Delay	37.5		55.6	46.3
Approach LOS	D		E	D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 44 (54%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 46.7	Intersection LOS: D
Intersection Capacity Utilization 103.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	872	386	67	1322	0	0	0	0	326	1194	116
Future Volume (veh/h)	0	872	386	67	1322	0	0	0	0	326	1194	116
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	918	406	71	1392	0				343	1257	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	920	403	89	1360	0				363	1414	
Arrive On Green	0.00	0.39	0.39	0.52	0.52	0.00				0.50	0.50	0.00
Sat Flow, veh/h	0	2458	1036	408	3589	0				725	2920	0
Grp Volume(v), veh/h	0	676	648	71	1392	0				853	747	0
Grp Sat Flow(s),veh/h/ln	0	1749	1654	408	1749	0				1804	1749	0
Q Serve(g_s), s	0.0	31.2	31.5	0.0	31.5	0.0				36.3	30.2	0.0
Cycle Q Clear(g_c), s	0.0	31.2	31.5	31.5	31.5	0.0				36.3	30.2	0.0
Prop In Lane	0.00		0.63	1.00		0.00				0.40		0.00
Lane Grp Cap(c), veh/h	0	680	643	89	1360	0				902	874	
V/C Ratio(X)	0.00	0.99	1.01	0.80	1.02	0.00				0.95	0.85	
Avail Cap(c_a), veh/h	0	680	643	89	1360	0				902	874	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.40	0.40	0.66	0.66	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	24.7	24.8	35.3	19.6	0.0				19.2	17.7	0.0
Incr Delay (d2), s/veh	0.0	20.4	24.2	27.8	26.0	0.0				19.4	10.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.8	15.7	2.0	14.8	0.0				18.4	13.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	45.0	49.0	63.1	45.6	0.0				38.6	28.1	0.0
LnGrp LOS	A	D	F	E	F	A				D	C	
Approach Vol, veh/h		1324			1463						1600	A
Approach Delay, s/veh		47.0			46.4						33.7	
Approach LOS		D			D						C	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		36.0		45.0		36.0						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		31.5		40.5		31.5						
Max Q Clear Time (g_c+I1), s		33.5		38.3		33.5						
Green Ext Time (p_c), s		0.0		1.8		0.0						

Intersection Summary												
HCM 6th Ctrl Delay		41.9										
HCM 6th LOS		D										

Notes

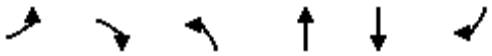
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	122	225	244	1456	1629
Future Volume (vph)	122	225	244	1456	1629
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	13.0	61.0	48.0
Total Split (%)	24.7%	24.7%	16.0%	75.3%	59.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.3	11.3	60.7	60.7	47.7
Actuated g/C Ratio	0.14	0.14	0.75	0.75	0.59
v/c Ratio	0.54	0.62	0.97	0.61	0.98
Control Delay	40.8	15.3	73.5	3.1	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	15.3	73.5	3.1	35.1
LOS	D	B	E	A	D
Approach Delay	24.3			13.2	35.1
Approach LOS	C			B	D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 20 (25%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 86.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	122	225	244	1456	1629	203
Future Volume (veh/h)	122	225	244	1456	1629	203
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	227	246	1471	1645	205
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	297	264	312	2517	1684	206
Arrive On Green	0.17	0.17	0.25	1.00	0.54	0.54
Sat Flow, veh/h	1753	1560	1753	3589	3228	384
Grp Volume(v), veh/h	123	227	246	1471	905	945
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1772
Q Serve(g_s), s	5.1	11.5	6.1	0.0	40.2	42.9
Cycle Q Clear(g_c), s	5.1	11.5	6.1	0.0	40.2	42.9
Prop In Lane	1.00	1.00	1.00			0.22
Lane Grp Cap(c), veh/h	297	264	312	2517	939	951
V/C Ratio(X)	0.41	0.86	0.79	0.58	0.96	0.99
Avail Cap(c_a), veh/h	335	299	312	2517	939	951
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.89	0.89	0.47	0.47
Uniform Delay (d), s/veh	30.1	32.7	27.5	0.0	18.0	18.6
Incr Delay (d2), s/veh	0.9	19.9	11.5	0.9	13.2	18.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	10.8	4.7	0.3	17.1	19.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.0	52.6	39.1	0.9	31.1	37.2
LnGrp LOS	C	D	D	A	C	D
Approach Vol, veh/h	350			1717	1850	
Approach Delay, s/veh	45.0			6.4	34.2	
Approach LOS	D			A	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		62.8		18.2	14.8	48.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		56.5		15.5	8.5	43.5
Max Q Clear Time (g_c+I1), s		2.0		13.5	8.1	44.9
Green Ext Time (p_c), s		16.9		0.3	0.0	0.0

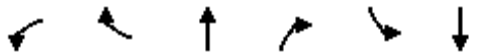
Intersection Summary		
HCM 6th Ctrl Delay		23.0
HCM 6th LOS		C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	43	124	1007	121	1389
Future Volume (vph)	43	124	1007	121	1389
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	46.0	13.0	59.0
Total Split (%)	27.2%	27.2%	56.8%	16.0%	72.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.7	7.7	56.8	67.2	67.2
Actuated g/C Ratio	0.10	0.10	0.70	0.83	0.83
v/c Ratio	0.27	0.49	0.45	0.27	0.50
Control Delay	37.2	13.3	8.1	1.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.3
Total Delay	37.2	13.3	8.1	1.0	0.9
LOS	D	B	A	A	A
Approach Delay	19.4		8.1		0.9
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 28 (35%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 4.8	Intersection LOS: A
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	43	124	1007	55	121	1389
Future Volume (veh/h)	43	124	1007	55	121	1389
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	44	128	1038	57	125	1432
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	186	166	1727	95	603	2737
Arrive On Green	0.11	0.11	0.51	0.51	0.43	1.00
Sat Flow, veh/h	1753	1560	3463	185	1753	3589
Grp Volume(v), veh/h	44	128	538	557	125	1432
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1807	1753	1749
Q Serve(g_s), s	1.9	6.5	17.6	17.6	0.0	0.0
Cycle Q Clear(g_c), s	1.9	6.5	17.6	17.6	0.0	0.0
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	186	166	896	926	603	2737
V/C Ratio(X)	0.24	0.77	0.60	0.60	0.21	0.52
Avail Cap(c_a), veh/h	379	337	896	926	603	2737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	0.23	0.23
Uniform Delay (d), s/veh	33.2	35.2	13.9	13.9	9.5	0.0
Incr Delay (d2), s/veh	0.6	7.4	0.3	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.7	6.3	6.6	1.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.8	42.7	14.2	14.2	9.5	0.2
LnGrp LOS	C	D	B	B	A	A
Approach Vol, veh/h	172		1095			1557
Approach Delay, s/veh	40.4		14.2			0.9
Approach LOS	D		B			A

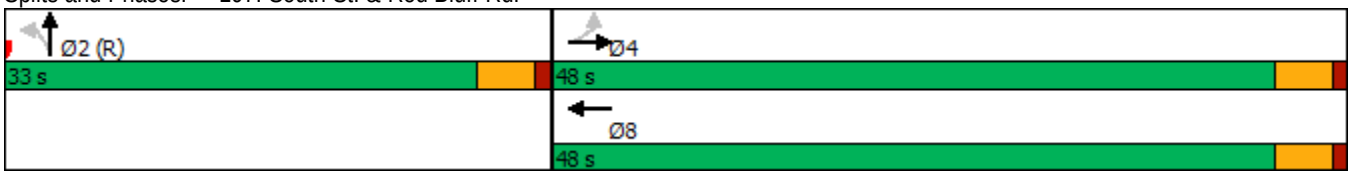
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	21.9	46.0			67.9	13.1
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	41.5			54.5	17.5
Max Q Clear Time (g_c+I1), s	2.0	19.6			2.0	8.5
Green Ext Time (p_c), s	0.1	7.8			17.0	0.3

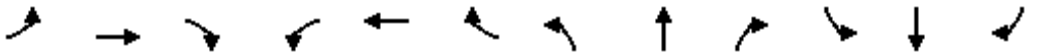
Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	94	924	860	428	649
Future Volume (vph)	94	924	860	428	649
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	48.0	48.0	48.0	33.0	33.0
Total Split (%)	59.3%	59.3%	59.3%	40.7%	40.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	37.4	37.4	37.4	34.6	34.6
Actuated g/C Ratio	0.46	0.46	0.46	0.43	0.43
v/c Ratio	0.90	0.60	0.73	0.60	0.47
Control Delay	28.2	12.2	18.9	15.8	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	12.2	18.9	15.8	12.1
LOS	C	B	B	B	B
Approach Delay		13.7	18.9		13.6
Approach LOS		B	B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 57 (70%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 103.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	924	0	0	860	246	428	649	17	0	0	0
Future Volume (veh/h)	94	924	0	0	860	246	428	649	17	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	98	962	0	0	896	0	446	676	0			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	233	1509	0	0	1509		802	1600				
Arrive On Green	0.86	0.86	0.00	0.00	0.43	0.00	0.15	0.15	0.00			
Sat Flow, veh/h	611	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	98	962	0	0	896	0	446	676	0			
Grp Sat Flow(s),veh/h/ln	611	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	10.1	6.8	0.0	0.0	15.9	0.0	19.1	14.2	0.0			
Cycle Q Clear(g_c), s	26.0	6.8	0.0	0.0	15.9	0.0	19.1	14.2	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	233	1509	0	0	1509		802	1600				
V/C Ratio(X)	0.42	0.64	0.00	0.00	0.59		0.56	0.42				
Avail Cap(c_a), veh/h	298	1878	0	0	1878		802	1600				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.09	0.09	0.00	0.00	0.86	0.00	0.87	0.87	0.00			
Uniform Delay (d), s/veh	11.1	3.6	0.0	0.0	17.6	0.0	26.8	24.7	0.0			
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.3	0.0	2.4	0.7	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	1.2	0.0	0.0	6.0	0.0	9.4	6.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.2	3.7	0.0	0.0	17.9	0.0	29.2	25.4	0.0			
LnGrp LOS	B	A	A	A	B		C	C				
Approach Vol, veh/h		1060			896	A		1122	A			
Approach Delay, s/veh		4.4			17.9			26.9				
Approach LOS		A			B			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		41.5		39.5				39.5				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		28.5		43.5				43.5				
Max Q Clear Time (g_c+I1), s		21.1		28.0				17.9				
Green Ext Time (p_c), s		3.6		7.0				7.1				

Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									

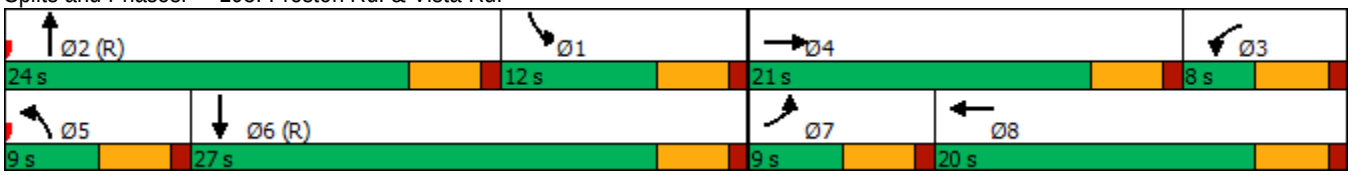
Notes

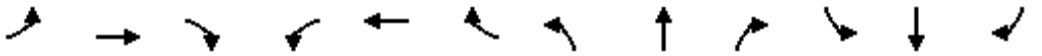
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	132	602	63	518	118	848	174	1058
Future Volume (vph)	132	602	63	518	118	848	174	1058
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	21.0	8.0	20.0	9.0	24.0	12.0	27.0
Total Split (%)	13.8%	32.3%	12.3%	30.8%	13.8%	36.9%	18.5%	41.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.5	18.1	3.5	15.5	4.5	19.5	7.5	22.5
Actuated g/C Ratio	0.07	0.28	0.05	0.24	0.07	0.30	0.12	0.35
v/c Ratio	1.17	0.90	0.74	0.94	1.09	0.96	0.93	1.06
Control Delay	167.6	36.3	78.5	43.0	144.2	44.4	80.1	68.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	167.6	36.3	78.5	43.0	144.2	44.4	80.1	68.2
LOS	F	D	E	D	F	D	F	E
Approach Delay		54.2		45.8		55.6		69.7
Approach LOS		D		D		E		E

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 58.0	Intersection LOS: E
Intersection Capacity Utilization 88.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	602	231	63	518	220	118	848	91	174	1058	138
Future Volume (veh/h)	132	602	231	63	518	220	118	848	91	174	1058	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	140	640	246	67	551	234	126	902	97	185	1126	147
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	121	627	241	94	571	242	121	956	103	202	1077	140
Arrive On Green	0.07	0.25	0.25	0.05	0.24	0.24	0.07	0.30	0.30	0.12	0.35	0.35
Sat Flow, veh/h	1753	2470	949	1753	2393	1014	1753	3185	343	1753	3111	405
Grp Volume(v), veh/h	140	453	433	67	402	383	126	495	504	185	632	641
Grp Sat Flow(s),veh/h/ln	1753	1749	1670	1753	1749	1658	1753	1749	1779	1753	1749	1768
Q Serve(g_s), s	4.5	16.5	16.5	2.4	14.8	14.9	4.5	18.0	18.0	6.8	22.5	22.5
Cycle Q Clear(g_c), s	4.5	16.5	16.5	2.4	14.8	14.9	4.5	18.0	18.0	6.8	22.5	22.5
Prop In Lane	1.00		0.57	1.00		0.61	1.00		0.19	1.00		0.23
Lane Grp Cap(c), veh/h	121	444	424	94	417	395	121	525	534	202	605	612
V/C Ratio(X)	1.15	1.02	1.02	0.71	0.96	0.97	1.04	0.94	0.94	0.91	1.04	1.05
Avail Cap(c_a), veh/h	121	444	424	94	417	395	121	525	534	202	605	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	1.00	1.00	1.00	0.31	0.31	0.31	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	24.3	24.3	30.3	24.5	24.5	30.3	22.2	22.2	28.4	21.2	21.3
Incr Delay (d2), s/veh	104.5	34.9	35.8	21.8	34.8	36.8	55.7	12.1	11.9	40.3	48.5	49.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	10.3	10.0	1.5	9.5	9.2	3.6	8.2	8.3	4.9	16.0	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	134.7	59.1	60.0	52.0	59.3	61.3	86.0	34.3	34.2	68.7	69.8	70.8
LnGrp LOS	F	F	F	D	E	E	F	C	C	E	F	F
Approach Vol, veh/h		1026			852			1125			1458	
Approach Delay, s/veh		69.8			59.6			40.0			70.1	
Approach LOS		E			E			D			E	

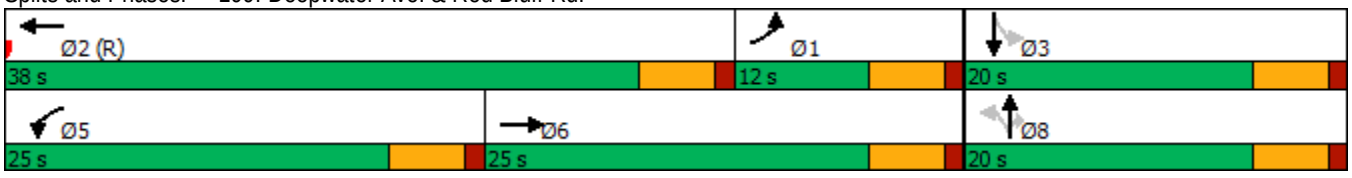
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	24.0	8.0	21.0	9.0	27.0	9.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	19.5	3.5	16.5	4.5	22.5	4.5	15.5
Max Q Clear Time (g_c+I1), s	8.8	20.0	4.4	18.5	6.5	24.5	6.5	16.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

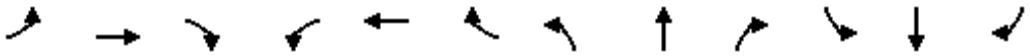
Intersection Summary	
HCM 6th Ctrl Delay	60.4
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	74	654	324	847	10	143	320	51	197
Future Volume (vph)	74	654	324	847	10	143	320	51	197
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	25.0	25.0	38.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	17.1%	35.7%	35.7%	54.3%	28.6%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lag	Lag	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)	6.7	25.2	17.5	38.0		12.4	12.4		12.4
Actuated g/C Ratio	0.10	0.36	0.25	0.54		0.18	0.18		0.18
v/c Ratio	0.46	0.57	0.77	0.49		0.51	0.60		0.61
Control Delay	39.2	21.4	36.8	12.2		31.6	8.4		27.1
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	39.2	21.4	36.8	12.2		31.6	8.4		27.1
LOS	D	C	D	B		C	A		C
Approach Delay		23.1		18.7		15.9			27.1
Approach LOS		C		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





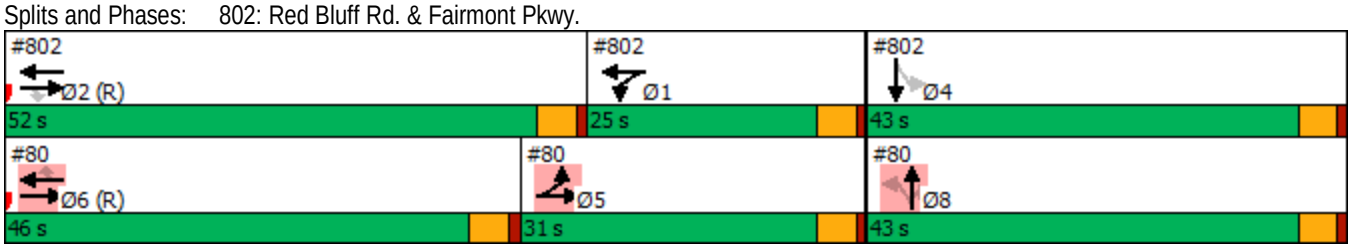
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	654	28	324	847	50	10	143	320	51	197	75
Future Volume (vph)	74	654	28	324	847	50	10	143	320	51	197	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	0.99		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3450		1736	3442			1821	1553		3324	
Flt Permitted	0.95	1.00		0.95	1.00			0.96	1.00		0.85	
Satd. Flow (perm)	1736	3450		1736	3442			1755	1553		2863	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	76	674	29	334	873	52	10	147	330	53	203	77
RTOR Reduction (vph)	0	4	0	0	6	0	0	0	272	0	42	0
Lane Group Flow (vph)	76	699	0	334	919	0	0	157	58	0	291	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	5.6	25.1		17.5	37.0			12.4	12.4		12.4	
Effective Green, g (s)	5.6	25.1		17.5	37.0			12.4	12.4		12.4	
Actuated g/C Ratio	0.08	0.36		0.25	0.53			0.18	0.18		0.18	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	138	1237		434	1819			310	275		507	
v/s Ratio Prot	0.04	c0.20		c0.19	0.27							
v/s Ratio Perm								0.09	0.04		c0.10	
v/c Ratio	0.55	0.57		0.77	0.51			0.51	0.21		0.57	
Uniform Delay, d1	31.0	18.1		24.4	10.6			26.0	24.6		26.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	4.7	0.6		8.0	1.0			1.3	0.4		1.6	
Delay (s)	35.7	18.7		32.4	11.6			27.3	25.0		28.0	
Level of Service	D	B		C	B			C	C		C	
Approach Delay (s)		20.3			17.1			25.8			28.0	
Approach LOS		C			B			C			C	

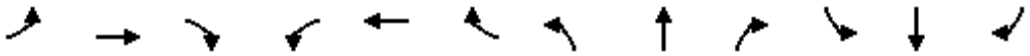
Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	1379	215	193	1674	232	697			
Future Volume (vph)	1379	215	193	1674	232	697			
Turn Type	NA	Perm	Prot	NA	Perm	NA			
Protected Phases	2		1	1 2		4	5	6	8
Permitted Phases		2			4				
Detector Phase	2	2	1	1 2	4	4			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	52.0	52.0	25.0		43.0	43.0	31.0	46.0	43.0
Total Split (%)	43.3%	43.3%	20.8%		35.8%	35.8%	26%	38%	36%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5			
Lead/Lag	Lead	Lead	Lag				Lag	Lead	
Lead-Lag Optimize?							Yes		
Recall Mode	C-Max	C-Max	None		None	None	None	C-Max	None
Act Effct Green (s)	51.1	51.1	20.2	75.8	35.2	35.2			
Actuated g/C Ratio	0.43	0.43	0.17	0.63	0.29	0.29			
v/c Ratio	0.57	0.33	0.37	0.58	0.50	0.80			
Control Delay	22.2	11.8	40.9	6.4	38.3	45.5			
Queue Delay	0.1	0.0	0.0	1.4	0.0	0.7			
Total Delay	22.3	11.8	40.9	7.8	38.3	46.1			
LOS	C	B	D	A	D	D			
Approach Delay	20.9			11.2		44.3			
Approach LOS	C			B		D			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38 (32%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





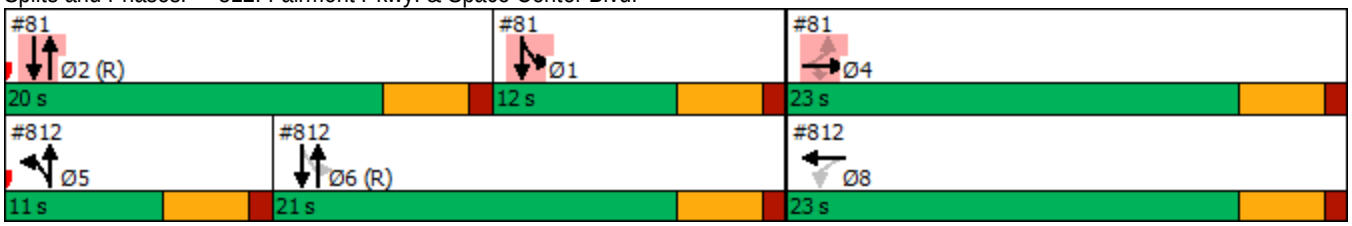
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1379	215	193	1674	0	0	0	0	232	697	43
Future Volume (vph)	0	1379	215	193	1674	0	0	0	0	232	697	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91					1.00	0.95	
Frt		1.00	0.85	1.00	1.00					1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988					1736	3441	
Flt Permitted		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (perm)		6285	1553	3367	4988					1736	3441	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	1515	236	212	1840	0	0	0	0	255	766	47
RTOR Reduction (vph)	0	0	60	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	1515	176	212	1840	0	0	0	0	255	809	0
Turn Type		NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases			2							4		
Actuated Green, G (s)		51.1	51.1	20.2	75.8					35.2	35.2	
Effective Green, g (s)		51.1	51.1	20.2	75.8					35.2	35.2	
Actuated g/C Ratio		0.43	0.43	0.17	0.63					0.29	0.29	
Clearance Time (s)		4.5	4.5	4.5						4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0						3.0	3.0	
Lane Grp Cap (vph)		2676	661	566	3150					509	1009	
v/s Ratio Prot		0.24		0.06	c0.37						c0.24	
v/s Ratio Perm			0.11							0.15		
v/c Ratio		0.57	0.27	0.37	0.58					0.50	0.80	
Uniform Delay, d1		26.1	22.3	44.3	12.9					35.1	39.2	
Progression Factor		0.80	0.80	0.89	0.43					1.00	1.00	
Incremental Delay, d2		0.7	0.8	0.3	0.2					0.8	4.7	
Delay (s)		21.6	18.7	39.6	5.8					35.9	43.9	
Level of Service		C	B	D	A					D	D	
Approach Delay (s)		21.2			9.2			0.0			42.0	
Approach LOS		C			A			A			D	

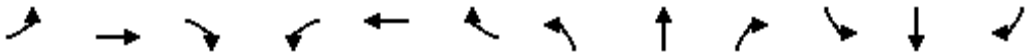
Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	453	2174	306	655	1	895			
Future Volume (vph)	453	2174	306	655	1	895			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	23.0	23.0	11.0		21.0	21.0	12.0	20.0	23.0
Total Split (%)	41.8%	41.8%	20.0%		38.2%	38.2%	22%	36%	42%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	18.5	18.5	6.5	27.5		16.5			
Actuated g/C Ratio	0.34	0.34	0.12	0.50		0.30			
v/c Ratio	0.81	1.17	0.80	0.39		0.85			
Control Delay	30.5	101.4	39.0	3.9		25.9			
Queue Delay	55.0	0.0	0.4	3.3		3.4			
Total Delay	85.5	101.4	39.3	7.2		29.3			
LOS	F	F	D	A		C			
Approach Delay		98.8		17.5		29.3			
Approach LOS		F		B		C			

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 55	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 67.0	Intersection LOS: E
Intersection Capacity Utilization 90.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





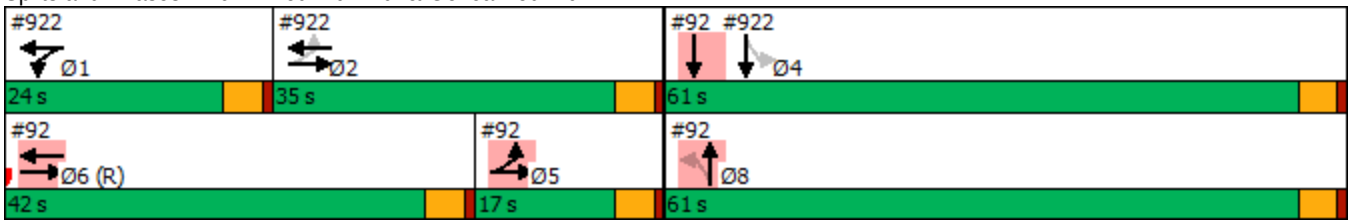
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	453	2174	192	306	655	0	1	895	222
Future Volume (vph)	0	0	0	453	2174	192	306	655	0	1	895	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.99		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6208		3367	3471			4839	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6208		3367	3471			4546	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	472	2265	200	319	682	0	1	932	231
RTOR Reduction (vph)	0	0	0	0	25	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	0	0	472	2440	0	319	682	0	0	1159	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				18.5	18.5		6.5	27.5			16.5	
Effective Green, g (s)				18.5	18.5		6.5	27.5			16.5	
Actuated g/C Ratio				0.34	0.34		0.12	0.50			0.30	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				583	2088		397	1735			1363	
v/s Ratio Prot					c0.39		c0.09	0.20				
v/s Ratio Perm				0.27							c0.25	
v/c Ratio				0.81	1.17		0.80	0.39			0.85	
Uniform Delay, d1				16.6	18.2		23.6	8.6			18.1	
Progression Factor				1.00	1.00		1.32	0.42			1.00	
Incremental Delay, d2				8.2	81.4		4.1	0.0			6.8	
Delay (s)				24.8	99.6		35.1	3.6			24.9	
Level of Service				C	F		D	A			C	
Approach Delay (s)		0.0			87.6			13.7			24.9	
Approach LOS		A			F			B			C	

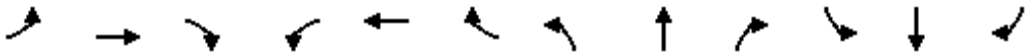
Intersection Summary			
HCM 2000 Control Delay	58.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations								
Traffic Volume (vph)	1	865	353	1464	663			
Future Volume (vph)	1	865	353	1464	663			
Turn Type	Perm	NA	Prot	NA	NA			
Protected Phases		2	1	2 1	4	5	6	8
Permitted Phases	2							
Detector Phase	2	2	1	2 1	4			
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	35.0	35.0	24.0		61.0	17.0	42.0	61.0
Total Split (%)	29.2%	29.2%	20.0%		50.8%	14%	35%	51%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0			
Total Lost Time (s)		4.5	4.5		4.5			
Lead/Lag	Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None		None	None	C-Max	None
Act Effct Green (s)		30.5	19.5	54.5	56.5			
Actuated g/C Ratio		0.25	0.16	0.45	0.47			
v/c Ratio		1.08	1.33	0.99	0.40			
Control Delay		91.7	191.4	28.4	9.0			
Queue Delay		7.4	2.7	39.5	0.0			
Total Delay		99.1	194.1	67.9	9.0			
LOS		F	F	E	A			
Approach Delay		99.1		92.5	9.0			
Approach LOS		F		F	A			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 96 (80%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 75.9	Intersection LOS: E
Intersection Capacity Utilization 96.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	865	320	353	1464	0	0	0	0	56	663	142
Future Volume (vph)	1	865	320	353	1464	0	0	0	0	56	663	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.91		1.00	0.95						0.91	
Frt		0.96		1.00	1.00						0.98	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		4786		1736	3471						4848	
Flt Permitted		0.91		0.95	1.00						1.00	
Satd. Flow (perm)		4365		1736	3471						4848	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1	920	340	376	1557	0	0	0	0	60	705	151
RTOR Reduction (vph)	0	55	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	1206	0	376	1557	0	0	0	0	0	911	0
Turn Type	Perm	NA		Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases	2									4		
Actuated Green, G (s)		30.5		19.5	54.5						56.5	
Effective Green, g (s)		30.5		19.5	54.5						56.5	
Actuated g/C Ratio		0.25		0.16	0.45						0.47	
Clearance Time (s)		4.5		4.5							4.5	
Vehicle Extension (s)		3.0		3.0							3.0	
Lane Grp Cap (vph)		1109		282	1576						2282	
v/s Ratio Prot				c0.22	c0.45							
v/s Ratio Perm		c0.28									0.19	
v/c Ratio		1.09		1.33	0.99						0.40	
Uniform Delay, d1		44.8		50.2	32.4						20.7	
Progression Factor		1.00		0.98	0.70						0.42	
Incremental Delay, d2		54.0		152.3	4.5						0.1	
Delay (s)		98.7		201.7	27.3						8.7	
Level of Service		F		F	C						A	
Approach Delay (s)		98.7			61.2			0.0			8.7	
Approach LOS		F			E			A			A	

Intersection Summary			
HCM 2000 Control Delay	61.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

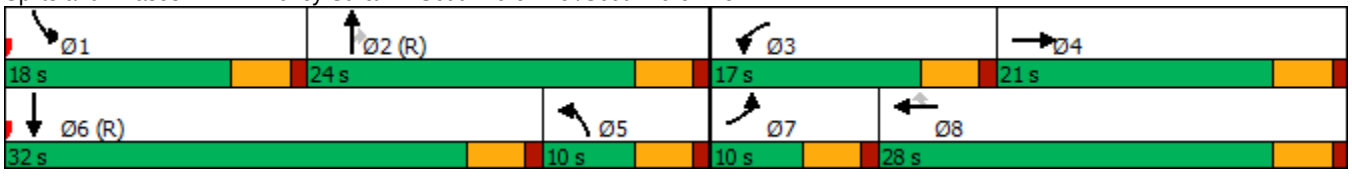
Synchro Report

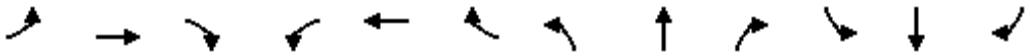
Existing Network 2021 AM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	41	281	310	430	203	47	429	155	149	352
Future Volume (vph)	41	281	310	430	203	47	429	155	149	352
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	21.0	17.0	28.0	28.0	10.0	24.0	24.0	18.0	32.0
Total Split (%)	12.5%	26.3%	21.3%	35.0%	35.0%	12.5%	30.0%	30.0%	22.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	5.5	12.8	11.6	22.9	22.9	5.5	26.0	26.0	11.6	36.1
Actuated g/C Ratio	0.07	0.16	0.14	0.29	0.29	0.07	0.32	0.32	0.14	0.45
v/c Ratio	0.35	0.61	0.65	0.45	0.35	0.40	0.39	0.25	0.62	0.26
Control Delay	44.2	33.5	26.3	19.0	6.1	40.4	19.3	2.1	42.7	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	33.5	26.3	19.0	6.1	40.4	19.3	2.1	42.7	15.7
LOS	D	C	C	B	A	D	B	A	D	B
Approach Delay		34.7		18.6			16.6			23.1
Approach LOS		C		B			B			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 10 (13%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 21.5	Intersection LOS: C
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	281	52	310	430	203	47	429	155	149	352	38
Future Volume (veh/h)	41	281	52	310	430	203	47	429	155	149	352	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	42	290	54	320	443	209	48	442	160	154	363	39
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	52	395	73	411	786	351	310	1439	642	191	1096	117
Arrive On Green	0.03	0.13	0.13	0.12	0.22	0.22	0.18	0.41	0.41	0.11	0.34	0.34
Sat Flow, veh/h	1753	2950	542	3401	3497	1560	1753	3497	1560	1753	3188	340
Grp Volume(v), veh/h	42	170	174	320	443	209	48	442	160	154	198	204
Grp Sat Flow(s),veh/h/ln	1753	1749	1743	1700	1749	1560	1753	1749	1560	1753	1749	1779
Q Serve(g_s), s	1.9	7.5	7.7	7.3	9.0	9.6	1.9	6.8	5.4	6.9	6.7	6.8
Cycle Q Clear(g_c), s	1.9	7.5	7.7	7.3	9.0	9.6	1.9	6.8	5.4	6.9	6.7	6.8
Prop In Lane	1.00		0.31	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	52	234	233	411	786	351	310	1439	642	191	601	612
V/C Ratio(X)	0.81	0.73	0.74	0.78	0.56	0.60	0.15	0.31	0.25	0.81	0.33	0.33
Avail Cap(c_a), veh/h	121	361	360	531	1027	458	310	1439	642	296	601	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.57	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	33.2	33.3	34.1	27.5	27.8	27.9	15.9	15.4	34.8	19.4	19.5
Incr Delay (d2), s/veh	15.2	2.5	2.7	5.5	0.6	1.6	0.2	0.6	0.9	8.8	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.2	3.3	3.2	3.7	3.6	0.8	2.6	1.9	3.3	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	35.7	36.0	39.7	28.2	29.4	28.1	16.4	16.4	43.6	20.9	20.9
LnGrp LOS	D	D	D	D	C	C	C	B	B	D	C	C
Approach Vol, veh/h		386			972			650			556	
Approach Delay, s/veh		37.8			32.2			17.3			27.2	
Approach LOS		D			C			B			C	

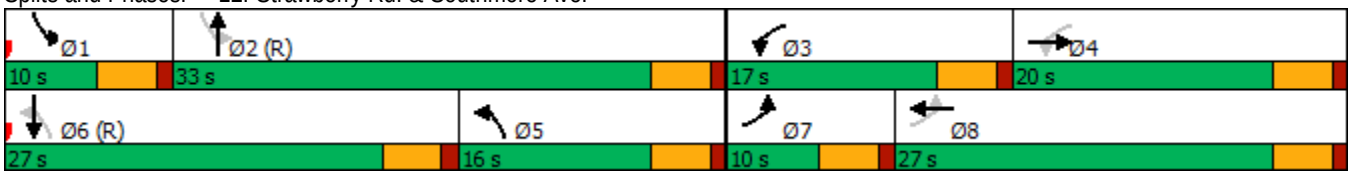
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	37.4	14.2	15.2	18.6	32.0	6.9	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	19.5	12.5	16.5	5.5	27.5	5.5	23.5
Max Q Clear Time (g_c+I1), s	8.9	8.8	9.3	9.7	3.9	8.8	3.9	11.6
Green Ext Time (p_c), s	0.1	2.5	0.4	1.0	0.0	2.1	0.0	2.8

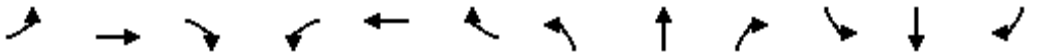
Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	91	413	235	559	220	486	57	504
Future Volume (vph)	91	413	235	559	220	486	57	504
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	17.0	27.0	16.0	33.0	10.0	27.0
Total Split (%)	12.5%	25.0%	21.3%	33.8%	20.0%	41.3%	12.5%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	27.4	14.5	26.5	23.0	35.5	31.8	36.4	24.0
Actuated g/C Ratio	0.34	0.18	0.33	0.29	0.44	0.40	0.46	0.30
v/c Ratio	0.45	0.75	0.74	0.70	0.67	0.57	0.23	0.68
Control Delay	22.0	38.9	23.9	19.9	30.3	16.4	13.3	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	38.9	23.9	19.9	30.3	16.4	13.3	28.2
LOS	C	D	C	B	C	B	B	C
Approach Delay		35.9		21.0		19.7		26.9
Approach LOS		D		C		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 10 (13%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	413	6	235	559	57	220	486	218	57	504	107
Future Volume (veh/h)	91	413	6	235	559	57	220	486	218	57	504	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	102	464	7	264	628	64	247	546	245	64	566	120
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	245	574	9	381	800	81	489	1010	452	400	808	171
Arrive On Green	0.06	0.16	0.16	0.15	0.25	0.25	0.37	0.86	0.86	0.03	0.28	0.28
Sat Flow, veh/h	1753	3527	53	1753	3205	326	1753	2349	1051	1753	2873	607
Grp Volume(v), veh/h	102	230	241	264	342	350	247	406	385	64	344	342
Grp Sat Flow(s),veh/h/ln	1753	1749	1831	1753	1749	1782	1753	1749	1652	1753	1749	1731
Q Serve(g_s), s	3.4	10.1	10.2	9.8	14.6	14.7	0.0	4.8	4.9	1.6	14.1	14.2
Cycle Q Clear(g_c), s	3.4	10.1	10.2	9.8	14.6	14.7	0.0	4.8	4.9	1.6	14.1	14.2
Prop In Lane	1.00		0.03	1.00		0.18	1.00		0.64	1.00		0.35
Lane Grp Cap(c), veh/h	245	284	298	381	437	445	489	752	710	400	492	487
V/C Ratio(X)	0.42	0.81	0.81	0.69	0.78	0.79	0.51	0.54	0.54	0.16	0.70	0.70
Avail Cap(c_a), veh/h	260	339	355	396	492	501	489	752	710	460	492	487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	32.3	32.3	23.3	28.0	28.0	19.4	3.5	3.5	12.1	25.7	25.8
Incr Delay (d2), s/veh	1.1	11.7	11.3	3.2	4.8	4.8	0.8	2.6	2.8	0.2	8.0	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.0	5.2	4.1	6.4	6.5	3.0	1.6	1.5	0.6	6.6	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	43.9	43.6	26.5	32.8	32.9	20.2	6.2	6.3	12.2	33.7	34.0
LnGrp LOS	C	D	D	C	C	C	C	A	A	B	C	C
Approach Vol, veh/h		573			956			1038			750	
Approach Delay, s/veh		40.0			31.1			9.6			32.0	
Approach LOS		D			C			A			C	

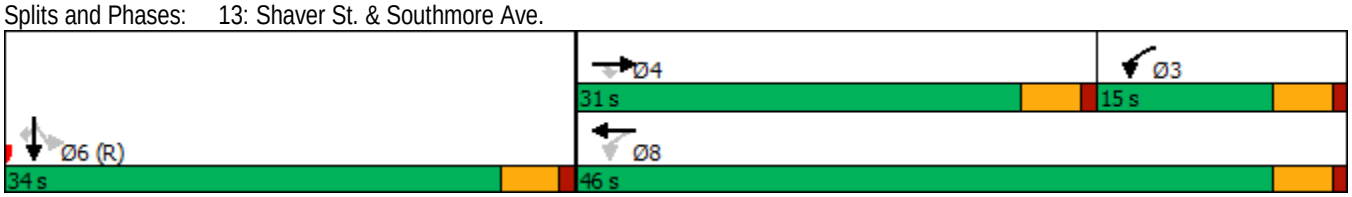
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	38.9	16.3	17.5	19.2	27.0	9.3	24.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	28.5	12.5	15.5	11.5	22.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	3.6	6.9	11.8	12.2	2.0	16.2	5.4	16.7
Green Ext Time (p_c), s	0.0	5.1	0.1	0.9	0.5	2.2	0.0	2.1

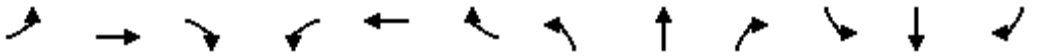
Intersection Summary	
HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	521	123	119	617	152	496	208
Future Volume (vph)	521	123	119	617	152	496	208
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	15.0	46.0	34.0	34.0	34.0
Total Split (%)	38.8%	38.8%	18.8%	57.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	20.6	20.6	30.6	30.6	40.4	40.4	40.4
Actuated g/C Ratio	0.26	0.26	0.38	0.38	0.50	0.50	0.50
v/c Ratio	0.68	0.29	0.49	0.56	0.20	0.33	0.31
Control Delay	29.9	10.7	14.1	8.4	8.8	8.9	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	10.7	14.1	8.4	8.8	8.9	9.6
LOS	C	B	B	A	A	A	A
Approach Delay	26.2			9.3		9.0	
Approach LOS	C			A		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 38 (48%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	521	123	119	617	0	0	0	0	152	496	208
Future Volume (veh/h)	0	521	123	119	617	0	0	0	0	152	496	208
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	606	143	138	717	0				177	577	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	804	358	194	1146	0				981	1958	
Arrive On Green	0.00	0.23	0.23	0.08	0.66	0.00				0.56	0.56	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	606	143	138	717	0				177	577	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	12.9	6.2	0.3	9.6	0.0				4.0	7.0	0.0
Cycle Q Clear(g_c), s	0.0	12.9	6.2	0.3	9.6	0.0				4.0	7.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	804	358	194	1146	0				981	1958	
V/C Ratio(X)	0.00	0.75	0.40	0.71	0.63	0.00				0.18	0.29	
Avail Cap(c_a), veh/h	0	1159	517	351	1814	0				981	1958	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.58	0.58	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	28.7	26.1	34.8	10.9	0.0				8.6	9.3	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.7	2.8	0.3	0.0				0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	2.3	2.6	2.5	0.0				1.4	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.4	26.8	37.6	11.2	0.0				9.0	9.7	0.0
LnGrp LOS	A	C	C	D	B	A				A	A	
Approach Vol, veh/h		749			855						754	A
Approach Delay, s/veh		29.7			15.5						9.5	
Approach LOS		C			B						A	

Timer - Assigned Phs		3	4		6		8					
Phs Duration (G+Y+Rc), s		7.8	22.9		49.3		30.7					
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s		10.5	26.5		29.5		41.5					
Max Q Clear Time (g_c+I1), s		2.3	14.9		9.0		11.6					
Green Ext Time (p_c), s		0.2	3.5		4.3		5.3					

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

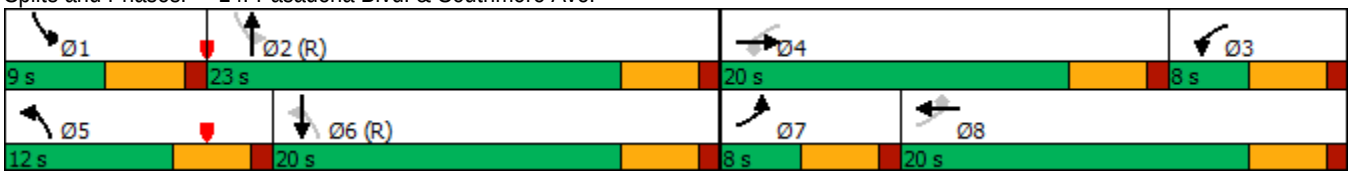
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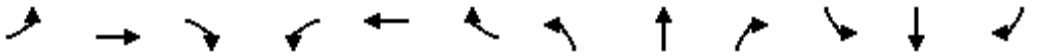
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	95	469	236	57	549	173	291	750	114	456
Future Volume (vph)	95	469	236	57	549	173	291	750	114	456
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	8		4	4		8	6		2	
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	12.0	23.0	9.0	20.0
Total Split (%)	13.3%	33.3%	33.3%	13.3%	33.3%	33.3%	20.0%	38.3%	15.0%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.3	16.1	16.1	19.3	14.5	14.5	25.6	22.7	26.5	17.6
Actuated g/C Ratio	0.29	0.27	0.27	0.32	0.24	0.24	0.43	0.38	0.44	0.29
v/c Ratio	0.48	0.56	0.43	0.22	0.73	0.37	0.76	0.67	0.47	0.50
Control Delay	20.8	21.6	5.4	15.1	26.4	5.6	26.7	21.3	16.1	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	21.6	5.4	15.1	26.4	5.6	26.7	21.3	16.1	20.6
LOS	C	C	A	B	C	A	C	C	B	C
Approach Delay		16.7			20.9			22.7		19.7
Approach LOS		B			C			C		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	469	236	57	549	173	291	750	44	114	456	4
Future Volume (veh/h)	95	469	236	57	549	173	291	750	44	114	456	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	106	521	262	63	610	192	323	833	49	127	507	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	262	719	321	300	784	349	492	1169	69	324	1041	8
Arrive On Green	0.06	0.21	0.21	0.08	0.22	0.22	0.13	0.35	0.35	0.07	0.29	0.29
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3356	197	1753	3556	28
Grp Volume(v), veh/h	106	521	262	63	610	192	323	434	448	127	249	262
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1805	1753	1749	1836
Q Serve(g_s), s	2.8	8.3	6.3	0.0	9.8	6.5	7.5	12.9	12.9	2.7	7.1	7.1
Cycle Q Clear(g_c), s	2.8	8.3	6.3	0.0	9.8	6.5	7.5	12.9	12.9	2.7	7.1	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.02
Lane Grp Cap(c), veh/h	262	719	321	300	784	349	492	609	629	324	512	537
V/C Ratio(X)	0.40	0.72	0.82	0.21	0.78	0.55	0.66	0.71	0.71	0.39	0.49	0.49
Avail Cap(c_a), veh/h	262	903	403	300	903	403	492	609	629	334	512	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	22.3	9.7	24.1	21.9	20.6	13.5	16.9	16.9	12.7	17.5	17.5
Incr Delay (d2), s/veh	1.0	2.2	10.1	0.3	3.8	1.3	3.2	7.0	6.7	0.8	3.3	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.3	3.8	0.8	4.0	2.3	3.0	5.7	5.8	1.0	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	24.4	19.8	24.5	25.7	21.9	16.6	23.9	23.7	13.5	20.8	20.7
LnGrp LOS	B	C	B	C	C	C	B	C	C	B	C	C
Approach Vol, veh/h		889			865			1205			638	
Approach Delay, s/veh		22.4			24.8			21.9			19.3	
Approach LOS		C			C			C			B	

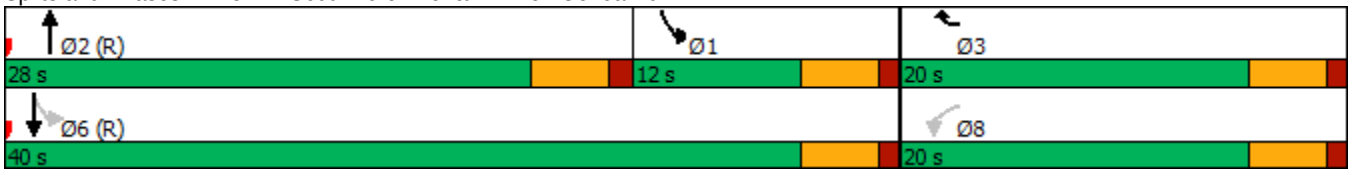
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	25.4	9.1	16.8	12.0	22.1	8.0	17.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	18.5	3.5	15.5	7.5	15.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	4.7	14.9	2.0	10.3	9.5	9.1	4.8	11.8
Green Ext Time (p_c), s	0.0	1.8	0.0	2.0	0.0	1.6	0.0	1.6

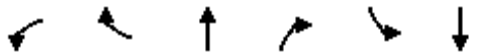
Intersection Summary	
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	90	330	1097	244	485
Future Volume (vph)	90	330	1097	244	485
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	28.0	12.0	40.0
Total Split (%)	33.3%	33.3%	46.7%	20.0%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.0	10.0	29.0	41.0	41.0
Actuated g/C Ratio	0.17	0.17	0.48	0.68	0.68
v/c Ratio	0.34	0.73	0.73	0.75	0.23
Control Delay	23.7	15.5	17.5	32.5	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	15.5	17.5	32.5	4.5
LOS	C	B	B	C	A
Approach Delay	17.3		17.5		13.8
Approach LOS	B		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	90	330	1097	22	244	485	
Future Volume (veh/h)	90	330	1097	22	244	485	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	
Adj Flow Rate, veh/h	98	359	1192	24	265	527	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	4	4	4	4	4	4	
Cap, veh/h	449	400	1373	28	363	2077	
Arrive On Green	0.26	0.26	0.39	0.39	0.13	0.59	
Sat Flow, veh/h	1753	1560	3598	71	1753	3589	
Grp Volume(v), veh/h	98	359	594	622	265	527	
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1828	1753	1749	
Q Serve(g_s), s	2.6	13.3	18.8	18.8	3.7	4.3	
Cycle Q Clear(g_c), s	2.6	13.3	18.8	18.8	3.7	4.3	
Prop In Lane	1.00	1.00		0.04	1.00		
Lane Grp Cap(c), veh/h	449	400	685	716	363	2077	
V/C Ratio(X)	0.22	0.90	0.87	0.87	0.73	0.25	
Avail Cap(c_a), veh/h	453	403	685	716	363	2077	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.90	0.90	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.6	21.6	16.8	16.8	23.4	5.8	
Incr Delay (d2), s/veh	0.2	20.5	14.0	13.5	7.3	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.0	6.5	9.0	9.3	3.9	1.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.8	42.1	30.8	30.3	30.6	6.1	
LnGrp LOS	B	D	C	C	C	A	
Approach Vol, veh/h	457		1216			792	
Approach Delay, s/veh	36.9		30.5			14.3	
Approach LOS	D		C			B	

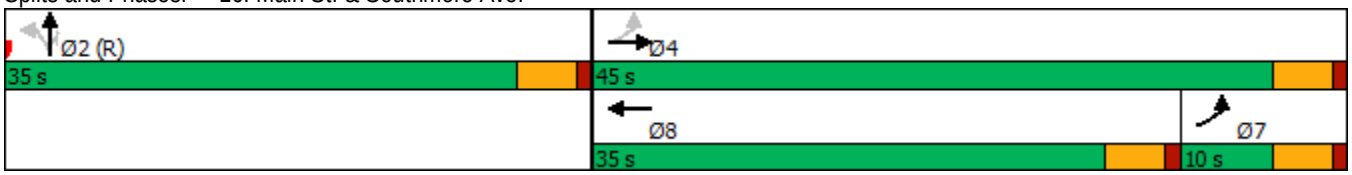
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	12.1	28.0			40.1	19.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	7.5	23.5			35.5	15.5
Max Q Clear Time (g_c+I1), s	5.7	20.8			6.3	15.3
Green Ext Time (p_c), s	0.2	1.8			3.7	0.0

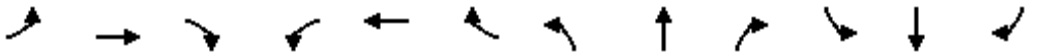
Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	80	564	569	786	154
Future Volume (vph)	80	564	569	786	154
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	45.0	35.0	35.0	35.0
Total Split (%)	12.5%	56.3%	43.8%	43.8%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	34.8	33.7	25.4	37.3	37.3
Actuated g/C Ratio	0.44	0.42	0.32	0.47	0.47
v/c Ratio	0.35	0.46	0.75	0.47	0.22
Control Delay	8.1	11.0	27.7	17.0	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	11.0	27.7	17.0	4.4
LOS	A	B	C	B	A
Approach Delay		10.6	27.7	15.2	
Approach LOS		B	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



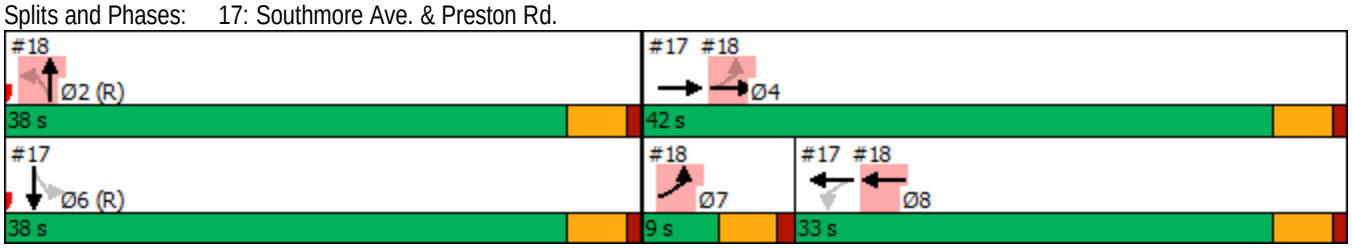


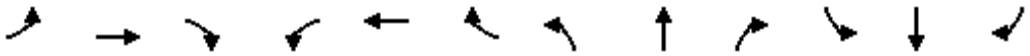
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	564	0	0	569	124	163	786	154	0	0	0
Future Volume (veh/h)	80	564	0	0	569	124	163	786	154	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	92	648	0	0	654	143	187	903	177			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	189	1328	0	0	814	178	422	2193	792			
Arrive On Green	0.08	0.76	0.00	0.00	0.29	0.29	0.51	0.51	0.51			
Sat Flow, veh/h	1753	3589	0	0	2946	623	831	4318	1560			
Grp Volume(v), veh/h	92	648	0	0	400	397	405	685	177			
Grp Sat Flow(s),veh/h/ln	1753	1749	0	0	1749	1729	1799	1675	1560			
Q Serve(g_s), s	0.0	5.7	0.0	0.0	17.0	17.0	11.4	10.1	5.0			
Cycle Q Clear(g_c), s	0.0	5.7	0.0	0.0	17.0	17.0	11.4	10.1	5.0			
Prop In Lane	1.00		0.00	0.00		0.36	0.46		1.00			
Lane Grp Cap(c), veh/h	189	1328	0	0	499	493	914	1701	792			
V/C Ratio(X)	0.49	0.49	0.00	0.00	0.80	0.80	0.44	0.40	0.22			
Avail Cap(c_a), veh/h	242	1771	0	0	667	659	914	1701	792			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.80	0.80	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	34.9	6.7	0.0	0.0	26.5	26.5	12.5	12.2	10.9			
Incr Delay (d2), s/veh	1.6	0.2	0.0	0.0	5.2	5.3	1.6	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	1.5	0.0	0.0	7.3	7.3	4.5	3.5	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	6.9	0.0	0.0	31.7	31.8	14.1	12.9	11.6			
LnGrp LOS	D	A	A	A	C	C	B	B	B			
Approach Vol, veh/h		740			797			1267				
Approach Delay, s/veh		10.6			31.8			13.1				
Approach LOS		B			C			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		45.1		34.9			7.5	27.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		30.5		40.5			5.5	30.5				
Max Q Clear Time (g_c+I1), s		13.4		7.7			2.0	19.0				
Green Ext Time (p_c), s		7.3		4.8			0.1	3.8				
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	391	112	397	675		
Future Volume (vph)	391	112	397	675		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	42.0	33.0	33.0	38.0	38.0	9.0
Total Split (%)	52.5%	41.3%	41.3%	47.5%	48%	11%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lag	Lag			Lead
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	30.2	21.2	21.2	40.8		
Actuated g/C Ratio	0.38	0.26	0.26	0.51		
v/c Ratio	0.48	0.62	0.51	0.59		
Control Delay	24.4	28.3	18.9	10.2		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	24.4	28.3	18.9	10.2		
LOS	C	C	B	B		
Approach Delay	24.4		20.9	10.2		
Approach LOS	C		C	B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





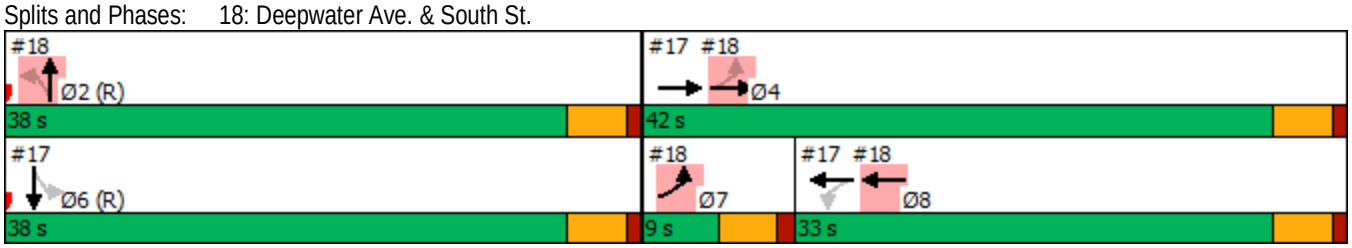
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	391	141	112	397	0	0	0	0	43	675	182
Future Volume (vph)	0	391	141	112	397	0	0	0	0	43	675	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.96		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3222		1736	3355						3358	
Flt Permitted		1.00		0.42	1.00						1.00	
Satd. Flow (perm)		3222		774	3355						3358	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	444	160	127	451	0	0	0	0	49	767	207
RTOR Reduction (vph)	0	54	0	0	0	0	0	0	0	0	24	0
Lane Group Flow (vph)	0	550	0	127	451	0	0	0	0	0	999	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		30.2		21.2	21.2						40.8	
Effective Green, g (s)		30.2		21.2	21.2						40.8	
Actuated g/C Ratio		0.38		0.26	0.26						0.51	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1216		205	889						1712	
v/s Ratio Prot		c0.17			0.13							
v/s Ratio Perm				c0.16							0.30	
v/c Ratio		0.45		0.62	0.51						0.58	
Uniform Delay, d1		18.7		25.9	25.0						13.7	
Progression Factor		1.52		0.63	0.71						0.60	
Incremental Delay, d2		0.3		5.2	0.4						1.4	
Delay (s)		28.7		21.4	18.0						9.6	
Level of Service		C		C	B						A	
Approach Delay (s)		28.7			18.8			0.0			9.6	
Approach LOS		C			B			A			A	

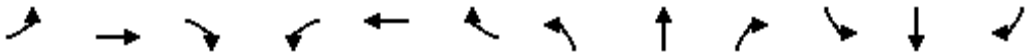
Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	123	289	377	606	
Future Volume (vph)	123	289	377	606	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	42.0	33.0	38.0	38.0
Total Split (%)	11.3%	52.5%	41.3%	47.5%	48%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.2	30.2	21.2	40.8	
Actuated g/C Ratio	0.38	0.38	0.26	0.51	
v/c Ratio	0.50	0.26	0.52	0.38	
Control Delay	11.8	3.8	25.6	13.1	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	11.8	3.8	25.6	13.1	
LOS	B	A	C	B	
Approach Delay		6.2	25.6	13.1	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





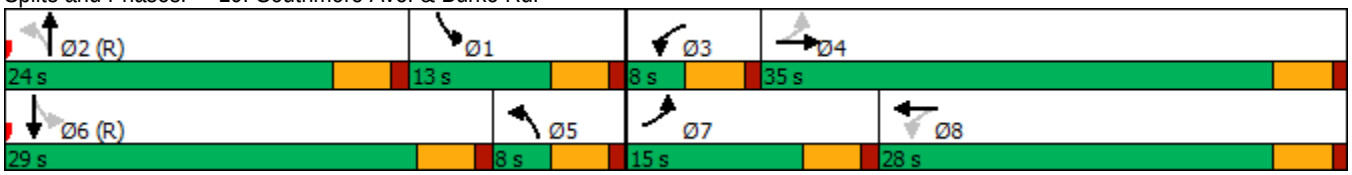
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	289	0	0	377	34	118	606	93	0	0	0
Future Volume (vph)	123	289	0	0	377	34	118	606	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.98				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3200			4543				
Flt Permitted	0.32	1.00			1.00			0.99				
Satd. Flow (perm)	552	3240			3200			4543				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	314	0	0	410	37	128	659	101	0	0	0
RTOR Reduction (vph)	0	0	0	0	10	0	0	17	0	0	0	0
Lane Group Flow (vph)	134	314	0	0	437	0	0	871	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	30.2	30.2			21.2			40.8				
Effective Green, g (s)	30.2	30.2			21.2			40.8				
Actuated g/C Ratio	0.38	0.38			0.26			0.51				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	268	1223			848			2316				
v/s Ratio Prot	c0.03	0.10			0.14							
v/s Ratio Perm	c0.16							0.19				
v/c Ratio	0.50	0.26			0.52			0.38				
Uniform Delay, d1	17.5	17.2			25.0			11.9				
Progression Factor	0.36	0.21			1.00			1.00				
Incremental Delay, d2	1.4	0.1			0.5			0.5				
Delay (s)	7.7	3.7			25.6			12.4				
Level of Service	A	A			C			B				
Approach Delay (s)		4.9			25.6			12.4			0.0	
Approach LOS		A			C			B			A	

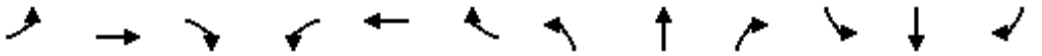
Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	126	353	38	401	48	198	151	216
Future Volume (vph)	126	353	38	401	48	198	151	216
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	15.0	35.0	8.0	28.0	8.0	24.0	13.0	29.0
Total Split (%)	18.8%	43.8%	10.0%	35.0%	10.0%	30.0%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	34.3	29.5	24.4	20.0	28.4	24.9	36.7	31.9
Actuated g/C Ratio	0.43	0.37	0.30	0.25	0.36	0.31	0.46	0.40
v/c Ratio	0.49	0.40	0.15	0.75	0.19	0.27	0.35	0.32
Control Delay	14.6	13.8	8.9	20.7	18.2	18.2	23.0	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	13.8	8.9	20.7	18.2	18.2	23.0	13.3
LOS	B	B	A	C	B	B	C	B
Approach Delay		14.0		20.0		18.2		16.1
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 15 (19%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	353	44	38	401	131	48	198	34	151	216	154
Future Volume (veh/h)	126	353	44	38	401	131	48	198	34	151	216	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	150	420	52	45	477	156	57	236	40	180	257	183
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	281	895	110	298	593	193	471	731	122	637	607	417
Arrive On Green	0.09	0.29	0.29	0.03	0.23	0.23	0.15	0.24	0.24	0.07	0.10	0.10
Sat Flow, veh/h	1753	3134	386	1753	2595	843	1753	2998	501	1753	1982	1362
Grp Volume(v), veh/h	150	233	239	45	320	313	57	136	140	180	226	214
Grp Sat Flow(s),veh/h/ln	1753	1749	1771	1753	1749	1689	1753	1749	1751	1753	1749	1596
Q Serve(g_s), s	4.9	8.8	8.9	1.6	13.8	14.0	0.0	5.1	5.3	0.0	9.7	10.1
Cycle Q Clear(g_c), s	4.9	8.8	8.9	1.6	13.8	14.0	0.0	5.1	5.3	0.0	9.7	10.1
Prop In Lane	1.00		0.22	1.00		0.50	1.00		0.29	1.00		0.85
Lane Grp Cap(c), veh/h	281	499	506	298	400	386	471	426	427	637	536	489
V/C Ratio(X)	0.53	0.47	0.47	0.15	0.80	0.81	0.12	0.32	0.33	0.28	0.42	0.44
Avail Cap(c_a), veh/h	362	667	675	325	514	496	471	426	427	637	536	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.67	0.67	0.67	0.85	0.85	0.85	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	21.1	23.6	23.6	22.8	29.1	29.2	22.6	24.8	24.9	23.4	29.3	29.5
Incr Delay (d2), s/veh	1.1	0.5	0.5	0.2	5.9	6.6	0.1	2.0	2.0	0.2	1.8	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.5	3.6	0.6	6.2	6.1	0.8	2.3	2.3	2.9	4.6	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.2	24.0	24.1	23.0	35.1	35.8	22.7	26.8	26.9	23.6	31.1	31.7
LnGrp LOS	C	C	C	C	D	D	C	C	C	C	C	C
Approach Vol, veh/h		622			678			333			620	
Approach Delay, s/veh		23.6			34.6			26.1			29.1	
Approach LOS		C			C			C			C	

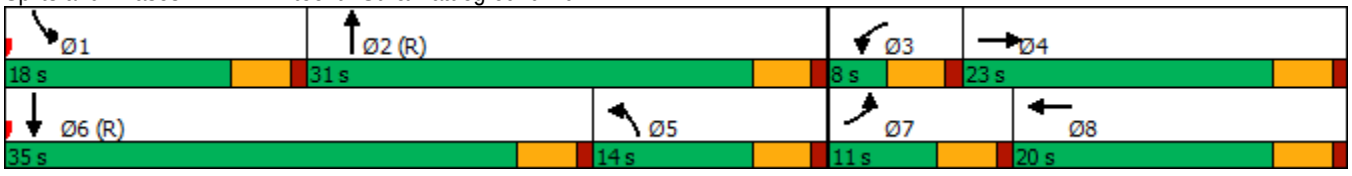
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	24.0	6.8	27.3	16.9	29.0	11.3	22.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	19.5	3.5	30.5	3.5	24.5	10.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	7.3	3.6	10.9	2.0	12.1	6.9	16.0
Green Ext Time (p_c), s	0.2	1.1	0.0	2.6	0.0	2.1	0.1	2.3

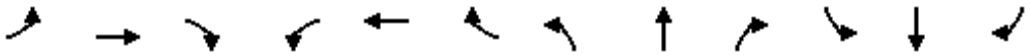
Intersection Summary	
HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	70	15	4	5	80	755	165	665
Future Volume (vph)	70	15	4	5	80	755	165	665
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	23.0	8.0	20.0	14.0	31.0	18.0	35.0
Total Split (%)	13.8%	28.8%	10.0%	25.0%	17.5%	38.8%	22.5%	43.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.3	11.2	3.5	6.0	8.7	42.5	13.2	49.9
Actuated g/C Ratio	0.08	0.14	0.04	0.08	0.11	0.53	0.16	0.62
v/c Ratio	0.54	0.15	0.05	0.16	0.45	0.45	0.62	0.35
Control Delay	54.8	13.6	38.2	15.8	34.8	12.9	39.8	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	13.6	38.2	15.8	34.8	12.9	39.8	10.9
LOS	D	B	D	B	C	B	D	B
Approach Delay		34.6		17.8		15.0		16.4
Approach LOS		C		B		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 54 (68%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	15	52	4	5	34	80	755	18	165	665	38
Future Volume (veh/h)	70	15	52	4	5	34	80	755	18	165	665	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	16	55	4	5	36	85	803	19	176	707	40
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	189	168	7	101	90	494	1889	45	214	1283	73
Arrive On Green	0.05	0.11	0.11	0.00	0.06	0.06	0.28	0.54	0.54	0.12	0.38	0.38
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3492	83	1753	3365	190
Grp Volume(v), veh/h	74	16	55	4	5	36	85	402	420	176	367	380
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1826	1753	1749	1806
Q Serve(g_s), s	3.3	0.7	2.6	0.2	0.2	1.8	2.9	11.0	11.0	7.8	13.2	13.2
Cycle Q Clear(g_c), s	3.3	0.7	2.6	0.2	0.2	1.8	2.9	11.0	11.0	7.8	13.2	13.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.11
Lane Grp Cap(c), veh/h	95	189	168	7	101	90	494	946	988	214	667	689
V/C Ratio(X)	0.78	0.08	0.33	0.61	0.05	0.40	0.17	0.42	0.43	0.82	0.55	0.55
Avail Cap(c_a), veh/h	142	404	361	77	339	302	494	946	988	296	667	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	32.1	33.0	39.8	35.6	36.4	21.7	10.9	10.9	34.3	19.4	19.4
Incr Delay (d2), s/veh	14.2	0.2	1.1	68.0	0.2	2.8	0.2	1.4	1.3	12.2	3.3	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.3	1.0	0.2	0.1	0.7	1.1	3.8	4.0	3.8	5.3	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	32.3	34.1	107.8	35.8	39.2	21.8	12.3	12.3	46.5	22.6	22.6
LnGrp LOS	D	C	C	F	D	D	C	B	B	D	C	C
Approach Vol, veh/h		145			45			907			923	
Approach Delay, s/veh		42.8			44.9			13.2			27.1	
Approach LOS		D			D			B			C	

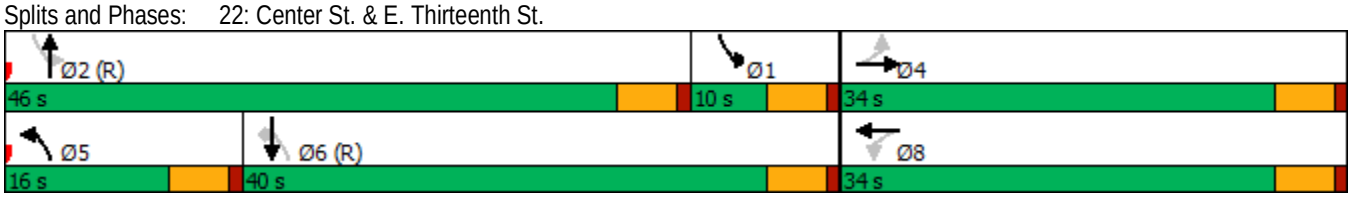
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	47.8	4.8	13.1	27.1	35.0	8.8	9.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	26.5	3.5	18.5	9.5	30.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	9.8	13.0	2.2	4.6	4.9	15.2	5.3	3.8
Green Ext Time (p_c), s	0.1	3.9	0.0	0.2	0.1	3.7	0.0	0.1

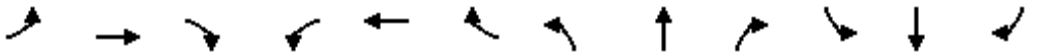
Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	142	145	307	230	239	1218	130	948	168
Future Volume (vph)	142	145	307	230	239	1218	130	948	168
Turn Type	Perm	NA	Perm	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8		6		2		6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	34.0	34.0	34.0	34.0	16.0	46.0	10.0	40.0	40.0
Total Split (%)	37.8%	37.8%	37.8%	37.8%	17.8%	51.1%	11.1%	44.4%	44.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.0	29.0	29.0	29.0	46.0	41.0	46.0	35.2	35.2
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.51	0.46	0.51	0.39	0.39
v/c Ratio	0.59	0.28	1.02	0.38	0.84	0.96	0.79	0.75	0.25
Control Delay	36.6	12.1	89.5	15.9	25.5	31.4	58.2	28.0	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.6	12.1	89.5	15.9	25.5	31.4	58.2	28.0	3.9
LOS	D	B	F	B	C	C	E	C	A
Approach Delay		20.3		48.1		30.5		27.9	
Approach LOS		C		D		C		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 31.7	Intersection LOS: C
Intersection Capacity Utilization 94.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	145	138	307	230	166	239	1218	171	130	948	168
Future Volume (veh/h)	142	145	138	307	230	166	239	1218	171	130	948	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	153	156	148	330	247	178	257	1310	184	140	1019	181
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	289	567	500	345	636	441	341	1404	196	194	1412	630
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.11	0.46	0.46	0.06	0.40	0.40
Sat Flow, veh/h	947	1760	1551	1058	1974	1369	1753	3082	430	1753	3497	1560
Grp Volume(v), veh/h	153	155	149	330	218	207	257	739	755	140	1019	181
Grp Sat Flow(s),veh/h/ln	947	1749	1562	1058	1749	1594	1753	1749	1763	1753	1749	1560
Q Serve(g_s), s	13.5	5.9	6.4	22.6	8.7	9.1	7.6	35.9	36.7	2.0	22.1	7.0
Cycle Q Clear(g_c), s	22.6	5.9	6.4	29.0	8.7	9.1	7.6	35.9	36.7	2.0	22.1	7.0
Prop In Lane	1.00		0.99	1.00		0.86	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	289	563	503	345	563	514	341	797	803	194	1412	630
V/C Ratio(X)	0.53	0.27	0.30	0.96	0.39	0.40	0.75	0.93	0.94	0.72	0.72	0.29
Avail Cap(c_a), veh/h	289	563	503	345	563	514	367	797	803	194	1412	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	22.7	22.9	35.9	23.6	23.8	17.9	23.1	23.3	40.1	22.6	18.1
Incr Delay (d2), s/veh	1.8	0.3	0.3	27.9	0.3	0.3	0.8	2.4	2.8	12.3	3.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	2.4	2.4	10.0	3.5	3.4	2.7	13.7	14.2	3.5	8.9	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.4	22.9	23.2	63.8	23.9	24.1	18.7	25.6	26.2	52.4	25.8	19.2
LnGrp LOS	C	C	C	E	C	C	B	C	C	D	C	B
Approach Vol, veh/h		457			755			1751			1340	
Approach Delay, s/veh		26.9			41.4			24.8			27.7	
Approach LOS		C			D			C			C	

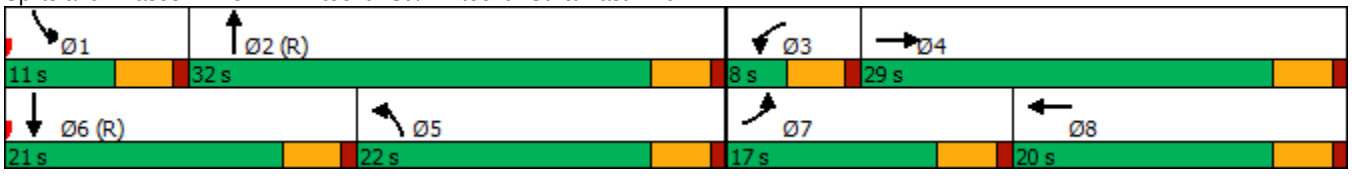
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	46.0		34.0	14.7	41.3		34.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	5.0	41.0		29.0	11.0	35.0		29.0				
Max Q Clear Time (g_c+I1), s	4.0	38.7		24.6	9.6	24.1		31.0				
Green Ext Time (p_c), s	0.0	1.8		1.1	0.1	5.4		0.0				

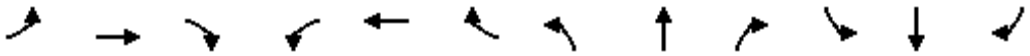
Intersection Summary			
HCM 6th Ctrl Delay		28.8	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	137	96	8	71	192	541	52	353
Future Volume (vph)	137	96	8	71	192	541	52	353
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	17.0	29.0	8.0	20.0	22.0	32.0	11.0	21.0
Total Split (%)	21.3%	36.3%	10.0%	25.0%	27.5%	40.0%	13.8%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.0	19.2	3.5	7.3	17.5	41.9	8.1	28.2
Actuated g/C Ratio	0.14	0.24	0.04	0.09	0.22	0.52	0.10	0.35
v/c Ratio	0.63	0.32	0.12	0.29	0.57	0.38	0.33	0.42
Control Delay	35.0	6.4	57.2	15.6	35.1	14.7	37.8	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	6.4	57.2	15.6	35.1	14.7	37.8	20.6
LOS	C	A	E	B	D	B	D	C
Approach Delay		16.4		19.2		19.5		22.3
Approach LOS		B		B		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 6 (8%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	96	159	8	71	14	192	541	76	52	353	107
Future Volume (veh/h)	137	96	159	8	71	14	192	541	76	52	353	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	105	175	9	78	15	211	595	84	57	388	118
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	187	282	252	14	184	34	700	1737	245	72	547	164
Arrive On Green	0.11	0.16	0.16	0.01	0.06	0.06	0.40	0.56	0.56	0.04	0.21	0.21
Sat Flow, veh/h	1753	1749	1560	1753	2940	551	1753	3078	434	1753	2650	796
Grp Volume(v), veh/h	151	105	175	9	46	47	211	337	342	57	254	252
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1742	1753	1749	1763	1753	1749	1697
Q Serve(g_s), s	6.7	4.3	8.5	0.4	2.0	2.1	6.6	8.3	8.4	2.6	10.8	11.0
Cycle Q Clear(g_c), s	6.7	4.3	8.5	0.4	2.0	2.1	6.6	8.3	8.4	2.6	10.8	11.0
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.25	1.00		0.47
Lane Grp Cap(c), veh/h	187	282	252	14	109	109	700	987	995	72	361	350
V/C Ratio(X)	0.81	0.37	0.69	0.65	0.42	0.44	0.30	0.34	0.34	0.79	0.71	0.72
Avail Cap(c_a), veh/h	274	536	478	77	339	337	700	987	995	142	361	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	29.9	31.7	39.6	36.1	36.1	16.4	9.4	9.4	38.0	29.5	29.6
Incr Delay (d2), s/veh	8.5	0.6	2.7	38.8	2.4	2.6	0.2	0.9	0.9	17.0	11.0	12.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.8	3.3	0.3	0.9	1.0	2.4	2.9	2.9	1.4	5.4	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	30.6	34.4	78.4	38.5	38.7	16.6	10.3	10.4	55.0	40.5	41.6
LnGrp LOS	D	C	C	E	D	D	B	B	B	E	D	D
Approach Vol, veh/h		431			102			890			563	
Approach Delay, s/veh		36.6			42.1			11.8			42.5	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	49.7	5.1	17.4	36.5	21.0	13.1	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	27.5	3.5	24.5	17.5	16.5	12.5	15.5
Max Q Clear Time (g_c+I1), s	4.6	10.4	2.4	10.5	8.6	13.0	8.7	4.1
Green Ext Time (p_c), s	0.0	3.6	0.0	1.4	0.4	0.9	0.1	0.3

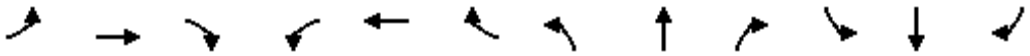
Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	292	109	419	312	131	93	119
Future Volume (vph)	6	292	109	419	312	131	93	119
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	27.0	27.0	53.0	53.0	53.0	53.0
Total Split (%)	33.8%	33.8%	33.8%	33.8%	66.3%	66.3%	66.3%	66.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	21.7	21.7	21.7	21.7		49.3		49.3
Actuated g/C Ratio	0.27	0.27	0.27	0.27		0.62		0.62
v/c Ratio	0.07	0.58	0.95	0.70		0.91		0.39
Control Delay	23.2	21.9	91.1	23.0		32.3		9.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	23.2	21.9	91.1	23.0		32.3		9.8
LOS	C	C	F	C		C		A
Approach Delay		21.9		34.8		32.3		9.8
Approach LOS		C		C		C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 63 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 27.9	Intersection LOS: C
Intersection Capacity Utilization 79.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	292	159	109	419	104	312	131	102	93	119	13
Future Volume (veh/h)	6	292	159	109	419	104	312	131	102	93	119	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	8	370	201	138	530	132	395	166	129	118	151	16
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	174	619	331	200	781	194	549	201	156	396	486	49
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	761	2201	1177	828	2777	689	788	331	257	548	802	80
Grp Volume(v), veh/h	8	293	278	138	333	329	690	0	0	285	0	0
Grp Sat Flow(s),veh/h/ln	761	1749	1629	828	1749	1717	1377	0	0	1430	0	0
Q Serve(g_s), s	0.8	11.6	11.8	10.7	13.5	13.6	24.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.4	11.6	11.8	22.5	13.5	13.6	31.6	0.0	0.0	7.0	0.0	0.0
Prop In Lane	1.00		0.72	1.00		0.40	0.57		0.19	0.41		0.06
Lane Grp Cap(c), veh/h	174	492	458	200	492	483	906	0	0	931	0	0
V/C Ratio(X)	0.05	0.60	0.61	0.69	0.68	0.68	0.76	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	174	492	458	200	492	483	906	0	0	931	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.87	0.87	0.87	0.81	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.0	24.8	24.9	35.7	25.5	25.6	12.4	0.0	0.0	7.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.8	2.1	8.4	3.2	3.4	4.9	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.8	4.7	3.1	5.8	5.8	9.3	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	26.6	27.0	44.1	28.7	29.0	17.3	0.0	0.0	8.3	0.0	0.0
LnGrp LOS	C	C	C	D	C	C	B	A	A	A	A	A
Approach Vol, veh/h		579			800			690			285	
Approach Delay, s/veh		26.9			31.5			17.3			8.3	
Approach LOS		C			C			B			A	

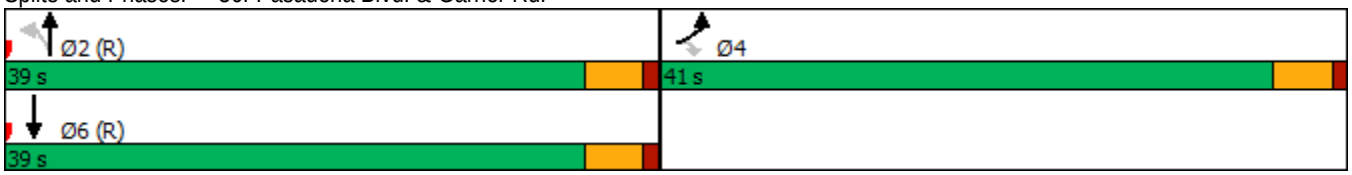
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.0		27.0		53.0		27.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		48.5		22.5		48.5		22.5				
Max Q Clear Time (g_c+I1), s		33.6		16.4		9.0		24.5				
Green Ext Time (p_c), s		4.7		1.9		2.1		0.0				

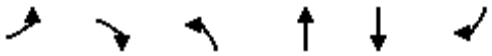
Intersection Summary												
HCM 6th Ctrl Delay			23.4									
HCM 6th LOS			C									

Lane Group	Ø2	Ø4	Ø6
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Turn Type			
Protected Phases	2	4	6
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0
Total Split (%)	49%	51%	49%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	None	C-Max
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	2	2	0	3301	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1560	0	3681	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1560	0	1749	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	2	2	0	3301	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	800	712	0	3301	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	0			0	0	
Approach Delay, s/veh	0.0			0.0	0.0	
Approach LOS						

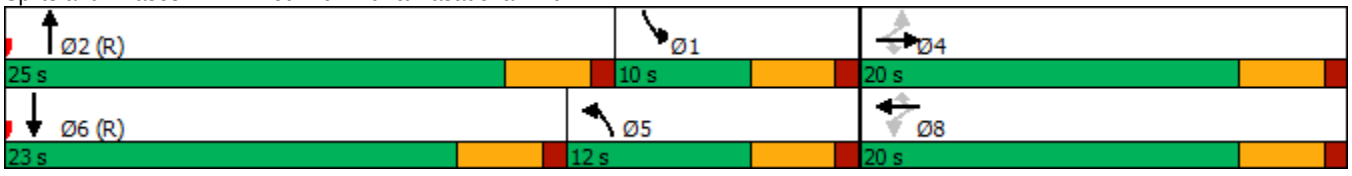
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		34.5		36.5		34.5
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0
Green Ext Time (p_c), s		0.0		0.0		0.0

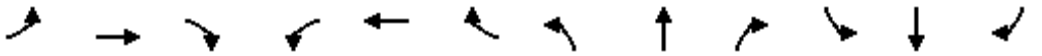
Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	334	109	14	443	222	143	835	98	637
Future Volume (vph)	334	109	14	443	222	143	835	98	637
Turn Type	NA	Perm	Perm	NA	Perm	Prot	NA	Prot	NA
Protected Phases	4			8		5	2	1	6
Permitted Phases		4	8		8				
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	25.0	10.0	23.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	36.4%	21.8%	45.5%	18.2%	41.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lag	Lead	Lag	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.9	13.9		13.9	13.9	7.4	24.1	5.5	22.5
Actuated g/C Ratio	0.25	0.25		0.25	0.25	0.13	0.44	0.10	0.41
v/c Ratio	0.44	0.25		0.64	0.43	0.71	0.66	0.63	0.51
Control Delay	18.6	5.3		22.0	5.3	43.3	16.5	43.2	15.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	5.3		22.0	5.3	43.3	16.5	43.2	15.3
LOS	B	A		C	A	D	B	D	B
Approach Delay	15.3			16.5			20.3		19.0
Approach LOS	B			B			C		B

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 55	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 63.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	334	109	14	443	222	143	835	28	98	637	11
Future Volume (veh/h)	0	334	109	14	443	222	143	835	28	98	637	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	371	121	16	492	247	159	928	0	109	708	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	759	338	79	724	338	353	1304		289	1176	
Arrive On Green	0.00	0.22	0.22	0.22	0.22	0.22	0.20	0.37	0.00	0.16	0.34	0.00
Sat Flow, veh/h	0	3589	1560	45	3338	1560	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	0	371	121	271	237	247	159	928	0	109	708	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1792	1591	1560	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	5.1	3.6	0.8	7.6	8.1	4.4	12.5	0.0	3.0	9.3	0.0
Cycle Q Clear(g_c), s	0.0	5.1	3.6	7.5	7.6	8.1	4.4	12.5	0.0	3.0	9.3	0.0
Prop In Lane	0.00		1.00	0.06		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	759	338	458	345	338	353	1304		289	1176	
V/C Ratio(X)	0.00	0.49	0.36	0.59	0.69	0.73	0.45	0.71		0.38	0.60	
Avail Cap(c_a), veh/h	0	986	440	570	448	440	353	1304		289	1176	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	18.9	18.3	19.8	19.8	20.0	19.3	14.7	0.0	20.4	15.2	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.6	1.2	3.0	4.3	0.9	3.3	0.0	0.8	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	1.2	2.9	2.7	2.9	1.7	4.8	0.0	1.2	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.4	18.9	21.0	22.8	24.4	20.2	18.1	0.0	21.3	17.5	0.0
LnGrp LOS	A	B	B	C	C	C	C	B		C	B	
Approach Vol, veh/h		492			755			1087	A		817	A
Approach Delay, s/veh		19.2			22.7			18.4			18.0	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	25.0		16.4	15.6	23.0		16.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	20.5		15.5	7.5	18.5		15.5				
Max Q Clear Time (g_c+I1), s	5.0	14.5		7.1	6.4	11.3		10.1				
Green Ext Time (p_c), s	0.0	3.1		1.7	0.0	2.8		1.8				

Intersection Summary			
HCM 6th Ctrl Delay		19.4	
HCM 6th LOS		B	

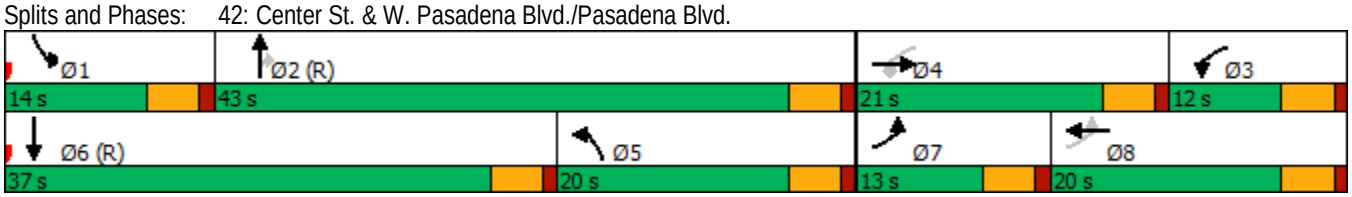
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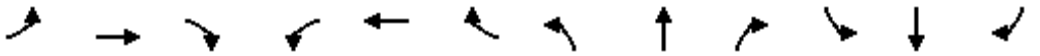
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	248	357	302	263	439	260	1381	170	164	980
Future Volume (vph)	248	357	302	263	439	260	1381	170	164	980
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases	8		4	4				2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	13.0	21.0	21.0	12.0	20.0	20.0	43.0	43.0	14.0	37.0
Total Split (%)	14.4%	23.3%	23.3%	13.3%	22.2%	22.2%	47.8%	47.8%	15.6%	41.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	24.0	14.9	14.9	24.0	15.5	15.5	38.5	38.5	9.5	32.5
Actuated g/C Ratio	0.27	0.17	0.17	0.27	0.17	0.17	0.43	0.43	0.11	0.36
v/c Ratio	1.13	0.67	0.62	1.01	1.14	0.97	1.03	0.24	0.96	0.90
Control Delay	125.7	41.2	9.5	93.2	109.8	85.8	60.1	3.5	78.4	29.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	125.7	41.2	9.5	93.2	109.8	85.8	60.1	3.5	78.4	29.2
LOS	F	D	A	F	F	F	E	A	E	C
Approach Delay		53.8			105.4		58.5			35.8
Approach LOS		D			F		E			D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 61.7	Intersection LOS: E
Intersection Capacity Utilization 103.0%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	357	302	263	439	307	260	1381	170	164	980	62
Future Volume (veh/h)	248	357	302	263	439	307	260	1381	170	164	980	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	267	384	325	283	472	330	280	1485	183	176	1054	67
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	246	641	286	286	339	236	302	1496	667	185	1206	77
Arrive On Green	0.09	0.18	0.18	0.08	0.17	0.17	0.17	0.43	0.43	0.11	0.36	0.36
Sat Flow, veh/h	1753	3497	1560	1753	1970	1372	1753	3497	1560	1753	3339	212
Grp Volume(v), veh/h	267	384	325	283	419	383	280	1485	183	176	552	569
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1594	1753	1749	1560	1753	1749	1803
Q Serve(g_s), s	8.5	9.1	16.5	7.3	15.5	15.5	14.2	38.0	4.7	9.0	26.5	26.5
Cycle Q Clear(g_c), s	8.5	9.1	16.5	7.3	15.5	15.5	14.2	38.0	4.7	9.0	26.5	26.5
Prop In Lane	1.00		1.00	1.00		0.86	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	246	641	286	286	301	274	302	1496	667	185	631	651
V/C Ratio(X)	1.09	0.60	1.14	0.99	1.39	1.40	0.93	0.99	0.27	0.95	0.87	0.87
Avail Cap(c_a), veh/h	246	641	286	286	301	274	302	1496	667	185	631	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.28	0.28	0.28	0.49	0.49	0.49	0.47	0.47	0.47
Uniform Delay (d), s/veh	31.7	33.7	36.8	38.6	37.3	37.3	36.7	25.6	7.7	40.0	26.8	26.8
Incr Delay (d2), s/veh	82.7	1.5	95.2	25.3	181.5	184.6	20.4	14.6	0.5	32.9	8.1	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	3.8	13.5	7.6	21.5	19.8	7.5	17.2	2.3	5.5	11.8	12.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	114.3	35.3	131.9	63.9	218.7	221.8	57.1	40.3	8.2	72.9	35.0	34.8
LnGrp LOS	F	D	F	E	F	F	E	D	A	E	C	C
Approach Vol, veh/h		976			1085			1948			1297	
Approach Delay, s/veh		89.1			179.4			39.7			40.0	
Approach LOS		F			F			D			D	

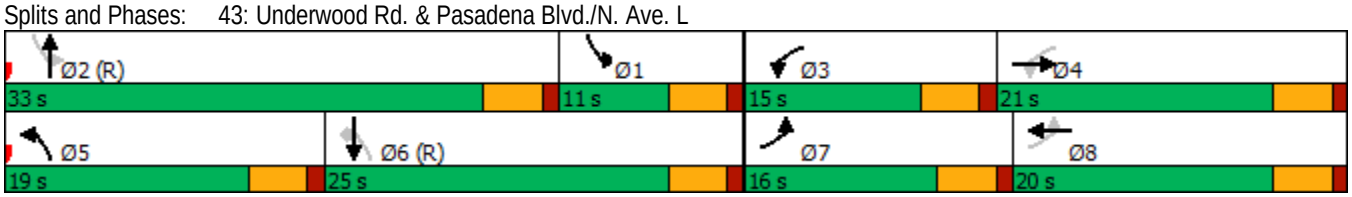
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	43.0	12.0	21.0	20.0	37.0	13.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	38.5	7.5	16.5	15.5	32.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	11.0	40.0	9.3	18.5	16.2	28.5	10.5	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0

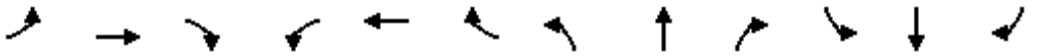
Intersection Summary	
HCM 6th Ctrl Delay	77.4
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	229	188	198	189	180	755	50	521	79
Future Volume (vph)	229	188	198	189	180	755	50	521	79
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	16.0	21.0	15.0	20.0	19.0	33.0	11.0	25.0	25.0
Total Split (%)	20.0%	26.3%	18.8%	25.0%	23.8%	41.3%	13.8%	31.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.4	12.2	22.4	11.1	39.6	37.5	41.4	28.9	28.9
Actuated g/C Ratio	0.28	0.15	0.28	0.14	0.50	0.47	0.52	0.36	0.36
v/c Ratio	0.80	0.65	0.74	0.64	0.48	0.65	0.23	0.49	0.14
Control Delay	39.8	20.1	35.3	23.1	14.1	20.7	12.0	15.1	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	20.1	35.3	23.1	14.1	20.7	12.0	15.1	0.9
LOS	D	C	D	C	B	C	B	B	A
Approach Delay		27.6		27.8		19.6		13.2	
Approach LOS		C		C		B		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	188	185	198	189	130	180	755	138	50	521	79
Future Volume (veh/h)	229	188	185	198	189	130	180	755	138	50	521	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	269	221	218	233	222	153	212	888	162	59	613	93
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	391	299	267	354	320	211	440	1052	192	336	1303	581
Arrive On Green	0.14	0.17	0.17	0.13	0.16	0.16	0.10	0.36	0.36	0.12	0.37	0.37
Sat Flow, veh/h	1753	1749	1560	1753	2018	1332	1753	2954	539	1753	3497	1560
Grp Volume(v), veh/h	269	221	218	233	191	184	212	526	524	59	613	93
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1601	1753	1749	1744	1753	1749	1560
Q Serve(g_s), s	10.1	9.6	10.8	8.6	8.3	8.7	5.8	22.1	22.1	0.0	10.7	3.2
Cycle Q Clear(g_c), s	10.1	9.6	10.8	8.6	8.3	8.7	5.8	22.1	22.1	0.0	10.7	3.2
Prop In Lane	1.00		1.00	1.00		0.83	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	391	299	267	354	277	254	440	623	621	336	1303	581
V/C Ratio(X)	0.69	0.74	0.82	0.66	0.69	0.73	0.48	0.84	0.84	0.18	0.47	0.16
Avail Cap(c_a), veh/h	391	361	322	354	339	310	582	623	621	336	1303	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	0.50	0.99	0.99	0.99	0.58	0.58	0.58	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	31.5	32.0	23.4	31.8	32.0	13.7	23.7	23.7	29.0	19.1	16.8
Incr Delay (d2), s/veh	2.6	3.3	6.9	4.4	4.4	6.4	0.5	8.1	8.2	0.2	1.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	4.1	4.4	3.6	3.6	3.6	2.0	9.3	9.3	1.0	4.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	34.7	38.8	27.8	36.2	38.4	14.1	31.8	31.9	29.2	20.3	17.3
LnGrp LOS	C	C	D	C	D	D	B	C	C	C	C	B
Approach Vol, veh/h		708			608			1262			765	
Approach Delay, s/veh		32.8			33.6			28.9			20.6	
Approach LOS		C			C			C			C	

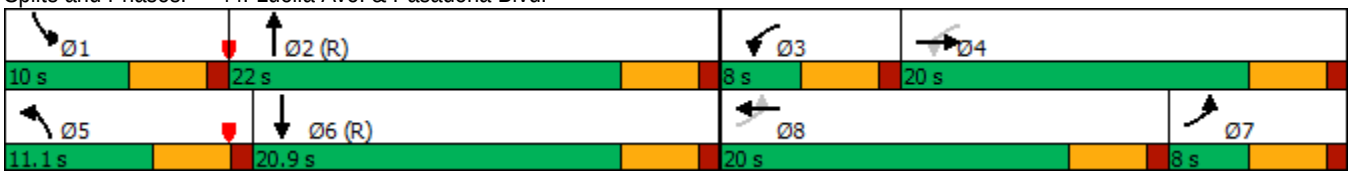
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	33.0	15.0	18.2	12.5	34.3	16.0	17.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	28.5	10.5	16.5	14.5	20.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	24.1	10.6	12.8	7.8	12.7	12.1	10.7
Green Ext Time (p_c), s	0.0	2.3	0.0	0.9	0.3	2.5	0.0	0.8

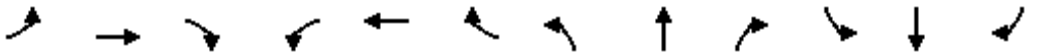
Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	70	484	145	655	141	149	86	132
Future Volume (vph)	70	484	145	655	141	149	86	132
Turn Type	D.P+P	NA	D.P+P	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	11.1	22.0	10.0	20.9
Total Split (%)	13.3%	33.3%	13.3%	33.3%	18.5%	36.7%	16.7%	34.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.8	14.7	18.2	16.3	6.9	20.3	5.6	16.8
Actuated g/C Ratio	0.33	0.24	0.30	0.27	0.12	0.34	0.09	0.28
v/c Ratio	0.36	0.75	0.77	0.93	0.81	0.60	0.61	0.54
Control Delay	20.4	26.0	41.2	40.8	60.0	17.9	45.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	26.0	41.2	40.8	60.0	17.9	45.8	18.1
LOS	C	C	D	D	E	B	D	B
Approach Delay		25.4		40.8		30.5		25.2
Approach LOS		C		D		C		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 69.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	484	72	145	655	113	141	149	180	86	132	117
Future Volume (veh/h)	70	484	72	145	655	113	141	149	180	86	132	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	80	556	83	167	753	130	162	171	207	99	152	134
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	200	742	110	280	770	133	193	248	300	126	260	230
Arrive On Green	0.04	0.24	0.24	0.06	0.26	0.26	0.11	0.33	0.33	0.07	0.29	0.29
Sat Flow, veh/h	1753	3053	454	1753	2982	515	1753	758	918	1753	902	795
Grp Volume(v), veh/h	80	318	321	167	441	442	162	0	378	99	0	286
Grp Sat Flow(s),veh/h/ln	1753	1749	1759	1753	1749	1748	1753	0	1676	1753	0	1698
Q Serve(g_s), s	0.0	10.1	10.2	3.5	15.0	15.0	5.4	0.0	11.8	3.3	0.0	8.6
Cycle Q Clear(g_c), s	0.0	10.1	10.2	3.5	15.0	15.0	5.4	0.0	11.8	3.3	0.0	8.6
Prop In Lane	1.00		0.26	1.00		0.29	1.00		0.55	1.00		0.47
Lane Grp Cap(c), veh/h	200	425	427	280	452	452	193	0	548	126	0	490
V/C Ratio(X)	0.40	0.75	0.75	0.60	0.98	0.98	0.84	0.00	0.69	0.79	0.00	0.58
Avail Cap(c_a), veh/h	227	452	454	280	452	452	193	0	548	161	0	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.69	0.69	0.69	0.86	0.00	0.86	0.79	0.00	0.79
Uniform Delay (d), s/veh	27.5	21.0	21.0	19.2	22.1	22.1	26.2	0.0	17.6	27.4	0.0	18.3
Incr Delay (d2), s/veh	0.9	4.7	4.8	2.4	29.4	29.5	23.8	0.0	6.0	14.4	0.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.2	4.2	1.7	9.0	9.0	3.4	0.0	5.0	1.8	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	25.7	25.9	21.6	51.5	51.6	49.9	0.0	23.6	41.7	0.0	22.2
LnGrp LOS	C	C	C	C	D	D	D	A	C	D	A	C
Approach Vol, veh/h		719			1050			540			385	
Approach Delay, s/veh		26.1			46.8			31.5			27.3	
Approach LOS		C			D			C			C	

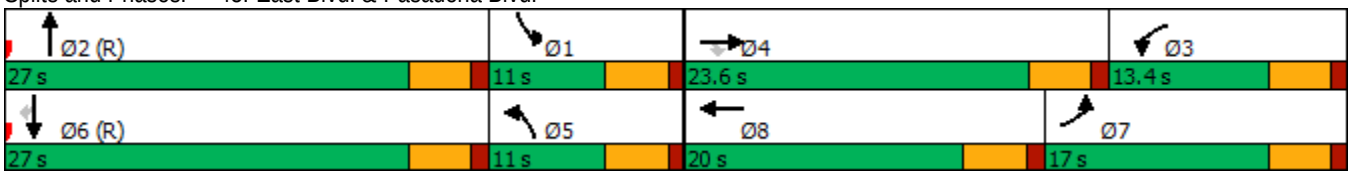
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	24.1	8.0	19.1	11.1	21.8	7.1	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	17.5	3.5	15.5	6.6	16.4	3.5	15.5
Max Q Clear Time (g_c+I1), s	5.3	13.8	5.5	12.2	7.4	10.6	2.0	17.0
Green Ext Time (p_c), s	0.0	0.8	0.0	1.2	0.0	0.8	0.0	0.0

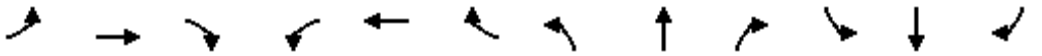
Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	215	335	231	65	317	117	636	117	733	130
Future Volume (vph)	215	335	231	65	317	117	636	117	733	130
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	9.5	20.0	20.0	9.5	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	17.0	23.6	23.6	13.4	20.0	11.0	27.0	11.0	27.0	27.0
Total Split (%)	22.7%	31.5%	31.5%	17.9%	26.7%	14.7%	36.0%	14.7%	36.0%	36.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.9	20.6	20.6	8.2	14.0	6.5	23.7	6.5	23.7	23.7
Actuated g/C Ratio	0.17	0.27	0.27	0.11	0.19	0.09	0.32	0.09	0.32	0.32
v/c Ratio	0.83	0.77	0.43	0.39	0.73	0.89	0.57	0.89	0.54	0.25
Control Delay	55.6	38.3	5.7	37.1	32.1	87.7	21.7	87.7	23.0	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.6	38.3	5.7	37.1	32.1	87.7	21.7	87.7	23.0	4.8
LOS	E	D	A	D	C	F	C	F	C	A
Approach Delay		33.4			32.8		30.4		28.3	
Approach LOS		C			C		C		C	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 66.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	335	231	65	317	109	117	636	138	117	733	130
Future Volume (veh/h)	215	335	231	65	317	109	117	636	138	117	733	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	247	385	266	75	364	125	134	731	159	134	843	149
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	286	437	370	179	452	153	212	1242	267	212	1508	468
Arrive On Green	0.16	0.24	0.24	0.10	0.18	0.18	0.12	0.30	0.30	0.12	0.30	0.30
Sat Flow, veh/h	1753	1841	1560	1753	2565	868	1753	4140	891	1753	5025	1560
Grp Volume(v), veh/h	247	385	266	75	246	243	134	590	300	134	843	149
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1749	1684	1753	1675	1680	1753	1675	1560
Q Serve(g_s), s	10.3	15.1	11.8	3.0	10.1	10.4	5.5	11.2	11.4	5.5	10.6	5.5
Cycle Q Clear(g_c), s	10.3	15.1	11.8	3.0	10.1	10.4	5.5	11.2	11.4	5.5	10.6	5.5
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	286	437	370	179	308	297	212	1005	504	212	1508	468
V/C Ratio(X)	0.86	0.88	0.72	0.42	0.80	0.82	0.63	0.59	0.59	0.63	0.56	0.32
Avail Cap(c_a), veh/h	292	469	397	208	361	348	212	1005	504	212	1508	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.84	0.84	0.84	0.71	0.71	0.71	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	27.6	26.3	31.6	29.6	29.7	31.4	22.3	22.4	31.4	22.1	20.3
Incr Delay (d2), s/veh	14.8	11.2	3.6	1.3	9.0	10.6	4.3	1.8	3.7	6.0	1.5	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	7.4	4.3	1.3	4.7	4.7	2.4	4.1	4.5	2.5	3.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.4	38.7	29.9	32.9	38.6	40.4	35.7	24.1	26.0	37.4	23.6	22.1
LnGrp LOS	D	D	C	C	D	D	D	C	C	D	C	C
Approach Vol, veh/h		898			564			1024			1126	
Approach Delay, s/veh		37.9			38.6			26.2			25.0	
Approach LOS		D			D			C			C	

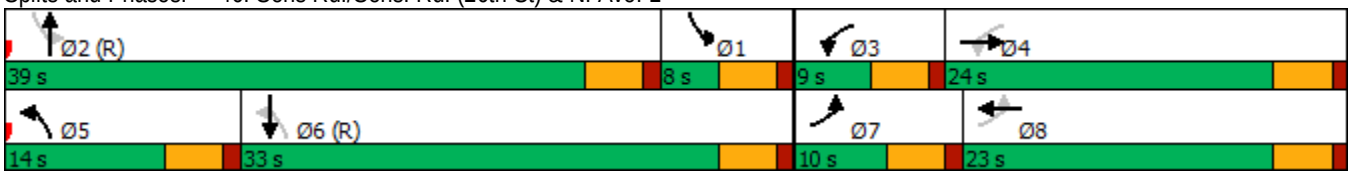
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	27.0	12.2	22.3	13.6	27.0	16.7	17.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.5	8.9	19.1	6.5	22.5	12.5	15.5
Max Q Clear Time (g_c+I1), s	7.5	13.4	5.0	17.1	7.5	12.6	12.3	12.4
Green Ext Time (p_c), s	0.0	3.5	0.0	0.7	0.0	4.0	0.0	0.8

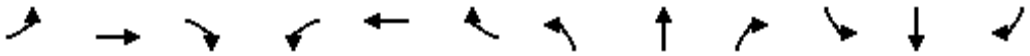
Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	75	3	8	0	119	466	404	
Future Volume (vph)	75	3	8	0	119	466	404	
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	NA	
Protected Phases	7	4	3	8	5	2	6	1
Permitted Phases	8		4		6			
Detector Phase	7	4	3	8	5	2	6	
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0
Total Split (s)	10.0	24.0	9.0	23.0	14.0	39.0	33.0	8.0
Total Split (%)	12.5%	30.0%	11.3%	28.8%	17.5%	48.8%	41.3%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	7.7	6.8	7.5	6.2	60.8	65.3	55.7	
Actuated g/C Ratio	0.10	0.08	0.09	0.08	0.76	0.82	0.70	
v/c Ratio	0.49	0.44	0.06	0.01	0.18	0.19	0.21	
Control Delay	35.0	13.9	29.1	0.0	3.6	2.9	7.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	35.0	13.9	29.1	0.0	3.6	2.9	7.0	
LOS	D	B	C	A	A	A	A	
Approach Delay		23.7		21.8		3.0	7.0	
Approach LOS		C		C		A	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 56 (70%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 7.4	Intersection LOS: A
Intersection Capacity Utilization 47.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	3	83	8	0	3	119	466	9	0	404	38
Future Volume (veh/h)	75	3	83	8	0	3	119	466	9	0	404	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	83	3	92	9	0	3	132	518	10	0	449	42
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	268	5	162	167	0	88	666	1513	29	778	1969	183
Arrive On Green	0.06	0.11	0.11	0.01	0.00	0.06	0.05	0.43	0.43	0.00	0.61	0.61
Sat Flow, veh/h	1753	49	1518	1753	0	1560	1753	3510	68	1753	3234	301
Grp Volume(v), veh/h	83	0	95	9	0	3	132	258	270	0	242	249
Grp Sat Flow(s),veh/h/ln	1753	0	1567	1753	0	1560	1753	1749	1829	1753	1749	1786
Q Serve(g_s), s	3.5	0.0	4.6	0.4	0.0	0.1	2.2	7.9	7.9	0.0	5.0	5.1
Cycle Q Clear(g_c), s	3.5	0.0	4.6	0.4	0.0	0.1	2.2	7.9	7.9	0.0	5.0	5.1
Prop In Lane	1.00		0.97	1.00		1.00	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	268	0	167	167	0	88	666	754	789	778	1065	1088
V/C Ratio(X)	0.31	0.00	0.57	0.05	0.00	0.03	0.20	0.34	0.34	0.00	0.23	0.23
Avail Cap(c_a), veh/h	287	0	382	252	0	361	784	754	789	778	1065	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.00	0.77	1.00	0.00	1.00	0.83	0.83	0.83	0.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	0.0	34.0	31.6	0.0	35.7	5.2	15.2	15.2	0.0	7.1	7.1
Incr Delay (d2), s/veh	0.5	0.0	2.3	0.1	0.0	0.2	0.1	1.0	1.0	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.8	0.2	0.0	0.1	0.6	3.0	3.2	0.0	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	36.3	31.8	0.0	35.8	5.3	16.2	16.2	0.0	7.6	7.6
LnGrp LOS	C	A	D	C	A	D	A	B	B	A	A	A
Approach Vol, veh/h		178			12			660			491	
Approach Delay, s/veh		34.9			32.8			14.0			7.6	
Approach LOS		C			C			B			A	

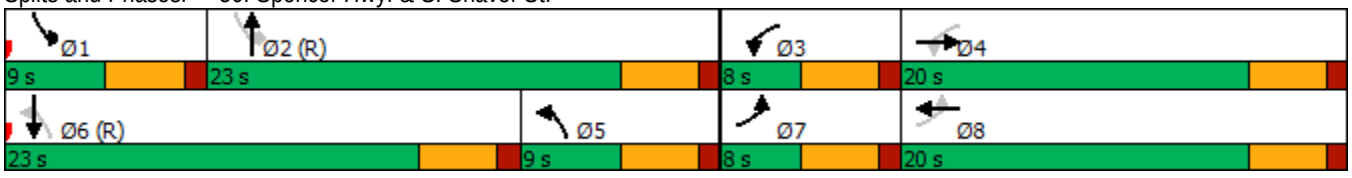
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.8	39.0	5.1	13.0	8.6	53.2	9.1	9.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	34.5	4.5	19.5	9.5	28.5	5.5	18.5
Max Q Clear Time (g_c+I1), s	0.0	9.9	2.4	6.6	4.2	7.1	5.5	2.1
Green Ext Time (p_c), s	0.0	3.0	0.0	0.3	0.1	2.7	0.0	0.0

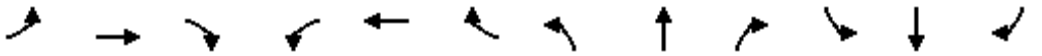
Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	187	841	155	899	109	488	187	159	472
Future Volume (vph)	187	841	155	899	109	488	187	159	472
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	9.0	23.0	23.0	9.0	23.0
Total Split (%)	13.3%	33.3%	13.3%	33.3%	15.0%	38.3%	38.3%	15.0%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	19.0	15.5	19.0	15.5	23.9	18.5	18.5	23.0	20.3
Actuated g/C Ratio	0.32	0.26	0.32	0.26	0.40	0.31	0.31	0.38	0.34
v/c Ratio	0.51	0.83	0.42	0.91	0.51	0.56	0.35	0.58	0.67
Control Delay	17.0	27.9	15.2	34.0	13.2	11.8	4.0	19.0	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	27.9	15.2	34.0	13.2	11.8	4.0	19.0	18.2
LOS	B	C	B	C	B	B	A	B	B
Approach Delay		26.1		31.5		10.1			18.3
Approach LOS		C		C		B			B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	841	74	155	899	104	109	488	187	159	472	218
Future Volume (veh/h)	187	841	74	155	899	104	109	488	187	159	472	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	220	989	87	182	1058	122	128	574	220	187	555	256
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	469	1214	107	498	1179	136	312	1079	481	368	717	330
Arrive On Green	0.06	0.26	0.26	0.06	0.26	0.26	0.08	0.31	0.31	0.08	0.31	0.31
Sat Flow, veh/h	3401	4704	413	3401	4570	526	1753	3497	1560	1753	2326	1071
Grp Volume(v), veh/h	220	704	372	182	775	405	128	574	220	187	417	394
Grp Sat Flow(s),veh/h/ln	1700	1675	1766	1700	1675	1746	1753	1749	1560	1753	1749	1648
Q Serve(g_s), s	2.8	11.8	11.9	2.3	13.4	13.4	0.0	8.1	6.8	4.4	13.0	13.0
Cycle Q Clear(g_c), s	2.8	11.8	11.9	2.3	13.4	13.4	0.0	8.1	6.8	4.4	13.0	13.0
Prop In Lane	1.00		0.23	1.00		0.30	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	469	864	456	498	864	451	312	1079	481	368	539	508
V/C Ratio(X)	0.47	0.81	0.82	0.37	0.90	0.90	0.41	0.53	0.46	0.51	0.77	0.78
Avail Cap(c_a), veh/h	469	865	456	498	865	451	312	1079	481	368	539	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	20.9	20.9	16.3	21.5	21.5	24.4	17.2	16.7	13.5	18.8	18.9
Incr Delay (d2), s/veh	0.6	4.8	8.8	0.3	9.4	16.4	0.9	1.9	3.1	1.2	10.3	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.6	5.4	0.8	5.7	6.8	1.7	3.2	2.5	1.7	6.3	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	25.7	29.7	16.6	30.9	37.9	25.2	19.0	19.8	14.7	29.2	29.9
LnGrp LOS	B	C	C	B	C	D	C	B	B	B	C	C
Approach Vol, veh/h		1296			1362			922			998	
Approach Delay, s/veh		25.4			31.1			20.1			26.7	
Approach LOS		C			C			C			C	

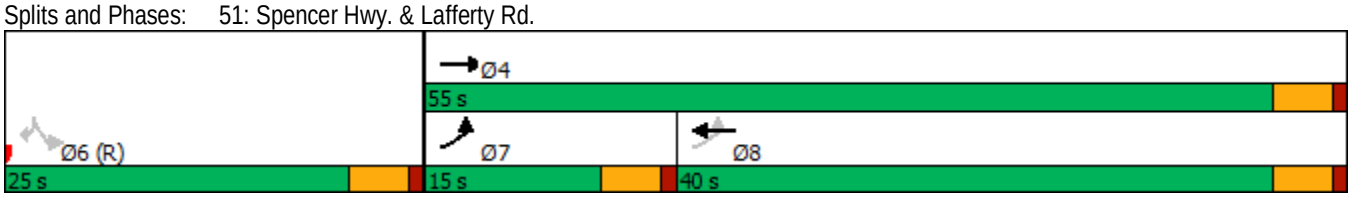
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	23.0	8.0	20.0	9.0	23.0	8.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	18.5	3.5	15.5	4.5	18.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	6.4	10.1	4.3	13.9	2.0	15.0	4.8	15.4
Green Ext Time (p_c), s	0.0	3.0	0.0	1.0	0.1	1.7	0.0	0.0

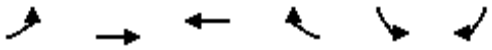
Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	85	1114	1089	138	100
Future Volume (vph)	85	1114	1089	138	100
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	55.0	40.0	25.0	25.0
Total Split (%)	18.8%	68.8%	50.0%	31.3%	31.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	38.9	42.5	32.4	28.5	28.5
Actuated g/C Ratio	0.49	0.53	0.40	0.36	0.36
v/c Ratio	0.40	0.49	0.71	0.26	0.19
Control Delay	9.0	7.3	21.3	23.0	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	7.3	21.3	23.0	5.9
LOS	A	A	C	C	A
Approach Delay		7.5	21.3	15.8	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 4 (5%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 51.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





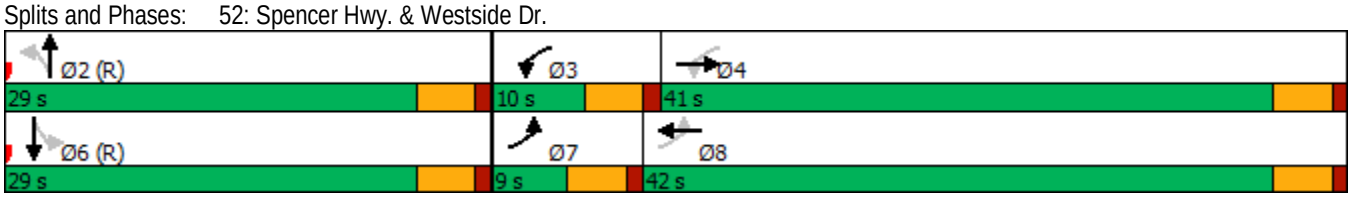
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	85	1114	1089	128	138	100
Future Volume (vph)	85	1114	1089	128	138	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4745		1678	1501
Flt Permitted	0.12	1.00	1.00		0.95	1.00
Satd. Flow (perm)	218	4821	4745		1678	1501
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	97	1266	1238	145	157	114
RTOR Reduction (vph)	0	0	19	0	0	75
Lane Group Flow (vph)	97	1266	1364	0	157	39
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	38.8	43.3	32.4		27.7	27.7
Effective Green, g (s)	38.8	43.3	32.4		27.7	27.7
Actuated g/C Ratio	0.48	0.54	0.40		0.35	0.35
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	222	2609	1921		581	519
v/s Ratio Prot	0.03	c0.26	c0.29			
v/s Ratio Perm	0.18				c0.09	0.03
v/c Ratio	0.44	0.49	0.71		0.27	0.08
Uniform Delay, d1	12.9	11.4	19.9		18.9	17.6
Progression Factor	0.61	0.58	1.00		1.00	1.00
Incremental Delay, d2	1.2	0.1	1.3		1.1	0.3
Delay (s)	9.1	6.8	21.1		20.0	17.8
Level of Service	A	A	C		C	B
Approach Delay (s)		7.0	21.1		19.1	
Approach LOS		A	C		B	

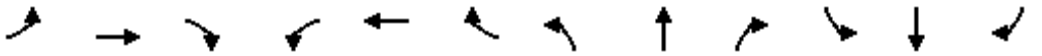
Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	1065	32	1093	33	52	85	47
Future Volume (vph)	10	1065	32	1093	33	52	85	47
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	41.0	10.0	42.0	29.0	29.0	29.0	29.0
Total Split (%)	11.3%	51.3%	12.5%	52.5%	36.3%	36.3%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	35.9	30.8	34.1	35.0		34.2		34.2
Actuated g/C Ratio	0.45	0.38	0.43	0.44		0.43		0.43
v/c Ratio	0.06	0.65	0.16	0.62		0.22		0.26
Control Delay	8.8	21.6	3.3	4.1		14.2		21.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	8.8	21.6	3.3	4.1		14.2		21.6
LOS	A	C	A	A		B		C
Approach Delay		21.5		4.1		14.2		21.6
Approach LOS		C		A		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 40 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 49.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1065	38	32	1093	89	33	52	53	85	47	11
Future Volume (veh/h)	10	1065	38	32	1093	89	33	52	53	85	47	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	11	1170	42	35	1201	98	36	57	58	93	52	12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	162	1688	61	193	1672	136	202	317	289	461	246	53
Arrive On Green	0.01	0.34	0.34	0.02	0.35	0.35	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1753	4980	179	1753	4735	386	313	675	617	830	526	112
Grp Volume(v), veh/h	11	787	425	35	850	449	151	0	0	157	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1771	1605	0	0	1469	0	0
Q Serve(g_s), s	0.3	16.2	16.2	1.0	17.6	17.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	16.2	16.2	1.0	17.6	17.6	4.1	0.0	0.0	4.1	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.22	0.24		0.38	0.59		0.08
Lane Grp Cap(c), veh/h	162	1136	613	193	1183	625	808	0	0	760	0	0
V/C Ratio(X)	0.07	0.69	0.69	0.18	0.72	0.72	0.19	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	244	1528	825	272	1570	830	808	0	0	760	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.69	0.69	0.69	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.3	22.8	22.8	18.4	22.4	22.4	12.4	0.0	0.0	12.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	1.0	0.3	0.7	1.4	0.5	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.9	6.5	0.4	6.7	7.2	1.6	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	23.4	23.8	18.7	23.2	23.8	12.9	0.0	0.0	13.0	0.0	0.0
LnGrp LOS	B	C	C	B	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1223			1334			151			157	
Approach Delay, s/veh		23.5			23.3			12.9			13.0	
Approach LOS		C			C			B			B	

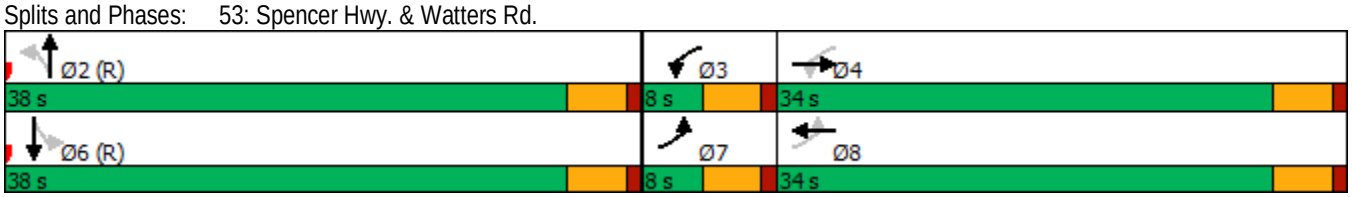
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.0	6.4	31.6		42.0	5.3	32.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.5	5.5	36.5		24.5	4.5	37.5				
Max Q Clear Time (g_c+I1), s		6.1	3.0	18.2		6.1	2.3	19.6				
Green Ext Time (p_c), s		0.7	0.0	7.5		0.8	0.0	8.7				

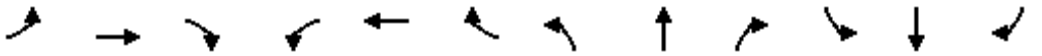
Intersection Summary												
HCM 6th Ctrl Delay			22.3									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	62	1390	81	1404	223	41	65	44
Future Volume (vph)	62	1390	81	1404	223	41	65	44
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	34.0	8.0	34.0	38.0	38.0	38.0	38.0
Total Split (%)	10.0%	42.5%	10.0%	42.5%	47.5%	47.5%	47.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	33.6	30.8	33.6	30.8		33.8		33.8
Actuated g/C Ratio	0.42	0.38	0.42	0.38		0.42		0.42
v/c Ratio	0.41	0.94	0.53	0.84		0.87		0.50
Control Delay	12.5	18.1	32.5	40.9		42.3		13.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	12.5	18.1	32.5	40.9		42.3		13.7
LOS	B	B	C	D		D		B
Approach Delay		17.9		40.5		42.3		13.7
Approach LOS		B		D		D		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 76 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 28.7	Intersection LOS: C
Intersection Capacity Utilization 95.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	1390	254	81	1404	76	223	41	90	65	44	202
Future Volume (veh/h)	62	1390	254	81	1404	76	223	41	90	65	44	202
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	1511	276	88	1526	83	242	45	98	71	48	220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	179	1565	285	177	1817	99	370	69	125	164	128	439
Arrive On Green	0.08	0.73	0.73	0.03	0.25	0.25	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1753	4273	778	1753	4878	265	704	163	296	260	303	1041
Grp Volume(v), veh/h	67	1184	603	88	1048	561	385	0	0	339	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1701	1753	1675	1793	1163	0	0	1605	0	0
Q Serve(g_s), s	1.9	25.8	26.1	2.5	23.8	23.8	11.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.9	25.8	26.1	2.5	23.8	23.8	24.0	0.0	0.0	12.0	0.0	0.0
Prop In Lane	1.00		0.46	1.00		0.15	0.63		0.25	0.21		0.65
Lane Grp Cap(c), veh/h	179	1227	623	177	1248	668	563	0	0	730	0	0
V/C Ratio(X)	0.37	0.96	0.97	0.50	0.84	0.84	0.68	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	190	1235	627	177	1248	668	563	0	0	730	0	0
HCM Platoon Ratio	2.00	2.00	2.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	0.36	0.36	0.36	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	10.2	10.3	20.1	27.7	27.7	20.8	0.0	0.0	16.9	0.0	0.0
Incr Delay (d2), s/veh	0.6	10.1	16.8	0.8	2.0	3.6	6.6	0.0	0.0	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.9	6.1	1.0	9.9	10.9	6.9	0.0	0.0	4.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	20.3	27.0	20.9	29.7	31.4	27.4	0.0	0.0	19.0	0.0	0.0
LnGrp LOS	B	C	C	C	C	C	C	A	A	B	A	A
Approach Vol, veh/h		1854			1697			385			339	
Approach Delay, s/veh		22.4			29.8			27.4			19.0	
Approach LOS		C			C			C			B	

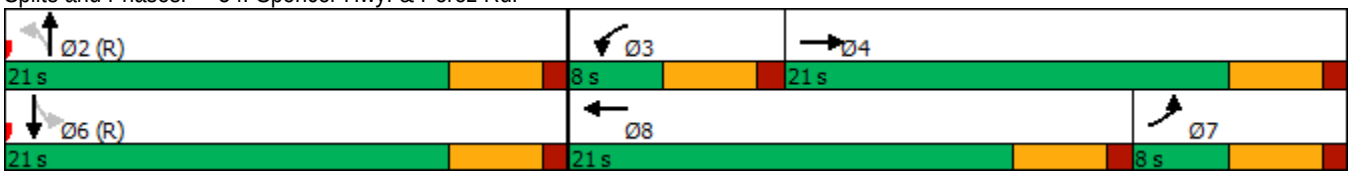
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		38.2	8.0	33.8		38.2	7.5	34.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		33.5	3.5	29.5		33.5	3.5	29.5				
Max Q Clear Time (g_c+I1), s		26.0	4.5	28.1		14.0	3.9	25.8				
Green Ext Time (p_c), s		1.6	0.0	1.2		2.2	0.0	2.9				

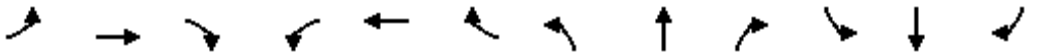
Intersection Summary												
HCM 6th Ctrl Delay			25.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	33	921	1	1133	9	135	4
Future Volume (vph)	33	921	1	1133	9	135	4
Turn Type	Prot	NA	Prot	NA	NA	Perm	NA
Protected Phases	7	4	3	8	2		6
Permitted Phases						6	
Detector Phase	7	4	3	8	2	6	6
Switch Phase							
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	21.0	8.0	21.0	21.0	21.0	21.0
Total Split (%)	16.0%	42.0%	16.0%	42.0%	42.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	3.5	18.6	3.5	17.0	20.8		20.8
Actuated g/C Ratio	0.07	0.37	0.07	0.34	0.42		0.42
v/c Ratio	0.32	0.59	0.01	0.88	0.03		0.38
Control Delay	29.5	14.2	22.0	23.6	8.3		12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	29.5	14.2	22.0	23.6	8.3		12.1
LOS	C	B	C	C	A		B
Approach Delay		14.7		23.6	8.3		12.1
Approach LOS		B		C	A		B

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	921	0	1	1133	121	0	9	10	135	4	50
Future Volume (veh/h)	33	921	0	1	1133	121	0	9	10	135	4	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	1096	0	1	1349	144	0	11	12	161	5	60
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	51	1789	0	4	1511	161	0	300	327	485	32	142
Arrive On Green	0.03	0.36	0.00	0.00	0.33	0.33	0.00	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1753	5191	0	1753	4610	492	0	805	878	969	86	381
Grp Volume(v), veh/h	39	1096	0	1	980	513	0	0	23	226	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	0	1753	1675	1752	0	0	1683	1436	0	0
Q Serve(g_s), s	1.1	9.0	0.0	0.0	13.9	13.9	0.0	0.0	0.4	4.9	0.0	0.0
Cycle Q Clear(g_c), s	1.1	9.0	0.0	0.0	13.9	13.9	0.0	0.0	0.4	5.7	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.28	0.00		0.52	0.71		0.27
Lane Grp Cap(c), veh/h	51	1789	0	4	1098	574	0	0	628	659	0	0
V/C Ratio(X)	0.76	0.61	0.00	0.29	0.89	0.89	0.00	0.00	0.04	0.34	0.00	0.00
Avail Cap(c_a), veh/h	123	1789	0	123	1106	578	0	0	628	659	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.00	0.37	0.37	0.37	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.1	13.3	0.0	24.9	16.0	16.0	0.0	0.0	10.0	11.6	0.0	0.0
Incr Delay (d2), s/veh	11.9	0.3	0.0	15.6	3.9	7.0	0.0	0.0	0.1	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.7	0.0	0.0	4.8	5.5	0.0	0.0	0.2	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	13.6	0.0	40.6	19.8	22.9	0.0	0.0	10.1	13.0	0.0	0.0
LnGrp LOS	D	B	A	D	B	C	A	A	B	B	A	A
Approach Vol, veh/h		1135			1494			23			226	
Approach Delay, s/veh		14.4			20.9			10.1			13.0	
Approach LOS		B			C			B			B	

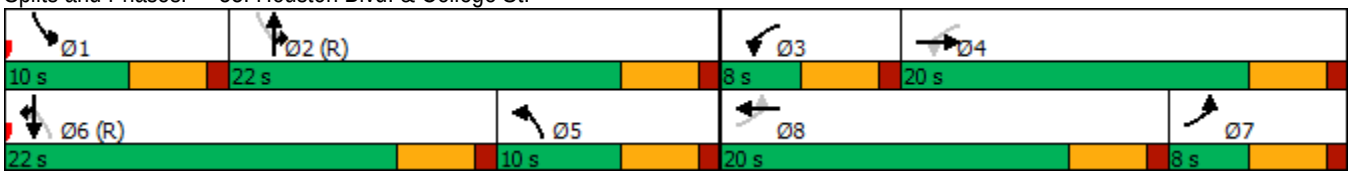
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.2	4.5	22.3		23.2	6.0	20.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		16.5	3.5	16.5		16.5	3.5	16.5				
Max Q Clear Time (g_c+I1), s		2.4	2.0	11.0		7.7	3.1	15.9				
Green Ext Time (p_c), s		0.0	0.0	3.2		0.8	0.0	0.5				

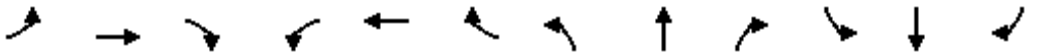
Intersection Summary	
HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	165	568	132	950	122	648	132	229	442	212
Future Volume (vph)	165	568	132	950	122	648	132	229	442	212
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Prot	D.P+P	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases	8		4		6			2		
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	10.0	22.0	22.0	10.0	22.0	22.0
Total Split (%)	13.3%	33.3%	13.3%	33.3%	16.7%	36.7%	36.7%	16.7%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	19.0	17.1	19.9	15.5	23.9	17.5	17.5	23.0	19.5	19.5
Actuated g/C Ratio	0.32	0.28	0.33	0.26	0.40	0.29	0.29	0.38	0.32	0.32
v/c Ratio	0.80	0.52	0.56	0.95	0.33	0.69	0.22	0.86	0.42	0.33
Control Delay	48.3	18.7	23.9	38.5	14.1	23.0	0.8	43.4	18.2	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.3	18.7	23.9	38.5	14.1	23.0	0.8	43.4	18.2	3.0
LOS	D	B	C	D	B	C	A	D	B	A
Approach Delay		24.5		36.9		18.6			21.1	
Approach LOS		C		D		B			C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 26.3	Intersection LOS: C
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	568	104	132	950	157	122	648	132	229	442	212
Future Volume (veh/h)	165	568	104	132	950	157	122	648	132	229	442	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	611	112	142	1022	169	131	697	142	246	475	228
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	231	1092	197	315	1122	185	418	1031	460	358	1020	455
Arrive On Green	0.06	0.26	0.26	0.06	0.26	0.26	0.09	0.29	0.29	0.09	0.29	0.29
Sat Flow, veh/h	1753	4279	773	1753	4345	717	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	177	476	247	142	788	403	131	697	142	246	475	228
Grp Sat Flow(s),veh/h/ln	1753	1675	1702	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	1.3	7.4	7.6	3.5	13.7	13.7	0.0	10.5	4.2	5.5	6.7	7.3
Cycle Q Clear(g_c), s	1.3	7.4	7.6	3.5	13.7	13.7	0.0	10.5	4.2	5.5	6.7	7.3
Prop In Lane	1.00		0.45	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	231	855	434	315	865	442	418	1031	460	358	1020	455
V/C Ratio(X)	0.77	0.56	0.57	0.45	0.91	0.91	0.31	0.68	0.31	0.69	0.47	0.50
Avail Cap(c_a), veh/h	236	865	440	315	865	442	418	1031	460	358	1020	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	19.4	19.5	16.2	21.6	21.6	19.2	18.6	16.4	15.5	17.4	17.6
Incr Delay (d2), s/veh	13.8	0.8	1.7	1.0	13.5	23.0	0.4	3.6	1.7	5.5	1.5	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.6	2.8	1.3	6.3	7.6	1.5	4.4	1.5	2.6	2.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	20.2	21.1	17.2	35.1	44.6	19.6	22.2	18.2	21.0	18.9	21.5
LnGrp LOS	D	C	C	B	D	D	B	C	B	C	B	C
Approach Vol, veh/h		900			1333			970			949	
Approach Delay, s/veh		24.5			36.1			21.3			20.1	
Approach LOS		C			D			C			C	

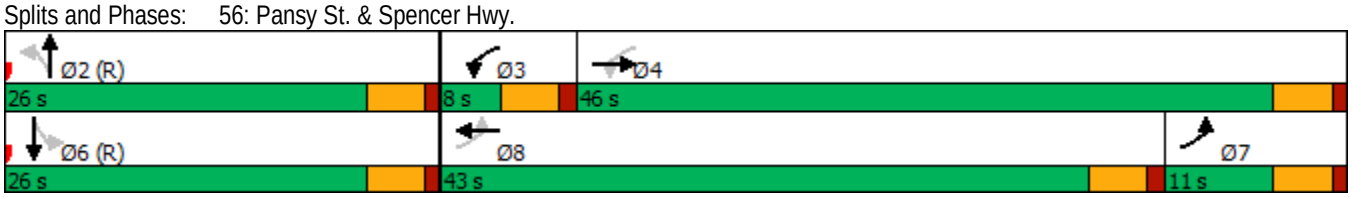
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	22.2	8.0	19.8	10.2	22.0	7.8	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	17.5	3.5	15.5	5.5	17.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	7.5	12.5	5.5	9.6	2.0	9.3	3.3	15.7
Green Ext Time (p_c), s	0.0	2.3	0.0	2.2	0.1	2.5	0.0	0.0

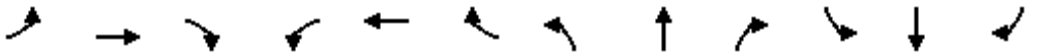
Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	88	1169	36	1609	17	81	46	66
Future Volume (vph)	88	1169	36	1609	17	81	46	66
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	46.0	8.0	43.0	26.0	26.0	26.0	26.0
Total Split (%)	13.8%	57.5%	10.0%	53.8%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	43.5	41.2	43.3	37.6		25.0		25.0
Actuated g/C Ratio	0.54	0.52	0.54	0.47		0.31		0.31
v/c Ratio	0.45	0.52	0.18	0.77		0.25		0.38
Control Delay	35.6	24.0	8.1	20.0		21.4		21.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	35.6	24.0	8.1	20.0		21.4		21.4
LOS	D	C	A	C		C		C
Approach Delay		24.8		19.8		21.4		21.4
Approach LOS		C		B		C		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 2 (3%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1169	32	36	1609	53	17	81	25	46	66	72
Future Volume (veh/h)	88	1169	32	36	1609	53	17	81	25	46	66	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	95	1257	34	39	1730	57	18	87	27	49	71	77
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	192	2247	61	225	2167	71	101	438	125	166	237	223
Arrive On Green	0.01	0.15	0.15	0.03	0.43	0.43	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1753	5030	136	1753	4997	165	139	1219	349	306	661	620
Grp Volume(v), veh/h	95	837	454	39	1160	627	132	0	0	197	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1816	1753	1675	1811	1707	0	0	1587	0	0
Q Serve(g_s), s	0.0	18.6	18.6	1.0	24.0	24.0	0.0	0.0	0.0	0.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.6	18.6	1.0	24.0	24.0	4.1	0.0	0.0	6.7	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.09	0.14		0.20	0.25		0.39
Lane Grp Cap(c), veh/h	192	1497	811	225	1453	785	664	0	0	626	0	0
V/C Ratio(X)	0.49	0.56	0.56	0.17	0.80	0.80	0.20	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	267	1738	942	257	1612	872	664	0	0	626	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.44	0.44	0.44	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	36.0	26.8	26.8	13.8	19.6	19.6	17.7	0.0	0.0	18.6	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.2	0.4	0.2	1.2	2.2	0.7	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	8.2	8.9	0.3	8.5	9.4	1.7	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	27.0	27.2	13.9	20.8	21.8	18.4	0.0	0.0	19.9	0.0	0.0
LnGrp LOS	D	C	C	B	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1386			1826			132			197	
Approach Delay, s/veh		27.8			21.0			18.4			19.9	
Approach LOS		C			C			B			B	

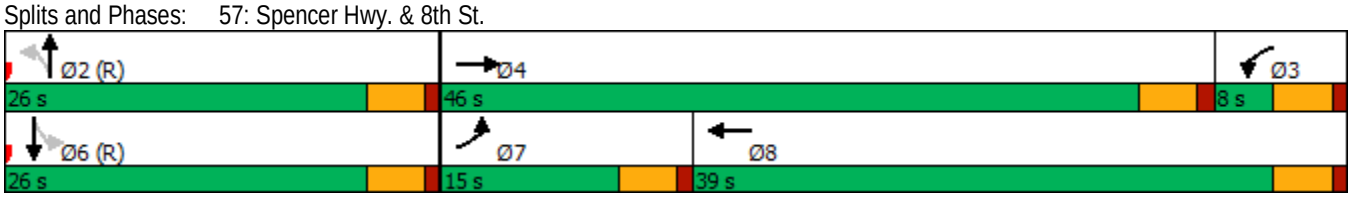
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.2	6.5	40.2		33.2	7.6	39.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	6.5	38.5				
Max Q Clear Time (g_c+I1), s		6.1	3.0	20.6		8.7	2.0	26.0				
Green Ext Time (p_c), s		0.6	0.0	8.6		0.9	0.1	8.7				

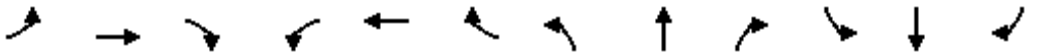
Intersection Summary												
HCM 6th Ctrl Delay			23.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	69	867	14	1214	20	34	33	19
Future Volume (vph)	69	867	14	1214	20	34	33	19
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	15.0	46.0	8.0	39.0	26.0	26.0	26.0	26.0
Total Split (%)	18.8%	57.5%	10.0%	48.8%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.4	38.3	7.7	31.3		28.8		28.8
Actuated g/C Ratio	0.10	0.48	0.10	0.39		0.36		0.36
v/c Ratio	0.40	0.41	0.09	0.71		0.18		0.28
Control Delay	23.4	6.9	29.9	23.0		13.9		9.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	23.4	6.9	29.9	23.0		13.9		9.7
LOS	C	A	C	C		B		A
Approach Delay		8.1		23.0		13.9		9.7
Approach LOS		A		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	867	20	14	1214	36	20	34	46	33	19	114
Future Volume (veh/h)	69	867	20	14	1214	36	20	34	46	33	19	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	932	22	15	1305	39	22	37	49	35	20	123
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	1367	32	227	1733	52	160	268	311	153	107	462
Arrive On Green	0.05	0.27	0.27	0.13	0.35	0.35	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1753	5050	119	1753	5014	150	246	621	720	230	249	1071
Grp Volume(v), veh/h	74	618	336	15	872	472	108	0	0	178	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1819	1753	1675	1814	1587	0	0	1550	0	0
Q Serve(g_s), s	3.3	13.2	13.2	0.6	18.4	18.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	13.2	13.2	0.6	18.4	18.4	3.1	0.0	0.0	5.6	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.08	0.20		0.45	0.20		0.69
Lane Grp Cap(c), veh/h	95	907	493	227	1158	627	739	0	0	722	0	0
V/C Ratio(X)	0.78	0.68	0.68	0.07	0.75	0.75	0.15	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	230	1738	944	227	1445	782	739	0	0	722	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.52	0.52	0.52	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.3	26.1	26.1	30.6	23.2	23.2	13.8	0.0	0.0	14.5	0.0	0.0
Incr Delay (d2), s/veh	12.6	0.9	1.7	0.1	0.9	1.7	0.4	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.0	5.5	0.2	6.7	7.5	1.2	0.0	0.0	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	27.0	27.8	30.7	24.1	24.8	14.2	0.0	0.0	15.3	0.0	0.0
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1028			1359			108			178	
Approach Delay, s/veh		28.9			24.4			14.2			15.3	
Approach LOS		C			C			B			B	

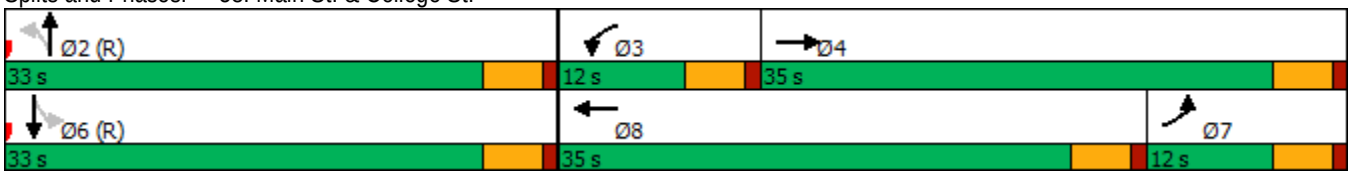
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.0	14.8	26.2		39.0	8.8	32.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	10.5	34.5				
Max Q Clear Time (g_c+I1), s		5.1	2.6	15.2		7.6	5.3	20.4				
Green Ext Time (p_c), s		0.5	0.0	6.4		0.8	0.1	7.2				

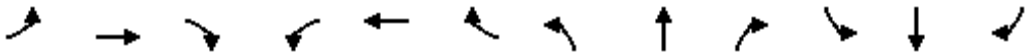
Intersection Summary												
HCM 6th Ctrl Delay			25.1									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	55	848	55	1079	99	47	28	48
Future Volume (vph)	55	848	55	1079	99	47	28	48
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	35.0	12.0	35.0	33.0	33.0	33.0	33.0
Total Split (%)	15.0%	43.8%	15.0%	43.8%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.1	28.1	7.0	28.0		35.7		35.7
Actuated g/C Ratio	0.09	0.35	0.09	0.35		0.45		0.45
v/c Ratio	0.39	0.62	0.39	0.71		0.37		0.24
Control Delay	41.8	21.7	42.2	24.7		17.1		10.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	41.8	21.7	42.2	24.7		17.1		10.5
LOS	D	C	D	C		B		B
Approach Delay		22.8		25.5		17.1		10.5
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 19 (24%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 67.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.

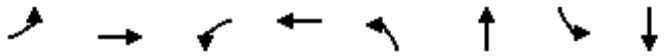




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	848	161	55	1079	27	99	47	72	28	48	93
Future Volume (veh/h)	55	848	161	55	1079	27	99	47	72	28	48	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	59	912	173	59	1160	29	106	51	77	30	52	100
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	75	1310	247	75	1556	39	361	178	232	144	252	420
Arrive On Green	0.04	0.31	0.31	0.04	0.31	0.31	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1753	4245	802	1753	5042	126	616	370	484	192	525	874
Grp Volume(v), veh/h	59	719	366	59	771	418	234	0	0	182	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1696	1753	1675	1818	1470	0	0	1591	0	0
Q Serve(g_s), s	2.7	15.1	15.2	2.7	16.5	16.5	1.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	15.1	15.2	2.7	16.5	16.5	6.7	0.0	0.0	5.1	0.0	0.0
Prop In Lane	1.00		0.47	1.00		0.07	0.45		0.33	0.16		0.55
Lane Grp Cap(c), veh/h	75	1034	523	75	1034	561	771	0	0	816	0	0
V/C Ratio(X)	0.79	0.70	0.70	0.79	0.75	0.75	0.30	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	164	1277	647	164	1277	693	771	0	0	816	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.9	24.4	24.4	37.9	24.8	24.8	12.5	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	16.3	1.2	2.5	16.3	1.9	3.5	1.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.9	6.2	1.5	6.5	7.3	2.6	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	25.6	26.9	54.2	26.7	28.3	13.5	0.0	0.0	12.8	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1144			1248			234			182	
Approach Delay, s/veh		27.5			28.6			13.5			12.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.9	7.9	29.2		42.9	7.9	29.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	7.5	30.5		28.5	7.5	30.5				
Max Q Clear Time (g_c+I1), s		8.7	4.7	17.2		7.1	4.7	18.5				
Green Ext Time (p_c), s		1.4	0.0	6.1		1.0	0.0	6.1				

Intersection Summary												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			C									

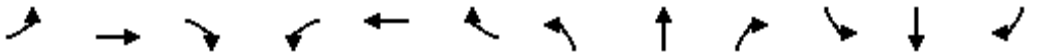


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	5	861	5	1128	85	4	3	0
Future Volume (vph)	5	861	5	1128	85	4	3	0
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	42.0	10.0	42.0	28.0	28.0	28.0	28.0
Total Split (%)	12.5%	52.5%	12.5%	52.5%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.5	32.8	7.0	34.1		34.9		34.9
Actuated g/C Ratio	0.07	0.41	0.09	0.43		0.44		0.44
v/c Ratio	0.04	0.50	0.03	0.72		0.16		0.04
Control Delay	35.6	18.3	15.0	5.2		17.6		0.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	35.6	18.3	15.0	5.2		17.6		0.1
LOS	D	B	B	A		B		A
Approach Delay		18.4		5.2		17.6		0.1
Approach LOS		B		A		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 27 (34%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	861	38	5	1128	213	85	4	0	3	0	27
Future Volume (veh/h)	5	861	38	5	1128	213	85	4	0	3	0	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	5	946	42	5	1240	234	93	4	0	3	0	30
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	8	1364	60	197	1632	308	673	27	0	83	29	627
Arrive On Green	0.00	0.28	0.28	0.11	0.38	0.38	0.44	0.44	0.00	0.44	0.00	0.44
Sat Flow, veh/h	1753	4933	219	1753	4245	801	1322	61	0	76	66	1419
Grp Volume(v), veh/h	5	642	346	5	978	496	97	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1801	1753	1675	1697	1383	0	0	1561	0	0
Q Serve(g_s), s	0.2	13.7	13.8	0.2	20.3	20.3	2.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	13.7	13.8	0.2	20.3	20.3	3.1	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.47	0.96		0.00	0.09		0.91
Lane Grp Cap(c), veh/h	8	926	498	197	1288	652	700	0	0	739	0	0
V/C Ratio(X)	0.62	0.69	0.69	0.03	0.76	0.76	0.14	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	121	1570	844	197	1570	795	700	0	0	739	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.7	25.9	25.9	31.6	21.4	21.4	13.3	0.0	0.0	12.7	0.0	0.0
Incr Delay (d2), s/veh	58.6	0.9	1.8	0.1	1.8	3.5	0.4	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.2	5.7	0.1	7.5	7.9	1.1	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.3	26.8	27.7	31.6	23.2	24.9	13.7	0.0	0.0	12.8	0.0	0.0
LnGrp LOS	F	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		993			1479			97			33	
Approach Delay, s/veh		27.5			23.8			13.7			12.8	
Approach LOS		C			C			B			B	

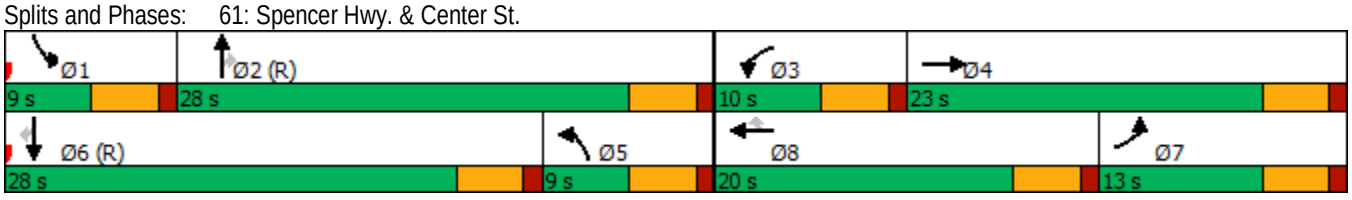
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.9	13.5	26.6		39.9	4.9	35.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		23.5	5.5	37.5		23.5	5.5	37.5				
Max Q Clear Time (g_c+I1), s		5.1	2.2	15.8		3.0	2.2	22.3				
Green Ext Time (p_c), s		0.4	0.0	6.4		0.1	0.0	8.4				

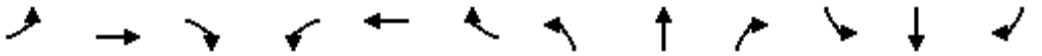
Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	345	814	169	932	237	57	910	103	187	696	362
Future Volume (vph)	345	814	169	932	237	57	910	103	187	696	362
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	23.0	10.0	20.0	20.0	9.0	28.0	28.0	9.0	28.0	28.0
Total Split (%)	18.6%	32.9%	14.3%	28.6%	28.6%	12.9%	40.0%	40.0%	12.9%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.5	18.5	5.5	15.5	15.5	4.5	23.5	23.5	4.5	25.3	25.3
Actuated g/C Ratio	0.12	0.26	0.08	0.22	0.22	0.06	0.34	0.34	0.06	0.36	0.36
v/c Ratio	0.92	0.78	0.70	0.92	0.49	0.56	0.85	0.17	0.94	0.60	0.48
Control Delay	61.4	27.8	47.2	41.3	8.4	53.0	30.4	0.5	84.1	21.4	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.4	27.8	47.2	41.3	8.4	53.0	30.4	0.5	84.1	21.4	4.4
LOS	E	C	D	D	A	D	C	A	F	C	A
Approach Delay		36.7		36.2			28.7			25.9	
Approach LOS		D		D			C			C	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 32.1	Intersection LOS: C
Intersection Capacity Utilization 78.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	345	814	137	169	932	237	57	910	103	187	696	362
Future Volume (veh/h)	345	814	137	169	932	237	57	910	103	187	696	362
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	375	885	149	184	1013	258	62	989	112	203	757	393
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	413	1145	192	267	1113	345	113	1174	524	219	1174	524
Arrive On Green	0.12	0.26	0.26	0.08	0.22	0.22	0.06	0.34	0.34	0.06	0.34	0.34
Sat Flow, veh/h	3401	4334	726	3401	5025	1560	1753	3497	1560	3401	3497	1560
Grp Volume(v), veh/h	375	683	351	184	1013	258	62	989	112	203	757	393
Grp Sat Flow(s),veh/h/ln	1700	1675	1710	1700	1675	1560	1753	1749	1560	1700	1749	1560
Q Serve(g_s), s	7.6	13.2	13.3	3.7	13.8	8.1	2.4	18.3	3.6	4.2	12.8	15.7
Cycle Q Clear(g_c), s	7.6	13.2	13.3	3.7	13.8	8.1	2.4	18.3	3.6	4.2	12.8	15.7
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	413	885	452	267	1113	345	113	1174	524	219	1174	524
V/C Ratio(X)	0.91	0.77	0.78	0.69	0.91	0.75	0.55	0.84	0.21	0.93	0.64	0.75
Avail Cap(c_a), veh/h	413	885	452	267	1113	345	113	1174	524	219	1174	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	0.52	0.52	0.52	1.00	1.00	1.00	0.39	0.39	0.39
Uniform Delay (d), s/veh	30.4	23.8	23.8	31.4	26.6	14.4	31.8	21.5	16.6	32.6	19.7	20.6
Incr Delay (d2), s/veh	15.1	2.4	4.8	3.9	6.3	4.6	5.6	7.4	0.9	22.0	1.1	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	5.2	5.6	1.6	5.8	3.1	1.2	8.1	1.3	2.3	5.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	26.2	28.6	35.3	32.9	19.0	37.4	28.9	17.6	54.6	20.8	24.5
LnGrp LOS	D	C	C	D	C	B	D	C	B	D	C	C
Approach Vol, veh/h		1409			1455			1163			1353	
Approach Delay, s/veh		31.9			30.8			28.3			26.9	
Approach LOS		C			C			C			C	

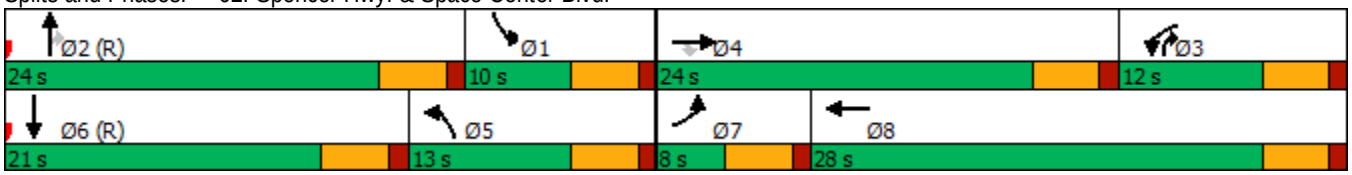
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	28.0	10.0	23.0	9.0	28.0	13.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	23.5	5.5	18.5	4.5	23.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	6.2	20.3	5.7	15.3	4.4	17.7	9.6	15.8
Green Ext Time (p_c), s	0.0	2.0	0.0	1.9	0.0	3.2	0.0	0.0

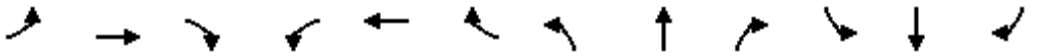
Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	29	1096	216	220	1403	353	394	241	34	267
Future Volume (vph)	29	1096	216	220	1403	353	394	241	34	267
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	8.0	20.0
Total Split (s)	8.0	24.0	24.0	12.0	28.0	13.0	24.0	12.0	10.0	21.0
Total Split (%)	11.4%	34.3%	34.3%	17.1%	40.0%	18.6%	34.3%	17.1%	14.3%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	3.5	19.5	19.5	7.5	28.3	8.5	25.5	37.5	5.5	16.5
Actuated g/C Ratio	0.05	0.28	0.28	0.11	0.40	0.12	0.36	0.54	0.08	0.24
v/c Ratio	0.37	0.89	0.39	0.66	0.81	0.94	0.35	0.29	0.27	0.46
Control Delay	44.6	34.2	5.3	40.1	24.4	65.4	18.5	5.3	35.8	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	34.2	5.3	40.1	24.4	65.4	18.5	5.3	35.8	22.2
LOS	D	C	A	D	C	E	B	A	D	C
Approach Delay		29.7			26.5		32.1			23.5
Approach LOS		C			C		C			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 28.5	Intersection LOS: C
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	1096	216	220	1403	38	353	394	241	34	267	70
Future Volume (veh/h)	29	1096	216	220	1403	38	353	394	241	34	267	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	1191	235	239	1525	41	384	428	262	37	290	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	41	1369	425	329	1741	47	469	974	585	167	649	167
Arrive On Green	0.02	0.27	0.27	0.10	0.35	0.35	0.14	0.28	0.28	0.10	0.24	0.24
Sat Flow, veh/h	1753	5025	1560	3401	5031	135	3401	3497	1560	1753	2753	709
Grp Volume(v), veh/h	32	1191	235	239	1015	551	384	428	262	37	182	184
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1700	1675	1816	1700	1749	1560	1753	1749	1713
Q Serve(g_s), s	1.3	15.8	9.0	4.8	19.9	19.9	7.7	7.0	2.1	1.4	6.2	6.4
Cycle Q Clear(g_c), s	1.3	15.8	9.0	4.8	19.9	19.9	7.7	7.0	2.1	1.4	6.2	6.4
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	41	1369	425	329	1159	628	469	974	585	167	412	404
V/C Ratio(X)	0.79	0.87	0.55	0.73	0.88	0.88	0.82	0.44	0.45	0.22	0.44	0.45
Avail Cap(c_a), veh/h	88	1400	435	364	1159	628	469	974	585	167	412	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.54	0.54	0.54	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.0	24.3	21.8	30.7	21.5	21.5	29.3	20.8	16.4	29.3	22.8	22.9
Incr Delay (d2), s/veh	23.9	5.2	1.2	3.5	4.4	7.7	10.9	1.4	2.5	0.7	3.4	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.2	3.1	2.0	7.4	8.6	3.7	2.9	3.1	0.6	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	29.5	23.0	34.2	25.9	29.2	40.2	22.2	18.9	29.9	26.2	26.6
LnGrp LOS	E	C	C	C	C	C	D	C	B	C	C	C
Approach Vol, veh/h		1458			1805			1074			403	
Approach Delay, s/veh		29.1			28.0			27.8			26.7	
Approach LOS		C			C			C			C	

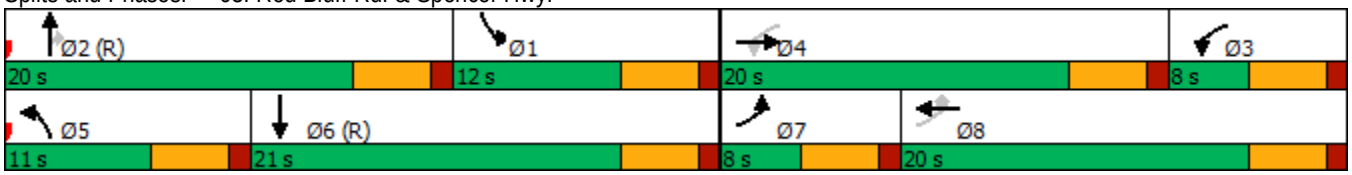
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	24.0	11.3	23.6	14.2	21.0	6.1	28.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	19.5	7.5	19.5	8.5	16.5	3.5	23.5
Max Q Clear Time (g_c+I1), s	3.4	9.0	6.8	17.8	9.7	8.4	3.3	21.9
Green Ext Time (p_c), s	0.0	2.7	0.1	1.2	0.0	1.3	0.0	1.3

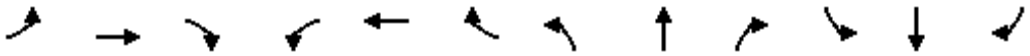
Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	95	844	76	993	357	165	338	46	314	376
Future Volume (vph)	95	844	76	993	357	165	338	46	314	376
Turn Type	D.P+P	NA	D.P+P	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases	8		4		8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	20.0	11.0	20.0	20.0	12.0	21.0
Total Split (%)	13.3%	33.3%	13.3%	33.3%	33.3%	18.3%	33.3%	33.3%	20.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.8	16.0	19.8	16.0	16.0	6.4	16.6	16.6	7.5	19.8
Actuated g/C Ratio	0.31	0.27	0.33	0.27	0.27	0.11	0.28	0.28	0.12	0.33
v/c Ratio	0.47	0.78	0.35	0.82	0.55	0.49	0.39	0.08	0.80	0.41
Control Delay	20.1	24.8	19.9	28.0	5.9	30.2	19.6	0.2	41.9	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.1	24.8	19.9	28.0	5.9	30.2	19.6	0.2	41.9	17.3
LOS	C	C	B	C	A	C	B	A	D	B
Approach Delay		24.4		22.0			21.2			27.6
Approach LOS		C		C			C			C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 62.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	844	135	76	993	357	165	338	46	314	376	63
Future Volume (veh/h)	95	844	135	76	993	357	165	338	46	314	376	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	101	898	144	81	1056	380	176	360	49	334	400	67
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	242	1079	172	258	1267	393	273	903	403	447	928	154
Arrive On Green	0.06	0.25	0.25	0.06	0.25	0.25	0.08	0.26	0.26	0.13	0.31	0.31
Sat Flow, veh/h	1753	4368	697	1753	5025	1560	3401	3497	1560	3401	3001	499
Grp Volume(v), veh/h	101	688	354	81	1056	380	176	360	49	334	232	235
Grp Sat Flow(s),veh/h/ln	1753	1675	1715	1753	1675	1560	1700	1749	1560	1700	1749	1751
Q Serve(g_s), s	2.5	11.7	11.8	0.0	11.9	9.0	3.0	5.1	1.4	5.7	6.3	6.4
Cycle Q Clear(g_c), s	2.5	11.7	11.8	0.0	11.9	9.0	3.0	5.1	1.4	5.7	6.3	6.4
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	242	827	424	258	1267	393	273	903	403	447	541	542
V/C Ratio(X)	0.42	0.83	0.84	0.31	0.83	0.97	0.64	0.40	0.12	0.75	0.43	0.43
Avail Cap(c_a), veh/h	242	865	443	258	1298	403	368	903	403	447	541	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.55	0.52	0.52	0.52	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	21.4	21.4	25.8	21.2	8.6	26.8	18.4	17.0	25.1	16.5	16.5
Incr Delay (d2), s/veh	0.6	3.8	7.4	0.4	2.5	24.1	2.5	1.3	0.6	6.8	2.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.3	4.9	1.1	4.6	5.1	1.3	2.1	0.5	2.6	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	25.2	28.9	26.2	23.8	32.7	29.3	19.7	17.7	31.9	19.0	19.1
LnGrp LOS	B	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		1143			1517			585			801	
Approach Delay, s/veh		25.7			26.1			22.4			24.4	
Approach LOS		C			C			C			C	

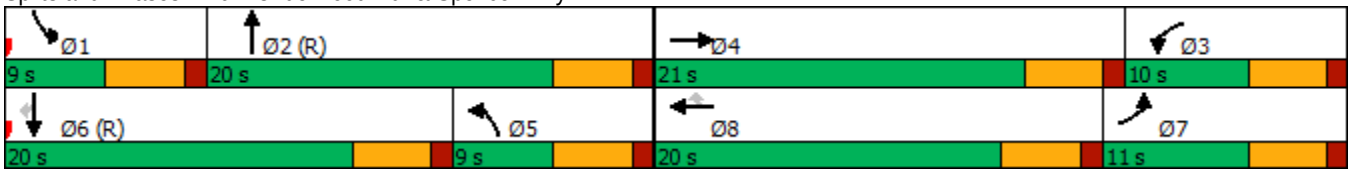
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	20.0	8.3	19.3	9.3	23.1	8.0	19.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	15.5	3.5	15.5	6.5	16.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	7.7	7.1	2.0	13.8	5.0	8.4	4.5	13.9
Green Ext Time (p_c), s	0.0	1.6	0.0	1.1	0.1	1.7	0.0	1.2

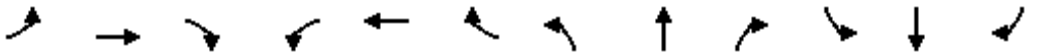
Intersection Summary	
HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	309	599	90	658	366	147	507	222	390	193
Future Volume (vph)	309	599	90	658	366	147	507	222	390	193
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	11.0	21.0	10.0	20.0	20.0	9.0	20.0	9.0	20.0	20.0
Total Split (%)	18.3%	35.0%	16.7%	33.3%	33.3%	15.0%	33.3%	15.0%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	7.2	17.8	6.2	14.7	14.7	4.5	15.5	4.6	15.6	15.6
Actuated g/C Ratio	0.12	0.30	0.10	0.24	0.24	0.08	0.26	0.08	0.26	0.26
v/c Ratio	0.84	0.54	0.55	0.61	0.69	0.66	0.74	0.95	0.48	0.38
Control Delay	47.6	12.1	40.7	22.4	13.7	42.4	25.3	77.9	20.9	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.6	12.1	40.7	22.4	13.7	42.4	25.3	77.9	20.9	5.4
LOS	D	B	D	C	B	D	C	E	C	A
Approach Delay		22.9		21.0			28.6		32.9	
Approach LOS		C		C			C		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 25.7	Intersection LOS: C
Intersection Capacity Utilization 65.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	309	599	110	90	658	366	147	507	104	222	390	193
Future Volume (veh/h)	309	599	110	90	658	366	147	507	104	222	390	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	340	658	121	99	723	402	162	557	114	244	429	212
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	368	924	168	215	1158	360	350	828	169	255	903	403
Arrive On Green	0.11	0.22	0.22	0.12	0.23	0.23	0.10	0.29	0.29	0.08	0.26	0.26
Sat Flow, veh/h	3401	4275	776	1753	5025	1560	3401	2893	590	3401	3497	1560
Grp Volume(v), veh/h	340	514	265	99	723	402	162	336	335	244	429	212
Grp Sat Flow(s),veh/h/ln	1700	1675	1701	1753	1675	1560	1700	1749	1734	1700	1749	1560
Q Serve(g_s), s	5.9	8.5	8.7	3.2	7.8	9.8	2.7	10.2	10.3	4.3	6.2	7.0
Cycle Q Clear(g_c), s	5.9	8.5	8.7	3.2	7.8	9.8	2.7	10.2	10.3	4.3	6.2	7.0
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	368	724	368	215	1158	360	350	500	496	255	903	403
V/C Ratio(X)	0.92	0.71	0.72	0.46	0.62	1.12	0.46	0.67	0.68	0.96	0.47	0.53
Avail Cap(c_a), veh/h	368	921	468	215	1298	403	350	500	496	255	903	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	0.77	0.77	0.77	0.88	0.88	0.88	0.81	0.81	0.81
Uniform Delay (d), s/veh	26.5	21.8	21.8	24.5	20.7	11.6	25.4	18.9	18.9	27.7	18.8	19.1
Incr Delay (d2), s/veh	21.3	1.2	2.7	1.2	0.6	77.9	0.8	6.2	6.4	39.1	1.5	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.0	3.3	1.2	2.7	11.7	1.0	4.3	4.3	2.9	2.3	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	23.0	24.5	25.7	21.4	89.4	26.2	25.1	25.3	66.8	20.3	23.0
LnGrp LOS	D	C	C	C	C	F	C	C	C	E	C	C
Approach Vol, veh/h		1119			1224			833			885	
Approach Delay, s/veh		30.9			44.1			25.4			33.7	
Approach LOS		C			D			C			C	

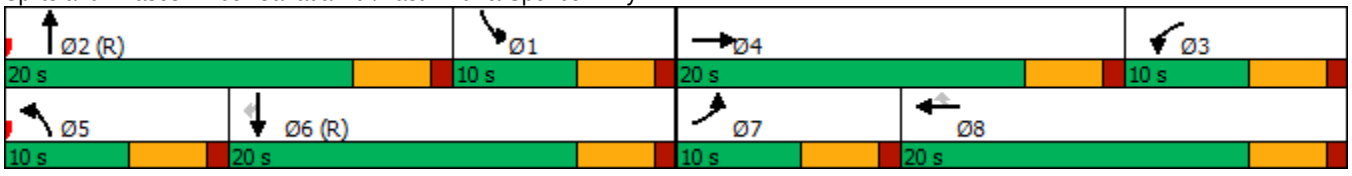
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	21.7	11.9	17.5	10.7	20.0	11.0	18.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	15.5	5.5	16.5	4.5	15.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	6.3	12.3	5.2	10.7	4.7	9.0	7.9	11.8
Green Ext Time (p_c), s	0.0	1.2	0.0	2.3	0.0	1.8	0.0	2.0

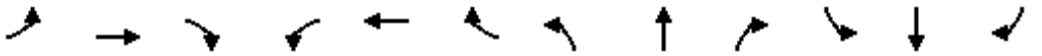
Intersection Summary	
HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	210	598	123	670	216	95	488	229	512	201
Future Volume (vph)	210	598	123	670	216	95	488	229	512	201
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	10.0	20.0	10.0	20.0	20.0	10.0	20.0	10.0	20.0	20.0
Total Split (%)	16.7%	33.3%	16.7%	33.3%	33.3%	16.7%	33.3%	16.7%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	5.5	13.9	6.5	14.9	14.9	5.6	16.1	5.5	18.1	18.1
Actuated g/C Ratio	0.09	0.23	0.11	0.25	0.25	0.09	0.27	0.09	0.30	0.30
v/c Ratio	0.73	0.65	0.71	0.60	0.39	0.65	0.72	0.80	0.53	0.33
Control Delay	43.0	22.3	48.9	21.2	9.1	49.4	23.5	48.5	20.8	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	22.3	48.9	21.2	9.1	49.4	23.5	48.5	20.8	2.8
LOS	D	C	D	C	A	D	C	D	C	A
Approach Delay		27.2		22.0			26.9		23.7	
Approach LOS		C		C			C		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	598	83	123	670	216	95	488	140	229	512	201
Future Volume (veh/h)	210	598	83	123	670	216	95	488	140	229	512	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	226	643	89	132	720	232	102	525	151	246	551	216
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	312	906	124	170	1045	324	130	693	198	483	1142	509
Arrive On Green	0.09	0.20	0.20	0.10	0.21	0.21	0.07	0.26	0.26	0.14	0.33	0.33
Sat Flow, veh/h	3401	4469	612	1753	5025	1560	1753	2683	768	3401	3497	1560
Grp Volume(v), veh/h	226	480	252	132	720	232	102	341	335	246	551	216
Grp Sat Flow(s),veh/h/ln	1700	1675	1731	1753	1675	1560	1753	1749	1702	1700	1749	1560
Q Serve(g_s), s	3.9	8.0	8.1	4.4	7.9	5.2	3.4	10.8	10.9	4.0	7.6	6.5
Cycle Q Clear(g_c), s	3.9	8.0	8.1	4.4	7.9	5.2	3.4	10.8	10.9	4.0	7.6	6.5
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	312	679	351	170	1045	324	130	452	440	483	1142	509
V/C Ratio(X)	0.72	0.71	0.72	0.78	0.69	0.72	0.79	0.76	0.76	0.51	0.48	0.42
Avail Cap(c_a), veh/h	312	865	447	170	1298	403	161	452	440	483	1142	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.79	0.79	0.79	0.90	0.90	0.90	0.86	0.86	0.86
Uniform Delay (d), s/veh	26.5	22.3	22.3	26.5	22.0	8.8	27.3	20.5	20.5	23.8	16.2	15.8
Incr Delay (d2), s/veh	5.2	1.2	2.5	16.3	0.9	3.6	16.7	10.2	10.7	0.8	1.3	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.8	3.1	2.4	2.8	2.8	1.9	5.1	5.0	1.5	2.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	23.5	24.8	42.7	22.9	12.4	44.0	30.7	31.2	24.6	17.4	18.0
LnGrp LOS	C	C	C	D	C	B	D	C	C	C	B	B
Approach Vol, veh/h		958			1084			778			1013	
Approach Delay, s/veh		25.8			23.0			32.6			19.3	
Approach LOS		C			C			C			B	

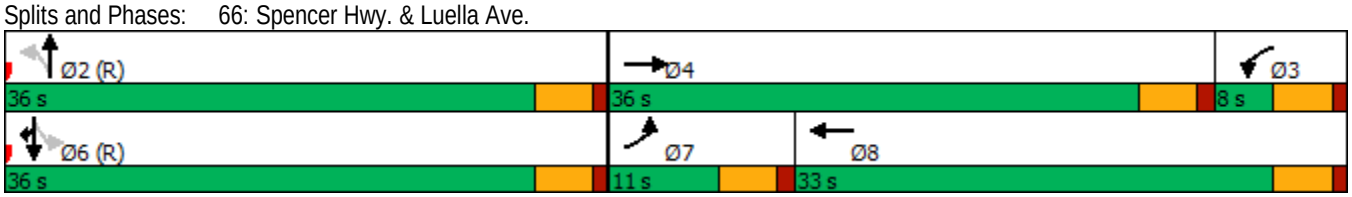
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	20.0	10.3	16.7	8.9	24.1	10.0	17.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	15.5	5.5	15.5	5.5	15.5	5.5	15.5
Max Q Clear Time (g_c+I1), s	6.0	12.9	6.4	10.1	5.4	9.6	5.9	9.9
Green Ext Time (p_c), s	0.0	1.0	0.0	2.0	0.0	2.2	0.0	2.5

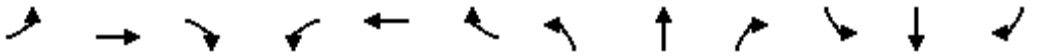
Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	67	903	4	1051	5	0	265	5	203
Future Volume (vph)	67	903	4	1051	5	0	265	5	203
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	36.0	8.0	33.0	36.0	36.0	36.0	36.0	36.0
Total Split (%)	13.8%	45.0%	10.0%	41.3%	45.0%	45.0%	45.0%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	6.3	35.1	5.5	28.1		34.1		34.1	34.1
Actuated g/C Ratio	0.08	0.44	0.07	0.35		0.43		0.43	0.43
v/c Ratio	0.54	0.47	0.03	0.86		0.01		0.53	0.29
Control Delay	50.9	16.8	23.0	17.2		0.0		22.6	3.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	50.9	16.8	23.0	17.2		0.0		22.6	3.5
LOS	D	B	C	B		A		C	A
Approach Delay		19.1		17.2				14.4	
Approach LOS		B		B				B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	903	22	4	1051	317	5	0	1	265	5	203
Future Volume (veh/h)	67	903	22	4	1051	317	5	0	1	265	5	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	74	1003	24	4	1168	352	6	0	1	294	6	226
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	1381	33	202	1282	386	399	6	54	720	13	690
Arrive On Green	0.05	0.27	0.27	0.23	0.67	0.67	0.44	0.00	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	5048	121	1753	3829	1154	712	15	121	1427	29	1560
Grp Volume(v), veh/h	74	665	362	4	1022	498	7	0	0	300	0	226
Grp Sat Flow(s),veh/h/ln	1753	1675	1819	1753	1675	1633	848	0	0	1456	0	1560
Q Serve(g_s), s	3.3	14.4	14.4	0.1	20.7	20.7	0.1	0.0	0.0	0.0	0.0	7.6
Cycle Q Clear(g_c), s	3.3	14.4	14.4	0.1	20.7	20.7	10.5	0.0	0.0	10.4	0.0	7.6
Prop In Lane	1.00		0.07	1.00		0.71	0.86		0.14	0.98		1.00
Lane Grp Cap(c), veh/h	95	917	498	202	1122	547	459	0	0	733	0	690
V/C Ratio(X)	0.78	0.73	0.73	0.02	0.91	0.91	0.02	0.00	0.00	0.41	0.00	0.33
Avail Cap(c_a), veh/h	142	1319	716	202	1193	582	459	0	0	733	0	690
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.57	0.57	0.79	0.79	0.79	1.00	0.00	0.00	0.74	0.00	0.74
Uniform Delay (d), s/veh	37.4	26.3	26.3	27.3	12.2	12.2	13.1	0.0	0.0	15.3	0.0	14.5
Incr Delay (d2), s/veh	8.8	0.7	1.2	0.0	8.3	15.0	0.1	0.0	0.0	1.3	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	5.3	5.8	0.1	4.6	5.5	0.1	0.0	0.0	3.8	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	27.0	27.6	27.3	20.5	27.2	13.2	0.0	0.0	16.6	0.0	15.5
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	B
Approach Vol, veh/h		1101			1524			7			526	
Approach Delay, s/veh		28.5			22.7			13.2			16.1	
Approach LOS		C			C			B			B	

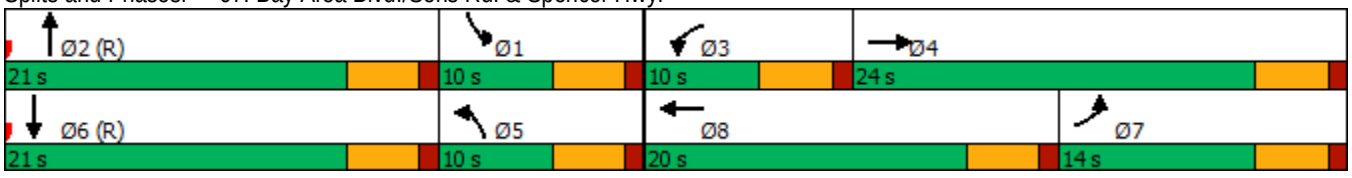
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.9	13.7	26.4		39.9	8.8	31.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		31.5	3.5	31.5		31.5	6.5	28.5				
Max Q Clear Time (g_c+I1), s		12.5	2.1	16.4		12.4	5.3	22.7				
Green Ext Time (p_c), s		0.0	0.0	5.5		2.5	0.0	4.1				

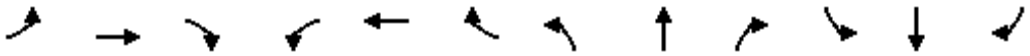
Intersection Summary												
HCM 6th Ctrl Delay			23.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	202	587	39	446	84	307	133	291
Future Volume (vph)	202	587	39	446	84	307	133	291
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	24.0	10.0	20.0	10.0	21.0	10.0	21.0
Total Split (%)	21.5%	36.9%	15.4%	30.8%	15.4%	32.3%	15.4%	32.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.6	24.1	5.5	13.0	5.5	17.9	5.5	19.9
Actuated g/C Ratio	0.16	0.37	0.08	0.20	0.08	0.28	0.08	0.31
v/c Ratio	0.76	0.40	0.28	0.60	0.64	0.41	0.99	0.39
Control Delay	46.6	15.5	33.2	21.5	53.0	19.4	110.2	17.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	15.5	33.2	21.5	53.0	19.4	110.2	17.1
LOS	D	B	C	C	D	B	F	B
Approach Delay		22.6		22.2		25.6		40.6
Approach LOS		C		C		C		D

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 26.9	Intersection LOS: C
Intersection Capacity Utilization 60.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	587	94	39	446	130	84	307	65	133	291	104
Future Volume (veh/h)	202	587	94	39	446	130	84	307	65	133	291	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	213	618	99	41	469	137	88	323	68	140	306	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	255	1292	204	50	692	196	255	732	152	255	645	225
Arrive On Green	0.15	0.30	0.30	0.03	0.18	0.18	0.15	0.25	0.25	0.15	0.25	0.25
Sat Flow, veh/h	1753	4375	691	1753	3892	1101	1753	2882	599	1753	2542	888
Grp Volume(v), veh/h	213	471	246	41	402	204	88	194	197	140	209	206
Grp Sat Flow(s),veh/h/ln	1753	1675	1716	1753	1675	1643	1753	1749	1733	1753	1749	1681
Q Serve(g_s), s	7.7	7.5	7.7	1.5	7.3	7.6	2.9	6.1	6.2	4.8	6.6	6.8
Cycle Q Clear(g_c), s	7.7	7.5	7.7	1.5	7.3	7.6	2.9	6.1	6.2	4.8	6.6	6.8
Prop In Lane	1.00		0.40	1.00		0.67	1.00		0.35	1.00		0.53
Lane Grp Cap(c), veh/h	255	989	507	50	596	292	255	444	440	255	444	427
V/C Ratio(X)	0.83	0.48	0.48	0.83	0.67	0.70	0.34	0.44	0.45	0.55	0.47	0.48
Avail Cap(c_a), veh/h	256	1005	515	148	799	392	255	444	440	255	444	427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	0.96	0.96	0.96	0.99	0.99	0.99
Uniform Delay (d), s/veh	27.0	18.8	18.8	31.4	25.0	25.1	25.0	20.4	20.4	25.8	20.5	20.6
Incr Delay (d2), s/veh	15.7	0.3	0.5	27.4	1.4	3.5	0.8	3.0	3.1	2.4	3.5	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	2.7	2.9	1.0	2.8	3.1	1.2	2.6	2.6	2.1	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	19.0	19.4	58.9	26.3	28.6	25.7	23.4	23.5	28.2	24.1	24.5
LnGrp LOS	D	B	B	E	C	C	C	C	C	C	C	C
Approach Vol, veh/h		930			647			479			555	
Approach Delay, s/veh		24.5			29.1			23.9			25.3	
Approach LOS		C			C			C			C	

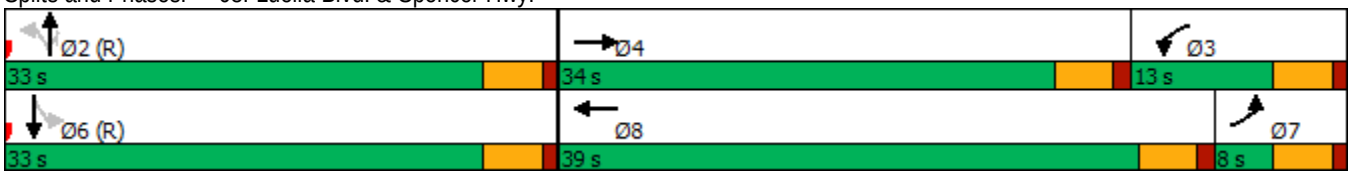
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	21.0	6.3	23.7	14.0	21.0	14.0	16.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	16.5	5.5	19.5	5.5	16.5	9.5	15.5
Max Q Clear Time (g_c+I1), s	6.8	8.2	3.5	9.7	4.9	8.8	9.7	9.6
Green Ext Time (p_c), s	0.0	1.3	0.0	3.3	0.0	1.5	0.0	2.0

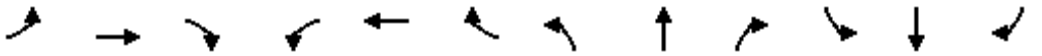
Intersection Summary	
HCM 6th Ctrl Delay	25.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	8	1022	66	1220	188	4	63	4	4
Future Volume (vph)	8	1022	66	1220	188	4	63	4	4
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	7	4	3	8		2			6
Permitted Phases					2		2	6	
Detector Phase	7	4	3	8	2	2	2	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	34.0	13.0	39.0	33.0	33.0	33.0	33.0	33.0
Total Split (%)	10.0%	42.5%	16.3%	48.8%	41.3%	41.3%	41.3%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.2	28.3	7.7	36.9	32.5	32.5	32.5		32.5
Actuated g/C Ratio	0.06	0.35	0.10	0.46	0.41	0.41	0.41		0.41
v/c Ratio	0.08	0.76	0.44	0.61	0.39	0.01	0.10		0.02
Control Delay	32.0	14.8	42.4	17.5	26.5	21.0	7.1		14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	32.0	14.8	42.4	17.5	26.5	21.0	7.1		14.3
LOS	C	B	D	B	C	C	A		B
Approach Delay		14.9		18.8		21.6			14.3
Approach LOS		B		B		C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 38 (48%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	1022	137	66	1220	5	188	4	63	4	4	4
Future Volume (veh/h)	8	1022	137	66	1220	5	188	4	63	4	4	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	9	1136	152	73	1356	6	209	4	70	4	4	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	14	1354	181	94	1797	8	750	875	741	278	276	247
Arrive On Green	0.02	0.60	0.60	0.05	0.35	0.35	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1753	4483	600	1753	5164	23	1385	1841	1560	459	580	520
Grp Volume(v), veh/h	9	849	439	73	880	482	209	4	70	12	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1733	1753	1675	1837	1385	1841	1560	1559	0	0
Q Serve(g_s), s	0.4	16.3	16.3	3.3	18.6	18.6	7.1	0.1	2.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	16.3	16.3	3.3	18.6	18.6	7.4	0.1	2.0	0.3	0.0	0.0
Prop In Lane	1.00		0.35	1.00		0.01	1.00		1.00	0.33		0.33
Lane Grp Cap(c), veh/h	14	1012	523	94	1166	639	750	875	741	801	0	0
V/C Ratio(X)	0.65	0.84	0.84	0.77	0.75	0.75	0.28	0.00	0.09	0.01	0.00	0.00
Avail Cap(c_a), veh/h	77	1235	639	186	1445	792	750	875	741	801	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.82	0.82	0.82	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.3	14.3	14.3	37.4	23.1	23.1	12.9	11.0	11.5	11.1	0.0	0.0
Incr Delay (d2), s/veh	36.7	3.9	7.3	10.5	1.5	2.7	0.9	0.0	0.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.9	4.5	1.6	6.9	7.8	2.3	0.0	0.7	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.0	18.2	21.6	47.8	24.5	25.7	13.8	11.0	11.8	11.1	0.0	0.0
LnGrp LOS	E	B	C	D	C	C	B	B	B	B	A	A
Approach Vol, veh/h		1297			1435			283			12	
Approach Delay, s/veh		19.7			26.1			13.3			11.1	
Approach LOS		B			C			B			B	

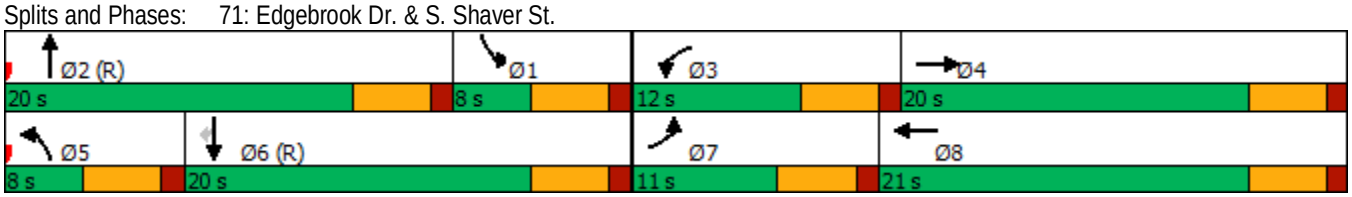
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.5	8.8	28.7		42.5	5.1	32.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		28.5	8.5	29.5		28.5	3.5	34.5				
Max Q Clear Time (g_c+I1), s		9.4	5.3	18.3		2.3	2.4	20.6				
Green Ext Time (p_c), s		0.8	0.0	5.9		0.0	0.0	7.3				

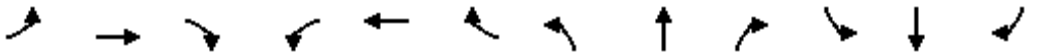
Intersection Summary												
HCM 6th Ctrl Delay			22.1									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	234	687	204	566	63	485	72	522	269
Future Volume (vph)	234	687	204	566	63	485	72	522	269
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	11.0	20.0	12.0	21.0	8.0	20.0	8.0	20.0	20.0
Total Split (%)	18.3%	33.3%	20.0%	35.0%	13.3%	33.3%	13.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	6.5	14.8	7.5	15.8	4.1	17.8	3.5	17.7	17.7
Actuated g/C Ratio	0.11	0.25	0.12	0.26	0.07	0.30	0.06	0.30	0.30
v/c Ratio	0.71	0.66	1.05	0.74	0.59	0.69	0.79	0.57	0.45
Control Delay	29.6	23.0	105.4	25.3	52.4	22.3	80.1	21.5	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	23.0	105.4	25.3	52.4	22.3	80.1	21.5	5.2
LOS	C	C	F	C	D	C	F	C	A
Approach Delay		24.6		45.5		24.9		21.3	
Approach LOS		C		D		C		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 28.9	Intersection LOS: C
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	687	38	204	566	38	63	485	165	72	522	269
Future Volume (veh/h)	234	687	38	204	566	38	63	485	165	72	522	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	260	763	42	227	629	42	70	539	183	80	580	299
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	361	1059	58	219	786	52	88	663	224	174	1076	480
Arrive On Green	0.11	0.22	0.22	0.13	0.24	0.24	0.05	0.26	0.26	0.10	0.31	0.31
Sat Flow, veh/h	3401	4875	267	1753	3328	222	1753	2566	868	1753	3497	1560
Grp Volume(v), veh/h	260	523	282	227	330	341	70	367	355	80	580	299
Grp Sat Flow(s),veh/h/ln	1700	1675	1793	1753	1749	1801	1753	1749	1685	1753	1749	1560
Q Serve(g_s), s	4.4	8.7	8.8	7.5	10.7	10.7	2.4	11.8	11.9	2.6	8.3	9.9
Cycle Q Clear(g_c), s	4.4	8.7	8.8	7.5	10.7	10.7	2.4	11.8	11.9	2.6	8.3	9.9
Prop In Lane	1.00		0.15	1.00		0.12	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	361	728	389	219	413	425	88	452	435	174	1076	480
V/C Ratio(X)	0.72	0.72	0.72	1.04	0.80	0.80	0.80	0.81	0.82	0.46	0.54	0.62
Avail Cap(c_a), veh/h	368	865	463	219	481	495	102	452	435	174	1076	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	26.0	21.8	21.8	26.3	21.6	21.6	28.2	20.9	20.9	25.5	17.2	17.8
Incr Delay (d2), s/veh	6.6	2.4	4.5	51.7	4.1	4.0	30.4	14.7	15.5	1.7	1.8	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.4	3.9	6.1	4.5	4.6	1.7	6.1	6.0	1.1	3.3	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.6	24.2	26.3	78.0	25.6	25.6	58.5	35.5	36.4	27.2	19.0	23.3
LnGrp LOS	C	C	C	F	C	C	E	D	D	C	B	C
Approach Vol, veh/h		1065			898			792			959	
Approach Delay, s/veh		26.8			38.9			38.0			21.0	
Approach LOS		C			D			D			C	

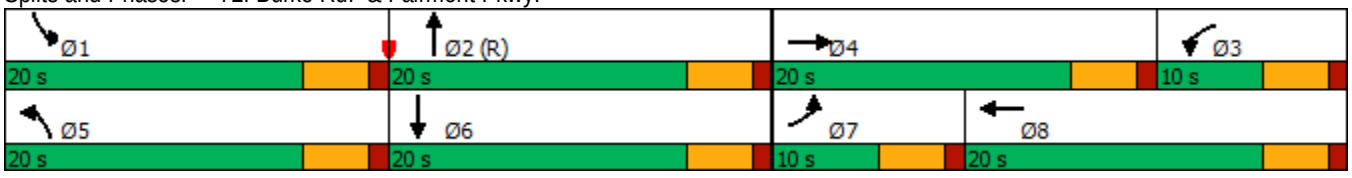
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	20.0	12.0	17.5	7.5	23.0	10.9	18.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	15.5	7.5	15.5	3.5	15.5	6.5	16.5
Max Q Clear Time (g_c+I1), s	4.6	13.9	9.5	10.8	4.4	11.9	6.4	12.7
Green Ext Time (p_c), s	0.0	0.7	0.0	2.2	0.0	1.7	0.0	1.5

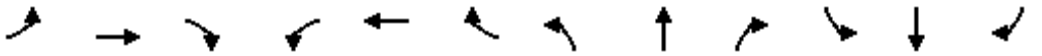
Intersection Summary	
HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	794	121	675	230	403	165	342
Future Volume (vph)	76	794	121	675	230	403	165	342
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	20.0	10.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	14.3%	28.6%	14.3%	28.6%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	C-Max	Max	Max
Act Effct Green (s)	5.5	15.5	5.5	17.5	15.5	15.5	15.5	15.5
Actuated g/C Ratio	0.08	0.22	0.08	0.25	0.22	0.22	0.22	0.22
v/c Ratio	0.60	0.87	0.95	0.68	0.64	0.78	0.46	0.58
Control Delay	51.4	36.0	102.2	26.3	33.4	29.3	28.2	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	36.0	102.2	26.3	33.4	29.3	28.2	25.8
LOS	D	D	F	C	C	C	C	C
Approach Delay		37.2		36.2		30.5		26.4
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 33.3	Intersection LOS: C
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	794	119	121	675	133	230	403	196	165	342	77
Future Volume (veh/h)	76	794	119	121	675	133	230	403	196	165	342	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	81	845	127	129	718	141	245	429	0	176	364	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	103	967	144	138	1008	196	388	783		388	783	
Arrive On Green	0.06	0.22	0.22	0.08	0.24	0.24	0.22	0.22	0.00	0.22	0.22	0.00
Sat Flow, veh/h	1753	4413	660	1753	4223	820	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	81	640	332	129	568	291	245	429	0	176	364	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1722	1753	1675	1693	1753	1749	0	1753	1749	0
Q Serve(g_s), s	3.2	12.9	13.0	5.1	10.9	11.1	8.9	7.6	0.0	6.1	6.3	0.0
Cycle Q Clear(g_c), s	3.2	12.9	13.0	5.1	10.9	11.1	8.9	7.6	0.0	6.1	6.3	0.0
Prop In Lane	1.00		0.38	1.00		0.48	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	103	734	377	138	800	404	388	783		388	783	
V/C Ratio(X)	0.78	0.87	0.88	0.94	0.71	0.72	0.63	0.55		0.45	0.47	
Avail Cap(c_a), veh/h	138	742	381	138	800	404	388	783		388	783	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	0.59	0.59	0.59	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.5	26.4	26.4	32.1	24.4	24.5	24.7	24.0	0.0	23.6	23.5	0.0
Incr Delay (d2), s/veh	16.4	9.6	17.7	41.7	1.8	3.7	0.7	0.3	0.0	3.8	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	5.8	6.9	3.7	4.3	4.6	3.6	3.0	0.0	2.8	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	36.0	44.1	73.7	26.2	28.2	25.4	24.3	0.0	27.4	25.5	0.0
LnGrp LOS	D	D	D	E	C	C	C	C		C	C	
Approach Vol, veh/h		1053			988			674	A		540	A
Approach Delay, s/veh		39.6			33.0			24.7			26.1	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	20.2	10.0	19.8	20.0	20.2	8.6	21.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	15.5	5.5	15.5	15.5	15.5	5.5	15.5
Max Q Clear Time (g_c+I1), s	8.1	9.6	7.1	15.0	10.9	8.3	5.2	13.1
Green Ext Time (p_c), s	0.3	1.4	0.0	0.3	0.3	1.3	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

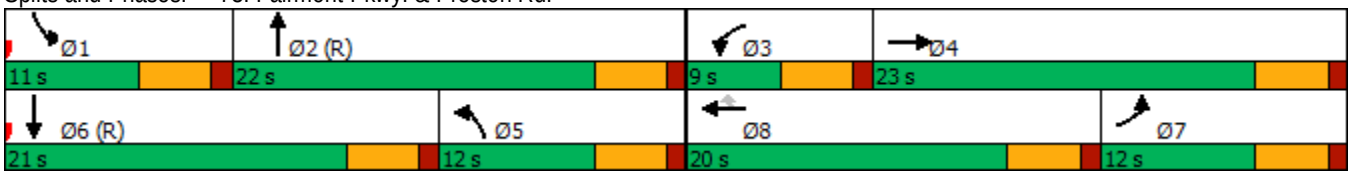
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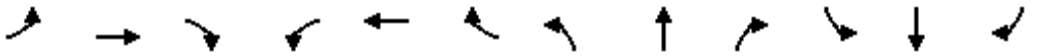
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	166	861	72	794	189	180	580	268	631
Future Volume (vph)	166	861	72	794	189	180	580	268	631
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	23.0	9.0	20.0	20.0	12.0	22.0	11.0	21.0
Total Split (%)	18.5%	35.4%	13.8%	30.8%	30.8%	18.5%	33.8%	16.9%	32.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.8	20.2	4.5	15.1	15.1	7.5	17.5	6.6	16.6
Actuated g/C Ratio	0.12	0.31	0.07	0.23	0.23	0.12	0.27	0.10	0.26
v/c Ratio	0.84	0.69	0.63	0.72	0.36	0.94	0.83	0.82	0.84
Control Delay	64.1	21.9	55.6	27.1	3.5	84.5	30.1	51.0	33.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	21.9	55.6	27.1	3.5	84.5	30.1	51.0	33.3
LOS	E	C	E	C	A	F	C	D	C
Approach Delay		27.9		24.8			40.7		38.1
Approach LOS		C		C			D		D

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	861	150	72	794	189	180	580	159	268	631	80
Future Volume (veh/h)	166	861	150	72	794	189	180	580	159	268	631	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	175	906	158	76	836	199	189	611	167	282	664	84
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	202	1195	207	96	1090	338	240	790	215	340	793	100
Arrive On Green	0.12	0.28	0.28	0.05	0.22	0.22	0.14	0.29	0.29	0.10	0.25	0.25
Sat Flow, veh/h	1753	4308	748	1753	5025	1560	1753	2715	741	3401	3124	395
Grp Volume(v), veh/h	175	704	360	76	836	199	189	393	385	282	371	377
Grp Sat Flow(s),veh/h/ln	1753	1675	1706	1753	1675	1560	1753	1749	1707	1700	1749	1770
Q Serve(g_s), s	6.4	12.5	12.6	2.8	10.2	5.2	6.8	13.4	13.4	5.3	13.1	13.1
Cycle Q Clear(g_c), s	6.4	12.5	12.6	2.8	10.2	5.2	6.8	13.4	13.4	5.3	13.1	13.1
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.43	1.00		0.22
Lane Grp Cap(c), veh/h	202	929	473	96	1090	338	240	509	497	340	444	449
V/C Ratio(X)	0.87	0.76	0.76	0.79	0.77	0.59	0.79	0.77	0.78	0.83	0.84	0.84
Avail Cap(c_a), veh/h	202	953	486	121	1198	372	240	509	497	340	444	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.31	0.31	0.31	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	28.3	21.5	21.5	30.3	23.9	11.1	27.1	21.1	21.1	28.7	23.0	23.0
Incr Delay (d2), s/veh	20.8	2.2	4.3	8.3	0.9	0.6	15.9	10.9	11.3	13.6	14.7	14.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	4.8	5.2	1.3	3.9	2.5	3.7	6.6	6.5	2.7	6.8	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	23.7	25.8	38.6	24.8	11.7	43.0	32.0	32.4	42.3	37.7	37.7
LnGrp LOS	D	C	C	D	C	B	D	C	C	D	D	D
Approach Vol, veh/h		1239			1111			967			1030	
Approach Delay, s/veh		27.9			23.4			34.3			38.9	
Approach LOS		C			C			C			D	

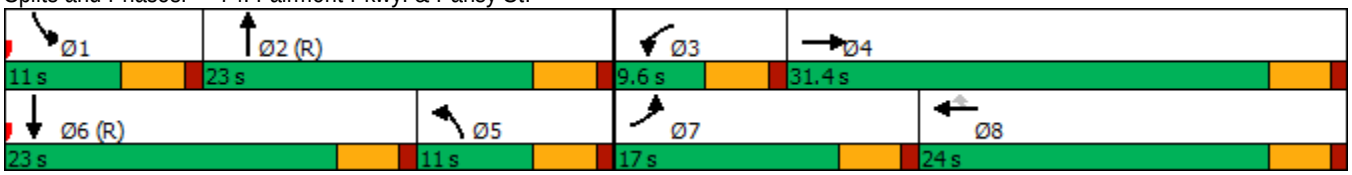
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	23.4	8.1	22.5	13.4	21.0	12.0	18.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	17.5	4.5	18.5	7.5	16.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	7.3	15.4	4.8	14.6	8.8	15.1	8.4	12.2
Green Ext Time (p_c), s	0.0	1.0	0.0	2.4	0.0	0.7	0.0	1.9

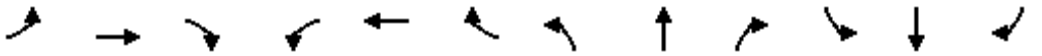
Intersection Summary	
HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	220	1148	56	1045	100	221	207	90	217
Future Volume (vph)	220	1148	56	1045	100	221	207	90	217
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	17.0	31.4	9.6	24.0	24.0	11.0	23.0	11.0	23.0
Total Split (%)	22.7%	41.9%	12.8%	32.0%	32.0%	14.7%	30.7%	14.7%	30.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.4	28.8	5.1	19.6	19.6	6.5	20.7	6.5	18.5
Actuated g/C Ratio	0.17	0.38	0.07	0.26	0.26	0.09	0.28	0.09	0.25
v/c Ratio	0.87	0.81	0.54	0.91	0.19	0.86	0.34	0.68	0.41
Control Delay	62.3	25.0	52.4	38.9	0.7	63.3	18.0	58.1	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	25.0	52.4	38.9	0.7	63.3	18.0	58.1	17.9
LOS	E	C	D	D	A	E	B	E	B
Approach Delay		30.2		36.3			37.3		26.6
Approach LOS		C		D			D		C

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 68.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1148	210	56	1045	100	221	207	90	90	217	110
Future Volume (veh/h)	220	1148	210	56	1045	100	221	207	90	90	217	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	250	1305	239	64	1188	114	251	235	102	102	247	125
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	289	1600	293	86	1302	404	304	629	265	130	561	275
Arrive On Green	0.16	0.37	0.37	0.05	0.26	0.26	0.09	0.26	0.26	0.07	0.25	0.25
Sat Flow, veh/h	1753	4269	782	1753	5025	1560	3401	2399	1009	1753	2275	1114
Grp Volume(v), veh/h	250	1024	520	64	1188	114	251	169	168	102	188	184
Grp Sat Flow(s),veh/h/ln	1753	1675	1700	1753	1675	1560	1700	1749	1659	1753	1749	1640
Q Serve(g_s), s	10.4	20.6	20.7	2.7	17.2	4.4	5.4	5.9	6.2	4.3	6.8	7.1
Cycle Q Clear(g_c), s	10.4	20.6	20.7	2.7	17.2	4.4	5.4	5.9	6.2	4.3	6.8	7.1
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.61	1.00		0.68
Lane Grp Cap(c), veh/h	289	1256	637	86	1302	404	304	459	435	130	431	405
V/C Ratio(X)	0.87	0.82	0.82	0.74	0.91	0.28	0.83	0.37	0.39	0.79	0.44	0.45
Avail Cap(c_a), veh/h	292	1256	637	119	1307	406	304	459	435	152	431	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	21.1	21.1	35.2	27.0	22.2	33.6	22.6	22.7	34.1	23.8	24.0
Incr Delay (d2), s/veh	15.5	2.8	5.3	14.7	9.9	0.4	16.7	2.3	2.6	20.5	3.2	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	7.9	8.5	1.5	7.7	1.6	2.9	2.6	2.6	2.5	3.1	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	23.9	26.4	49.9	36.8	22.6	50.3	24.9	25.3	54.7	27.0	27.6
LnGrp LOS	D	C	C	D	D	C	D	C	C	D	C	C
Approach Vol, veh/h		1794			1366			588			474	
Approach Delay, s/veh		27.7			36.3			35.8			33.2	
Approach LOS		C			D			D			C	

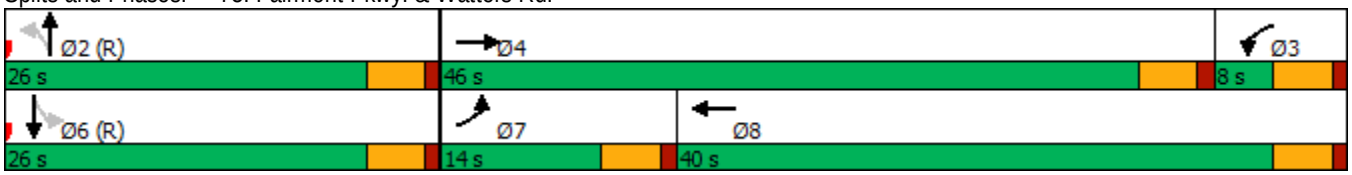
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	24.2	8.2	32.6	11.2	23.0	16.9	23.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	18.5	5.1	26.9	6.5	18.5	12.5	19.5
Max Q Clear Time (g_c+I1), s	6.3	8.2	4.7	22.7	7.4	9.1	12.4	19.2
Green Ext Time (p_c), s	0.0	1.4	0.0	3.3	0.0	1.5	0.0	0.2

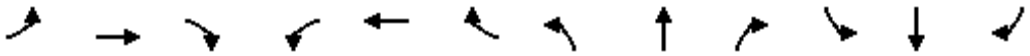
Intersection Summary	
HCM 6th Ctrl Delay	32.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	77	1159	19	894	17	8	66	10
Future Volume (vph)	77	1159	19	894	17	8	66	10
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	46.0	8.0	40.0	26.0	26.0	26.0	26.0
Total Split (%)	17.5%	57.5%	10.0%	50.0%	32.5%	32.5%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.3	40.8	4.9	33.2		27.0		27.0
Actuated g/C Ratio	0.10	0.51	0.06	0.42		0.34		0.34
v/c Ratio	0.46	0.72	0.20	0.74		0.07		0.33
Control Delay	42.0	17.8	41.1	23.0		17.6		15.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	42.0	17.8	41.1	23.0		17.6		15.8
LOS	D	B	D	C		B		B
Approach Delay		19.3		23.4		17.6		15.8
Approach LOS		B		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 20.7	Intersection LOS: C
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1159	17	19	894	83	17	8	9	66	10	88
Future Volume (veh/h)	77	1159	17	19	894	83	17	8	9	66	10	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	84	1260	18	21	972	90	18	9	10	72	11	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	108	1529	22	29	1255	116	325	163	156	270	60	309
Arrive On Green	0.06	0.43	0.43	0.02	0.39	0.39	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1753	3530	50	1753	3236	300	676	426	408	542	158	810
Grp Volume(v), veh/h	84	624	654	21	525	537	37	0	0	179	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1832	1753	1749	1787	1511	0	0	1510	0	0
Q Serve(g_s), s	3.8	25.2	25.2	1.0	21.0	21.0	0.0	0.0	0.0	3.4	0.0	0.0
Cycle Q Clear(g_c), s	3.8	25.2	25.2	1.0	21.0	21.0	1.1	0.0	0.0	6.3	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.17	0.49		0.27	0.40		0.54
Lane Grp Cap(c), veh/h	108	758	794	29	678	693	644	0	0	639	0	0
V/C Ratio(X)	0.78	0.82	0.82	0.73	0.77	0.77	0.06	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	208	907	950	77	776	793	644	0	0	639	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	0.56	0.56	0.56	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.0	20.0	20.0	39.2	21.4	21.4	15.6	0.0	0.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	5.7	2.6	2.5	18.3	2.5	2.4	0.2	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	10.0	10.4	0.5	8.5	8.7	0.4	0.0	0.0	2.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	22.6	22.5	57.4	23.9	23.8	15.8	0.0	0.0	18.3	0.0	0.0
LnGrp LOS	D	C	C	E	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1362			1083			37			179	
Approach Delay, s/veh		23.8			24.5			15.8			18.3	
Approach LOS		C			C			B			B	

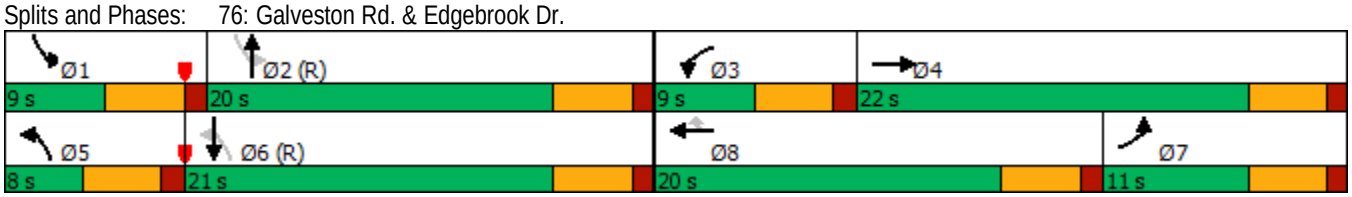
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.0	5.8	39.2		35.0	9.4	35.5				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		21.5	3.5	41.5		21.5	9.5	35.5				
Max Q Clear Time (g_c+I1), s		3.1	3.0	27.2		8.3	5.8	23.0				
Green Ext Time (p_c), s		0.1	0.0	7.5		0.8	0.1	5.6				

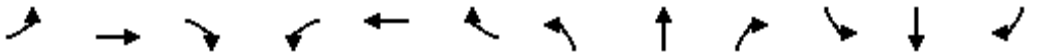
Intersection Summary												
HCM 6th Ctrl Delay			23.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	145	730	75	725	305	52	463	215	378
Future Volume (vph)	145	730	75	725	305	52	463	215	378
Turn Type	Prot	NA	Prot	NA	Perm	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8	6		2	
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	22.0	9.0	20.0	20.0	8.0	20.0	9.0	21.0
Total Split (%)	18.3%	36.7%	15.0%	33.3%	33.3%	13.3%	33.3%	15.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.7	19.3	4.5	15.3	15.3	21.8	15.5	20.0	19.7
Actuated g/C Ratio	0.11	0.32	0.08	0.26	0.26	0.36	0.26	0.33	0.33
v/c Ratio	0.77	0.74	0.59	0.84	0.53	0.17	0.60	0.77	0.44
Control Delay	55.0	23.9	48.4	21.5	3.7	12.4	21.9	35.9	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	23.9	48.4	21.5	3.7	12.4	21.9	35.9	16.1
LOS	E	C	D	C	A	B	C	D	B
Approach Delay		28.7		18.5			21.0		22.2
Approach LOS		C		B			C		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 75.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	730	75	75	725	305	52	463	70	215	378	112
Future Volume (veh/h)	145	730	75	75	725	305	52	463	70	215	378	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	148	745	77	77	740	311	53	472	71	219	386	114
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	186	959	99	97	872	389	350	823	123	366	829	242
Arrive On Green	0.11	0.30	0.30	0.06	0.25	0.25	0.03	0.27	0.27	0.08	0.31	0.31
Sat Flow, veh/h	1753	3199	331	1753	3497	1560	1753	3051	457	1753	2670	779
Grp Volume(v), veh/h	148	407	415	77	740	311	53	270	273	219	251	249
Grp Sat Flow(s),veh/h/ln	1753	1749	1781	1753	1749	1560	1753	1749	1759	1753	1749	1700
Q Serve(g_s), s	4.9	12.7	12.8	2.6	12.1	7.9	1.2	8.0	8.1	4.5	6.9	7.1
Cycle Q Clear(g_c), s	4.9	12.7	12.8	2.6	12.1	7.9	1.2	8.0	8.1	4.5	6.9	7.1
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.26	1.00		0.46
Lane Grp Cap(c), veh/h	186	524	534	97	872	389	350	472	474	366	543	528
V/C Ratio(X)	0.80	0.78	0.78	0.79	0.85	0.80	0.15	0.57	0.58	0.60	0.46	0.47
Avail Cap(c_a), veh/h	190	524	534	131	903	403	392	472	474	366	543	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	19.2	19.2	28.0	21.4	10.4	13.7	18.9	18.9	17.0	16.7	16.7
Incr Delay (d2), s/veh	20.3	7.2	7.1	20.3	7.5	10.6	0.2	5.0	5.0	2.7	2.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	5.7	5.8	1.6	5.4	1.1	0.5	3.6	3.7	2.3	3.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	26.4	26.3	48.3	28.9	21.0	13.9	23.9	24.0	19.6	19.5	19.7
LnGrp LOS	D	C	C	D	C	C	B	C	C	B	B	B
Approach Vol, veh/h		970			1128			596			719	
Approach Delay, s/veh		29.4			28.1			23.0			19.6	
Approach LOS		C			C			C			B	

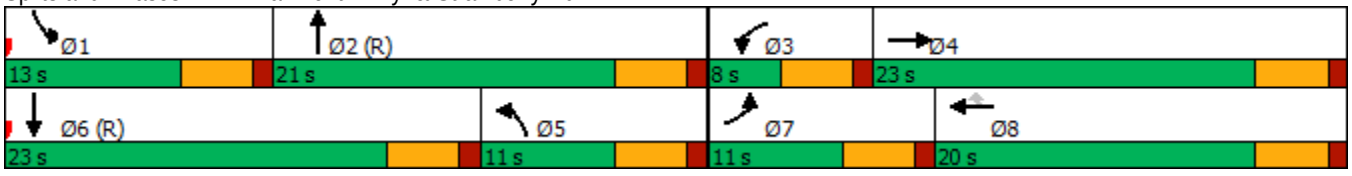
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	20.7	7.8	22.5	6.6	23.1	10.9	19.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	15.5	4.5	17.5	3.5	16.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	6.5	10.1	4.6	14.8	3.2	9.1	6.9	14.1
Green Ext Time (p_c), s	0.0	1.6	0.0	1.4	0.0	1.8	0.0	0.9

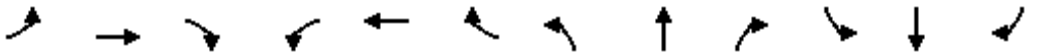
Intersection Summary	
HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	141	616	33	562	230	105	569	189	361
Future Volume (vph)	141	616	33	562	230	105	569	189	361
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	23.0	8.0	20.0	20.0	11.0	21.0	13.0	23.0
Total Split (%)	16.9%	35.4%	12.3%	30.8%	30.8%	16.9%	32.3%	20.0%	35.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	21.8	3.5	14.0	14.0	6.5	17.3	9.2	22.2
Actuated g/C Ratio	0.10	0.34	0.05	0.22	0.22	0.10	0.27	0.14	0.34
v/c Ratio	0.88	0.42	0.38	0.56	0.46	0.66	0.77	0.83	0.48
Control Delay	76.3	17.7	41.5	24.6	6.3	48.8	28.8	43.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.3	17.7	41.5	24.6	6.3	48.8	28.8	43.1	11.0
LOS	E	B	D	C	A	D	C	D	B
Approach Delay		28.0		20.2			31.6		19.2
Approach LOS		C		C			C		B

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 67.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	616	44	33	562	230	105	569	94	189	361	184
Future Volume (veh/h)	141	616	44	33	562	230	105	569	94	189	361	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	152	662	47	35	604	247	113	612	101	203	388	198
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	175	1351	95	44	1041	323	230	857	141	229	641	323
Arrive On Green	0.10	0.28	0.28	0.03	0.21	0.21	0.13	0.29	0.29	0.13	0.28	0.28
Sat Flow, veh/h	1753	4792	338	1753	5025	1560	1753	3005	495	1753	2252	1134
Grp Volume(v), veh/h	152	462	247	35	604	247	113	356	357	203	300	286
Grp Sat Flow(s),veh/h/ln	1753	1675	1780	1753	1675	1560	1753	1749	1752	1753	1749	1637
Q Serve(g_s), s	5.6	7.5	7.5	1.3	7.0	9.7	3.9	11.9	11.9	7.4	9.6	9.8
Cycle Q Clear(g_c), s	5.6	7.5	7.5	1.3	7.0	9.7	3.9	11.9	11.9	7.4	9.6	9.8
Prop In Lane	1.00		0.19	1.00		1.00	1.00		0.28	1.00		0.69
Lane Grp Cap(c), veh/h	175	944	502	44	1041	323	230	499	499	229	498	466
V/C Ratio(X)	0.87	0.49	0.49	0.79	0.58	0.76	0.49	0.71	0.72	0.89	0.60	0.61
Avail Cap(c_a), veh/h	175	953	507	94	1198	372	230	499	499	229	498	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	0.68	0.68	0.68	0.68	1.00	1.00	1.00	0.60	0.60	0.60
Uniform Delay (d), s/veh	28.8	19.4	19.5	31.5	23.2	24.3	26.2	20.8	20.9	27.8	20.1	20.2
Incr Delay (d2), s/veh	25.3	0.3	0.5	18.9	0.4	5.5	1.6	8.4	8.5	21.2	3.2	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	2.7	3.0	0.8	2.7	3.8	1.6	5.6	5.7	4.3	4.1	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	19.7	20.0	50.4	23.6	29.8	27.8	29.3	29.4	49.0	23.3	23.8
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		861			886			826			789	
Approach Delay, s/veh		25.9			26.4			29.1			30.1	
Approach LOS		C			C			C			C	

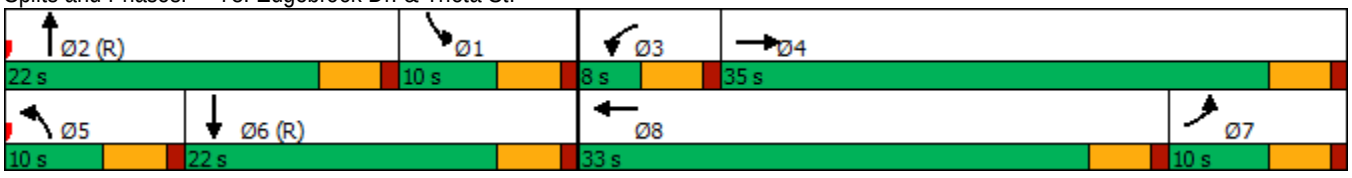
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	23.0	6.1	22.8	13.0	23.0	11.0	18.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	16.5	3.5	18.5	6.5	18.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	9.4	13.9	3.3	9.5	5.9	11.8	7.6	11.7
Green Ext Time (p_c), s	0.0	1.1	0.0	3.1	0.0	2.0	0.0	1.8

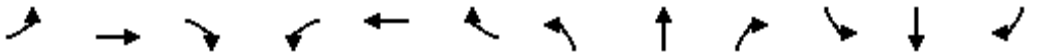
Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	105	888	36	1021	61	41	91	41
Future Volume (vph)	105	888	36	1021	61	41	91	41
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	35.0	8.0	33.0	10.0	22.0	10.0	22.0
Total Split (%)	13.3%	46.7%	10.7%	44.0%	13.3%	29.3%	13.3%	29.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.1	33.1	3.5	26.3	5.5	18.1	5.5	20.1
Actuated g/C Ratio	0.09	0.44	0.05	0.35	0.07	0.24	0.07	0.27
v/c Ratio	0.73	0.48	0.51	0.73	0.54	0.30	0.81	0.38
Control Delay	63.5	16.1	58.1	23.3	50.8	11.7	79.3	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	16.1	58.1	23.3	50.8	11.7	79.3	9.5
LOS	E	B	E	C	D	B	E	A
Approach Delay		20.9		24.4		24.7		32.4
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 63.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	888	38	36	1021	96	61	41	80	91	41	143
Future Volume (veh/h)	105	888	38	36	1021	96	61	41	80	91	41	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	119	1009	43	41	1160	109	69	47	91	103	47	162
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	129	1800	77	50	1493	140	88	131	253	235	115	397
Arrive On Green	0.07	0.36	0.36	0.03	0.32	0.32	0.05	0.23	0.23	0.13	0.32	0.32
Sat Flow, veh/h	1753	4943	210	1753	4673	439	1753	560	1085	1753	363	1252
Grp Volume(v), veh/h	119	684	368	41	831	438	69	0	138	103	0	209
Grp Sat Flow(s),veh/h/ln	1753	1675	1803	1753	1675	1762	1753	0	1645	1753	0	1615
Q Serve(g_s), s	5.1	12.2	12.3	1.7	16.9	16.9	2.9	0.0	5.3	4.1	0.0	7.6
Cycle Q Clear(g_c), s	5.1	12.2	12.3	1.7	16.9	16.9	2.9	0.0	5.3	4.1	0.0	7.6
Prop In Lane	1.00		0.12	1.00		0.25	1.00		0.66	1.00		0.78
Lane Grp Cap(c), veh/h	129	1220	656	50	1070	563	88	0	384	235	0	512
V/C Ratio(X)	0.93	0.56	0.56	0.82	0.78	0.78	0.79	0.00	0.36	0.44	0.00	0.41
Avail Cap(c_a), veh/h	129	1362	733	82	1273	669	129	0	384	235	0	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.5	19.1	19.1	36.2	23.1	23.1	35.2	0.0	24.1	29.9	0.0	20.1
Incr Delay (d2), s/veh	57.0	0.4	0.8	26.2	2.6	4.9	17.5	0.0	2.6	1.3	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	4.1	4.5	1.1	6.1	6.8	1.6	0.0	2.2	1.7	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.5	19.5	19.8	62.4	25.7	28.0	52.7	0.0	26.7	31.2	0.0	22.5
LnGrp LOS	F	B	B	E	C	C	D	A	C	C	A	C
Approach Vol, veh/h		1171			1310			207			312	
Approach Delay, s/veh		26.9			27.6			35.3			25.4	
Approach LOS		C			C			D			C	

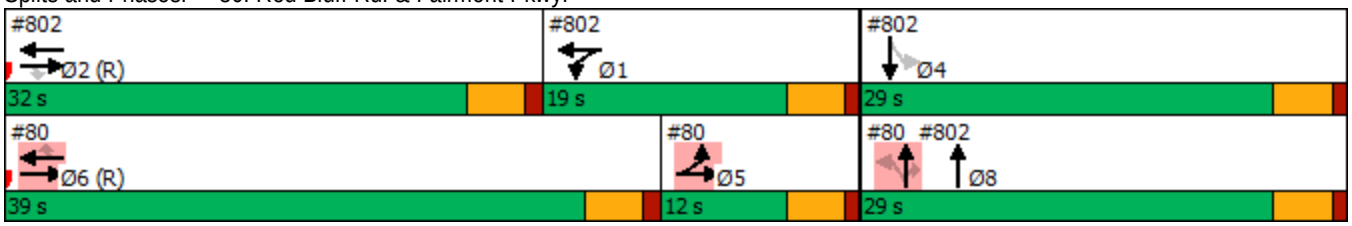
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	22.0	6.7	31.8	8.3	28.3	10.0	28.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	17.5	3.5	30.5	5.5	17.5	5.5	28.5
Max Q Clear Time (g_c+I1), s	6.1	7.3	3.7	14.3	4.9	9.6	7.1	18.9
Green Ext Time (p_c), s	0.0	0.5	0.0	5.7	0.0	0.7	0.0	5.1

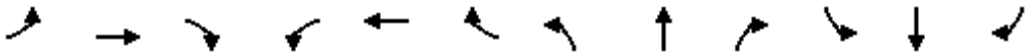
Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	10	829	832	119	141	427	67			
Future Volume (vph)	10	829	832	119	141	427	67			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	12.0		39.0	39.0	29.0	29.0	29.0	19.0	32.0	29.0
Total Split (%)	15.0%		48.8%	48.8%	36.3%	36.3%	36.3%	24%	40%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	7.4	49.5	37.5	37.5	21.5	21.5	21.5			
Actuated g/C Ratio	0.09	0.62	0.47	0.47	0.27	0.27	0.27			
v/c Ratio	0.07	0.28	0.25	0.16	0.32	0.48	0.14			
Control Delay	27.0	1.9	20.8	12.2	24.3	25.8	0.5			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	27.0	1.9	20.8	12.2	24.3	25.8	0.5			
LOS	C	A	C	B	C	C	A			
Approach Delay		2.2	19.7			22.8				
Approach LOS		A	B			C				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 38.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





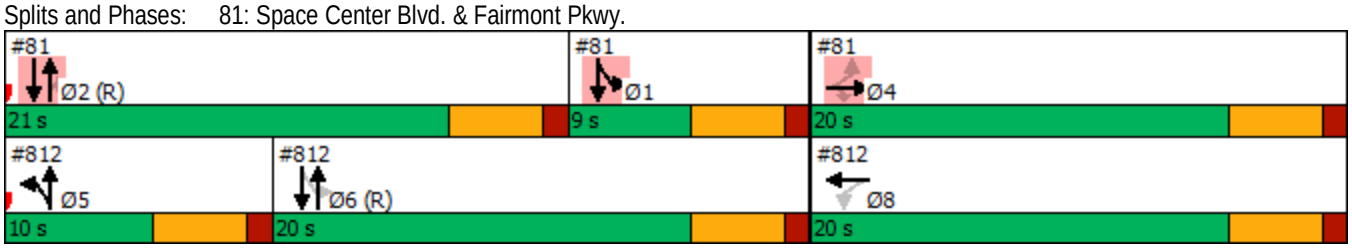
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	829	0	0	832	119	141	427	67	0	0	0
Future Volume (vph)	10	829	0	0	832	119	141	427	67	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	873	0	0	876	125	148	449	71	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	66	0	0	52	0	0	0
Lane Group Flow (vph)	11	873	0	0	876	59	148	449	19	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	7.4	49.5			37.6	37.6	21.5	21.5	21.5			
Effective Green, g (s)	7.4	49.5			37.6	37.6	21.5	21.5	21.5			
Actuated g/C Ratio	0.09	0.62			0.47	0.47	0.27	0.27	0.27			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	160	3086			3477	729	466	932	417			
v/s Ratio Prot	0.01	c0.18			0.12			c0.13				
v/s Ratio Perm						0.04	0.09		0.01			
v/c Ratio	0.07	0.28			0.25	0.08	0.32	0.48	0.05			
Uniform Delay, d1	33.2	7.0			12.7	11.7	23.4	24.6	21.7			
Progression Factor	0.78	0.22			1.54	4.04	1.00	1.00	1.00			
Incremental Delay, d2	0.2	0.0			0.1	0.2	0.4	0.4	0.0			
Delay (s)	26.2	1.6			19.8	47.3	23.8	25.0	21.7			
Level of Service	C	A			B	D	C	C	C			
Approach Delay (s)		1.9			23.2			24.4			0.0	
Approach LOS		A			C			C			A	

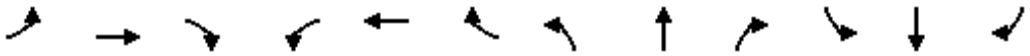
Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations										
Traffic Volume (vph)	107	1588	174	908	447	178	721			
Future Volume (vph)	107	1588	174	908	447	178	721			
Turn Type	Perm	NA	Perm	NA	Perm	Prot	NA			
Protected Phases		4		2		1	1 2	5	6	8
Permitted Phases	4		4		2					
Detector Phase	4	4	4	2	2	1	1 2			
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	21.0	21.0	9.0		10.0	20.0	20.0
Total Split (%)	40.0%	40.0%	40.0%	42.0%	42.0%	18.0%		20%	40%	40%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)	15.5	15.5	15.5	16.5	16.5	4.5	25.5			
Actuated g/C Ratio	0.31	0.31	0.31	0.33	0.33	0.09	0.51			
v/c Ratio	0.23	0.93	0.31	0.63	0.85	0.67	0.46			
Control Delay	14.2	27.4	3.3	16.2	28.2	31.4	7.4			
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	1.1			
Total Delay	14.2	27.4	3.3	16.3	28.2	31.4	8.5			
LOS	B	C	A	B	C	C	A			
Approach Delay		24.4		20.2			13.1			
Approach LOS		C		C			B			

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





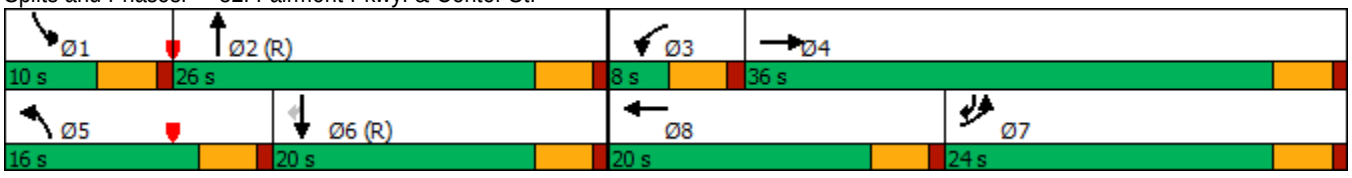
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	1588	174	0	0	0	0	908	447	178	721	0
Future Volume (vph)	107	1588	174	0	0	0	0	908	447	178	721	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5	4.5	4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91	1.00	0.97	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4988	1553	3367	3471	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4988	1553	3367	3471	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	122	1805	198	0	0	0	0	1032	508	202	819	0
RTOR Reduction (vph)	0	0	137	0	0	0	0	0	88	0	0	0
Lane Group Flow (vph)	122	1805	61	0	0	0	0	1032	420	202	819	0
Turn Type	Perm	NA	Perm					NA	Perm	Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4						2			
Actuated Green, G (s)	15.5	15.5	15.5					16.5	16.5	4.5	25.5	
Effective Green, g (s)	15.5	15.5	15.5					16.5	16.5	4.5	25.5	
Actuated g/C Ratio	0.31	0.31	0.31					0.33	0.33	0.09	0.51	
Clearance Time (s)	4.5	4.5	4.5					4.5	4.5	4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0		
Lane Grp Cap (vph)	538	1948	481					1646	512	303	1770	
v/s Ratio Prot		c0.29						0.21		0.06	c0.24	
v/s Ratio Perm	0.07		0.04						c0.27			
v/c Ratio	0.23	0.93	0.13					0.63	0.82	0.67	0.46	
Uniform Delay, d1	12.8	16.7	12.4					14.2	15.4	22.0	7.9	
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.84	0.82	
Incremental Delay, d2	0.2	8.2	0.1					1.8	13.8	5.2	0.2	
Delay (s)	13.0	24.9	12.5					16.0	29.1	23.7	6.6	
Level of Service	B	C	B					B	C	C	A	
Approach Delay (s)		23.0			0.0			20.3			10.0	
Approach LOS		C			A			C			B	

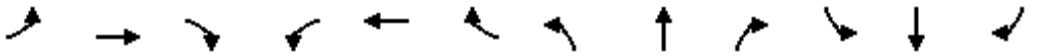
Intersection Summary			
HCM 2000 Control Delay	19.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	766	1258	20	846	225	133	32	41	621
Future Volume (vph)	766	1258	20	846	225	133	32	41	621
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	24.0	36.0	8.0	20.0	16.0	26.0	10.0	20.0	24.0
Total Split (%)	30.0%	45.0%	10.0%	25.0%	20.0%	32.5%	12.5%	25.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	19.5	36.3	3.5	15.5	11.5	25.5	5.5	15.5	35.0
Actuated g/C Ratio	0.24	0.45	0.04	0.19	0.14	0.32	0.07	0.19	0.44
v/c Ratio	1.00	0.72	0.29	0.95	0.97	0.15	0.29	0.12	0.51
Control Delay	64.7	20.0	35.0	41.5	87.7	18.5	41.9	27.8	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.7	20.0	35.0	41.5	87.7	18.5	41.9	27.8	7.0
LOS	E	C	C	D	F	B	D	C	A
Approach Delay		35.2		41.4		59.2		9.8	
Approach LOS		D		D		E		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 36 (45%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 34.5	Intersection LOS: C
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	766	1258	237	20	846	9	225	133	24	32	41	621
Future Volume (veh/h)	766	1258	237	20	846	9	225	133	24	32	41	621
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	824	1353	255	22	910	10	242	143	26	34	44	668
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	829	1786	336	30	993	11	252	931	166	41	357	1201
Arrive On Green	0.32	0.56	0.56	0.01	0.06	0.06	0.14	0.31	0.31	0.02	0.19	0.19
Sat Flow, veh/h	3401	4247	800	1753	5124	56	1753	2966	528	1753	1841	2745
Grp Volume(v), veh/h	824	1067	541	22	595	325	242	83	86	34	44	668
Grp Sat Flow(s),veh/h/ln	1700	1675	1697	1753	1675	1831	1753	1749	1746	1753	1841	1373
Q Serve(g_s), s	19.3	19.5	19.5	1.0	14.1	14.1	11.0	2.7	2.8	1.5	1.6	5.1
Cycle Q Clear(g_c), s	19.3	19.5	19.5	1.0	14.1	14.1	11.0	2.7	2.8	1.5	1.6	5.1
Prop In Lane	1.00		0.47	1.00		0.03	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	829	1409	714	30	649	355	252	549	548	41	357	1201
V/C Ratio(X)	0.99	0.76	0.76	0.74	0.92	0.92	0.96	0.15	0.16	0.82	0.12	0.56
Avail Cap(c_a), veh/h	829	1409	714	77	649	355	252	549	548	121	357	1201
HCM Platoon Ratio	1.33	1.33	1.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	27.0	14.5	14.5	39.6	36.8	36.8	34.0	19.8	19.8	38.9	26.6	5.4
Incr Delay (d2), s/veh	29.7	2.4	4.7	26.9	16.2	25.5	45.6	0.6	0.6	27.0	0.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	6.0	6.5	0.6	7.7	9.3	7.6	1.1	1.2	0.9	0.7	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.7	16.9	19.2	66.5	53.0	62.3	79.6	20.3	20.4	65.9	27.2	6.9
LnGrp LOS	E	B	B	E	D	E	E	C	C	E	C	A
Approach Vol, veh/h		2432			942			411			746	
Approach Delay, s/veh		30.9			56.5			55.3			10.8	
Approach LOS		C			E			E			B	

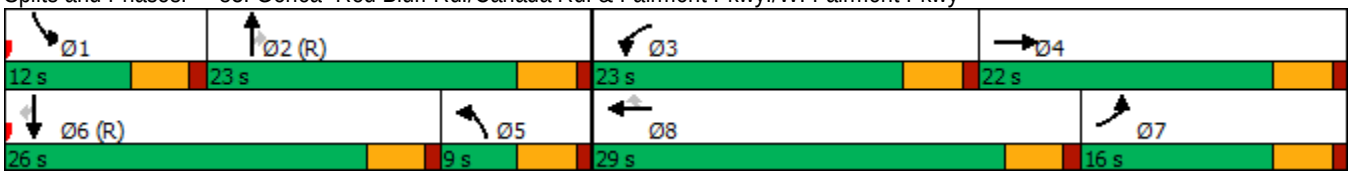
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	29.6	5.9	38.1	16.0	20.0	24.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	21.5	3.5	31.5	11.5	15.5	19.5	15.5
Max Q Clear Time (g_c+I1), s	3.5	4.8	3.0	21.5	13.0	7.1	21.3	16.1
Green Ext Time (p_c), s	0.0	0.7	0.0	7.1	0.0	2.0	0.0	0.0

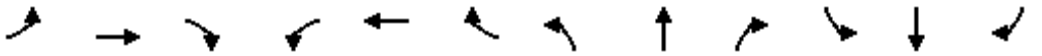
Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	204	841	453	833	184	34	369	603	171	448	180
Future Volume (vph)	204	841	453	833	184	34	369	603	171	448	180
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	16.0	22.0	23.0	29.0	29.0	9.0	23.0	23.0	12.0	26.0	26.0
Total Split (%)	20.0%	27.5%	28.8%	36.3%	36.3%	11.3%	28.8%	28.8%	15.0%	32.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.5	18.7	16.3	22.5	22.5	4.5	18.5	18.5	8.5	26.1	26.1
Actuated g/C Ratio	0.16	0.23	0.20	0.28	0.28	0.06	0.23	0.23	0.11	0.33	0.33
v/c Ratio	0.42	0.83	0.73	0.65	0.35	0.38	0.50	0.86	1.03	0.44	0.31
Control Delay	15.2	18.5	36.2	27.5	5.0	48.0	29.3	20.0	114.0	24.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	18.5	36.2	27.5	5.0	48.0	29.3	20.0	114.0	24.1	4.9
LOS	B	B	D	C	A	D	C	B	F	C	A
Approach Delay		17.9		27.4			24.3			39.0	
Approach LOS		B		C			C			D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 22 (28%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 26.5	Intersection LOS: C
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	841	37	453	833	184	34	369	603	171	448	180
Future Volume (veh/h)	204	841	37	453	833	184	34	369	603	171	448	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	224	924	41	498	915	202	37	405	663	188	492	198
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	483	1056	47	604	1256	390	201	1012	452	164	940	419
Arrive On Green	0.14	0.21	0.21	0.18	0.25	0.25	0.11	0.29	0.29	0.09	0.27	0.27
Sat Flow, veh/h	3401	4933	219	3401	5025	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	224	627	338	498	915	202	37	405	663	188	492	198
Grp Sat Flow(s),veh/h/ln	1700	1675	1801	1700	1675	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	4.8	14.5	14.5	11.3	13.4	6.5	1.5	7.4	23.2	7.5	9.6	8.5
Cycle Q Clear(g_c), s	4.8	14.5	14.5	11.3	13.4	6.5	1.5	7.4	23.2	7.5	9.6	8.5
Prop In Lane	1.00		0.12	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	483	717	386	604	1256	390	201	1012	452	164	940	419
V/C Ratio(X)	0.46	0.87	0.88	0.82	0.73	0.52	0.18	0.40	1.47	1.14	0.52	0.47
Avail Cap(c_a), veh/h	489	733	394	786	1539	478	201	1012	452	164	940	419
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.73	0.73	0.73	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	31.5	30.4	30.4	31.7	27.5	13.6	32.0	22.8	28.4	36.3	24.9	24.5
Incr Delay (d2), s/veh	0.6	9.2	15.8	4.1	1.0	0.8	0.4	1.2	222.6	107.3	1.7	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	6.5	7.8	4.8	5.3	3.1	0.6	3.0	36.1	8.0	4.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	39.6	46.2	35.8	28.5	14.4	32.5	24.0	251.0	143.6	26.6	27.6
LnGrp LOS	C	D	D	D	C	B	C	C	F	F	C	C
Approach Vol, veh/h		1189			1615			1105			878	
Approach Delay, s/veh		40.0			29.0			160.5			51.9	
Approach LOS		D			C			F			D	

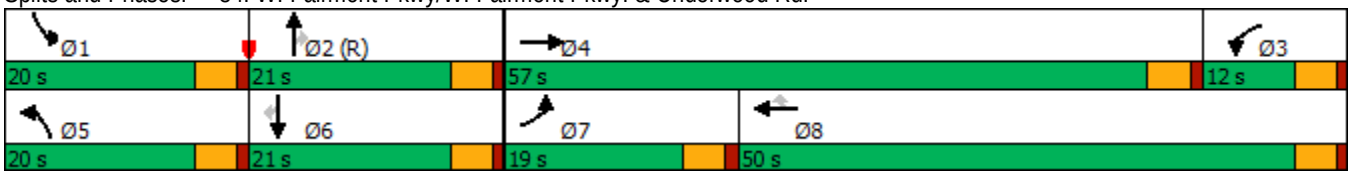
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	27.7	18.7	21.6	13.7	26.0	15.9	24.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	18.5	17.5	4.5	21.5	11.5	24.5
Max Q Clear Time (g_c+I1), s	9.5	25.2	13.3	16.5	3.5	11.6	6.8	15.4
Green Ext Time (p_c), s	0.0	0.0	0.9	0.6	0.0	2.9	0.3	4.6

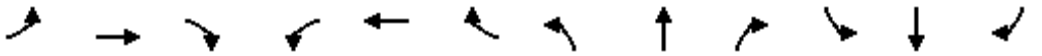
Intersection Summary	
HCM 6th Ctrl Delay	66.3
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	210	1447	110	1300	276	38	29	38	364	112	253
Future Volume (vph)	210	1447	110	1300	276	38	29	38	364	112	253
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	57.0	12.0	50.0	50.0	20.0	21.0	21.0	20.0	21.0	21.0
Total Split (%)	17.3%	51.8%	10.9%	45.5%	45.5%	18.2%	19.1%	19.1%	18.2%	19.1%	19.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	12.4	50.1	9.4	47.1	47.1	16.0	16.5	16.5	16.0	16.5	16.5
Actuated g/C Ratio	0.11	0.46	0.09	0.43	0.43	0.15	0.15	0.15	0.15	0.15	0.15
v/c Ratio	0.60	0.75	0.81	0.66	0.40	0.16	0.12	0.11	0.81	0.23	0.59
Control Delay	53.2	26.7	88.3	27.1	11.4	43.5	41.8	0.7	59.8	42.5	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	26.7	88.3	27.1	11.4	43.5	41.8	0.7	59.8	42.5	10.8
LOS	D	C	F	C	B	D	D	A	E	D	B
Approach Delay		29.9		28.5			27.6			40.1	
Approach LOS		C		C			C			D	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 31.0	Intersection LOS: C
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	1447	108	110	1300	276	38	29	38	364	112	253
Future Volume (veh/h)	210	1447	108	110	1300	276	38	29	38	364	112	253
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	228	1573	117	120	1413	300	41	32	41	396	122	275
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	295	1973	147	120	1984	616	247	394	334	479	748	334
Arrive On Green	0.09	0.41	0.41	0.07	0.39	0.39	0.14	0.21	0.21	0.14	0.21	0.21
Sat Flow, veh/h	3401	4772	355	1753	5025	1560	1753	1841	1560	3401	3497	1560
Grp Volume(v), veh/h	228	1104	586	120	1413	300	41	32	41	396	122	275
Grp Sat Flow(s),veh/h/ln	1700	1675	1777	1753	1675	1560	1753	1841	1560	1700	1749	1560
Q Serve(g_s), s	7.2	31.7	31.8	7.5	26.0	15.9	2.3	1.5	1.9	12.5	3.1	18.5
Cycle Q Clear(g_c), s	7.2	31.7	31.8	7.5	26.0	15.9	2.3	1.5	1.9	12.5	3.1	18.5
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	1385	735	120	1984	616	247	394	334	479	748	334
V/C Ratio(X)	0.77	0.80	0.80	1.00	0.71	0.49	0.17	0.08	0.12	0.83	0.16	0.82
Avail Cap(c_a), veh/h	448	1599	848	120	2079	645	247	394	334	479	748	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.39	0.48	0.48	0.48	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	49.2	28.2	28.2	51.3	28.0	24.9	41.6	34.6	22.9	45.9	35.2	41.3
Incr Delay (d2), s/veh	1.8	1.0	1.9	58.0	0.5	0.3	1.4	0.4	0.8	13.3	0.4	17.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	12.6	13.5	5.2	10.3	5.8	1.1	0.7	1.0	6.1	1.4	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	29.2	30.1	109.3	28.6	25.2	43.0	35.0	23.6	59.2	35.6	59.2
LnGrp LOS	D	C	C	F	C	C	D	C	C	E	D	E
Approach Vol, veh/h		1918			1833			114			793	
Approach Delay, s/veh		32.1			33.3			33.8			55.6	
Approach LOS		C			C			C			E	

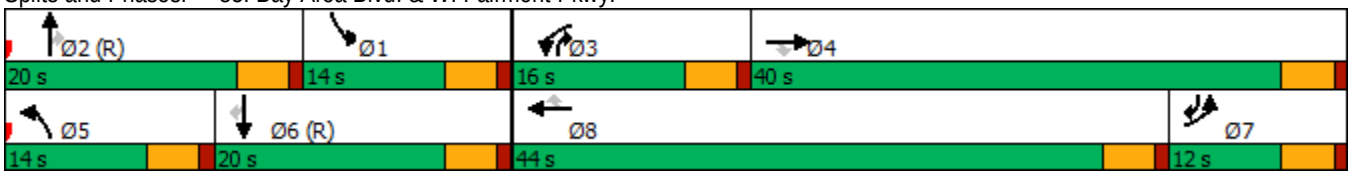
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	28.0	12.0	50.0	20.0	28.0	14.1	47.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	16.5	7.5	52.5	15.5	16.5	14.5	45.5
Max Q Clear Time (g_c+I1), s	14.5	3.9	9.5	33.8	4.3	20.5	9.2	28.0
Green Ext Time (p_c), s	0.2	0.1	0.0	11.7	0.0	0.0	0.3	10.7

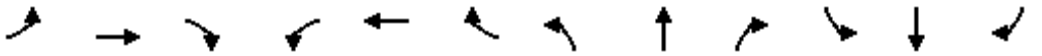
Intersection Summary	
HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	1322	213	215	1326	124	142	245	147	164	267	216
Future Volume (vph)	112	1322	213	215	1326	124	142	245	147	164	267	216
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	12.0	40.0	40.0	16.0	44.0	44.0	14.0	20.0	16.0	14.0	20.0	12.0
Total Split (%)	13.3%	44.4%	44.4%	17.8%	48.9%	48.9%	15.6%	22.2%	17.8%	15.6%	22.2%	13.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	9.8	33.9	33.9	11.5	35.6	35.6	9.6	17.1	28.6	9.5	17.0	26.8
Actuated g/C Ratio	0.11	0.38	0.38	0.13	0.40	0.40	0.11	0.19	0.32	0.11	0.19	0.30
v/c Ratio	0.60	0.71	0.30	0.98	0.68	0.17	0.78	0.26	0.26	0.91	0.41	0.40
Control Delay	54.6	26.1	4.2	97.8	24.1	1.3	67.7	32.6	4.8	88.2	35.0	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	26.1	4.2	97.8	24.1	1.3	67.7	32.6	4.8	88.2	35.0	9.6
LOS	D	C	A	F	C	A	E	C	A	F	D	A
Approach Delay		25.2			31.9			34.3			40.1	
Approach LOS		C			C			C			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	1322	213	215	1326	124	142	245	147	164	267	216
Future Volume (veh/h)	112	1322	213	215	1326	124	142	245	147	164	267	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	113	1335	0	217	1339	125	143	247	148	166	270	218
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	193	1710		224	1800	559	174	865	468	280	813	534
Arrive On Green	0.11	0.34	0.00	0.13	0.36	0.36	0.10	0.17	0.17	0.16	0.23	0.23
Sat Flow, veh/h	1753	5025	1560	1753	5025	1560	1753	5025	1560	1753	3497	1560
Grp Volume(v), veh/h	113	1335	0	217	1339	125	143	247	148	166	270	218
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1560	1753	1675	1560	1753	1749	1560
Q Serve(g_s), s	5.5	21.5	0.0	11.1	21.0	5.0	7.2	3.9	3.7	7.9	5.8	2.2
Cycle Q Clear(g_c), s	5.5	21.5	0.0	11.1	21.0	5.0	7.2	3.9	3.7	7.9	5.8	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	1710		224	1800	559	174	865	468	280	813	534
V/C Ratio(X)	0.59	0.78		0.97	0.74	0.22	0.82	0.29	0.32	0.59	0.33	0.41
Avail Cap(c_a), veh/h	193	1982		224	2205	685	185	865	468	280	813	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	0.69	0.69	0.69	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	38.1	26.7	0.0	39.1	25.3	20.2	39.7	32.4	9.8	35.1	28.7	9.9
Incr Delay (d2), s/veh	3.8	1.5	0.0	41.4	0.8	0.1	23.5	0.8	1.8	3.1	1.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	8.5	0.0	7.3	8.1	1.8	4.1	1.6	1.7	3.6	2.5	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	28.2	0.0	80.5	26.0	20.3	63.2	33.3	11.5	38.2	29.8	12.0
LnGrp LOS	D	C		F	C	C	E	C	B	D	C	B
Approach Vol, veh/h		1448	A		1681			538			654	
Approach Delay, s/veh		29.3			32.6			35.2			26.0	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	20.0	16.0	35.1	13.5	25.4	14.4	36.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	15.5	11.5	35.5	9.5	15.5	7.5	39.5
Max Q Clear Time (g_c+I1), s	9.9	5.9	13.1	23.5	9.2	7.8	7.5	23.0
Green Ext Time (p_c), s	0.0	1.4	0.0	7.2	0.0	1.5	0.0	9.3

Intersection Summary	
HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

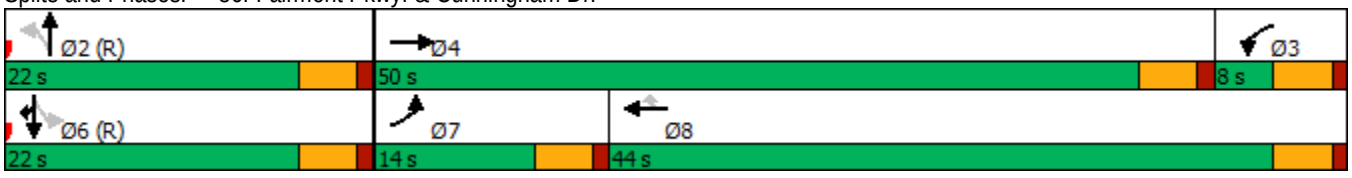
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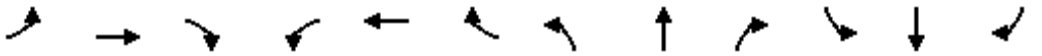
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR	Ø2
Lane Configurations									
Traffic Volume (vph)	81	1194	5	1068	5	5	0	5	
Future Volume (vph)	81	1194	5	1068	5	5	0	5	
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Prot	
Protected Phases	7	4	3	8			6	6	2
Permitted Phases					8	6			
Detector Phase	7	4	3	8	8	6	6	6	
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	50.0	8.0	44.0	44.0	22.0	22.0	22.0	22.0
Total Split (%)	17.5%	62.5%	10.0%	55.0%	55.0%	27.5%	27.5%	27.5%	28%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lead	Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.4	46.1	5.3	36.8	36.8		23.3	23.3	
Actuated g/C Ratio	0.10	0.58	0.07	0.46	0.46		0.29	0.29	
v/c Ratio	0.49	0.66	0.05	0.74	0.01		0.01	0.01	
Control Delay	30.2	16.8	21.6	6.9	0.0		24.6	0.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	30.2	16.8	21.6	6.9	0.0		24.6	0.0	
LOS	C	B	C	A	A		C	A	
Approach Delay		17.6		7.0			12.3		
Approach LOS		B		A			B		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 58.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	1194	0	5	1068	5	0	0	0	5	0	5
Future Volume (veh/h)	81	1194	0	5	1068	5	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	90	1327	0	6	1187	0	0	0	0	6	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	116	1636	0	22	1449		0	646	0	580	0	
Arrive On Green	0.07	0.47	0.00	0.01	0.41	0.00	0.00	0.00	0.00	0.35	0.00	0.00
Sat Flow, veh/h	1753	3589	0	1753	3497	1560	0	1841	0	1395	0	1560
Grp Volume(v), veh/h	90	1327	0	6	1187	0	0	0	0	6	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	1560	0	1841	0	1395	0	1560
Q Serve(g_s), s	4.0	26.0	0.0	0.3	24.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	4.0	26.0	0.0	0.3	24.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	1636	0	22	1449		0	646	0	580	0	
V/C Ratio(X)	0.78	0.81	0.00	0.28	0.82		0.00	0.00	0.00	0.01	0.00	
Avail Cap(c_a), veh/h	208	1989	0	77	1727		0	646	0	580	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.56	0.56	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	36.8	18.2	0.0	39.1	20.8	0.0	0.0	0.0	0.0	16.9	0.0	0.0
Incr Delay (d2), s/veh	10.7	2.2	0.0	3.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	10.0	0.0	0.1	9.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	20.4	0.0	42.9	22.3	0.0	0.0	0.0	0.0	17.0	0.0	0.0
LnGrp LOS	D	C	A	D	C		A	A	A	B	A	
Approach Vol, veh/h		1417			1193	A		0			6	A
Approach Delay, s/veh		22.2			22.4			0.0			17.0	
Approach LOS		C			C						B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.6	5.5	41.9		32.6	9.8	37.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		17.5	3.5	45.5		17.5	9.5	39.5				
Max Q Clear Time (g_c+I1), s		0.0	2.3	28.0		2.2	6.0	26.1				
Green Ext Time (p_c), s		0.0	0.0	9.4		0.0	0.1	7.1				

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

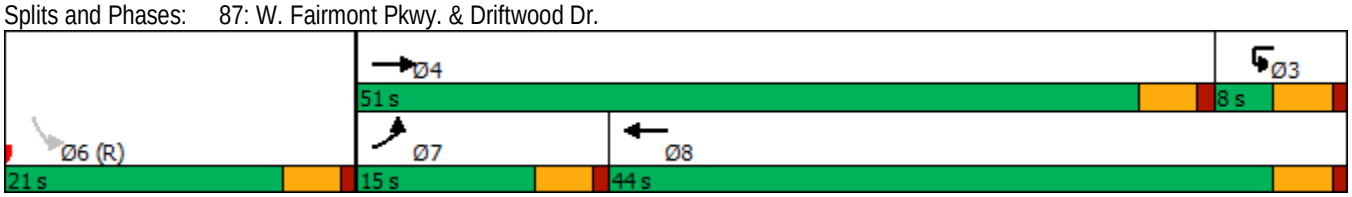
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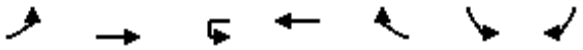
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	100	1200	1218	132	
Future Volume (vph)	100	1200	1218	132	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	15.0	51.0	44.0	21.0	8.0
Total Split (%)	18.8%	63.8%	55.0%	26.3%	10%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lead	Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	9.1	49.3	37.9	21.7	
Actuated g/C Ratio	0.11	0.62	0.47	0.27	
v/c Ratio	0.52	0.58	0.81	0.33	
Control Delay	42.8	10.0	22.4	12.2	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	42.8	10.0	22.4	12.2	
LOS	D	B	C	B	
Approach Delay		12.5	22.4	12.2	
Approach LOS		B	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 40 (50%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 66.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





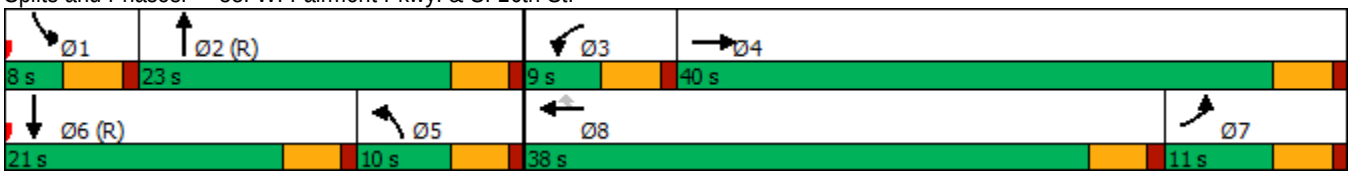
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	100	1200	0	1218	65	132	189
Future Volume (vph)	100	1200	0	1218	65	132	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.91	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3445		3166	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3445		3166	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	103	1237	0	1256	67	136	195
RTOR Reduction (vph)	0	0	0	5	0	145	0
Lane Group Flow (vph)	103	1237	0	1318	0	186	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	7.9	50.3		37.9		20.7	
Effective Green, g (s)	7.9	50.3		37.9		20.7	
Actuated g/C Ratio	0.10	0.63		0.47		0.26	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	171	2182		1632		819	
v/s Ratio Prot	0.06	c0.36		c0.38			
v/s Ratio Perm						c0.06	
v/c Ratio	0.60	0.57		0.81		0.23	
Uniform Delay, d1	34.5	8.6		17.9		23.4	
Progression Factor	1.00	1.00		1.00		1.00	
Incremental Delay, d2	5.9	0.3		3.0		0.6	
Delay (s)	40.4	8.9		21.0		24.0	
Level of Service	D	A		C		C	
Approach Delay (s)		11.3		21.0		24.0	
Approach LOS		B		C		C	

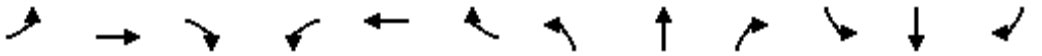
Intersection Summary			
HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	95	1046	61	1219	99	74	19	20	19
Future Volume (vph)	95	1046	61	1219	99	74	19	20	19
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	40.0	9.0	38.0	38.0	10.0	23.0	8.0	21.0
Total Split (%)	13.8%	50.0%	11.3%	47.5%	47.5%	12.5%	28.8%	10.0%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.2	32.8	4.5	30.5	30.5	5.5	27.8	4.3	23.0
Actuated g/C Ratio	0.09	0.41	0.06	0.38	0.38	0.07	0.35	0.05	0.29
v/c Ratio	0.63	0.60	0.66	0.67	0.14	0.65	0.05	0.23	0.05
Control Delay	56.0	19.0	69.9	22.1	0.4	62.8	12.7	43.0	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	19.0	69.9	22.1	0.4	62.8	12.7	43.0	14.3
LOS	E	B	E	C	A	E	B	D	B
Approach Delay		21.7		22.7			42.4		22.6
Approach LOS		C		C			D		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1046	132	61	1219	99	74	19	32	20	19	30
Future Volume (veh/h)	95	1046	132	61	1219	99	74	19	32	20	19	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	99	1090	138	64	1270	103	77	20	33	21	20	31
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	126	1667	211	81	1728	536	269	600	535	29	361	322
Arrive On Green	0.07	0.37	0.37	0.05	0.34	0.34	0.15	0.34	0.34	0.02	0.21	0.21
Sat Flow, veh/h	1753	4517	571	1753	5025	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	99	808	420	64	1270	103	77	20	33	21	20	31
Grp Sat Flow(s),veh/h/ln	1753	1675	1738	1753	1675	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	4.4	16.0	16.1	2.9	17.8	3.0	3.1	0.6	1.1	1.0	0.7	1.3
Cycle Q Clear(g_c), s	4.4	16.0	16.1	2.9	17.8	3.0	3.1	0.6	1.1	1.0	0.7	1.3
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	1237	642	81	1728	536	269	600	535	29	361	322
V/C Ratio(X)	0.79	0.65	0.65	0.79	0.73	0.19	0.29	0.03	0.06	0.73	0.06	0.10
Avail Cap(c_a), veh/h	142	1487	771	99	2104	653	269	600	535	77	361	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	21.0	21.0	37.8	23.0	11.9	30.0	17.5	17.6	39.2	25.5	25.7
Incr Delay (d2), s/veh	15.8	0.5	1.0	28.4	1.1	0.2	0.6	0.1	0.2	30.0	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.0	6.3	1.9	6.8	1.3	1.3	0.3	0.4	0.6	0.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	21.5	22.0	66.1	24.1	12.1	30.6	17.6	17.9	69.2	25.8	26.3
LnGrp LOS	D	C	C	E	C	B	C	B	B	E	C	C
Approach Vol, veh/h		1327			1437			130			72	
Approach Delay, s/veh		23.9			25.1			25.3			38.7	
Approach LOS		C			C			C			D	

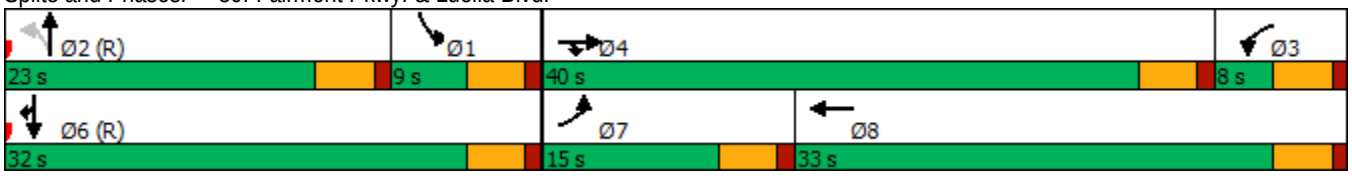
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	31.9	8.2	34.0	16.8	21.0	10.2	32.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	18.5	4.5	35.5	5.5	16.5	6.5	33.5
Max Q Clear Time (g_c+I1), s	3.0	3.1	4.9	18.1	5.1	3.3	6.4	19.8
Green Ext Time (p_c), s	0.0	0.2	0.0	8.1	0.0	0.1	0.0	7.8

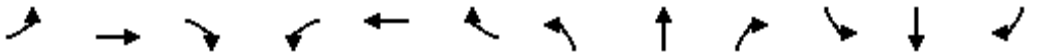
Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBR
Lane Configurations									
Traffic Volume (vph)	118	867	4	5	819	1	0	46	104
Future Volume (vph)	118	867	4	5	819	1	0	46	104
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	Prot
Protected Phases	7	4	4	3	8		2	1	6
Permitted Phases						2			
Detector Phase	7	4	4	3	8	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	15.0	40.0	40.0	8.0	33.0	23.0	23.0	9.0	32.0
Total Split (%)	18.8%	50.0%	50.0%	10.0%	41.3%	28.8%	28.8%	11.3%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.5	37.4	37.4	5.2	27.2		26.6	4.5	32.0
Actuated g/C Ratio	0.12	0.47	0.47	0.06	0.34		0.33	0.06	0.40
v/c Ratio	0.62	0.58	0.00	0.04	0.83		0.00	0.52	0.14
Control Delay	28.7	13.1	0.0	17.6	19.5		0.0	47.9	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	28.7	13.1	0.0	17.6	19.5		0.0	47.9	1.2
LOS	C	B	A	B	B		A	D	A
Approach Delay		14.9			19.5				
Approach LOS		B			B				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	867	4	5	819	79	1	0	1	46	0	104
Future Volume (veh/h)	118	867	4	5	819	79	1	0	1	46	0	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	128	942	4	5	890	86	1	0	1	50	0	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	159	1108	494	167	1036	100	211	21	165	231	772	654
Arrive On Green	0.18	0.63	0.63	0.10	0.32	0.32	0.23	0.00	0.23	0.13	0.00	0.42
Sat Flow, veh/h	1753	3497	1560	1753	3222	311	622	91	713	1753	1841	1560
Grp Volume(v), veh/h	128	942	4	5	483	493	2	0	0	50	0	113
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1785	1426	0	0	1753	1841	1560
Q Serve(g_s), s	5.6	17.1	0.1	0.2	20.7	20.7	0.0	0.0	0.0	2.0	0.0	3.6
Cycle Q Clear(g_c), s	5.6	17.1	0.1	0.2	20.7	20.7	0.1	0.0	0.0	2.0	0.0	3.6
Prop In Lane	1.00		1.00	1.00		0.17	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	159	1108	494	167	562	574	397	0	0	231	772	654
V/C Ratio(X)	0.81	0.85	0.01	0.03	0.86	0.86	0.01	0.00	0.00	0.22	0.00	0.17
Avail Cap(c_a), veh/h	230	1552	692	167	623	636	397	0	0	231	772	654
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.78	0.78	0.78	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.1	13.2	10.0	32.8	25.4	25.4	23.7	0.0	0.0	31.0	0.0	14.5
Incr Delay (d2), s/veh	9.2	2.4	0.0	0.1	8.7	8.5	0.0	0.0	0.0	0.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.0	0.0	0.1	9.5	9.7	0.0	0.0	0.0	0.9	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	15.5	10.0	32.9	34.1	34.0	23.7	0.0	0.0	31.5	0.0	15.1
LnGrp LOS	D	B	B	C	C	C	C	A	A	C	A	B
Approach Vol, veh/h		1074			981			2			163	
Approach Delay, s/veh		18.6			34.0			23.7			20.1	
Approach LOS		B			C			C			C	

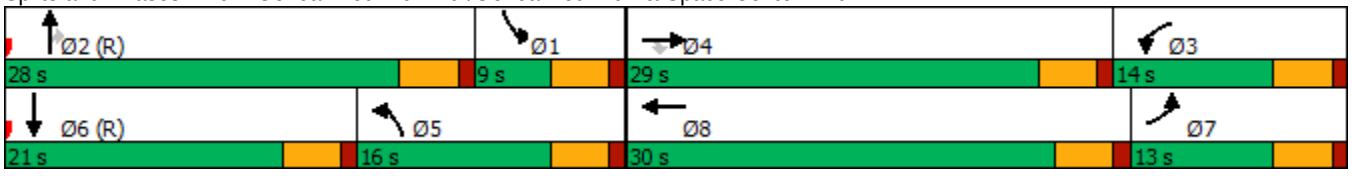
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	15.0	23.0	12.1	29.8		38.0	11.7	30.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	4.5	18.5	3.5	35.5		27.5	10.5	28.5				
Max Q Clear Time (g_c+I1), s	4.0	2.1	2.2	19.1		5.6	7.6	22.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	6.2		0.3	0.1	3.0				

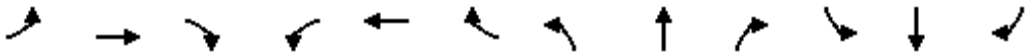
Intersection Summary												
HCM 6th Ctrl Delay			25.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	86	1022	362	255	802	314	786	356	89	580
Future Volume (vph)	86	1022	362	255	802	314	786	356	89	580
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	13.0	29.0	29.0	14.0	30.0	16.0	28.0	28.0	9.0	21.0
Total Split (%)	16.3%	36.3%	36.3%	17.5%	37.5%	20.0%	35.0%	35.0%	11.3%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.5	24.1	24.1	9.3	25.9	11.5	24.1	24.1	4.5	17.1
Actuated g/C Ratio	0.12	0.30	0.30	0.12	0.32	0.14	0.30	0.30	0.06	0.21
v/c Ratio	0.45	0.73	0.60	0.70	0.57	0.70	0.56	0.59	0.99	0.76
Control Delay	42.6	30.6	14.9	44.5	24.3	41.3	25.4	11.7	123.9	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	30.6	14.9	44.5	24.3	41.3	25.4	11.7	123.9	23.4
LOS	D	C	B	D	C	D	C	B	F	C
Approach Delay		27.4			29.0		25.5			33.8
Approach LOS		C			C		C			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 69 (86%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 28.3	Intersection LOS: C
Intersection Capacity Utilization 71.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	1022	362	255	802	47	314	786	356	89	580	196
Future Volume (veh/h)	86	1022	362	255	802	47	314	786	356	89	580	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	92	1099	389	274	862	51	338	845	383	96	624	211
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	272	1475	458	356	1180	70	579	1476	458	145	770	255
Arrive On Green	0.16	0.29	0.29	0.10	0.24	0.24	0.17	0.29	0.29	0.17	0.41	0.41
Sat Flow, veh/h	1753	5025	1560	3401	4853	286	3401	5025	1560	1753	3732	1237
Grp Volume(v), veh/h	92	1099	389	274	594	319	338	845	383	96	559	276
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1700	1675	1789	1700	1675	1560	1753	1675	1618
Q Serve(g_s), s	3.7	15.8	18.8	6.3	13.1	13.1	7.3	11.4	18.4	4.1	11.8	12.2
Cycle Q Clear(g_c), s	3.7	15.8	18.8	6.3	13.1	13.1	7.3	11.4	18.4	4.1	11.8	12.2
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.76
Lane Grp Cap(c), veh/h	272	1475	458	356	815	435	579	1476	458	145	691	334
V/C Ratio(X)	0.34	0.74	0.85	0.77	0.73	0.73	0.58	0.57	0.84	0.66	0.81	0.83
Avail Cap(c_a), veh/h	272	1539	478	404	1068	570	579	1476	458	145	691	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	30.1	25.5	26.6	34.9	27.8	27.9	30.6	24.0	26.4	32.3	22.1	22.2
Incr Delay (d2), s/veh	0.7	1.9	13.2	7.5	1.7	3.3	1.5	1.6	16.4	9.9	9.3	19.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.3	8.3	2.9	5.2	5.8	3.0	4.6	8.6	2.0	4.4	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	27.5	39.7	42.4	29.6	31.2	32.1	25.6	42.8	42.2	31.4	41.5
LnGrp LOS	C	C	D	D	C	C	C	C	D	D	C	D
Approach Vol, veh/h		1580			1187			1566			931	
Approach Delay, s/veh		30.7			33.0			31.2			35.5	
Approach LOS		C			C			C			D	

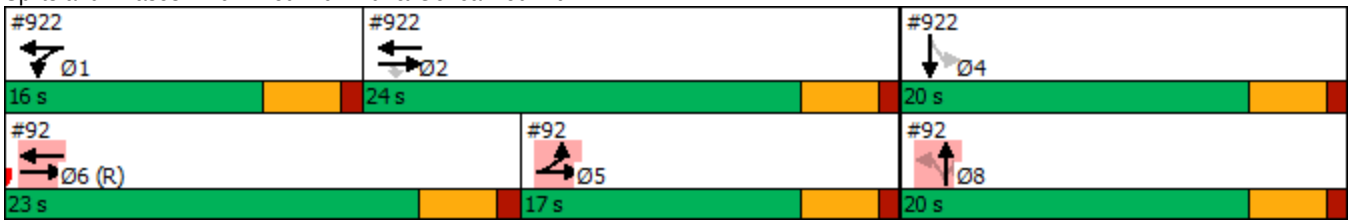
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	28.0	12.9	28.0	18.1	21.0	16.9	24.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	23.5	9.5	24.5	11.5	16.5	8.5	25.5
Max Q Clear Time (g_c+I1), s	6.1	20.4	8.3	20.8	9.3	14.2	5.7	15.1
Green Ext Time (p_c), s	0.0	2.0	0.1	2.7	0.3	1.2	0.0	4.3

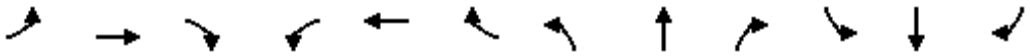
Intersection Summary	
HCM 6th Ctrl Delay	32.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBT	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	168	946	768	286	541	232	0			
Future Volume (vph)	168	946	768	286	541	232	0			
Turn Type	Prot	NA	NA	Perm	NA	Perm				
Protected Phases	5	5 6	6		8			1	2	4
Permitted Phases				8		8				
Detector Phase	5	5 6	6	8	8	8				
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0		3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0		8.0	20.0	20.0
Total Split (s)	17.0		23.0	20.0	20.0	20.0		16.0	24.0	20.0
Total Split (%)	28.3%		38.3%	33.3%	33.3%	33.3%		27%	40%	33%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5				
Lead/Lag	Lag		Lead					Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	None		C-Max	None	None	None		None	None	None
Act Effct Green (s)	12.5	36.5	19.5	14.5	14.5	14.5	0.0			
Actuated g/C Ratio	0.21	0.61	0.32	0.24	0.24	0.24	0.00			
v/c Ratio	0.50	0.33	0.51	0.37	0.48	0.47	0.01			
Control Delay	14.6	3.5	18.0	20.1	20.7	9.0	0.0			
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0			
Total Delay	14.6	3.6	18.0	20.1	20.7	9.0	0.0			
LOS	B	A	B	C	C	A	A			
Approach Delay		5.3	18.0		18.0					
Approach LOS		A	B		B					

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 68.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





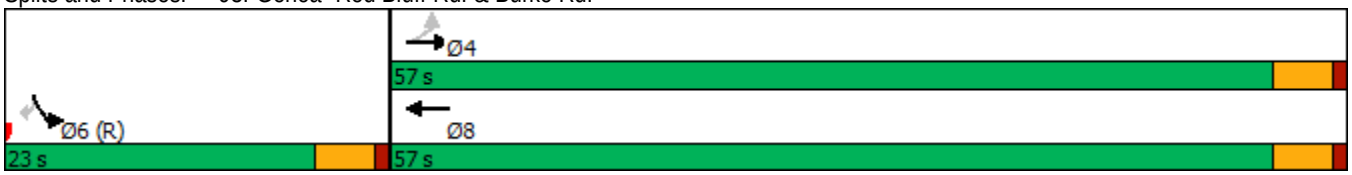
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	168	946	0	0	768	10	286	541	232	0	0	3
Future Volume (vph)	168	946	0	0	768	10	286	541	232	0	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5	4.5		4.0	
Lane Util. Factor	1.00	0.91			0.91		0.97	0.91	1.00		1.00	
Frt	1.00	1.00			1.00		1.00	1.00	0.85		0.85	
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1736	4988			4978		3367	4988	1553		0	
Flt Permitted	0.95	1.00			1.00		0.95	1.00	1.00		1.00	
Satd. Flow (perm)	1736	4988			4978		3367	4988	1553		0	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	179	1006	0	0	817	11	304	576	247	0	0	3
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	145	0	3	0
Lane Group Flow (vph)	179	1006	0	0	826	0	304	576	102	0	0	0
Turn Type	Prot	NA			NA		Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases							8		8			
Actuated Green, G (s)	12.5	36.5			19.5		14.5	14.5	14.5		0.0	
Effective Green, g (s)	12.5	36.5			19.5		14.5	14.5	14.5		0.0	
Actuated g/C Ratio	0.21	0.61			0.32		0.24	0.24	0.24		0.00	
Clearance Time (s)	4.5				4.5		4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)	361	3034			1617		813	1205	375		0	
v/s Ratio Prot	c0.10	0.20			c0.17			c0.12				
v/s Ratio Perm							0.09		0.07			
v/c Ratio	0.50	0.33			0.51		0.37	0.48	0.27		0.00	
Uniform Delay, d1	21.0	5.8			16.4		19.0	19.5	18.5		30.0	
Progression Factor	0.47	0.54			1.00		1.00	1.00	1.00		1.00	
Incremental Delay, d2	1.0	0.1			1.2		0.3	0.3	0.4		0.0	
Delay (s)	10.8	3.1			17.5		19.3	19.8	18.9		30.0	
Level of Service	B	A			B		B	B	B		C	
Approach Delay (s)		4.3			17.5			19.5			30.0	
Approach LOS		A			B			B			C	

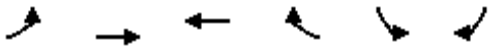
Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	381	592	474	385	232
Future Volume (vph)	381	592	474	385	232
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	57.0	57.0	57.0	23.0	23.0
Total Split (%)	71.3%	71.3%	71.3%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	52.5	52.5	52.5	18.5	18.5
Actuated g/C Ratio	0.66	0.66	0.66	0.23	0.23
v/c Ratio	1.19	0.29	0.39	1.05	0.46
Control Delay	124.4	4.2	1.1	92.8	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	124.4	4.2	1.1	92.8	6.6
LOS	F	A	A	F	A
Approach Delay		51.3	1.1	60.4	
Approach LOS		D	A	E	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 20 (25%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 36.9	Intersection LOS: D
Intersection Capacity Utilization 80.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	381	592	474	321	385	232
Future Volume (veh/h)	381	592	474	321	385	232
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	419	651	521	353	423	255
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	424	2295	1310	886	405	361
Arrive On Green	0.66	0.66	0.66	0.66	0.23	0.23
Sat Flow, veh/h	624	3589	2088	1351	1753	1560
Grp Volume(v), veh/h	419	651	456	418	423	255
Grp Sat Flow(s),veh/h/ln	624	1749	1749	1598	1753	1560
Q Serve(g_s), s	42.8	6.3	9.7	9.7	18.5	12.0
Cycle Q Clear(g_c), s	52.5	6.3	9.7	9.7	18.5	12.0
Prop In Lane	1.00			0.85	1.00	1.00
Lane Grp Cap(c), veh/h	424	2295	1148	1048	405	361
V/C Ratio(X)	0.99	0.28	0.40	0.40	1.04	0.71
Avail Cap(c_a), veh/h	424	2295	1148	1048	405	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.70	0.70
Uniform Delay (d), s/veh	23.0	5.8	6.4	6.4	30.7	28.3
Incr Delay (d2), s/veh	40.7	0.1	0.2	0.2	49.2	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	1.9	3.0	2.8	13.0	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.7	5.9	6.6	6.6	80.0	36.2
LnGrp LOS	E	A	A	A	F	D
Approach Vol, veh/h		1070	874		678	
Approach Delay, s/veh		28.5	6.6		63.5	
Approach LOS		C	A		E	

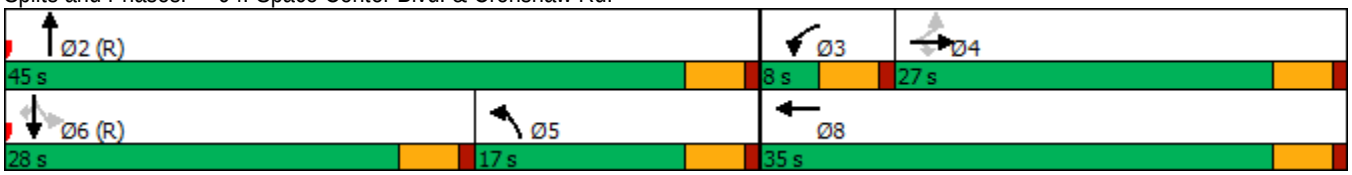
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			57.0		23.0	57.0
Change Period (Y+Rc), s			4.5		4.5	4.5
Max Green Setting (Gmax), s			52.5		18.5	52.5
Max Q Clear Time (g_c+I1), s			54.5		20.5	11.7
Green Ext Time (p_c), s			0.0		0.0	7.1

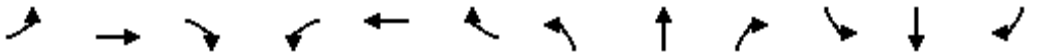
Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	199	108	141	19	103	143	637	102	526	241
Future Volume (vph)	199	108	141	19	103	143	637	102	526	241
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA	Perm
Protected Phases		4		3	8	5	2		6	
Permitted Phases	4		4					6		6
Detector Phase	4	4	4	3	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	27.0	27.0	27.0	8.0	35.0	17.0	45.0	28.0	28.0	28.0
Total Split (%)	33.8%	33.8%	33.8%	10.0%	43.8%	21.3%	56.3%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead		Lag		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	15.0	3.5	18.2	12.5	52.8	35.8	35.8	35.8
Actuated g/C Ratio	0.19	0.19	0.19	0.04	0.23	0.16	0.66	0.45	0.45	0.45
v/c Ratio	0.59	0.35	0.38	0.28	0.34	0.59	0.33	0.44	0.38	0.32
Control Delay	35.1	29.6	7.1	46.6	10.3	20.6	1.3	26.8	17.7	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	29.6	7.1	46.6	10.3	20.6	1.3	26.8	17.7	4.0
LOS	D	C	A	D	B	C	A	C	B	A
Approach Delay		25.0			12.7		4.7		15.0	
Approach LOS		C			B		A		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 57.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	108	141	19	103	156	143	637	29	102	526	241
Future Volume (veh/h)	199	108	141	19	103	156	143	637	29	102	526	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	224	121	158	21	116	175	161	716	33	115	591	271
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	492	318	270	29	429	383	512	2186	101	296	1027	458
Arrive On Green	0.17	0.17	0.17	0.02	0.25	0.25	0.58	1.00	1.00	0.29	0.29	0.29
Sat Flow, veh/h	2078	1841	1560	1753	1749	1560	1753	3404	157	702	3497	1560
Grp Volume(v), veh/h	224	121	158	21	116	175	161	368	381	115	591	271
Grp Sat Flow(s),veh/h/ln	1039	1841	1560	1753	1749	1560	1753	1749	1812	702	1749	1560
Q Serve(g_s), s	8.2	4.7	3.8	1.0	4.3	7.6	3.7	0.0	0.0	11.1	11.5	11.9
Cycle Q Clear(g_c), s	10.0	4.7	3.8	1.0	4.3	7.6	3.7	0.0	0.0	11.1	11.5	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	492	318	270	29	429	383	512	1123	1164	296	1027	458
V/C Ratio(X)	0.46	0.38	0.59	0.73	0.27	0.46	0.31	0.33	0.33	0.39	0.58	0.59
Avail Cap(c_a), veh/h	717	518	439	77	667	595	512	1123	1164	296	1027	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	29.3	7.9	39.2	24.4	25.6	12.6	0.0	0.0	23.9	24.0	24.1
Incr Delay (d2), s/veh	0.7	0.7	2.0	30.0	0.3	0.9	0.3	0.6	0.6	3.8	2.3	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.1	2.7	0.6	1.8	2.8	1.3	0.2	0.2	2.1	4.9	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	30.0	10.0	69.2	24.7	26.5	12.8	0.6	0.6	27.7	26.4	29.7
LnGrp LOS	C	C	A	E	C	C	B	A	A	C	C	C
Approach Vol, veh/h		503			312			910			977	
Approach Delay, s/veh		25.1			28.7			2.8			27.4	
Approach LOS		C			C			A			C	

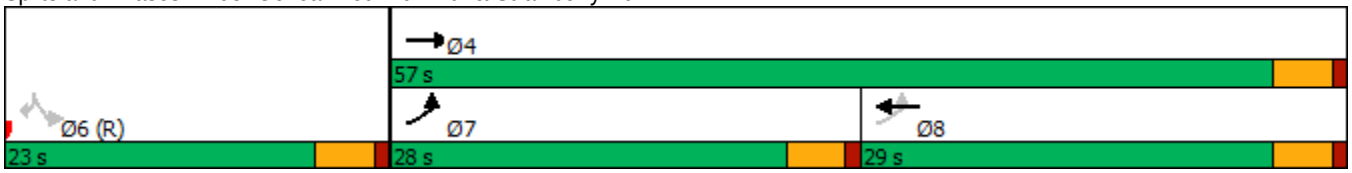
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		55.9	5.8	18.3	27.9	28.0		24.1				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		40.5	3.5	22.5	12.5	23.5		30.5				
Max Q Clear Time (g_c+I1), s		2.0	3.0	12.0	5.7	13.9		9.6				
Green Ext Time (p_c), s		5.4	0.0	1.8	0.2	4.1		1.7				

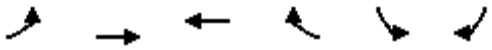
Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	496	1013	724	225	333
Future Volume (vph)	496	1013	724	225	333
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	28.0	57.0	29.0	23.0	23.0
Total Split (%)	35.0%	71.3%	36.3%	28.8%	28.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	46.6	51.1	24.7	19.9	19.9
Actuated g/C Ratio	0.58	0.64	0.31	0.25	0.25
v/c Ratio	0.90	0.47	0.90	0.54	0.53
Control Delay	36.2	4.9	32.1	32.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	4.9	32.1	32.2	6.6
LOS	D	A	C	C	A
Approach Delay		15.2	32.1	16.9	
Approach LOS		B	C	B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 65 (81%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.





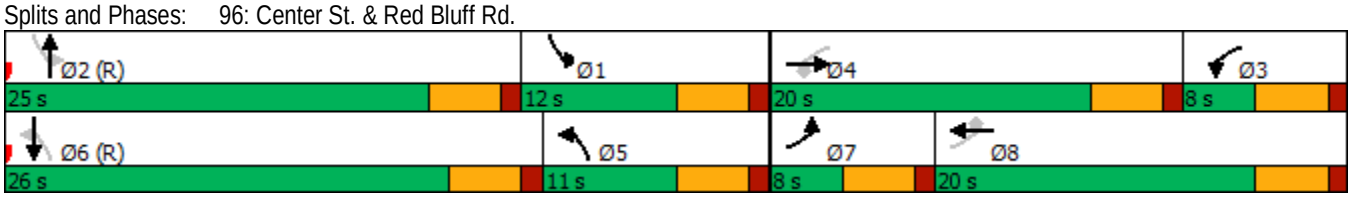
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	496	1013	724	208	225	333
Future Volume (vph)	496	1013	724	208	225	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.97		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	3471	3355		1736	1553
Flt Permitted	0.16	1.00	1.00		0.95	1.00
Satd. Flow (perm)	296	3471	3355		1736	1553
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	511	1044	746	214	232	343
RTOR Reduction (vph)	0	0	33	0	0	258
Lane Group Flow (vph)	511	1044	927	0	232	85
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	46.6	51.1	24.7		19.9	19.9
Effective Green, g (s)	46.6	51.1	24.7		19.9	19.9
Actuated g/C Ratio	0.58	0.64	0.31		0.25	0.25
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	566	2217	1035		431	386
v/s Ratio Prot	c0.25	0.30	0.28			
v/s Ratio Perm	c0.28				c0.13	0.05
v/c Ratio	0.90	0.47	0.90		0.54	0.22
Uniform Delay, d1	19.4	7.5	26.4		26.1	23.9
Progression Factor	0.81	0.56	0.77		1.00	1.00
Incremental Delay, d2	17.0	0.2	9.8		4.8	1.3
Delay (s)	32.8	4.4	30.2		30.8	25.2
Level of Service	C	A	C		C	C
Approach Delay (s)		13.7	30.2		27.5	
Approach LOS		B	C		C	

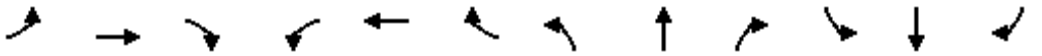
Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	57	532	150	4	438	310	166	914	241	725
Future Volume (vph)	57	532	150	4	438	310	166	914	241	725
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	8		4	4		8	6		2	
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	11.0	25.0	12.0	26.0
Total Split (%)	12.3%	30.8%	30.8%	12.3%	30.8%	30.8%	16.9%	38.5%	18.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.9	18.0	18.0	20.5	14.8	14.8	31.9	24.4	31.9	25.4
Actuated g/C Ratio	0.26	0.28	0.28	0.32	0.23	0.23	0.49	0.38	0.49	0.39
v/c Ratio	0.28	0.62	0.30	0.02	0.62	0.59	0.59	0.79	0.82	0.60
Control Delay	17.8	23.7	5.0	14.0	26.4	8.7	25.6	26.3	42.2	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	23.7	5.0	14.0	26.4	8.7	25.6	26.3	42.2	19.2
LOS	B	C	A	B	C	A	C	C	D	B
Approach Delay		19.4			19.0			26.2		25.0
Approach LOS		B			B			C		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 22.9	Intersection LOS: C
Intersection Capacity Utilization 78.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	532	150	4	438	310	166	914	8	241	725	0
Future Volume (veh/h)	57	532	150	4	438	310	166	914	8	241	725	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	64	598	169	4	492	348	187	1027	9	271	815	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	223	746	333	184	679	303	470	1120	10	433	1157	0
Arrive On Green	0.04	0.21	0.21	0.02	0.19	0.19	0.16	0.32	0.32	0.17	0.33	0.00
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3553	31	1753	3589	0
Grp Volume(v), veh/h	64	598	169	4	492	348	187	506	530	271	815	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1835	1753	1749	0
Q Serve(g_s), s	1.9	10.5	6.2	0.0	8.6	7.7	0.0	18.1	18.1	4.1	13.2	0.0
Cycle Q Clear(g_c), s	1.9	10.5	6.2	0.0	8.6	7.7	0.0	18.1	18.1	4.1	13.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	223	746	333	184	679	303	470	552	579	433	1157	0
V/C Ratio(X)	0.29	0.80	0.51	0.02	0.72	1.15	0.40	0.92	0.92	0.63	0.70	0.00
Avail Cap(c_a), veh/h	245	834	372	240	834	372	470	552	579	433	1157	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.39	0.39	0.39	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.4	24.3	22.6	28.1	24.6	9.9	21.2	21.4	21.4	22.9	19.0	0.0
Incr Delay (d2), s/veh	0.7	5.1	1.2	0.0	2.4	96.0	0.2	10.9	10.4	2.8	3.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.6	2.3	0.1	3.6	8.1	2.3	8.4	8.7	3.8	5.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	29.4	23.8	28.1	27.0	105.8	21.4	32.3	31.9	25.7	22.6	0.0
LnGrp LOS	C	C	C	C	C	F	C	C	C	C	C	A
Approach Vol, veh/h		831			844			1223			1086	
Approach Delay, s/veh		27.6			59.5			30.4			23.4	
Approach LOS		C			E			C			C	

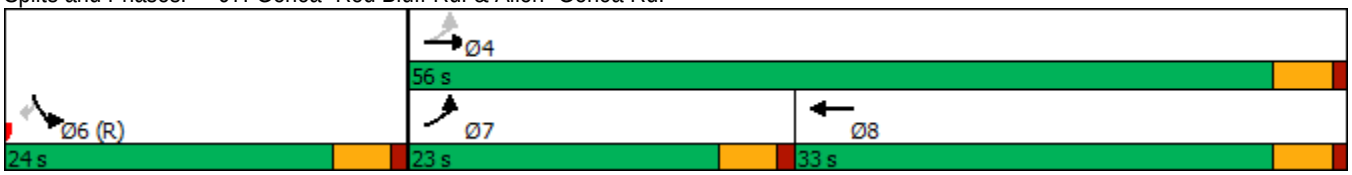
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	25.0	5.9	18.4	14.7	26.0	7.2	17.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	20.5	3.5	15.5	6.5	21.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	6.1	20.1	2.0	12.5	2.0	15.2	3.9	10.6
Green Ext Time (p_c), s	0.1	0.3	0.0	1.3	0.2	2.9	0.0	2.0

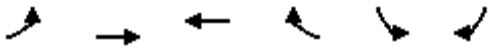
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	265	988	747	133	292
Future Volume (vph)	265	988	747	133	292
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	56.0	33.0	24.0	24.0
Total Split (%)	28.8%	70.0%	41.3%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	46.9	46.9	26.8	24.1	24.1
Actuated g/C Ratio	0.59	0.59	0.34	0.30	0.30
v/c Ratio	0.67	0.53	0.80	0.28	0.46
Control Delay	21.8	10.6	12.1	13.7	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	10.6	12.1	13.7	3.9
LOS	C	B	B	B	A
Approach Delay		13.0	12.1	7.0	
Approach LOS		B	B	A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 29 (36%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 61.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	265	988	747	105	133	292
Future Volume (veh/h)	265	988	747	105	133	292
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	288	1074	812	114	145	317
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	366	1761	960	135	673	599
Arrive On Green	0.14	0.50	0.31	0.31	0.38	0.38
Sat Flow, veh/h	1753	3589	3171	432	1753	1560
Grp Volume(v), veh/h	288	1074	461	465	145	317
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1763	1753	1560
Q Serve(g_s), s	8.3	17.6	19.7	19.7	4.4	12.6
Cycle Q Clear(g_c), s	8.3	17.6	19.7	19.7	4.4	12.6
Prop In Lane	1.00			0.25	1.00	1.00
Lane Grp Cap(c), veh/h	366	1761	545	550	673	599
V/C Ratio(X)	0.79	0.61	0.85	0.85	0.22	0.53
Avail Cap(c_a), veh/h	534	2251	623	628	673	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	14.2	25.7	25.7	16.6	19.1
Incr Delay (d2), s/veh	4.8	0.3	9.4	9.4	0.7	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	6.4	9.2	9.3	1.8	11.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	14.6	35.1	35.1	17.3	22.4
LnGrp LOS	C	B	D	D	B	C
Approach Vol, veh/h		1362	926		462	
Approach Delay, s/veh		16.2	35.1		20.8	
Approach LOS		B	D		C	

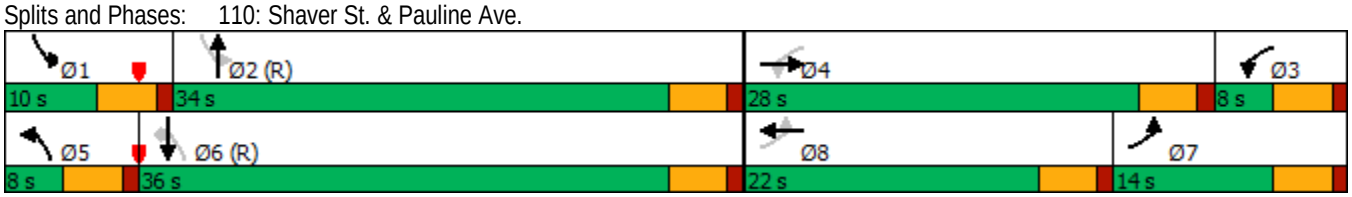
Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		44.8		35.2	15.3	29.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		51.5		19.5	18.5	28.5
Max Q Clear Time (g_c+I1), s		19.6		14.6	10.3	21.7
Green Ext Time (p_c), s		9.6		0.8	0.6	3.2

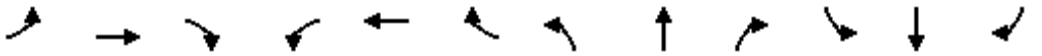
Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	133	103	72	133	44	667	57	621	94
Future Volume (vph)	133	103	72	133	44	667	57	621	94
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	28.0	8.0	22.0	8.0	34.0	10.0	36.0	36.0
Total Split (%)	17.5%	35.0%	10.0%	27.5%	10.0%	42.5%	12.5%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.7	13.8	21.6	14.2	43.1	36.9	42.2	39.7	39.7
Actuated g/C Ratio	0.26	0.17	0.27	0.18	0.54	0.46	0.53	0.50	0.50
v/c Ratio	0.58	0.47	0.22	0.72	0.12	0.49	0.19	0.41	0.12
Control Delay	29.3	17.4	20.6	38.6	4.1	12.1	6.7	7.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.3	17.4	20.6	38.6	4.1	12.1	6.7	7.5	0.5
LOS	C	B	C	D	A	B	A	A	A
Approach Delay		23.3		34.1		11.6		6.6	
Approach LOS		C		C		B		A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 24 (30%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	103	30	72	133	83	44	667	33	57	621	94
Future Volume (veh/h)	133	103	30	72	133	83	44	667	33	57	621	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	149	116	34	81	149	93	49	749	37	64	698	106
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	199	157	46	297	178	111	421	1804	89	375	1874	836
Arrive On Green	0.04	0.11	0.11	0.10	0.17	0.17	0.01	0.18	0.18	0.03	0.54	0.54
Sat Flow, veh/h	1753	1368	401	1753	1060	662	1753	3392	167	1753	3497	1560
Grp Volume(v), veh/h	149	0	150	81	0	242	49	386	400	64	698	106
Grp Sat Flow(s),veh/h/ln	1753	0	1769	1753	0	1722	1753	1749	1811	1753	1749	1560
Q Serve(g_s), s	0.9	0.0	6.6	0.0	0.0	10.9	1.0	15.7	15.7	1.3	9.3	1.8
Cycle Q Clear(g_c), s	0.9	0.0	6.6	0.0	0.0	10.9	1.0	15.7	15.7	1.3	9.3	1.8
Prop In Lane	1.00		0.23	1.00		0.38	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	199	0	203	297	0	289	421	930	963	375	1874	836
V/C Ratio(X)	0.75	0.00	0.74	0.27	0.00	0.84	0.12	0.42	0.42	0.17	0.37	0.13
Avail Cap(c_a), veh/h	334	0	520	297	0	377	447	930	963	438	1874	836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	34.2	32.1	0.0	32.2	8.5	21.9	21.9	9.6	10.8	4.1
Incr Delay (d2), s/veh	5.5	0.0	5.2	0.5	0.0	12.1	0.1	1.3	1.2	0.2	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	3.0	1.4	0.0	5.4	0.4	7.6	7.8	0.5	3.4	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	0.0	39.4	32.6	0.0	44.3	8.6	23.2	23.1	9.8	11.3	4.4
LnGrp LOS	D	A	D	C	A	D	A	C	C	A	B	A
Approach Vol, veh/h		299			323			835			868	
Approach Delay, s/veh		40.7			41.4			22.3			10.4	
Approach LOS		D			D			C			B	

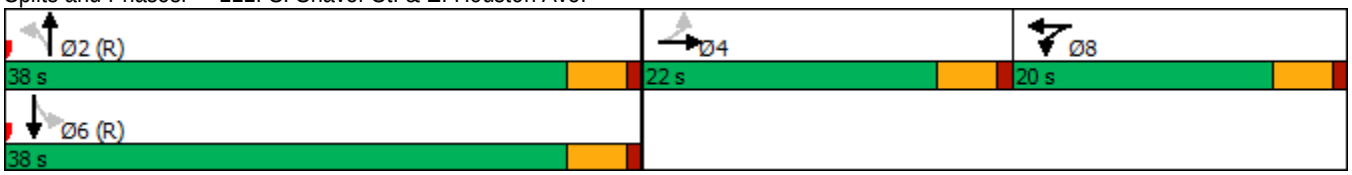
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	47.0	12.1	13.7	6.8	47.4	7.9	17.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	29.5	3.5	23.5	3.5	31.5	9.5	17.5
Max Q Clear Time (g_c+I1), s	3.3	17.7	2.0	8.6	3.0	11.3	2.9	12.9
Green Ext Time (p_c), s	0.0	3.9	0.0	0.6	0.0	5.2	0.2	0.5

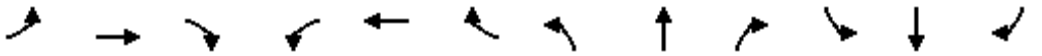
Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	39	25	57	23	6	931	23	598
Future Volume (vph)	39	25	57	23	6	931	23	598
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	22.0	22.0	20.0	20.0	38.0	38.0	38.0	38.0
Total Split (%)	27.5%	27.5%	25.0%	25.0%	47.5%	47.5%	47.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.8	12.8	8.3	8.3	50.3	50.3	50.3	50.3
Actuated g/C Ratio	0.16	0.16	0.10	0.10	0.63	0.63	0.63	0.63
v/c Ratio	0.43	0.16	0.35	0.39	0.02	0.51	0.11	0.31
Control Delay	41.9	18.5	37.9	18.7	8.5	11.3	12.7	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay	41.9	18.5	37.9	18.7	8.5	11.3	12.7	11.0
LOS	D	B	D	B	A	B	B	B
Approach Delay		29.6		26.7		11.3		11.0
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 50.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	25	19	57	23	57	6	931	69	23	598	14
Future Volume (veh/h)	39	25	19	57	23	57	6	931	69	23	598	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	43	27	21	63	25	63	7	1023	76	25	657	15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	95	52	40	139	37	93	563	2302	171	374	2438	56
Arrive On Green	0.05	0.05	0.05	0.08	0.08	0.08	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1753	960	747	1753	463	1167	754	3300	245	505	3495	80
Grp Volume(v), veh/h	43	0	48	63	0	88	7	542	557	25	329	343
Grp Sat Flow(s),veh/h/ln	1753	0	1706	1753	0	1631	754	1749	1797	505	1749	1826
Q Serve(g_s), s	1.9	0.0	2.2	2.7	0.0	4.2	0.3	10.9	10.9	1.8	5.6	5.6
Cycle Q Clear(g_c), s	1.9	0.0	2.2	2.7	0.0	4.2	5.9	10.9	10.9	12.7	5.6	5.6
Prop In Lane	1.00		0.44	1.00		0.72	1.00		0.14	1.00		0.04
Lane Grp Cap(c), veh/h	95	0	93	139	0	130	563	1220	1253	374	1220	1274
V/C Ratio(X)	0.45	0.00	0.52	0.45	0.00	0.68	0.01	0.44	0.44	0.07	0.27	0.27
Avail Cap(c_a), veh/h	383	0	373	340	0	316	563	1220	1253	374	1220	1274
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.80	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	0.0	36.8	35.2	0.0	35.8	5.6	5.3	5.3	8.1	4.5	4.5
Incr Delay (d2), s/veh	3.3	0.0	4.4	2.3	0.0	6.1	0.0	0.9	0.9	0.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.0	1.2	0.0	1.9	0.0	3.3	3.4	0.2	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.0	41.3	37.4	0.0	41.9	5.6	6.2	6.2	8.4	5.0	5.0
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		91			151			1106			697	
Approach Delay, s/veh		40.7			40.1			6.2			5.2	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.3		8.8		60.3		10.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		33.5		17.5		33.5		15.5				
Max Q Clear Time (g_c+I1), s		12.9		4.2		14.7		6.2				
Green Ext Time (p_c), s		7.7		0.2		4.3		0.4				

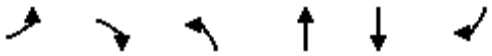
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	147	25	1246	1070
Future Volume (vph)	147	25	1246	1070
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	22.0	8.0	58.0	50.0
Total Split (%)	27.5%	10.0%	72.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	13.9	57.1	57.1	53.9
Actuated g/C Ratio	0.17	0.71	0.71	0.67
v/c Ratio	0.69	0.12	0.58	0.61
Control Delay	28.0	4.6	4.6	10.8
Queue Delay	0.0	0.0	0.0	0.4
Total Delay	28.0	4.6	4.6	11.2
LOS	C	A	A	B
Approach Delay	28.0		4.6	11.2
Approach LOS	C		A	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 57 (71%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 54.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	147	38	25	1246	1070	145
Future Volume (vph)	147	38	25	1246	1070	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.97		1.00	1.00	0.98	
Flt Protected	0.96		0.95	1.00	1.00	
Satd. Flow (prot)	1708		1736	3471	3409	
Flt Permitted	0.96		0.14	1.00	1.00	
Satd. Flow (perm)	1708		254	3471	3409	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	169	44	29	1432	1230	167
RTOR Reduction (vph)	12	0	0	0	11	0
Lane Group Flow (vph)	201	0	29	1432	1386	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	13.9		57.1	57.1	51.2	
Effective Green, g (s)	13.9		57.1	57.1	51.2	
Actuated g/C Ratio	0.17		0.71	0.71	0.64	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	296		207	2477	2181	
v/s Ratio Prot			0.00	c0.41	c0.41	
v/s Ratio Perm	c0.12		0.10			
v/c Ratio	0.68		0.14	0.58	0.64	
Uniform Delay, d1	31.0		10.0	5.6	8.7	
Progression Factor	0.58		0.70	0.59	1.12	
Incremental Delay, d2	6.0		0.3	0.9	1.3	
Delay (s)	23.8		7.3	4.2	11.1	
Level of Service	C		A	A	B	
Approach Delay (s)	23.8			4.3	11.1	
Approach LOS	C			A	B	

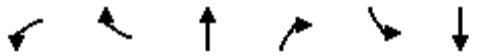
Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	14	658	89	734
Future Volume (vph)	14	658	89	734
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	23.0	57.0	57.0	57.0
Total Split (%)	28.8%	71.3%	71.3%	71.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.8	63.2		63.2
Actuated g/C Ratio	0.10	0.79		0.79
v/c Ratio	0.59	0.29		0.47
Control Delay	20.7	2.8		3.8
Queue Delay	0.0	0.0		0.0
Total Delay	20.7	2.8		3.8
LOS	C	A		A
Approach Delay	20.7	2.8		3.8
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 68 (85%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 4.9	Intersection LOS: A
Intersection Capacity Utilization 65.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	135	658	15	89	734
Future Volume (veh/h)	14	135	658	15	89	734
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	17	161	783	18	106	874
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	20	194	2624	60	259	2017
Arrive On Green	0.14	0.14	0.75	0.75	1.00	1.00
Sat Flow, veh/h	150	1419	3587	80	271	2770
Grp Volume(v), veh/h	179	0	392	409	456	524
Grp Sat Flow(s),veh/h/ln	1578	0	1749	1826	1366	1591
Q Serve(g_s), s	8.8	0.0	5.8	5.8	0.0	0.0
Cycle Q Clear(g_c), s	8.8	0.0	5.8	5.8	0.0	0.0
Prop In Lane	0.09	0.90		0.04	0.23	
Lane Grp Cap(c), veh/h	216	0	1313	1371	1081	1195
V/C Ratio(X)	0.83	0.00	0.30	0.30	0.42	0.44
Avail Cap(c_a), veh/h	365	0	1313	1371	1081	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	33.6	0.0	3.2	3.2	0.0	0.0
Incr Delay (d2), s/veh	8.0	0.0	0.6	0.6	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	1.4	1.5	0.3	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.6	0.0	3.8	3.8	1.1	1.1
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	179		801			980
Approach Delay, s/veh	41.6		3.8			1.1
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		64.6			64.6	15.4
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		52.5			52.5	18.5
Max Q Clear Time (g_c+I1), s		7.8			2.0	10.8
Green Ext Time (p_c), s		5.7			8.7	0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

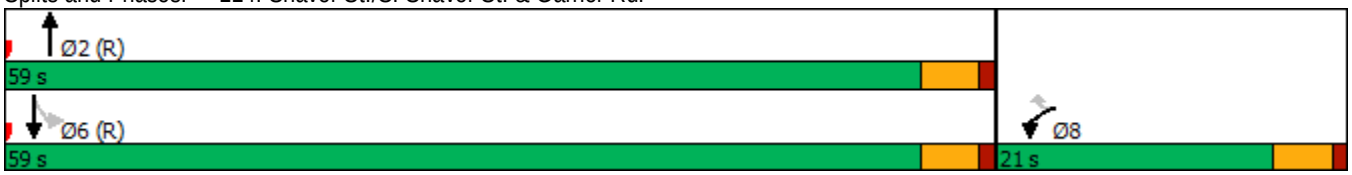
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	232	208	980	105	783
Future Volume (vph)	232	208	980	105	783
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	21.0	21.0	59.0	59.0	59.0
Total Split (%)	26.3%	26.3%	73.8%	73.8%	73.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.3	15.3	55.7	55.7	55.7
Actuated g/C Ratio	0.19	0.19	0.70	0.70	0.70
v/c Ratio	0.80	0.60	0.56	0.58	0.37
Control Delay	50.3	21.2	3.2	17.5	2.8
Queue Delay	1.9	0.0	0.2	0.0	0.1
Total Delay	52.2	21.2	3.4	17.5	2.9
LOS	D	C	A	B	A
Approach Delay	37.6		3.4		4.7
Approach LOS	D		A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 49 (61%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 66.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	232	208	980	175	105	783
Future Volume (veh/h)	232	208	980	175	105	783
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	267	239	1126	201	121	900
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	315	280	2100	373	378	2475
Arrive On Green	0.18	0.18	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	3059	527	406	3589
Grp Volume(v), veh/h	267	239	662	665	121	900
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1746	406	1749
Q Serve(g_s), s	11.8	11.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.8	11.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		0.30	1.00	
Lane Grp Cap(c), veh/h	315	280	1238	1236	378	2475
V/C Ratio(X)	0.85	0.85	0.53	0.54	0.32	0.36
Avail Cap(c_a), veh/h	362	322	1238	1236	378	2475
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.78	0.78	0.96	0.96
Uniform Delay (d), s/veh	31.7	31.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	15.3	17.5	1.3	1.3	2.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	5.7	0.4	0.5	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.0	49.3	1.3	1.3	2.1	0.4
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	506		1327			1021
Approach Delay, s/veh	48.1		1.3			0.6
Approach LOS	D		A			A

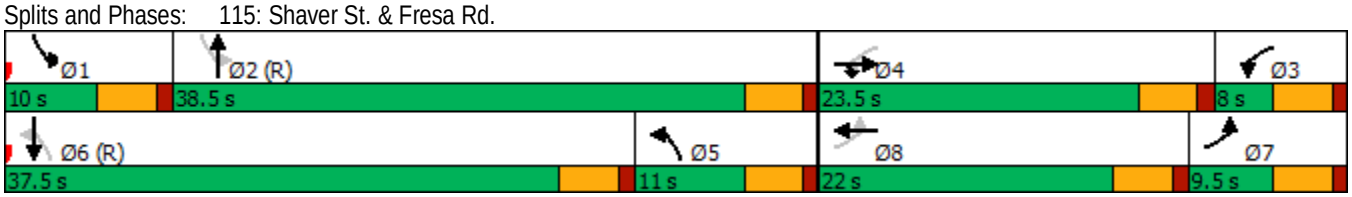
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		61.1			61.1	18.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		54.5			54.5	16.5
Max Q Clear Time (g_c+I1), s		2.0			2.0	13.9
Green Ext Time (p_c), s		13.6			11.7	0.5

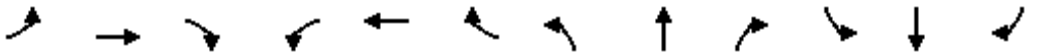
Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	Ø7
Lane Configurations									
Traffic Volume (vph)	33	124	42	56	85	673	52	631	
Future Volume (vph)	33	124	42	56	85	673	52	631	
Turn Type	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA	
Protected Phases	4	4	3	8	5	2	1	6	7
Permitted Phases			4		6		2		
Detector Phase	4	4	3	8	5	2	1	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	9.5
Total Split (s)	23.5	23.5	8.0	22.0	11.0	38.5	10.0	37.5	9.5
Total Split (%)	29.4%	29.4%	10.0%	27.5%	13.8%	48.1%	12.5%	46.9%	12%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	7.6	7.6	13.2	13.7	53.7	50.3	54.6	48.5	
Actuated g/C Ratio	0.10	0.10	0.16	0.17	0.67	0.63	0.68	0.61	
v/c Ratio	0.24	0.45	0.21	0.49	0.22	0.39	0.14	0.37	
Control Delay	36.7	6.5	27.3	18.7	6.4	8.9	12.4	15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.7	6.5	27.3	18.7	6.4	8.9	12.4	15.3	
LOS	D	A	C	B	A	A	B	B	
Approach Delay	12.9			20.6		8.6		15.1	
Approach LOS	B			C		A		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 72 (90%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 50.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 115: Shaver St. & Fresa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	33	124	42	56	86	85	673	28	52	631	1
Future Volume (veh/h)	0	33	124	42	56	86	85	673	28	52	631	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	39	146	49	66	101	100	792	33	61	742	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	0	0	0	0	0	0	0	0	0	0	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Change Period (Y+Rc), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Green Setting (Gmax), s	* 0	* 0	* 0	* 0	* 0	* 0		* 0				
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

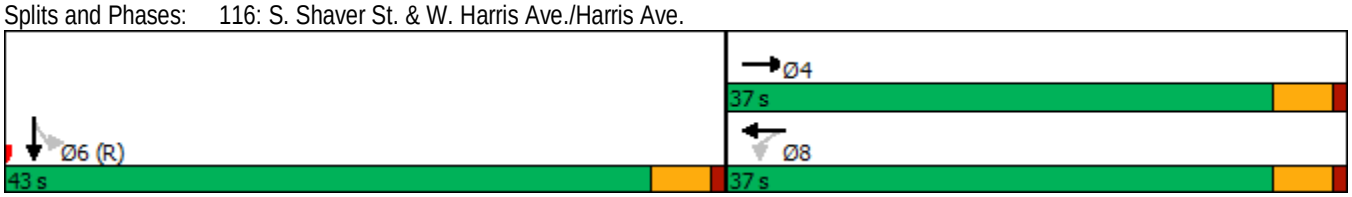
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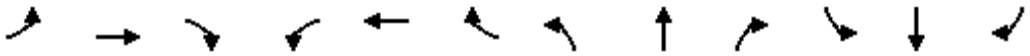
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	262	62	281	697
Future Volume (vph)	262	62	281	697
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	43.0
Total Split (%)	46.3%	46.3%	46.3%	53.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	19.2		19.2	51.8
Actuated g/C Ratio	0.24		0.24	0.65
v/c Ratio	0.63		0.81	0.34
Control Delay	24.6		38.6	6.6
Queue Delay	0.0		0.0	0.0
Total Delay	24.6		38.6	6.6
LOS	C		D	A
Approach Delay	24.6		38.6	6.6
Approach LOS	C		D	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 6 (8%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	262	152	62	281	0	0	0	0	85	697	100
Future Volume (veh/h)	0	262	152	62	281	0	0	0	0	85	697	100
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	323	188	77	347	0				105	860	123
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81				0.81	0.81	0.81
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	598	341	136	634	0				289	2520	371
Arrive On Green	0.00	0.28	0.28	0.09	0.09	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	2239	1222	263	2359	0				475	4139	609
Grp Volume(v), veh/h	0	262	249	200	224	0				402	337	349
Grp Sat Flow(s),veh/h/ln	0	1749	1621	947	1591	0				1817	1675	1731
Q Serve(g_s), s	0.0	10.2	10.5	7.6	10.7	0.0				15.2	13.8	13.8
Cycle Q Clear(g_c), s	0.0	10.2	10.5	18.1	10.7	0.0				15.2	13.8	13.8
Prop In Lane	0.00		0.75	0.38		0.00				0.26		0.35
Lane Grp Cap(c), veh/h	0	487	452	326	443	0				1106	1020	1054
V/C Ratio(X)	0.00	0.54	0.55	0.61	0.50	0.00				0.36	0.33	0.33
Avail Cap(c_a), veh/h	0	710	658	491	646	0				1106	1020	1054
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.90	0.90	0.00				0.97	0.97	0.97
Uniform Delay (d), s/veh	0.0	24.5	24.6	34.9	31.1	0.0				18.6	18.0	18.0
Incr Delay (d2), s/veh	0.0	0.9	1.1	1.7	0.8	0.0				0.9	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	4.0	4.3	4.6	0.0				7.5	6.3	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.4	25.7	36.6	31.9	0.0				19.5	18.8	18.8
LnGrp LOS	A	C	C	D	C	A				B	B	B
Approach Vol, veh/h		511			424						1088	
Approach Delay, s/veh		25.5			34.1						19.1	
Approach LOS		C			C						B	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		26.8		53.2		26.8			
Change Period (Y+Rc), s		4.5		4.5		4.5			
Max Green Setting (Gmax), s		32.5		38.5		32.5			
Max Q Clear Time (g_c+I1), s		12.5		17.2		20.1			
Green Ext Time (p_c), s		3.1		6.9		2.2			

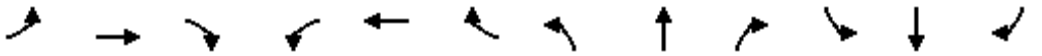
Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	58	278	197	851
Future Volume (vph)	58	278	197	851
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	33.0	33.0	33.0	47.0
Total Split (%)	41.3%	41.3%	41.3%	58.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		17.0	17.0	54.0
Actuated g/C Ratio		0.21	0.21	0.68
v/c Ratio		0.71	0.44	0.38
Control Delay		36.4	20.4	5.9
Queue Delay		0.0	0.0	0.0
Total Delay		36.4	20.4	5.9
LOS		D	C	A
Approach Delay		36.4	20.4	5.9
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 49 (61%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 53.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



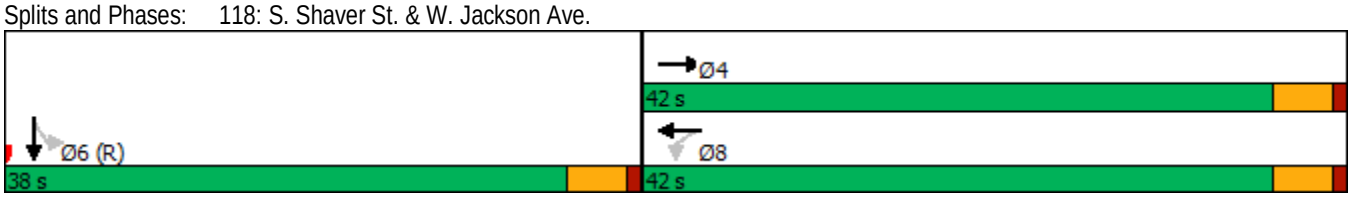


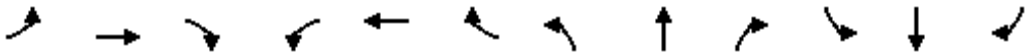
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	278	0	0	197	85	140	851	91	0	0	0
Future Volume (veh/h)	58	278	0	0	197	85	140	851	91	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	67	320	0	0	226	98	161	978	105			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	125	538	0	0	512	215	430	2795	308			
Arrive On Green	0.07	0.07	0.00	0.00	0.21	0.21	0.22	0.22	0.22			
Sat Flow, veh/h	302	2604	0	0	2492	1008	639	4146	457			
Grp Volume(v), veh/h	194	193	0	0	163	161	456	384	404			
Grp Sat Flow(s),veh/h/ln	1231	1591	0	0	1749	1659	1809	1675	1758			
Q Serve(g_s), s	6.4	9.4	0.0	0.0	6.5	6.8	17.1	15.4	15.5			
Cycle Q Clear(g_c), s	13.1	9.4	0.0	0.0	6.5	6.8	17.1	15.4	15.5			
Prop In Lane	0.34		0.00	0.00		0.61	0.35		0.26			
Lane Grp Cap(c), veh/h	323	340	0	0	373	354	1219	1129	1185			
V/C Ratio(X)	0.60	0.57	0.00	0.00	0.44	0.46	0.37	0.34	0.34			
Avail Cap(c_a), veh/h	531	567	0	0	623	591	1219	1129	1185			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.74	0.74	0.00	0.00	0.77	0.77	0.88	0.88	0.88			
Uniform Delay (d), s/veh	35.5	33.6	0.0	0.0	27.3	27.4	16.8	16.1	16.1			
Incr Delay (d2), s/veh	1.3	1.1	0.0	0.0	0.6	0.7	0.8	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.2	4.0	0.0	0.0	2.7	2.7	8.4	7.0	7.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	34.7	0.0	0.0	27.9	28.1	17.6	16.9	16.8			
LnGrp LOS	D	C	A	A	C	C	B	B	B			
Approach Vol, veh/h		387			324			1244				
Approach Delay, s/veh		35.8			28.0			17.1				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		58.4		21.6				21.6				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		42.5		28.5				28.5				
Max Q Clear Time (g_c+I1), s		19.1		15.1				8.8				
Green Ext Time (p_c), s		8.4		1.9				1.8				
Intersection Summary												
HCM 6th Ctrl Delay			22.6									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	180	55	413	551
Future Volume (vph)	180	55	413	551
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	42.0	42.0	42.0	38.0
Total Split (%)	52.5%	52.5%	52.5%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	21.2		21.2	49.8
Actuated g/C Ratio	0.26		0.26	0.62
v/c Ratio	0.40		0.71	0.27
Control Delay	13.6		26.3	7.6
Queue Delay	0.0		0.0	0.0
Total Delay	13.6		26.3	7.6
LOS	B		C	A
Approach Delay	13.6		26.3	7.6
Approach LOS	B		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 27 (34%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	180	150	55	413	0	0	0	0	123	551	62
Future Volume (veh/h)	0	180	150	55	413	0	0	0	0	123	551	62
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	200	167	61	459	0				137	612	69
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	452	357	107	664	0				531	2547	293
Arrive On Green	0.00	0.24	0.24	0.49	0.49	0.00				0.64	0.64	0.64
Sat Flow, veh/h	0	1948	1469	214	2813	0				825	3954	455
Grp Volume(v), veh/h	0	188	179	265	255	0				299	252	267
Grp Sat Flow(s),veh/h/ln	0	1749	1576	1352	1591	0				1799	1675	1759
Q Serve(g_s), s	0.0	7.3	7.8	6.6	9.7	0.0				5.7	5.0	5.1
Cycle Q Clear(g_c), s	0.0	7.3	7.8	14.4	9.7	0.0				5.7	5.0	5.1
Prop In Lane	0.00		0.93	0.23		0.00				0.46		0.26
Lane Grp Cap(c), veh/h	0	425	383	384	387	0				1159	1079	1133
V/C Ratio(X)	0.00	0.44	0.47	0.69	0.66	0.00				0.26	0.23	0.24
Avail Cap(c_a), veh/h	0	820	739	732	746	0				1159	1079	1133
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.72	0.72	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	25.7	25.8	19.2	18.0	0.0				6.1	6.0	6.0
Incr Delay (d2), s/veh	0.0	0.7	0.9	1.6	1.4	0.0				0.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.0	2.9	3.1	2.8	0.0				1.9	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.4	26.7	20.8	19.4	0.0				6.6	6.5	6.5
LnGrp LOS	A	C	C	C	B	A				A	A	A
Approach Vol, veh/h		367			520						818	
Approach Delay, s/veh		26.6			20.1						6.5	
Approach LOS		C			C						A	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		24.0		56.0		24.0						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		37.5		33.5		37.5						
Max Q Clear Time (g_c+I1), s		9.8		7.7		16.4						
Green Ext Time (p_c), s		2.2		5.2		3.1						

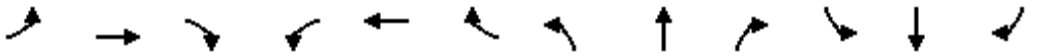
Intersection Summary												
HCM 6th Ctrl Delay		15.0										
HCM 6th LOS		B										

Lane Group	EBL	EBT	WBL	WBT	NBT
Lane Configurations					
Traffic Volume (vph)	80	235	1	298	801
Future Volume (vph)	80	235	1	298	801
Turn Type	Perm	NA	Perm	NA	NA
Protected Phases		4		8	2
Permitted Phases	4		8		
Detector Phase	4	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	34.0	34.0	34.0	34.0	46.0
Total Split (%)	42.5%	42.5%	42.5%	42.5%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)		16.4		16.4	54.6
Actuated g/C Ratio		0.20		0.20	0.68
v/c Ratio		0.77		0.65	0.32
Control Delay		37.4		28.4	3.1
Queue Delay		0.0		0.0	0.0
Total Delay		37.4		28.4	3.1
LOS		D		C	A
Approach Delay		37.4		28.4	3.1
Approach LOS		D		C	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 21 (26%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 55.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



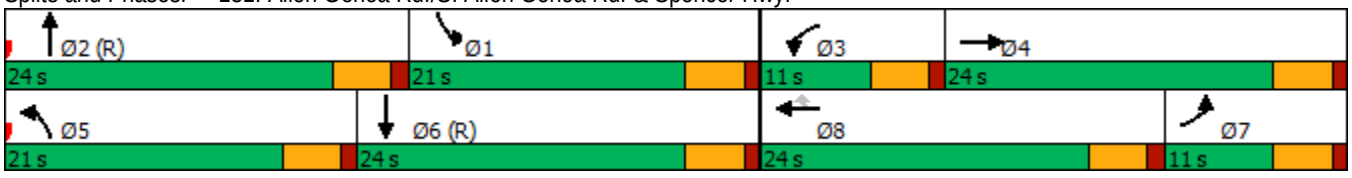


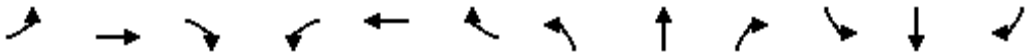
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	235	0	1	298	105	168	801	51	0	0	0
Future Volume (veh/h)	80	235	0	1	298	105	168	801	51	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	1841	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	85	250	0	1	317	112	179	852	54			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	4	4	0	4	4	4	4	4	4			
Cap, veh/h	156	497	0	45	608	210	526	2692	174			
Arrive On Green	0.49	0.49	0.00	0.24	0.24	0.24	0.21	0.21	0.21			
Sat Flow, veh/h	354	2127	0	1	2497	862	817	4179	271			
Grp Volume(v), veh/h	156	179	0	232	0	198	394	333	357			
Grp Sat Flow(s),veh/h/ln	806	1591	0	1840	0	1520	1800	1675	1792			
Q Serve(g_s), s	6.8	6.0	0.0	0.0	0.0	9.0	14.9	13.4	13.4			
Cycle Q Clear(g_c), s	15.9	6.0	0.0	8.7	0.0	9.0	14.9	13.4	13.4			
Prop In Lane	0.55		0.00	0.00		0.57	0.45		0.15			
Lane Grp Cap(c), veh/h	266	387	0	493	0	370	1159	1079	1154			
V/C Ratio(X)	0.59	0.46	0.00	0.47	0.00	0.53	0.34	0.31	0.31			
Avail Cap(c_a), veh/h	418	587	0	723	0	560	1159	1079	1154			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.92	0.92	0.00	1.00	0.00	1.00	0.93	0.93	0.93			
Uniform Delay (d), s/veh	20.9	17.1	0.0	26.2	0.0	26.3	17.1	16.5	16.5			
Incr Delay (d2), s/veh	1.9	0.8	0.0	0.7	0.0	1.2	0.7	0.7	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	1.9	0.0	3.8	0.0	3.3	7.2	6.1	6.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	17.9	0.0	26.9	0.0	27.5	17.8	17.2	17.2			
LnGrp LOS	C	B	A	C	A	C	B	B	B			
Approach Vol, veh/h		335			430			1085				
Approach Delay, s/veh		20.1			27.2			17.4				
Approach LOS		C			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		56.0		24.0				24.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		41.5		29.5				29.5				
Max Q Clear Time (g_c+I1), s		16.9		17.9				11.0				
Green Ext Time (p_c), s		7.2		1.6				2.5				
Intersection Summary												
HCM 6th Ctrl Delay			20.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	81	721	69	872	223	221	524	256	387
Future Volume (vph)	81	721	69	872	223	221	524	256	387
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	24.0	11.0	24.0	24.0	21.0	24.0	21.0	24.0
Total Split (%)	13.8%	30.0%	13.8%	30.0%	30.0%	26.3%	30.0%	26.3%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	19.5	6.3	19.5	19.5	11.3	21.7	16.5	26.9
Actuated g/C Ratio	0.08	0.24	0.08	0.24	0.24	0.14	0.27	0.21	0.34
v/c Ratio	0.66	0.86	0.58	0.85	0.45	0.54	0.69	0.42	0.45
Control Delay	43.0	18.7	53.1	37.5	6.3	24.0	21.0	19.2	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	18.7	53.1	37.5	6.3	24.0	21.0	19.2	12.6
LOS	D	B	D	D	A	C	C	B	B
Approach Delay		20.7		32.4			21.9		15.1
Approach LOS		C		C			C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 45 (56%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 64.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	721	174	69	872	223	221	524	23	256	387	53
Future Volume (veh/h)	81	721	174	69	872	223	221	524	23	256	387	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	93	829	200	79	1002	256	254	602	26	294	445	61
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	117	987	237	101	1180	366	354	833	36	781	1142	156
Arrive On Green	0.13	0.49	0.49	0.06	0.23	0.23	0.10	0.24	0.24	0.23	0.37	0.37
Sat Flow, veh/h	1753	4047	970	1753	5025	1560	3401	3415	147	3401	3092	422
Grp Volume(v), veh/h	93	685	344	79	1002	256	254	308	320	294	251	255
Grp Sat Flow(s),veh/h/ln	1753	1675	1666	1753	1675	1560	1700	1749	1814	1700	1749	1765
Q Serve(g_s), s	4.1	14.2	14.4	3.6	15.2	12.0	5.8	12.9	13.0	5.8	8.4	8.5
Cycle Q Clear(g_c), s	4.1	14.2	14.4	3.6	15.2	12.0	5.8	12.9	13.0	5.8	8.4	8.5
Prop In Lane	1.00		0.58	1.00		1.00	1.00		0.08	1.00		0.24
Lane Grp Cap(c), veh/h	117	817	407	101	1180	366	354	426	442	781	646	652
V/C Ratio(X)	0.79	0.84	0.85	0.78	0.85	0.70	0.72	0.72	0.72	0.38	0.39	0.39
Avail Cap(c_a), veh/h	142	817	407	142	1225	380	701	426	442	781	646	652
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.35	0.35	0.35	0.96	0.96	0.96	0.91	0.91	0.91
Uniform Delay (d), s/veh	34.1	19.1	19.2	37.2	29.3	28.0	34.7	27.8	27.8	26.0	18.6	18.6
Incr Delay (d2), s/veh	20.2	7.1	13.9	6.4	2.1	1.9	2.6	9.8	9.5	0.3	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	4.5	5.3	1.7	6.0	4.4	2.5	6.4	6.6	2.3	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	26.2	33.1	43.6	31.3	29.9	37.3	37.6	37.3	26.3	20.2	20.2
LnGrp LOS	D	C	C	D	C	C	D	D	D	C	C	C
Approach Vol, veh/h		1122			1337			882			800	
Approach Delay, s/veh		30.6			31.8			37.4			22.4	
Approach LOS		C			C			D			C	

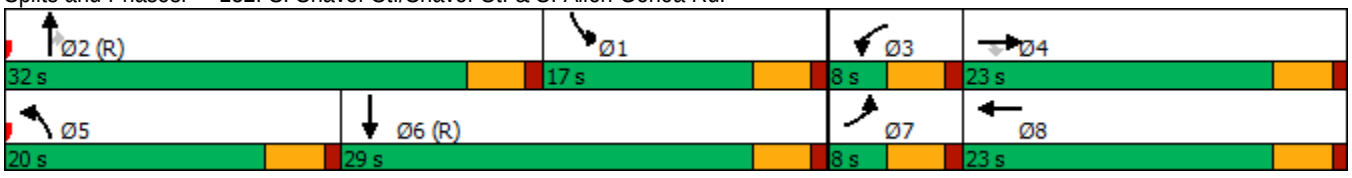
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.9	24.0	9.1	24.0	12.8	34.1	9.8	23.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	19.5	6.5	19.5	16.5	19.5	6.5	19.5
Max Q Clear Time (g_c+I1), s	7.8	15.0	5.6	16.4	7.8	10.5	6.1	17.2
Green Ext Time (p_c), s	0.7	1.6	0.0	1.9	0.6	2.0	0.0	1.5

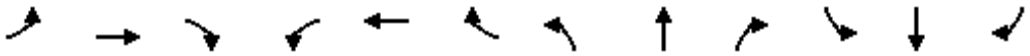
Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	10	340	222	14	373	176	587	8	126	612
Future Volume (vph)	10	340	222	14	373	176	587	8	126	612
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	23.0	23.0	8.0	23.0	20.0	32.0	32.0	17.0	29.0
Total Split (%)	10.0%	28.8%	28.8%	10.0%	28.8%	25.0%	40.0%	40.0%	21.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	3.5	16.8	16.8	3.5	16.8	9.7	35.6	35.6	12.5	38.4
Actuated g/C Ratio	0.04	0.21	0.21	0.04	0.21	0.12	0.44	0.44	0.16	0.48
v/c Ratio	0.15	0.49	0.46	0.20	0.76	0.45	0.40	0.01	0.49	0.39
Control Delay	55.2	23.2	5.0	47.4	27.7	35.9	17.1	0.0	37.8	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	23.2	5.0	47.4	27.7	35.9	17.1	0.0	37.8	15.7
LOS	E	C	A	D	C	D	B	A	D	B
Approach Delay		16.7			28.2		21.2			19.5
Approach LOS		B			C		C			B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	340	222	14	373	179	176	587	8	126	612	4
Future Volume (veh/h)	10	340	222	14	373	179	176	587	8	126	612	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	11	358	234	15	393	188	185	618	0	133	644	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	17	706	315	22	472	223	276	1202		381	1709	11
Arrive On Green	0.01	0.20	0.20	0.01	0.20	0.20	0.08	0.34	0.00	0.22	0.48	0.48
Sat Flow, veh/h	1753	3497	1560	1753	2305	1088	3401	3497	1560	1753	3563	22
Grp Volume(v), veh/h	11	358	234	15	297	284	185	618	0	133	316	332
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1645	1700	1749	1560	1753	1749	1837
Q Serve(g_s), s	0.5	7.3	11.3	0.7	13.0	13.3	4.2	11.3	0.0	5.1	9.2	9.2
Cycle Q Clear(g_c), s	0.5	7.3	11.3	0.7	13.0	13.3	4.2	11.3	0.0	5.1	9.2	9.2
Prop In Lane	1.00		1.00	1.00		0.66	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	17	706	315	22	358	337	276	1202		381	839	881
V/C Ratio(X)	0.66	0.51	0.74	0.69	0.83	0.84	0.67	0.51		0.35	0.38	0.38
Avail Cap(c_a), veh/h	77	809	361	77	404	380	659	1202		381	839	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.65	0.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	39.5	28.4	30.0	39.4	30.5	30.6	35.7	20.9	0.0	26.5	13.2	13.2
Incr Delay (d2), s/veh	36.8	0.6	7.0	32.3	12.3	14.5	1.8	1.0	0.0	0.5	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.0	4.6	0.5	6.4	6.4	1.8	4.5	0.0	2.1	3.5	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.3	29.0	37.0	71.7	42.8	45.1	37.5	21.9	0.0	27.0	14.4	14.4
LnGrp LOS	E	C	D	E	D	D	D	C		C	B	B
Approach Vol, veh/h		603			596			803	A		781	
Approach Delay, s/veh		32.9			44.6			25.5			16.6	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	32.0	5.5	20.6	11.0	42.9	5.3	20.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	27.5	3.5	18.5	15.5	24.5	3.5	18.5
Max Q Clear Time (g_c+I1), s	7.1	13.3	2.7	13.3	6.2	11.2	2.5	15.3
Green Ext Time (p_c), s	0.1	3.5	0.0	1.5	0.4	3.2	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

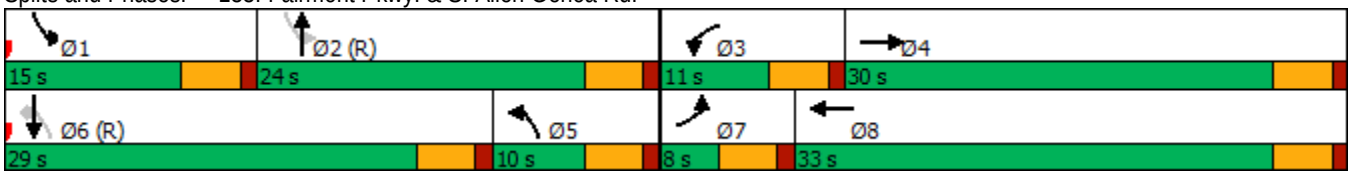
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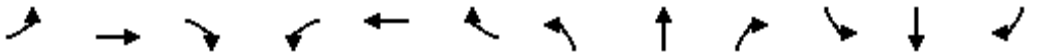
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	33	862	39	700	80	245	225	263	57
Future Volume (vph)	33	862	39	700	80	245	225	263	57
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	8.0	30.0	11.0	33.0	10.0	24.0	15.0	29.0	29.0
Total Split (%)	10.0%	37.5%	13.8%	41.3%	12.5%	30.0%	18.8%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	3.5	27.2	6.3	29.0	33.6	22.2	32.7	29.2	29.2
Actuated g/C Ratio	0.04	0.34	0.08	0.36	0.42	0.28	0.41	0.36	0.36
v/c Ratio	0.52	0.67	0.34	0.90	0.24	0.69	0.72	0.47	0.10
Control Delay	63.2	24.7	41.9	34.2	10.1	26.3	25.8	10.5	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.2	24.7	41.9	34.2	10.1	26.3	25.8	10.5	0.9
LOS	E	C	D	C	B	C	C	B	A
Approach Delay		26.0		34.5		22.8		15.8	
Approach LOS		C		C		C		B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 26.6	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	862	85	39	700	248	80	245	47	225	263	57
Future Volume (veh/h)	33	862	85	39	700	248	80	245	47	225	263	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	1026	101	46	833	295	95	292	56	268	313	68
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	48	1613	159	57	892	316	408	396	76	408	564	478
Arrive On Green	0.03	0.35	0.35	0.03	0.35	0.35	0.09	0.26	0.26	0.13	0.31	0.31
Sat Flow, veh/h	1753	4651	457	1753	2533	896	1753	1501	288	1753	1841	1560
Grp Volume(v), veh/h	39	738	389	46	575	553	95	0	348	268	313	68
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1749	1680	1753	0	1789	1753	1841	1560
Q Serve(g_s), s	1.8	14.8	14.8	2.1	25.4	25.5	0.0	0.0	14.2	8.7	11.4	2.0
Cycle Q Clear(g_c), s	1.8	14.8	14.8	2.1	25.4	25.5	0.0	0.0	14.2	8.7	11.4	2.0
Prop In Lane	1.00		0.26	1.00		0.53	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	48	1162	610	57	616	592	408	0	472	408	564	478
V/C Ratio(X)	0.81	0.64	0.64	0.80	0.93	0.93	0.23	0.00	0.74	0.66	0.56	0.14
Avail Cap(c_a), veh/h	77	1162	610	142	623	598	408	0	472	408	564	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.79	0.79	0.79	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	21.9	21.9	38.4	25.0	25.0	24.7	0.0	26.9	19.0	23.2	12.8
Incr Delay (d2), s/veh	20.9	0.8	1.5	17.9	17.8	18.6	0.3	0.0	9.8	3.8	3.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.6	6.1	1.2	12.9	12.6	1.4	0.0	7.0	3.7	5.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	22.7	23.4	56.3	42.8	43.6	25.0	0.0	36.7	22.8	27.1	13.5
LnGrp LOS	E	C	C	E	D	D	C	A	D	C	C	B
Approach Vol, veh/h		1166			1174			443			649	
Approach Delay, s/veh		24.2			43.7			34.2			23.9	
Approach LOS		C			D			C			C	

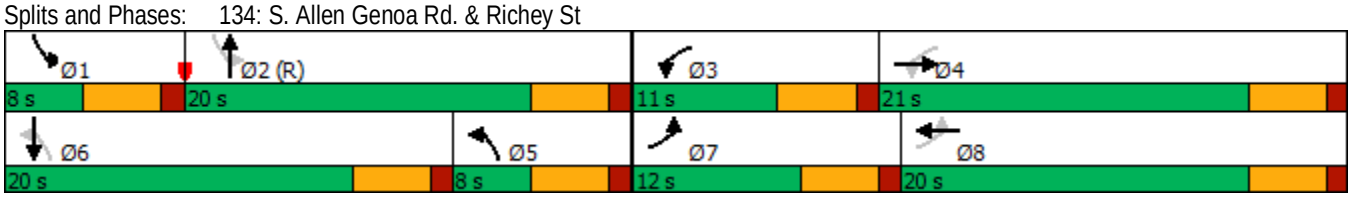
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	25.6	7.1	32.2	11.6	29.0	6.7	32.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	19.5	6.5	25.5	5.5	24.5	3.5	28.5
Max Q Clear Time (g_c+I1), s	10.7	16.2	4.1	16.8	2.0	13.4	3.8	27.5
Green Ext Time (p_c), s	0.0	0.6	0.0	4.7	0.1	1.5	0.0	0.7

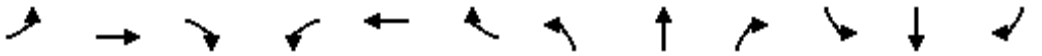
Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	155	380	91	466	41	695	22	428
Future Volume (vph)	155	380	91	466	41	695	22	428
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	21.0	11.0	20.0	8.0	20.0	8.0	20.0
Total Split (%)	20.0%	35.0%	18.3%	33.3%	13.3%	33.3%	13.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	21.4	17.1	22.3	14.1	22.4	21.9	23.3	20.3
Actuated g/C Ratio	0.36	0.28	0.37	0.24	0.37	0.36	0.39	0.34
v/c Ratio	0.53	0.50	0.29	0.69	0.19	0.72	0.10	0.57
Control Delay	16.7	19.8	12.0	25.5	15.4	24.2	12.4	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	19.8	12.0	25.5	15.4	24.2	12.4	18.6
LOS	B	B	B	C	B	C	B	B
Approach Delay		18.9		23.3		23.8		18.3
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 62.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	380	32	91	466	5	41	695	63	22	428	136
Future Volume (veh/h)	155	380	32	91	466	5	41	695	63	22	428	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	185	452	38	108	555	6	49	827	75	26	510	162
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	359	766	64	358	723	8	422	1187	108	246	616	195
Arrive On Green	0.11	0.23	0.23	0.08	0.20	0.20	0.15	0.37	0.37	0.02	0.24	0.24
Sat Flow, veh/h	1753	3266	274	1753	3544	38	1753	3242	294	1753	2614	826
Grp Volume(v), veh/h	185	241	249	108	274	287	49	446	456	26	340	332
Grp Sat Flow(s),veh/h/ln	1753	1749	1791	1753	1749	1834	1753	1749	1788	1753	1749	1692
Q Serve(g_s), s	4.9	7.3	7.4	2.7	8.9	8.9	0.0	13.0	13.0	0.6	11.1	11.2
Cycle Q Clear(g_c), s	4.9	7.3	7.4	2.7	8.9	8.9	0.0	13.0	13.0	0.6	11.1	11.2
Prop In Lane	1.00		0.15	1.00		0.02	1.00		0.16	1.00		0.49
Lane Grp Cap(c), veh/h	359	410	420	358	357	374	422	640	654	246	412	399
V/C Ratio(X)	0.52	0.59	0.59	0.30	0.77	0.77	0.12	0.70	0.70	0.11	0.83	0.83
Avail Cap(c_a), veh/h	386	481	493	409	452	474	422	640	654	313	452	437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	20.4	20.4	15.6	22.5	22.5	20.5	16.2	16.2	12.9	21.8	21.8
Incr Delay (d2), s/veh	1.1	1.4	1.4	0.5	6.0	5.8	0.1	6.2	6.1	0.2	11.1	12.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.9	3.0	1.0	3.9	4.1	0.6	5.6	5.7	0.2	5.3	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	21.8	21.8	16.1	28.6	28.3	20.6	22.4	22.3	13.1	32.9	33.9
LnGrp LOS	B	C	C	B	C	C	C	C	C	B	C	C
Approach Vol, veh/h		675			669			951			698	
Approach Delay, s/veh		20.7			26.4			22.2			32.6	
Approach LOS		C			C			C			C	

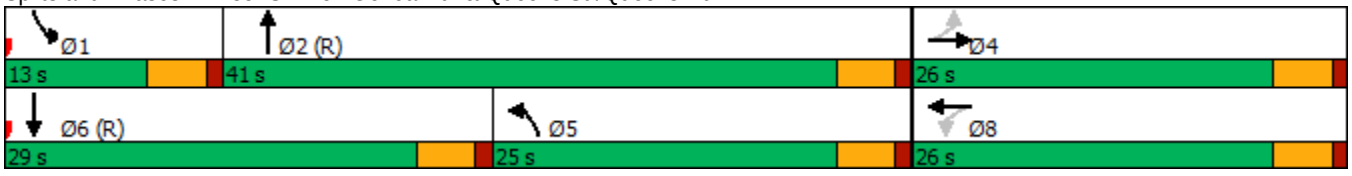
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	26.5	9.2	18.6	13.6	18.6	11.1	16.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	15.5	6.5	16.5	3.5	15.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	2.6	15.0	4.7	9.4	2.0	13.2	6.9	10.9
Green Ext Time (p_c), s	0.0	0.3	0.0	1.6	0.0	0.9	0.0	1.4

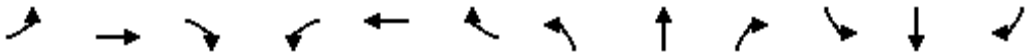
Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	28	248	267	183	589	50	430
Future Volume (vph)	28	248	267	183	589	50	430
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	25.0	41.0	13.0	29.0
Total Split (%)	32.5%	32.5%	32.5%	31.3%	51.3%	16.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		15.1	15.1	20.5	48.0	7.6	30.9
Actuated g/C Ratio		0.19	0.19	0.26	0.60	0.10	0.39
v/c Ratio		0.74	0.62	0.44	0.31	0.33	0.41
Control Delay		29.9	17.4	11.9	2.7	38.7	19.0
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		29.9	17.4	11.9	2.7	38.7	19.0
LOS		C	B	B	A	D	B
Approach Delay		29.9	17.4		4.9		20.8
Approach LOS		C	B		A		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 33 (41%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 66.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	248	143	0	267	126	183	589	18	50	430	81
Future Volume (veh/h)	28	248	143	0	267	126	183	589	18	50	430	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	267	154	0	287	135	197	633	19	54	462	87
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	69	363	219	0	478	219	561	2036	61	68	900	169
Arrive On Green	0.21	0.21	0.21	0.00	0.21	0.21	0.32	0.59	0.59	0.04	0.31	0.31
Sat Flow, veh/h	91	1772	1069	0	2421	1068	1753	3467	104	1753	2940	550
Grp Volume(v), veh/h	237	0	214	0	214	208	197	319	333	54	274	275
Grp Sat Flow(s),veh/h/ln	1450	0	1483	0	1749	1648	1753	1749	1822	1753	1749	1742
Q Serve(g_s), s	3.8	0.0	10.7	0.0	8.9	9.2	6.9	7.4	7.4	2.4	10.3	10.4
Cycle Q Clear(g_c), s	13.0	0.0	10.7	0.0	8.9	9.2	6.9	7.4	7.4	2.4	10.3	10.4
Prop In Lane	0.13		0.72	0.00		0.65	1.00		0.06	1.00		0.32
Lane Grp Cap(c), veh/h	348	0	304	0	359	338	561	1027	1070	68	536	533
V/C Ratio(X)	0.68	0.00	0.70	0.00	0.60	0.62	0.35	0.31	0.31	0.79	0.51	0.52
Avail Cap(c_a), veh/h	453	0	398	0	470	443	561	1027	1070	186	536	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	0.0	29.5	0.0	28.8	28.9	20.8	8.3	8.3	38.1	22.8	22.9
Incr Delay (d2), s/veh	2.8	0.0	3.7	0.0	1.6	1.8	0.3	0.6	0.6	17.9	3.5	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	3.9	0.0	3.6	3.6	2.7	2.5	2.6	1.4	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.7	0.0	33.2	0.0	30.4	30.8	21.1	8.9	8.9	56.0	26.3	26.4
LnGrp LOS	C	A	C	A	C	C	C	A	A	E	C	C
Approach Vol, veh/h		451			422			849			603	
Approach Delay, s/veh		32.9			30.6			11.7			29.0	
Approach LOS		C			C			B			C	

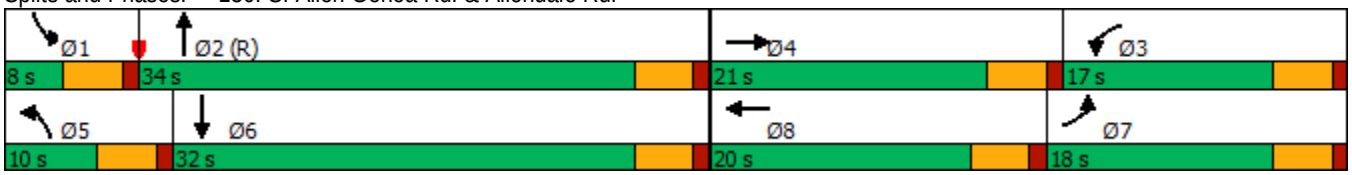
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	51.5		20.9	30.1	29.0		20.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	36.5		21.5	20.5	24.5		21.5				
Max Q Clear Time (g_c+I1), s	4.4	9.4		15.0	8.9	12.4		11.2				
Green Ext Time (p_c), s	0.0	4.1		1.4	0.4	2.6		1.7				

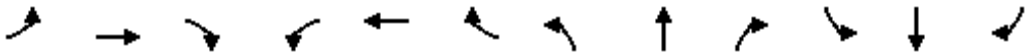
Intersection Summary			
HCM 6th Ctrl Delay		23.8	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	165	143	110	128	34	729	28	419
Future Volume (vph)	165	143	110	128	34	729	28	419
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	18.0	21.0	17.0	20.0	10.0	34.0	8.0	32.0
Total Split (%)	22.5%	26.3%	21.3%	25.0%	12.5%	42.5%	10.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	13.7	12.1	13.1	9.2	6.4	37.7	5.5	36.8
Actuated g/C Ratio	0.17	0.15	0.16	0.12	0.08	0.47	0.07	0.46
v/c Ratio	0.66	0.43	0.47	0.54	0.30	0.61	0.28	0.34
Control Delay	41.3	24.2	34.6	19.8	40.8	19.6	43.0	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	24.2	34.6	19.8	40.8	19.6	43.0	16.6
LOS	D	C	C	B	D	B	D	B
Approach Delay		31.8		25.0		20.4		18.1
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 53.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	143	65	110	128	72	34	729	104	28	419	42
Future Volume (veh/h)	165	143	65	110	128	72	34	729	104	28	419	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	194	168	76	129	151	85	40	858	0	33	493	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	233	254	110	229	230	123	83	1801		40	1715	
Arrive On Green	0.13	0.11	0.11	0.13	0.10	0.10	0.05	0.51	0.00	0.02	0.49	0.00
Sat Flow, veh/h	1753	2375	1030	1753	2203	1175	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	194	122	122	129	118	118	40	858	0	33	493	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1655	1753	1749	1629	1753	1749	0	1753	1749	0
Q Serve(g_s), s	8.6	5.3	5.7	5.5	5.2	5.6	1.8	12.6	0.0	1.5	6.7	0.0
Cycle Q Clear(g_c), s	8.6	5.3	5.7	5.5	5.2	5.6	1.8	12.6	0.0	1.5	6.7	0.0
Prop In Lane	1.00		0.62	1.00		0.72	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	233	187	177	229	183	170	83	1801		40	1715	
V/C Ratio(X)	0.83	0.65	0.69	0.56	0.65	0.69	0.48	0.48		0.83	0.29	
Avail Cap(c_a), veh/h	296	361	341	274	339	316	121	1801		77	1715	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.8	34.3	34.5	32.6	34.4	34.6	37.2	12.5	0.0	38.9	12.1	0.0
Incr Delay (d2), s/veh	14.8	3.8	4.8	2.1	3.7	4.9	4.3	0.9	0.0	32.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.4	2.5	2.4	2.3	2.4	0.8	4.7	0.0	1.0	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	38.1	39.2	34.8	38.2	39.5	41.4	13.4	0.0	71.9	12.2	0.0
LnGrp LOS	D	D	D	C	D	D	D	B		E	B	
Approach Vol, veh/h		438			365			898	A		526	A
Approach Delay, s/veh		43.1			37.4			14.6			15.9	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	45.7	14.9	13.0	8.3	43.7	15.1	12.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	29.5	12.5	16.5	5.5	27.5	13.5	15.5
Max Q Clear Time (g_c+I1), s	3.5	14.6	7.5	7.7	3.8	8.7	10.6	7.6
Green Ext Time (p_c), s	0.0	5.3	0.1	0.9	0.0	3.2	0.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

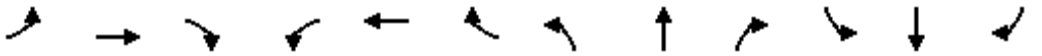
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	84	119	60	130	490	63	10	560	62
Future Volume (vph)	84	119	60	130	490	63	10	560	62
Turn Type	pm+pt	NA	pm+pt	NA	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8	2			6	
Permitted Phases	4		8			2	6		6
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	23.0	8.0	20.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	13.8%	28.8%	10.0%	25.0%	61.3%	61.3%	61.3%	61.3%	61.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	10.4	9.3	52.9	52.9		52.9	52.9
Actuated g/C Ratio	0.11	0.11	0.13	0.12	0.66	0.66		0.66	0.66
v/c Ratio	0.48	0.46	0.28	0.35	0.43	0.06		0.29	0.06
Control Delay	27.3	14.7	25.2	24.2	9.1	0.1		4.0	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	27.3	14.7	25.2	24.2	9.1	0.1		4.0	0.3
LOS	C	B	C	C	A	A		A	A
Approach Delay		18.8		24.5	8.1			3.6	
Approach LOS		B		C	A			A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 39 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 10.0	Intersection LOS: B
Intersection Capacity Utilization 51.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	119	57	60	130	3	0	490	63	10	560	62
Future Volume (veh/h)	84	119	57	60	130	3	0	490	63	10	560	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	123	0	62	134	0	0	505	65	10	577	64
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	201	228		206	237		90	1289	1092	60	2372	1092
Arrive On Green	0.06	0.07	0.00	0.07	0.07	0.00	0.00	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1753	3589	0	1753	3589	0	776	1841	1560	20	3388	1560
Grp Volume(v), veh/h	87	123	0	62	134	0	0	505	65	313	274	64
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	776	1841	1560	1816	1591	1560
Q Serve(g_s), s	3.9	2.7	0.0	0.0	3.0	0.0	0.0	9.1	1.0	0.0	5.0	1.0
Cycle Q Clear(g_c), s	3.9	2.7	0.0	0.0	3.0	0.0	0.0	9.1	1.0	4.9	5.0	1.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.03		1.00
Lane Grp Cap(c), veh/h	201	228		206	237		90	1289	1092	1318	1114	1092
V/C Ratio(X)	0.43	0.54		0.30	0.57		0.00	0.39	0.06	0.24	0.25	0.06
Avail Cap(c_a), veh/h	232	809		206	678		90	1289	1092	1318	1114	1092
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	36.2	0.0	34.9	36.1	0.0	0.0	5.0	3.8	4.3	4.3	3.7
Incr Delay (d2), s/veh	1.3	1.8	0.0	0.8	2.1	0.0	0.0	0.9	0.1	0.4	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.2	0.0	1.1	1.3	0.0	0.0	2.8	0.3	1.5	1.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	38.0	0.0	35.7	38.3	0.0	0.0	5.9	3.9	4.8	4.9	3.9
LnGrp LOS	D	D		D	D		A	A	A	A	A	A
Approach Vol, veh/h		210	A		196	A		570			651	
Approach Delay, s/veh		38.1			37.5			5.6			4.7	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		60.5	9.8	9.7		60.5	9.6	9.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		44.5	3.5	18.5		44.5	6.5	15.5				
Max Q Clear Time (g_c+I1), s		11.1	2.0	4.7		7.0	5.9	5.0				
Green Ext Time (p_c), s		3.7	0.0	0.5		4.0	0.0	0.5				

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

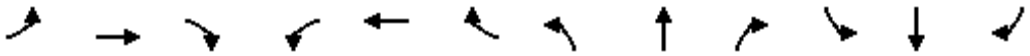
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	34	6	34	4	575	122	494
Future Volume (vph)	4	34	6	34	4	575	122	494
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	26.0	26.0	26.0	26.0	8.0	33.0	21.0	46.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	10.0%	41.3%	26.3%	57.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		9.3		9.3	3.5	48.3	11.2	60.1
Actuated g/C Ratio		0.12		0.12	0.04	0.60	0.14	0.75
v/c Ratio		0.25		0.70	0.05	0.31	0.53	0.20
Control Delay		29.2		17.4	44.5	11.9	29.5	1.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		29.2		17.4	44.5	11.9	29.5	1.5
LOS		C		B	D	B	C	A
Approach Delay		29.2		17.4		12.1		7.0
Approach LOS		C		B		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 52 (65%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 11.4	Intersection LOS: B
Intersection Capacity Utilization 55.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	34	8	6	34	218	4	575	33	122	494	3
Future Volume (veh/h)	4	34	8	6	34	218	4	575	33	122	494	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	4	36	8	6	36	229	4	605	35	128	520	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	58	286	59	48	47	268	198	1816	105	161	1849	11
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.11	0.54	0.54	0.18	1.00	1.00
Sat Flow, veh/h	45	1435	296	12	235	1347	1753	3360	194	1753	3565	21
Grp Volume(v), veh/h	48	0	0	271	0	0	4	315	325	128	255	268
Grp Sat Flow(s),veh/h/ln	1777	0	0	1594	0	0	1753	1749	1806	1753	1749	1837
Q Serve(g_s), s	0.0	0.0	0.0	2.6	0.0	0.0	0.2	8.1	8.1	5.6	0.0	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	13.1	0.0	0.0	0.2	8.1	8.1	5.6	0.0	0.0
Prop In Lane	0.08		0.17	0.02		0.85	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	403	0	0	364	0	0	198	945	976	161	907	953
V/C Ratio(X)	0.12	0.00	0.00	0.75	0.00	0.00	0.02	0.33	0.33	0.80	0.28	0.28
Avail Cap(c_a), veh/h	520	0	0	474	0	0	198	945	976	362	907	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	0.84	0.00	0.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	26.4	0.0	0.0	30.9	0.0	0.0	31.5	10.3	10.3	32.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	3.9	0.0	0.0	0.0	0.9	0.9	7.7	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	5.3	0.0	0.0	0.1	3.1	3.2	2.5	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.0	0.0	34.8	0.0	0.0	31.6	11.3	11.2	39.7	0.7	0.6
LnGrp LOS	C	A	A	C	A	A	C	B	B	D	A	A
Approach Vol, veh/h		48			271			644			651	
Approach Delay, s/veh		26.5			34.8			11.4			8.3	
Approach LOS		C			C			B			A	

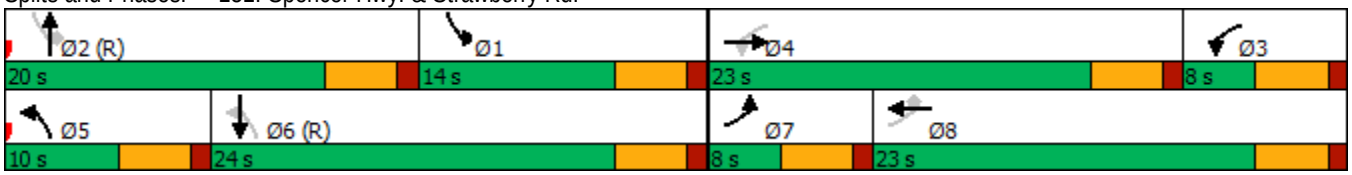
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	47.7		20.4	13.6	46.0		20.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	16.5	28.5		21.5	3.5	41.5		21.5				
Max Q Clear Time (g_c+I1), s	7.6	10.1		3.8	2.2	2.0		15.1				
Green Ext Time (p_c), s	0.2	3.8		0.1	0.0	3.5		0.9				

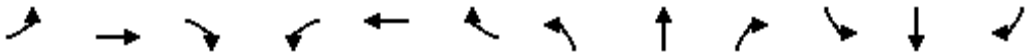
Intersection Summary												
HCM 6th Ctrl Delay			14.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	141	1175	155	942	259	128	668	184	320	541
Future Volume (vph)	141	1175	155	942	259	128	668	184	320	541
Turn Type	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases	8		4		8	6		2	2	
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	23.0	8.0	23.0	23.0	10.0	20.0	20.0	14.0	24.0
Total Split (%)	12.3%	35.4%	12.3%	35.4%	35.4%	15.4%	30.8%	30.8%	21.5%	36.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	22.0	18.5	22.0	18.5	18.5	25.9	15.5	15.5	25.0	21.5
Actuated g/C Ratio	0.34	0.28	0.34	0.28	0.28	0.40	0.24	0.24	0.38	0.33
v/c Ratio	0.78	1.01	0.83	0.75	0.44	0.59	0.92	0.38	1.01	0.72
Control Delay	45.4	53.1	55.7	25.4	5.2	22.4	35.4	6.7	77.9	22.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	53.1	55.7	25.4	5.2	22.4	35.4	6.7	77.9	22.1
LOS	D	D	E	C	A	C	D	A	E	C
Approach Delay		52.3		25.0			28.3			38.7
Approach LOS		D		C			C			D

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 36.7	Intersection LOS: D
Intersection Capacity Utilization 89.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	1175	89	155	942	259	128	668	184	320	541	216
Future Volume (veh/h)	141	1175	89	155	942	259	128	668	184	320	541	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	155	1291	98	170	1035	285	141	734	202	352	595	237
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	246	1356	103	212	1430	444	301	834	372	388	749	298
Arrive On Green	0.05	0.28	0.28	0.05	0.28	0.28	0.08	0.24	0.24	0.15	0.31	0.31
Sat Flow, veh/h	1753	4764	362	1753	5025	1560	1753	3497	1560	1753	2443	972
Grp Volume(v), veh/h	155	908	481	170	1035	285	141	734	202	352	426	406
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1560	1753	1749	1560	1753	1749	1666
Q Serve(g_s), s	3.5	17.3	17.3	1.8	12.1	6.3	3.5	13.1	7.4	7.8	14.5	14.5
Cycle Q Clear(g_c), s	3.5	17.3	17.3	1.8	12.1	6.3	3.5	13.1	7.4	7.8	14.5	14.5
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.58
Lane Grp Cap(c), veh/h	246	953	505	212	1430	444	301	834	372	388	536	511
V/C Ratio(X)	0.63	0.95	0.95	0.80	0.72	0.64	0.47	0.88	0.54	0.91	0.79	0.80
Avail Cap(c_a), veh/h	246	953	505	212	1430	444	313	834	372	388	536	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.56	0.56	0.56	0.62	0.62	0.62	0.82	0.82	0.82
Uniform Delay (d), s/veh	19.3	22.8	22.8	29.3	20.9	7.4	15.5	23.9	21.7	25.5	20.7	20.7
Incr Delay (d2), s/veh	4.5	17.0	26.1	11.6	1.0	1.8	0.7	8.5	3.5	21.0	9.6	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	8.2	10.0	3.0	4.3	3.2	1.3	5.9	2.8	6.6	6.7	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	39.9	48.9	40.9	22.0	9.1	16.2	32.3	25.2	46.5	30.3	30.8
LnGrp LOS	C	D	D	D	C	A	B	C	C	D	C	C
Approach Vol, veh/h		1544			1490			1077			1184	
Approach Delay, s/veh		41.1			21.7			28.9			35.3	
Approach LOS		D			C			C			D	

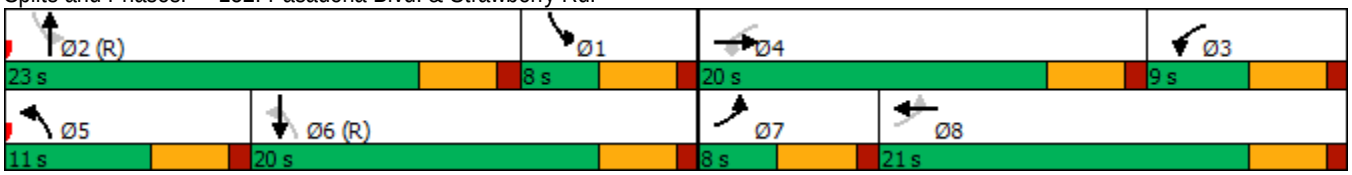
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	20.0	8.0	23.0	9.6	24.4	8.0	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	15.5	3.5	18.5	5.5	19.5	3.5	18.5
Max Q Clear Time (g_c+I1), s	9.8	15.1	3.8	19.3	5.5	16.5	5.5	14.1
Green Ext Time (p_c), s	0.0	0.2	0.0	0.0	0.0	1.5	0.0	2.9

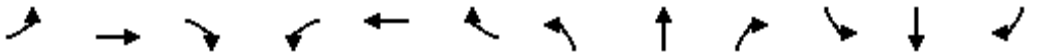
Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	48	418	451	165	541	449	693	116	599
Future Volume (vph)	48	418	451	165	541	449	693	116	599
Turn Type	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	20.0	9.0	21.0	11.0	23.0	8.0	20.0
Total Split (%)	13.3%	33.3%	33.3%	15.0%	35.0%	18.3%	38.3%	13.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.0	14.3	14.3	19.2	18.9	22.8	20.9	23.7	15.6
Actuated g/C Ratio	0.35	0.24	0.24	0.32	0.32	0.38	0.35	0.40	0.26
v/c Ratio	0.24	0.56	0.74	0.58	0.69	0.80	0.78	0.28	0.76
Control Delay	13.8	22.8	12.9	24.0	21.7	25.1	25.1	13.8	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	22.8	12.9	24.0	21.7	25.1	25.1	13.8	27.3
LOS	B	C	B	C	C	C	C	B	C
Approach Delay		17.4			22.1		25.1		25.2
Approach LOS		B			C		C		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 73.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	418	451	165	541	136	449	693	98	116	599	22
Future Volume (veh/h)	48	418	451	165	541	136	449	693	98	116	599	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	53	464	501	183	601	151	499	770	109	129	666	24
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	215	750	335	307	709	178	801	948	134	678	1037	37
Arrive On Green	0.03	0.21	0.21	0.08	0.26	0.26	0.11	0.31	0.31	0.10	0.30	0.30
Sat Flow, veh/h	1753	3497	1560	1753	2770	694	3401	3076	435	3401	3443	124
Grp Volume(v), veh/h	53	464	501	183	379	373	499	438	441	129	338	352
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1716	1700	1749	1762	1700	1749	1818
Q Serve(g_s), s	1.3	7.2	8.6	0.0	12.3	12.4	6.1	13.9	13.9	0.0	10.0	10.1
Cycle Q Clear(g_c), s	1.3	7.2	8.6	0.0	12.3	12.4	6.1	13.9	13.9	0.0	10.0	10.1
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.25	1.00		0.07
Lane Grp Cap(c), veh/h	215	750	335	307	448	439	801	539	543	678	527	548
V/C Ratio(X)	0.25	0.62	1.50	0.60	0.85	0.85	0.62	0.81	0.81	0.19	0.64	0.64
Avail Cap(c_a), veh/h	257	903	403	307	481	472	801	539	543	678	527	548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	0.82	0.82	0.82	0.83	0.83	0.83
Uniform Delay (d), s/veh	17.0	21.3	10.6	24.8	21.2	21.2	13.5	19.1	19.1	22.6	18.2	18.2
Incr Delay (d2), s/veh	0.6	0.9	238.9	2.3	9.3	9.7	1.2	10.5	10.4	0.1	4.9	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.8	26.1	2.4	5.7	5.6	2.1	6.5	6.5	0.8	4.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.6	22.3	249.5	27.0	30.5	31.0	14.8	29.6	29.6	22.7	23.1	22.9
LnGrp LOS	B	C	F	C	C	C	B	C	C	C	C	C
Approach Vol, veh/h		1018			935			1378			819	
Approach Delay, s/veh		133.9			30.0			24.2			22.9	
Approach LOS		F			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	23.0	9.1	17.4	11.0	22.6	6.6	19.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	18.5	4.5	15.5	6.5	15.5	3.5	16.5
Max Q Clear Time (g_c+I1), s	2.0	15.9	2.0	10.6	8.1	12.1	3.3	14.4
Green Ext Time (p_c), s	0.0	1.4	0.1	2.2	0.0	1.3	0.0	1.0

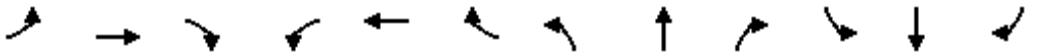
Intersection Summary	
HCM 6th Ctrl Delay	52.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	118	11	1	121	1129	13	1079
Future Volume (vph)	118	11	1	121	1129	13	1079
Turn Type	Perm	NA	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4			6		2	
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	21.0	14.0	51.0	8.0	45.0
Total Split (%)	26.3%	26.3%	26.3%	17.5%	63.8%	10.0%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.6	12.6	12.6	53.9	56.8	57.5	46.1
Actuated g/C Ratio	0.16	0.16	0.16	0.67	0.71	0.72	0.58
v/c Ratio	0.62	0.53	0.01	0.47	0.54	0.06	0.69
Control Delay	43.5	10.1	22.5	15.7	1.2	4.8	15.0
Queue Delay	0.0	0.0	0.0	0.3	0.4	0.0	0.0
Total Delay	43.5	10.1	22.5	16.1	1.6	4.8	15.0
LOS	D	B	C	B	A	A	B
Approach Delay		22.6	22.5		3.0		14.9
Approach LOS		C	C		A		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 6 (8%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 10.3	Intersection LOS: B
Intersection Capacity Utilization 70.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	11	188	0	1	1	121	1129	23	13	1079	104
Future Volume (veh/h)	118	11	188	0	1	1	121	1129	23	13	1079	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	136	13	216	0	1	1	139	1298	26	15	1240	120
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	330	15	257	0	146	146	325	2038	41	462	1946	188
Arrive On Green	0.17	0.17	0.17	0.00	0.17	0.17	0.11	1.00	1.00	0.08	0.60	0.60
Sat Flow, veh/h	1393	89	1484	0	844	844	1753	3507	70	1753	3222	311
Grp Volume(v), veh/h	136	0	229	0	0	2	139	647	677	15	671	689
Grp Sat Flow(s),veh/h/ln	1393	0	1574	0	0	1689	1753	1749	1828	1753	1749	1785
Q Serve(g_s), s	7.2	0.0	11.3	0.0	0.0	0.1	2.4	0.0	0.0	0.0	19.8	19.9
Cycle Q Clear(g_c), s	7.2	0.0	11.3	0.0	0.0	0.1	2.4	0.0	0.0	0.0	19.8	19.9
Prop In Lane	1.00		0.94	0.00		0.50	1.00		0.04	1.00		0.17
Lane Grp Cap(c), veh/h	330	0	272	0	0	292	325	1016	1063	462	1056	1078
V/C Ratio(X)	0.41	0.00	0.84	0.00	0.00	0.01	0.43	0.64	0.64	0.03	0.64	0.64
Avail Cap(c_a), veh/h	376	0	325	0	0	348	438	1016	1063	462	1056	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.60	0.60	0.60	0.61	0.61	0.61
Uniform Delay (d), s/veh	30.4	0.0	32.0	0.0	0.0	27.4	8.3	0.0	0.0	4.9	10.2	10.2
Incr Delay (d2), s/veh	0.8	0.0	15.5	0.0	0.0	0.0	0.5	1.8	1.8	0.0	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	5.3	0.0	0.0	0.0	0.7	0.5	0.5	0.1	7.0	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	47.5	0.0	0.0	27.4	8.8	1.8	1.8	4.9	12.0	12.0
LnGrp LOS	C	A	D	A	A	C	A	A	A	A	B	B
Approach Vol, veh/h		365			2			1463			1375	
Approach Delay, s/veh		41.4			27.4			2.5			11.9	
Approach LOS		D			C			A			B	

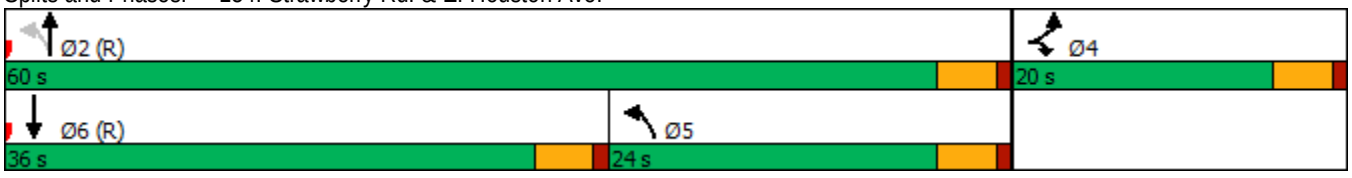
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	51.0		18.3	8.9	52.8		18.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	46.5		16.5	9.5	40.5		16.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		13.3	4.4	21.9		2.1				
Green Ext Time (p_c), s	0.0	12.1		0.6	0.1	9.5		0.0				

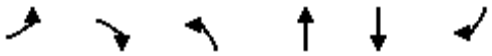
Intersection Summary												
HCM 6th Ctrl Delay			11.0									
HCM 6th LOS			B									

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	74	116	269	750	642
Future Volume (vph)	74	116	269	750	642
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	24.0	60.0	36.0
Total Split (%)	25.0%	25.0%	30.0%	75.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	9.3	9.3	61.7	61.7	37.7
Actuated g/C Ratio	0.12	0.12	0.77	0.77	0.47
v/c Ratio	0.43	0.45	0.48	0.33	0.55
Control Delay	38.7	11.1	12.1	3.4	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	11.1	12.1	3.4	6.6
LOS	D	B	B	A	A
Approach Delay	21.9			5.7	6.6
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 15 (19%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 7.6	Intersection LOS: A
Intersection Capacity Utilization 56.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	116	269	750	642	110
Future Volume (veh/h)	74	116	269	750	642	110
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	87	136	316	882	755	129
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	199	177	819	2707	1176	201
Arrive On Green	0.11	0.11	0.32	0.77	0.79	0.79
Sat Flow, veh/h	1753	1560	1753	3589	3079	510
Grp Volume(v), veh/h	87	136	316	882	442	442
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1749
Q Serve(g_s), s	3.7	6.8	0.0	6.1	8.7	8.7
Cycle Q Clear(g_c), s	3.7	6.8	0.0	6.1	8.7	8.7
Prop In Lane	1.00	1.00	1.00			0.29
Lane Grp Cap(c), veh/h	199	177	819	2707	689	689
V/C Ratio(X)	0.44	0.77	0.39	0.33	0.64	0.64
Avail Cap(c_a), veh/h	340	302	819	2707	689	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.58	0.58	0.65	0.65
Uniform Delay (d), s/veh	33.1	34.4	13.0	2.7	6.1	6.1
Incr Delay (d2), s/veh	1.5	6.9	0.2	0.2	3.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.0	3.8	1.2	2.3	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.6	41.3	13.2	2.9	9.1	9.1
LnGrp LOS	C	D	B	A	A	A
Approach Vol, veh/h	223			1198	884	
Approach Delay, s/veh	38.7			5.6	9.1	
Approach LOS	D			A	A	

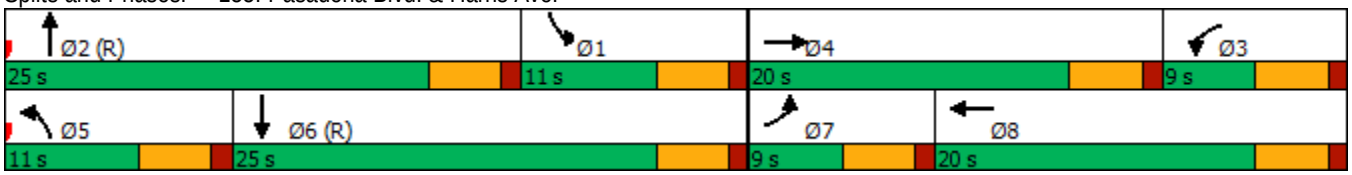
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		66.4		13.6	30.4	36.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		15.5	19.5	31.5
Max Q Clear Time (g_c+I1), s		8.1		8.8	2.0	10.7
Green Ext Time (p_c), s		7.4		0.4	0.9	5.6

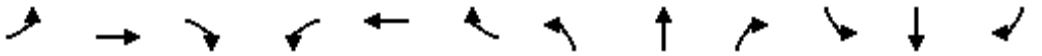
Intersection Summary		
HCM 6th Ctrl Delay	10.1	
HCM 6th LOS	B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	96	232	81	234	62	739	150	456
Future Volume (vph)	96	232	81	234	62	739	150	456
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	20.0	9.0	20.0	11.0	25.0	11.0	25.0
Total Split (%)	13.8%	30.8%	13.8%	30.8%	16.9%	38.5%	16.9%	38.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.5	12.3	7.5	13.2	6.4	22.8	6.5	27.2
Actuated g/C Ratio	0.07	0.19	0.12	0.20	0.10	0.35	0.10	0.42
v/c Ratio	0.89	0.49	0.45	0.63	0.41	0.76	0.97	0.39
Control Delay	93.2	22.5	36.0	13.7	35.2	24.6	94.7	15.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.2	22.5	36.0	13.7	35.2	24.6	94.7	15.9
LOS	F	C	D	B	D	C	F	B
Approach Delay		39.8		16.9		25.3		33.9
Approach LOS		D		B		C		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 27.9	Intersection LOS: C
Intersection Capacity Utilization 71.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	232	67	81	234	260	62	739	89	150	456	51
Future Volume (veh/h)	96	232	67	81	234	260	62	739	89	150	456	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	107	258	74	90	260	289	69	821	99	167	507	57
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	121	378	106	259	382	341	87	991	119	210	1221	137
Arrive On Green	0.07	0.14	0.14	0.15	0.22	0.22	0.05	0.32	0.32	0.12	0.39	0.39
Sat Flow, veh/h	1753	2696	757	1753	1749	1560	1753	3142	379	1753	3170	355
Grp Volume(v), veh/h	107	165	167	90	260	289	69	457	463	167	279	285
Grp Sat Flow(s),veh/h/ln	1753	1749	1704	1753	1749	1560	1753	1749	1773	1753	1749	1777
Q Serve(g_s), s	3.9	5.8	6.1	3.0	8.9	11.5	2.5	15.7	15.7	6.0	7.6	7.6
Cycle Q Clear(g_c), s	3.9	5.8	6.1	3.0	8.9	11.5	2.5	15.7	15.7	6.0	7.6	7.6
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.21	1.00		0.20
Lane Grp Cap(c), veh/h	121	245	239	259	382	341	87	552	559	210	674	685
V/C Ratio(X)	0.88	0.67	0.70	0.35	0.68	0.85	0.79	0.83	0.83	0.80	0.41	0.42
Avail Cap(c_a), veh/h	121	417	406	259	417	372	175	552	559	210	674	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	26.5	26.6	24.9	23.3	24.3	30.5	20.6	20.6	27.8	14.6	14.6
Incr Delay (d2), s/veh	34.4	2.0	2.3	0.8	4.0	15.5	14.5	13.4	13.3	18.8	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.4	2.4	1.2	3.8	5.4	1.4	7.8	7.8	3.5	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	28.6	28.9	25.7	27.3	39.9	45.0	34.0	33.9	46.6	16.5	16.5
LnGrp LOS	E	C	C	C	C	D	D	C	C	D	B	B
Approach Vol, veh/h		439			639			989			731	
Approach Delay, s/veh		37.4			32.7			34.7			23.4	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	25.0	14.1	13.6	7.7	29.5	9.0	18.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	20.5	4.5	15.5	6.5	20.5	4.5	15.5
Max Q Clear Time (g_c+I1), s	8.0	17.7	5.0	8.1	4.5	9.6	5.9	13.5
Green Ext Time (p_c), s	0.0	1.5	0.0	1.1	0.0	2.5	0.0	0.7

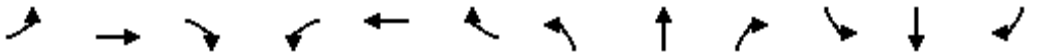
Intersection Summary	
HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	8	86	4	30	1154	150	1124
Future Volume (vph)	8	86	4	30	1154	150	1124
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	20.0	8.0	46.0	14.0	52.0
Total Split (%)	25.0%	25.0%	25.0%	10.0%	57.5%	17.5%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.1	11.1	11.1	57.2	45.9	55.4	54.2
Actuated g/C Ratio	0.14	0.14	0.14	0.72	0.57	0.69	0.68
v/c Ratio	0.16	0.54	0.42	0.11	0.74	0.57	0.55
Control Delay	14.7	42.0	10.3	4.2	16.0	16.6	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	14.7	42.0	10.3	4.2	16.0	16.6	4.3
LOS	B	D	B	A	B	B	A
Approach Delay	14.7		23.5		15.7		5.8
Approach LOS	B		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 3 (4%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	27	86	4	117	30	1154	112	150	1124	1
Future Volume (veh/h)	0	8	27	86	4	117	30	1154	112	150	1124	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	9	31	99	5	134	34	1326	129	172	1292	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	45	156	228	7	189	418	1671	162	483	2450	2
Arrive On Green	0.00	0.12	0.12	0.12	0.12	0.12	0.02	0.52	0.52	0.38	1.00	1.00
Sat Flow, veh/h	0	363	1252	1346	56	1512	1753	3221	312	1753	3586	3
Grp Volume(v), veh/h	0	0	40	99	0	139	34	717	738	172	630	663
Grp Sat Flow(s),veh/h/ln	0	0	1615	1346	0	1569	1753	1749	1785	1753	1749	1840
Q Serve(g_s), s	0.0	0.0	1.8	5.7	0.0	6.8	0.5	26.8	27.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.8	7.5	0.0	6.8	0.5	26.8	27.1	0.0	0.0	0.0
Prop In Lane	0.00		0.77	1.00		0.96	1.00		0.17	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	202	228	0	196	418	907	926	483	1195	1257
V/C Ratio(X)	0.00	0.00	0.20	0.43	0.00	0.71	0.08	0.79	0.80	0.36	0.53	0.53
Avail Cap(c_a), veh/h	0	0	313	321	0	304	454	907	926	483	1195	1257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.53	0.53	0.53	0.67	0.67	0.67
Uniform Delay (d), s/veh	0.0	0.0	31.4	34.8	0.0	33.6	3.5	15.7	15.8	17.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.5	1.3	0.0	4.7	0.0	3.8	3.9	0.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	1.9	0.0	2.8	0.1	10.2	10.5	2.0	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.9	36.1	0.0	38.3	3.6	19.5	19.7	17.9	1.1	1.1
LnGrp LOS	A	A	C	D	A	D	A	B	B	B	A	A
Approach Vol, veh/h		40			238			1489			1465	
Approach Delay, s/veh		31.9			37.4			19.2			3.1	
Approach LOS		C			D			B			A	

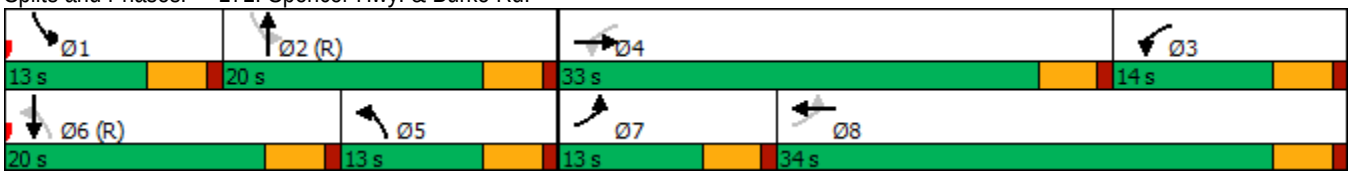
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.5	46.0		14.5	6.4	59.2		14.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	9.5	41.5		15.5	3.5	47.5		15.5				
Max Q Clear Time (g_c+I1), s	2.0	29.1		3.8	2.5	2.0		9.5				
Green Ext Time (p_c), s	0.3	7.6		0.1	0.0	11.7		0.5				

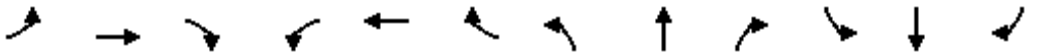
Intersection Summary			
HCM 6th Ctrl Delay		13.4	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	123	1205	168	1144	140	173	182	230
Future Volume (vph)	123	1205	168	1144	140	173	182	230
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	33.0	14.0	34.0	13.0	20.0	13.0	20.0
Total Split (%)	16.3%	41.3%	17.5%	42.5%	16.3%	25.0%	16.3%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	37.1	28.4	37.1	29.2	24.9	16.5	24.9	16.4
Actuated g/C Ratio	0.46	0.36	0.46	0.36	0.31	0.21	0.31	0.20
v/c Ratio	0.52	0.87	0.67	0.79	0.48	0.45	0.59	0.50
Control Delay	18.5	30.5	27.1	20.9	20.3	11.7	17.2	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	30.5	27.1	20.9	20.3	11.7	17.2	20.5
LOS	B	C	C	C	C	B	B	C
Approach Delay		29.5		21.6		14.4		19.3
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 54 (68%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	1205	128	168	1144	104	140	173	141	182	230	93
Future Volume (veh/h)	123	1205	128	168	1144	104	140	173	141	182	230	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	137	1339	142	187	1271	116	156	192	157	202	256	103
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	246	1564	166	245	1600	146	482	479	370	444	476	186
Arrive On Green	0.07	0.34	0.34	0.02	0.11	0.11	0.17	0.26	0.26	0.11	0.19	0.19
Sat Flow, veh/h	1753	4614	489	1753	4686	428	1753	1877	1451	1753	2455	961
Grp Volume(v), veh/h	137	972	509	187	909	478	156	178	171	202	180	179
Grp Sat Flow(s),veh/h/ln	1753	1675	1753	1753	1675	1764	1753	1749	1579	1753	1749	1668
Q Serve(g_s), s	4.0	21.6	21.6	3.2	21.1	21.1	0.0	6.8	7.2	6.7	7.4	7.7
Cycle Q Clear(g_c), s	4.0	21.6	21.6	3.2	21.1	21.1	0.0	6.8	7.2	6.7	7.4	7.7
Prop In Lane	1.00		0.28	1.00		0.24	1.00		0.92	1.00		0.58
Lane Grp Cap(c), veh/h	246	1136	594	245	1144	602	482	446	403	444	339	323
V/C Ratio(X)	0.56	0.86	0.86	0.76	0.79	0.79	0.32	0.40	0.42	0.46	0.53	0.55
Avail Cap(c_a), veh/h	306	1193	624	322	1235	650	482	446	403	444	339	323
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.21	0.21	0.21	0.43	0.43	0.43	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	24.6	24.6	36.3	32.8	32.8	25.3	24.7	24.9	18.8	29.0	29.1
Incr Delay (d2), s/veh	0.4	1.4	2.6	3.4	1.5	2.8	0.4	2.7	3.2	0.7	5.9	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	8.0	8.6	3.7	9.5	10.3	2.5	3.0	2.9	2.6	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	26.0	27.2	39.7	34.3	35.6	25.7	27.4	28.1	19.6	34.9	35.8
LnGrp LOS	B	C	C	D	C	D	C	C	C	B	C	D
Approach Vol, veh/h		1618			1574			505			561	
Approach Delay, s/veh		25.8			35.3			27.1			29.7	
Approach LOS		C			D			C			C	

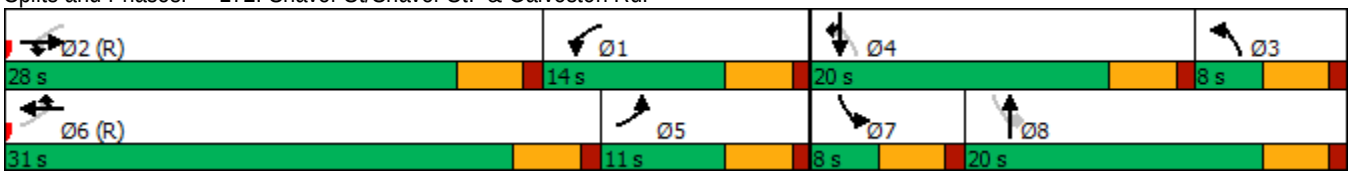
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	24.9	10.5	31.6	17.9	20.0	10.3	31.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	15.5	9.5	28.5	8.5	15.5	8.5	29.5
Max Q Clear Time (g_c+I1), s	8.7	9.2	5.2	23.6	2.0	9.7	6.0	23.1
Green Ext Time (p_c), s	0.0	1.0	0.2	3.5	0.2	1.0	0.1	4.2

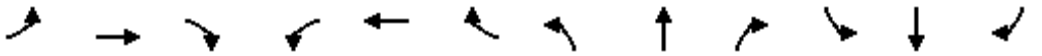
Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	184	932	128	264	940	166	96	433	213	149	472	176
Future Volume (vph)	184	932	128	264	940	166	96	433	213	149	472	176
Turn Type	D.P+P	NA	Prot	D.P+P	NA	Prot	D.P+P	NA	Perm	D.P+P	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8		7	4	4
Permitted Phases	6			2			4		8	8		
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	11.0	28.0	28.0	14.0	31.0	31.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (%)	15.7%	40.0%	40.0%	20.0%	44.3%	44.3%	11.4%	28.6%	28.6%	11.4%	28.6%	28.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	33.9	24.5	24.5	33.9	27.5	27.5	19.3	14.5	14.5	18.1	16.0	16.0
Actuated g/C Ratio	0.48	0.35	0.35	0.48	0.39	0.39	0.28	0.21	0.21	0.26	0.23	0.23
v/c Ratio	0.74	0.83	0.20	0.83	0.74	0.24	0.45	0.65	0.45	0.72	0.64	0.38
Control Delay	39.4	28.7	0.9	44.1	22.7	1.8	27.2	29.8	6.9	40.4	29.0	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	28.7	0.9	44.1	22.7	1.8	27.2	29.8	6.9	40.4	29.0	6.5
LOS	D	C	A	D	C	A	C	C	A	D	C	A
Approach Delay		27.5			24.3			22.9			26.2	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:EBWB, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 25.4	Intersection LOS: C
Intersection Capacity Utilization 80.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	932	128	264	940	166	96	433	213	149	472	176
Future Volume (veh/h)	184	932	128	264	940	166	96	433	213	149	472	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	198	1002	138	284	1011	178	103	466	229	160	508	189
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	395	1174	524	445	1324	591	215	633	282	231	656	293
Arrive On Green	0.13	0.34	0.34	0.18	0.38	0.38	0.04	0.18	0.18	0.05	0.19	0.19
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	198	1002	138	284	1011	178	103	466	229	160	508	189
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	0.5	18.7	4.5	4.6	17.7	4.0	0.0	8.8	6.2	3.5	9.7	7.8
Cycle Q Clear(g_c), s	0.5	18.7	4.5	4.6	17.7	4.0	0.0	8.8	6.2	3.5	9.7	7.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	1174	524	445	1324	591	215	633	282	231	656	293
V/C Ratio(X)	0.50	0.85	0.26	0.64	0.76	0.30	0.48	0.74	0.81	0.69	0.77	0.65
Avail Cap(c_a), veh/h	395	1174	524	445	1324	591	227	774	345	231	774	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	21.6	16.9	24.3	19.0	7.7	31.4	27.1	10.8	26.6	27.0	26.3
Incr Delay (d2), s/veh	1.0	8.0	1.2	3.0	4.2	1.3	1.6	2.9	11.4	8.6	4.2	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	8.2	1.7	4.3	7.3	2.0	1.7	3.8	4.2	1.5	4.2	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	29.6	18.2	27.3	23.2	9.1	33.1	30.0	22.3	35.2	31.2	29.5
LnGrp LOS	C	C	B	C	C	A	C	C	C	D	C	C
Approach Vol, veh/h		1338			1473			798			857	
Approach Delay, s/veh		27.9			22.3			28.2			31.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	28.0	7.5	17.6	13.8	31.0	8.0	17.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	23.5	3.5	15.5	6.5	26.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	6.6	20.7	2.0	11.7	2.5	19.7	5.5	10.8
Green Ext Time (p_c), s	0.2	1.8	0.0	1.5	0.2	4.0	0.0	1.7

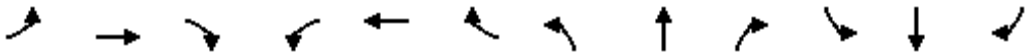
Intersection Summary	
HCM 6th Ctrl Delay	26.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	38	439	41	413	69	223	13	47
Future Volume (vph)	38	439	41	413	69	223	13	47
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	37.0	14.0	37.0	29.0	29.0	29.0	29.0
Total Split (%)	17.5%	46.3%	17.5%	46.3%	36.3%	36.3%	36.3%	36.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.3	19.5	8.0	20.1		43.2		43.2
Actuated g/C Ratio	0.09	0.24	0.10	0.25		0.54		0.54
v/c Ratio	0.25	0.70	0.25	0.73		0.21		0.07
Control Delay	37.1	29.1	35.7	21.2		12.2		8.3
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	37.1	29.1	35.7	21.2		12.2		8.3
LOS	D	C	D	C		B		A
Approach Delay		29.6		22.0		12.2		8.3
Approach LOS		C		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 65 (81%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 22.0	Intersection LOS: C
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	439	126	41	413	287	69	223	33	13	47	47
Future Volume (veh/h)	38	439	126	41	413	287	69	223	33	13	47	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	40	467	134	44	439	305	73	237	35	14	50	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	50	619	176	139	557	385	375	1176	175	217	738	696
Arrive On Green	0.03	0.23	0.23	0.08	0.28	0.28	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1753	2686	765	1753	1978	1365	598	2255	336	310	1416	1335
Grp Volume(v), veh/h	40	303	298	44	388	356	177	0	168	60	0	54
Grp Sat Flow(s),veh/h/ln	1753	1749	1703	1753	1749	1595	1575	0	1615	1627	0	1435
Q Serve(g_s), s	1.8	12.9	13.1	1.9	16.4	16.5	1.5	0.0	4.4	0.0	0.0	1.5
Cycle Q Clear(g_c), s	1.8	12.9	13.1	1.9	16.4	16.5	4.3	0.0	4.4	1.3	0.0	1.5
Prop In Lane	1.00		0.45	1.00		0.86	0.41		0.21	0.23		0.93
Lane Grp Cap(c), veh/h	50	403	392	139	493	449	885	0	842	904	0	748
V/C Ratio(X)	0.81	0.75	0.76	0.32	0.79	0.79	0.20	0.00	0.20	0.07	0.00	0.07
Avail Cap(c_a), veh/h	208	710	692	208	710	648	885	0	842	904	0	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.7	28.7	28.7	34.8	26.5	26.6	10.2	0.0	10.2	9.5	0.0	9.5
Incr Delay (d2), s/veh	25.5	2.8	3.1	1.3	3.7	4.3	0.5	0.0	0.5	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.4	5.4	0.8	6.9	6.4	1.6	0.0	1.5	0.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	31.5	31.8	36.0	30.3	30.9	10.7	0.0	10.8	9.6	0.0	9.7
LnGrp LOS	E	C	C	D	C	C	B	A	B	A	A	A
Approach Vol, veh/h		641			788			345			114	
Approach Delay, s/veh		33.7			30.9			10.7			9.7	
Approach LOS		C			C			B			A	

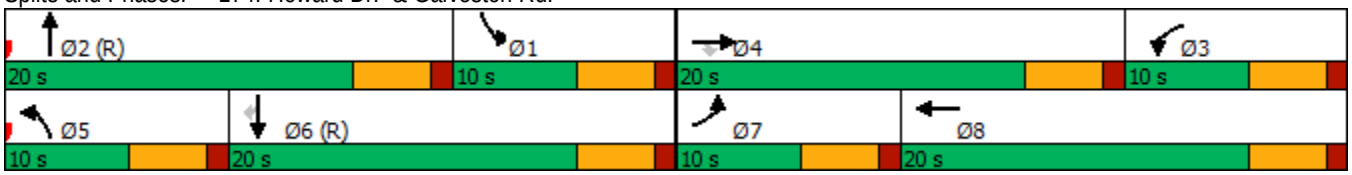
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.2	10.9	22.9		46.2	6.8	27.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		24.5	9.5	32.5		24.5	9.5	32.5				
Max Q Clear Time (g_c+I1), s		6.4	3.9	15.1		3.5	3.8	18.5				
Green Ext Time (p_c), s		1.8	0.0	3.4		0.5	0.0	4.0				

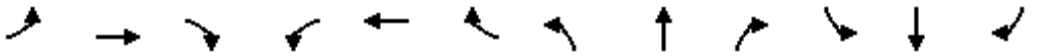
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	135	344	215	60	469	230	672	117	439	113
Future Volume (vph)	135	344	215	60	469	230	672	117	439	113
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	10.0	20.0	20.0	10.0	20.0	10.0	20.0	10.0	20.0	20.0
Total Split (%)	16.7%	33.3%	33.3%	16.7%	33.3%	16.7%	33.3%	16.7%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	5.5	18.1	18.1	6.5	14.8	5.9	16.2	5.5	15.8	15.8
Actuated g/C Ratio	0.09	0.30	0.30	0.11	0.25	0.10	0.27	0.09	0.26	0.26
v/c Ratio	0.93	0.36	0.36	0.37	0.80	0.76	0.85	0.81	0.37	0.20
Control Delay	88.5	18.8	3.7	31.3	26.5	44.7	32.1	66.5	19.1	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.5	18.8	3.7	31.3	26.5	44.7	32.1	66.5	19.1	0.8
LOS	F	B	A	C	C	D	C	E	B	A
Approach Delay		27.7			26.9		35.1		24.4	
Approach LOS		C			C		D		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	344	215	60	469	175	230	672	53	117	439	113
Future Volume (veh/h)	135	344	215	60	469	175	230	672	53	117	439	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	148	378	236	66	515	192	253	738	58	129	482	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	161	594	265	289	607	225	312	849	67	187	1374	
Arrive On Green	0.09	0.17	0.17	0.16	0.24	0.24	0.09	0.26	0.26	0.11	0.27	0.00
Sat Flow, veh/h	1753	3497	1560	1753	2496	926	3401	3285	258	1753	5025	1560
Grp Volume(v), veh/h	148	378	236	66	360	347	253	393	403	129	482	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1674	1700	1749	1794	1753	1675	1560
Q Serve(g_s), s	5.0	6.0	6.3	2.0	11.8	11.9	4.4	12.9	12.9	4.3	4.6	0.0
Cycle Q Clear(g_c), s	5.0	6.0	6.3	2.0	11.8	11.9	4.4	12.9	12.9	4.3	4.6	0.0
Prop In Lane	1.00		1.00	1.00		0.55	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	161	594	265	289	425	407	312	452	464	187	1374	
V/C Ratio(X)	0.92	0.64	0.89	0.23	0.85	0.85	0.81	0.87	0.87	0.69	0.35	
Avail Cap(c_a), veh/h	161	903	403	289	452	432	312	452	464	187	1374	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.0	23.2	12.2	21.7	21.6	21.7	26.7	21.3	21.3	25.8	17.5	0.0
Incr Delay (d2), s/veh	48.4	1.1	14.8	0.4	13.3	14.4	14.9	19.8	19.5	10.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.4	3.9	0.8	5.9	5.8	2.3	7.0	7.2	2.1	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.5	24.3	27.1	22.1	34.9	36.1	41.6	41.1	40.8	36.1	18.2	0.0
LnGrp LOS	E	C	C	C	C	D	D	D	D	D	B	
Approach Vol, veh/h		762			773			1049			611	A
Approach Delay, s/veh		35.1			34.4			41.1			22.0	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	20.0	14.4	14.7	10.0	20.9	10.0	19.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	15.5	5.5	15.5	5.5	15.5	5.5	15.5
Max Q Clear Time (g_c+I1), s	6.3	14.9	4.0	8.3	6.4	6.6	7.0	13.9
Green Ext Time (p_c), s	0.0	0.3	0.0	1.9	0.0	2.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

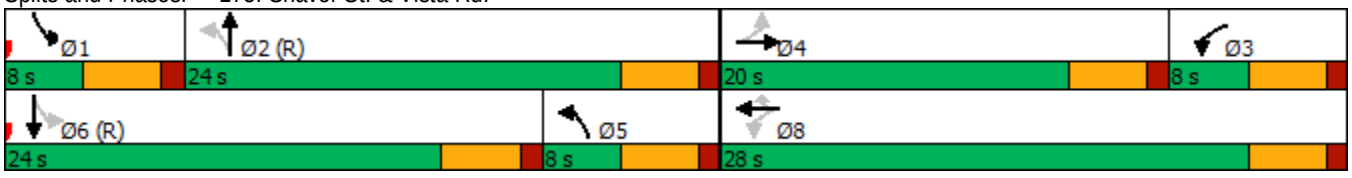
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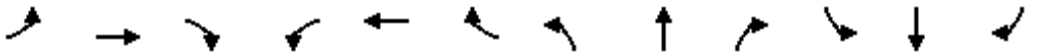
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	23	198	187	292	147	10	738	109	706
Future Volume (vph)	23	198	187	292	147	10	738	109	706
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	8.0	28.0	28.0	8.0	24.0	8.0	24.0
Total Split (%)	33.3%	33.3%	13.3%	46.7%	46.7%	13.3%	40.0%	13.3%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.1	20.2	20.2	20.2	22.6	22.6	29.2	29.2
Actuated g/C Ratio		0.17	0.34	0.34	0.34	0.38	0.38	0.49	0.49
v/c Ratio		0.57	0.50	0.54	0.25	0.04	0.80	0.40	0.34
Control Delay		26.9	20.6	19.3	2.8	14.7	24.0	17.1	11.1
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		26.9	20.6	19.3	2.8	14.7	24.0	17.1	11.1
LOS		C	C	B	A	B	C	B	B
Approach Delay		26.9		15.8			23.9		11.9
Approach LOS		C		B			C		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 18.4	Intersection LOS: B
Intersection Capacity Utilization 74.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	198	10	187	292	147	10	738	188	109	706	25
Future Volume (veh/h)	23	198	10	187	292	147	10	738	188	109	706	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	26	222	11	210	328	165	11	829	211	122	793	28
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	87	508	26	320	599	507	443	1081	275	222	1620	57
Arrive On Green	0.19	0.19	0.19	0.06	0.33	0.33	0.12	0.39	0.39	0.06	0.32	0.32
Sat Flow, veh/h	77	2624	135	1753	1841	1560	1753	2760	702	1753	4984	176
Grp Volume(v), veh/h	125	0	134	210	328	165	11	525	515	122	532	289
Grp Sat Flow(s),veh/h/ln	1186	0	1651	1753	1841	1560	1753	1749	1714	1753	1675	1809
Q Serve(g_s), s	0.3	0.0	4.3	0.0	8.8	4.8	0.0	15.7	15.7	3.2	7.7	7.7
Cycle Q Clear(g_c), s	9.1	0.0	4.3	0.0	8.8	4.8	0.0	15.7	15.7	3.2	7.7	7.7
Prop In Lane	0.21		0.08	1.00		1.00	1.00		0.41	1.00		0.10
Lane Grp Cap(c), veh/h	302	0	320	320	599	507	443	684	671	222	1089	588
V/C Ratio(X)	0.41	0.00	0.42	0.66	0.55	0.33	0.02	0.77	0.77	0.55	0.49	0.49
Avail Cap(c_a), veh/h	399	0	426	323	721	611	443	684	671	222	1089	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.89	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	21.2	25.4	16.6	15.3	15.7	15.9	15.9	18.1	16.3	16.3
Incr Delay (d2), s/veh	0.8	0.0	0.8	4.7	0.8	0.4	0.0	7.4	7.6	2.8	1.6	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.5	3.0	3.3	1.5	0.1	6.7	6.6	1.3	2.8	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	0.0	22.0	30.2	17.4	15.6	15.7	23.3	23.5	20.9	17.8	19.2
LnGrp LOS	C	A	C	C	B	B	B	C	C	C	B	B
Approach Vol, veh/h		259			703			1051			943	
Approach Delay, s/veh		21.9			20.8			23.3			18.6	
Approach LOS		C			C			C			B	

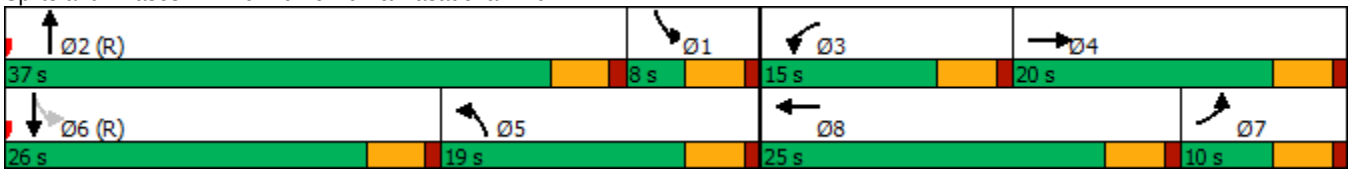
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	28.0	7.9	16.1	12.0	24.0		24.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	19.5	3.5	15.5	3.5	19.5		23.5				
Max Q Clear Time (g_c+I1), s	5.2	17.7	2.0	11.1	2.0	9.7		10.8				
Green Ext Time (p_c), s	0.0	1.1	0.1	0.5	0.0	3.6		1.9				

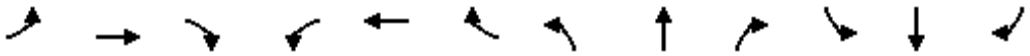
Intersection Summary												
HCM 6th Ctrl Delay			21.1									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	373	117	439	182	244	34	330
Future Volume (vph)	43	373	117	439	182	244	34	330
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	20.0	15.0	25.0	19.0	37.0	8.0	26.0
Total Split (%)	12.5%	25.0%	18.8%	31.3%	23.8%	46.3%	10.0%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	14.9	9.6	19.9	12.7	44.3		27.1
Actuated g/C Ratio	0.08	0.19	0.12	0.25	0.16	0.55		0.34
v/c Ratio	0.32	0.81	0.61	0.62	0.70	0.21		0.48
Control Delay	41.4	38.5	32.1	20.8	45.2	6.6		13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	41.4	38.5	32.1	20.8	45.2	6.6		13.4
LOS	D	D	C	C	D	A		B
Approach Delay		38.8		23.0		19.4		13.4
Approach LOS		D		C		B		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 7 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 65.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





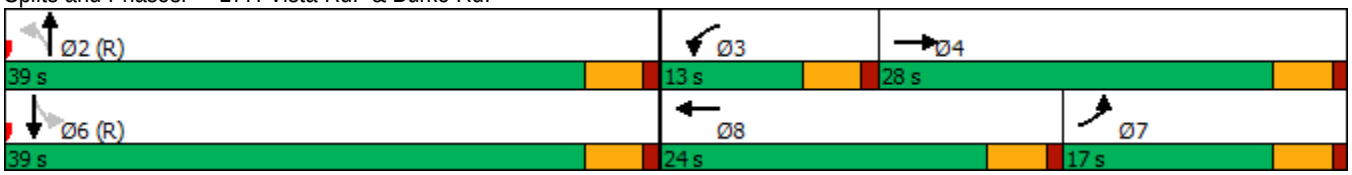
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	373	145	117	439	37	182	244	124	34	330	85
Future Volume (vph)	43	373	145	117	439	37	182	244	124	34	330	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.96		1.00	0.99		1.00	0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)	1736	3325		1678	3202		1736	3295			3136	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.90	
Satd. Flow (perm)	1736	3325		1678	3202		1736	3295			2830	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	393	153	123	462	39	192	257	131	36	347	89
RTOR Reduction (vph)	0	51	0	0	8	0	0	61	0	0	25	0
Lane Group Flow (vph)	45	495	0	123	493	0	192	327	0	0	447	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	4.1	15.7		8.3	19.9		12.7	42.5			25.3	
Effective Green, g (s)	4.1	15.7		8.3	19.9		12.7	42.5			25.3	
Actuated g/C Ratio	0.05	0.20		0.10	0.25		0.16	0.53			0.32	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	88	652		174	796		275	1750			894	
v/s Ratio Prot	0.03	c0.15		0.07	c0.15		c0.11	0.10				
v/s Ratio Perm											c0.16	
v/c Ratio	0.51	0.76		0.71	0.62		0.70	0.19			0.50	
Uniform Delay, d1	37.0	30.4		34.7	26.7		31.8	9.8			22.2	
Progression Factor	1.00	1.00		0.67	0.69		1.02	0.94			0.54	
Incremental Delay, d2	4.9	5.1		9.1	1.0		7.0	0.2			0.4	
Delay (s)	41.9	35.4		32.3	19.5		39.5	9.4			12.4	
Level of Service	D	D		C	B		D	A			B	
Approach Delay (s)		35.9			22.0			19.4			12.4	
Approach LOS		D			C			B			B	

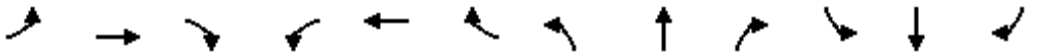
Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	104	386	61	306	98	359	108	306
Future Volume (vph)	104	386	61	306	98	359	108	306
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	17.0	28.0	13.0	24.0	39.0	39.0	39.0	39.0
Total Split (%)	21.3%	35.0%	16.3%	30.0%	48.8%	48.8%	48.8%	48.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.2	17.2	7.6	14.8		43.7		43.7
Actuated g/C Ratio	0.13	0.22	0.10	0.18		0.55		0.55
v/c Ratio	0.50	0.63	0.40	0.63		0.43		0.38
Control Delay	40.0	30.5	36.9	19.0		12.6		7.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	40.0	30.5	36.9	19.0		12.6		7.1
LOS	D	C	D	B		B		A
Approach Delay		32.3		21.4		12.6		7.1
Approach LOS		C		C		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 13 (16%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 18.5	Intersection LOS: B
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	386	60	61	306	79	98	359	133	108	306	58
Future Volume (veh/h)	104	386	60	61	306	79	98	359	133	108	306	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	411	64	65	326	84	104	382	141	115	326	62
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	584	90	83	438	111	303	1079	406	358	1062	213
Arrive On Green	0.08	0.19	0.19	0.05	0.16	0.16	0.59	0.59	0.59	0.59	0.59	0.59
Sat Flow, veh/h	1753	3036	469	1753	2762	701	410	1823	687	490	1795	359
Grp Volume(v), veh/h	111	236	239	65	205	205	308	0	319	225	0	278
Grp Sat Flow(s),veh/h/ln	1753	1749	1756	1753	1749	1714	1369	0	1551	1034	0	1610
Q Serve(g_s), s	5.0	10.1	10.2	2.9	8.9	9.2	4.4	0.0	8.4	6.1	0.0	6.8
Cycle Q Clear(g_c), s	5.0	10.1	10.2	2.9	8.9	9.2	11.3	0.0	8.4	14.5	0.0	6.8
Prop In Lane	1.00		0.27	1.00		0.41	0.34		0.44	0.51		0.22
Lane Grp Cap(c), veh/h	142	336	338	83	278	272	870	0	918	680	0	953
V/C Ratio(X)	0.78	0.70	0.71	0.78	0.74	0.75	0.35	0.00	0.35	0.33	0.00	0.29
Avail Cap(c_a), veh/h	274	514	516	186	426	418	870	0	918	680	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.56	0.56	0.56	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	30.2	30.2	37.7	32.1	32.2	8.8	0.0	8.4	10.1	0.0	8.1
Incr Delay (d2), s/veh	9.0	2.7	2.8	8.6	2.2	2.4	1.1	0.0	1.0	1.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.4	4.4	1.4	3.8	3.9	2.9	0.0	2.7	2.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	32.8	33.0	46.3	34.2	34.6	9.9	0.0	9.4	11.4	0.0	8.8
LnGrp LOS	D	C	C	D	C	C	A	A	A	B	A	A
Approach Vol, veh/h		586			475			627			503	
Approach Delay, s/veh		35.2			36.0			9.7			10.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		51.8	8.3	19.9		51.8	11.0	17.2				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		34.5	8.5	23.5		34.5	12.5	19.5				
Max Q Clear Time (g_c+I1), s		13.3	4.9	12.2		16.5	7.0	11.2				
Green Ext Time (p_c), s		4.2	0.0	2.2		3.2	0.1	1.5				

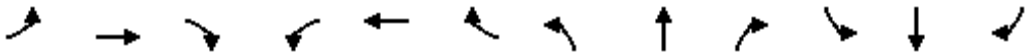
Intersection Summary												
HCM 6th Ctrl Delay			22.3									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	36	1	0	122	618	4	369
Future Volume (vph)	36	1	0	122	618	4	369
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA
Protected Phases		4	8		2		6
Permitted Phases	4			2		6	
Detector Phase	4	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	24.0	24.0	24.0	56.0	56.0	56.0	56.0
Total Split (%)	30.0%	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0
Total Lost Time (s)		4.5	4.5		4.5		4.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		7.3	7.3		63.7		63.7
Actuated g/C Ratio		0.09	0.09		0.80		0.80
v/c Ratio		0.53	0.01		0.38		0.17
Control Delay		14.0	0.0		3.1		2.2
Queue Delay		0.0	0.0		0.0		0.0
Total Delay		14.0	0.0		3.1		2.2
LOS		B	A		A		A
Approach Delay		14.0			3.1		2.2
Approach LOS		B			A		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 76 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 4.4	Intersection LOS: A
Intersection Capacity Utilization 57.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	1	157	0	0	4	122	618	1	4	369	27
Future Volume (veh/h)	36	1	157	0	0	4	122	618	1	4	369	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	40	1	174	0	0	4	136	687	1	4	410	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	293	6	215	0	265	236	399	1918	3	51	2373	172
Arrive On Green	0.15	0.15	0.15	0.00	0.00	0.15	0.74	0.74	0.74	0.74	0.74	0.74
Sat Flow, veh/h	1345	41	1420	0	1841	1560	459	2606	4	7	3223	233
Grp Volume(v), veh/h	41	0	174	0	0	4	380	0	444	234	0	210
Grp Sat Flow(s),veh/h/ln	1386	0	1420	0	1749	1560	1395	0	1674	1831	0	1633
Q Serve(g_s), s	2.0	0.0	9.5	0.0	0.0	0.2	2.8	0.0	7.6	0.0	0.0	3.1
Cycle Q Clear(g_c), s	2.2	0.0	9.5	0.0	0.0	0.2	6.4	0.0	7.6	3.1	0.0	3.1
Prop In Lane	0.98		1.00	0.00		1.00	0.36		0.00	0.02		0.14
Lane Grp Cap(c), veh/h	299	0	215	0	265	236	1088	0	1232	1393	0	1202
V/C Ratio(X)	0.14	0.00	0.81	0.00	0.00	0.02	0.35	0.00	0.36	0.17	0.00	0.17
Avail Cap(c_a), veh/h	428	0	346	0	426	380	1088	0	1232	1393	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	32.8	0.0	0.0	28.9	3.6	0.0	3.8	3.2	0.0	3.2
Incr Delay (d2), s/veh	0.2	0.0	7.2	0.0	0.0	0.0	0.9	0.0	0.8	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	3.6	0.0	0.0	0.1	1.5	0.0	1.8	0.8	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	40.1	0.0	0.0	28.9	4.4	0.0	4.6	3.5	0.0	3.5
LnGrp LOS	C	A	D	A	A	C	A	A	A	A	A	A
Approach Vol, veh/h		215			4			824			444	
Approach Delay, s/veh		38.1			28.9			4.5			3.5	
Approach LOS		D			C			A			A	

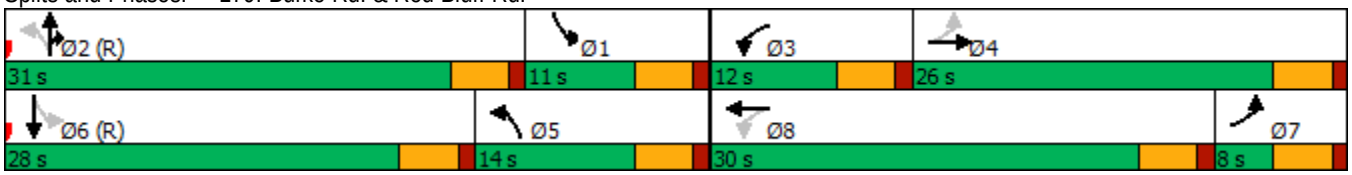
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.4		16.6		63.4		16.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		51.5		19.5		51.5		19.5				
Max Q Clear Time (g_c+I1), s		9.6		11.5		5.1		2.2				
Green Ext Time (p_c), s		6.1		0.7		2.7		0.0				

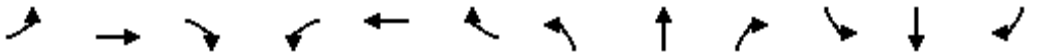
Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	29	543	152	601	223	185	76	127	216
Future Volume (vph)	29	543	152	601	223	185	76	127	216
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	26.0	12.0	30.0	14.0	31.0	31.0	11.0	28.0
Total Split (%)	10.0%	32.5%	15.0%	37.5%	17.5%	38.8%	38.8%	13.8%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.0	21.0	30.0	30.0	36.3	27.2	27.2	30.3	24.2
Actuated g/C Ratio	0.26	0.26	0.38	0.38	0.45	0.34	0.34	0.38	0.30
v/c Ratio	0.14	0.88	0.68	0.56	0.58	0.35	0.13	0.34	0.57
Control Delay	24.7	39.0	26.2	10.8	24.7	24.6	2.6	16.5	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	39.0	26.2	10.8	24.7	24.6	2.6	16.5	27.4
LOS	C	D	C	B	C	C	A	B	C
Approach Delay		38.4		13.7		21.2			24.0
Approach LOS		D		B		C			C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 30 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 24.4	Intersection LOS: C
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	543	170	152	601	60	223	185	76	127	216	61
Future Volume (veh/h)	29	543	170	152	601	60	223	185	76	127	216	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	32	590	185	165	653	65	242	201	83	138	235	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	286	669	209	254	808	80	474	610	517	485	406	114
Arrive On Green	0.10	0.26	0.26	0.09	0.25	0.25	0.13	0.33	0.33	0.09	0.29	0.29
Sat Flow, veh/h	1753	2622	820	1753	3213	319	1753	1841	1560	1753	1383	388
Grp Volume(v), veh/h	32	393	382	165	355	363	242	201	83	138	0	301
Grp Sat Flow(s),veh/h/ln	1753	1749	1693	1753	1749	1783	1753	1841	1560	1753	0	1771
Q Serve(g_s), s	0.0	17.3	17.4	6.5	15.3	15.3	0.0	6.6	2.1	0.0	0.0	11.6
Cycle Q Clear(g_c), s	0.0	17.3	17.4	6.5	15.3	15.3	0.0	6.6	2.1	0.0	0.0	11.6
Prop In Lane	1.00		0.48	1.00		0.18	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	286	446	432	254	440	449	474	610	517	485	0	520
V/C Ratio(X)	0.11	0.88	0.88	0.65	0.81	0.81	0.51	0.33	0.16	0.28	0.00	0.58
Avail Cap(c_a), veh/h	286	470	455	254	557	568	474	610	517	485	0	520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.62	0.62	0.62	0.95	0.95	0.95	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.5	28.6	28.7	27.5	28.1	28.1	26.5	20.1	9.0	22.0	0.0	24.0
Incr Delay (d2), s/veh	0.2	16.9	17.8	3.6	4.4	4.3	0.9	1.4	0.6	0.3	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	9.0	8.9	2.9	6.7	6.8	4.0	2.9	1.1	2.0	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	45.6	46.4	31.0	32.5	32.5	27.4	21.5	9.7	22.4	0.0	28.7
LnGrp LOS	C	D	D	C	C	C	C	C	A	C	A	C
Approach Vol, veh/h		807			883			526			439	
Approach Delay, s/veh		45.4			32.2			22.3			26.7	
Approach LOS		D			C			C			C	

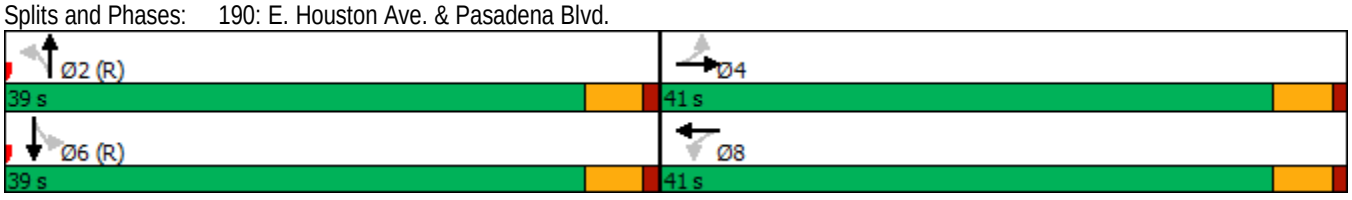
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	31.0	12.0	24.9	15.1	28.0	12.3	24.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	26.5	7.5	21.5	9.5	23.5	3.5	25.5
Max Q Clear Time (g_c+I1), s	2.0	8.6	8.5	19.4	2.0	13.6	2.0	17.3
Green Ext Time (p_c), s	0.1	1.2	0.0	1.0	0.4	1.2	0.0	2.8

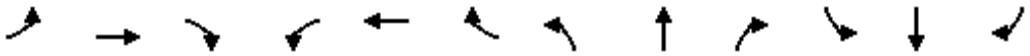
Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Lane Group	Ø2	Ø4	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	2	4	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	39.0	41.0	39.0	41.0
Total Split (%)	49%	51%	49%	51%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay: 0.0	Intersection LOS: A
Intersection Capacity Utilization 0.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1753	1841	0	1753	1841	0	0	3681	0	0	3681	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1753	1841	0	1753	1841	0	0	1749	0	0	1749	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	90	2	0	90	2	0	0	3301	0	0	3301	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	988	840	0	988	840	0	0	3301	0	0	3301	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

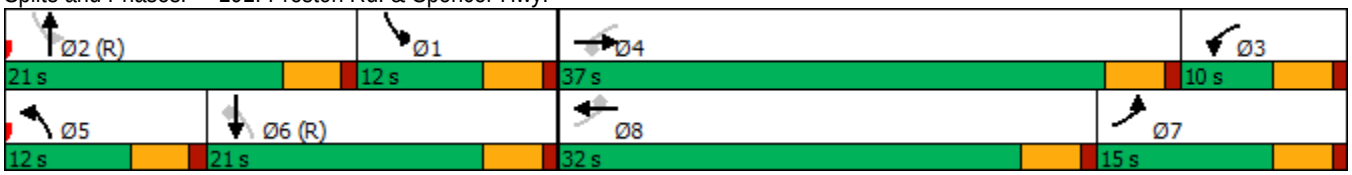
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		80.0		0.0		80.0		0.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		34.5		36.5		34.5		36.5				
Max Q Clear Time (g_c+I1), s		0.0		0.0		0.0		0.0				
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0				

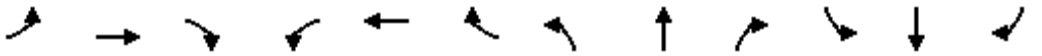
Intersection Summary												
HCM 6th Ctrl Delay			0.0									
HCM 6th LOS			A									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	282	1128	196	88	1455	198	230	660	201	775	291
Future Volume (vph)	282	1128	196	88	1455	198	230	660	201	775	291
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	8		4	4		8	6		2		6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	15.0	37.0	37.0	10.0	32.0	32.0	12.0	21.0	12.0	21.0	21.0
Total Split (%)	18.8%	46.3%	46.3%	12.5%	40.0%	40.0%	15.0%	26.3%	15.0%	26.3%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	38.0	33.3	33.3	38.9	27.5	27.5	24.0	16.5	24.0	16.5	16.5
Actuated g/C Ratio	0.48	0.42	0.42	0.49	0.34	0.34	0.30	0.21	0.30	0.21	0.21
v/c Ratio	0.95	0.60	0.27	0.37	0.91	0.30	0.95	0.76	0.83	0.81	0.65
Control Delay	67.7	25.7	11.3	37.6	37.8	10.9	78.1	45.1	56.3	37.6	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	25.7	11.3	37.6	37.8	10.9	78.1	45.1	56.3	37.6	18.8
LOS	E	C	B	D	D	B	E	D	E	D	B
Approach Delay		31.3			34.7			53.0		36.3	
Approach LOS		C			C			D		D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 37.2	Intersection LOS: D
Intersection Capacity Utilization 91.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	1128	196	88	1455	198	230	660	67	201	775	291
Future Volume (veh/h)	282	1128	196	88	1455	198	230	660	67	201	775	291
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	303	1213	211	95	1565	213	247	710	72	216	833	313
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	329	1714	532	362	1720	534	279	957	96	299	1044	324
Arrive On Green	0.04	0.11	0.11	0.04	0.11	0.11	0.09	0.21	0.21	0.10	0.21	0.21
Sat Flow, veh/h	1753	5025	1560	1753	5025	1560	1753	4640	467	1753	5025	1560
Grp Volume(v), veh/h	303	1213	211	95	1565	213	247	511	271	216	833	313
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1560	1753	1675	1757	1753	1675	1560
Q Serve(g_s), s	9.2	18.6	6.9	0.0	24.6	10.1	7.5	11.4	11.6	3.3	12.6	11.0
Cycle Q Clear(g_c), s	9.2	18.6	6.9	0.0	24.6	10.1	7.5	11.4	11.6	3.3	12.6	11.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	329	1714	532	362	1720	534	279	691	362	299	1044	324
V/C Ratio(X)	0.92	0.71	0.40	0.26	0.91	0.40	0.89	0.74	0.75	0.72	0.80	0.97
Avail Cap(c_a), veh/h	329	2041	634	362	1727	536	279	691	362	299	1044	324
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.23	0.23	0.23	0.56	0.56	0.56	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	36.1	31.7	13.1	31.4	34.3	27.8	26.2	29.7	29.8	32.8	30.1	15.1
Incr Delay (d2), s/veh	10.0	0.2	0.1	0.2	4.5	0.3	27.1	7.0	13.2	7.9	6.1	40.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	8.2	3.6	1.7	11.6	4.0	5.7	5.1	6.0	4.5	5.5	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	31.9	13.3	31.6	38.8	28.1	53.3	36.7	43.0	40.7	36.2	55.9
LnGrp LOS	D	C	B	C	D	C	D	D	D	D	D	E
Approach Vol, veh/h		1727			1873			1029			1362	
Approach Delay, s/veh		32.1			37.2			42.4			41.4	
Approach LOS		C			D			D			D	

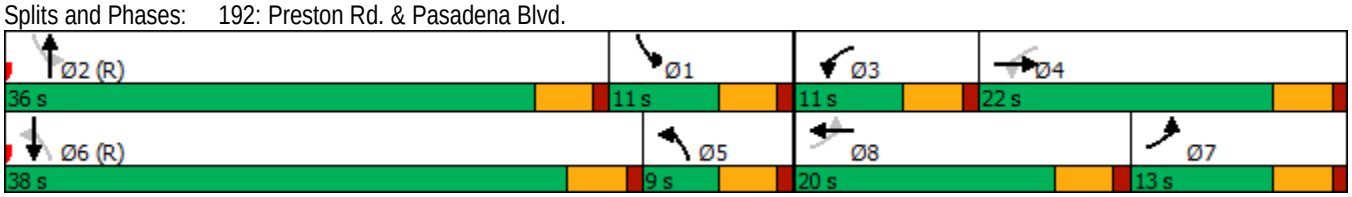
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	21.0	15.1	31.8	12.0	21.1	15.0	31.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	16.5	5.5	32.5	7.5	16.5	10.5	27.5
Max Q Clear Time (g_c+I1), s	5.3	13.6	2.0	20.6	9.5	14.6	11.2	26.6
Green Ext Time (p_c), s	0.1	1.4	0.1	6.7	0.0	1.2	0.0	0.7

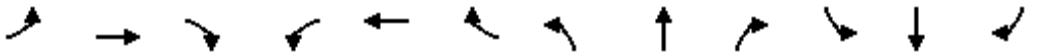
Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	143	292	95	348	100	711	88	848
Future Volume (vph)	143	292	95	348	100	711	88	848
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	13.0	22.0	11.0	20.0	9.0	36.0	11.0	38.0
Total Split (%)	16.3%	27.5%	13.8%	25.0%	11.3%	45.0%	13.8%	47.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.8	17.5	22.7	14.4	42.0	35.9	42.2	37.5
Actuated g/C Ratio	0.27	0.22	0.28	0.18	0.52	0.45	0.53	0.47
v/c Ratio	0.63	0.61	0.41	0.77	0.52	0.57	0.31	0.70
Control Delay	25.9	14.5	23.6	37.2	35.7	23.7	16.0	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	14.5	23.6	37.2	35.7	23.7	16.0	20.3
LOS	C	B	C	D	D	C	B	C
Approach Delay		17.3		34.9		25.1		20.0
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 14 (18%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	292	155	95	348	99	100	711	95	88	848	171
Future Volume (veh/h)	143	292	155	95	348	99	100	711	95	88	848	171
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	157	321	170	104	382	109	110	781	104	97	932	188
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	249	402	208	240	464	131	354	1221	163	423	1214	245
Arrive On Green	0.07	0.18	0.18	0.07	0.17	0.17	0.04	0.13	0.13	0.14	0.42	0.42
Sat Flow, veh/h	1753	2228	1154	1753	2693	759	1753	3102	413	1753	2900	584
Grp Volume(v), veh/h	157	250	241	104	246	245	110	440	445	97	562	558
Grp Sat Flow(s),veh/h/ln	1753	1749	1633	1753	1749	1704	1753	1749	1766	1753	1749	1736
Q Serve(g_s), s	1.3	11.0	11.3	3.8	10.9	11.1	0.0	19.1	19.1	0.0	22.0	22.0
Cycle Q Clear(g_c), s	1.3	11.0	11.3	3.8	10.9	11.1	0.0	19.1	19.1	0.0	22.0	22.0
Prop In Lane	1.00		0.71	1.00		0.45	1.00		0.23	1.00		0.34
Lane Grp Cap(c), veh/h	249	316	295	240	301	294	354	689	696	423	732	727
V/C Ratio(X)	0.63	0.79	0.82	0.43	0.82	0.83	0.31	0.64	0.64	0.23	0.77	0.77
Avail Cap(c_a), veh/h	306	383	357	267	339	330	354	689	696	423	732	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	31.4	31.5	25.1	31.9	32.0	30.6	29.4	29.4	23.9	19.9	19.9
Incr Delay (d2), s/veh	2.9	9.1	11.6	1.2	13.2	15.1	0.4	3.9	3.9	0.3	7.6	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.2	5.2	1.6	5.5	5.6	2.0	9.5	9.6	1.5	9.8	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	40.5	43.1	26.3	45.1	47.1	31.0	33.3	33.3	24.2	27.5	27.6
LnGrp LOS	D	D	D	C	D	D	C	C	C	C	C	C
Approach Vol, veh/h		648			595			995			1217	
Approach Delay, s/veh		40.6			42.6			33.0			27.3	
Approach LOS		D			D			C			C	

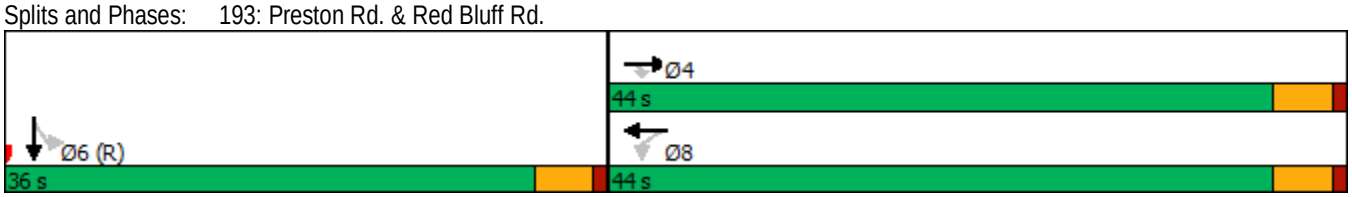
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	36.0	9.7	18.9	13.3	38.0	10.4	18.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	31.5	6.5	17.5	4.5	33.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	21.1	5.8	13.3	2.0	24.0	3.3	13.1
Green Ext Time (p_c), s	0.1	4.0	0.0	1.1	0.1	5.0	0.2	0.7

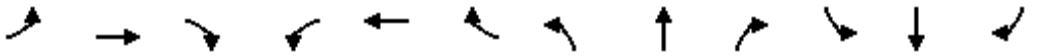
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	729	354	47	900	215	659
Future Volume (vph)	729	354	47	900	215	659
Turn Type	NA	Perm	Perm	NA	Perm	NA
Protected Phases	4			8		6
Permitted Phases		4	8		6	
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	44.0	44.0	44.0	44.0	36.0	36.0
Total Split (%)	55.0%	55.0%	55.0%	55.0%	45.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	32.7	32.7	32.7	32.7	38.3	38.3
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.48	0.48
v/c Ratio	0.58	0.59	0.31	0.72	0.29	0.35
Control Delay	13.9	11.5	17.3	22.6	15.4	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.9	11.5	17.3	22.6	15.4	14.1
LOS	B	B	B	C	B	B
Approach Delay	13.1			22.4		14.4
Approach LOS	B			C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 31 (39%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 58.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	729	354	47	900	0	0	0	0	215	659	71
Future Volume (veh/h)	0	729	354	47	900	0	0	0	0	215	659	71
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	828	402	53	1023	0				244	749	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	1396	623	185	1396	0				856	2453	
Arrive On Green	0.00	0.40	0.40	0.53	0.53	0.00				0.49	0.49	0.00
Sat Flow, veh/h	0	3589	1560	446	3589	0				1753	5191	0
Grp Volume(v), veh/h	0	828	402	53	1023	0				244	749	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	446	1749	0				1753	1675	0
Q Serve(g_s), s	0.0	14.9	16.7	8.1	18.0	0.0				6.6	7.2	0.0
Cycle Q Clear(g_c), s	0.0	14.9	16.7	23.0	18.0	0.0				6.6	7.2	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.00
Lane Grp Cap(c), veh/h	0	1396	623	185	1396	0				856	2453	
V/C Ratio(X)	0.00	0.59	0.65	0.29	0.73	0.00				0.29	0.31	
Avail Cap(c_a), veh/h	0	1727	770	227	1727	0				856	2453	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.60	0.60	0.84	0.84	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	18.9	19.4	23.0	15.5	0.0				12.2	12.3	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.8	0.7	1.1	0.0				0.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.7	5.8	0.8	5.7	0.0				2.6	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.2	20.2	23.7	16.5	0.0				13.0	12.6	0.0
LnGrp LOS	A	B	C	C	B	A				B	B	
Approach Vol, veh/h		1230			1076						993	A
Approach Delay, s/veh		19.5			16.9						12.7	
Approach LOS		B			B						B	

Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				36.4		43.6		36.4				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				39.5		31.5		39.5				
Max Q Clear Time (g_c+I1), s				18.7		9.2		25.0				
Green Ext Time (p_c), s				7.6		6.2		6.9				

Intersection Summary			
HCM 6th Ctrl Delay		16.6	
HCM 6th LOS		B	

Notes

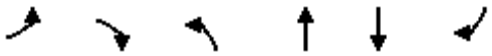
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	182	248	210	1023	1195
Future Volume (vph)	182	248	210	1023	1195
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	15.0	60.0	45.0
Total Split (%)	25.0%	25.0%	18.8%	75.0%	56.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	13.3	13.3	57.7	57.7	43.4
Actuated g/C Ratio	0.17	0.17	0.72	0.72	0.54
v/c Ratio	0.71	0.57	0.77	0.46	0.85
Control Delay	45.9	9.6	48.4	2.9	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	9.6	48.4	2.9	13.1
LOS	D	A	D	A	B
Approach Delay	25.0			10.7	13.1
Approach LOS	C			B	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 25 (31%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	182	248	210	1023	1195	218
Future Volume (veh/h)	182	248	210	1023	1195	218
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	190	258	219	1066	1245	227
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	329	292	427	2448	1674	303
Arrive On Green	0.19	0.19	0.16	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	1753	3589	3050	535
Grp Volume(v), veh/h	190	258	219	1066	732	740
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1744
Q Serve(g_s), s	7.9	12.9	4.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.9	12.9	4.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.31
Lane Grp Cap(c), veh/h	329	292	427	2448	990	987
V/C Ratio(X)	0.58	0.88	0.51	0.44	0.74	0.75
Avail Cap(c_a), veh/h	340	302	520	2448	990	987
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.91	0.91	0.69	0.69
Uniform Delay (d), s/veh	29.6	31.6	4.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.3	24.4	0.9	0.5	3.5	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	12.4	1.1	0.2	1.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.9	56.0	5.6	0.5	3.5	3.7
LnGrp LOS	C	E	A	A	A	A
Approach Vol, veh/h	448			1285	1472	
Approach Delay, s/veh	45.8			1.4	3.6	
Approach LOS	D			A	A	

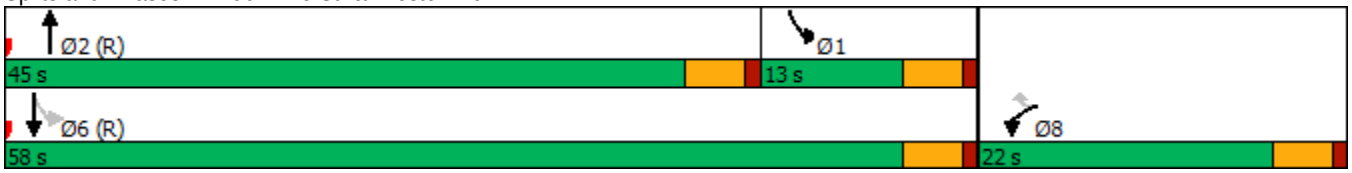
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.5		19.5	10.7	49.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		15.5	10.5	40.5
Max Q Clear Time (g_c+I1), s		2.0		14.9	6.0	2.0
Green Ext Time (p_c), s		9.9		0.1	0.2	14.3

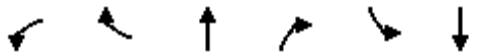
Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	27	90	867	93	866
Future Volume (vph)	27	90	867	93	866
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	45.0	13.0	58.0
Total Split (%)	27.5%	27.5%	56.3%	16.3%	72.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.2	7.2	56.3	66.7	66.7
Actuated g/C Ratio	0.09	0.09	0.70	0.83	0.83
v/c Ratio	0.19	0.43	0.41	0.20	0.33
Control Delay	35.8	13.9	15.2	1.9	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	35.8	13.9	15.2	1.9	1.4
LOS	D	B	B	A	A
Approach Delay	18.9		15.2		1.4
Approach LOS	B		B		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 34 (43%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 50.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	27	90	867	34	93	866
Future Volume (veh/h)	27	90	867	34	93	866
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	100	963	38	103	962
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	150	133	1736	69	670	2805
Arrive On Green	0.09	0.09	0.51	0.51	0.48	1.00
Sat Flow, veh/h	1753	1560	3522	135	1753	3589
Grp Volume(v), veh/h	30	100	491	510	103	962
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1816	1753	1749
Q Serve(g_s), s	1.3	5.0	15.4	15.4	0.0	0.0
Cycle Q Clear(g_c), s	1.3	5.0	15.4	15.4	0.0	0.0
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	150	133	885	920	670	2805
V/C Ratio(X)	0.20	0.75	0.55	0.55	0.15	0.34
Avail Cap(c_a), veh/h	383	341	885	920	670	2805
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.61	0.61	0.49	0.49
Uniform Delay (d), s/veh	34.0	35.7	13.6	13.6	7.0	0.0
Incr Delay (d2), s/veh	0.6	8.1	1.5	1.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.2	5.9	6.1	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.7	43.9	15.1	15.0	7.1	0.2
LnGrp LOS	C	D	B	B	A	A
Approach Vol, veh/h	130		1001			1065
Approach Delay, s/veh	41.7		15.1			0.8
Approach LOS	D		B			A

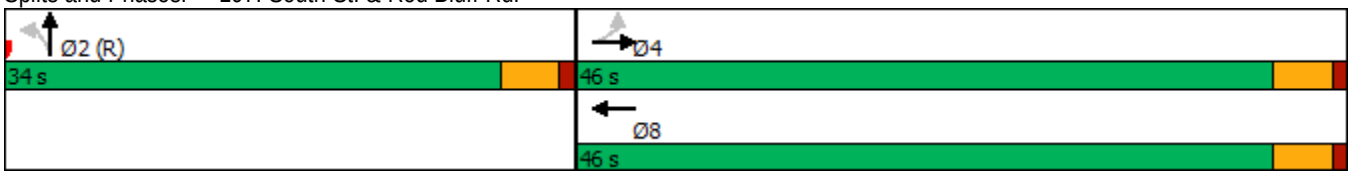
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	23.7	45.0			68.7	11.3
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	40.5			53.5	17.5
Max Q Clear Time (g_c+I1), s	2.0	17.4			2.0	7.0
Green Ext Time (p_c), s	0.1	7.1			8.9	0.2

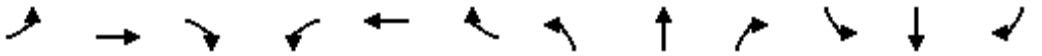
Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	110	734	538	283	630
Future Volume (vph)	110	734	538	283	630
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	46.0	46.0	46.0	34.0	34.0
Total Split (%)	57.5%	57.5%	57.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	28.6	28.6	28.6	42.4	42.4
Actuated g/C Ratio	0.36	0.36	0.36	0.53	0.53
v/c Ratio	0.75	0.64	0.59	0.34	0.38
Control Delay	44.7	21.6	20.3	9.0	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	21.6	20.3	9.0	8.5
LOS	D	C	C	A	A
Approach Delay		24.6	20.3		8.6
Approach LOS		C	C		A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 41 (51%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 58.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	734	0	0	538	141	283	630	5	0	0	0
Future Volume (veh/h)	110	734	0	0	538	141	283	630	5	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	120	798	0	0	585	0	308	685	0			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	271	1230	0	0	1230		939	1874				
Arrive On Green	0.70	0.70	0.00	0.00	0.35	0.00	0.18	0.18	0.00			
Sat Flow, veh/h	817	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	120	798	0	0	585	0	308	685	0			
Grp Sat Flow(s),veh/h/ln	817	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	9.3	10.0	0.0	0.0	10.4	0.0	12.3	13.8	0.0			
Cycle Q Clear(g_c), s	19.7	10.0	0.0	0.0	10.4	0.0	12.3	13.8	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	271	1230	0	0	1230		939	1874				
V/C Ratio(X)	0.44	0.65	0.00	0.00	0.48		0.33	0.37				
Avail Cap(c_a), veh/h	407	1814	0	0	1814		939	1874				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.84	0.84	0.00	0.00	0.97	0.00	0.92	0.92	0.00			
Uniform Delay (d), s/veh	14.7	9.2	0.0	0.0	20.2	0.0	20.3	21.0	0.0			
Incr Delay (d2), s/veh	1.0	0.5	0.0	0.0	0.3	0.0	0.9	0.5	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.2	2.4	0.0	0.0	4.1	0.0	5.9	6.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.7	9.7	0.0	0.0	20.5	0.0	21.2	21.5	0.0			
LnGrp LOS	B	A	A	A	C		C	C				
Approach Vol, veh/h		918			585	A		993	A			
Approach Delay, s/veh		10.4			20.5			21.4				
Approach LOS		B			C			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		47.4		32.6				32.6				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		29.5		41.5				41.5				
Max Q Clear Time (g_c+I1), s		15.8		21.7				12.4				
Green Ext Time (p_c), s		4.9		6.4				4.4				

Intersection Summary												
HCM 6th Ctrl Delay			17.1									
HCM 6th LOS			B									

Notes

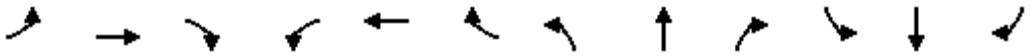
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	85	276	43	311	215	663	112	775
Future Volume (vph)	85	276	43	311	215	663	112	775
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	22.0	10.0	20.0	20.0	34.0	14.0	28.0
Total Split (%)	15.0%	27.5%	12.5%	25.0%	25.0%	42.5%	17.5%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.2	16.6	6.7	14.0	14.2	36.2	8.9	28.7
Actuated g/C Ratio	0.09	0.21	0.08	0.18	0.18	0.45	0.11	0.36
v/c Ratio	0.57	0.58	0.32	0.76	0.76	0.47	0.61	0.52
Control Delay	43.4	17.6	41.2	34.1	48.6	18.9	53.8	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	17.6	41.2	34.1	48.6	18.9	53.8	8.3
LOS	D	B	D	C	D	B	D	A
Approach Delay		21.8		34.7		25.9		13.5
Approach LOS		C		C		C		B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 48 (60%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 22.5	Intersection LOS: C
Intersection Capacity Utilization 67.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	276	156	43	311	145	215	663	36	112	775	102
Future Volume (veh/h)	85	276	156	43	311	145	215	663	36	112	775	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	89	291	164	45	327	153	226	698	38	118	816	107
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	114	373	204	115	400	183	267	1529	83	149	1738	227
Arrive On Green	0.06	0.17	0.17	0.07	0.17	0.17	0.15	0.45	0.45	0.09	0.39	0.39
Sat Flow, veh/h	1753	2179	1195	1753	2329	1068	1753	3373	184	1753	4499	587
Grp Volume(v), veh/h	89	232	223	45	244	236	226	362	374	118	606	317
Grp Sat Flow(s),veh/h/ln	1753	1749	1626	1753	1749	1648	1753	1749	1808	1753	1675	1735
Q Serve(g_s), s	4.0	10.1	10.5	2.0	10.7	11.1	10.0	11.4	11.4	5.3	10.9	11.0
Cycle Q Clear(g_c), s	4.0	10.1	10.5	2.0	10.7	11.1	10.0	11.4	11.4	5.3	10.9	11.0
Prop In Lane	1.00		0.74	1.00		0.65	1.00		0.10	1.00		0.34
Lane Grp Cap(c), veh/h	114	299	278	115	300	283	267	793	819	149	1294	670
V/C Ratio(X)	0.78	0.78	0.80	0.39	0.81	0.83	0.85	0.46	0.46	0.79	0.47	0.47
Avail Cap(c_a), veh/h	164	383	356	121	339	319	340	793	819	208	1294	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	0.58	0.58	0.58	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	31.7	31.9	35.8	31.9	32.0	33.0	15.1	15.1	35.9	18.4	18.4
Incr Delay (d2), s/veh	10.6	5.5	7.4	2.2	12.6	15.6	9.2	1.1	1.1	12.9	1.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.5	4.5	0.9	5.3	5.4	4.7	4.3	4.4	2.7	4.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	37.2	39.2	38.0	44.5	47.6	42.2	16.2	16.1	48.8	19.6	20.8
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	C
Approach Vol, veh/h		544			525			962			1041	
Approach Delay, s/veh		39.7			45.3			22.3			23.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	40.8	9.8	18.2	16.7	35.4	9.7	18.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	29.5	5.5	17.5	15.5	23.5	7.5	15.5
Max Q Clear Time (g_c+I1), s	7.3	13.4	4.0	12.5	12.0	13.0	6.0	13.1
Green Ext Time (p_c), s	0.1	3.9	0.0	1.1	0.2	4.2	0.0	0.7

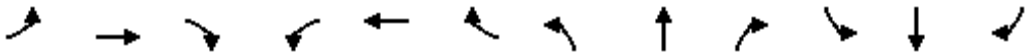
Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	34	554	204	504	1	118	197	38	206
Future Volume (vph)	34	554	204	504	1	118	197	38	206
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	27.0	23.0	40.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	14.3%	38.6%	32.9%	57.1%	28.6%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	5.9	28.7	14.0	43.4		12.3	12.3		12.3
Actuated g/C Ratio	0.08	0.41	0.20	0.62		0.18	0.18		0.18
v/c Ratio	0.26	0.44	0.66	0.27		0.41	0.48		0.61
Control Delay	34.9	17.4	34.6	7.7		29.2	7.8		27.7
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	34.9	17.4	34.6	7.7		29.2	7.8		27.7
LOS	C	B	C	A		C	A		C
Approach Delay		18.4		15.2		15.9			27.7
Approach LOS		B		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





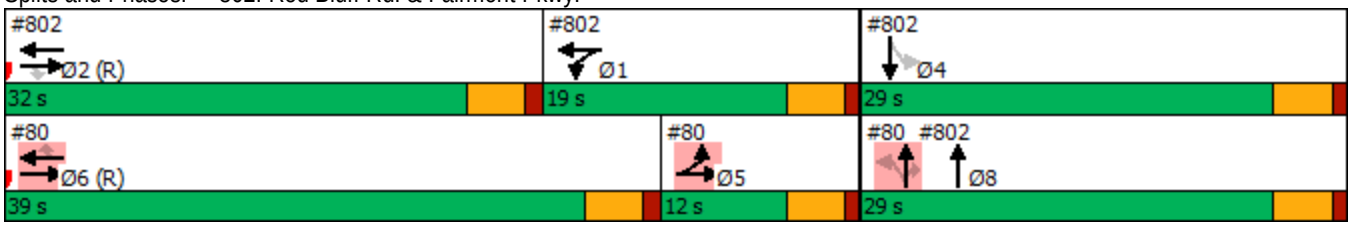
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	554	10	204	504	20	1	118	197	38	206	65
Future Volume (vph)	34	554	10	204	504	20	1	118	197	38	206	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	1.00		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3462		1736	3451			1826	1553		3341	
Flt Permitted	0.95	1.00		0.95	1.00			1.00	1.00		0.90	
Satd. Flow (perm)	1736	3462		1736	3451			1820	1553		3013	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	38	616	11	227	560	22	1	131	219	42	229	72
RTOR Reduction (vph)	0	2	0	0	3	0	0	0	181	0	35	0
Lane Group Flow (vph)	38	625	0	227	579	0	0	132	38	0	308	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	2.2	28.7		14.0	40.5			12.3	12.3		12.3	
Effective Green, g (s)	2.2	28.7		14.0	40.5			12.3	12.3		12.3	
Actuated g/C Ratio	0.03	0.41		0.20	0.58			0.18	0.18		0.18	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	54	1419		347	1996			319	272		529	
v/s Ratio Prot	0.02	c0.18		c0.13	0.17							
v/s Ratio Perm								0.07	0.02		c0.10	
v/c Ratio	0.70	0.44		0.65	0.29			0.41	0.14		0.58	
Uniform Delay, d1	33.6	14.9		25.8	7.5			25.6	24.4		26.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	34.1	1.0		4.4	0.4			0.9	0.2		1.6	
Delay (s)	67.6	15.9		30.2	7.8			26.5	24.6		28.1	
Level of Service	E	B		C	A			C	C		C	
Approach Delay (s)		18.8			14.1			25.3			28.1	
Approach LOS		B			B			C			C	

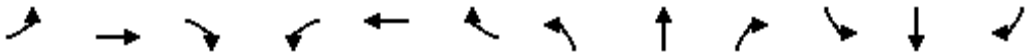
Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	NBT	SBL	SBT	Ø5	Ø6
Lane Configurations									
Traffic Volume (vph)	1070	258	118	1295	1	175	532		
Future Volume (vph)	1070	258	118	1295	1	175	532		
Turn Type	NA	Perm	Prot	NA	NA	Perm	NA		
Protected Phases	2		1	1 2	8		4	5	6
Permitted Phases		2				4			
Detector Phase	2	2	1	1 2	8	4	4		
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	20.0	8.0	20.0
Total Split (s)	32.0	32.0	19.0		29.0	29.0	29.0	12.0	39.0
Total Split (%)	40.0%	40.0%	23.8%		36.3%	36.3%	36.3%	15%	49%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5			4.5	4.5		
Lead/Lag	Lead	Lead	Lag					Lag	Lead
Lead-Lag Optimize?								Yes	
Recall Mode	C-Max	C-Max	None		None	None	None	None	C-Max
Act Effct Green (s)	30.5	30.5	14.4	49.5	0.0	21.5	21.5		
Actuated g/C Ratio	0.38	0.38	0.18	0.62	0.00	0.27	0.27		
v/c Ratio	0.50	0.41	0.22	0.47	no cap	0.53	0.65		
Control Delay	8.3	4.9	25.3	5.7		29.8	29.0		
Queue Delay	0.0	0.0	0.0	0.1		0.0	0.0		
Total Delay	8.3	4.9	25.3	5.8	Error	29.8	29.0		
LOS	A	A	C	A	F	C	C		
Approach Delay	7.7			7.5	Err		29.2		
Approach LOS	A			A	F		C		

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 28 (35%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





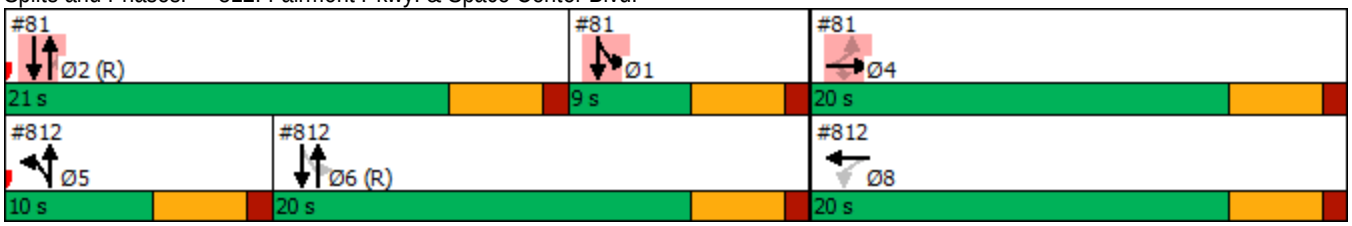
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1070	258	118	1295	0	0	1	0	175	532	11
Future Volume (vph)	0	1070	258	118	1295	0	0	1	0	175	532	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5			4.5		4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91			1.00		1.00	0.95	
Frt		1.00	0.85	1.00	1.00			1.00		1.00	1.00	
Flt Protected		1.00	1.00	0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988			0		1736	3461	
Flt Permitted		1.00	1.00	0.95	1.00			1.00		0.76	1.00	
Satd. Flow (perm)		6285	1553	3367	4988			0		1383	3461	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	1202	290	133	1455	0	0	1	0	197	598	12
RTOR Reduction (vph)	0	0	111	0	0	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	1202	179	133	1455	0	0	1	0	197	608	0
Turn Type		NA	Perm	Prot	NA			NA		Perm	NA	
Protected Phases		2		1	1 2			8			4	
Permitted Phases			2							4		
Actuated Green, G (s)		30.6	30.6	14.4	49.5			21.5		21.5	21.5	
Effective Green, g (s)		30.6	30.6	14.4	49.5			21.5		21.5	21.5	
Actuated g/C Ratio		0.38	0.38	0.18	0.62			0.27		0.27	0.27	
Clearance Time (s)		4.5	4.5	4.5				4.5		4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0				3.0		3.0	3.0	
Lane Grp Cap (vph)		2404	594	606	3086			0		371	930	
v/s Ratio Prot		0.19		0.04	c0.29						c0.18	
v/s Ratio Perm			0.12							0.14		
v/c Ratio		0.50	0.30	0.22	0.47			no cap		0.53	0.65	
Uniform Delay, d1		18.9	17.2	28.0	8.2			Error		24.9	25.9	
Progression Factor		0.39	0.44	0.87	0.59					1.00	1.00	
Incremental Delay, d2		0.6	1.0	0.2	0.1			Error		1.5	1.7	
Delay (s)		8.0	8.6	24.4	5.0			Error		26.4	27.6	
Level of Service		A	A	C	A			F		C	C	
Approach Delay (s)		8.1			6.6			Error			27.3	
Approach LOS		A			A			F			C	

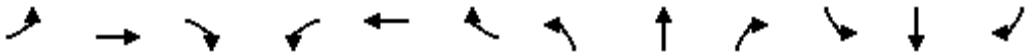
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	276	1168	263	502	1	479			
Future Volume (vph)	276	1168	263	502	1	479			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	10.0		20.0	20.0	9.0	21.0	20.0
Total Split (%)	40.0%	40.0%	20.0%		40.0%	40.0%	18%	42%	40%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	15.5	15.5	5.5	25.5		15.5			
Actuated g/C Ratio	0.31	0.31	0.11	0.51		0.31			
v/c Ratio	0.54	0.71	0.75	0.30		0.45			
Control Delay	18.8	16.8	45.2	1.7		14.7			
Queue Delay	0.1	0.0	0.0	0.3		0.0			
Total Delay	19.0	16.8	45.2	2.0		14.7			
LOS	B	B	D	A		B			
Approach Delay		17.2		16.8		14.7			
Approach LOS		B		B		B			

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 16.6	Intersection LOS: B
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





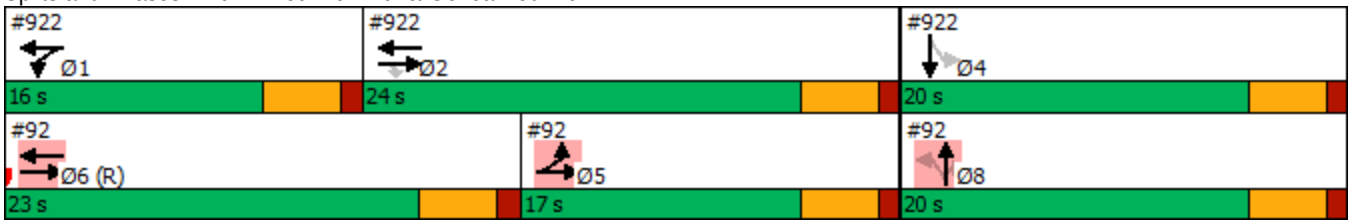
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1168	150	263	502	0	1	479	123
Future Volume (vph)	0	0	0	276	1168	150	263	502	0	1	479	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.98		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6177		3367	3471			4835	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6177		3367	3471			4542	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	291	1229	158	277	528	0	1	504	129
RTOR Reduction (vph)	0	0	0	0	46	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	0	0	291	1341	0	277	528	0	0	625	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				15.5	15.5		5.5	25.5			15.5	
Effective Green, g (s)				15.5	15.5		5.5	25.5			15.5	
Actuated g/C Ratio				0.31	0.31		0.11	0.51			0.31	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				538	1914		370	1770			1408	
v/s Ratio Prot					c0.22		c0.08	0.15				
v/s Ratio Perm				0.17							c0.14	
v/c Ratio				0.54	0.70		0.75	0.30			0.44	
Uniform Delay, d1				14.3	15.2		21.6	7.1			13.8	
Progression Factor				1.00	1.00		1.50	0.18			1.00	
Incremental Delay, d2				1.1	1.2		6.7	0.1			1.0	
Delay (s)				15.4	16.4		39.1	1.4			14.8	
Level of Service				B	B		D	A			B	
Approach Delay (s)		0.0			16.2			14.3			14.8	
Approach LOS		A			B			B			B	

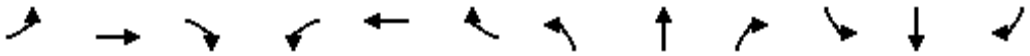
Intersection Summary			
HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations								
Traffic Volume (vph)	835	428	229	796	524			
Future Volume (vph)	835	428	229	796	524			
Turn Type	NA	Perm	Prot	NA	NA			
Protected Phases	2		1	2 1	4	5	6	8
Permitted Phases		2						
Detector Phase	2	2	1	2 1	4			
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	24.0	24.0	16.0		20.0	17.0	23.0	20.0
Total Split (%)	40.0%	40.0%	26.7%		33.3%	28%	38%	33%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0			
Total Lost Time (s)	4.5	4.5	4.5		4.5			
Lead/Lag	Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	None		None	None	C-Max	None
Act Effct Green (s)	20.4	20.4	11.6	36.5	14.5			
Actuated g/C Ratio	0.34	0.34	0.19	0.61	0.24			
v/c Ratio	0.52	0.75	0.73	0.28	0.62			
Control Delay	17.6	22.9	32.4	3.4	21.3			
Queue Delay	0.0	0.0	0.0	0.2	0.0			
Total Delay	17.6	22.9	32.4	3.6	21.3			
LOS	B	C	C	A	C			
Approach Delay	19.4			10.0	21.3			
Approach LOS	B			B	C			

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 16.6	Intersection LOS: B
Intersection Capacity Utilization 68.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	835	428	229	796	0	0	0	0	86	524	94
Future Volume (vph)	0	835	428	229	796	0	0	0	0	86	524	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.91	1.00	1.00	0.91						0.91	
Frt		1.00	0.85	1.00	1.00						0.98	
Flt Protected		1.00	1.00	0.95	1.00						0.99	
Satd. Flow (prot)		4988	1553	1736	4988						4858	
Flt Permitted		1.00	1.00	0.95	1.00						0.99	
Satd. Flow (perm)		4988	1553	1736	4988						4858	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	888	455	244	847	0	0	0	0	91	557	100
RTOR Reduction (vph)	0	0	81	0	0	0	0	0	0	0	35	0
Lane Group Flow (vph)	0	888	374	244	847	0	0	0	0	0	713	0
Turn Type		NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases			2							4		
Actuated Green, G (s)		20.4	20.4	11.6	36.5						14.5	
Effective Green, g (s)		20.4	20.4	11.6	36.5						14.5	
Actuated g/C Ratio		0.34	0.34	0.19	0.61						0.24	
Clearance Time (s)		4.5	4.5	4.5							4.5	
Vehicle Extension (s)		3.0	3.0	3.0							3.0	
Lane Grp Cap (vph)		1695	528	335	3034						1174	
v/s Ratio Prot		0.18		c0.14	0.17							
v/s Ratio Perm			c0.24								0.15	
v/c Ratio		0.52	0.71	0.73	0.28						0.61	
Uniform Delay, d1		15.9	17.2	22.7	5.5						20.2	
Progression Factor		1.00	1.00	0.79	0.55						1.00	
Incremental Delay, d2		0.3	4.3	7.0	0.0						0.9	
Delay (s)		16.2	21.5	24.9	3.1						21.1	
Level of Service		B	C	C	A						C	
Approach Delay (s)		18.0			7.9			0.0			21.1	
Approach LOS		B			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

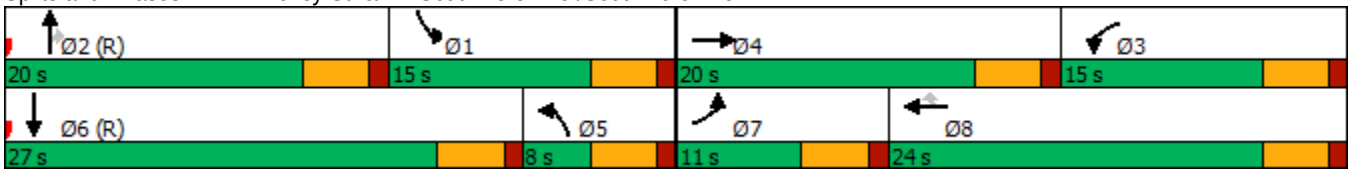
Synchro Report

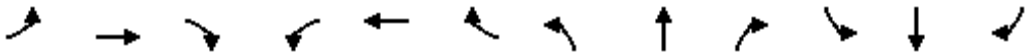
Existing Network 2021 PM

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	66	508	447	486	286	44	543	422	244	743
Future Volume (vph)	66	508	447	486	286	44	543	422	244	743
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	11.0	20.0	15.0	24.0	24.0	8.0	20.0	20.0	15.0	27.0
Total Split (%)	15.7%	28.6%	21.4%	34.3%	34.3%	11.4%	28.6%	28.6%	21.4%	38.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	6.3	14.7	10.9	23.6	23.6	3.5	15.8	15.8	10.5	26.0
Actuated g/C Ratio	0.09	0.21	0.16	0.34	0.34	0.05	0.23	0.23	0.15	0.37
v/c Ratio	0.43	0.79	0.87	0.42	0.41	0.52	0.71	0.63	0.96	0.63
Control Delay	39.0	34.1	48.7	20.6	4.8	56.1	30.8	7.4	79.6	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	34.1	48.7	20.6	4.8	56.1	30.8	7.4	79.6	21.6
LOS	D	C	D	C	A	E	C	A	E	C
Approach Delay		34.6		27.2			22.1			35.1
Approach LOS		C		C			C			D

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 29.2	Intersection LOS: C
Intersection Capacity Utilization 77.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: Richey St. & W. Southmore Ave./Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	508	57	447	486	286	44	543	422	244	743	55
Future Volume (veh/h)	66	508	57	447	486	286	44	543	422	244	743	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	518	58	456	496	292	45	554	431	249	758	56
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	85	628	70	510	1047	467	129	774	345	304	1061	78
Arrive On Green	0.05	0.20	0.20	0.15	0.30	0.30	0.07	0.22	0.22	0.17	0.32	0.32
Sat Flow, veh/h	1753	3172	354	3401	3497	1560	1753	3497	1560	1753	3302	244
Grp Volume(v), veh/h	67	285	291	456	496	292	45	554	431	249	401	413
Grp Sat Flow(s),veh/h/ln	1753	1749	1777	1700	1749	1560	1753	1749	1560	1753	1749	1797
Q Serve(g_s), s	2.6	10.9	11.0	9.2	8.1	6.4	1.7	10.3	15.5	9.6	14.1	14.2
Cycle Q Clear(g_c), s	2.6	10.9	11.0	9.2	8.1	6.4	1.7	10.3	15.5	9.6	14.1	14.2
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	85	346	352	510	1047	467	129	774	345	304	562	578
V/C Ratio(X)	0.79	0.82	0.83	0.89	0.47	0.63	0.35	0.72	1.25	0.82	0.71	0.71
Avail Cap(c_a), veh/h	163	387	393	510	1047	467	129	774	345	304	562	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	26.9	26.9	29.2	20.0	6.8	30.8	25.2	27.3	27.9	20.9	20.9
Incr Delay (d2), s/veh	9.1	7.6	7.8	18.0	0.3	2.6	1.6	5.6	133.4	15.9	7.6	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.0	5.1	4.8	3.1	3.7	0.7	4.6	18.1	5.1	6.4	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	34.5	34.8	47.2	20.4	9.5	32.4	30.8	160.7	43.8	28.5	28.3
LnGrp LOS	D	C	C	D	C	A	C	C	F	D	C	C
Approach Vol, veh/h		643			1244			1030			1063	
Approach Delay, s/veh		35.4			27.6			85.2			32.0	
Approach LOS		D			C			F			C	

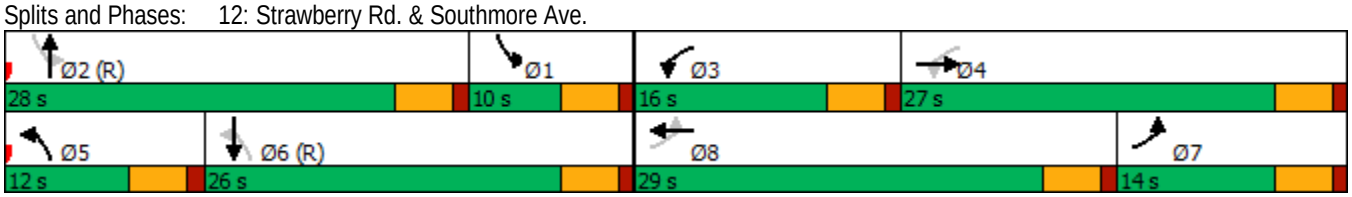
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	20.0	15.0	18.3	9.7	27.0	7.9	25.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	15.5	10.5	15.5	3.5	22.5	6.5	19.5
Max Q Clear Time (g_c+I1), s	11.6	17.5	11.2	13.0	3.7	16.2	4.6	10.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	2.6	0.0	3.0

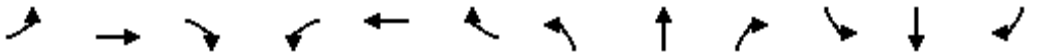
Intersection Summary	
HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	198	790	246	722	171	472	128	484
Future Volume (vph)	198	790	246	722	171	472	128	484
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	27.0	16.0	29.0	12.0	28.0	10.0	26.0
Total Split (%)	17.3%	33.3%	19.8%	35.8%	14.8%	34.6%	12.3%	32.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	33.1	22.0	33.1	22.8	29.9	24.4	29.9	22.5
Actuated g/C Ratio	0.41	0.27	0.41	0.28	0.37	0.30	0.37	0.28
v/c Ratio	0.65	0.88	0.77	0.80	0.58	0.70	0.59	0.64
Control Delay	36.1	40.2	30.7	24.3	24.5	24.5	36.1	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	40.2	30.7	24.3	24.5	24.5	36.1	28.6
LOS	D	D	C	C	C	C	D	C
Approach Delay		39.4		25.9		24.5		29.9
Approach LOS		D		C		C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 24 (30%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 84.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 12: Strawberry Rd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	790	20	246	722	42	171	472	269	128	484	100
Future Volume (veh/h)	198	790	20	246	722	42	171	472	269	128	484	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	202	806	20	251	737	43	174	482	274	131	494	102
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	350	913	23	338	876	51	370	624	353	320	862	177
Arrive On Green	0.13	0.26	0.26	0.13	0.26	0.26	0.09	0.29	0.29	0.10	0.30	0.30
Sat Flow, veh/h	1753	3487	87	1753	3358	196	1753	2152	1218	1753	2889	593
Grp Volume(v), veh/h	202	404	422	251	384	396	174	391	365	131	298	298
Grp Sat Flow(s),veh/h/ln	1753	1749	1825	1753	1749	1805	1753	1749	1622	1753	1749	1734
Q Serve(g_s), s	2.7	18.0	18.0	8.3	16.8	16.8	5.5	16.6	16.7	0.0	11.7	11.8
Cycle Q Clear(g_c), s	2.7	18.0	18.0	8.3	16.8	16.8	5.5	16.6	16.7	0.0	11.7	11.8
Prop In Lane	1.00		0.05	1.00		0.11	1.00		0.75	1.00		0.34
Lane Grp Cap(c), veh/h	350	458	478	338	456	471	370	507	470	320	521	517
V/C Ratio(X)	0.58	0.88	0.88	0.74	0.84	0.84	0.47	0.77	0.78	0.41	0.57	0.58
Avail Cap(c_a), veh/h	350	486	507	364	529	546	375	507	470	320	521	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.55	0.55	0.55	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	28.7	28.7	20.2	28.3	28.4	17.9	26.3	26.3	31.4	24.0	24.1
Incr Delay (d2), s/veh	2.3	16.6	16.0	4.2	6.0	5.9	0.9	10.5	11.5	0.8	4.5	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	9.2	9.5	3.5	7.4	7.6	2.1	8.0	7.6	2.3	5.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	45.3	44.7	24.4	34.4	34.2	18.8	36.8	37.8	32.2	28.5	28.7
LnGrp LOS	C	D	D	C	C	C	B	D	D	C	C	C
Approach Vol, veh/h		1028			1031			930			727	
Approach Delay, s/veh		42.6			31.9			33.8			29.3	
Approach LOS		D			C			C			C	

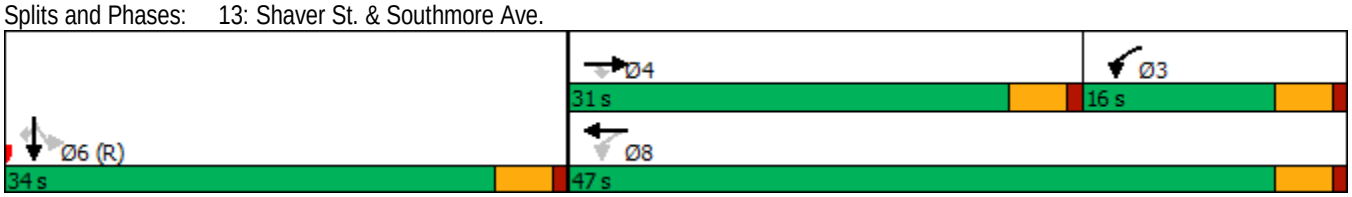
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	28.0	14.8	25.7	11.8	28.7	14.9	25.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	23.5	11.5	22.5	7.5	21.5	9.5	24.5
Max Q Clear Time (g_c+I1), s	2.0	18.7	10.3	20.0	7.5	13.8	4.7	18.8
Green Ext Time (p_c), s	0.1	2.0	0.1	1.2	0.0	2.2	0.2	2.3

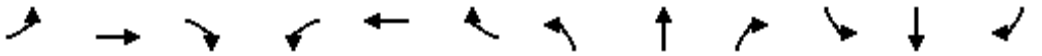
Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	945	215	256	988	292	1027	284
Future Volume (vph)	945	215	256	988	292	1027	284
Turn Type	NA	Perm	pm+pt	NA	Perm	NA	Perm
Protected Phases	4		3	8		6	
Permitted Phases		4	8		6		6
Detector Phase	4	4	3	8	6	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	16.0	47.0	34.0	34.0	34.0
Total Split (%)	38.3%	38.3%	19.8%	58.0%	42.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	26.3	26.3	41.7	41.7	30.3	30.3	30.3
Actuated g/C Ratio	0.32	0.32	0.51	0.51	0.37	0.37	0.37
v/c Ratio	0.90	0.41	0.85	0.61	0.48	0.85	0.53
Control Delay	38.5	16.1	35.4	6.0	17.5	24.2	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.5	16.1	35.4	6.0	17.5	24.2	18.4
LOS	D	B	D	A	B	C	B
Approach Delay	34.4			12.1		22.0	
Approach LOS	C			B		C	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 71 (88%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 22.5	Intersection LOS: C
Intersection Capacity Utilization 83.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: Shaver St. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	945	215	256	988	0	0	0	0	292	1027	284
Future Volume (veh/h)	0	945	215	256	988	0	0	0	0	292	1027	284
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	1016	231	275	1062	0				314	1104	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	1119	499	307	1733	0				690	1376	
Arrive On Green	0.00	0.32	0.32	0.24	0.99	0.00				0.39	0.39	0.00
Sat Flow, veh/h	0	3589	1560	1753	3589	0				1753	3497	1560
Grp Volume(v), veh/h	0	1016	231	275	1062	0				314	1104	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1753	1749	0				1753	1749	1560
Q Serve(g_s), s	0.0	22.6	9.6	7.6	0.6	0.0				10.7	22.7	0.0
Cycle Q Clear(g_c), s	0.0	22.6	9.6	7.6	0.6	0.0				10.7	22.7	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1119	499	307	1733	0				690	1376	
V/C Ratio(X)	0.00	0.91	0.46	0.90	0.61	0.00				0.46	0.80	
Avail Cap(c_a), veh/h	0	1144	510	345	1835	0				690	1376	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.36	0.36	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.4	22.0	28.6	0.2	0.0				18.2	21.8	0.0
Incr Delay (d2), s/veh	0.0	10.5	0.7	10.2	0.2	0.0				2.2	5.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.3	3.4	5.1	0.1	0.0				4.4	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.9	22.7	38.8	0.4	0.0				20.3	26.8	0.0
LnGrp LOS	A	D	C	D	A	A				C	C	
Approach Vol, veh/h		1247			1337						1418	A
Approach Delay, s/veh		34.3			8.3						25.4	
Approach LOS		C			A						C	

Timer - Assigned Phs		3	4		6		8				
Phs Duration (G+Y+Rc), s		14.2	30.4		36.4		44.6				
Change Period (Y+Rc), s		4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		11.5	26.5		29.5		42.5				
Max Q Clear Time (g_c+I1), s		9.6	24.6		24.7		2.6				
Green Ext Time (p_c), s		0.2	1.3		3.3		9.4				

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

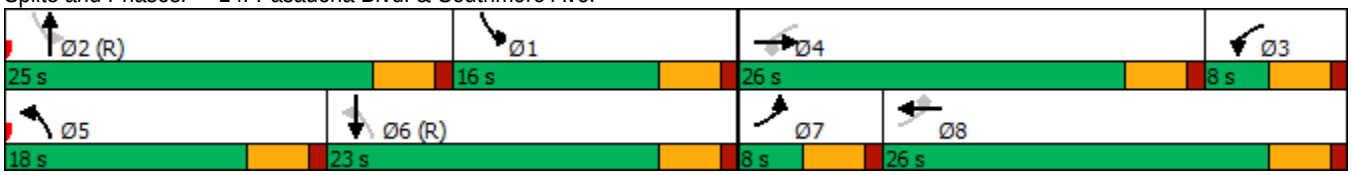
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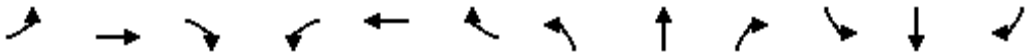
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	109	874	424	85	809	157	386	554	248	726
Future Volume (vph)	109	874	424	85	809	157	386	554	248	726
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	8		4	4		8	6		2	
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	26.0	26.0	8.0	26.0	26.0	18.0	25.0	16.0	23.0
Total Split (%)	10.7%	34.7%	34.7%	10.7%	34.7%	34.7%	24.0%	33.3%	21.3%	30.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	24.3	21.5	21.5	25.0	21.5	21.5	33.6	22.1	33.6	18.5
Actuated g/C Ratio	0.32	0.29	0.29	0.33	0.29	0.29	0.45	0.29	0.45	0.25
v/c Ratio	0.69	0.96	0.60	0.52	0.89	0.29	0.94	0.70	0.72	0.94
Control Delay	39.6	49.4	6.0	33.1	39.0	3.0	51.1	27.6	35.0	48.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	49.4	6.0	33.1	39.0	3.0	51.1	27.6	35.0	48.7
LOS	D	D	A	C	D	A	D	C	D	D
Approach Delay		35.5			33.1			36.4		45.2
Approach LOS		D			C			D		D

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 37.3	Intersection LOS: D
Intersection Capacity Utilization 90.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 14: Pasadena Blvd. & Southmore Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	874	424	85	809	157	386	554	91	248	726	6
Future Volume (veh/h)	109	874	424	85	809	157	386	554	91	248	726	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	120	960	466	93	889	173	424	609	100	273	798	7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	1003	447	175	984	439	435	822	135	439	896	8
Arrive On Green	0.05	0.29	0.29	0.04	0.28	0.28	0.18	0.27	0.27	0.16	0.25	0.25
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3008	493	1753	3553	31
Grp Volume(v), veh/h	120	960	466	93	889	173	424	354	355	273	393	412
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1752	1753	1749	1835
Q Serve(g_s), s	3.5	20.2	12.5	0.0	18.4	4.1	13.5	13.8	13.9	3.5	16.2	16.3
Cycle Q Clear(g_c), s	3.5	20.2	12.5	0.0	18.4	4.1	13.5	13.8	13.9	3.5	16.2	16.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.02
Lane Grp Cap(c), veh/h	197	1003	447	175	984	439	435	478	479	439	441	463
V/C Ratio(X)	0.61	0.96	1.04	0.53	0.90	0.39	0.97	0.74	0.74	0.62	0.89	0.89
Avail Cap(c_a), veh/h	197	1003	447	184	1003	447	435	478	479	439	441	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	26.3	9.0	34.4	26.0	8.2	18.3	24.8	24.8	26.2	27.1	27.1
Incr Delay (d2), s/veh	5.4	19.0	53.9	2.6	11.2	0.6	36.4	9.9	10.0	2.7	22.8	22.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	10.4	10.1	1.7	8.6	2.3	9.2	6.6	6.7	4.4	9.1	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	45.3	62.9	37.0	37.2	8.7	54.7	34.7	34.8	28.9	49.9	49.0
LnGrp LOS	C	D	F	D	D	A	D	C	C	C	D	D
Approach Vol, veh/h		1546			1155			1133			1078	
Approach Delay, s/veh		49.2			32.9			42.2			44.2	
Approach LOS		D			C			D			D	

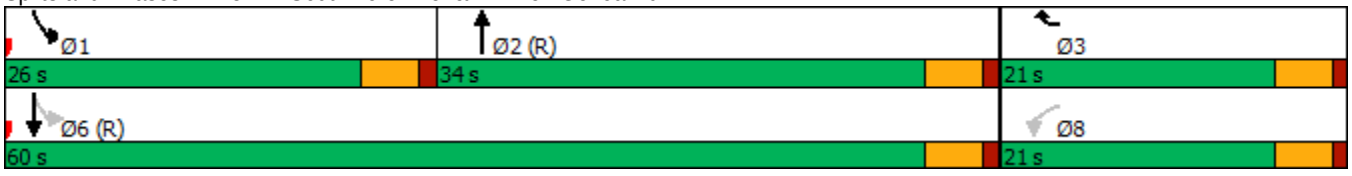
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	25.0	7.6	26.0	18.0	23.4	8.0	25.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	20.5	3.5	21.5	13.5	18.5	3.5	21.5
Max Q Clear Time (g_c+I1), s	5.5	15.9	2.0	22.2	15.5	18.3	5.5	20.4
Green Ext Time (p_c), s	0.4	1.8	0.0	0.0	0.0	0.1	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	42.7
HCM 6th LOS	D

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	161	353	815	373	1331
Future Volume (vph)	161	353	815	373	1331
Turn Type	Perm	Prot	NA	pm+pt	NA
Protected Phases		3	2	1	6
Permitted Phases	8			6	
Detector Phase	8	3	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	34.0	26.0	60.0
Total Split (%)	25.9%	25.9%	42.0%	32.1%	74.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.7	12.7	38.7	59.3	59.3
Actuated g/C Ratio	0.16	0.16	0.48	0.73	0.73
v/c Ratio	0.62	0.66	0.55	0.74	0.56
Control Delay	41.4	9.9	18.3	17.3	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	9.9	18.3	17.3	6.5
LOS	D	A	B	B	A
Approach Delay	19.8		18.3		8.9
Approach LOS	B		B		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 19 (23%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 68.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: W. Southmore Ave. & N. Allen Genoa Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	161	353	815	51	373	1331	
Future Volume (veh/h)	161	353	815	51	373	1331	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	
Adj Flow Rate, veh/h	168	368	849	53	389	1386	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	4	4	4	4	4	4	
Cap, veh/h	357	318	1654	103	522	2396	
Arrive On Green	0.20	0.20	0.49	0.49	0.14	0.69	
Sat Flow, veh/h	1753	1560	3435	209	1753	3589	
Grp Volume(v), veh/h	168	368	444	458	389	1386	
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1803	1753	1749	
Q Serve(g_s), s	6.8	16.5	13.9	13.9	8.0	16.7	
Cycle Q Clear(g_c), s	6.8	16.5	13.9	13.9	8.0	16.7	
Prop In Lane	1.00	1.00		0.12	1.00		
Lane Grp Cap(c), veh/h	357	318	865	892	522	2396	
V/C Ratio(X)	0.47	1.16	0.51	0.51	0.75	0.58	
Avail Cap(c_a), veh/h	357	318	865	892	750	2396	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.90	0.90	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.4	32.3	13.9	13.9	10.6	6.6	
Incr Delay (d2), s/veh	0.9	98.2	2.2	2.1	2.4	1.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.8	14.5	5.4	5.6	2.7	4.9	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	29.3	130.4	16.0	16.0	13.0	7.7	
LnGrp LOS	C	F	B	B	B	A	
Approach Vol, veh/h	536		902			1775	
Approach Delay, s/veh	98.7		16.0			8.8	
Approach LOS	F		B			A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.4	44.6			60.0	21.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	21.5	29.5			55.5	16.5
Max Q Clear Time (g_c+I1), s	10.0	15.9			18.7	18.5
Green Ext Time (p_c), s	1.0	4.7			13.7	0.0

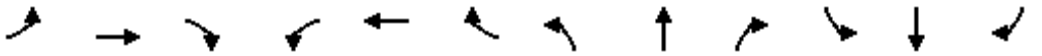
Intersection Summary		
HCM 6th Ctrl Delay	25.8	
HCM 6th LOS	C	

Lane Group	EBL	EBT	WBT	NBT	NBR
Lane Configurations					
Traffic Volume (vph)	138	1041	1001	806	256
Future Volume (vph)	138	1041	1001	806	256
Turn Type	pm+pt	NA	NA	NA	Perm
Protected Phases	7	4	8	2	
Permitted Phases	4				2
Detector Phase	7	4	8	2	2
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	11.0	52.0	41.0	29.0	29.0
Total Split (%)	13.6%	64.2%	50.6%	35.8%	35.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	46.4	46.4	35.4	25.6	25.6
Actuated g/C Ratio	0.57	0.57	0.44	0.32	0.32
v/c Ratio	0.63	0.56	0.88	0.71	0.48
Control Delay	16.2	3.2	28.3	27.7	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	3.2	28.3	27.7	18.0
LOS	B	A	C	C	B
Approach Delay		4.7	28.3	25.8	
Approach LOS		A	C	C	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 66 (81%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 78.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 16: Main St. & Southmore Ave.



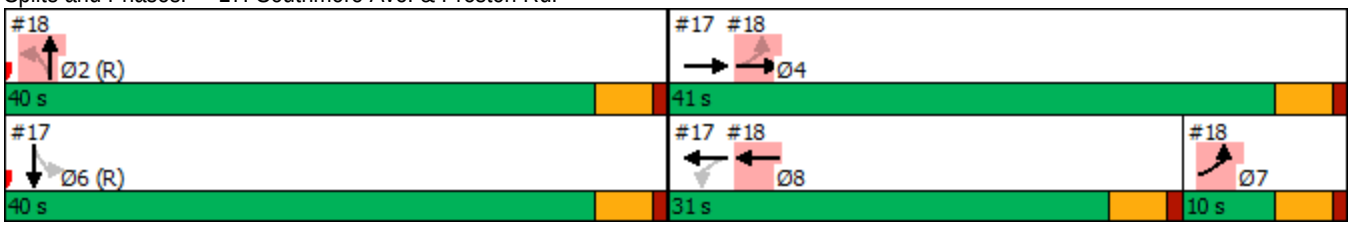


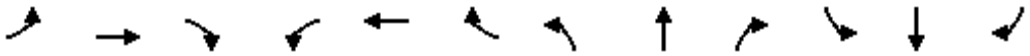
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	1041	1	0	1001	221	249	806	256	0	0	0
Future Volume (veh/h)	138	1041	1	0	1001	221	249	806	256	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	1841	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	144	1084	1	0	1043	230	259	840	267			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	4	0	4	4	4	4	4			
Cap, veh/h	185	1845	2	0	1190	261	426	1496	584			
Arrive On Green	0.08	1.00	1.00	0.00	0.42	0.42	0.37	0.37	0.37			
Sat Flow, veh/h	1753	3586	3	0	2942	626	1139	3995	1560			
Grp Volume(v), veh/h	144	529	556	0	638	635	406	693	267			
Grp Sat Flow(s),veh/h/ln	1753	1749	1840	0	1749	1728	1784	1675	1560			
Q Serve(g_s), s	1.1	0.0	0.0	0.0	27.1	27.4	14.9	13.2	10.5			
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	27.1	27.4	14.9	13.2	10.5			
Prop In Lane	1.00		0.00	0.00		0.36	0.64		1.00			
Lane Grp Cap(c), veh/h	185	900	947	0	730	721	668	1254	584			
V/C Ratio(X)	0.78	0.59	0.59	0.00	0.87	0.88	0.61	0.55	0.46			
Avail Cap(c_a), veh/h	253	1025	1079	0	788	779	668	1254	584			
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.50	0.50	0.50	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	35.3	0.0	0.0	0.0	21.7	21.7	20.5	20.0	19.1			
Incr Delay (d2), s/veh	5.3	0.3	0.3	0.0	10.2	10.8	4.1	1.8	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.8	0.1	0.1	0.0	12.1	12.2	6.5	5.1	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.3	0.3	0.0	31.9	32.5	24.6	21.7	21.7			
LnGrp LOS	D	A	A	A	C	C	C	C	C			
Approach Vol, veh/h		1229			1273			1366				
Approach Delay, s/veh		5.0			32.2			22.6				
Approach LOS		A			C			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		34.8		46.2			7.9	38.3				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		24.5		47.5			6.5	36.5				
Max Q Clear Time (g_c+I1), s		16.9		2.0			3.1	29.4				
Green Ext Time (p_c), s		4.5		8.7			0.1	4.4				
Intersection Summary												
HCM 6th Ctrl Delay			20.2									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT	Ø2	Ø7
Lane Configurations						
Traffic Volume (vph)	654	109	561	1002		
Future Volume (vph)	654	109	561	1002		
Turn Type	NA	Perm	NA	NA		
Protected Phases	4		8	6	2	7
Permitted Phases		8				
Detector Phase	4	8	8	6		
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	41.0	31.0	31.0	40.0	40.0	10.0
Total Split (%)	50.6%	38.3%	38.3%	49.4%	49%	12%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.5	4.5	4.5	4.5		
Lead/Lag		Lead	Lead			Lag
Lead-Lag Optimize?		Yes	Yes			Yes
Recall Mode	None	None	None	C-Max	C-Max	None
Act Effct Green (s)	34.4	24.4	24.4	37.6		
Actuated g/C Ratio	0.42	0.30	0.30	0.46		
v/c Ratio	0.57	0.96	0.56	0.82		
Control Delay	36.1	88.2	13.7	16.2		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	36.1	88.2	13.7	16.2		
LOS	D	F	B	B		
Approach Delay	36.1		25.8	16.2		
Approach LOS	D		C	B		

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 55 (68%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 17: Southmore Ave. & Preston Rd.





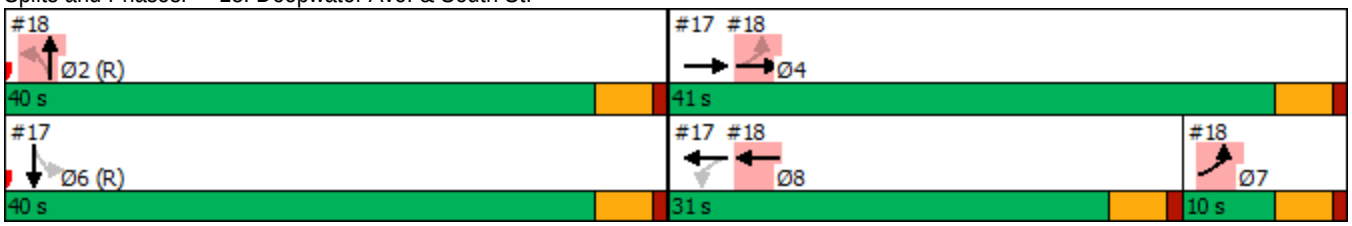
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	654	137	109	561	0	0	0	0	24	1002	263
Future Volume (vph)	0	654	137	109	561	0	0	0	0	24	1002	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)		4.5		4.5	4.5						4.5	
Lane Util. Factor		0.95		1.00	0.95						0.95	
Frt		0.97		1.00	1.00						0.97	
Flt Protected		1.00		0.95	1.00						1.00	
Satd. Flow (prot)		3269		1736	3355						3362	
Flt Permitted		1.00		0.21	1.00						1.00	
Satd. Flow (perm)		3269		386	3355						3362	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	661	138	110	567	0	0	0	0	24	1012	266
RTOR Reduction (vph)	0	22	0	0	0	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	777	0	110	567	0	0	0	0	0	1275	0
Turn Type		NA		Perm	NA					Perm	NA	
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		34.5		24.4	24.4						37.5	
Effective Green, g (s)		34.5		24.4	24.4						37.5	
Actuated g/C Ratio		0.43		0.30	0.30						0.46	
Clearance Time (s)		4.5		4.5	4.5						4.5	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		1392		116	1010						1556	
v/s Ratio Prot		c0.24			0.17							
v/s Ratio Perm				c0.29							0.38	
v/c Ratio		0.56		0.95	0.56						0.82	
Uniform Delay, d1		17.5		27.7	23.8						18.8	
Progression Factor		2.10		0.46	0.50						0.60	
Incremental Delay, d2		0.4		61.7	0.6						4.1	
Delay (s)		37.3		74.5	12.5						15.3	
Level of Service		D		E	B						B	
Approach Delay (s)		37.3			22.5			0.0			15.3	
Approach LOS		D			C			A			B	

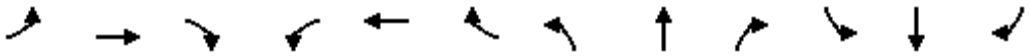
Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	NBT	Ø6
Lane Configurations					
Traffic Volume (vph)	225	460	498	640	
Future Volume (vph)	225	460	498	640	
Turn Type	pm+pt	NA	NA	NA	
Protected Phases	7	4	8	2	6
Permitted Phases	4				
Detector Phase	7	4	8	2	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	41.0	31.0	40.0	40.0
Total Split (%)	12.3%	50.6%	38.3%	49.4%	49%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	34.4	34.4	24.4	37.6	
Actuated g/C Ratio	0.42	0.42	0.30	0.46	
v/c Ratio	0.73	0.35	0.58	0.43	
Control Delay	21.0	2.2	25.7	15.5	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	21.0	2.2	25.7	15.5	
LOS	C	A	C	B	
Approach Delay		8.4	25.7	15.5	
Approach LOS		A	C	B	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 55 (68%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 18: Deepwater Ave. & South St.





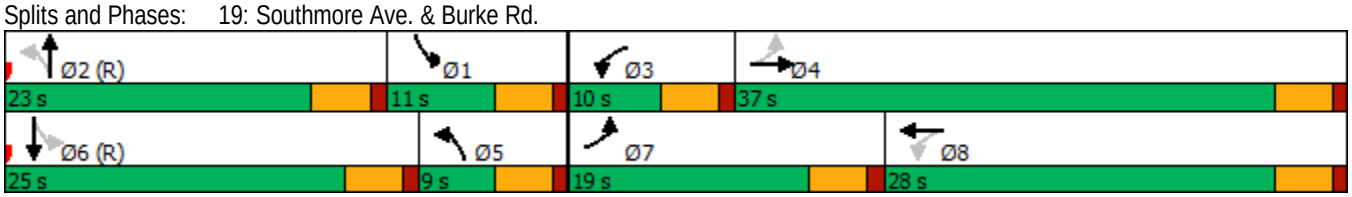
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	460	0	0	498	38	168	640	61	0	0	0
Future Volume (vph)	225	460	0	0	498	38	168	640	61	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5			4.5				
Lane Util. Factor	1.00	0.95			0.95			0.91				
Frt	1.00	1.00			0.99			0.99				
Flt Protected	0.95	1.00			1.00			0.99				
Satd. Flow (prot)	1620	3240			3205			4562				
Flt Permitted	0.34	1.00			1.00			0.99				
Satd. Flow (perm)	583	3240			3205			4562				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	234	479	0	0	519	40	175	667	64	0	0	0
RTOR Reduction (vph)	0	0	0	0	7	0	0	10	0	0	0	0
Lane Group Flow (vph)	234	479	0	0	552	0	0	896	0	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Actuated Green, G (s)	34.5	34.5			24.4			37.5				
Effective Green, g (s)	34.5	34.5			24.4			37.5				
Actuated g/C Ratio	0.43	0.43			0.30			0.46				
Clearance Time (s)	4.5	4.5			4.5			4.5				
Vehicle Extension (s)	3.0	3.0			3.0			3.0				
Lane Grp Cap (vph)	320	1380			965			2112				
v/s Ratio Prot	c0.05	0.15			0.17							
v/s Ratio Perm	c0.26							0.20				
v/c Ratio	0.73	0.35			0.57			0.42				
Uniform Delay, d1	24.8	15.7			23.9			14.5				
Progression Factor	0.33	0.11			1.00			1.00				
Incremental Delay, d2	7.3	0.1			0.8			0.6				
Delay (s)	15.5	1.8			24.7			15.2				
Level of Service	B	A			C			B				
Approach Delay (s)		6.3			24.7			15.2			0.0	
Approach LOS		A			C			B			A	

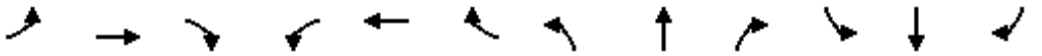
Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	211	611	81	538	66	234	136	277
Future Volume (vph)	211	611	81	538	66	234	136	277
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	19.0	37.0	10.0	28.0	9.0	23.0	11.0	25.0
Total Split (%)	23.5%	45.7%	12.3%	34.6%	11.1%	28.4%	13.6%	30.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	39.1	31.1	27.5	22.0	26.6	22.1	30.9	25.7
Actuated g/C Ratio	0.48	0.38	0.34	0.27	0.33	0.27	0.38	0.32
v/c Ratio	0.67	0.58	0.30	0.82	0.28	0.35	0.36	0.46
Control Delay	18.9	11.1	6.2	17.4	16.9	14.6	16.5	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	11.1	6.2	17.4	16.9	14.6	16.5	11.0
LOS	B	B	A	B	B	B	B	B
Approach Delay		13.0		16.2		15.0		12.2
Approach LOS		B		B		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 26 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 19: Southmore Ave. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	611	67	81	538	163	66	234	66	136	277	215
Future Volume (veh/h)	211	611	67	81	538	163	66	234	66	136	277	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	224	650	71	86	572	173	70	249	70	145	295	229
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	327	1015	111	283	675	203	447	619	170	557	480	363
Arrive On Green	0.12	0.32	0.32	0.05	0.25	0.25	0.15	0.23	0.23	0.30	0.42	0.42
Sat Flow, veh/h	1753	3180	347	1753	2647	798	1753	2710	746	1753	1898	1433
Grp Volume(v), veh/h	224	357	364	86	377	368	70	159	160	145	271	253
Grp Sat Flow(s),veh/h/ln	1753	1749	1778	1753	1749	1697	1753	1749	1707	1753	1749	1583
Q Serve(g_s), s	7.2	14.2	14.2	2.9	16.6	16.7	0.0	6.2	6.5	0.0	9.8	10.2
Cycle Q Clear(g_c), s	7.2	14.2	14.2	2.9	16.6	16.7	0.0	6.2	6.5	0.0	9.8	10.2
Prop In Lane	1.00		0.20	1.00		0.47	1.00		0.44	1.00		0.91
Lane Grp Cap(c), veh/h	327	558	567	283	446	433	447	399	390	557	443	401
V/C Ratio(X)	0.69	0.64	0.64	0.30	0.85	0.85	0.16	0.40	0.41	0.26	0.61	0.63
Avail Cap(c_a), veh/h	437	702	714	312	507	492	447	399	390	557	443	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Upstream Filter(I)	0.43	0.43	0.43	0.81	0.81	0.81	1.00	1.00	1.00	0.55	0.55	0.55
Uniform Delay (d), s/veh	19.8	23.6	23.6	21.0	28.7	28.7	24.4	26.5	26.6	17.8	20.3	20.4
Incr Delay (d2), s/veh	1.2	0.6	0.6	0.5	9.5	10.0	0.2	2.9	3.2	0.1	3.5	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	5.6	5.7	1.2	7.7	7.6	1.1	2.8	2.9	1.7	3.7	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	24.2	24.2	21.5	38.2	38.7	24.5	29.5	29.8	17.9	23.8	24.5
LnGrp LOS	C	C	C	C	D	D	C	C	C	B	C	C
Approach Vol, veh/h		945			831			389			669	
Approach Delay, s/veh		23.4			36.7			28.7			22.8	
Approach LOS		C			D			C			C	

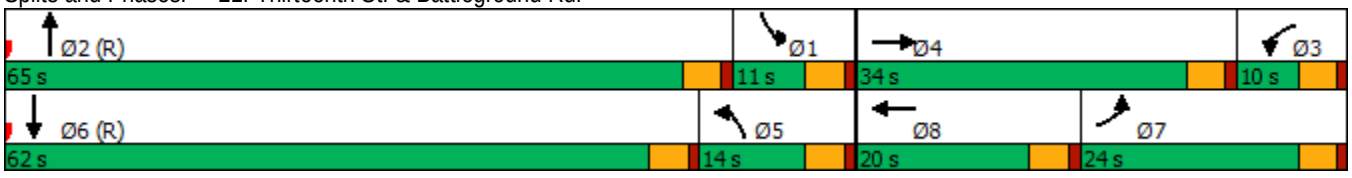
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	23.0	8.7	30.3	17.0	25.0	13.9	25.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	18.5	5.5	32.5	4.5	20.5	14.5	23.5
Max Q Clear Time (g_c+I1), s	2.0	8.5	4.9	16.2	2.0	12.2	9.2	18.7
Green Ext Time (p_c), s	0.1	1.2	0.0	4.0	0.0	2.0	0.3	1.9

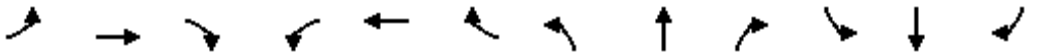
Intersection Summary	
HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	151	20	17	63	63	562	36	999
Future Volume (vph)	151	20	17	63	63	562	36	999
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	24.0	34.0	10.0	20.0	14.0	65.0	11.0	62.0
Total Split (%)	20.0%	28.3%	8.3%	16.7%	11.7%	54.2%	9.2%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.4	18.3	12.8	8.4	8.6	75.2	6.3	70.8
Actuated g/C Ratio	0.14	0.15	0.11	0.07	0.07	0.63	0.05	0.59
v/c Ratio	0.68	0.23	0.10	0.59	0.55	0.28	0.43	0.57
Control Delay	63.5	15.1	44.3	26.7	70.2	12.3	69.7	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	15.1	44.3	26.7	70.2	12.3	69.7	18.6
LOS	E	B	D	C	E	B	E	B
Approach Delay		42.1		28.1		18.2		20.2
Approach LOS		D		C		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 41 (34%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 23.0	Intersection LOS: C
Intersection Capacity Utilization 68.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 21: Thirteenth St. & Battleground Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	20	99	17	63	123	63	562	5	36	999	81
Future Volume (veh/h)	151	20	99	17	63	123	63	562	5	36	999	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	162	22	106	18	68	132	68	604	5	39	1074	87
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	190	153	137	216	179	159	281	1792	15	237	1570	127
Arrive On Green	0.11	0.09	0.09	0.12	0.10	0.10	0.16	0.50	0.50	0.14	0.48	0.48
Sat Flow, veh/h	1753	1749	1560	1753	1749	1560	1753	3555	29	1753	3276	265
Grp Volume(v), veh/h	162	22	106	18	68	132	68	297	312	39	573	588
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1835	1753	1749	1793
Q Serve(g_s), s	10.9	1.4	8.0	1.1	4.4	10.0	4.1	12.2	12.2	2.4	30.5	30.5
Cycle Q Clear(g_c), s	10.9	1.4	8.0	1.1	4.4	10.0	4.1	12.2	12.2	2.4	30.5	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.15
Lane Grp Cap(c), veh/h	190	153	137	216	179	159	281	882	925	237	838	859
V/C Ratio(X)	0.85	0.14	0.77	0.08	0.38	0.83	0.24	0.34	0.34	0.16	0.68	0.68
Avail Cap(c_a), veh/h	285	430	383	216	226	201	281	882	925	237	838	859
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	50.6	53.6	46.6	50.3	52.8	44.0	17.8	17.8	45.9	24.2	24.2
Incr Delay (d2), s/veh	12.8	0.4	7.9	0.2	1.3	20.0	0.4	1.0	1.0	0.3	4.5	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.6	3.3	0.5	1.9	4.7	1.8	4.9	5.1	1.0	12.8	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	50.9	61.5	46.8	51.7	72.8	44.5	18.8	18.8	46.2	28.7	28.6
LnGrp LOS	E	D	E	D	D	E	D	B	B	D	C	C
Approach Vol, veh/h		290			218			677			1200	
Approach Delay, s/veh		62.8			64.1			21.4			29.2	
Approach LOS		E			E			C			C	

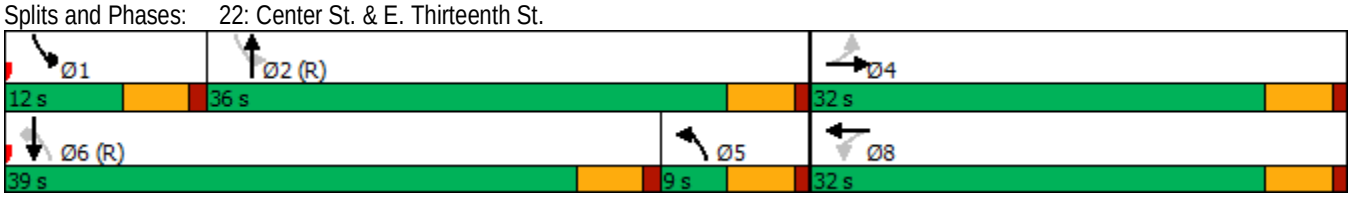
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	65.0	19.3	15.0	23.7	62.0	17.5	16.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	60.5	5.5	29.5	9.5	57.5	19.5	15.5
Max Q Clear Time (g_c+I1), s	4.4	14.2	3.1	10.0	6.1	32.5	12.9	12.0
Green Ext Time (p_c), s	0.0	3.6	0.0	0.5	0.0	7.8	0.2	0.3

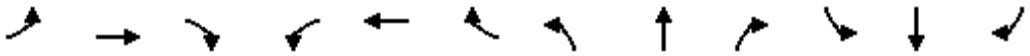
Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	171	157	250	164	112	936	198	1008	249
Future Volume (vph)	171	157	250	164	112	936	198	1008	249
Turn Type	Perm	NA	Perm	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8		6		2		6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	5.0	3.0	15.0	3.0	15.0	15.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	32.0	32.0	32.0	32.0	9.0	36.0	12.0	39.0	39.0
Total Split (%)	40.0%	40.0%	40.0%	40.0%	11.3%	45.0%	15.0%	48.8%	48.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.0	27.0	27.0	27.0	38.0	31.0	38.0	34.0	34.0
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.48	0.39	0.48	0.42	0.42
v/c Ratio	0.88	0.38	1.14	0.42	0.80	1.02	1.03	0.87	0.37
Control Delay	61.6	14.1	127.9	11.1	56.2	55.3	87.6	28.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	14.1	127.9	11.1	56.2	55.3	87.6	28.7	3.3
LOS	E	B	F	B	E	E	F	C	A
Approach Delay		29.9		56.5		55.4		32.4	
Approach LOS		C		E		E		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 43.3	Intersection LOS: D
Intersection Capacity Utilization 87.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Center St. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	157	187	250	164	229	112	936	138	198	1008	249
Future Volume (veh/h)	171	157	187	250	164	229	112	936	138	198	1008	249
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	216	199	237	316	208	290	142	1185	175	251	1276	315
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	255	590	526	295	590	526	208	1185	174	243	1486	663
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.05	0.39	0.39	0.09	0.43	0.43
Sat Flow, veh/h	885	1749	1560	938	1749	1560	1753	3059	450	1753	3497	1560
Grp Volume(v), veh/h	216	199	237	316	208	290	142	675	685	251	1276	315
Grp Sat Flow(s),veh/h/ln	885	1749	1560	938	1749	1560	1753	1749	1760	1753	1749	1560
Q Serve(g_s), s	14.9	6.8	9.5	17.5	7.2	12.1	0.7	30.8	31.0	7.0	26.4	11.6
Cycle Q Clear(g_c), s	27.0	6.8	9.5	27.0	7.2	12.1	0.7	30.8	31.0	7.0	26.4	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	255	590	526	295	590	526	208	678	682	243	1486	663
V/C Ratio(X)	0.85	0.34	0.45	1.07	0.35	0.55	0.68	1.00	1.00	1.03	0.86	0.48
Avail Cap(c_a), veh/h	255	590	526	295	590	526	208	678	682	243	1486	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.76	0.76	0.76	0.18	0.18	0.18	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	19.8	20.7	33.9	19.9	21.6	35.3	24.5	24.5	19.7	20.8	16.6
Incr Delay (d2), s/veh	22.5	0.3	0.6	65.8	0.3	0.9	1.7	14.0	15.5	66.0	6.7	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	2.7	3.4	11.1	2.8	4.4	2.6	13.9	14.4	6.9	10.8	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	20.1	21.3	99.7	20.2	22.5	37.0	38.4	40.0	85.7	27.5	19.0
LnGrp LOS	E	C	C	F	C	C	D	D	F	F	C	B
Approach Vol, veh/h		652			814			1502			1842	
Approach Delay, s/veh		32.7			51.9			39.0			34.0	
Approach LOS		C			D			D			C	

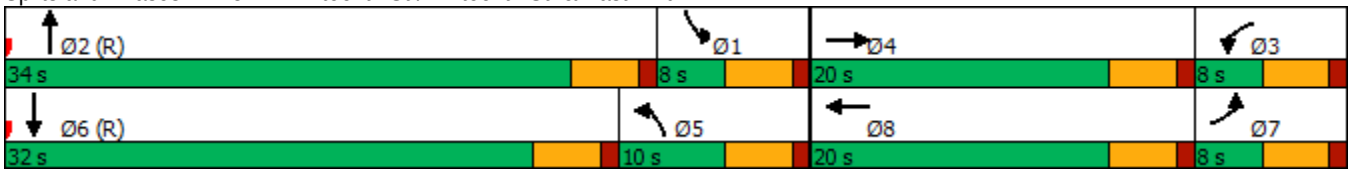
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	36.0		32.0	9.0	39.0		32.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	7.0	31.0		27.0	4.0	34.0		27.0				
Max Q Clear Time (g_c+I1), s	9.0	33.0		29.0	2.7	28.4		29.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	4.0		0.0				

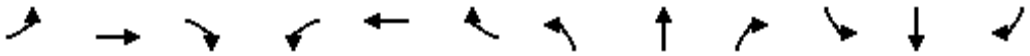
Intersection Summary												
HCM 6th Ctrl Delay			38.4									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	37	96	79	119	113	207	19	1056
Future Volume (vph)	37	96	79	119	113	207	19	1056
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	10.0	34.0	8.0	32.0
Total Split (%)	11.4%	28.6%	11.4%	28.6%	14.3%	48.6%	11.4%	45.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	7.9	9.1	16.0	5.5	37.9	3.5	29.5
Actuated g/C Ratio	0.10	0.11	0.13	0.23	0.08	0.54	0.05	0.42
v/c Ratio	0.21	0.50	0.36	0.24	0.89	0.12	0.23	0.85
Control Delay	30.9	16.1	32.8	16.6	89.8	8.7	38.6	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	16.1	32.8	16.6	89.8	8.7	38.6	25.8
LOS	C	B	C	B	F	A	D	C
Approach Delay		18.1		21.4		35.8		26.0
Approach LOS		B		C		D		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 26.0	Intersection LOS: C
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 23: E. Thirteenth St./Thirteenth St. & East Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	96	138	79	119	65	113	207	17	19	1056	135
Future Volume (veh/h)	37	96	138	79	119	65	113	207	17	19	1056	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	38	99	142	81	123	67	116	213	18	20	1089	139
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	145	222	198	88	210	108	303	1377	115	253	1226	156
Arrive On Green	0.08	0.13	0.13	0.05	0.09	0.09	0.17	0.42	0.42	0.14	0.39	0.39
Sat Flow, veh/h	1753	1749	1560	1753	2235	1148	1753	3266	274	1753	3120	398
Grp Volume(v), veh/h	38	99	142	81	95	95	116	113	118	20	610	618
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1634	1753	1749	1791	1753	1749	1769
Q Serve(g_s), s	1.4	3.7	6.1	3.2	3.6	3.9	4.1	2.8	2.9	0.7	22.7	22.8
Cycle Q Clear(g_c), s	1.4	3.7	6.1	3.2	3.6	3.9	4.1	2.8	2.9	0.7	22.7	22.8
Prop In Lane	1.00		1.00	1.00		0.70	1.00		0.15	1.00		0.22
Lane Grp Cap(c), veh/h	145	222	198	88	165	154	303	737	755	253	687	695
V/C Ratio(X)	0.26	0.45	0.72	0.92	0.58	0.62	0.38	0.15	0.16	0.08	0.89	0.89
Avail Cap(c_a), veh/h	145	387	345	88	387	362	303	737	755	253	687	695
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	28.3	29.3	33.1	30.4	30.5	25.6	12.5	12.5	25.9	19.8	19.8
Incr Delay (d2), s/veh	0.7	1.1	3.7	61.9	2.5	3.2	0.8	0.4	0.4	0.1	15.7	15.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	2.4	2.8	1.6	1.6	1.6	1.0	1.1	0.3	10.9	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	29.3	33.0	95.0	32.9	33.7	26.4	13.0	13.0	26.0	35.6	35.7
LnGrp LOS	C	C	C	F	C	C	C	B	B	C	D	D
Approach Vol, veh/h		279			271			347			1248	
Approach Delay, s/veh		31.4			51.7			17.5			35.5	
Approach LOS		C			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	34.0	8.0	13.4	16.6	32.0	10.3	11.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	29.5	3.5	15.5	5.5	27.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	2.7	4.9	5.2	8.1	6.1	24.8	3.4	5.9
Green Ext Time (p_c), s	0.0	1.2	0.0	0.8	0.0	1.8	0.0	0.7

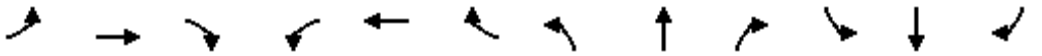
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	163	63	203	81	104	63	234
Future Volume (vph)	29	163	63	203	81	104	63	234
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	45.0	45.0	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	18.2	18.2	18.2	18.2		92.8		92.8
Actuated g/C Ratio	0.15	0.15	0.15	0.15		0.77		0.77
v/c Ratio	0.36	0.61	1.05	0.61		0.28		0.31
Control Delay	53.4	26.8	168.4	46.1		5.1		5.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	53.4	26.8	168.4	46.1		5.1		5.5
LOS	D	C	F	D		A		A
Approach Delay		29.1		69.5		5.1		5.5
Approach LOS		C		E		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 104 (87%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 51.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 24: Luella Ave. & E. Thirteenth St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	163	157	63	203	63	81	104	53	63	234	15
Future Volume (veh/h)	29	163	157	63	203	63	81	104	53	63	234	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	36	201	194	78	251	78	100	128	65	78	289	19
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	203	388	346	168	586	178	368	464	226	247	895	57
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.70	0.70	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1034	1749	1560	974	2642	802	466	660	321	300	1273	81
Grp Volume(v), veh/h	36	201	194	78	164	165	293	0	0	386	0	0
Grp Sat Flow(s),veh/h/ln	1034	1749	1560	974	1749	1696	1447	0	0	1655	0	0
Q Serve(g_s), s	3.7	12.1	13.3	9.3	9.7	10.1	0.0	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	13.8	12.1	13.3	22.5	9.7	10.1	7.6	0.0	0.0	9.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.47	0.34		0.22	0.20		0.05
Lane Grp Cap(c), veh/h	203	388	346	168	388	376	1058	0	0	1199	0	0
V/C Ratio(X)	0.18	0.52	0.56	0.46	0.42	0.44	0.28	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	322	590	526	281	590	572	1058	0	0	1199	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	0.87	0.87	0.87	0.73	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.2	41.0	41.5	51.5	40.1	40.2	6.4	0.0	0.0	6.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.8	1.1	1.7	0.6	0.7	0.5	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.3	5.2	2.3	4.2	4.3	2.6	0.0	0.0	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	41.8	42.6	53.2	40.7	40.9	6.9	0.0	0.0	7.4	0.0	0.0
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		431			407			293			386	
Approach Delay, s/veh		42.6			43.2			6.9			7.4	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		88.9		31.1		88.9		31.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		70.5		40.5		70.5		40.5				
Max Q Clear Time (g_c+I1), s		9.6		15.8		11.8		24.5				
Green Ext Time (p_c), s		2.3		2.7		2.8		2.1				

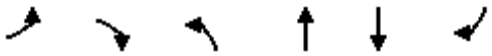
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	31	100	300	800
Future Volume (vph)	1	31	100	300	800
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	4			2	6
Permitted Phases		4	2		
Detector Phase	4	4	2	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	23.0	23.0	58.0	58.0	58.0
Total Split (%)	28.4%	28.4%	71.6%	71.6%	71.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	6.2	6.2		71.6	71.6
Actuated g/C Ratio	0.08	0.08		0.88	0.88
v/c Ratio	0.01	0.23		0.22	0.29
Control Delay	42.0	17.4		1.7	0.4
Queue Delay	0.0	0.0		0.0	0.0
Total Delay	42.0	17.4		1.7	0.4
LOS	D	B		A	A
Approach Delay	18.1			1.7	0.4
Approach LOS	B			A	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 68 (84%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 1.3	Intersection LOS: A
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 36: Pasadena Blvd. & Garner Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	31	100	300	800	11
Future Volume (veh/h)	1	31	100	300	800	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	34	109	326	870	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	59	52	491	1630	3021	42
Arrive On Green	0.03	0.03	0.86	0.86	0.86	0.86
Sat Flow, veh/h	1753	1560	490	1990	3624	49
Grp Volume(v), veh/h	1	34	172	263	431	451
Grp Sat Flow(s),veh/h/ln	1753	1560	804	1591	1749	1832
Q Serve(g_s), s	0.0	1.7	0.8	2.3	3.8	3.8
Cycle Q Clear(g_c), s	0.0	1.7	4.7	2.3	3.8	3.8
Prop In Lane	1.00	1.00	0.63			0.03
Lane Grp Cap(c), veh/h	59	52	761	1361	1496	1567
V/C Ratio(X)	0.02	0.65	0.23	0.19	0.29	0.29
Avail Cap(c_a), veh/h	400	356	761	1361	1496	1567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.62	0.62	1.00	1.00
Uniform Delay (d), s/veh	37.8	38.7	1.0	1.0	1.1	1.1
Incr Delay (d2), s/veh	0.0	1.2	0.4	0.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.2	0.2	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.9	39.9	1.4	1.2	1.6	1.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	35			435	882	
Approach Delay, s/veh	39.8			1.3	1.6	
Approach LOS	D			A	A	

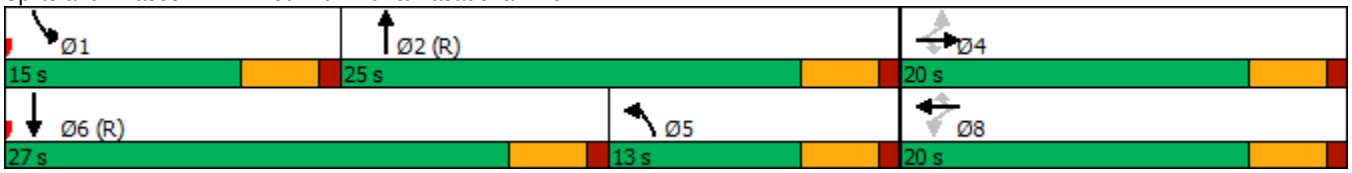
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		73.8		7.2		73.8
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		53.5		18.5		53.5
Max Q Clear Time (g_c+I1), s		6.7		3.7		5.8
Green Ext Time (p_c), s		3.9		0.0		6.9

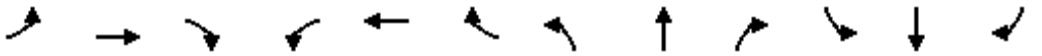
Intersection Summary	
HCM 6th Ctrl Delay	2.5
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	1	528	300	8	587	220	223	908	283	1147
Future Volume (vph)	1	528	300	8	587	220	223	908	283	1147
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Prot	NA
Protected Phases		4			8		5	2	1	6
Permitted Phases	4		4	8		8				
Detector Phase	4	4	4	8	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	13.0	25.0	15.0	27.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	21.7%	41.7%	25.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag							Lag	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		14.9	14.9		14.9	14.9	8.5	20.5	11.1	23.1
Actuated g/C Ratio		0.25	0.25		0.25	0.25	0.14	0.34	0.18	0.38
v/c Ratio		0.71	0.51		0.80	0.42	1.00	0.88	0.94	0.92
Control Delay		26.0	5.9		30.9	11.0	90.1	29.3	67.4	31.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		26.0	5.9		30.9	11.0	90.1	29.3	67.4	31.2
LOS		C	A		C	B	F	C	E	C
Approach Delay		18.7			25.5			40.9		38.4
Approach LOS		B			C			D		D

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 32.8	Intersection LOS: C
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 41: Red Bluff Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	528	300	8	587	220	223	908	34	283	1147	3
Future Volume (veh/h)	1	528	300	8	587	220	223	908	34	283	1147	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	1	562	319	9	624	234	237	966	0	301	1220	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	60	831	378	65	820	378	277	1251		307	1312	
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.16	0.36	0.00	0.17	0.38	0.00
Sat Flow, veh/h	1	3429	1560	16	3385	1560	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	302	261	319	337	296	234	237	966	0	301	1220	0
Grp Sat Flow(s),veh/h/ln	1839	1591	1560	1809	1591	1560	1753	1749	0	1753	1749	0
Q Serve(g_s), s	0.0	8.9	11.7	0.7	10.4	8.0	7.9	14.7	0.0	10.3	20.1	0.0
Cycle Q Clear(g_c), s	8.9	8.9	11.7	10.2	10.4	8.0	7.9	14.7	0.0	10.3	20.1	0.0
Prop In Lane	0.00		1.00	0.03		1.00	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	506	385	378	500	385	378	277	1251		307	1312	
V/C Ratio(X)	0.60	0.68	0.84	0.67	0.77	0.62	0.86	0.77		0.98	0.93	
Avail Cap(c_a), veh/h	535	411	403	528	411	403	277	1251		307	1312	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.6	20.6	21.7	21.1	21.2	20.3	24.6	17.1	0.0	24.7	18.0	0.0
Incr Delay (d2), s/veh	1.7	4.1	14.4	3.2	8.0	2.6	22.4	4.7	0.0	46.1	13.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.3	5.2	4.3	4.2	2.8	4.8	6.0	0.0	7.9	9.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	24.7	36.1	24.3	29.1	22.9	47.0	21.8	0.0	70.7	30.9	0.0
LnGrp LOS	C	C	D	C	C	C	D	C		E	C	
Approach Vol, veh/h		882			867			1203	A		1521	A
Approach Delay, s/veh		28.0			25.6			26.7			38.8	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	26.0		19.0	14.0	27.0		19.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	20.5		15.5	8.5	22.5		15.5				
Max Q Clear Time (g_c+I1), s	12.3	16.7		13.7	9.9	22.1		12.4				
Green Ext Time (p_c), s	0.0	2.2		0.8	0.0	0.3		1.4				

Intersection Summary			
HCM 6th Ctrl Delay		30.9	
HCM 6th LOS		C	

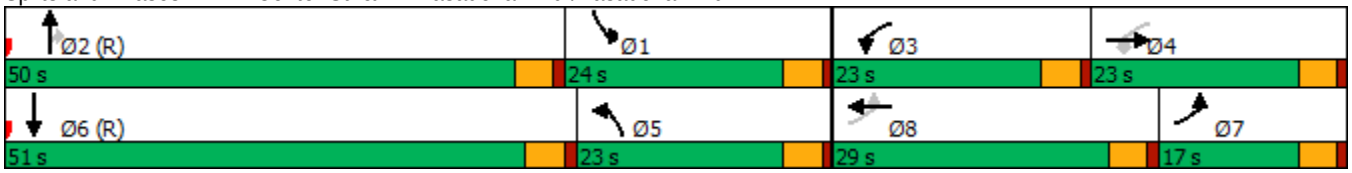
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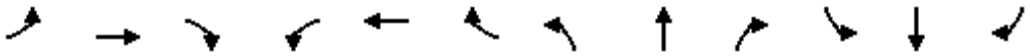
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	236	560	489	363	612	274	1150	281	273	1234
Future Volume (vph)	236	560	489	363	612	274	1150	281	273	1234
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases	8		4	4				2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	17.0	23.0	23.0	23.0	29.0	23.0	50.0	50.0	24.0	51.0
Total Split (%)	14.2%	19.2%	19.2%	19.2%	24.2%	19.2%	41.7%	41.7%	20.0%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	37.0	18.5	18.5	37.0	24.5	18.5	45.5	45.5	19.5	46.5
Actuated g/C Ratio	0.31	0.15	0.15	0.31	0.20	0.15	0.38	0.38	0.16	0.39
v/c Ratio	1.06	1.09	1.09	1.15	1.16	1.10	0.94	0.39	1.01	1.03
Control Delay	119.8	113.4	92.4	130.0	129.1	133.9	51.1	6.9	105.8	69.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	119.8	113.4	92.4	130.0	129.1	133.9	51.1	6.9	105.8	69.4
LOS	F	F	F	F	F	F	D	A	F	E
Approach Delay		106.6			129.4		57.1			75.6
Approach LOS		F			F		E			E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 87.8	Intersection LOS: F
Intersection Capacity Utilization 107.7%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 42: Center St. & W. Pasadena Blvd./Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	560	489	363	612	175	274	1150	281	273	1234	88
Future Volume (veh/h)	236	560	489	363	612	175	274	1150	281	273	1234	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	246	583	509	378	638	182	285	1198	293	284	1285	92
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	243	539	240	330	548	156	270	1326	591	285	1283	92
Arrive On Green	0.10	0.15	0.15	0.15	0.20	0.20	0.15	0.38	0.38	0.16	0.39	0.39
Sat Flow, veh/h	1753	3497	1560	1753	2686	765	1753	3497	1560	1753	3310	237
Grp Volume(v), veh/h	246	583	509	378	415	405	285	1198	293	284	678	699
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1703	1753	1749	1560	1753	1749	1798
Q Serve(g_s), s	12.5	18.5	13.5	18.5	24.5	24.5	18.5	38.8	10.9	19.4	46.5	46.5
Cycle Q Clear(g_c), s	12.5	18.5	13.5	18.5	24.5	24.5	18.5	38.8	10.9	19.4	46.5	46.5
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	243	539	240	330	357	348	270	1326	591	285	678	697
V/C Ratio(X)	1.01	1.08	2.12	1.14	1.16	1.16	1.05	0.90	0.50	1.00	1.00	1.00
Avail Cap(c_a), veh/h	243	539	240	330	357	348	270	1326	591	285	678	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.13	0.13	0.13	0.41	0.41	0.41	0.27	0.27	0.27
Uniform Delay (d), s/veh	52.2	50.8	27.0	37.3	47.8	47.8	50.8	35.2	11.3	50.2	36.7	36.8
Incr Delay (d2), s/veh	61.4	62.5	516.2	70.2	77.6	78.6	50.3	4.7	1.2	26.9	17.9	18.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	12.6	39.4	14.5	18.1	17.7	11.7	16.7	3.7	10.5	22.5	23.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	113.6	113.3	543.2	107.5	125.3	126.3	101.0	39.9	12.6	77.1	54.7	55.4
LnGrp LOS	F	F	F	F	F	F	F	D	B	E	D	F
Approach Vol, veh/h		1338			1198			1776			1661	
Approach Delay, s/veh		276.9			120.1			45.2			58.8	
Approach LOS		F			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	50.0	23.0	23.0	23.0	51.0	17.0	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	45.5	18.5	18.5	18.5	46.5	12.5	24.5
Max Q Clear Time (g_c+I1), s	21.4	40.8	20.5	20.5	20.5	48.5	14.5	26.5
Green Ext Time (p_c), s	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0

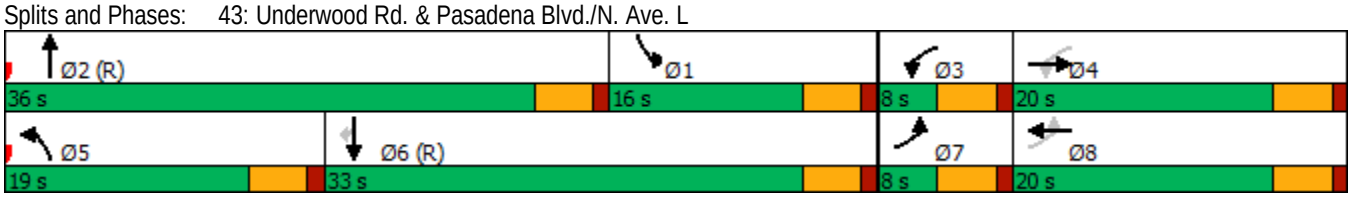
Intersection Summary	
HCM 6th Ctrl Delay	115.9
HCM 6th LOS	F

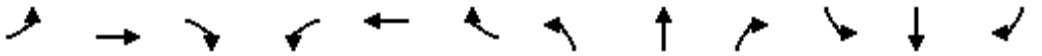


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	147	268	126	320	246	533	110	964	268
Future Volume (vph)	147	268	126	320	246	533	110	964	268
Turn Type	D.P+P	NA	D.P+P	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4						6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	8.0	20.0	8.0	20.0	19.0	36.0	16.0	33.0	33.0
Total Split (%)	10.0%	25.0%	10.0%	25.0%	23.8%	45.0%	20.0%	41.3%	41.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.3	13.8	17.3	13.8	15.0	36.4	10.5	29.7	29.7
Actuated g/C Ratio	0.22	0.17	0.22	0.17	0.19	0.46	0.13	0.37	0.37
v/c Ratio	0.91	0.75	0.85	0.69	0.85	0.44	0.54	0.84	0.42
Control Delay	76.8	23.7	67.6	35.9	57.4	17.0	41.5	31.0	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.8	23.7	67.6	35.9	57.4	17.0	41.5	31.0	7.8
LOS	E	C	E	D	E	B	D	C	A
Approach Delay		35.5		43.9		28.6		27.2	
Approach LOS		D		D		C		C	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 31.7	Intersection LOS: C
Intersection Capacity Utilization 82.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 43: Underwood Rd. & Pasadena Blvd./N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	268	244	126	320	52	246	533	74	110	964	268
Future Volume (veh/h)	147	268	244	126	320	52	246	533	74	110	964	268
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	165	301	274	142	360	58	276	599	83	124	1083	301
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	246	340	301	184	585	93	313	1215	168	252	1256	560
Arrive On Green	0.04	0.19	0.19	0.04	0.19	0.19	0.18	0.39	0.39	0.14	0.36	0.36
Sat Flow, veh/h	1753	1754	1556	1753	3020	482	1753	3086	427	1753	3497	1560
Grp Volume(v), veh/h	165	300	275	142	207	211	276	339	343	124	1083	301
Grp Sat Flow(s),veh/h/ln	1753	1749	1561	1753	1749	1754	1753	1749	1764	1753	1749	1560
Q Serve(g_s), s	3.5	13.4	13.8	3.5	8.7	8.8	12.3	11.7	11.7	5.2	23.0	12.3
Cycle Q Clear(g_c), s	3.5	13.4	13.8	3.5	8.7	8.8	12.3	11.7	11.7	5.2	23.0	12.3
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	246	339	302	184	339	340	313	689	695	252	1256	560
V/C Ratio(X)	0.67	0.89	0.91	0.77	0.61	0.62	0.88	0.49	0.49	0.49	0.86	0.54
Avail Cap(c_a), veh/h	246	339	302	184	339	340	318	689	695	252	1256	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.24	0.24	0.24	0.96	0.96	0.96	0.65	0.65	0.65	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	31.4	31.6	30.6	29.5	29.6	32.0	18.2	18.3	31.6	23.8	20.4
Incr Delay (d2), s/veh	1.7	7.1	9.9	17.2	3.1	3.3	16.9	1.6	1.6	1.5	8.0	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.0	5.8	1.8	3.7	3.7	6.2	4.4	4.4	2.2	9.8	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	38.5	41.4	47.8	32.6	32.9	49.0	19.9	19.9	33.0	31.8	24.0
LnGrp LOS	C	D	D	D	C	C	D	B	B	C	C	C
Approach Vol, veh/h		740			560			958			1508	
Approach Delay, s/veh		38.2			36.5			28.3			30.3	
Approach LOS		D			D			C			C	

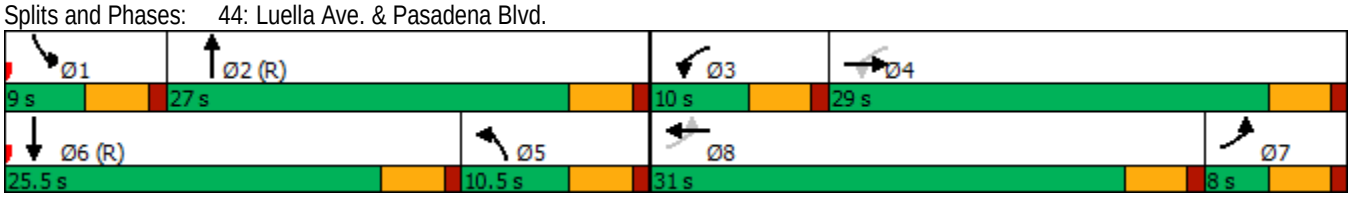
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	36.0	8.0	20.0	18.8	33.2	8.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	31.5	3.5	15.5	14.5	28.5	3.5	15.5
Max Q Clear Time (g_c+I1), s	7.2	13.7	5.5	15.8	14.3	25.0	5.5	10.8
Green Ext Time (p_c), s	0.1	3.4	0.0	0.0	0.0	2.4	0.0	0.9

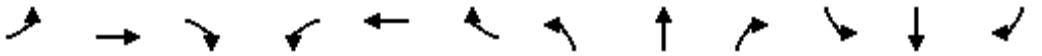
Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	131	776	180	976	96	190	61	259
Future Volume (vph)	131	776	180	976	96	190	61	259
Turn Type	D.P+P	NA	D.P+P	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4					
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	8.0	20.0
Total Split (s)	8.0	29.0	10.0	31.0	10.5	27.0	9.0	25.5
Total Split (%)	10.7%	38.7%	13.3%	41.3%	14.0%	36.0%	12.0%	34.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	30.0	24.5	30.0	26.5	6.0	24.3	4.5	21.0
Actuated g/C Ratio	0.40	0.33	0.40	0.35	0.08	0.32	0.06	0.28
v/c Ratio	0.83	0.93	0.90	1.00	0.78	0.55	0.66	0.93
Control Delay	60.7	39.6	58.6	51.3	72.1	23.6	66.3	52.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	39.6	58.6	51.3	72.1	23.6	66.3	52.1
LOS	E	D	E	D	E	C	E	D
Approach Delay		42.2		52.4		35.8		53.9
Approach LOS		D		D		D		D

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 47.2	Intersection LOS: D
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 44: Luella Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	776	157	180	976	108	96	190	95	61	259	165
Future Volume (veh/h)	131	776	157	180	976	108	96	190	95	61	259	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	147	872	176	202	1097	121	108	213	107	69	291	185
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	183	947	191	244	1122	124	140	358	180	88	294	187
Arrive On Green	0.05	0.33	0.33	0.07	0.35	0.35	0.08	0.31	0.31	0.05	0.28	0.28
Sat Flow, veh/h	1753	2899	585	1753	3176	350	1753	1156	581	1753	1052	669
Grp Volume(v), veh/h	147	526	522	202	603	615	108	0	320	69	0	476
Grp Sat Flow(s),veh/h/ln	1753	1749	1735	1753	1749	1778	1753	0	1736	1753	0	1720
Q Serve(g_s), s	1.8	21.7	21.7	5.5	25.5	25.6	4.5	0.0	11.7	2.9	0.0	20.7
Cycle Q Clear(g_c), s	1.8	21.7	21.7	5.5	25.5	25.6	4.5	0.0	11.7	2.9	0.0	20.7
Prop In Lane	1.00		0.34	1.00		0.20	1.00		0.33	1.00		0.39
Lane Grp Cap(c), veh/h	183	571	567	244	618	628	140	0	538	88	0	482
V/C Ratio(X)	0.80	0.92	0.92	0.83	0.98	0.98	0.77	0.00	0.59	0.79	0.00	0.99
Avail Cap(c_a), veh/h	183	571	567	244	618	628	140	0	538	105	0	482
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.33	0.33	0.33	0.40	0.40	0.40	0.28	0.00	0.28	0.90	0.00	0.90
Uniform Delay (d), s/veh	34.3	24.3	24.3	20.0	23.9	24.0	33.8	0.0	21.9	35.2	0.0	26.9
Incr Delay (d2), s/veh	8.4	8.5	8.6	9.2	17.5	17.8	7.2	0.0	1.4	25.0	0.0	36.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	9.4	9.3	2.7	12.3	12.6	2.2	0.0	4.7	1.8	0.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	32.8	32.9	29.2	41.5	41.8	41.0	0.0	23.3	60.2	0.0	63.0
LnGrp LOS	D	C	C	C	D	D	D	A	C	E	A	E
Approach Vol, veh/h		1195			1420			428			545	
Approach Delay, s/veh		34.1			39.9			27.7			62.6	
Approach LOS		C			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	27.7	10.0	29.0	10.5	25.5	8.0	31.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	22.5	5.5	24.5	6.0	21.0	3.5	26.5
Max Q Clear Time (g_c+I1), s	4.9	13.7	7.5	23.7	6.5	22.7	3.8	27.6
Green Ext Time (p_c), s	0.0	1.3	0.0	0.5	0.0	0.0	0.0	0.0

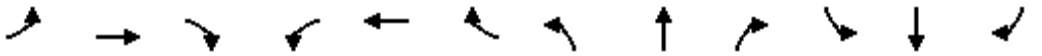
Intersection Summary	
HCM 6th Ctrl Delay	39.9
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	145	361	268	178	564	295	843	188	1317	336
Future Volume (vph)	145	361	268	178	564	295	843	188	1317	336
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	9.5	20.0	20.0	9.5	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.6	23.0	23.0	15.2	24.6	21.0	33.8	18.0	30.8	30.8
Total Split (%)	15.1%	25.6%	25.6%	16.9%	27.3%	23.3%	37.6%	20.0%	34.2%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.1	18.5	18.5	10.7	20.1	16.5	29.3	13.5	26.3	26.3
Actuated g/C Ratio	0.10	0.21	0.21	0.12	0.22	0.18	0.33	0.15	0.29	0.29
v/c Ratio	0.88	1.02	0.52	0.92	0.95	0.99	0.65	0.77	0.96	0.55
Control Delay	84.7	90.1	7.8	86.0	57.0	65.7	23.6	57.7	48.3	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.7	90.1	7.8	86.0	57.0	65.7	23.6	57.7	48.3	10.1
LOS	F	F	A	F	E	E	C	E	D	B
Approach Delay		60.6			62.9		33.3		42.3	
Approach LOS		E			E		C		D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 46.6	Intersection LOS: D
Intersection Capacity Utilization 90.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 45: East Blvd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	361	268	178	564	130	295	843	140	188	1317	336
Future Volume (veh/h)	145	361	268	178	564	130	295	843	140	188	1317	336
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	154	384	285	189	600	138	314	897	149	200	1401	357
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	177	378	321	208	631	145	321	1414	234	263	1468	456
Arrive On Green	0.10	0.21	0.21	0.12	0.22	0.22	0.18	0.33	0.33	0.15	0.29	0.29
Sat Flow, veh/h	1753	1841	1560	1753	2825	648	1753	4343	718	1753	5025	1560
Grp Volume(v), veh/h	154	384	285	189	371	367	314	691	355	200	1401	357
Grp Sat Flow(s),veh/h/ln	1753	1841	1560	1753	1749	1724	1753	1675	1711	1753	1675	1560
Q Serve(g_s), s	7.8	18.5	16.0	9.6	18.8	18.9	16.0	15.8	15.9	9.9	24.6	18.9
Cycle Q Clear(g_c), s	7.8	18.5	16.0	9.6	18.8	18.9	16.0	15.8	15.9	9.9	24.6	18.9
Prop In Lane	1.00		1.00	1.00		0.38	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	177	378	321	208	391	385	321	1091	557	263	1468	456
V/C Ratio(X)	0.87	1.01	0.89	0.91	0.95	0.95	0.98	0.63	0.64	0.76	0.95	0.78
Avail Cap(c_a), veh/h	177	378	321	208	391	385	321	1091	557	263	1468	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.29	0.29	0.29	0.71	0.71	0.71	0.36	0.36	0.36	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	35.8	34.8	39.2	34.5	34.5	36.6	25.8	25.8	36.7	31.3	29.2
Incr Delay (d2), s/veh	12.7	28.7	9.1	29.8	26.3	27.3	24.5	1.0	2.0	12.2	14.8	12.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	10.8	6.5	5.6	10.3	10.3	8.5	5.8	6.2	4.8	11.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.6	64.4	43.8	68.9	60.8	61.8	61.1	26.8	27.8	48.9	46.1	41.9
LnGrp LOS	D	F	D	E	E	E	E	C	C	D	D	D
Approach Vol, veh/h		823			927			1360			1958	
Approach Delay, s/veh		55.1			62.9			35.0			45.6	
Approach LOS		E			E			C			D	

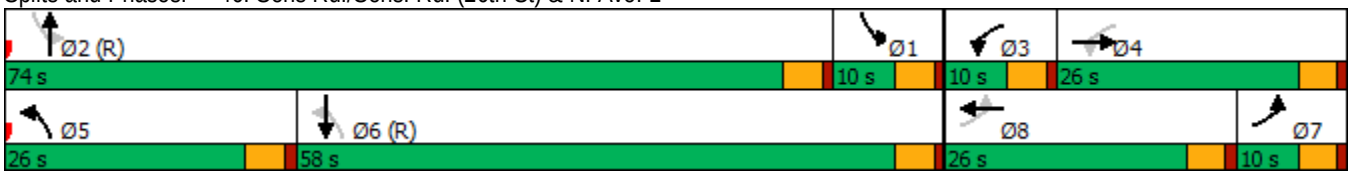
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	33.8	15.2	23.0	21.0	30.8	13.6	24.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	29.3	10.7	18.5	16.5	26.3	9.1	20.1
Max Q Clear Time (g_c+I1), s	11.9	17.9	11.6	20.5	18.0	26.6	9.8	20.9
Green Ext Time (p_c), s	0.1	4.7	0.0	0.0	0.0	0.0	0.0	0.0

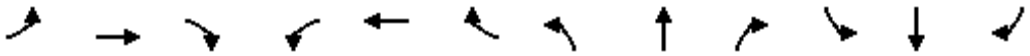
Intersection Summary	
HCM 6th Ctrl Delay	47.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	5	9	1	159	606	6	546
Future Volume (vph)	53	5	9	1	159	606	6	546
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	26.0	10.0	26.0	26.0	74.0	10.0	58.0
Total Split (%)	8.3%	21.7%	8.3%	21.7%	21.7%	61.7%	8.3%	48.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.8	10.5	11.6	6.0	94.0	96.5	97.6	85.6
Actuated g/C Ratio	0.09	0.09	0.10	0.05	0.78	0.80	0.81	0.71
v/c Ratio	0.39	0.53	0.09	0.14	0.34	0.26	0.01	0.32
Control Delay	54.2	17.4	45.3	29.9	4.7	4.3	3.5	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	17.4	45.3	29.9	4.7	4.3	3.5	7.6
LOS	D	B	D	C	A	A	A	A
Approach Delay		29.1		37.0		4.4		7.5
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 55 (46%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 8.6	Intersection LOS: A
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 46: Sens Rd./Sens. Rd. (26th St) & N. Ave. L





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	5	108	9	1	10	159	606	10	6	546	107
Future Volume (veh/h)	53	5	108	9	1	10	159	606	10	6	546	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	62	6	127	11	1	12	187	713	12	7	642	126
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	230	7	154	100	5	60	562	2038	34	677	2002	392
Arrive On Green	0.07	0.10	0.10	0.01	0.04	0.04	0.05	0.58	0.58	0.16	0.69	0.69
Sat Flow, veh/h	1753	71	1500	1753	121	1457	1753	3520	59	1753	2915	571
Grp Volume(v), veh/h	62	0	133	11	0	13	187	354	371	7	385	383
Grp Sat Flow(s),veh/h/ln	1753	0	1571	1753	0	1578	1753	1749	1830	1753	1749	1738
Q Serve(g_s), s	0.0	0.0	10.0	0.7	0.0	1.0	3.8	12.8	12.8	0.0	10.6	10.6
Cycle Q Clear(g_c), s	0.0	0.0	10.0	0.7	0.0	1.0	3.8	12.8	12.8	0.0	10.6	10.6
Prop In Lane	1.00		0.95	1.00		0.92	1.00		0.03	1.00		0.33
Lane Grp Cap(c), veh/h	230	0	162	100	0	65	562	1013	1060	677	1201	1193
V/C Ratio(X)	0.27	0.00	0.82	0.11	0.00	0.20	0.33	0.35	0.35	0.01	0.32	0.32
Avail Cap(c_a), veh/h	230	0	281	165	0	283	786	1013	1060	677	1201	1193
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.00	0.63	1.00	0.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	0.0	52.7	48.0	0.0	55.6	5.3	13.3	13.3	8.2	7.5	7.6
Incr Delay (d2), s/veh	0.4	0.0	6.5	0.5	0.0	1.5	0.3	0.7	0.7	0.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	4.2	0.3	0.0	0.4	1.2	4.9	5.2	0.1	3.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	0.0	59.2	48.5	0.0	57.1	5.5	14.0	14.0	8.2	8.3	8.3
LnGrp LOS	D	A	E	D	A	E	A	B	B	A	A	A
Approach Vol, veh/h		195			24			912			775	
Approach Delay, s/veh		56.5			53.1			12.3			8.3	
Approach LOS		E			D			B			A	

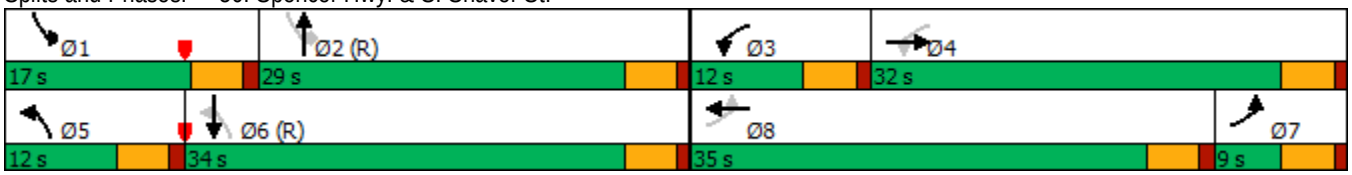
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.6	74.0	5.6	16.9	10.7	86.9	13.0	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	69.5	5.5	21.5	21.5	53.5	5.5	21.5
Max Q Clear Time (g_c+I1), s	2.0	14.8	2.7	12.0	5.8	12.6	2.0	3.0
Green Ext Time (p_c), s	0.0	4.7	0.0	0.4	0.4	5.2	0.0	0.0

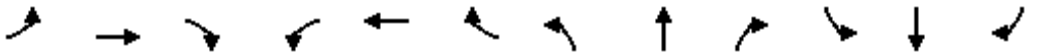
Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	265	1253	356	1432	193	698	305	264	790
Future Volume (vph)	265	1253	356	1432	193	698	305	264	790
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	8		4		6		2	2	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	9.0	32.0	12.0	35.0	12.0	29.0	29.0	17.0	34.0
Total Split (%)	10.0%	35.6%	13.3%	38.9%	13.3%	32.2%	32.2%	18.9%	37.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	35.0	27.5	35.0	30.5	37.0	24.7	24.7	37.0	29.5
Actuated g/C Ratio	0.39	0.31	0.39	0.34	0.41	0.27	0.27	0.41	0.33
v/c Ratio	0.86	0.99	0.86	1.03	0.90	0.80	0.54	0.86	0.94
Control Delay	55.9	53.5	37.9	59.1	60.2	38.2	11.7	46.2	44.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	53.5	37.9	59.1	60.2	38.2	11.7	46.2	44.4
LOS	E	D	D	E	E	D	B	D	D
Approach Delay		53.9		55.3		35.0			44.8
Approach LOS		D		E		D			D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 48.8	Intersection LOS: D
Intersection Capacity Utilization 99.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 50: Spencer Hwy. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	1253	179	356	1432	206	193	698	305	264	790	212
Future Volume (veh/h)	265	1253	179	356	1432	206	193	698	305	264	790	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	279	1319	188	375	1507	217	203	735	321	278	832	223
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	330	1358	194	452	1504	216	243	970	433	359	894	240
Arrive On Green	0.05	0.31	0.31	0.08	0.34	0.34	0.08	0.28	0.28	0.13	0.33	0.33
Sat Flow, veh/h	3401	4444	633	3401	4438	638	1753	3497	1560	1753	2727	731
Grp Volume(v), veh/h	279	994	513	375	1137	587	203	735	321	278	533	522
Grp Sat Flow(s),veh/h/ln	1700	1675	1727	1700	1675	1726	1753	1749	1560	1753	1749	1709
Q Serve(g_s), s	3.0	26.4	26.4	6.8	30.5	30.5	6.9	17.3	16.8	10.0	26.6	26.6
Cycle Q Clear(g_c), s	3.0	26.4	26.4	6.8	30.5	30.5	6.9	17.3	16.8	10.0	26.6	26.6
Prop In Lane	1.00		0.37	1.00		0.37	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	330	1024	528	452	1135	585	243	970	433	359	573	560
V/C Ratio(X)	0.85	0.97	0.97	0.83	1.00	1.00	0.83	0.76	0.74	0.77	0.93	0.93
Avail Cap(c_a), veh/h	330	1024	528	452	1135	585	243	970	433	368	573	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.53	0.53	0.53	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	30.9	30.9	23.1	29.8	29.8	22.4	29.7	29.6	21.4	29.3	29.3
Incr Delay (d2), s/veh	14.7	18.5	27.7	7.0	19.8	28.0	21.5	5.5	10.9	9.7	23.9	24.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	12.5	14.3	2.9	14.4	16.2	4.2	7.8	7.3	4.9	14.5	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.9	49.4	58.6	30.0	49.6	57.7	43.8	35.3	40.5	31.1	53.1	53.6
LnGrp LOS	E	D	E	C	F	F	D	D	D	C	D	D
Approach Vol, veh/h		1786			2099			1259			1333	
Approach Delay, s/veh		53.0			48.3			38.0			48.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	29.5	12.0	32.0	12.0	34.0	9.0	35.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	24.5	7.5	27.5	7.5	29.5	4.5	30.5
Max Q Clear Time (g_c+I1), s	12.0	19.3	8.8	28.4	8.9	28.6	5.0	32.5
Green Ext Time (p_c), s	0.0	2.8	0.0	0.0	0.0	0.6	0.0	0.0

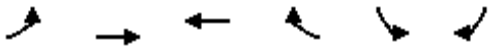
Intersection Summary	
HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	117	1676	1807	132	113
Future Volume (vph)	117	1676	1807	132	113
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	93.0	73.0	27.0	27.0
Total Split (%)	16.7%	77.5%	60.8%	22.5%	22.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag		Lead		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	75.8	80.3	65.8	30.7	30.7
Actuated g/C Ratio	0.63	0.67	0.55	0.26	0.26
v/c Ratio	0.61	0.54	0.78	0.32	0.25
Control Delay	25.2	6.2	23.5	41.2	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	6.2	23.5	41.2	8.7
LOS	C	A	C	D	A
Approach Delay		7.4	23.5	26.2	
Approach LOS		A	C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 49 (41%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 51: Spencer Hwy. & Lafferty Rd.





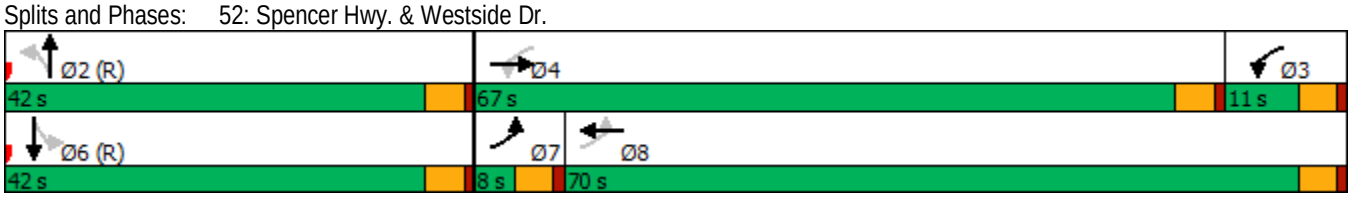
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	117	1676	1807	173	132	113
Future Volume (vph)	117	1676	1807	173	132	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	12	11	11
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1678	4821	4758		1678	1501
Flt Permitted	0.06	1.00	1.00		0.95	1.00
Satd. Flow (perm)	107	4821	4758		1678	1501
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	121	1728	1863	178	136	116
RTOR Reduction (vph)	0	0	10	0	0	86
Lane Group Flow (vph)	121	1728	2031	0	136	30
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	75.8	80.3	65.8		30.7	30.7
Effective Green, g (s)	75.8	80.3	65.8		30.7	30.7
Actuated g/C Ratio	0.63	0.67	0.55		0.26	0.26
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	198	3226	2608		429	384
v/s Ratio Prot	0.05	c0.36	c0.43			
v/s Ratio Perm	0.33				c0.08	0.02
v/c Ratio	0.61	0.54	0.78		0.32	0.08
Uniform Delay, d1	36.8	10.2	21.4		36.2	33.9
Progression Factor	0.45	0.57	1.00		1.00	1.00
Incremental Delay, d2	4.4	0.1	1.5		1.9	0.4
Delay (s)	21.0	5.9	22.9		38.1	34.3
Level of Service	C	A	C		D	C
Approach Delay (s)		6.9	22.9		36.3	
Approach LOS		A	C		D	

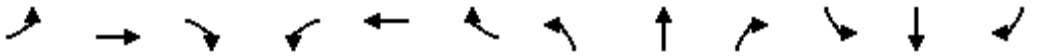
Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	1566	60	1788	36	77	119	51
Future Volume (vph)	23	1566	60	1788	36	77	119	51
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	67.0	11.0	70.0	42.0	42.0	42.0	42.0
Total Split (%)	6.7%	55.8%	9.2%	58.3%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	66.5	57.8	65.6	64.4		41.8		41.8
Actuated g/C Ratio	0.55	0.48	0.55	0.54		0.35		0.35
v/c Ratio	0.22	0.72	0.32	0.78		0.28		0.47
Control Delay	14.1	26.5	13.6	8.4		28.6		35.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	14.1	26.5	13.6	8.4		28.6		35.2
LOS	B	C	B	A		C		D
Approach Delay		26.4		8.6		28.6		35.2
Approach LOS		C		A		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 52: Spencer Hwy. & Westside Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1566	41	60	1788	163	36	77	42	119	51	28
Future Volume (veh/h)	23	1566	41	60	1788	163	36	77	42	119	51	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	24	1614	42	62	1843	168	37	79	43	123	53	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	128	2047	53	176	2040	185	181	378	193	408	172	88
Arrive On Green	0.02	0.41	0.41	0.09	0.87	0.87	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	5036	131	1753	4689	426	330	866	443	826	395	201
Grp Volume(v), veh/h	24	1074	582	62	1315	696	159	0	0	205	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1817	1753	1675	1764	1640	0	0	1423	0	0
Q Serve(g_s), s	0.9	33.6	33.6	0.0	28.4	29.2	0.0	0.0	0.0	4.1	0.0	0.0
Cycle Q Clear(g_c), s	0.9	33.6	33.6	0.0	28.4	29.2	6.7	0.0	0.0	10.8	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.24	0.23		0.27	0.60		0.14
Lane Grp Cap(c), veh/h	128	1361	738	176	1458	768	752	0	0	669	0	0
V/C Ratio(X)	0.19	0.79	0.79	0.35	0.90	0.91	0.21	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	151	1745	946	192	1829	963	752	0	0	669	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.30	0.30	0.30	0.58	0.58	0.58	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.3	31.1	31.1	47.6	6.2	6.3	21.0	0.0	0.0	22.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	1.1	0.7	3.4	6.5	0.6	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.1	14.3	1.7	3.3	4.2	2.9	0.0	0.0	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	31.7	32.2	48.3	9.6	12.8	21.6	0.0	0.0	23.2	0.0	0.0
LnGrp LOS	C	C	C	D	A	B	C	A	A	C	A	A
Approach Vol, veh/h		1680			2073			159			205	
Approach Delay, s/veh		31.7			11.9			21.6			23.2	
Approach LOS		C			B			C			C	

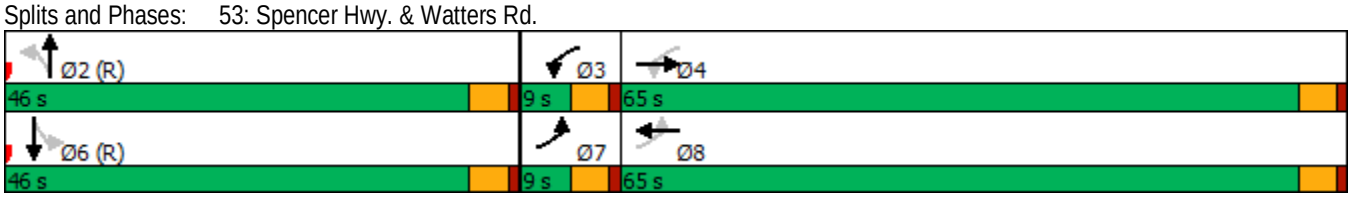
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		56.8	9.9	53.3		56.8	6.4	56.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		37.5	6.5	62.5		37.5	3.5	65.5				
Max Q Clear Time (g_c+I1), s		8.7	2.0	35.6		12.8	2.9	31.2				
Green Ext Time (p_c), s		0.9	0.0	13.2		1.2	0.0	21.1				

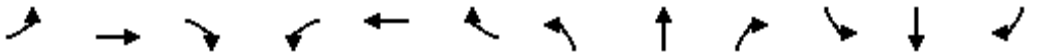
Intersection Summary												
HCM 6th Ctrl Delay			20.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	37	1981	57	1969	157	37	47	38
Future Volume (vph)	37	1981	57	1969	157	37	47	38
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	65.0	9.0	65.0	46.0	46.0	46.0	46.0
Total Split (%)	7.5%	54.2%	7.5%	54.2%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	65.0	60.5	64.1	62.3		43.3		43.3
Actuated g/C Ratio	0.54	0.50	0.53	0.52		0.36		0.36
v/c Ratio	0.31	0.90	0.48	0.82		0.67		0.32
Control Delay	17.7	32.8	24.7	27.7		39.2		23.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	17.7	32.8	24.7	27.7		39.2		23.1
LOS	B	C	C	C		D		C
Approach Delay		32.5		27.6		39.2		23.1
Approach LOS		C		C		D		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 77.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 53: Spencer Hwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1981	168	57	1969	62	157	37	104	47	38	81
Future Volume (veh/h)	37	1981	168	57	1969	62	157	37	104	47	38	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	39	2064	175	59	2051	65	164	39	108	49	40	84
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	125	2316	195	125	2492	79	305	77	179	176	149	271
Arrive On Green	0.02	0.49	0.49	0.03	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1753	4722	397	1753	5004	158	703	209	485	374	405	736
Grp Volume(v), veh/h	39	1460	779	59	1372	744	311	0	0	173	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1769	1753	1675	1812	1397	0	0	1515	0	0
Q Serve(g_s), s	1.3	47.2	48.1	2.0	41.8	42.0	12.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	47.2	48.1	2.0	41.8	42.0	21.8	0.0	0.0	9.2	0.0	0.0
Prop In Lane	1.00		0.22	1.00		0.09	0.53		0.35	0.28		0.49
Lane Grp Cap(c), veh/h	125	1643	868	125	1669	903	560	0	0	596	0	0
V/C Ratio(X)	0.31	0.89	0.90	0.47	0.82	0.82	0.56	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	154	1689	892	141	1689	914	560	0	0	596	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.25	0.25	0.25	0.15	0.15	0.15	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.4	27.6	27.8	27.4	25.6	25.7	30.8	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.7	3.4	0.4	0.5	1.0	3.9	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	18.0	19.8	0.8	15.7	17.2	7.9	0.0	0.0	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	29.3	31.3	27.8	26.1	26.6	34.7	0.0	0.0	28.0	0.0	0.0
LnGrp LOS	C	C	C	C	C	C	C	A	A	C	A	A
Approach Vol, veh/h		2278			2175			311			173	
Approach Delay, s/veh		29.8			26.3			34.7			28.0	
Approach LOS		C			C			C			C	

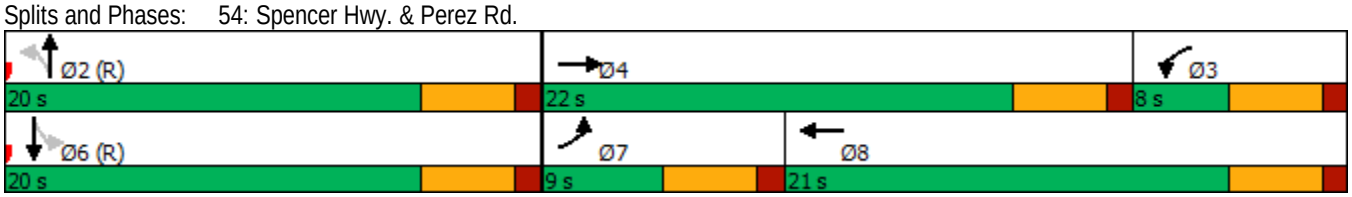
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		48.7	8.0	63.4		48.7	7.0	64.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		41.5	4.5	60.5		41.5	4.5	60.5				
Max Q Clear Time (g_c+I1), s		23.8	4.0	50.1		11.2	3.3	44.0				
Green Ext Time (p_c), s		1.9	0.0	8.7		1.1	0.0	12.4				

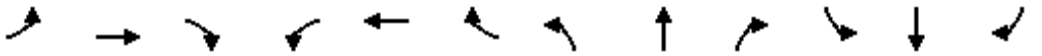
Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	118	1313	9	1581	4	27	234	9
Future Volume (vph)	118	1313	9	1581	4	27	234	9
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	22.0	8.0	21.0	20.0	20.0	20.0	20.0
Total Split (%)	18.0%	44.0%	16.0%	42.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	4.5	23.9	3.9	18.3		15.5		15.5
Actuated g/C Ratio	0.09	0.48	0.08	0.37		0.31		0.31
v/c Ratio	0.79	0.58	0.07	0.99		0.08		0.78
Control Delay	60.9	11.5	23.0	38.7		10.5		29.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	60.9	11.5	23.0	38.7		10.5		29.9
LOS	E	B	C	D		B		C
Approach Delay		15.6		38.6		10.5		29.9
Approach LOS		B		D		B		C

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 28.1	Intersection LOS: C
Intersection Capacity Utilization 83.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 54: Spencer Hwy. & Perez Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	1313	13	9	1581	145	4	27	11	234	9	90
Future Volume (veh/h)	118	1313	13	9	1581	145	4	27	11	234	9	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	1368	14	9	1647	151	4	28	11	244	9	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	156	1697	17	155	1546	142	95	387	139	424	22	120
Arrive On Green	0.09	0.33	0.33	0.09	0.33	0.33	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1753	5129	52	1753	4685	429	53	1244	446	970	72	387
Grp Volume(v), veh/h	123	894	488	9	1177	621	43	0	0	347	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1831	1753	1675	1764	1743	0	0	1429	0	0
Q Serve(g_s), s	3.4	12.2	12.2	0.2	16.5	16.5	0.0	0.0	0.0	10.1	0.0	0.0
Cycle Q Clear(g_c), s	3.4	12.2	12.2	0.2	16.5	16.5	0.9	0.0	0.0	11.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.24	0.09		0.26	0.70		0.27
Lane Grp Cap(c), veh/h	156	1108	606	155	1106	582	621	0	0	567	0	0
V/C Ratio(X)	0.79	0.81	0.81	0.06	1.06	1.07	0.07	0.00	0.00	0.61	0.00	0.00
Avail Cap(c_a), veh/h	158	1173	641	155	1106	582	621	0	0	567	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.35	0.35	0.09	0.09	0.09	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.3	15.3	15.3	20.9	16.8	16.8	12.2	0.0	0.0	15.6	0.0	0.0
Incr Delay (d2), s/veh	9.0	1.5	2.6	0.0	31.3	34.1	0.2	0.0	0.0	4.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.9	4.4	0.1	9.7	10.7	0.3	0.0	0.0	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	16.7	17.9	20.9	48.1	50.8	12.4	0.0	0.0	20.4	0.0	0.0
LnGrp LOS	C	B	B	C	F	F	B	A	A	C	A	A
Approach Vol, veh/h		1505			1807			43			347	
Approach Delay, s/veh		18.3			48.9			12.4			20.4	
Approach LOS		B			D			B			C	

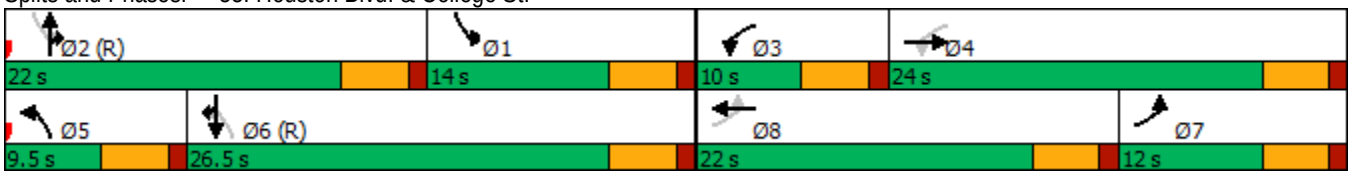
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	8.9	21.0		20.0	9.0	21.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	17.5		15.5	4.5	16.5				
Max Q Clear Time (g_c+I1), s		2.9	2.2	14.2		13.0	5.4	18.5				
Green Ext Time (p_c), s		0.1	0.0	2.4		0.5	0.0	0.0				

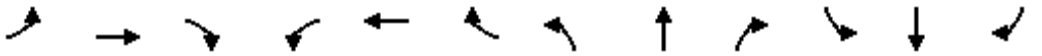
Intersection Summary												
HCM 6th Ctrl Delay			33.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	249	1034	211	1004	130	684	202	323	742	264
Future Volume (vph)	249	1034	211	1004	130	684	202	323	742	264
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	Prot	D.P+P	NA	Prot
Protected Phases	7	4	3	8	5	2	2	1	6	6
Permitted Phases	8		4		6			2		
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	9.5	20.0	20.0	8.0	20.0	20.0
Total Split (s)	12.0	24.0	10.0	22.0	9.5	22.0	22.0	14.0	26.5	26.5
Total Split (%)	17.1%	34.3%	14.3%	31.4%	13.6%	31.4%	31.4%	20.0%	37.9%	37.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.0	19.5	25.0	17.5	27.9	17.5	17.5	27.0	23.9	23.9
Actuated g/C Ratio	0.36	0.28	0.36	0.25	0.40	0.25	0.25	0.39	0.34	0.34
v/c Ratio	0.89	0.93	0.91	1.00	0.53	0.81	0.37	0.97	0.65	0.40
Control Delay	57.7	37.1	59.2	51.9	20.3	33.9	4.6	68.3	23.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	37.1	59.2	51.9	20.3	33.9	4.6	68.3	23.3	6.2
LOS	E	D	E	D	C	C	A	E	C	A
Approach Delay		40.6		53.1		26.3			30.8	
Approach LOS		D		D		C			C	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 38.6	Intersection LOS: D
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 55: Houston Blvd. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	1034	175	211	1004	166	130	684	202	323	742	264
Future Volume (veh/h)	249	1034	175	211	1004	166	130	684	202	323	742	264
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	257	1066	180	218	1035	171	134	705	208	333	765	272
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	298	1206	203	259	1086	179	294	874	390	377	1099	490
Arrive On Green	0.11	0.28	0.28	0.08	0.25	0.25	0.07	0.25	0.25	0.14	0.31	0.31
Sat Flow, veh/h	1753	4329	730	1753	4345	717	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	257	825	421	218	798	408	134	705	208	333	765	272
Grp Sat Flow(s),veh/h/ln	1753	1675	1709	1753	1675	1712	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	5.6	16.5	16.5	5.5	16.4	16.5	3.6	13.3	5.8	7.3	13.4	6.7
Cycle Q Clear(g_c), s	5.6	16.5	16.5	5.5	16.4	16.5	3.6	13.3	5.8	7.3	13.4	6.7
Prop In Lane	1.00		0.43	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	933	476	259	838	428	294	874	390	377	1099	490
V/C Ratio(X)	0.86	0.88	0.88	0.84	0.95	0.95	0.46	0.81	0.53	0.88	0.70	0.55
Avail Cap(c_a), veh/h	298	933	476	259	838	428	294	874	390	377	1099	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	24.2	24.2	20.8	25.8	25.9	16.0	24.7	11.9	27.5	21.1	8.6
Incr Delay (d2), s/veh	22.2	10.0	17.7	21.2	20.4	32.0	1.1	7.9	5.1	21.0	3.7	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	7.1	8.3	3.8	8.3	9.8	1.4	6.1	3.1	6.8	5.7	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	34.2	41.9	42.0	46.2	57.8	17.1	32.5	17.1	48.5	24.7	13.1
LnGrp LOS	D	C	D	D	D	E	B	C	B	D	C	B
Approach Vol, veh/h		1503			1424			1047			1370	
Approach Delay, s/veh		39.3			48.9			27.5			28.2	
Approach LOS		D			D			C			C	

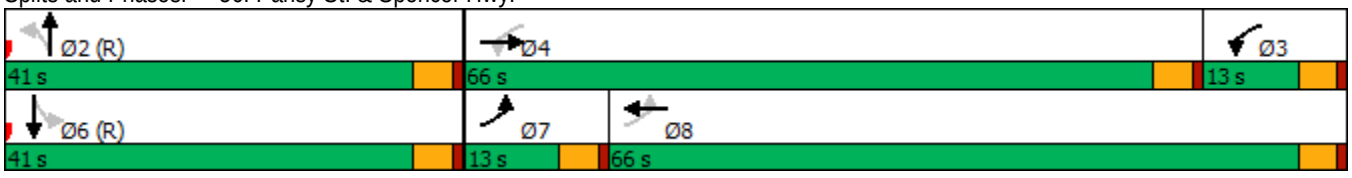
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	22.0	10.0	24.0	9.5	26.5	12.0	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	17.5	5.5	19.5	5.0	22.0	7.5	17.5
Max Q Clear Time (g_c+I1), s	9.3	15.3	7.5	18.5	5.6	15.4	7.6	18.5
Green Ext Time (p_c), s	0.0	1.2	0.0	0.7	0.0	3.3	0.0	0.0

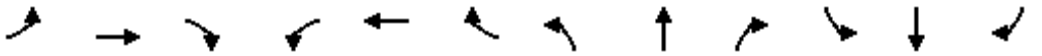
Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	67	1778	70	1991	42	130	38	166
Future Volume (vph)	67	1778	70	1991	42	130	38	166
Turn Type	D.P+P	NA	D.P+P	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	8		4		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	13.0	66.0	13.0	66.0	41.0	41.0	41.0	41.0
Total Split (%)	10.8%	55.0%	10.8%	55.0%	34.2%	34.2%	34.2%	34.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	67.7	60.4	68.0	61.5		39.7		39.7
Actuated g/C Ratio	0.56	0.50	0.57	0.51		0.33		0.33
v/c Ratio	0.44	0.80	0.41	0.84		0.52		0.56
Control Delay	21.3	27.6	34.8	28.7		35.2		36.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	21.3	27.6	34.8	28.7		35.2		36.8
LOS	C	C	C	C		D		D
Approach Delay		27.3		28.9		35.2		36.8
Approach LOS		C		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47 (39%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 56: Pansy St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	1778	70	70	1991	60	42	130	88	38	166	90
Future Volume (veh/h)	67	1778	70	70	1991	60	42	130	88	38	166	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	70	1852	73	73	2074	62	44	135	92	40	173	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	140	2250	89	198	2418	72	109	324	205	90	372	189
Arrive On Green	0.03	0.45	0.45	0.06	0.48	0.48	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1753	4960	195	1753	5014	150	199	872	551	152	1002	509
Grp Volume(v), veh/h	70	1250	675	73	1384	752	271	0	0	307	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1806	1753	1675	1814	1622	0	0	1662	0	0
Q Serve(g_s), s	2.4	39.0	39.1	0.0	43.8	44.0	0.0	0.0	0.0	2.1	0.0	0.0
Cycle Q Clear(g_c), s	2.4	39.0	39.1	0.0	43.8	44.0	14.1	0.0	0.0	16.2	0.0	0.0
Prop In Lane	1.00		0.11	1.00		0.08	0.16		0.34	0.13		0.31
Lane Grp Cap(c), veh/h	140	1520	819	198	1615	875	638	0	0	652	0	0
V/C Ratio(X)	0.50	0.82	0.82	0.37	0.86	0.86	0.42	0.00	0.00	0.47	0.00	0.00
Avail Cap(c_a), veh/h	206	1717	925	213	1717	930	638	0	0	652	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.17	0.17	0.17	0.19	0.19	0.19	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.5	28.6	28.6	49.7	27.4	27.5	28.1	0.0	0.0	28.7	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.5	1.0	0.2	0.9	1.6	2.1	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	14.9	16.3	2.0	16.6	18.3	6.2	0.0	0.0	7.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	29.1	29.6	50.0	28.3	29.1	30.1	0.0	0.0	31.2	0.0	0.0
LnGrp LOS	C	C	C	D	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1995			2209			271			307	
Approach Delay, s/veh		29.2			29.3			30.1			31.2	
Approach LOS		C			C			C			C	

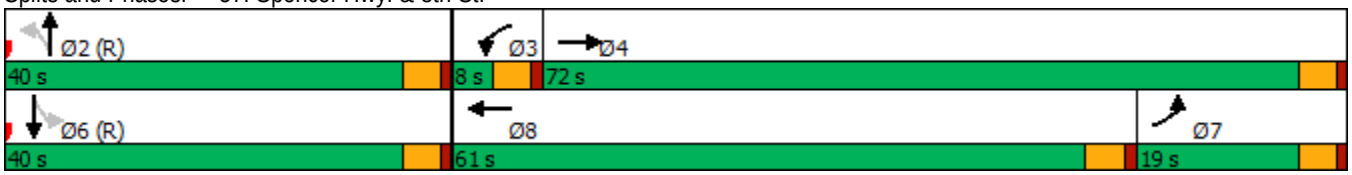
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		49.1	12.0	58.9		49.1	8.5	62.4				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		36.5	8.5	61.5		36.5	8.5	61.5				
Max Q Clear Time (g_c+I1), s		16.1	2.0	41.1		18.2	4.4	46.0				
Green Ext Time (p_c), s		1.6	0.1	13.3		1.8	0.0	11.9				

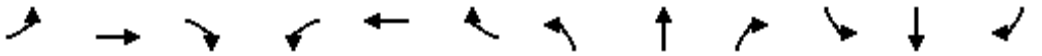
Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	83	1347	11	1503	27	32	41	69
Future Volume (vph)	83	1347	11	1503	27	32	41	69
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	72.0	8.0	61.0	40.0	40.0	40.0	40.0
Total Split (%)	15.8%	60.0%	6.7%	50.8%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.0	63.0	3.5	51.3		46.4		46.4
Actuated g/C Ratio	0.09	0.52	0.03	0.43		0.39		0.39
v/c Ratio	0.54	0.57	0.22	0.77		0.18		0.38
Control Delay	64.0	19.9	67.3	31.9		21.0		25.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	64.0	19.9	67.3	31.9		21.0		25.7
LOS	E	B	E	C		C		C
Approach Delay		22.4		32.2		21.0		25.7
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 57: Spencer Hwy. & 8th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	1347	48	11	1503	43	27	32	46	41	69	130
Future Volume (veh/h)	83	1347	48	11	1503	43	27	32	46	41	69	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	86	1389	49	11	1549	44	28	33	47	42	71	134
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	109	2180	77	16	1930	55	192	227	294	132	225	381
Arrive On Green	0.06	0.44	0.44	0.01	0.38	0.38	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	1753	4983	176	1753	5022	143	349	515	666	219	510	865
Grp Volume(v), veh/h	86	934	504	11	1033	560	108	0	0	247	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1809	1753	1675	1815	1530	0	0	1594	0	0
Q Serve(g_s), s	5.8	26.1	26.1	0.8	32.9	33.0	0.0	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	26.1	26.1	0.8	32.9	33.0	4.5	0.0	0.0	11.7	0.0	0.0
Prop In Lane	1.00		0.10	1.00		0.08	0.26		0.44	0.17		0.54
Lane Grp Cap(c), veh/h	109	1465	791	16	1288	698	713	0	0	738	0	0
V/C Ratio(X)	0.79	0.64	0.64	0.70	0.80	0.80	0.15	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	212	1884	1018	51	1577	855	713	0	0	738	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.25	0.25	0.25	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	55.5	26.3	26.3	59.3	32.9	32.9	20.0	0.0	0.0	22.0	0.0	0.0
Incr Delay (d2), s/veh	12.0	0.5	0.9	13.2	0.6	1.2	0.5	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	10.1	11.0	0.4	13.0	14.1	1.9	0.0	0.0	4.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	26.8	27.2	72.5	33.5	34.1	20.5	0.0	0.0	23.2	0.0	0.0
LnGrp LOS	E	C	C	E	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1524			1604			108			247	
Approach Delay, s/veh		29.2			34.0			20.5			23.2	
Approach LOS		C			C			C			C	

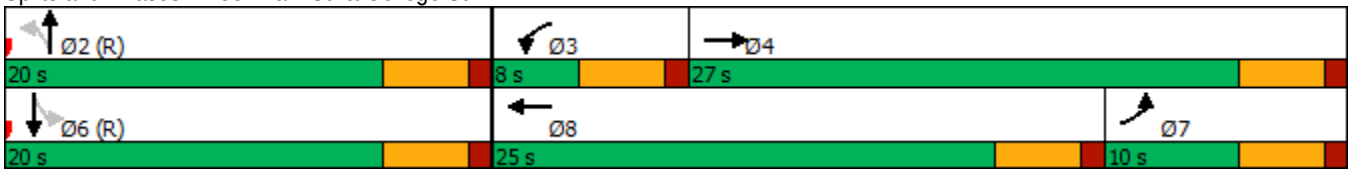
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		57.4	5.6	57.0		57.4	11.9	50.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	3.5	67.5		35.5	14.5	56.5				
Max Q Clear Time (g_c+I1), s		6.5	2.8	28.1		13.7	7.8	35.0				
Green Ext Time (p_c), s		0.6	0.0	12.5		1.5	0.1	11.2				

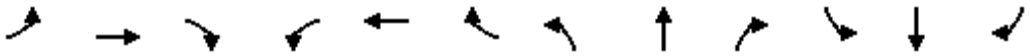
Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	72	1497	27	1294	60	30	23	30
Future Volume (vph)	72	1497	27	1294	60	30	23	30
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	10.0	27.0	8.0	25.0	20.0	20.0	20.0	20.0
Total Split (%)	18.2%	49.1%	14.5%	45.5%	36.4%	36.4%	36.4%	36.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	5.5	25.2	3.5	22.4		17.6		17.6
Actuated g/C Ratio	0.10	0.46	0.06	0.41		0.32		0.32
v/c Ratio	0.42	0.71	0.25	0.70		0.26		0.24
Control Delay	31.3	14.3	30.5	16.2		13.4		8.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	31.3	14.3	30.5	16.2		13.4		8.7
LOS	C	B	C	B		B		A
Approach Delay		15.0		16.5		13.4		8.7
Approach LOS		B		B		B		A

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 55	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.3	Intersection LOS: B
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 58: Main St. & College St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	1497	83	27	1294	46	60	30	33	23	30	81
Future Volume (veh/h)	72	1497	83	27	1294	46	60	30	33	23	30	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	73	1528	85	28	1320	47	61	31	34	23	31	83
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	120	1892	105	39	1705	61	314	160	139	128	166	335
Arrive On Green	0.07	0.39	0.39	0.02	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1753	4871	271	1753	4982	177	632	465	405	149	484	973
Grp Volume(v), veh/h	73	1051	562	28	888	479	126	0	0	137	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1792	1753	1675	1809	1502	0	0	1606	0	0
Q Serve(g_s), s	2.2	15.4	15.4	0.9	13.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	15.4	15.4	0.9	13.0	13.0	2.8	0.0	0.0	3.2	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.10	0.48		0.27	0.17		0.61
Lane Grp Cap(c), veh/h	120	1301	696	39	1146	619	614	0	0	629	0	0
V/C Ratio(X)	0.61	0.81	0.81	0.72	0.77	0.77	0.21	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	175	1370	733	112	1249	674	614	0	0	629	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.9	15.0	15.0	26.7	16.2	16.2	12.7	0.0	0.0	12.9	0.0	0.0
Incr Delay (d2), s/veh	4.9	3.5	6.4	22.0	2.9	5.2	0.8	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.6	6.5	0.6	4.8	5.6	1.1	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	18.5	21.4	48.8	19.1	21.4	13.5	0.0	0.0	13.7	0.0	0.0
LnGrp LOS	C	B	C	D	B	C	B	A	A	B	A	A
Approach Vol, veh/h		1686			1395			126			137	
Approach Delay, s/veh		20.0			20.4			13.5			13.7	
Approach LOS		B			C			B			B	

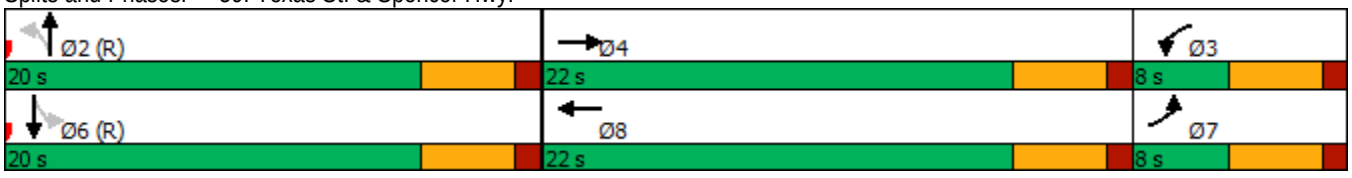
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		23.4	5.7	25.9		23.4	8.3	23.3				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	22.5		15.5	5.5	20.5				
Max Q Clear Time (g_c+I1), s		4.8	2.9	17.4		5.2	4.2	15.0				
Green Ext Time (p_c), s		0.4	0.0	4.0		0.5	0.0	3.8				

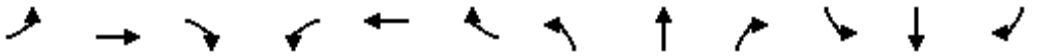
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	25	1408	11	1318	46	3	8	4
Future Volume (vph)	25	1408	11	1318	46	3	8	4
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	22.0	8.0	22.0	20.0	20.0	20.0	20.0
Total Split (%)	16.0%	44.0%	16.0%	44.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	3.5	17.5	3.5	17.5		21.9		21.9
Actuated g/C Ratio	0.07	0.35	0.07	0.35		0.44		0.44
v/c Ratio	0.21	0.91	0.09	0.93		0.09		0.06
Control Delay	26.4	25.6	23.5	27.2		9.7		6.2
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	26.4	25.6	23.5	27.2		9.7		6.2
LOS	C	C	C	C		A		A
Approach Delay		25.6		27.2		9.7		6.2
Approach LOS		C		C		A		A

Intersection Summary	
Cycle Length: 50	
Actuated Cycle Length: 50	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 59: Texas St. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1408	76	11	1318	208	46	3	4	8	4	28
Future Volume (veh/h)	25	1408	76	11	1318	208	46	3	4	8	4	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	26	1452	78	11	1359	214	47	3	4	8	4	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	37	1677	90	44	1520	239	568	38	38	152	101	404
Arrive On Green	0.02	0.34	0.34	0.02	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1753	4881	262	1753	4378	689	1198	104	104	183	279	1117
Grp Volume(v), veh/h	26	996	534	11	1040	533	54	0	0	41	0	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1794	1753	1675	1717	1406	0	0	1580	0	0
Q Serve(g_s), s	0.7	13.9	13.9	0.3	14.7	14.7	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.7	13.9	13.9	0.3	14.7	14.7	1.0	0.0	0.0	0.8	0.0	0.0
Prop In Lane	1.00		0.15	1.00		0.40	0.87		0.07	0.20		0.71
Lane Grp Cap(c), veh/h	37	1151	616	44	1163	596	643	0	0	657	0	0
V/C Ratio(X)	0.70	0.87	0.87	0.25	0.89	0.89	0.08	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	123	1173	628	123	1173	601	643	0	0	657	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.3	15.3	15.3	23.9	15.4	15.5	10.5	0.0	0.0	10.5	0.0	0.0
Incr Delay (d2), s/veh	21.0	6.9	12.0	3.0	9.0	15.8	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.2	6.4	0.1	5.8	7.1	0.4	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	22.3	27.4	26.9	24.5	31.2	10.8	0.0	0.0	10.6	0.0	0.0
LnGrp LOS	D	C	C	C	C	C	B	A	A	B	A	A
Approach Vol, veh/h		1556			1584			54			41	
Approach Delay, s/veh		24.4			26.8			10.8			10.6	
Approach LOS		C			C			B			B	

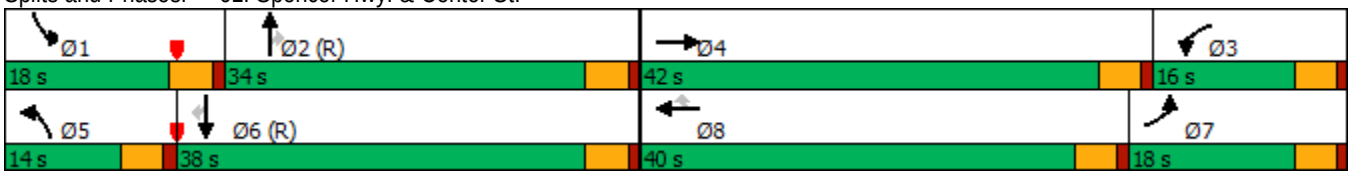
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.6	5.7	21.7		22.6	5.6	21.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	3.5	17.5		15.5	3.5	17.5				
Max Q Clear Time (g_c+I1), s		3.0	2.3	15.9		2.8	2.7	16.7				
Green Ext Time (p_c), s		0.1	0.0	1.3		0.1	0.0	0.7				

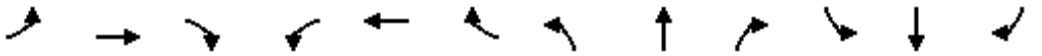
Intersection Summary												
HCM 6th Ctrl Delay			25.2									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	397	1383	324	1586	305	135	796	262	382	978	401
Future Volume (vph)	397	1383	324	1586	305	135	796	262	382	978	401
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	18.0	42.0	16.0	40.0	40.0	14.0	34.0	34.0	18.0	38.0	38.0
Total Split (%)	16.4%	38.2%	14.5%	36.4%	36.4%	12.7%	30.9%	30.9%	16.4%	34.5%	34.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.5	37.5	11.5	35.5	35.5	9.5	29.5	29.5	13.5	33.5	33.5
Actuated g/C Ratio	0.12	0.34	0.10	0.32	0.32	0.09	0.27	0.27	0.12	0.30	0.30
v/c Ratio	1.01	0.92	0.97	1.04	0.50	0.95	0.90	0.48	0.97	0.97	0.66
Control Delay	95.8	44.7	90.5	69.7	12.7	113.4	52.9	10.4	86.9	60.4	19.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.8	44.7	90.5	69.7	12.7	113.4	52.9	10.4	86.9	60.4	19.1
LOS	F	D	F	E	B	F	D	B	F	E	B
Approach Delay		55.5		64.9			50.4			56.7	
Approach LOS		E		E			D			E	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 57.9	Intersection LOS: E
Intersection Capacity Utilization 96.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 61: Spencer Hwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	397	1383	94	324	1586	305	135	796	262	382	978	401
Future Volume (veh/h)	397	1383	94	324	1586	305	135	796	262	382	978	401
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	418	1456	99	341	1669	321	142	838	276	402	1029	422
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	417	1604	109	380	1622	503	151	938	418	417	1065	475
Arrive On Green	0.12	0.33	0.33	0.11	0.32	0.32	0.09	0.27	0.27	0.12	0.30	0.30
Sat Flow, veh/h	3401	4805	327	3401	5025	1560	1753	3497	1560	3401	3497	1560
Grp Volume(v), veh/h	418	1015	540	341	1669	321	142	838	276	402	1029	422
Grp Sat Flow(s),veh/h/ln	1700	1675	1782	1700	1675	1560	1753	1749	1560	1700	1749	1560
Q Serve(g_s), s	13.5	31.9	31.9	10.9	35.5	13.5	8.9	25.4	12.7	12.9	31.9	20.0
Cycle Q Clear(g_c), s	13.5	31.9	31.9	10.9	35.5	13.5	8.9	25.4	12.7	12.9	31.9	20.0
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	417	1118	595	380	1622	503	151	938	418	417	1065	475
V/C Ratio(X)	1.00	0.91	0.91	0.90	1.03	0.64	0.94	0.89	0.66	0.96	0.97	0.89
Avail Cap(c_a), veh/h	417	1142	607	380	1622	503	151	938	418	417	1065	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.32	0.32	0.32	0.15	0.15	0.15	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	48.3	35.0	35.0	48.2	37.3	15.5	50.0	38.7	19.4	48.0	37.7	18.2
Incr Delay (d2), s/veh	25.3	3.8	6.8	4.8	17.5	0.4	54.8	12.7	7.9	6.8	3.5	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	13.3	14.6	4.9	16.8	4.7	6.2	12.4	5.5	5.8	13.9	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	38.8	41.8	53.0	54.8	15.9	104.7	51.5	27.3	54.8	41.2	20.7
LnGrp LOS	F	D	D	D	F	B	F	D	C	D	D	C
Approach Vol, veh/h		1973			2331			1256			1853	
Approach Delay, s/veh		47.0			49.2			52.2			39.5	
Approach LOS		D			D			D			D	

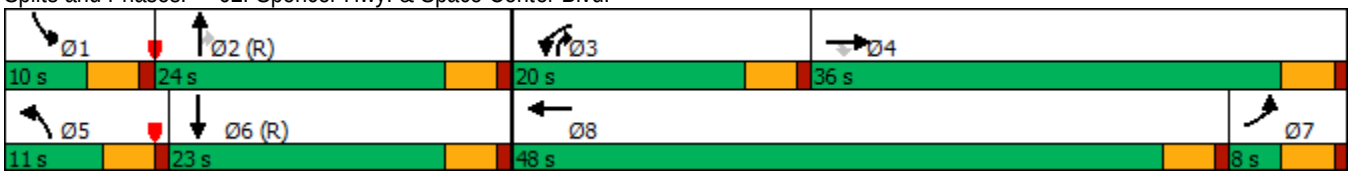
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	34.0	16.8	41.2	14.0	38.0	18.0	40.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	29.5	11.5	37.5	9.5	33.5	13.5	35.5
Max Q Clear Time (g_c+I1), s	14.9	27.4	12.9	33.9	10.9	33.9	15.5	37.5
Green Ext Time (p_c), s	0.0	1.4	0.0	2.9	0.0	0.0	0.0	0.0

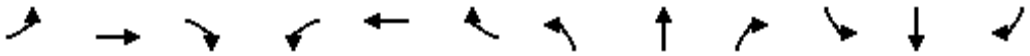
Intersection Summary	
HCM 6th Ctrl Delay	46.7
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	61	1640	415	481	2106	229	403	656	63	528
Future Volume (vph)	61	1640	415	481	2106	229	403	656	63	528
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	7	4		3	8	5	2	3	1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	8.0	20.0
Total Split (s)	8.0	36.0	36.0	20.0	48.0	11.0	24.0	20.0	10.0	23.0
Total Split (%)	8.9%	40.0%	40.0%	22.2%	53.3%	12.2%	26.7%	22.2%	11.1%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	3.5	31.5	31.5	15.5	43.5	6.5	21.5	41.5	5.5	18.5
Actuated g/C Ratio	0.04	0.35	0.35	0.17	0.48	0.07	0.24	0.46	0.06	0.21
v/c Ratio	0.94	1.00	0.65	0.86	0.96	0.97	0.52	0.86	0.61	0.86
Control Delay	141.5	52.4	19.5	50.1	20.1	94.7	33.3	31.8	66.7	48.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	141.5	52.4	19.5	50.1	20.1	94.7	33.3	31.8	66.7	48.3
LOS	F	D	B	D	C	F	C	C	E	D
Approach Delay		48.5			25.6		43.5			50.1
Approach LOS		D			C		D			D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 38.6	Intersection LOS: D
Intersection Capacity Utilization 91.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 62: Spencer Hwy. & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	1640	415	481	2106	52	229	403	656	63	528	48
Future Volume (veh/h)	61	1640	415	481	2106	52	229	403	656	63	528	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	63	1691	428	496	2171	54	236	415	676	65	544	49
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	72	1759	546	566	2398	60	246	827	628	83	686	62
Arrive On Green	0.04	0.35	0.35	0.17	0.48	0.48	0.07	0.24	0.24	0.05	0.21	0.21
Sat Flow, veh/h	1753	5025	1560	3401	5043	125	3401	3497	1560	1753	3245	292
Grp Volume(v), veh/h	63	1691	428	496	1441	784	236	415	676	65	293	300
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1700	1675	1818	1700	1749	1560	1753	1749	1788
Q Serve(g_s), s	3.2	29.7	22.1	12.8	35.6	35.8	6.2	9.3	21.3	3.3	14.3	14.3
Cycle Q Clear(g_c), s	3.2	29.7	22.1	12.8	35.6	35.8	6.2	9.3	21.3	3.3	14.3	14.3
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	72	1759	546	566	1593	864	246	827	628	83	370	378
V/C Ratio(X)	0.88	0.96	0.78	0.88	0.90	0.91	0.96	0.50	1.08	0.78	0.79	0.79
Avail Cap(c_a), veh/h	72	1759	546	586	1619	879	246	827	628	107	370	378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.16	0.16	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	28.7	26.2	36.6	21.7	21.8	41.6	29.8	26.9	42.4	33.6	33.6
Incr Delay (d2), s/veh	42.6	8.3	3.9	2.6	1.4	2.6	46.4	2.2	58.1	24.1	15.8	15.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	12.1	8.1	5.2	12.4	13.8	4.1	4.0	22.1	2.0	7.5	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.5	36.9	30.1	39.3	23.1	24.3	88.0	31.9	85.0	66.5	49.4	49.4
LnGrp LOS	F	D	C	D	C	C	F	C	F	E	D	D
Approach Vol, veh/h		2182			2721			1327			658	
Approach Delay, s/veh		37.0			26.4			69.0			51.1	
Approach LOS		D			C			E			D	

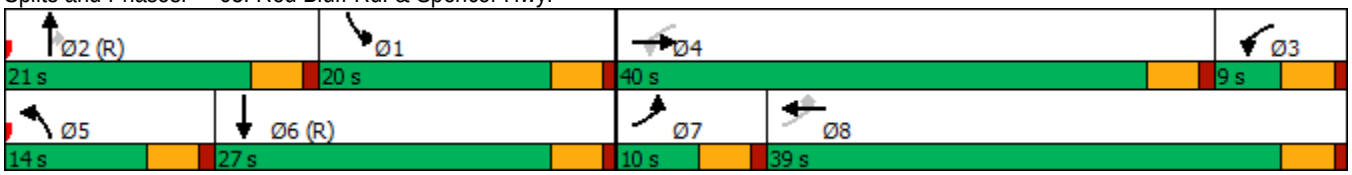
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	25.8	19.5	36.0	11.0	23.5	8.2	47.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	19.5	15.5	31.5	6.5	18.5	3.5	43.5
Max Q Clear Time (g_c+I1), s	5.3	23.3	14.8	31.7	8.2	16.3	5.2	37.8
Green Ext Time (p_c), s	0.0	0.0	0.2	0.0	0.0	0.8	0.0	5.0

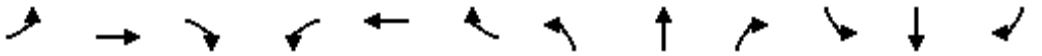
Intersection Summary	
HCM 6th Ctrl Delay	40.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	169	1412	131	1643	413	306	518	94	499	509
Future Volume (vph)	169	1412	131	1643	413	306	518	94	499	509
Turn Type	D.P+P	NA	D.P+P	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases	8		4		8			2		
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	10.0	40.0	9.0	39.0	39.0	14.0	21.0	21.0	20.0	27.0
Total Split (%)	11.1%	44.4%	10.0%	43.3%	43.3%	15.6%	23.3%	23.3%	22.2%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	40.0	35.5	40.0	34.5	34.5	9.5	16.5	16.5	15.5	22.5
Actuated g/C Ratio	0.44	0.39	0.44	0.38	0.38	0.11	0.18	0.18	0.17	0.25
v/c Ratio	0.99	0.92	0.86	0.98	0.52	0.95	0.93	0.24	0.95	0.85
Control Delay	58.8	28.3	71.6	44.4	4.3	45.1	36.1	5.9	64.5	41.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.8	28.3	71.6	44.4	4.3	45.1	36.1	5.9	64.5	41.0
LOS	E	C	E	D	A	D	D	A	E	D
Approach Delay		31.2		38.4			36.0			51.0
Approach LOS		C		D			D			D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 38.3	Intersection LOS: D
Intersection Capacity Utilization 89.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 63: Red Bluff Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	1412	220	131	1643	413	306	518	94	499	509	164
Future Volume (veh/h)	169	1412	220	131	1643	413	306	518	94	499	509	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	186	1552	242	144	1805	454	336	569	103	548	559	180
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	193	1703	265	190	1921	596	359	641	286	589	654	210
Arrive On Green	0.06	0.39	0.39	0.06	0.38	0.38	0.11	0.18	0.18	0.17	0.25	0.25
Sat Flow, veh/h	1753	4386	682	1753	5025	1560	3401	3497	1560	3401	2603	836
Grp Volume(v), veh/h	186	1184	610	144	1805	454	336	569	103	548	375	364
Grp Sat Flow(s),veh/h/ln	1753	1675	1718	1753	1675	1560	1700	1749	1560	1700	1749	1690
Q Serve(g_s), s	5.5	30.1	30.3	2.4	31.2	12.7	8.8	14.3	5.2	14.3	18.4	18.5
Cycle Q Clear(g_c), s	5.5	30.1	30.3	2.4	31.2	12.7	8.8	14.3	5.2	14.3	18.4	18.5
Prop In Lane	1.00		0.40	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	193	1301	667	190	1921	596	359	641	286	589	439	424
V/C Ratio(X)	0.96	0.91	0.91	0.76	0.94	0.76	0.94	0.89	0.36	0.93	0.85	0.86
Avail Cap(c_a), veh/h	193	1321	678	190	1926	598	359	641	286	589	439	424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.20	0.20	0.20	0.18	0.18	0.18	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	26.1	26.1	40.3	26.8	7.5	39.9	35.8	32.1	36.7	32.1	32.2
Incr Delay (d2), s/veh	20.6	2.2	4.3	3.2	2.2	1.1	31.5	16.7	3.5	21.5	18.7	19.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	11.1	11.9	3.2	12.2	3.8	5.2	7.4	2.2	7.6	9.8	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	28.3	30.4	43.5	29.0	8.6	71.4	52.5	35.6	58.1	50.8	51.8
LnGrp LOS	D	C	C	D	C	A	E	D	D	E	D	D
Approach Vol, veh/h		1980			2403			1008			1287	
Approach Delay, s/veh		30.4			26.0			57.1			54.2	
Approach LOS		C			C			E			D	

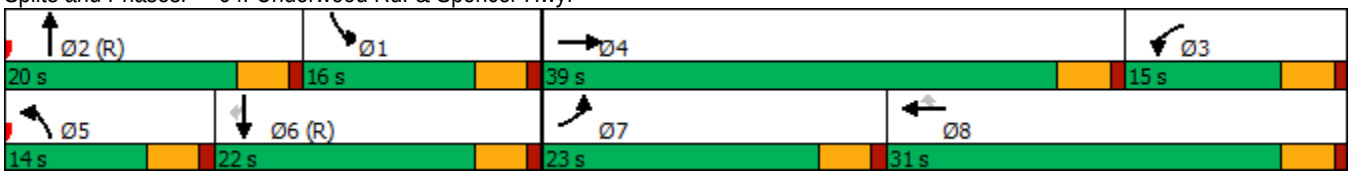
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	21.0	9.5	39.4	14.0	27.1	10.0	38.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	16.5	4.5	35.5	9.5	22.5	5.5	34.5
Max Q Clear Time (g_c+I1), s	16.3	16.3	4.4	32.3	10.8	20.5	7.5	33.2
Green Ext Time (p_c), s	0.0	0.1	0.0	2.7	0.0	0.9	0.0	1.2

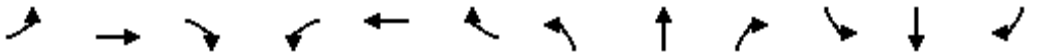
Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	321	1234	138	1260	176	229	395	364	512	397
Future Volume (vph)	321	1234	138	1260	176	229	395	364	512	397
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	23.0	39.0	15.0	31.0	31.0	14.0	20.0	16.0	22.0	22.0
Total Split (%)	25.6%	43.3%	16.7%	34.4%	34.4%	15.6%	22.2%	17.8%	24.4%	24.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.5	34.2	10.1	29.8	29.8	9.4	16.2	11.5	18.3	18.3
Actuated g/C Ratio	0.16	0.38	0.11	0.33	0.33	0.10	0.18	0.13	0.20	0.20
v/c Ratio	0.64	0.89	0.77	0.86	0.30	0.73	0.87	0.92	0.79	0.67
Control Delay	26.0	26.8	65.2	35.5	5.1	53.1	50.1	67.8	43.8	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	26.8	65.2	35.5	5.1	53.1	50.1	67.8	43.8	10.1
LOS	C	C	E	D	A	D	D	E	D	B
Approach Delay		26.7		34.7			51.0		40.2	
Approach LOS		C		C			D		D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 35.5	Intersection LOS: D
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 64: Underwood Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	321	1234	250	138	1260	176	229	395	110	364	512	397
Future Volume (veh/h)	321	1234	250	138	1260	176	229	395	110	364	512	397
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	349	1341	272	150	1370	191	249	429	120	396	557	432
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	442	1537	311	182	1713	532	322	466	129	534	821	366
Arrive On Green	0.13	0.37	0.37	0.10	0.34	0.34	0.09	0.17	0.17	0.16	0.23	0.23
Sat Flow, veh/h	3401	4189	849	1753	5025	1560	3401	2705	750	3401	3497	1560
Grp Volume(v), veh/h	349	1072	541	150	1370	191	249	276	273	396	557	432
Grp Sat Flow(s),veh/h/ln	1700	1675	1688	1753	1675	1560	1700	1749	1706	1700	1749	1560
Q Serve(g_s), s	9.0	26.8	26.9	7.5	22.2	5.0	6.4	14.0	14.2	10.0	13.0	21.1
Cycle Q Clear(g_c), s	9.0	26.8	26.9	7.5	22.2	5.0	6.4	14.0	14.2	10.0	13.0	21.1
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	442	1229	619	182	1713	532	322	301	294	534	821	366
V/C Ratio(X)	0.79	0.87	0.87	0.82	0.80	0.36	0.77	0.92	0.93	0.74	0.68	1.18
Avail Cap(c_a), veh/h	699	1284	647	205	1713	532	359	301	294	534	821	366
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.23	0.23	0.23	0.21	0.21	0.21	0.67	0.67	0.67	0.43	0.43	0.43
Uniform Delay (d), s/veh	38.0	26.5	26.5	39.5	26.9	8.3	39.8	36.6	36.7	36.2	31.4	34.4
Incr Delay (d2), s/veh	0.8	1.7	3.2	5.3	0.6	0.1	6.3	26.0	28.5	2.4	2.0	93.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	10.0	10.3	3.4	8.2	2.6	2.8	7.8	7.9	4.1	5.4	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	28.2	29.8	44.8	27.5	8.4	46.1	62.6	65.2	38.6	33.3	127.6
LnGrp LOS	D	C	C	D	C	A	D	E	E	D	C	F
Approach Vol, veh/h		1962			1711			798			1385	
Approach Delay, s/veh		30.5			26.9			58.3			64.2	
Approach LOS		C			C			E			E	

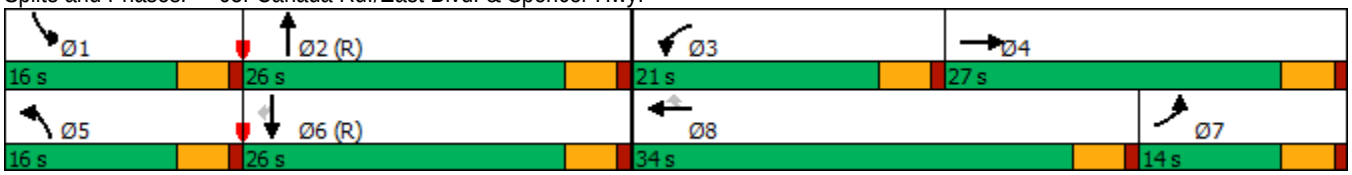
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	20.0	13.9	37.5	13.0	25.6	16.2	35.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	15.5	10.5	34.5	9.5	17.5	18.5	26.5
Max Q Clear Time (g_c+I1), s	12.0	16.2	9.5	28.9	8.4	23.1	11.0	24.2
Green Ext Time (p_c), s	0.0	0.0	0.0	4.2	0.1	0.0	0.7	1.8

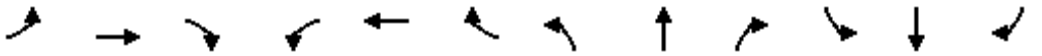
Intersection Summary	
HCM 6th Ctrl Delay	41.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	319	932	288	1421	249	179	617	358	747	432
Future Volume (vph)	319	932	288	1421	249	179	617	358	747	432
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases					8					6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	14.0	27.0	21.0	34.0	34.0	16.0	26.0	16.0	26.0	26.0
Total Split (%)	15.6%	30.0%	23.3%	37.8%	37.8%	17.8%	28.9%	17.8%	28.9%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.5	22.5	16.5	29.5	29.5	11.5	21.5	11.5	21.5	21.5
Actuated g/C Ratio	0.11	0.25	0.18	0.33	0.33	0.13	0.24	0.13	0.24	0.24
v/c Ratio	0.98	0.95	0.98	0.98	0.39	0.91	1.00	0.90	0.98	0.82
Control Delay	84.5	50.5	66.1	33.2	1.9	83.2	65.1	41.6	59.4	35.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.5	50.5	66.1	33.2	1.9	83.2	65.1	41.6	59.4	35.8
LOS	F	D	E	C	A	F	E	D	E	D
Approach Delay		58.4		34.1			68.6		48.6	
Approach LOS		E		C			E		D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 49.3	Intersection LOS: D
Intersection Capacity Utilization 88.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 65: Canada Rd./East Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	932	123	288	1421	249	179	617	143	358	747	432
Future Volume (veh/h)	319	932	123	288	1421	249	179	617	143	358	747	432
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	347	1013	134	313	1545	271	195	671	155	389	812	470
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	359	1119	148	321	1643	510	224	677	156	435	839	374
Arrive On Green	0.11	0.25	0.25	0.18	0.33	0.33	0.13	0.24	0.24	0.13	0.24	0.24
Sat Flow, veh/h	3401	4491	593	1753	5025	1560	1753	2821	651	3401	3497	1560
Grp Volume(v), veh/h	347	755	392	313	1545	271	195	416	410	389	812	470
Grp Sat Flow(s),veh/h/ln	1700	1675	1734	1753	1675	1560	1753	1749	1724	1700	1749	1560
Q Serve(g_s), s	9.1	19.7	19.7	16.0	26.9	8.4	9.8	21.3	21.4	10.1	20.7	15.7
Cycle Q Clear(g_c), s	9.1	19.7	19.7	16.0	26.9	8.4	9.8	21.3	21.4	10.1	20.7	15.7
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	359	834	432	321	1643	510	224	419	413	435	839	374
V/C Ratio(X)	0.97	0.90	0.91	0.97	0.94	0.53	0.87	0.99	0.99	0.90	0.97	1.26
Avail Cap(c_a), veh/h	359	838	433	321	1647	511	224	419	413	435	839	374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.34	0.49	0.49	0.49	0.60	0.60	0.60	0.33	0.33	0.33
Uniform Delay (d), s/veh	40.1	32.8	32.8	36.5	29.4	10.8	38.5	34.1	34.1	38.7	33.9	18.2
Incr Delay (d2), s/veh	20.0	5.3	9.6	28.6	6.2	0.5	19.4	32.0	32.6	8.3	11.8	122.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	8.0	8.8	9.0	10.8	4.1	5.3	12.3	12.2	4.6	9.8	17.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	38.0	42.4	65.1	35.7	11.3	57.9	66.1	66.7	46.9	45.7	140.9
LnGrp LOS	E	D	D	E	D	B	E	E	E	D	D	F
Approach Vol, veh/h		1494			2129			1021			1671	
Approach Delay, s/veh		44.3			36.9			64.8			72.8	
Approach LOS		D			D			E			E	

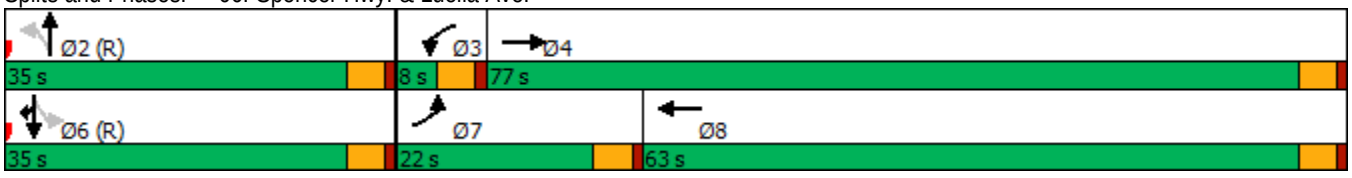
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	26.1	21.0	26.9	16.0	26.1	14.0	33.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	11.5	21.5	16.5	22.5	11.5	21.5	9.5	29.5
Max Q Clear Time (g_c+I1), s	12.1	23.4	18.0	21.7	11.8	22.7	11.1	28.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5

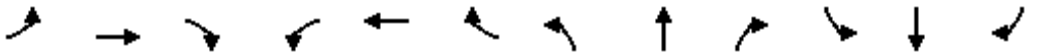
Intersection Summary	
HCM 6th Ctrl Delay	52.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	227	1642	4	2024	8	6	287	0	315
Future Volume (vph)	227	1642	4	2024	8	6	287	0	315
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8		2		6	6
Permitted Phases					2		6		
Detector Phase	7	4	3	8	2	2	6	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	22.0	77.0	8.0	63.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	18.3%	64.2%	6.7%	52.5%	29.2%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.5	78.9	3.5	58.5		30.5		30.5	30.5
Actuated g/C Ratio	0.15	0.66	0.03	0.49		0.25		0.25	0.25
v/c Ratio	0.98	0.55	0.08	1.02		0.05		0.91	0.64
Control Delay	104.2	12.1	70.2	38.5		29.6		75.0	22.2
Queue Delay	0.0	0.1	0.0	6.4		0.0		0.0	0.0
Total Delay	104.2	12.2	70.2	45.0		29.6		75.0	22.2
LOS	F	B	E	D		C		E	C
Approach Delay		23.4		45.0		29.6		47.4	
Approach LOS		C		D		C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 36.7	Intersection LOS: D
Intersection Capacity Utilization 96.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 66: Spencer Hwy. & Luella Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	1642	4	4	2024	213	8	6	4	287	0	315
Future Volume (veh/h)	227	1642	4	4	2024	213	8	6	4	287	0	315
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	249	1804	4	4	2224	234	9	7	4	315	0	346
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	256	3260	7	6	2255	233	43	29	7	272	0	396
Arrive On Green	0.15	0.63	0.63	0.01	0.98	0.98	0.25	0.25	0.25	0.25	0.00	0.25
Sat Flow, veh/h	1753	5177	11	1753	4626	479	0	114	28	834	0	1560
Grp Volume(v), veh/h	249	1167	641	4	1601	857	20	0	0	315	0	346
Grp Sat Flow(s),veh/h/ln	1753	1675	1839	1753	1675	1755	142	0	0	834	0	1560
Q Serve(g_s), s	17.0	23.8	23.8	0.3	32.3	58.5	0.0	0.0	0.0	0.0	0.0	25.5
Cycle Q Clear(g_c), s	17.0	23.8	23.8	0.3	32.3	58.5	30.5	0.0	0.0	30.5	0.0	25.5
Prop In Lane	1.00		0.01	1.00		0.27	0.45		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	256	2110	1158	6	1633	855	80	0	0	272	0	396
V/C Ratio(X)	0.97	0.55	0.55	0.63	0.98	1.00	0.25	0.00	0.00	1.16	0.00	0.87
Avail Cap(c_a), veh/h	256	2110	1158	51	1633	855	80	0	0	272	0	396
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	0.50	0.50	0.50	1.00	0.00	0.00	0.27	0.00	0.27
Uniform Delay (d), s/veh	51.0	12.6	12.6	59.5	1.2	1.5	37.0	0.0	0.0	48.1	0.0	42.9
Incr Delay (d2), s/veh	27.3	0.1	0.2	41.1	11.5	22.3	7.4	0.0	0.0	82.7	0.0	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	7.9	8.7	0.2	3.2	5.9	0.6	0.0	0.0	14.5	0.0	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.3	12.7	12.8	100.6	12.7	23.8	44.4	0.0	0.0	130.8	0.0	50.3
LnGrp LOS	E	B	B	F	B	F	D	A	A	F	A	D
Approach Vol, veh/h		2057			2462			20			661	
Approach Delay, s/veh		20.7			16.7			44.4			88.7	
Approach LOS		C			B			D			F	

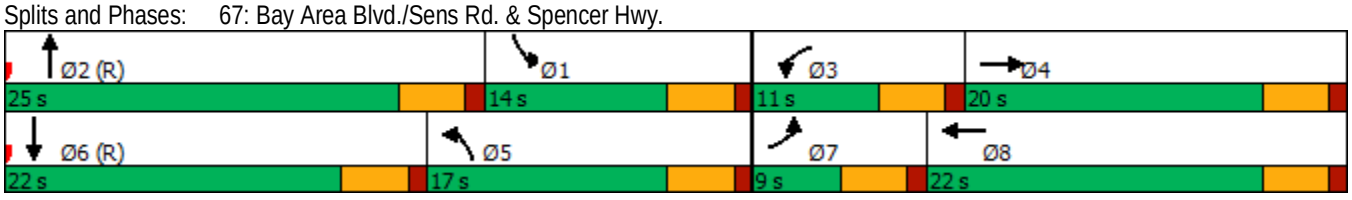
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		35.0	4.9	80.1		35.0	22.0	63.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		30.5	3.5	72.5		30.5	17.5	58.5				
Max Q Clear Time (g_c+I1), s		32.5	2.3	25.8		32.5	19.0	60.5				
Green Ext Time (p_c), s		0.0	0.0	18.0		0.0	0.0	0.0				

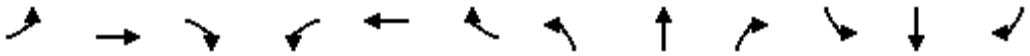
Intersection Summary												
HCM 6th Ctrl Delay			27.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	95	532	69	961	237	493	152	321
Future Volume (vph)	95	532	69	961	237	493	152	321
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	20.0	11.0	22.0	17.0	25.0	14.0	22.0
Total Split (%)	12.9%	28.6%	15.7%	31.4%	24.3%	35.7%	20.0%	31.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	4.7	17.9	6.3	17.5	12.3	20.5	9.3	17.5
Actuated g/C Ratio	0.07	0.26	0.09	0.25	0.18	0.29	0.13	0.25
v/c Ratio	0.85	0.56	0.46	0.97	0.87	0.56	0.71	0.65
Control Delay	88.6	22.4	40.3	45.8	77.9	26.7	48.8	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.6	22.4	40.3	45.8	77.9	26.7	48.8	18.5
LOS	F	C	D	D	E	C	D	B
Approach Delay		30.6		45.4		42.2		24.5
Approach LOS		C		D		D		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 36.9	Intersection LOS: D
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 67: Bay Area Blvd./Sens Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	532	145	69	961	164	237	493	52	152	321	289
Future Volume (veh/h)	95	532	145	69	961	164	237	493	52	152	321	289
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	99	554	151	72	1001	171	247	514	54	158	334	301
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	113	1035	275	92	1080	184	313	936	98	238	439	388
Arrive On Green	0.06	0.26	0.26	0.05	0.25	0.25	0.18	0.29	0.29	0.14	0.25	0.25
Sat Flow, veh/h	1753	3950	1052	1753	4322	737	1753	3195	335	1753	1756	1554
Grp Volume(v), veh/h	99	468	237	72	775	397	247	281	287	158	333	302
Grp Sat Flow(s),veh/h/ln	1753	1675	1651	1753	1675	1708	1753	1749	1780	1753	1749	1561
Q Serve(g_s), s	3.9	8.4	8.7	2.8	15.8	15.9	9.4	9.5	9.5	6.0	12.3	12.6
Cycle Q Clear(g_c), s	3.9	8.4	8.7	2.8	15.8	15.9	9.4	9.5	9.5	6.0	12.3	12.6
Prop In Lane	1.00		0.64	1.00		0.43	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	113	878	433	92	838	427	313	512	521	238	437	390
V/C Ratio(X)	0.88	0.53	0.55	0.79	0.93	0.93	0.79	0.55	0.55	0.66	0.76	0.77
Avail Cap(c_a), veh/h	113	878	433	163	838	427	313	512	521	238	437	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.33	0.33	0.33	1.00	1.00	1.00	0.55	0.55	0.55	0.96	0.96	0.96
Uniform Delay (d), s/veh	32.5	22.2	22.3	32.8	25.6	25.6	27.5	20.8	20.9	28.7	24.3	24.4
Incr Delay (d2), s/veh	22.0	0.2	0.5	13.6	16.0	26.6	7.3	2.3	2.3	6.5	11.4	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.1	3.2	1.5	7.8	9.2	4.3	3.8	3.9	2.8	6.2	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	22.4	22.7	46.4	41.7	52.2	34.8	23.2	23.2	35.3	35.7	37.9
LnGrp LOS	D	C	C	D	D	D	C	C	C	D	D	D
Approach Vol, veh/h		804			1244			815			793	
Approach Delay, s/veh		26.4			45.3			26.7			36.4	
Approach LOS		C			D			C			D	

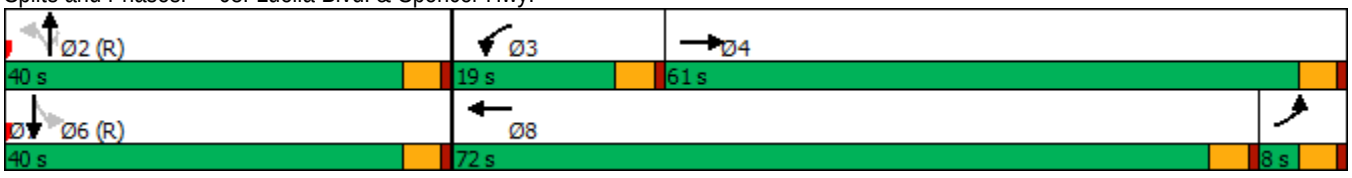
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	25.0	8.2	22.8	17.0	22.0	9.0	22.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	20.5	6.5	15.5	12.5	17.5	4.5	17.5
Max Q Clear Time (g_c+I1), s	8.0	11.5	4.8	10.7	11.4	14.6	5.9	17.9
Green Ext Time (p_c), s	0.1	2.1	0.0	2.0	0.1	1.1	0.0	0.0

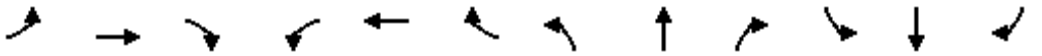
Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations								
Traffic Volume (vph)	4	1733	145	2162	259	1	117	10
Future Volume (vph)	4	1733	145	2162	259	1	117	10
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		2	
Detector Phase	7	4	3	8	2	2	2	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	8.0	61.0	19.0	72.0	40.0	40.0	40.0	40.0
Total Split (%)	6.7%	50.8%	15.8%	60.0%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	3.9	56.7	13.7	73.3	36.1	36.1	36.1	36.1
Actuated g/C Ratio	0.03	0.47	0.11	0.61	0.30	0.30	0.30	0.30
v/c Ratio	0.07	0.93	0.80	0.81	0.73	0.00	0.23	0.05
Control Delay	56.2	32.6	80.1	21.2	60.7	46.0	18.1	18.6
Queue Delay	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay	56.2	32.6	80.1	21.6	60.7	46.0	18.1	18.6
LOS	E	C	F	C	E	D	B	B
Approach Delay		32.6		25.2		47.5		18.6
Approach LOS		C		C		D		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 88 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 68: Luella Blvd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	1733	175	145	2162	8	259	1	117	0	10	13
Future Volume (veh/h)	4	1733	175	145	2162	8	259	1	117	0	10	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	4	1904	192	159	2376	9	285	1	129	0	11	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	9	2012	202	186	2761	10	521	641	543	0	256	326
Arrive On Green	0.01	0.87	0.87	0.11	0.53	0.53	0.35	0.35	0.35	0.00	0.35	0.35
Sat Flow, veh/h	1753	4642	465	1753	5168	20	1364	1841	1560	0	736	936
Grp Volume(v), veh/h	4	1371	725	159	1540	845	285	1	129	0	0	25
Grp Sat Flow(s),veh/h/ln	1753	1675	1757	1753	1675	1837	1364	1841	1560	0	0	1672
Q Serve(g_s), s	0.3	36.0	37.8	10.7	47.5	47.6	21.0	0.0	7.1	0.0	0.0	1.2
Cycle Q Clear(g_c), s	0.3	36.0	37.8	10.7	47.5	47.6	22.2	0.0	7.1	0.0	0.0	1.2
Prop In Lane	1.00		0.26	1.00		0.01	1.00		1.00	0.00		0.56
Lane Grp Cap(c), veh/h	9	1452	761	186	1790	981	521	641	543	0	0	582
V/C Ratio(X)	0.45	0.94	0.95	0.86	0.86	0.86	0.55	0.00	0.24	0.00	0.00	0.04
Avail Cap(c_a), veh/h	51	1577	827	212	1884	1033	521	641	543	0	0	582
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.82	0.23	0.23	0.23	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	59.2	6.9	7.0	52.8	24.1	24.1	33.2	25.5	27.8	0.0	0.0	25.9
Incr Delay (d2), s/veh	26.2	9.8	17.3	7.3	1.0	1.8	4.1	0.0	1.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.7	6.5	5.0	17.6	19.6	7.5	0.0	2.7	0.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.4	16.7	24.3	60.0	25.1	25.9	37.3	25.5	28.8	0.0	0.0	26.0
LnGrp LOS	F	B	C	E	C	C	D	C	C	A	A	C
Approach Vol, veh/h		2100			2544			415			25	
Approach Delay, s/veh		19.5			27.6			34.6			26.0	
Approach LOS		B			C			C			C	

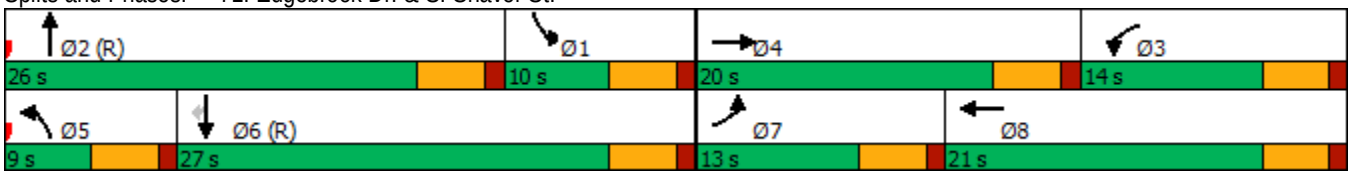
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.3	17.2	56.5		46.3	5.1	68.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		35.5	14.5	56.5		35.5	3.5	67.5				
Max Q Clear Time (g_c+I1), s		24.2	12.7	39.8		3.2	2.3	49.6				
Green Ext Time (p_c), s		1.1	0.1	12.2		0.1	0.0	14.5				

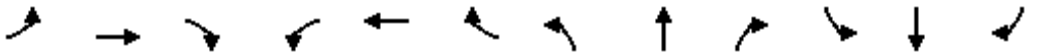
Intersection Summary												
HCM 6th Ctrl Delay			24.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	328	635	192	640	88	792	107	867	404
Future Volume (vph)	328	635	192	640	88	792	107	867	404
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	20.0	14.0	21.0	9.0	26.0	10.0	27.0	27.0
Total Split (%)	18.6%	28.6%	20.0%	30.0%	12.9%	37.1%	14.3%	38.6%	38.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.5	14.7	10.2	16.5	4.5	21.5	5.5	24.3	24.3
Actuated g/C Ratio	0.12	0.21	0.15	0.24	0.06	0.31	0.08	0.35	0.35
v/c Ratio	0.83	0.69	0.78	0.88	0.81	0.90	0.81	0.74	0.58
Control Delay	49.2	28.3	53.5	39.9	83.4	35.8	74.7	25.6	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.2	28.3	53.5	39.9	83.4	35.8	74.7	25.6	10.3
LOS	D	C	D	D	F	D	E	C	B
Approach Delay		35.0		42.8		39.9		24.9	
Approach LOS		C		D		D		C	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 34.6	Intersection LOS: C
Intersection Capacity Utilization 81.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 71: Edgebrook Dr. & S. Shaver St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	635	67	192	640	57	88	792	135	107	867	404
Future Volume (veh/h)	328	635	67	192	640	57	88	792	135	107	867	404
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	338	655	69	198	660	59	91	816	139	110	894	416
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	413	871	91	286	748	67	113	918	156	147	1143	510
Arrive On Green	0.12	0.19	0.19	0.16	0.23	0.23	0.06	0.31	0.31	0.08	0.33	0.33
Sat Flow, veh/h	3401	4621	483	1753	3247	290	1753	2989	509	1753	3497	1560
Grp Volume(v), veh/h	338	473	251	198	355	364	91	477	478	110	894	416
Grp Sat Flow(s),veh/h/ln	1700	1675	1754	1753	1749	1789	1753	1749	1749	1753	1749	1560
Q Serve(g_s), s	6.8	9.3	9.5	7.5	13.7	13.8	3.6	18.2	18.2	4.3	16.2	17.1
Cycle Q Clear(g_c), s	6.8	9.3	9.5	7.5	13.7	13.8	3.6	18.2	18.2	4.3	16.2	17.1
Prop In Lane	1.00		0.28	1.00		0.16	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	413	631	331	286	403	412	113	537	537	147	1143	510
V/C Ratio(X)	0.82	0.75	0.76	0.69	0.88	0.88	0.81	0.89	0.89	0.75	0.78	0.82
Avail Cap(c_a), veh/h	413	742	388	286	412	422	113	537	537	147	1143	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.43	0.43	0.43	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	30.0	26.8	26.9	27.6	26.0	26.0	32.3	23.1	23.1	31.3	21.3	21.6
Incr Delay (d2), s/veh	12.2	3.6	7.1	3.1	9.5	9.5	33.7	19.3	19.3	11.6	3.2	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.9	4.4	3.2	6.4	6.6	2.5	9.7	9.7	2.2	6.6	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	30.4	34.0	30.7	35.6	35.5	66.0	42.5	42.4	42.9	24.5	30.0
LnGrp LOS	D	C	C	C	D	D	E	D	D	D	C	C
Approach Vol, veh/h		1062			917			1046			1420	
Approach Delay, s/veh		35.0			34.5			44.5			27.6	
Approach LOS		D			C			D			C	

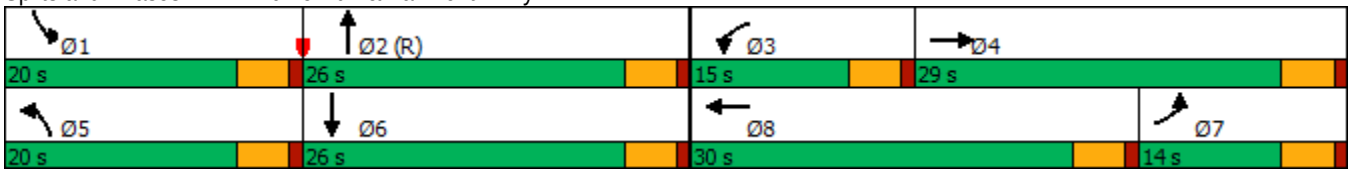
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	26.0	15.9	17.7	9.0	27.4	13.0	20.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	21.5	9.5	15.5	4.5	22.5	8.5	16.5
Max Q Clear Time (g_c+I1), s	6.3	20.2	9.5	11.5	5.6	19.1	8.8	15.8
Green Ext Time (p_c), s	0.0	0.8	0.0	1.7	0.0	2.3	0.0	0.4

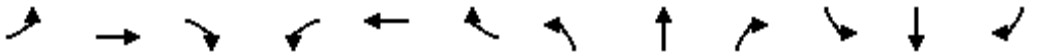
Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	157	1073	175	1143	183	495	231	519
Future Volume (vph)	157	1073	175	1143	183	495	231	519
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	29.0	15.0	30.0	20.0	26.0	20.0	26.0
Total Split (%)	15.6%	32.2%	16.7%	33.3%	22.2%	28.9%	22.2%	28.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Max	C-Max	Max	Max
Act Effct Green (s)	9.5	24.5	10.5	25.5	15.5	21.5	15.5	21.5
Actuated g/C Ratio	0.11	0.27	0.12	0.28	0.17	0.24	0.17	0.24
v/c Ratio	0.87	0.95	0.88	0.98	0.62	0.85	0.78	0.80
Control Delay	81.2	46.7	79.1	51.6	44.6	40.6	55.4	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.2	46.7	79.1	51.6	44.6	40.6	55.4	39.2
LOS	F	D	E	D	D	D	E	D
Approach Delay		50.5		54.7		41.5		43.4
Approach LOS		D		D		D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 48.8	Intersection LOS: D
Intersection Capacity Utilization 89.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 72: Burke Rd. & Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	1073	199	175	1143	225	183	495	220	231	519	142
Future Volume (veh/h)	157	1073	199	175	1143	225	183	495	220	231	519	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	159	1084	201	177	1155	227	185	500	0	233	524	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	185	1160	215	205	1194	235	302	835		302	835	
Arrive On Green	0.11	0.27	0.27	0.12	0.28	0.28	0.17	0.24	0.00	0.17	0.24	0.00
Sat Flow, veh/h	1753	4260	789	1753	4214	828	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	159	852	433	177	918	464	185	500	0	233	524	0
Grp Sat Flow(s),veh/h/ln	1753	1675	1699	1753	1675	1692	1753	1749	0	1753	1749	0
Q Serve(g_s), s	8.0	22.4	22.4	8.9	24.4	24.4	8.8	11.4	0.0	11.4	12.1	0.0
Cycle Q Clear(g_c), s	8.0	22.4	22.4	8.9	24.4	24.4	8.8	11.4	0.0	11.4	12.1	0.0
Prop In Lane	1.00		0.46	1.00		0.49	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	185	912	462	205	949	479	302	835		302	835	
V/C Ratio(X)	0.86	0.93	0.94	0.87	0.97	0.97	0.61	0.60		0.77	0.63	
Avail Cap(c_a), veh/h	185	912	462	205	949	479	302	835		302	835	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.35	0.35	0.35	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.6	32.0	32.0	39.1	31.8	31.8	34.5	30.4	0.0	35.6	30.7	0.0
Incr Delay (d2), s/veh	21.4	11.3	19.0	12.9	10.8	17.1	0.8	0.3	0.0	17.3	3.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	10.2	11.3	4.5	10.9	11.9	3.8	4.7	0.0	6.2	5.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.0	43.3	51.0	51.9	42.6	49.0	35.3	30.7	0.0	52.8	34.2	0.0
LnGrp LOS	E	D	D	D	D	D	D	C		D	C	
Approach Vol, veh/h		1444			1559			685	A		757	A
Approach Delay, s/veh		47.6			45.6			32.0			39.9	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	26.0	15.0	29.0	20.0	26.0	14.0	30.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	21.5	10.5	24.5	15.5	21.5	9.5	25.5
Max Q Clear Time (g_c+I1), s	13.4	13.4	10.9	24.4	10.8	14.1	10.0	26.4
Green Ext Time (p_c), s	0.1	2.0	0.0	0.1	0.2	2.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D

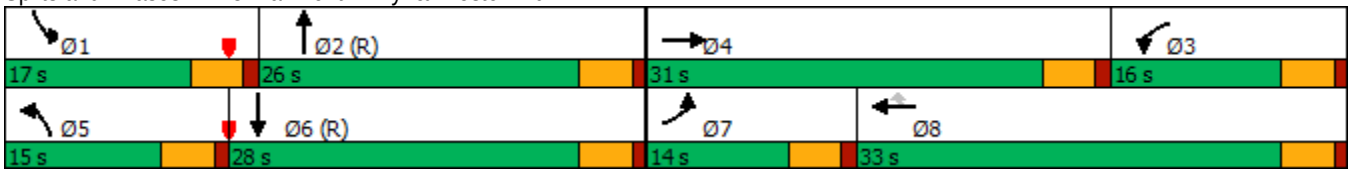
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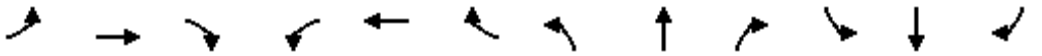
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	165	1331	204	1397	321	190	571	443	698
Future Volume (vph)	165	1331	204	1397	321	190	571	443	698
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	14.0	31.0	16.0	33.0	33.0	15.0	26.0	17.0	28.0
Total Split (%)	15.6%	34.4%	17.8%	36.7%	36.7%	16.7%	28.9%	18.9%	31.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.5	26.5	11.5	28.5	28.5	10.5	21.5	12.5	23.5
Actuated g/C Ratio	0.11	0.29	0.13	0.32	0.32	0.12	0.24	0.14	0.26
v/c Ratio	0.93	1.03	0.95	0.91	0.46	0.97	0.92	0.98	0.92
Control Delay	92.7	64.2	90.4	39.7	5.3	98.4	49.2	77.0	48.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.7	64.2	90.4	39.7	5.3	98.4	49.2	77.0	48.9
LOS	F	E	F	D	A	F	D	E	D
Approach Delay		67.1		39.3			59.3		58.8
Approach LOS		E		D			E		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 54.7	Intersection LOS: D
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 73: Fairmont Pkwy. & Preston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	1331	132	204	1397	321	190	571	168	443	698	109
Future Volume (veh/h)	165	1331	132	204	1397	321	190	571	168	443	698	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	170	1372	136	210	1440	331	196	589	173	457	720	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	185	1368	136	224	1591	494	205	637	187	472	792	123
Arrive On Green	0.11	0.29	0.29	0.13	0.32	0.32	0.12	0.24	0.24	0.14	0.26	0.26
Sat Flow, veh/h	1753	4647	461	1753	5025	1560	1753	2667	782	3401	3033	472
Grp Volume(v), veh/h	170	989	519	210	1440	331	196	386	376	457	415	417
Grp Sat Flow(s),veh/h/ln	1753	1675	1758	1753	1675	1560	1753	1749	1700	1700	1749	1756
Q Serve(g_s), s	8.6	26.5	26.5	10.7	24.7	16.6	10.0	19.4	19.5	12.0	20.7	20.7
Cycle Q Clear(g_c), s	8.6	26.5	26.5	10.7	24.7	16.6	10.0	19.4	19.5	12.0	20.7	20.7
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.46	1.00		0.27
Lane Grp Cap(c), veh/h	185	986	518	224	1591	494	205	418	406	472	457	458
V/C Ratio(X)	0.92	1.00	1.00	0.94	0.90	0.67	0.96	0.92	0.93	0.97	0.91	0.91
Avail Cap(c_a), veh/h	185	986	518	224	1591	494	205	418	406	472	457	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.45	0.36	0.36	0.36	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	39.9	31.8	31.8	38.9	29.5	26.7	39.5	33.4	33.5	38.5	32.2	32.2
Incr Delay (d2), s/veh	25.5	19.9	27.2	22.0	3.1	1.3	50.9	28.4	29.5	24.0	16.5	16.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	13.0	14.7	5.9	10.0	6.1	7.1	11.3	11.1	6.5	10.6	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	51.6	58.9	60.9	32.5	27.9	90.4	61.9	63.0	62.6	48.7	48.8
LnGrp LOS	E	F	F	E	C	C	F	E	E	E	D	D
Approach Vol, veh/h		1678			1981			958			1289	
Approach Delay, s/veh		55.3			34.8			68.2			53.7	
Approach LOS		E			C			E			D	

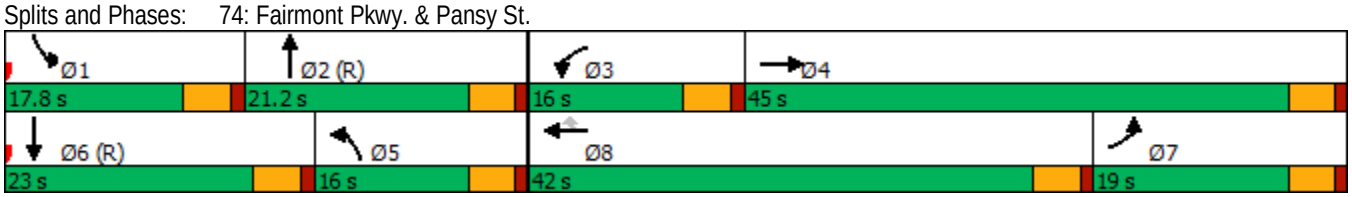
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	26.0	16.0	31.0	15.0	28.0	14.0	33.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	21.5	11.5	26.5	10.5	23.5	9.5	28.5
Max Q Clear Time (g_c+I1), s	14.0	21.5	12.7	28.5	12.0	22.7	10.6	26.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.5

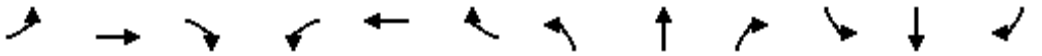
Intersection Summary	
HCM 6th Ctrl Delay	50.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	190	1804	176	1561	225	357	391	210	335
Future Volume (vph)	190	1804	176	1561	225	357	391	210	335
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	9.5	20.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	19.0	45.0	16.0	42.0	42.0	16.0	21.2	17.8	23.0
Total Split (%)	19.0%	45.0%	16.0%	42.0%	42.0%	16.0%	21.2%	17.8%	23.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.5	40.5	11.5	37.5	37.5	11.5	16.7	13.3	18.5
Actuated g/C Ratio	0.14	0.40	0.12	0.38	0.38	0.12	0.17	0.13	0.18
v/c Ratio	0.78	1.02	0.91	0.86	0.32	0.95	0.91	0.94	0.76
Control Delay	63.5	56.3	89.3	34.7	4.2	80.1	59.7	90.1	41.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	56.3	89.3	34.7	4.2	80.1	59.7	90.1	41.7
LOS	E	E	F	C	A	F	E	F	D
Approach Delay		56.9		36.1			68.0		56.3
Approach LOS		E		D			E		E

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 51.4	Intersection LOS: D
Intersection Capacity Utilization 95.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 74: Fairmont Pkwy. & Pansy St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1804	184	176	1561	225	357	391	132	210	335	152
Future Volume (veh/h)	190	1804	184	176	1561	225	357	391	132	210	335	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	196	1860	190	181	1609	232	368	403	136	216	345	157
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	272	1877	191	202	1833	569	391	430	143	233	435	194
Arrive On Green	0.16	0.41	0.41	0.12	0.36	0.36	0.12	0.17	0.17	0.13	0.19	0.19
Sat Flow, veh/h	1753	4635	471	1753	5025	1560	3401	2575	859	1753	2350	1050
Grp Volume(v), veh/h	196	1342	708	181	1609	232	368	272	267	216	255	247
Grp Sat Flow(s),veh/h/ln	1753	1675	1756	1753	1675	1560	1700	1749	1686	1753	1749	1652
Q Serve(g_s), s	10.6	39.7	40.2	10.2	29.9	7.2	10.7	15.4	15.7	12.2	13.9	14.3
Cycle Q Clear(g_c), s	10.6	39.7	40.2	10.2	29.9	7.2	10.7	15.4	15.7	12.2	13.9	14.3
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.51	1.00		0.64
Lane Grp Cap(c), veh/h	272	1357	711	202	1833	569	391	292	282	233	324	306
V/C Ratio(X)	0.72	0.99	1.00	0.90	0.88	0.41	0.94	0.93	0.95	0.93	0.79	0.81
Avail Cap(c_a), veh/h	272	1357	711	202	1884	585	391	292	282	233	324	306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	29.5	29.7	43.7	29.7	10.0	43.9	41.1	41.2	42.9	38.9	39.0
Incr Delay (d2), s/veh	0.9	5.1	9.3	36.7	5.0	0.5	30.8	37.8	41.8	39.3	17.5	20.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	16.2	18.0	6.4	12.5	2.4	6.1	9.6	9.7	7.8	7.5	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	34.6	38.9	80.3	34.7	10.5	74.7	78.9	83.0	82.2	56.4	59.2
LnGrp LOS	D	C	D	F	C	B	E	E	F	F	E	E
Approach Vol, veh/h		2246			2022			907			718	
Approach Delay, s/veh		36.6			36.0			78.4			65.1	
Approach LOS		D			D			E			E	

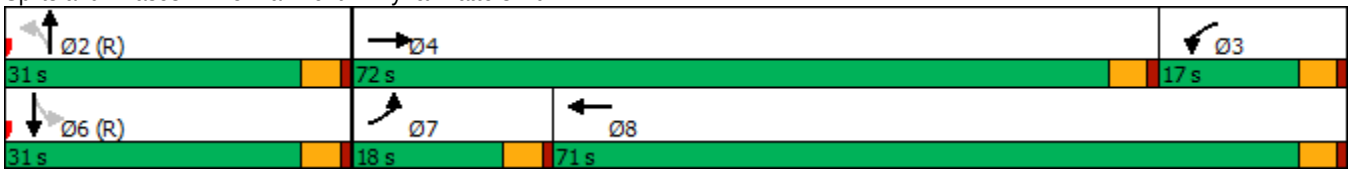
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	21.2	16.0	45.0	16.0	23.0	20.0	41.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.3	16.7	11.5	40.5	11.5	18.5	14.5	37.5
Max Q Clear Time (g_c+I1), s	14.2	17.7	12.2	42.2	12.7	16.3	12.6	31.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.7	0.1	4.6

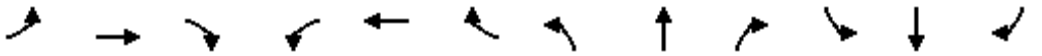
Intersection Summary	
HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	114	1370	85	1566	34	27	71	23
Future Volume (vph)	114	1370	85	1566	34	27	71	23
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	18.0	72.0	17.0	71.0	31.0	31.0	31.0	31.0
Total Split (%)	15.0%	60.0%	14.2%	59.2%	25.8%	25.8%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lead	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.9	59.6	17.8	65.5		29.0		29.0
Actuated g/C Ratio	0.10	0.50	0.15	0.55		0.24		0.24
v/c Ratio	0.67	0.83	0.34	0.88		0.28		0.55
Control Delay	71.1	30.1	52.7	30.4		31.7		37.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	71.1	30.1	52.7	30.4		31.7		37.5
LOS	E	C	D	C		C		D
Approach Delay		33.2		31.5		31.7		37.5
Approach LOS		C		C		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 40 (33%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 32.6	Intersection LOS: C
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 75: Fairmont Pkwy. & Watters Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	1370	30	85	1566	62	34	27	38	71	23	118
Future Volume (veh/h)	114	1370	30	85	1566	62	34	27	38	71	23	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	116	1398	31	87	1598	63	35	28	39	72	23	120
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	142	1631	36	234	1781	70	168	136	163	169	66	245
Arrive On Green	0.08	0.47	0.47	0.13	0.52	0.52	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1753	3498	78	1753	3430	135	443	472	566	447	228	853
Grp Volume(v), veh/h	116	698	731	87	812	849	102	0	0	215	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1827	1753	1749	1816	1481	0	0	1528	0	0
Q Serve(g_s), s	7.8	42.6	42.7	5.4	50.0	50.7	0.0	0.0	0.0	7.6	0.0	0.0
Cycle Q Clear(g_c), s	7.8	42.6	42.7	5.4	50.0	50.7	5.8	0.0	0.0	13.4	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.07	0.34		0.38	0.33		0.56
Lane Grp Cap(c), veh/h	142	815	852	234	908	943	466	0	0	480	0	0
V/C Ratio(X)	0.82	0.86	0.86	0.37	0.89	0.90	0.22	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	197	984	1028	234	969	1007	466	0	0	480	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.27	0.27	0.27	0.27	0.27	0.27	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	54.3	28.5	28.5	47.4	25.9	26.1	32.4	0.0	0.0	35.0	0.0	0.0
Incr Delay (d2), s/veh	5.2	1.9	1.8	0.3	3.2	3.3	1.1	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	17.8	18.6	2.4	20.7	21.8	2.4	0.0	0.0	5.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.5	30.3	30.3	47.7	29.1	29.3	33.5	0.0	0.0	38.0	0.0	0.0
LnGrp LOS	E	C	C	D	C	C	C	A	A	D	A	A
Approach Vol, veh/h		1545			1748			102			215	
Approach Delay, s/veh		32.5			30.1			33.5			38.0	
Approach LOS		C			C			C			D	

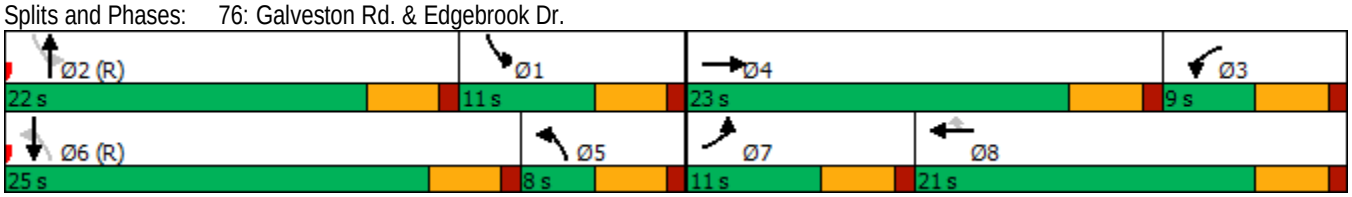
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		39.0	20.5	60.4		39.0	14.2	66.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	12.5	67.5		26.5	13.5	66.5				
Max Q Clear Time (g_c+I1), s		7.8	7.4	44.7		15.4	9.8	52.7				
Green Ext Time (p_c), s		0.5	0.1	11.2		0.9	0.1	9.6				

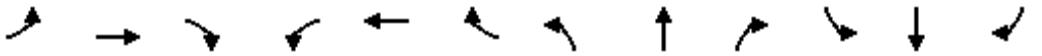
Intersection Summary	
HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	143	837	86	757	204	89	536	240	543
Future Volume (vph)	143	837	86	757	204	89	536	240	543
Turn Type	Prot	NA	Prot	NA	Perm	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8	6		2	
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	23.0	9.0	21.0	21.0	8.0	22.0	11.0	25.0
Total Split (%)	16.9%	35.4%	13.8%	32.3%	32.3%	12.3%	33.8%	16.9%	38.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	20.3	4.6	16.5	16.5	24.9	17.5	24.0	22.1
Actuated g/C Ratio	0.10	0.31	0.07	0.25	0.25	0.38	0.27	0.37	0.34
v/c Ratio	0.86	0.85	0.73	0.90	0.39	0.44	0.71	0.84	0.67
Control Delay	73.2	32.0	65.6	38.7	5.7	23.5	25.3	47.3	19.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.2	32.0	65.6	38.7	5.7	23.5	25.3	47.3	19.8
LOS	E	C	E	D	A	C	C	D	B
Approach Delay		37.8		34.5			25.0		26.4
Approach LOS		D		C			C		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 31.4	Intersection LOS: C
Intersection Capacity Utilization 80.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 76: Galveston Rd. & Edgebrook Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	837	48	86	757	204	89	536	102	240	543	222
Future Volume (veh/h)	143	837	48	86	757	204	89	536	102	240	543	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	149	872	50	90	789	212	93	558	106	250	566	231
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	175	953	55	120	881	393	280	790	150	363	765	311
Arrive On Green	0.10	0.28	0.28	0.07	0.25	0.25	0.06	0.27	0.27	0.10	0.32	0.32
Sat Flow, veh/h	1753	3362	193	1753	3497	1560	1753	2934	556	1753	2424	987
Grp Volume(v), veh/h	149	454	468	90	789	212	93	332	332	250	408	389
Grp Sat Flow(s),veh/h/ln	1753	1749	1806	1753	1749	1560	1753	1749	1741	1753	1749	1663
Q Serve(g_s), s	5.4	16.3	16.3	3.3	14.2	5.2	0.0	11.1	11.2	1.7	13.5	13.6
Cycle Q Clear(g_c), s	5.4	16.3	16.3	3.3	14.2	5.2	0.0	11.1	11.2	1.7	13.5	13.6
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.32	1.00		0.59
Lane Grp Cap(c), veh/h	175	496	512	120	881	393	280	471	469	363	552	524
V/C Ratio(X)	0.85	0.91	0.91	0.75	0.90	0.54	0.33	0.70	0.71	0.69	0.74	0.74
Avail Cap(c_a), veh/h	175	498	514	121	888	396	280	471	469	363	552	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	22.5	22.5	29.7	23.5	9.7	26.3	21.4	21.4	25.4	19.9	19.9
Incr Delay (d2), s/veh	30.6	21.5	21.0	22.3	11.6	1.4	0.7	8.6	8.8	5.4	8.6	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	9.1	9.3	2.1	6.8	2.6	1.4	5.3	5.4	3.9	6.4	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.4	44.0	43.6	52.0	35.1	11.1	27.0	30.0	30.2	30.8	28.5	29.0
LnGrp LOS	E	D	D	D	D	B	C	C	C	C	C	C
Approach Vol, veh/h		1071			1091			757			1047	
Approach Delay, s/veh		46.0			31.8			29.7			29.3	
Approach LOS		D			C			C			C	

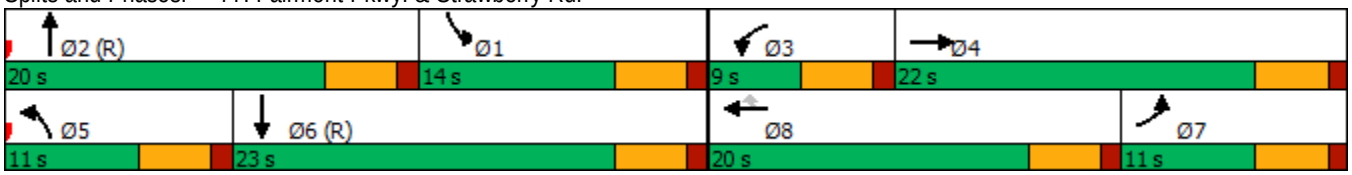
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	22.0	9.0	22.9	8.1	25.0	11.0	20.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	17.5	4.5	18.5	3.5	20.5	6.5	16.5
Max Q Clear Time (g_c+I1), s	3.7	13.2	5.3	18.3	2.0	15.6	7.4	16.2
Green Ext Time (p_c), s	0.2	1.6	0.0	0.1	0.0	2.2	0.0	0.2

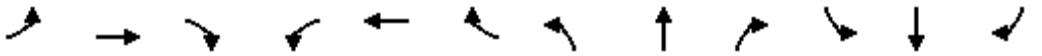
Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	169	882	72	1006	210	60	552	231	490
Future Volume (vph)	169	882	72	1006	210	60	552	231	490
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	22.0	9.0	20.0	20.0	11.0	20.0	14.0	23.0
Total Split (%)	16.9%	33.8%	13.8%	30.8%	30.8%	16.9%	30.8%	21.5%	35.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.5	19.3	4.5	15.5	15.5	6.3	15.5	9.5	22.9
Actuated g/C Ratio	0.10	0.30	0.07	0.24	0.24	0.10	0.24	0.15	0.35
v/c Ratio	1.01	0.67	0.62	0.87	0.38	0.37	0.80	0.94	0.55
Control Delay	105.1	22.9	54.1	33.8	4.3	34.1	31.1	75.2	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.1	22.9	54.1	33.8	4.3	34.1	31.1	75.2	18.4
LOS	F	C	D	C	A	C	C	E	B
Approach Delay		35.2		30.1			31.4		33.2
Approach LOS		D		C			C		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 32.5	Intersection LOS: C
Intersection Capacity Utilization 79.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 77: Fairmont Pkwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	882	79	72	1006	210	60	552	89	231	490	165
Future Volume (veh/h)	169	882	79	72	1006	210	60	552	89	231	490	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	174	909	81	74	1037	216	62	569	92	238	505	170
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	175	1328	118	94	1186	368	78	719	116	260	881	295
Arrive On Green	0.10	0.28	0.28	0.05	0.24	0.24	0.04	0.24	0.24	0.15	0.34	0.34
Sat Flow, veh/h	1753	4698	417	1753	5025	1560	1753	3016	486	1753	2573	861
Grp Volume(v), veh/h	174	647	343	74	1037	216	62	329	332	238	342	333
Grp Sat Flow(s),veh/h/ln	1753	1675	1766	1753	1675	1560	1753	1749	1753	1753	1749	1686
Q Serve(g_s), s	6.4	11.2	11.2	2.7	12.9	8.0	2.3	11.5	11.6	8.7	10.4	10.5
Cycle Q Clear(g_c), s	6.4	11.2	11.2	2.7	12.9	8.0	2.3	11.5	11.6	8.7	10.4	10.5
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.28	1.00		0.51
Lane Grp Cap(c), veh/h	175	947	499	94	1186	368	78	417	418	260	599	577
V/C Ratio(X)	0.99	0.68	0.69	0.79	0.87	0.59	0.79	0.79	0.79	0.91	0.57	0.58
Avail Cap(c_a), veh/h	175	947	499	121	1198	372	175	417	418	260	599	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.23	0.23	0.23	1.00	1.00	1.00	0.44	0.44	0.44
Uniform Delay (d), s/veh	29.2	20.7	20.8	30.4	23.9	22.0	30.8	23.2	23.2	27.3	17.5	17.5
Incr Delay (d2), s/veh	60.0	1.7	3.3	6.1	1.9	0.5	16.4	14.1	14.3	18.8	1.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	4.3	4.7	1.3	5.0	2.8	1.3	6.0	6.1	4.8	4.1	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.3	22.4	24.1	36.5	25.7	22.6	47.1	37.3	37.6	46.1	19.2	19.4
LnGrp LOS	F	C	C	D	C	C	D	D	D	D	B	B
Approach Vol, veh/h		1164			1327			723			913	
Approach Delay, s/veh		32.9			25.8			38.3			26.3	
Approach LOS		C			C			D			C	

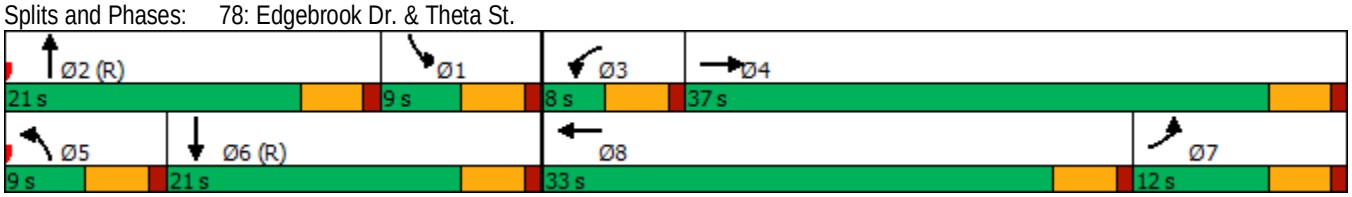
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	20.0	8.0	22.9	7.4	26.8	11.0	19.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	15.5	4.5	17.5	6.5	18.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	10.7	13.6	4.7	13.2	4.3	12.5	8.4	14.9
Green Ext Time (p_c), s	0.0	0.8	0.0	2.4	0.0	2.2	0.0	0.4

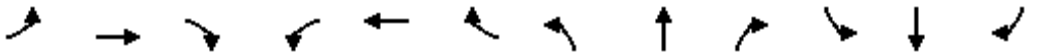
Intersection Summary	
HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	147	1237	47	1030	69	25	75	55
Future Volume (vph)	147	1237	47	1030	69	25	75	55
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	37.0	8.0	33.0	9.0	21.0	9.0	21.0
Total Split (%)	16.0%	49.3%	10.7%	44.0%	12.0%	28.0%	12.0%	28.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	9.3	33.4	3.5	26.0	4.9	19.0	4.5	19.0
Actuated g/C Ratio	0.12	0.45	0.05	0.35	0.07	0.25	0.06	0.25
v/c Ratio	0.78	0.69	0.65	0.72	0.70	0.22	0.82	0.46
Control Delay	61.3	18.7	73.2	23.5	68.7	11.0	88.2	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	18.7	73.2	23.5	68.7	11.0	88.2	11.0
LOS	E	B	E	C	E	B	F	B
Approach Delay		22.9		25.5		35.9		30.2
Approach LOS		C		C		D		C

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 78: Edgebrook Dr. & Theta St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	1237	107	47	1030	61	69	25	66	75	55	170
Future Volume (veh/h)	147	1237	107	47	1030	61	69	25	66	75	55	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	167	1406	122	53	1170	69	78	28	75	85	62	193
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	179	1779	154	66	1521	90	99	97	261	218	113	353
Arrive On Green	0.10	0.38	0.38	0.04	0.31	0.31	0.06	0.22	0.22	0.12	0.29	0.29
Sat Flow, veh/h	1753	4709	409	1753	4853	286	1753	442	1185	1753	394	1226
Grp Volume(v), veh/h	167	1000	528	53	807	432	78	0	103	85	0	255
Grp Sat Flow(s),veh/h/ln	1753	1675	1767	1753	1675	1789	1753	0	1627	1753	0	1620
Q Serve(g_s), s	7.1	19.9	19.9	2.2	16.4	16.4	3.3	0.0	4.0	3.3	0.0	10.0
Cycle Q Clear(g_c), s	7.1	19.9	19.9	2.2	16.4	16.4	3.3	0.0	4.0	3.3	0.0	10.0
Prop In Lane	1.00		0.23	1.00		0.16	1.00		0.73	1.00		0.76
Lane Grp Cap(c), veh/h	179	1266	668	66	1050	561	99	0	358	218	0	466
V/C Ratio(X)	0.93	0.79	0.79	0.80	0.77	0.77	0.78	0.00	0.29	0.39	0.00	0.55
Avail Cap(c_a), veh/h	179	1452	766	82	1273	680	105	0	358	218	0	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.4	20.7	20.7	35.8	23.3	23.3	34.9	0.0	24.4	30.2	0.0	22.6
Incr Delay (d2), s/veh	47.6	2.7	5.0	34.7	2.4	4.4	30.0	0.0	2.0	1.1	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	7.0	7.8	1.5	5.9	6.7	2.2	0.0	1.6	1.4	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.0	23.4	25.6	70.5	25.7	27.7	64.9	0.0	26.4	31.4	0.0	27.2
LnGrp LOS	F	C	C	E	C	C	E	A	C	C	A	C
Approach Vol, veh/h		1695			1292			181			340	
Approach Delay, s/veh		29.8			28.2			43.0			28.2	
Approach LOS		C			C			D			C	

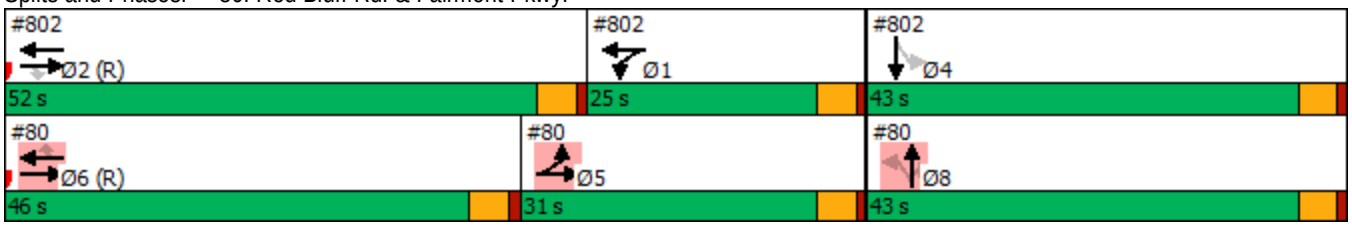
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	21.0	7.3	32.8	8.8	26.1	12.2	28.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	16.5	3.5	32.5	4.5	16.5	7.5	28.5
Max Q Clear Time (g_c+I1), s	5.3	6.0	4.2	21.9	5.3	12.0	9.1	18.4
Green Ext Time (p_c), s	0.0	0.3	0.0	6.5	0.0	0.6	0.0	5.1

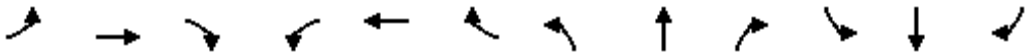
Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR	Ø1	Ø2	Ø4
Lane Configurations										
Traffic Volume (vph)	9	1880	1770	256	169	555	132			
Future Volume (vph)	9	1880	1770	256	169	555	132			
Turn Type	Prot	NA	NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6	6			8		1	2	4
Permitted Phases				6	8		8			
Detector Phase	5	5 6	6	6	8	8	8			
Switch Phase										
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	31.0		46.0	46.0	43.0	43.0	43.0	25.0	52.0	43.0
Total Split (%)	25.8%		38.3%	38.3%	35.8%	35.8%	35.8%	21%	43%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead	Lead				Lag	Lead	
Lead-Lag Optimize?	Yes									
Recall Mode	None		C-Max	C-Max	None	None	None	None	C-Max	None
Act Effct Green (s)	26.2	75.8	45.1	45.1	35.2	35.2	35.2			
Actuated g/C Ratio	0.22	0.63	0.38	0.38	0.29	0.29	0.29			
v/c Ratio	0.03	0.64	0.68	0.41	0.36	0.59	0.27			
Control Delay	30.6	8.2	18.8	7.6	34.9	38.3	12.8			
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	0.0			
Total Delay	30.6	8.8	18.8	7.6	34.9	38.3	12.8			
LOS	C	A	B	A	C	D	B			
Approach Delay		8.9	17.4			33.7				
Approach LOS		A	B			C				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38 (32%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 80: Red Bluff Rd. & Fairmont Pkwy.





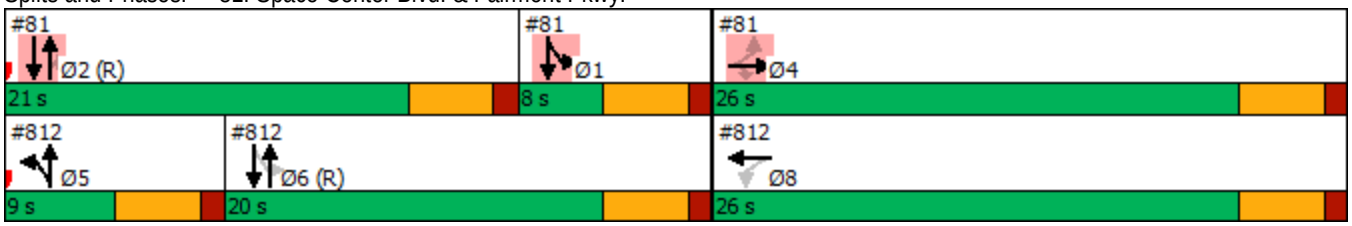
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1880	0	0	1770	256	169	555	132	0	0	0
Future Volume (vph)	9	1880	0	0	1770	256	169	555	132	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.91			0.81	1.00	1.00	0.95	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1736	4988			7399	1553	1736	3471	1553			
Flt Permitted	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1736	4988			7399	1553	1736	3471	1553			
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	10	2022	0	0	1903	275	182	597	142	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	84	0	0	67	0	0	0
Lane Group Flow (vph)	10	2022	0	0	1903	191	182	597	75	0	0	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	5 6			6			8				
Permitted Phases						6	8		8			
Actuated Green, G (s)	26.2	75.8			45.1	45.1	35.2	35.2	35.2			
Effective Green, g (s)	26.2	75.8			45.1	45.1	35.2	35.2	35.2			
Actuated g/C Ratio	0.22	0.63			0.38	0.38	0.29	0.29	0.29			
Clearance Time (s)	4.5				4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	379	3150			2780	583	509	1018	455			
v/s Ratio Prot	0.01	c0.41			c0.26			c0.17				
v/s Ratio Perm						0.12	0.10		0.05			
v/c Ratio	0.03	0.64			0.68	0.33	0.36	0.59	0.16			
Uniform Delay, d1	36.9	13.7			31.5	26.7	33.5	36.2	31.5			
Progression Factor	0.82	0.51			0.58	0.50	1.00	1.00	1.00			
Incremental Delay, d2	0.0	0.4			0.1	0.1	0.4	0.9	0.2			
Delay (s)	30.4	7.4			18.4	13.5	33.9	37.1	31.7			
Level of Service	C	A			B	B	C	D	C			
Approach Delay (s)		7.5			17.8			35.6			0.0	
Approach LOS		A			B			D			A	

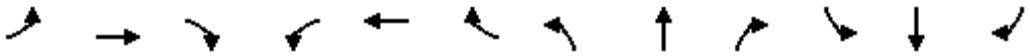
Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations										
Traffic Volume (vph)	303	2048	490	943	461	213	1461			
Future Volume (vph)	303	2048	490	943	461	213	1461			
Turn Type	Perm	NA	Perm	NA	Perm	Prot	NA			
Protected Phases		4		2		1	1 2	5	6	8
Permitted Phases	4		4		2					
Detector Phase	4	4	4	2	2	1	1 2			
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	3.5		3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	8.0		8.0	20.0	20.0
Total Split (s)	26.0	26.0	26.0	21.0	21.0	8.0		9.0	20.0	26.0
Total Split (%)	47.3%	47.3%	47.3%	38.2%	38.2%	14.5%		16%	36%	47%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5				
Lead/Lag				Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?										
Recall Mode	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)	21.5	21.5	21.5	16.5	16.5	3.5	24.5			
Actuated g/C Ratio	0.39	0.39	0.39	0.30	0.30	0.06	0.45			
v/c Ratio	0.47	0.87	0.70	0.66	0.87	1.04	0.98			
Control Delay	15.3	20.7	14.2	19.3	34.3	91.5	30.4			
Queue Delay	0.4	0.0	0.0	0.1	0.0	0.0	40.2			
Total Delay	15.7	20.7	14.2	19.4	34.3	91.5	70.6			
LOS	B	C	B	B	C	F	E			
Approach Delay		19.0		24.2			73.3			
Approach LOS		B		C			E			

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 55	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 35.6	Intersection LOS: D
Intersection Capacity Utilization 80.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 81: Space Center Blvd. & Fairmont Pkwy.





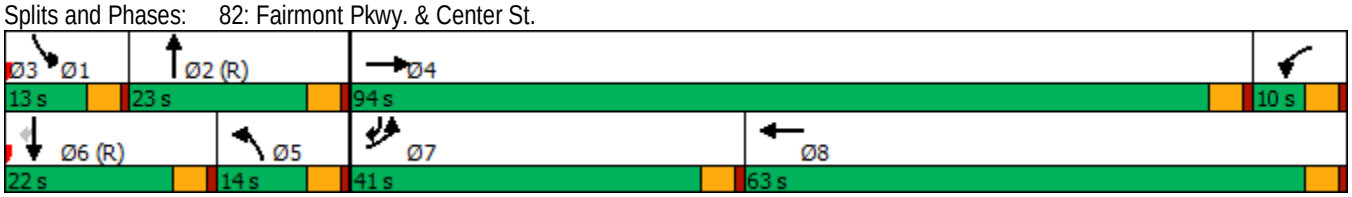
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	303	2048	490	0	0	0	0	943	461	213	1461	0
Future Volume (vph)	303	2048	490	0	0	0	0	943	461	213	1461	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5					4.5	4.5	4.5	4.5	
Lane Util. Factor	1.00	0.86	1.00					0.91	1.00	0.97	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1736	6285	1553					4988	1553	3367	3471	
Flt Permitted	0.95	1.00	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1736	6285	1553					4988	1553	3367	3471	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	316	2133	510	0	0	0	0	982	480	222	1522	0
RTOR Reduction (vph)	0	0	127	0	0	0	0	0	83	0	0	0
Lane Group Flow (vph)	316	2133	383	0	0	0	0	982	397	222	1522	0
Turn Type	Perm	NA	Perm					NA	Perm	Prot	NA	
Protected Phases		4						2		1	1 2	
Permitted Phases	4		4						2			
Actuated Green, G (s)	21.5	21.5	21.5					16.5	16.5	3.5	24.5	
Effective Green, g (s)	21.5	21.5	21.5					16.5	16.5	3.5	24.5	
Actuated g/C Ratio	0.39	0.39	0.39					0.30	0.30	0.06	0.45	
Clearance Time (s)	4.5	4.5	4.5					4.5	4.5	4.5		
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0		
Lane Grp Cap (vph)	678	2456	607					1496	465	214	1546	
v/s Ratio Prot		c0.34						0.20		0.07	c0.44	
v/s Ratio Perm	0.18		0.25						0.26			
v/c Ratio	0.47	0.87	0.63					0.66	0.85	1.04	0.98	
Uniform Delay, d1	12.5	15.4	13.5					16.8	18.1	25.8	15.1	
Progression Factor	1.00	1.00	1.00					1.00	1.00	0.84	0.75	
Incremental Delay, d2	0.5	3.5	2.1					2.3	17.7	62.6	15.9	
Delay (s)	13.0	19.0	15.7					19.0	35.8	84.3	27.2	
Level of Service	B	B	B					B	D	F	C	
Approach Delay (s)		17.8			0.0			24.6			34.5	
Approach LOS		B			A			C			C	

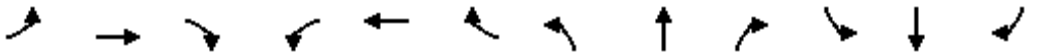
Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	865	1520	17	2090	112	65	93	58	973
Future Volume (vph)	865	1520	17	2090	112	65	93	58	973
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	3	8	5	2	1	6	7
Permitted Phases									6
Detector Phase	7	4	3	8	5	2	1	6	7
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	41.0	94.0	10.0	63.0	14.0	23.0	13.0	22.0	41.0
Total Split (%)	29.3%	67.1%	7.1%	45.0%	10.0%	16.4%	9.3%	15.7%	29.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	36.5	91.7	9.7	58.5	9.5	18.5	8.5	17.5	54.0
Actuated g/C Ratio	0.26	0.66	0.07	0.42	0.07	0.13	0.06	0.12	0.39
v/c Ratio	1.03	0.54	0.15	1.06	1.00	0.17	0.92	0.26	0.92
Control Delay	87.8	14.6	62.0	76.6	147.1	49.9	133.4	58.8	45.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.8	14.6	62.0	76.6	147.1	49.9	133.4	58.8	45.2
LOS	F	B	E	E	F	D	F	E	D
Approach Delay		39.6		76.5		108.9		53.2	
Approach LOS		D		E		F		D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 57.5	Intersection LOS: E
Intersection Capacity Utilization 96.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 82: Fairmont Pkwy. & Center St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	865	1520	147	17	2090	23	112	65	8	93	58	973
Future Volume (veh/h)	865	1520	147	17	2090	23	112	65	8	93	58	973
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	901	1583	153	18	2177	24	117	68	8	97	60	1014
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	887	2066	199	412	2141	24	119	417	48	106	230	1059
Arrive On Green	0.26	0.44	0.44	0.24	0.42	0.42	0.07	0.13	0.13	0.06	0.13	0.13
Sat Flow, veh/h	3401	4660	450	1753	5124	56	1753	3158	365	1753	1841	2745
Grp Volume(v), veh/h	901	1138	598	18	1423	778	117	37	39	97	60	1014
Grp Sat Flow(s),veh/h/ln	1700	1675	1760	1753	1675	1831	1753	1749	1775	1753	1841	1373
Q Serve(g_s), s	36.5	40.1	40.2	1.1	58.5	58.5	9.3	2.6	2.7	7.7	4.1	17.5
Cycle Q Clear(g_c), s	36.5	40.1	40.2	1.1	58.5	58.5	9.3	2.6	2.7	7.7	4.1	17.5
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	887	1485	780	412	1400	765	119	231	235	106	230	1059
V/C Ratio(X)	1.02	0.77	0.77	0.04	1.02	1.02	0.98	0.16	0.17	0.91	0.26	0.96
Avail Cap(c_a), veh/h	887	2142	1125	412	1400	765	119	231	235	106	230	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	51.8	32.8	32.9	41.4	40.7	40.8	65.2	53.9	53.9	65.4	55.4	28.8
Incr Delay (d2), s/veh	34.3	1.0	2.0	0.0	25.4	33.2	77.2	1.5	1.5	47.3	1.9	14.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.7	16.4	17.5	0.5	27.9	32.1	6.7	1.2	1.3	4.8	2.0	16.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.1	33.9	34.8	41.4	66.1	74.0	142.3	55.4	55.4	112.6	57.3	43.7
LnGrp LOS	F	C	C	D	F	F	F	E	E	F	E	D
Approach Vol, veh/h		2637			2219			193			1171	
Approach Delay, s/veh		51.9			68.7			108.1			50.1	
Approach LOS		D			E			F			D	

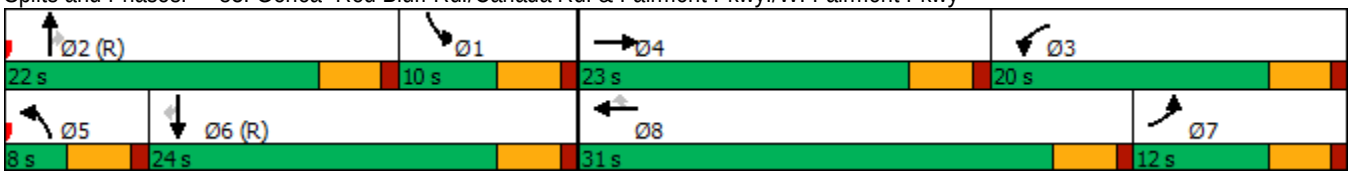
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	23.0	37.4	66.6	14.0	22.0	41.0	63.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	18.5	5.5	89.5	9.5	17.5	36.5	58.5
Max Q Clear Time (g_c+I1), s	9.7	4.7	3.1	42.2	11.3	19.5	38.5	60.5
Green Ext Time (p_c), s	0.0	0.2	0.0	19.9	0.0	0.0	0.0	0.0

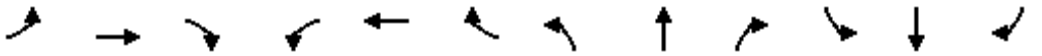
Intersection Summary	
HCM 6th Ctrl Delay	59.3
HCM 6th LOS	E

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	324	933	570	1644	174	53	575	545	119	691	338
Future Volume (vph)	324	933	570	1644	174	53	575	545	119	691	338
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	12.0	23.0	20.0	31.0	31.0	8.0	22.0	22.0	10.0	24.0	24.0
Total Split (%)	16.0%	30.7%	26.7%	41.3%	41.3%	10.7%	29.3%	29.3%	13.3%	32.0%	32.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	7.5	18.3	15.7	26.5	26.5	3.5	17.5	17.5	5.5	21.1	21.1
Actuated g/C Ratio	0.10	0.24	0.21	0.35	0.35	0.05	0.23	0.23	0.07	0.28	0.28
v/c Ratio	0.99	0.81	0.84	0.96	0.26	0.68	0.73	0.88	0.97	0.73	0.55
Control Delay	84.6	32.8	40.9	39.2	2.6	75.4	44.4	39.4	111.7	30.5	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.6	32.8	40.9	39.2	2.6	75.4	44.4	39.4	111.7	30.5	9.8
LOS	F	C	D	D	A	E	D	D	F	C	A
Approach Delay		45.9		36.9			43.5			32.8	
Approach LOS		D		D			D			C	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 39.4	Intersection LOS: D
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 83: Genoa- Red Bluff Rd./Canada Rd. & Fairmont Pkwy./W. Fairmont Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	324	933	19	570	1644	174	53	575	545	119	691	338
Future Volume (veh/h)	324	933	19	570	1644	174	53	575	545	119	691	338
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	334	962	20	588	1695	179	55	593	562	123	712	348
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	340	1166	24	759	1776	551	69	816	364	129	935	417
Arrive On Green	0.10	0.23	0.23	0.22	0.35	0.35	0.04	0.23	0.23	0.07	0.27	0.27
Sat Flow, veh/h	3401	5067	105	3401	5025	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	334	636	346	588	1695	179	55	593	562	123	712	348
Grp Sat Flow(s),veh/h/ln	1700	1675	1822	1700	1675	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	7.4	13.5	13.5	12.2	24.7	6.3	2.3	11.7	17.5	5.2	14.0	11.0
Cycle Q Clear(g_c), s	7.4	13.5	13.5	12.2	24.7	6.3	2.3	11.7	17.5	5.2	14.0	11.0
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	340	771	419	759	1776	551	69	816	364	129	935	417
V/C Ratio(X)	0.98	0.82	0.83	0.77	0.95	0.32	0.80	0.73	1.54	0.96	0.76	0.83
Avail Cap(c_a), veh/h	340	826	449	759	1776	551	82	816	364	129	935	417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.09	0.09	0.09	1.00	1.00	1.00	0.14	0.14	0.14
Uniform Delay (d), s/veh	33.7	27.4	27.4	27.4	23.7	17.7	35.7	26.5	28.7	34.6	25.3	12.7
Incr Delay (d2), s/veh	39.1	5.3	9.4	0.5	1.6	0.0	35.6	5.6	258.1	20.0	0.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	5.7	6.7	4.8	9.3	2.1	1.6	5.1	32.3	2.9	5.6	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.8	32.7	36.8	27.8	25.3	17.7	71.4	32.2	286.9	54.6	26.1	15.6
LnGrp LOS	E	C	D	C	C	B	E	C	F	D	C	B
Approach Vol, veh/h		1316			2462			1210			1183	
Approach Delay, s/veh		44.0			25.4			152.2			26.0	
Approach LOS		D			C			F			C	

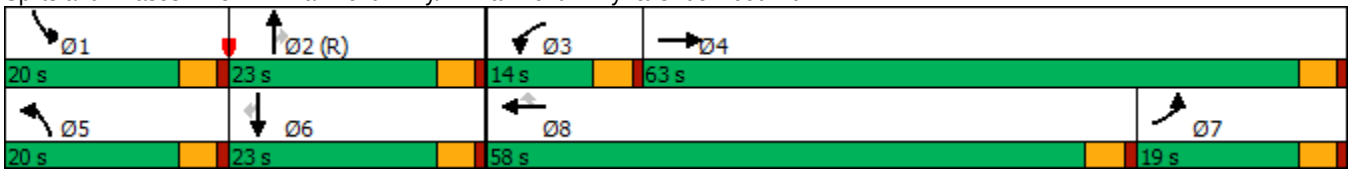
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	22.0	21.2	21.8	7.5	24.5	12.0	31.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	17.5	15.5	18.5	3.5	19.5	7.5	26.5
Max Q Clear Time (g_c+I1), s	7.2	19.5	14.2	15.5	4.3	16.0	9.4	26.7
Green Ext Time (p_c), s	0.0	0.0	0.4	1.7	0.0	1.9	0.0	0.0

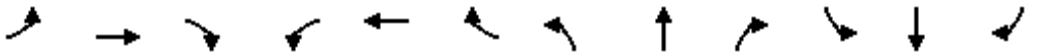
Intersection Summary	
HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	368	1473	52	2099	250	126	94	63	222	42	418
Future Volume (vph)	368	1473	52	2099	250	126	94	63	222	42	418
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	19.0	63.0	14.0	58.0	58.0	20.0	23.0	23.0	20.0	23.0	23.0
Total Split (%)	15.8%	52.5%	11.7%	48.3%	48.3%	16.7%	19.2%	19.2%	16.7%	19.2%	19.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	C-Max	C-Max	Max	Max	Max
Act Effct Green (s)	14.5	61.7	8.4	53.5	53.5	15.5	18.5	18.5	15.5	18.5	18.5
Actuated g/C Ratio	0.12	0.51	0.07	0.45	0.45	0.13	0.15	0.15	0.13	0.15	0.15
v/c Ratio	0.99	0.64	0.47	1.03	0.37	0.61	0.36	0.19	0.56	0.09	1.00
Control Delay	94.0	23.1	70.8	45.8	6.4	62.0	49.7	1.2	54.4	44.1	65.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	94.0	23.1	70.8	45.8	6.4	62.0	49.7	1.2	54.4	44.1	65.1
LOS	F	C	E	D	A	E	D	A	D	D	E
Approach Delay		37.1		42.3			44.4			60.4	
Approach LOS		D		D			D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 42.9	Intersection LOS: D
Intersection Capacity Utilization 88.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 84: W. Fairmont Pkwy/W. Fairmont Pkwy. & Underwood Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	368	1473	23	52	2099	250	126	94	63	222	42	418
Future Volume (veh/h)	368	1473	23	52	2099	250	126	94	63	222	42	418
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	400	1601	25	57	2282	272	137	102	68	241	46	454
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	411	2675	42	73	2240	695	226	284	240	439	539	240
Arrive On Green	0.12	0.52	0.52	0.04	0.45	0.45	0.13	0.15	0.15	0.13	0.15	0.15
Sat Flow, veh/h	3401	5097	80	1753	5025	1560	1753	1841	1560	3401	3497	1560
Grp Volume(v), veh/h	400	1052	574	57	2282	272	137	102	68	241	46	454
Grp Sat Flow(s),veh/h/ln	1700	1675	1826	1753	1675	1560	1753	1841	1560	1700	1749	1560
Q Serve(g_s), s	14.1	26.1	26.1	3.9	53.5	8.9	8.9	6.0	4.6	8.0	1.4	14.2
Cycle Q Clear(g_c), s	14.1	26.1	26.1	3.9	53.5	8.9	8.9	6.0	4.6	8.0	1.4	14.2
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	411	1759	959	73	2240	695	226	284	240	439	539	240
V/C Ratio(X)	0.97	0.60	0.60	0.78	1.02	0.39	0.61	0.36	0.28	0.55	0.09	1.89
Avail Cap(c_a), veh/h	411	1759	959	139	2240	695	226	284	240	439	539	240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.42	0.42	0.42	0.27	0.27	0.27	1.00	1.00	1.00	0.52	0.52	0.52
Uniform Delay (d), s/veh	52.6	19.7	19.7	56.9	33.3	8.9	49.4	45.4	44.9	49.0	43.5	30.0
Incr Delay (d2), s/veh	22.4	0.2	0.4	4.8	15.0	0.1	11.4	3.5	2.9	2.6	0.2	407.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	10.0	11.0	1.8	24.1	2.9	4.5	2.9	2.0	3.5	0.6	32.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.0	20.0	20.2	61.8	48.2	9.0	60.8	49.0	47.8	51.5	43.7	437.6
LnGrp LOS	E	B	C	E	F	A	E	D	D	D	D	F
Approach Vol, veh/h		2026			2611			307			741	
Approach Delay, s/veh		30.9			44.4			54.0			287.6	
Approach LOS		C			D			D			F	

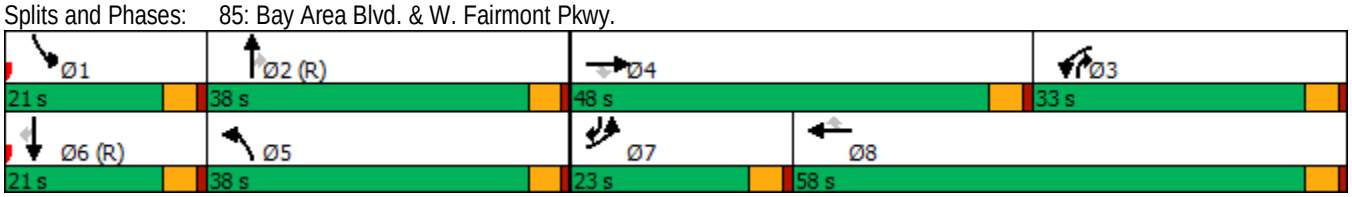
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	23.0	9.5	67.5	20.0	23.0	19.0	58.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	18.5	9.5	58.5	15.5	18.5	14.5	53.5
Max Q Clear Time (g_c+I1), s	10.0	8.0	5.9	28.1	10.9	16.2	16.1	55.5
Green Ext Time (p_c), s	0.4	0.4	0.0	14.8	0.1	0.5	0.0	0.0

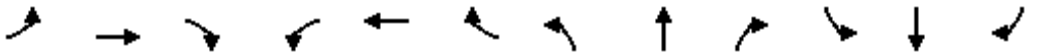
Intersection Summary	
HCM 6th Ctrl Delay	71.8
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	198	1477	249	169	1649	258	399	881	669	180	331	254
Future Volume (vph)	198	1477	249	169	1649	258	399	881	669	180	331	254
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	23.0	48.0	48.0	33.0	58.0	58.0	38.0	38.0	33.0	21.0	21.0	23.0
Total Split (%)	16.4%	34.3%	34.3%	23.6%	41.4%	41.4%	27.1%	27.1%	23.6%	15.0%	15.0%	16.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	18.5	43.5	43.5	28.5	53.5	53.5	33.5	33.5	62.0	16.5	16.5	35.0
Actuated g/C Ratio	0.13	0.31	0.31	0.20	0.38	0.38	0.24	0.24	0.44	0.12	0.12	0.25
v/c Ratio	0.96	1.06	0.49	0.53	0.96	0.44	1.07	0.82	1.01	0.98	0.90	0.63
Control Delay	109.9	86.4	24.2	56.2	55.5	22.3	113.2	57.1	61.2	118.6	86.6	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	109.9	86.4	24.2	56.2	55.5	22.3	113.2	57.1	61.2	118.6	86.6	25.1
LOS	F	F	C	E	E	C	F	E	E	F	F	C
Approach Delay		80.8			51.4			70.0			73.7	
Approach LOS		F			D			E			E	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 67.8	Intersection LOS: E
Intersection Capacity Utilization 94.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 85: Bay Area Blvd. & W. Fairmont Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	1477	249	169	1649	258	399	881	669	180	331	254
Future Volume (veh/h)	198	1477	249	169	1649	258	399	881	669	180	331	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	220	1641	0	188	1832	287	443	979	743	200	368	282
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	232	1561		355	1915	594	421	1208	691	207	412	390
Arrive On Green	0.13	0.31	0.00	0.20	0.38	0.38	0.24	0.24	0.24	0.12	0.12	0.12
Sat Flow, veh/h	1753	5025	1560	1753	5025	1560	1753	5025	1560	1753	3497	1560
Grp Volume(v), veh/h	220	1641	0	188	1832	287	443	979	743	200	368	282
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1560	1753	1675	1560	1753	1749	1560
Q Serve(g_s), s	17.4	43.5	0.0	13.4	49.7	19.5	33.7	25.7	26.5	15.9	14.5	12.8
Cycle Q Clear(g_c), s	17.4	43.5	0.0	13.4	49.7	19.5	33.7	25.7	26.5	15.9	14.5	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	232	1561		355	1915	594	421	1208	691	207	412	390
V/C Ratio(X)	0.95	1.05		0.53	0.96	0.48	1.05	0.81	1.08	0.97	0.89	0.72
Avail Cap(c_a), veh/h	232	1561		357	1920	596	421	1208	691	207	412	390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.00	0.66	0.66	0.66	1.00	1.00	1.00	0.73	0.73	0.73
Uniform Delay (d), s/veh	60.3	48.3	0.0	49.9	42.2	32.9	53.2	50.2	20.9	61.5	60.9	20.9
Incr Delay (d2), s/veh	40.0	35.5	0.0	1.0	8.8	0.4	57.9	6.0	56.4	44.6	19.0	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	23.2	0.0	6.0	21.9	7.5	21.3	11.3	18.7	9.6	7.6	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.3	83.8	0.0	50.8	51.0	33.3	111.1	56.1	77.3	106.1	79.9	29.2
LnGrp LOS	F	F		D	D	C	F	E	F	F	E	C
Approach Vol, veh/h		1861	A		2307			2165			850	
Approach Delay, s/veh		85.7			48.8			74.6			69.2	
Approach LOS		F			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	38.2	32.8	48.0	38.2	21.0	23.0	57.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	33.5	28.5	43.5	33.5	16.5	18.5	53.5
Max Q Clear Time (g_c+I1), s	17.9	28.5	15.4	45.5	35.7	16.5	19.4	51.7
Green Ext Time (p_c), s	0.0	3.6	0.4	0.0	0.0	0.0	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	68.6
HCM 6th LOS	E

Notes

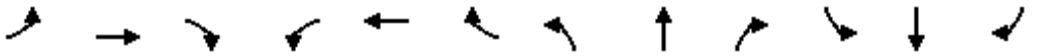
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	51	1558	19	2353	8	25	0	3	0	67
Future Volume (vph)	51	1558	19	2353	8	25	0	3	0	67
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Prot
Protected Phases	7	4	3	8			2		6	6
Permitted Phases					8	2		6		
Detector Phase	7	4	3	8	8	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	9.0	90.0	10.0	91.0	91.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	7.5%	75.0%	8.3%	75.8%	75.8%	16.7%	16.7%	16.7%	16.7%	16.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5		4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	4.5	91.5	5.9	86.5	86.5		15.5		15.5	15.5
Actuated g/C Ratio	0.04	0.76	0.05	0.72	0.72		0.13		0.13	0.13
v/c Ratio	0.88	0.67	0.25	1.04	0.01		0.16		0.02	0.26
Control Delay	148.3	7.1	53.4	40.1	0.0		49.0		46.0	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0
Total Delay	148.3	7.1	53.4	40.1	0.0		49.0		46.0	7.7
LOS	F	A	D	D	A		D		D	A
Approach Delay		11.5		40.1			49.0		9.2	
Approach LOS		B		D			D		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 52 (43%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 28.2	Intersection LOS: C
Intersection Capacity Utilization 91.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 86: Fairmont Pkwy. & Cunningham Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1558	37	19	2353	8	25	0	0	3	0	67
Future Volume (veh/h)	51	1558	37	19	2353	8	25	0	0	3	0	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	57	1731	41	21	2614	0	28	0	0	3	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	66	2046	48	302	2521		241	0	0	246	0	
Arrive On Green	0.04	0.59	0.59	0.34	1.00	0.00	0.13	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1753	3492	82	1753	3497	1560	1399	0	0	1443	0	1560
Grp Volume(v), veh/h	57	864	908	21	2614	0	28	0	0	3	0	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1826	1753	1749	1560	1399	0	0	1443	0	1560
Q Serve(g_s), s	3.9	48.6	49.1	1.0	86.5	0.0	1.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.9	48.6	49.1	1.0	86.5	0.0	2.1	0.0	0.0	0.2	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	1025	1070	302	2521		241	0	0	246	0	
V/C Ratio(X)	0.87	0.84	0.85	0.07	1.04		0.12	0.00	0.00	0.01	0.00	
Avail Cap(c_a), veh/h	66	1246	1301	302	2521		241	0	0	246	0	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.24	0.24	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	57.5	20.3	20.5	32.8	0.0	0.0	46.4	0.0	0.0	45.6	0.0	0.0
Incr Delay (d2), s/veh	66.8	4.6	4.6	0.0	20.5	0.0	1.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	20.0	21.1	0.4	7.2	0.0	0.8	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	124.2	25.0	25.1	32.9	20.5	0.0	47.4	0.0	0.0	45.7	0.0	0.0
LnGrp LOS	F	C	C	C	F		D	A	A	D	A	
Approach Vol, veh/h		1829			2635	A		28			3	A
Approach Delay, s/veh		28.1			20.6			47.4			45.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.0	25.2	74.8		20.0	9.0	91.0				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		15.5	5.5	85.5		15.5	4.5	86.5				
Max Q Clear Time (g_c+I1), s		4.1	3.0	51.1		2.2	5.9	88.5				
Green Ext Time (p_c), s		0.0	0.0	19.2		0.0	0.0	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

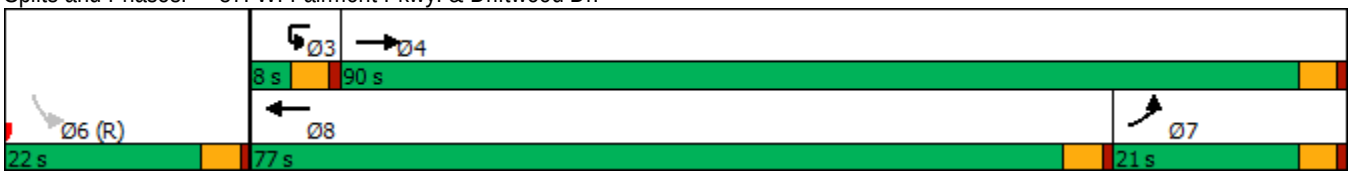
Notes

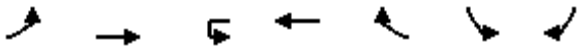
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	SBL	Ø3
Lane Configurations					
Traffic Volume (vph)	179	1389	1632	128	
Future Volume (vph)	179	1389	1632	128	
Turn Type	Prot	NA	NA	Perm	
Protected Phases	7	4	8		3
Permitted Phases				6	
Detector Phase	7	4	8	6	
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	3.5
Minimum Split (s)	8.0	20.0	20.0	20.0	8.0
Total Split (s)	21.0	90.0	77.0	22.0	8.0
Total Split (%)	17.5%	75.0%	64.2%	18.3%	7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	
Lead/Lag	Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes
Recall Mode	None	None	None	C-Max	None
Act Effct Green (s)	15.8	92.6	72.3	18.4	
Actuated g/C Ratio	0.13	0.77	0.60	0.15	
v/c Ratio	0.84	0.56	0.92	0.45	
Control Delay	63.9	5.2	30.1	26.1	
Queue Delay	0.0	0.0	0.0	0.0	
Total Delay	63.9	5.2	30.1	26.1	
LOS	E	A	C	C	
Approach Delay		11.9	30.1	26.1	
Approach LOS		B	C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 44 (37%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 82.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 87: W. Fairmont Pkwy. & Driftwood Dr.





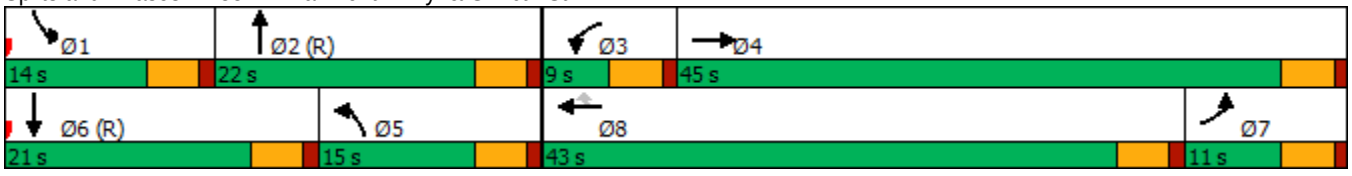
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	179	1389	0	1632	145	128	123
Future Volume (vph)	179	1389	0	1632	145	128	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5		4.5		4.5	
Lane Util. Factor	1.00	0.95		0.95		0.97	
Frt	1.00	1.00		0.99		0.93	
Flt Protected	0.95	1.00		1.00		0.98	
Satd. Flow (prot)	1736	3471		3429		3202	
Flt Permitted	0.95	1.00		1.00		0.98	
Satd. Flow (perm)	1736	3471		3429		3202	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	192	1494	0	1755	156	138	132
RTOR Reduction (vph)	0	0	0	6	0	112	0
Lane Group Flow (vph)	192	1494	0	1905	0	158	0
Turn Type	Prot	NA	Prot	NA		Perm	
Protected Phases	7	4	3	8			
Permitted Phases						6	
Actuated Green, G (s)	15.8	92.6		72.3		18.4	
Effective Green, g (s)	15.8	92.6		72.3		18.4	
Actuated g/C Ratio	0.13	0.77		0.60		0.15	
Clearance Time (s)	4.5	4.5		4.5		4.5	
Vehicle Extension (s)	3.0	3.0		3.0		3.0	
Lane Grp Cap (vph)	228	2678		2065		490	
v/s Ratio Prot	c0.11	0.43		c0.56			
v/s Ratio Perm						c0.05	
v/c Ratio	0.84	0.56		0.92		0.32	
Uniform Delay, d1	50.9	5.5		21.3		45.3	
Progression Factor	0.74	0.83		1.00		1.00	
Incremental Delay, d2	19.5	0.2		7.5		1.7	
Delay (s)	57.4	4.8		28.8		47.0	
Level of Service	E	A		C		D	
Approach Delay (s)		10.8		28.8		47.0	
Approach LOS		B		C		D	

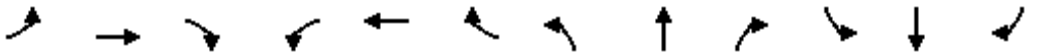
Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	43	1789	66	1409	60	159	29	74	19
Future Volume (vph)	43	1789	66	1409	60	159	29	74	19
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	45.0	9.0	43.0	43.0	15.0	22.0	14.0	21.0
Total Split (%)	12.2%	50.0%	10.0%	47.8%	47.8%	16.7%	24.4%	15.6%	23.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.4	40.5	4.5	42.9	42.9	10.5	20.6	8.5	16.5
Actuated g/C Ratio	0.07	0.45	0.05	0.48	0.48	0.12	0.23	0.09	0.18
v/c Ratio	0.40	0.95	0.87	0.67	0.08	0.90	0.15	0.51	0.18
Control Delay	50.0	35.2	112.4	20.9	0.2	82.6	12.1	49.7	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.0	35.2	112.4	20.9	0.2	82.6	12.1	49.7	10.8
LOS	D	D	F	C	A	F	B	D	B
Approach Delay		35.6		24.0			55.5		27.3
Approach LOS		D		C			E		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 31.9	Intersection LOS: C
Intersection Capacity Utilization 68.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 88: W. Fairmont Pkwy. & S. 16th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	1789	84	66	1409	60	159	29	70	74	19	81
Future Volume (veh/h)	43	1789	84	66	1409	60	159	29	70	74	19	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	49	2033	95	75	1601	68	181	33	80	84	22	92
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	181	2198	102	88	1976	613	210	423	377	108	321	286
Arrive On Green	0.10	0.45	0.45	0.05	0.39	0.39	0.12	0.24	0.24	0.06	0.18	0.18
Sat Flow, veh/h	1753	4920	229	1753	5025	1560	1753	1749	1560	1753	1749	1560
Grp Volume(v), veh/h	49	1382	746	75	1601	68	181	33	80	84	22	92
Grp Sat Flow(s),veh/h/ln	1753	1675	1799	1753	1675	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	2.3	35.0	35.3	3.8	25.5	1.8	9.1	1.3	3.7	4.3	0.9	4.6
Cycle Q Clear(g_c), s	2.3	35.0	35.3	3.8	25.5	1.8	9.1	1.3	3.7	4.3	0.9	4.6
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	1497	804	88	1976	613	210	423	377	108	321	286
V/C Ratio(X)	0.27	0.92	0.93	0.86	0.81	0.11	0.86	0.08	0.21	0.78	0.07	0.32
Avail Cap(c_a), veh/h	181	1508	810	88	2150	667	210	423	377	185	321	286
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	23.4	23.5	42.4	24.3	9.3	38.9	26.4	27.3	41.6	30.4	31.9
Incr Delay (d2), s/veh	0.1	1.1	2.1	52.2	2.3	0.1	28.5	0.4	1.3	11.5	0.4	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	13.1	14.4	2.9	10.1	0.9	5.5	0.6	1.5	2.2	0.4	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	24.5	25.7	94.6	26.6	9.4	67.4	26.7	28.5	53.2	30.8	34.8
LnGrp LOS	D	C	C	F	C	A	E	C	C	D	C	C
Approach Vol, veh/h		2177			1744			294			198	
Approach Delay, s/veh		25.2			28.8			52.2			42.2	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	26.3	9.0	44.7	15.3	21.0	13.8	39.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	17.5	4.5	40.5	10.5	16.5	6.5	38.5
Max Q Clear Time (g_c+I1), s	6.3	5.7	5.8	37.3	11.1	6.6	4.3	27.5
Green Ext Time (p_c), s	0.0	0.4	0.0	3.0	0.0	0.4	0.0	7.9

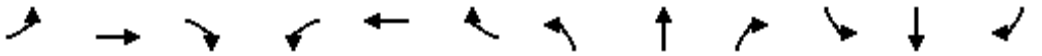
Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	160	1143	5	37	1712	3	1	33	18	210
Future Volume (vph)	160	1143	5	37	1712	3	1	33	18	210
Turn Type	Prot	NA	Prot	Prot	NA	Perm	NA	Prot	NA	Prot
Protected Phases	7	4	4	3	8		2	1	6	6
Permitted Phases						2				
Detector Phase	7	4	4	3	8	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	18.0	80.0	80.0	11.0	73.0	21.0	21.0	8.0	29.0	29.0
Total Split (%)	15.0%	66.7%	66.7%	9.2%	60.8%	17.5%	17.5%	6.7%	24.2%	24.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.5	77.7	77.7	6.3	68.5		18.1	3.5	24.5	24.5
Actuated g/C Ratio	0.11	0.65	0.65	0.05	0.57		0.15	0.03	0.20	0.20
v/c Ratio	0.90	0.55	0.00	0.44	0.99		0.04	0.72	0.05	0.48
Control Delay	71.5	8.3	0.0	70.3	43.4		30.7	86.4	28.3	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	71.5	8.3	0.0	70.3	43.4		30.7	86.4	28.3	16.8
LOS	E	A	A	E	D		C	F	C	B
Approach Delay		16.0			44.0		30.7		26.4	
Approach LOS		B			D		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 43 (36%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 31.9	Intersection LOS: C
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 89: Fairmont Pkwy. & Luella Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	1143	5	37	1712	79	3	1	6	33	18	210
Future Volume (veh/h)	160	1143	5	37	1712	79	3	1	6	33	18	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	174	1242	5	40	1861	86	3	1	7	36	20	228
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	2280	1017	51	1936	89	76	37	131	56	380	322
Arrive On Green	0.22	1.00	1.00	0.03	0.57	0.57	0.14	0.14	0.14	0.03	0.21	0.21
Sat Flow, veh/h	1753	3497	1560	1753	3405	156	272	271	950	1753	1841	1560
Grp Volume(v), veh/h	174	1242	5	40	949	998	11	0	0	36	20	228
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1813	1492	0	0	1753	1841	1560
Q Serve(g_s), s	11.5	0.0	0.0	2.7	61.4	63.5	0.0	0.0	0.0	2.4	1.0	16.3
Cycle Q Clear(g_c), s	11.5	0.0	0.0	2.7	61.4	63.5	0.7	0.0	0.0	2.4	1.0	16.3
Prop In Lane	1.00		1.00	1.00		0.09	0.27		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	197	2280	1017	51	994	1030	243	0	0	56	380	322
V/C Ratio(X)	0.88	0.54	0.00	0.79	0.95	0.97	0.05	0.00	0.00	0.65	0.05	0.71
Avail Cap(c_a), veh/h	197	2280	1017	95	998	1035	243	0	0	56	380	322
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	0.34	0.34	0.34	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	0.0	0.0	57.9	24.4	24.9	44.9	0.0	0.0	57.4	38.2	44.2
Incr Delay (d2), s/veh	26.1	0.2	0.0	8.8	8.4	10.1	0.3	0.0	0.0	23.4	0.3	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.1	0.0	1.3	26.1	28.4	0.3	0.0	0.0	1.4	0.5	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.8	0.2	0.0	66.7	32.8	35.0	45.3	0.0	0.0	80.8	38.4	56.6
LnGrp LOS	E	A	A	E	C	D	D	A	A	F	D	E
Approach Vol, veh/h		1421			1987			11			284	
Approach Delay, s/veh		9.0			34.6			45.3			58.4	
Approach LOS		A			C			D			E	

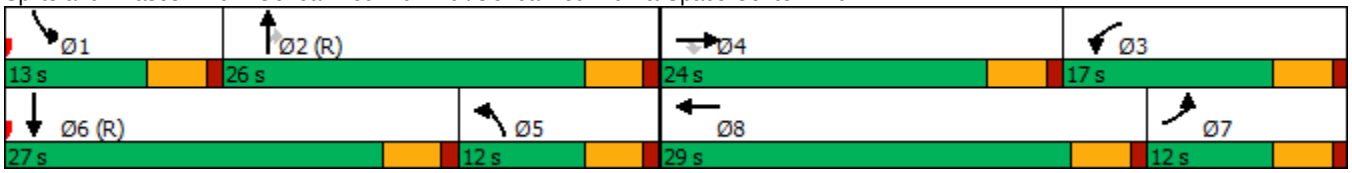
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	8.3	21.0	8.0	82.7		29.3	18.0	72.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	3.5	16.5	6.5	75.5		24.5	13.5	68.5				
Max Q Clear Time (g_c+I1), s	4.4	2.7	4.7	2.0		18.3	13.5	65.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	13.9		0.4	0.0	2.7				

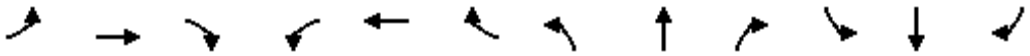
Intersection Summary			
HCM 6th Ctrl Delay		26.6	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	133	987	430	410	1408	260	858	325	122	1105
Future Volume (vph)	133	987	430	410	1408	260	858	325	122	1105
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	12.0	24.0	24.0	17.0	29.0	12.0	26.0	26.0	13.0	27.0
Total Split (%)	15.0%	30.0%	30.0%	21.3%	36.3%	15.0%	32.5%	32.5%	16.3%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	7.5	19.5	19.5	12.5	24.5	7.5	21.8	21.8	8.2	22.5
Actuated g/C Ratio	0.09	0.24	0.24	0.16	0.31	0.09	0.27	0.27	0.10	0.28
v/c Ratio	0.86	0.85	0.77	0.81	1.01	0.86	0.66	0.53	0.71	0.91
Control Delay	80.0	36.8	21.9	46.5	53.3	62.8	28.7	8.1	57.9	39.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.0	36.8	21.9	46.5	53.3	62.8	28.7	8.1	57.9	39.0
LOS	F	D	C	D	D	E	C	A	E	D
Approach Delay		36.4			51.8		30.2			40.7
Approach LOS		D			D		C			D

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 40.5	Intersection LOS: D
Intersection Capacity Utilization 87.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 91: Genoa- Red Bluff Rd./Genoa Red Bluff & Space Center Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	987	430	410	1408	62	260	858	325	122	1105	124
Future Volume (veh/h)	133	987	430	410	1408	62	260	858	325	122	1105	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	139	1028	448	427	1467	65	271	894	339	127	1151	129
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	164	1225	380	531	1511	67	319	1429	444	159	1289	144
Arrive On Green	0.09	0.24	0.24	0.16	0.31	0.31	0.09	0.28	0.28	0.09	0.28	0.28
Sat Flow, veh/h	1753	5025	1560	3401	4933	219	3401	5025	1560	1753	4585	514
Grp Volume(v), veh/h	139	1028	448	427	996	536	271	894	339	127	841	439
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1700	1675	1801	1700	1675	1560	1753	1675	1748
Q Serve(g_s), s	6.2	15.6	19.5	9.7	23.5	23.5	6.3	12.4	9.9	5.7	19.3	19.3
Cycle Q Clear(g_c), s	6.2	15.6	19.5	9.7	23.5	23.5	6.3	12.4	9.9	5.7	19.3	19.3
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		0.29
Lane Grp Cap(c), veh/h	164	1225	380	531	1026	552	319	1429	444	159	942	492
V/C Ratio(X)	0.85	0.84	1.18	0.80	0.97	0.97	0.85	0.63	0.76	0.80	0.89	0.89
Avail Cap(c_a), veh/h	164	1225	380	531	1026	552	319	1429	444	186	942	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	35.7	28.8	30.3	32.6	27.4	27.4	35.7	24.9	10.2	35.7	27.6	27.6
Incr Delay (d2), s/veh	31.4	5.3	104.3	7.3	18.8	27.5	19.1	2.1	11.8	16.3	11.0	18.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	6.6	18.0	4.4	11.6	13.8	3.4	5.0	4.5	3.1	8.8	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	34.1	134.5	39.8	46.2	54.9	54.8	27.0	22.0	52.0	38.6	46.3
LnGrp LOS	E	C	F	D	D	D	D	C	C	D	D	D
Approach Vol, veh/h		1615			1959			1504			1407	
Approach Delay, s/veh		64.8			47.2			30.9			42.2	
Approach LOS		E			D			C			D	

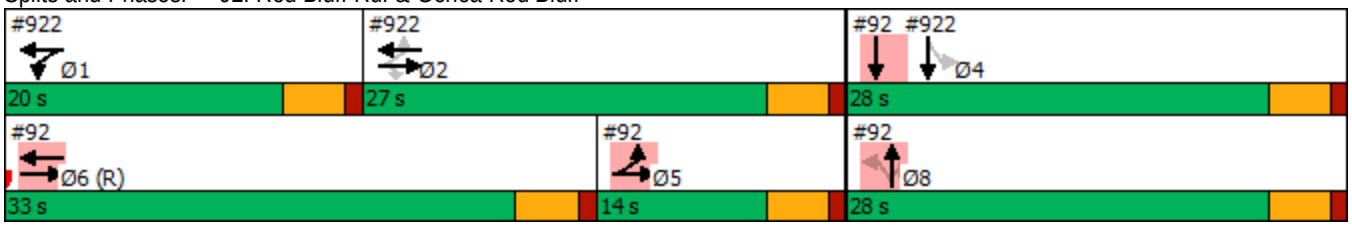
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	27.3	17.0	24.0	12.0	27.0	12.0	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	21.5	12.5	19.5	7.5	22.5	7.5	24.5
Max Q Clear Time (g_c+I1), s	7.7	14.4	11.7	21.5	8.3	21.3	8.2	25.5
Green Ext Time (p_c), s	0.0	4.0	0.2	0.0	0.0	0.9	0.0	0.0

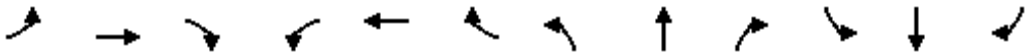
Intersection Summary	
HCM 6th Ctrl Delay	46.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBT	Ø1	Ø2
Lane Configurations									
Traffic Volume (vph)	157	931	1314	806	913	295	3		
Future Volume (vph)	157	931	1314	806	913	295	3		
Turn Type	Prot	NA	NA	Perm	NA	Perm	NA		
Protected Phases	5	5 6	6		8		4	1	2
Permitted Phases				8		8			
Detector Phase	5	5 6	6	8	8	8	4		
Switch Phase									
Minimum Initial (s)	3.5		5.0	5.0	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0		20.0	20.0	20.0	20.0	20.0	8.0	20.0
Total Split (s)	14.0		33.0	28.0	28.0	28.0	28.0	20.0	27.0
Total Split (%)	18.7%		44.0%	37.3%	37.3%	37.3%	37.3%	27%	36%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5			
Lead/Lag	Lag		Lead					Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None		C-Max	None	None	None	None	None	None
Act Effct Green (s)	9.5	42.5	28.5	23.5	23.5	23.5	0.0		
Actuated g/C Ratio	0.13	0.57	0.38	0.31	0.31	0.31	0.00		
v/c Ratio	0.75	0.35	0.76	1.01	0.62	0.53	no cap		
Control Delay	36.1	4.3	14.8	61.7	24.0	14.1			
Queue Delay	0.0	0.2	0.4	18.8	0.0	0.0			
Total Delay	36.1	4.5	15.2	80.5	24.0	14.1	Error		
LOS	D	A	B	F	C	B	F		
Approach Delay		9.1	15.2		45.1		Err		
Approach LOS		A	B		D		F		

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 92: Red Bluff Rd. & Genoa Red Bluff





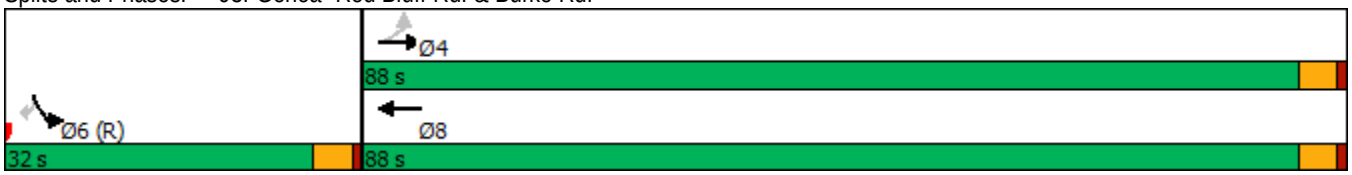
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	931	0	0	1314	46	806	913	295	0	3	0
Future Volume (vph)	157	931	0	0	1314	46	806	913	295	0	3	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5			4.5		4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.91			0.91		0.97	0.91	1.00		1.00	
Frt	1.00	1.00			0.99		1.00	1.00	0.85		1.00	
Flt Protected	0.95	1.00			1.00		0.95	1.00	1.00		1.00	
Satd. Flow (prot)	1736	4988			4962		3367	4988	1553		0	
Flt Permitted	0.95	1.00			1.00		0.76	1.00	1.00		1.00	
Satd. Flow (perm)	1736	4988			4962		2679	4988	1553		0	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	165	980	0	0	1383	48	848	961	311	0	3	0
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	105	0	0	0
Lane Group Flow (vph)	165	980	0	0	1426	0	848	961	206	0	3	0
Turn Type	Prot	NA			NA		Perm	NA	Perm		NA	
Protected Phases	5	5 6			6			8			4	
Permitted Phases							8		8			
Actuated Green, G (s)	9.5	42.5			28.5		23.5	23.5	23.5		23.5	
Effective Green, g (s)	9.5	42.5			28.5		23.5	23.5	23.5		23.5	
Actuated g/C Ratio	0.13	0.57			0.38		0.31	0.31	0.31		0.31	
Clearance Time (s)	4.5				4.5		4.5	4.5	4.5		4.5	
Vehicle Extension (s)	3.0				3.0		3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	219	2826			1885		839	1562	486		0	
v/s Ratio Prot	c0.10	0.20			c0.29			0.19				
v/s Ratio Perm							c0.32		0.13			
v/c Ratio	0.75	0.35			0.76		1.01	0.62	0.42		no cap	
Uniform Delay, d1	31.6	8.8			20.2		25.8	21.9	20.4		Error	
Progression Factor	0.46	0.45			0.63		1.00	1.00	1.00			
Incremental Delay, d2	11.6	0.1			2.0		33.7	0.7	0.6		Error	
Delay (s)	26.3	4.0			14.7		59.5	22.6	21.0		Error	
Level of Service	C	A			B		E	C	C		F	
Approach Delay (s)		7.2			14.7			37.1			Error	
Approach LOS		A			B			D			F	

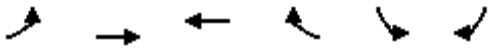
Intersection Summary			
HCM 2000 Control Delay	Error	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	316	531	470	356	282
Future Volume (vph)	316	531	470	356	282
Turn Type	Perm	NA	NA	Prot	Perm
Protected Phases		4	8	6	
Permitted Phases	4				6
Detector Phase	4	4	8	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	88.0	88.0	88.0	32.0	32.0
Total Split (%)	73.3%	73.3%	73.3%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	83.5	83.5	83.5	27.5	27.5
Actuated g/C Ratio	0.70	0.70	0.70	0.23	0.23
v/c Ratio	1.17	0.26	0.42	1.07	0.55
Control Delay	126.6	6.8	5.0	108.8	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	126.6	6.8	5.0	108.8	7.7
LOS	F	A	A	F	A
Approach Delay		51.5	5.0	64.1	
Approach LOS		D	A	E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 61 (51%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay: 38.3	Intersection LOS: D
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 93: Genoa- Red Bluff Rd. & Burke Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	316	531	470	361	356	282
Future Volume (veh/h)	316	531	470	361	356	282
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	376	632	560	430	424	336
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	377	2434	1310	1006	402	357
Arrive On Green	0.70	0.70	0.70	0.70	0.23	0.23
Sat Flow, veh/h	560	3589	1975	1446	1753	1560
Grp Volume(v), veh/h	376	632	520	470	424	336
Grp Sat Flow(s),veh/h/ln	560	1749	1749	1580	1753	1560
Q Serve(g_s), s	68.1	8.1	15.4	15.4	27.5	25.4
Cycle Q Clear(g_c), s	83.5	8.1	15.4	15.4	27.5	25.4
Prop In Lane	1.00			0.91	1.00	1.00
Lane Grp Cap(c), veh/h	377	2434	1217	1100	402	357
V/C Ratio(X)	1.00	0.26	0.43	0.43	1.06	0.94
Avail Cap(c_a), veh/h	377	2434	1217	1100	402	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.47	0.47
Uniform Delay (d), s/veh	31.3	6.8	7.9	7.9	46.3	45.4
Incr Delay (d2), s/veh	45.3	0.1	0.2	0.3	46.5	20.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	2.8	5.4	4.9	17.1	11.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	76.6	6.8	8.1	8.2	92.7	66.3
LnGrp LOS	E	A	A	A	F	E
Approach Vol, veh/h		1008	990		760	
Approach Delay, s/veh		32.8	8.2		81.0	
Approach LOS		C	A		F	

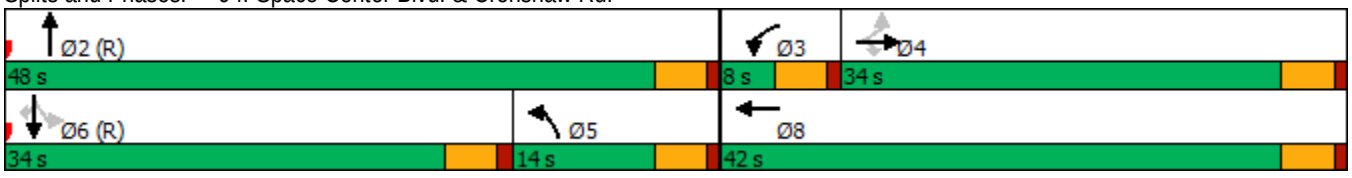
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			88.0		32.0	88.0
Change Period (Y+Rc), s			4.5		4.5	4.5
Max Green Setting (Gmax), s			83.5		27.5	83.5
Max Q Clear Time (g_c+I1), s			85.5		29.5	17.4
Green Ext Time (p_c), s			0.0		0.0	8.9

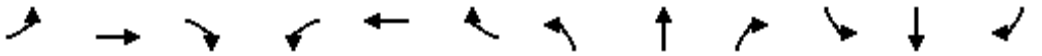
Intersection Summary		
HCM 6th Ctrl Delay	37.3	
HCM 6th LOS	D	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	424	161	218	10	169	212	720	132	795	424
Future Volume (vph)	424	161	218	10	169	212	720	132	795	424
Turn Type	Perm	NA	Perm	Prot	NA	Prot	NA	Perm	NA	Perm
Protected Phases		4		3	8	5	2		6	
Permitted Phases	4		4					6		6
Detector Phase	4	4	4	3	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	20.0	20.0
Total Split (s)	34.0	34.0	34.0	8.0	42.0	14.0	48.0	34.0	34.0	34.0
Total Split (%)	37.8%	37.8%	37.8%	8.9%	46.7%	15.6%	53.3%	37.8%	37.8%	37.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead		Lag		Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	25.7	25.7	25.7	3.5	27.3	9.5	53.7	39.7	39.7	39.7
Actuated g/C Ratio	0.29	0.29	0.29	0.04	0.30	0.11	0.60	0.44	0.44	0.44
v/c Ratio	0.77	0.32	0.38	0.16	0.27	1.22	0.38	0.61	0.55	0.48
Control Delay	38.3	26.0	5.1	47.5	13.7	174.6	11.3	37.5	21.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	26.0	5.1	47.5	13.7	174.6	11.3	37.5	21.8	4.1
LOS	D	C	A	D	B	F	B	D	C	A
Approach Delay		26.8			15.0		47.5		17.8	
Approach LOS		C			B		D		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 28.1	Intersection LOS: C
Intersection Capacity Utilization 73.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 94: Space Center Blvd. & Crenshaw Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	424	161	218	10	169	103	212	720	23	132	795	424
Future Volume (veh/h)	424	161	218	10	169	103	212	720	23	132	795	424
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	446	169	229	11	178	108	223	758	24	139	837	446
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	695	483	409	16	687	396	352	2001	63	222	1146	511
Arrive On Green	0.26	0.26	0.26	0.01	0.32	0.32	0.20	0.58	0.58	0.33	0.33	0.33
Sat Flow, veh/h	2087	1841	1560	1753	2136	1232	1753	3460	110	680	3497	1560
Grp Volume(v), veh/h	446	169	229	11	144	142	223	383	399	139	837	446
Grp Sat Flow(s),veh/h/ln	1044	1841	1560	1753	1749	1619	1753	1749	1821	680	1749	1560
Q Serve(g_s), s	18.2	6.7	6.8	0.6	5.5	5.9	10.5	10.6	10.6	18.3	19.0	24.2
Cycle Q Clear(g_c), s	18.7	6.7	6.8	0.6	5.5	5.9	10.5	10.6	10.6	28.9	19.0	24.2
Prop In Lane	1.00		1.00	1.00		0.76	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	695	483	409	16	562	521	352	1011	1053	222	1146	511
V/C Ratio(X)	0.64	0.35	0.56	0.67	0.26	0.27	0.63	0.38	0.38	0.62	0.73	0.87
Avail Cap(c_a), veh/h	832	603	511	68	729	675	352	1011	1053	222	1146	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	27.0	10.1	44.4	22.6	22.7	33.0	10.2	10.2	35.3	26.7	28.5
Incr Delay (d2), s/veh	1.3	0.4	1.2	38.4	0.2	0.3	2.5	0.7	0.7	12.5	4.1	18.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	2.9	4.0	0.4	2.2	2.2	4.6	4.0	4.1	3.7	8.3	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	27.4	11.3	82.9	22.8	23.0	35.4	11.0	10.9	47.9	30.8	46.7
LnGrp LOS	C	C	B	F	C	C	D	B	B	D	C	D
Approach Vol, veh/h		844			297			1005			1422	
Approach Delay, s/veh		25.9			25.1			16.4			37.5	
Approach LOS		C			C			B			D	

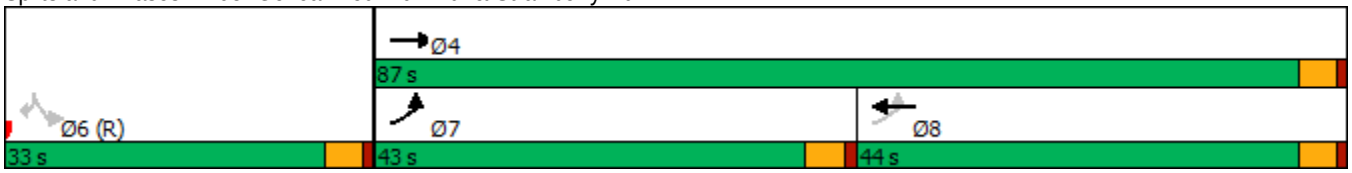
Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		56.6	5.3	28.1	22.6	34.0		33.4				
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s		43.5	3.5	29.5	9.5	29.5		37.5				
Max Q Clear Time (g_c+I1), s		12.6	2.6	20.7	12.5	30.9		7.9				
Green Ext Time (p_c), s		5.5	0.0	2.9	0.0	0.0		1.8				

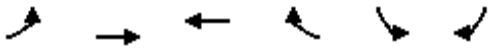
Intersection Summary												
HCM 6th Ctrl Delay			27.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	488	1097	771	199	447
Future Volume (vph)	488	1097	771	199	447
Turn Type	D.P+P	NA	NA	Perm	Perm
Protected Phases	7	4	8		
Permitted Phases	8			6	6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	43.0	87.0	44.0	33.0	33.0
Total Split (%)	35.8%	72.5%	36.7%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	73.5	78.0	38.4	33.0	33.0
Actuated g/C Ratio	0.61	0.65	0.32	0.28	0.28
v/c Ratio	0.90	0.51	0.89	0.44	0.61
Control Delay	42.3	4.7	46.9	41.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	4.7	46.9	41.2	7.2
LOS	D	A	D	D	A
Approach Delay		16.3	46.9	17.7	
Approach LOS		B	D	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 112 (93%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 25.5	Intersection LOS: C
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 95: Genoa- Red Bluff Rd. & Strawberry Rd.





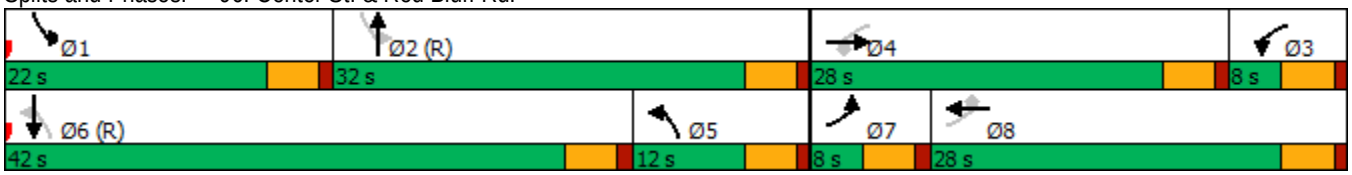
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	488	1097	771	152	199	447
Future Volume (vph)	488	1097	771	152	199	447
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.95	0.95		1.00	1.00
Frt	1.00	1.00	0.98		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1736	3471	3385		1736	1553
Flt Permitted	0.10	1.00	1.00		0.95	1.00
Satd. Flow (perm)	190	3471	3385		1736	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	514	1155	812	160	209	471
RTOR Reduction (vph)	0	0	14	0	0	341
Lane Group Flow (vph)	514	1155	958	0	209	130
Turn Type	D.P+P	NA	NA		Perm	Perm
Protected Phases	7	4	8			
Permitted Phases	8				6	6
Actuated Green, G (s)	73.5	78.0	38.4		33.0	33.0
Effective Green, g (s)	73.5	78.0	38.4		33.0	33.0
Actuated g/C Ratio	0.61	0.65	0.32		0.28	0.28
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	568	2256	1083		477	427
v/s Ratio Prot	c0.26	0.33	0.28			
v/s Ratio Perm	c0.29				c0.12	0.08
v/c Ratio	0.90	0.51	0.88		0.44	0.30
Uniform Delay, d1	32.7	11.0	38.7		35.9	34.4
Progression Factor	0.71	0.36	0.98		1.00	1.00
Incremental Delay, d2	16.9	0.2	8.2		2.9	1.8
Delay (s)	40.2	4.2	46.0		38.8	36.2
Level of Service	D	A	D		D	D
Approach Delay (s)		15.3	46.0		37.0	
Approach LOS		B	D		D	

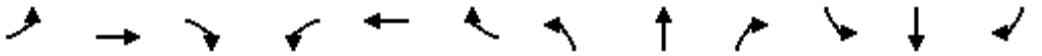
Intersection Summary			
HCM 2000 Control Delay	28.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	51	696	256	27	816	323	151	957	373	1034
Future Volume (vph)	51	696	256	27	816	323	151	957	373	1034
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA
Protected Phases	7	4		3	8		5	2	1	6
Permitted Phases	8		4	4		8	6		2	
Detector Phase	7	4	4	3	8	8	5	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	28.0	28.0	8.0	28.0	28.0	12.0	32.0	22.0	42.0
Total Split (%)	8.9%	31.1%	31.1%	8.9%	31.1%	31.1%	13.3%	35.6%	24.4%	46.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	26.9	25.7	25.7	28.4	24.1	24.1	46.0	28.6	46.0	38.5
Actuated g/C Ratio	0.30	0.29	0.29	0.32	0.27	0.27	0.51	0.32	0.51	0.43
v/c Ratio	0.38	0.75	0.43	0.18	0.94	0.52	0.69	0.94	0.94	0.74
Control Delay	24.0	30.4	8.9	25.2	51.0	6.2	43.7	47.0	54.7	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	30.4	8.9	25.2	51.0	6.2	43.7	47.0	54.7	25.6
LOS	C	C	A	C	D	A	D	D	D	C
Approach Delay		24.6			38.0			46.5		33.3
Approach LOS		C			D			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 35.8	Intersection LOS: D
Intersection Capacity Utilization 94.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 96: Center St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	696	256	27	816	323	151	957	11	373	1034	0
Future Volume (veh/h)	51	696	256	27	816	323	151	957	11	373	1034	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	54	740	272	29	868	344	161	1018	12	397	1100	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	146	857	382	189	913	407	311	1136	13	429	1457	0
Arrive On Green	0.03	0.25	0.25	0.05	0.26	0.26	0.09	0.32	0.32	0.19	0.42	0.00
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3540	42	1753	3589	0
Grp Volume(v), veh/h	54	740	272	29	868	344	161	503	527	397	1100	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1833	1753	1749	0
Q Serve(g_s), s	2.0	18.2	14.3	0.0	22.0	18.8	0.0	24.7	24.7	14.5	24.1	0.0
Cycle Q Clear(g_c), s	2.0	18.2	14.3	0.0	22.0	18.8	0.0	24.7	24.7	14.5	24.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	146	857	382	189	913	407	311	561	588	429	1457	0
V/C Ratio(X)	0.37	0.86	0.71	0.15	0.95	0.84	0.52	0.90	0.90	0.92	0.75	0.00
Avail Cap(c_a), veh/h	156	913	407	189	913	407	311	561	588	446	1457	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.18	0.18	0.18	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.1	32.5	31.1	39.2	32.7	31.5	34.2	29.1	29.1	22.0	22.3	0.0
Incr Delay (d2), s/veh	1.6	8.2	5.3	0.4	18.9	15.0	0.3	4.6	4.4	24.6	3.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	8.5	5.8	0.6	11.4	8.6	3.2	10.7	11.2	8.5	10.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	40.8	36.4	39.5	51.6	46.5	34.5	33.7	33.5	46.6	26.0	0.0
LnGrp LOS	C	D	D	D	D	D	C	C	C	D	C	A
Approach Vol, veh/h		1066			1241			1191			1497	
Approach Delay, s/veh		39.0			49.9			33.7			31.5	
Approach LOS		D			D			C			C	

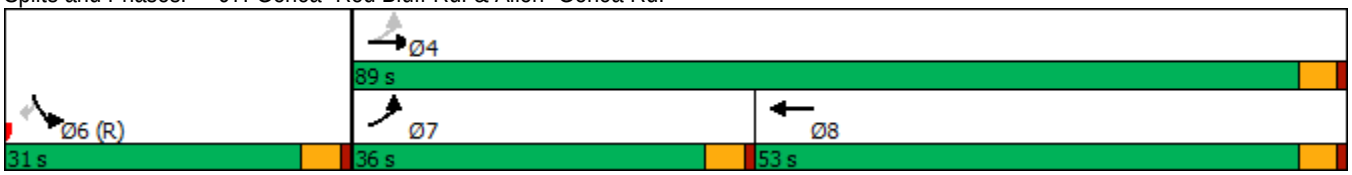
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	33.4	8.9	26.6	12.5	42.0	7.5	28.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	27.5	3.5	23.5	7.5	37.5	3.5	23.5
Max Q Clear Time (g_c+I1), s	16.5	26.7	2.0	20.2	2.0	26.1	4.0	24.0
Green Ext Time (p_c), s	0.2	0.5	0.0	1.8	0.2	5.9	0.0	0.0

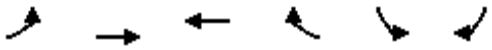
Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Traffic Volume (vph)	317	1161	889	83	243
Future Volume (vph)	317	1161	889	83	243
Turn Type	pm+pt	NA	NA	Prot	Perm
Protected Phases	7	4	8	6	
Permitted Phases	4				6
Detector Phase	7	4	8	6	6
Switch Phase					
Minimum Initial (s)	3.5	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0
Total Split (s)	36.0	89.0	53.0	31.0	31.0
Total Split (%)	30.0%	74.2%	44.2%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	74.9	74.9	44.4	36.1	36.1
Actuated g/C Ratio	0.62	0.62	0.37	0.30	0.30
v/c Ratio	0.79	0.58	0.83	0.17	0.40
Control Delay	42.5	14.1	30.1	35.6	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	14.1	30.1	35.6	12.2
LOS	D	B	C	D	B
Approach Delay		20.2	30.1	18.2	
Approach LOS		C	C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 69 (58%), Referenced to phase 2: and 6:SBL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 23.4	Intersection LOS: C
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 97: Genoa- Red Bluff Rd. & Allen- Genoa Rd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	317	1161	889	84	83	243
Future Volume (veh/h)	317	1161	889	84	83	243
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	345	1262	966	91	90	264
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	379	1903	1112	105	667	594
Arrive On Green	0.16	0.54	0.34	0.34	0.38	0.38
Sat Flow, veh/h	1753	3589	3322	304	1753	1560
Grp Volume(v), veh/h	345	1262	523	534	90	264
Grp Sat Flow(s),veh/h/ln	1753	1749	1749	1786	1753	1560
Q Serve(g_s), s	16.6	30.9	33.6	33.6	4.0	15.1
Cycle Q Clear(g_c), s	16.6	30.9	33.6	33.6	4.0	15.1
Prop In Lane	1.00			0.17	1.00	1.00
Lane Grp Cap(c), veh/h	379	1903	602	615	667	594
V/C Ratio(X)	0.91	0.66	0.87	0.87	0.13	0.44
Avail Cap(c_a), veh/h	554	2463	707	722	667	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	19.5	36.8	36.8	24.3	27.7
Incr Delay (d2), s/veh	14.6	0.4	10.0	9.8	0.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	12.3	15.8	16.1	1.8	14.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.4	19.9	46.8	46.7	24.7	30.1
LnGrp LOS	D	B	D	D	C	C
Approach Vol, veh/h		1607	1057		354	
Approach Delay, s/veh		25.4	46.7		28.7	
Approach LOS		C	D		C	

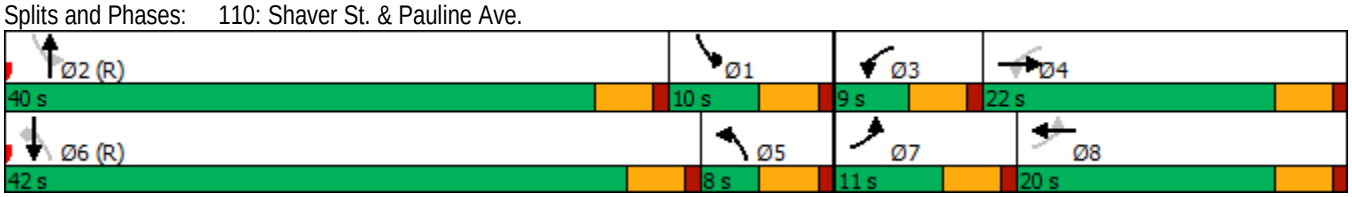
Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		69.8		50.2	24.0	45.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		84.5		26.5	31.5	48.5
Max Q Clear Time (g_c+I1), s		32.9		17.1	18.6	35.6
Green Ext Time (p_c), s		13.6		0.8	0.9	5.7

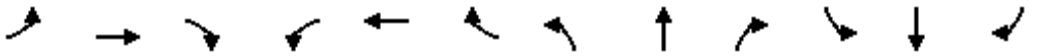
Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	165	183	67	147	58	992	103	1188	189
Future Volume (vph)	165	183	67	147	58	992	103	1188	189
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases	8		4		6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	11.0	22.0	9.0	20.0	8.0	40.0	10.0	42.0	42.0
Total Split (%)	13.6%	27.2%	11.1%	24.7%	9.9%	49.4%	12.3%	51.9%	51.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.6	17.9	21.5	13.8	44.0	38.9	44.4	40.5	40.5
Actuated g/C Ratio	0.25	0.22	0.27	0.17	0.54	0.48	0.55	0.50	0.50
v/c Ratio	0.69	0.53	0.25	0.77	0.37	0.75	0.56	0.74	0.24
Control Delay	37.8	33.1	22.1	44.7	22.4	21.6	18.5	6.2	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	33.1	22.1	44.7	22.4	21.6	18.5	6.2	1.0
LOS	D	C	C	D	C	C	B	A	A
Approach Delay		35.3		39.6		21.6		6.4	
Approach LOS		D		D		C		A	

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 9 (11%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 110: Shaver St. & Pauline Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	165	183	14	67	147	83	58	992	157	103	1188	189
Future Volume (veh/h)	165	183	14	67	147	83	58	992	157	103	1188	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	177	197	15	72	158	89	62	1067	169	111	1277	203
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	261	341	26	280	185	104	261	1326	210	308	1619	722
Arrive On Green	0.08	0.20	0.20	0.05	0.17	0.17	0.07	0.44	0.44	0.09	0.46	0.46
Sat Flow, veh/h	1753	1689	129	1753	1106	623	1753	3025	478	1753	3497	1560
Grp Volume(v), veh/h	177	0	212	72	0	247	62	616	620	111	1277	203
Grp Sat Flow(s),veh/h/ln	1753	0	1818	1753	0	1729	1753	1749	1755	1753	1749	1560
Q Serve(g_s), s	6.5	0.0	8.5	2.6	0.0	11.2	0.0	24.7	24.9	0.0	25.0	4.2
Cycle Q Clear(g_c), s	6.5	0.0	8.5	2.6	0.0	11.2	0.0	24.7	24.9	0.0	25.0	4.2
Prop In Lane	1.00		0.07	1.00		0.36	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	261	0	367	280	0	289	261	766	769	308	1619	722
V/C Ratio(X)	0.68	0.00	0.58	0.26	0.00	0.85	0.24	0.80	0.81	0.36	0.79	0.28
Avail Cap(c_a), veh/h	261	0	393	297	0	331	261	766	769	308	1619	722
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	29.2	24.4	0.0	32.8	29.8	19.7	19.8	30.6	18.4	5.6
Incr Delay (d2), s/veh	6.8	0.0	1.9	0.5	0.0	17.4	0.4	7.4	7.5	0.7	4.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	3.8	1.1	0.0	6.0	1.1	10.8	10.9	2.0	10.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	31.1	24.9	0.0	50.2	30.2	27.1	27.2	31.3	22.4	6.5
LnGrp LOS	C	A	C	C	A	D	C	C	C	C	C	A
Approach Vol, veh/h		389			319			1298			1591	
Approach Delay, s/veh		32.3			44.5			27.3			21.0	
Approach LOS		C			D			C			C	

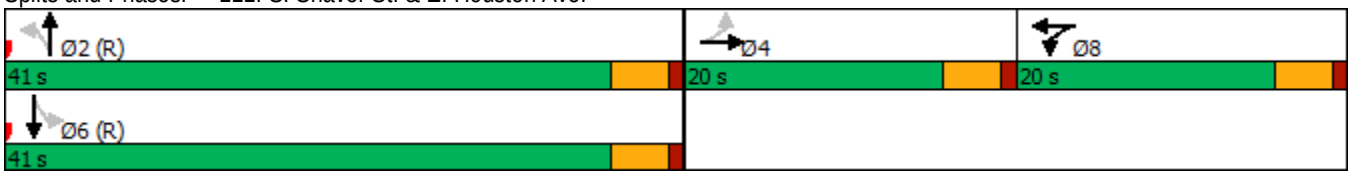
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	40.0	8.2	20.8	10.0	42.0	11.0	18.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	35.5	4.5	17.5	3.5	37.5	6.5	15.5
Max Q Clear Time (g_c+I1), s	2.0	26.9	4.6	10.5	2.0	27.0	8.5	13.2
Green Ext Time (p_c), s	0.1	5.1	0.0	0.6	0.0	6.8	0.0	0.3

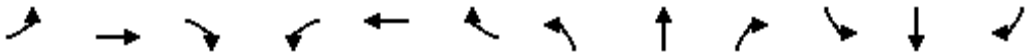
Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	38	20	118	18	19	1039	48	1348
Future Volume (vph)	38	20	118	18	19	1039	48	1348
Turn Type	Perm	NA	Split	NA	Perm	NA	Perm	NA
Protected Phases		4	8	8		2		6
Permitted Phases	4				2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	41.0	41.0	41.0	41.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	50.6%	50.6%	50.6%	50.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	11.5	11.5	11.1	11.1	46.9	46.9	46.9	46.9
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.58	0.58	0.58	0.58
v/c Ratio	0.40	0.15	0.53	0.32	0.20	0.59	0.29	0.73
Control Delay	42.2	20.1	36.1	10.1	15.3	11.4	19.0	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4
Total Delay	42.2	20.1	36.1	10.1	15.3	11.4	19.0	66.8
LOS	D	C	D	B	B	B	B	E
Approach Delay		31.6		25.1		11.4		65.2
Approach LOS		C		C		B		E

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 8 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 40.0	Intersection LOS: D
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 111: S. Shaver St. & E. Houston Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	20	15	118	18	69	19	1039	69	48	1348	25
Future Volume (veh/h)	38	20	15	118	18	69	19	1039	69	48	1348	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	40	21	16	126	19	73	20	1105	73	51	1434	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	89	49	38	175	33	128	255	2273	150	273	2397	45
Arrive On Green	0.05	0.05	0.05	0.10	0.10	0.10	0.23	0.23	0.23	0.68	0.68	0.68
Sat Flow, veh/h	1753	969	739	1753	333	1278	358	3330	220	468	3511	66
Grp Volume(v), veh/h	40	0	37	126	0	92	20	580	598	51	714	747
Grp Sat Flow(s),veh/h/ln	1753	0	1708	1753	0	1611	358	1749	1801	468	1749	1829
Q Serve(g_s), s	1.8	0.0	1.7	5.6	0.0	4.4	3.9	23.4	23.4	6.0	17.7	17.8
Cycle Q Clear(g_c), s	1.8	0.0	1.7	5.6	0.0	4.4	21.7	23.4	23.4	29.4	17.7	17.8
Prop In Lane	1.00		0.43	1.00		0.79	1.00		0.12	1.00		0.04
Lane Grp Cap(c), veh/h	89	0	87	175	0	161	255	1194	1230	273	1194	1248
V/C Ratio(X)	0.45	0.00	0.43	0.72	0.00	0.57	0.08	0.49	0.49	0.19	0.60	0.60
Avail Cap(c_a), veh/h	335	0	327	335	0	308	255	1194	1230	273	1194	1248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.94	0.00	0.94	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	37.3	35.4	0.0	34.8	26.0	19.0	19.0	16.7	6.9	6.9
Incr Delay (d2), s/veh	3.5	0.0	3.3	5.2	0.0	3.0	0.5	1.1	1.0	1.5	2.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.8	2.6	0.0	1.8	0.4	11.1	11.5	0.7	5.9	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.0	40.6	40.5	0.0	37.8	26.5	20.1	20.1	18.2	9.1	9.0
LnGrp LOS	D	A	D	D	A	D	C	C	C	B	A	A
Approach Vol, veh/h		77			218			1198			1512	
Approach Delay, s/veh		40.7			39.4			20.2			9.4	
Approach LOS		D			D			C			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		59.8		8.6		59.8		12.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		36.5		15.5		36.5		15.5				
Max Q Clear Time (g_c+I1), s		25.4		3.8		31.4		7.6				
Green Ext Time (p_c), s		6.0		0.2		3.9		0.5				

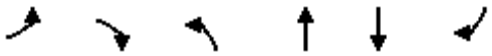
Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									

Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	137	65	1653	1893
Future Volume (vph)	137	65	1653	1893
Turn Type	Perm	pm+pt	NA	NA
Protected Phases		5	2	6
Permitted Phases	4	2		
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	8.0	20.0	20.0
Total Split (s)	20.0	8.0	61.0	53.0
Total Split (%)	24.7%	9.9%	75.3%	65.4%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	13.1	58.9	58.9	52.5
Actuated g/C Ratio	0.16	0.73	0.73	0.65
v/c Ratio	0.72	0.43	0.70	0.97
Control Delay	42.5	13.7	3.8	22.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	42.5	13.7	3.8	22.7
LOS	D	B	A	C
Approach Delay	42.5		4.2	22.7
Approach LOS	D		A	C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 112: Allendale Rd. & Shaver St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	137	61	65	1653	1893	128
Future Volume (vph)	137	61	65	1653	1893	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12
Total Lost time (s)	4.5		4.5	4.5	4.5	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.96		1.00	1.00	0.99	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1692		1736	3471	3438	
Flt Permitted	0.97		0.07	1.00	1.00	
Satd. Flow (perm)	1692		130	3471	3438	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	147	66	70	1777	2035	138
RTOR Reduction (vph)	21	0	0	0	5	0
Lane Group Flow (vph)	192	0	70	1777	2168	0
Turn Type	Perm		pm+pt	NA	NA	
Protected Phases			5	2	6	
Permitted Phases	4		2			
Actuated Green, G (s)	13.1		58.9	58.9	51.6	
Effective Green, g (s)	13.1		58.9	58.9	51.6	
Actuated g/C Ratio	0.16		0.73	0.73	0.64	
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	273		150	2523	2190	
v/s Ratio Prot			0.02	c0.51	c0.63	
v/s Ratio Perm	c0.11		0.32			
v/c Ratio	0.70		0.47	0.70	0.99	
Uniform Delay, d1	32.1		32.1	6.2	14.4	
Progression Factor	1.00		0.47	0.34	0.44	
Incremental Delay, d2	8.0		2.0	1.4	15.8	
Delay (s)	40.1		17.0	3.5	22.2	
Level of Service	D		B	A	C	
Approach Delay (s)	40.1			4.0	22.2	
Approach LOS	D			A	C	

Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	25	960	113	1096
Future Volume (vph)	25	960	113	1096
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	20.0	61.0	61.0	61.0
Total Split (%)	24.7%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5		4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	C-Max	C-Max	C-Max
Act Effct Green (s)	9.6	62.4		62.4
Actuated g/C Ratio	0.12	0.77		0.77
v/c Ratio	0.69	0.38		0.64
Control Delay	21.5	3.9		6.8
Queue Delay	0.0	0.0		0.0
Total Delay	21.5	3.9		6.8
LOS	C	A		A
Approach Delay	21.5	3.9		6.8
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 7.0	Intersection LOS: A
Intersection Capacity Utilization 89.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 113: Westside Dr. & Shaver St.





Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	25	201	960	29	113	1096	
Future Volume (veh/h)	25	201	960	29	113	1096	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	
Adj Flow Rate, veh/h	26	207	990	30	116	1130	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	4	4	4	4	4	4	
Cap, veh/h	30	237	2492	76	205	1926	
Arrive On Green	0.17	0.17	0.72	0.72	0.72	0.72	
Sat Flow, veh/h	176	1398	3558	105	211	2763	
Grp Volume(v), veh/h	234	0	500	520	575	671	
Grp Sat Flow(s),veh/h/ln	1580	0	1749	1822	1299	1591	
Q Serve(g_s), s	11.7	0.0	9.1	9.1	5.6	16.6	
Cycle Q Clear(g_c), s	11.7	0.0	9.1	9.1	14.7	16.6	
Prop In Lane	0.11	0.88		0.06	0.20		
Lane Grp Cap(c), veh/h	268	0	1257	1310	988	1144	
V/C Ratio(X)	0.87	0.00	0.40	0.40	0.58	0.59	
Avail Cap(c_a), veh/h	302	0	1257	1310	988	1144	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.85	0.85	
Uniform Delay (d), s/veh	32.8	0.0	4.5	4.5	4.9	5.5	
Incr Delay (d2), s/veh	21.5	0.0	0.9	0.9	2.1	1.9	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	5.9	0.0	2.6	2.7	3.3	4.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	54.2	0.0	5.4	5.4	7.0	7.4	
LnGrp LOS	D	A	A	A	A	A	
Approach Vol, veh/h	234		1020			1246	
Approach Delay, s/veh	54.2		5.4			7.2	
Approach LOS	D		A			A	

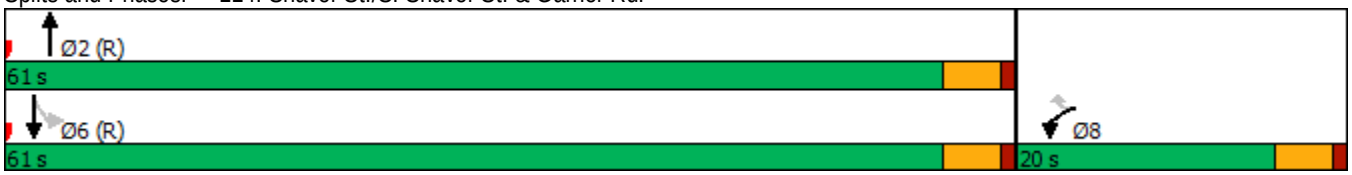
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		62.7			62.7	18.3
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		56.5			56.5	15.5
Max Q Clear Time (g_c+I1), s		11.1			18.6	13.7
Green Ext Time (p_c), s		8.0			12.4	0.1

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	165	165	1281	218	1494
Future Volume (vph)	165	165	1281	218	1494
Turn Type	Prot	Perm	NA	Perm	NA
Protected Phases	8		2		6
Permitted Phases		8		6	
Detector Phase	8	8	2	6	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	61.0	61.0	61.0
Total Split (%)	24.7%	24.7%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	12.8	12.8	59.2	59.2	59.2
Actuated g/C Ratio	0.16	0.16	0.73	0.73	0.73
v/c Ratio	0.64	0.56	0.62	1.40	0.63
Control Delay	42.2	23.6	2.5	225.1	4.5
Queue Delay	3.1	0.0	0.3	0.0	0.1
Total Delay	45.2	23.6	2.8	225.1	4.7
LOS	D	C	A	F	A
Approach Delay	34.4		2.8		32.7
Approach LOS	C		A		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 33 (41%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 77.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 114: Shaver St./S. Shaver St. & Garner Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	165	165	1281	187	218	1494
Future Volume (veh/h)	165	165	1281	187	218	1494
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	176	176	1363	199	232	1589
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	246	219	2296	332	332	2618
Arrive On Green	0.14	0.14	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1753	1560	3158	444	324	3589
Grp Volume(v), veh/h	176	176	772	790	232	1589
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1761	324	1749
Q Serve(g_s), s	7.8	8.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.8	8.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00		0.25	1.00	
Lane Grp Cap(c), veh/h	246	219	1309	1318	332	2618
V/C Ratio(X)	0.72	0.80	0.59	0.60	0.70	0.61
Avail Cap(c_a), veh/h	335	299	1309	1318	332	2618
HCM Platoon Ratio	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.64	0.64	0.63	0.63
Uniform Delay (d), s/veh	33.3	33.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	4.5	10.8	1.3	1.3	7.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.9	0.5	0.5	0.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.8	44.5	1.3	1.3	7.5	0.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	352		1562			1821
Approach Delay, s/veh	41.2		1.3			1.5
Approach LOS	D		A			A

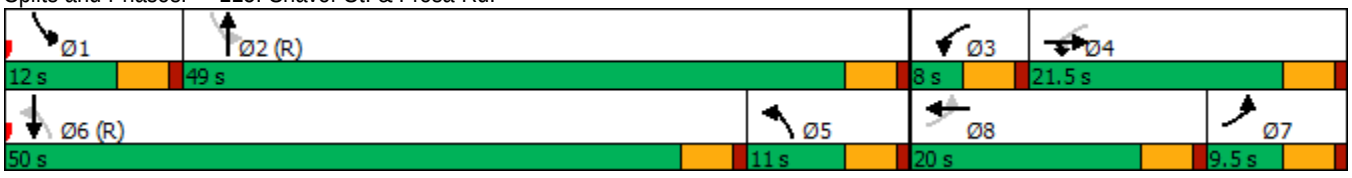
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		65.1			65.1	15.9
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		56.5			56.5	15.5
Max Q Clear Time (g_c+I1), s		2.0			2.0	10.9
Green Ext Time (p_c), s		18.7			32.2	0.5

Intersection Summary	
HCM 6th Ctrl Delay	5.2
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	3	76	86	43	61	89	1013	99	1089
Future Volume (vph)	3	76	86	43	61	89	1013	99	1089
Turn Type	D.P+P	NA	Prot	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	4	3	8	5	2	1	6
Permitted Phases	8			4		6		2	
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	9.5	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.5	21.5	21.5	8.0	20.0	11.0	49.0	12.0	50.0
Total Split (%)	10.5%	23.8%	23.8%	8.8%	22.1%	12.2%	54.1%	13.3%	55.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		9.8	9.8	11.9	14.6	63.3	57.1	63.3	58.1
Actuated g/C Ratio		0.11	0.11	0.13	0.16	0.70	0.63	0.70	0.64
v/c Ratio		0.46	0.29	0.26	0.52	0.30	0.54	0.31	0.53
Control Delay		45.3	2.3	33.8	23.9	10.0	12.7	7.2	11.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		45.3	2.3	33.8	23.9	10.0	12.7	7.2	11.9
LOS		D	A	C	C	A	B	A	B
Approach Delay		22.8			26.0		12.4		11.5
Approach LOS		C			C		B		B

Intersection Summary	
Cycle Length: 90.5	
Actuated Cycle Length: 90.5	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

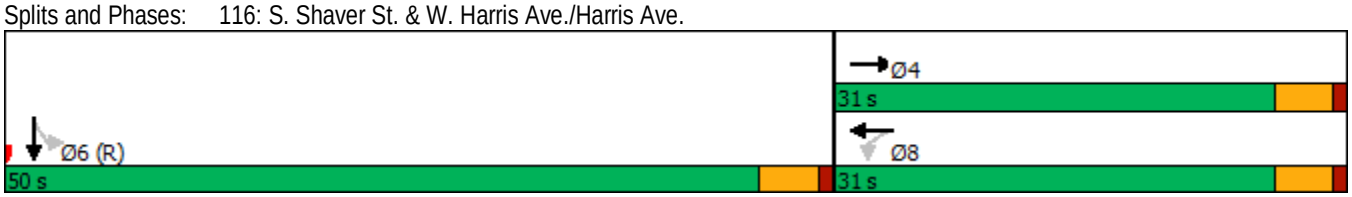
Splits and Phases: 115: Shaver St. & Fresa Rd.

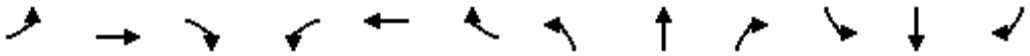


Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	168	124	204	1412
Future Volume (vph)	168	124	204	1412
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	31.0	50.0
Total Split (%)	38.3%	38.3%	38.3%	61.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	18.1		18.1	53.9
Actuated g/C Ratio	0.22		0.22	0.67
v/c Ratio	0.45		0.72	0.53
Control Delay	26.1		26.1	5.8
Queue Delay	0.0		0.0	0.0
Total Delay	26.1		26.1	5.8
LOS	C		C	A
Approach Delay	26.1		26.1	5.8
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 33 (41%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 116: S. Shaver St. & W. Harris Ave./Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	168	121	124	204	0	0	0	0	121	1412	51
Future Volume (veh/h)	0	168	121	124	204	0	0	0	0	121	1412	51
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	185	133	136	224	0				133	1552	56
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	513	350	241	465	0				241	2996	111
Arrive On Green	0.00	0.26	0.26	0.09	0.09	0.00				0.21	0.21	0.21
Sat Flow, veh/h	0	2082	1355	625	1886	0				381	4748	176
Grp Volume(v), veh/h	0	161	157	172	188	0				635	531	574
Grp Sat Flow(s),veh/h/ln	0	1749	1597	835	1591	0				1822	1675	1809
Q Serve(g_s), s	0.0	6.1	6.5	11.1	9.1	0.0				25.3	22.7	22.7
Cycle Q Clear(g_c), s	0.0	6.1	6.5	17.7	9.1	0.0				25.3	22.7	22.7
Prop In Lane	0.00		0.85	0.79		0.00				0.21		0.10
Lane Grp Cap(c), veh/h	0	451	412	295	410	0				1149	1057	1141
V/C Ratio(X)	0.00	0.36	0.38	0.58	0.46	0.00				0.55	0.50	0.50
Avail Cap(c_a), veh/h	0	572	522	375	521	0				1149	1057	1141
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				0.33	0.33	0.33
Upstream Filter(I)	0.00	1.00	1.00	0.81	0.81	0.00				0.92	0.92	0.92
Uniform Delay (d), s/veh	0.0	24.6	24.7	38.0	31.7	0.0				21.8	20.8	20.8
Incr Delay (d2), s/veh	0.0	0.5	0.6	1.5	0.6	0.0				1.8	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	2.5	3.8	3.8	0.0				12.6	10.4	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.0	25.3	39.4	32.3	0.0				23.6	22.4	22.3
LnGrp LOS	A	C	C	D	C	A				C	C	C
Approach Vol, veh/h		318			360						1741	
Approach Delay, s/veh		25.2			35.7						22.8	
Approach LOS		C			D						C	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		25.4		55.6		25.4			
Change Period (Y+Rc), s		4.5		4.5		4.5			
Max Green Setting (Gmax), s		26.5		45.5		26.5			
Max Q Clear Time (g_c+I1), s		8.5		27.3		19.7			
Green Ext Time (p_c), s		1.7		11.0		1.2			

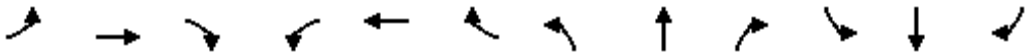
Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	52	248	234	959
Future Volume (vph)	52	248	234	959
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	51.0
Total Split (%)	37.0%	37.0%	37.0%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		15.1	15.1	56.9
Actuated g/C Ratio		0.19	0.19	0.70
v/c Ratio		0.71	0.56	0.38
Control Delay		43.8	25.3	2.2
Queue Delay		0.0	0.0	0.0
Total Delay		43.8	25.3	2.2
LOS		D	C	A
Approach Delay		43.8	25.3	2.2
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 12 (15%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 117: Main St. & Harris Ave.



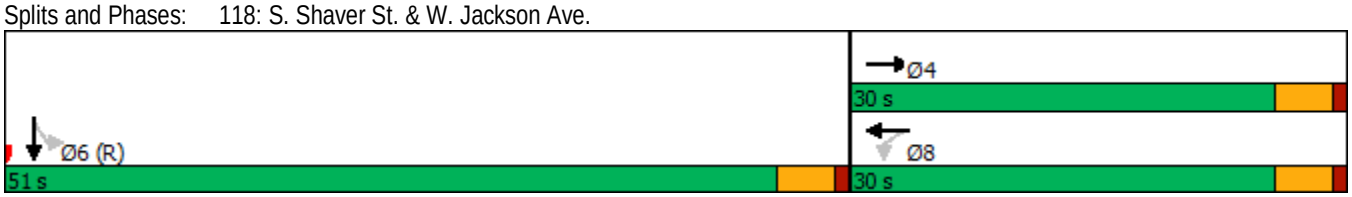


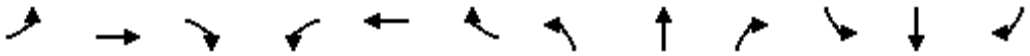
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	248	0	0	234	100	113	959	136	0	0	0
Future Volume (veh/h)	52	248	0	0	234	100	113	959	136	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	56	267	0	0	252	108	122	1031	146			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	108	478	0	0	466	194	321	2888	422			
Arrive On Green	0.06	0.06	0.00	0.00	0.19	0.19	0.23	0.23	0.23			
Sat Flow, veh/h	249	2551	0	0	2499	1002	462	4155	607			
Grp Volume(v), veh/h	160	163	0	0	181	179	480	403	416			
Grp Sat Flow(s),veh/h/ln	1124	1591	0	0	1749	1660	1818	1675	1731			
Q Serve(g_s), s	4.4	8.1	0.0	0.0	7.5	7.9	18.1	16.3	16.3			
Cycle Q Clear(g_c), s	12.3	8.1	0.0	0.0	7.5	7.9	18.1	16.3	16.3			
Prop In Lane	0.35		0.00	0.00		0.60	0.25		0.35			
Lane Grp Cap(c), veh/h	278	308	0	0	339	322	1264	1164	1204			
V/C Ratio(X)	0.57	0.53	0.00	0.00	0.53	0.56	0.38	0.35	0.35			
Avail Cap(c_a), veh/h	450	501	0	0	551	523	1264	1164	1204			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.89	0.89	0.00	0.00	0.75	0.75	0.65	0.65	0.65			
Uniform Delay (d), s/veh	36.0	34.3	0.0	0.0	29.4	29.5	16.5	15.8	15.8			
Incr Delay (d2), s/veh	1.7	1.3	0.0	0.0	1.0	1.1	0.6	0.5	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	3.4	0.0	0.0	3.2	3.2	8.8	7.3	7.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	35.6	0.0	0.0	30.4	30.6	17.0	16.3	16.3			
LnGrp LOS	D	D	A	A	C	C	B	B	B			
Approach Vol, veh/h		323			360			1299				
Approach Delay, s/veh		36.6			30.5			16.6				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		60.8		20.2				20.2				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		46.5		25.5				25.5				
Max Q Clear Time (g_c+I1), s		20.1		14.3				9.9				
Green Ext Time (p_c), s		9.4		1.4				1.9				
Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	133	71	245	1241
Future Volume (vph)	133	71	245	1241
Turn Type	NA	Perm	NA	NA
Protected Phases	4		8	6
Permitted Phases		8		
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	51.0
Total Split (%)	37.0%	37.0%	37.0%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)	15.6		15.6	56.4
Actuated g/C Ratio	0.19		0.19	0.70
v/c Ratio	0.49		0.71	0.40
Control Delay	26.0		24.7	6.0
Queue Delay	0.0		0.0	0.0
Total Delay	26.0		24.7	6.0
LOS	C		C	A
Approach Delay	26.0		24.7	6.0
Approach LOS	C		C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 75 (93%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 118: S. Shaver St. & W. Jackson Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	133	151	71	245	0	0	0	0	58	1241	24
Future Volume (veh/h)	0	133	151	71	245	0	0	0	0	58	1241	24
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	140	159	75	258	0				61	1306	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	354	315	136	458	0				151	3439	68
Arrive On Green	0.00	0.20	0.20	0.40	0.40	0.00				0.69	0.69	0.69
Sat Flow, veh/h	0	1841	1560	349	2349	0				220	5009	99
Grp Volume(v), veh/h	0	140	159	163	170	0				508	423	461
Grp Sat Flow(s),veh/h/ln	0	1749	1560	1024	1591	0				1830	1675	1823
Q Serve(g_s), s	0.0	5.6	7.3	5.7	6.5	0.0				9.8	8.6	8.6
Cycle Q Clear(g_c), s	0.0	5.6	7.3	13.0	6.5	0.0				9.8	8.6	8.6
Prop In Lane	0.00		1.00	0.46		0.00				0.12		0.05
Lane Grp Cap(c), veh/h	0	354	315	272	322	0				1256	1150	1252
V/C Ratio(X)	0.00	0.40	0.50	0.60	0.53	0.00				0.40	0.37	0.37
Avail Cap(c_a), veh/h	0	551	491	427	501	0				1256	1150	1252
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.84	0.84	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.0	28.7	23.5	21.2	0.0				5.5	5.3	5.3
Incr Delay (d2), s/veh	0.0	0.7	1.2	1.8	1.1	0.0				1.0	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	2.7	2.3	2.1	0.0				3.1	2.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.7	29.9	25.3	22.3	0.0				6.5	6.2	6.2
LnGrp LOS	A	C	C	C	C	A				A	A	A
Approach Vol, veh/h		299			333						1392	
Approach Delay, s/veh		29.4			23.8						6.3	
Approach LOS		C			C						A	

Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				20.9		60.1		20.9				
Change Period (Y+Rc), s				4.5		4.5		4.5				
Max Green Setting (Gmax), s				25.5		46.5		25.5				
Max Q Clear Time (g_c+I1), s				9.3		11.8		15.0				
Green Ext Time (p_c), s				1.5		11.1		1.4				

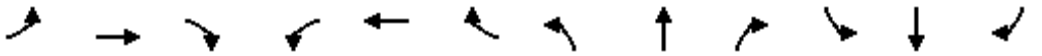
Intersection Summary												
HCM 6th Ctrl Delay			12.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBT	NBT
Lane Configurations				
Traffic Volume (vph)	20	166	198	709
Future Volume (vph)	20	166	198	709
Turn Type	Perm	NA	NA	NA
Protected Phases		4	8	2
Permitted Phases	4			
Detector Phase	4	4	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0
Total Split (s)	31.0	31.0	31.0	50.0
Total Split (%)	38.3%	38.3%	38.3%	61.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	C-Max
Act Effct Green (s)		10.9	10.9	61.1
Actuated g/C Ratio		0.13	0.13	0.75
v/c Ratio		0.50	0.53	0.27
Control Delay		46.2	34.1	2.0
Queue Delay		0.0	0.0	0.0
Total Delay		46.2	34.1	2.0
LOS		D	C	A
Approach Delay		46.2	34.1	2.0
Approach LOS		D	C	A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 62 (77%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 44.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 119: Main St. & W. Jackson Ave.



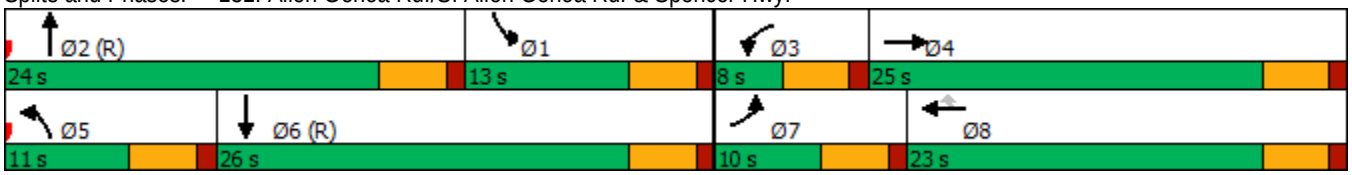


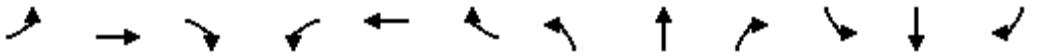
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	166	0	0	198	25	127	709	94	0	0	0
Future Volume (veh/h)	20	166	0	0	198	25	127	709	94	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	21	175	0	0	208	26	134	746	99			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	70	322	0	0	354	44	522	3108	423			
Arrive On Green	0.04	0.04	0.00	0.00	0.11	0.11	0.26	0.26	0.26			
Sat Flow, veh/h	148	2932	0	0	3225	387	673	4007	545			
Grp Volume(v), veh/h	101	95	0	0	115	119	360	303	317			
Grp Sat Flow(s),veh/h/ln	1405	1591	0	0	1749	1771	1807	1675	1743			
Q Serve(g_s), s	1.0	4.8	0.0	0.0	5.1	5.2	12.8	11.6	11.7			
Cycle Q Clear(g_c), s	6.2	4.8	0.0	0.0	5.1	5.2	12.8	11.6	11.7			
Prop In Lane	0.21		0.00	0.00		0.22	0.37		0.31			
Lane Grp Cap(c), veh/h	213	180	0	0	198	200	1402	1300	1352			
V/C Ratio(X)	0.47	0.53	0.00	0.00	0.58	0.59	0.26	0.23	0.23			
Avail Cap(c_a), veh/h	561	521	0	0	572	579	1402	1300	1352			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.87	0.87	0.00	0.00	1.00	1.00	0.93	0.93	0.93			
Uniform Delay (d), s/veh	37.0	36.9	0.0	0.0	34.1	34.2	11.5	11.1	11.1			
Incr Delay (d2), s/veh	1.4	2.1	0.0	0.0	2.7	2.8	0.4	0.4	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	2.0	0.0	0.0	2.2	2.3	6.2	5.0	5.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	39.0	0.0	0.0	36.8	37.0	11.9	11.5	11.5			
LnGrp LOS	D	D	A	A	D	D	B	B	B			
Approach Vol, veh/h		196			234			979				
Approach Delay, s/veh		38.7			36.9			11.6				
Approach LOS		D			D			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		67.3		13.7				13.7				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		45.5		26.5				26.5				
Max Q Clear Time (g_c+I1), s		14.8		8.2				7.2				
Green Ext Time (p_c), s		6.7		1.0				1.2				
Intersection Summary												
HCM 6th Ctrl Delay			19.6									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	110	1060	66	1153	305	264	658	354	719
Future Volume (vph)	110	1060	66	1153	305	264	658	354	719
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	7	4	3	8		5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	10.0	25.0	8.0	23.0	23.0	11.0	24.0	13.0	26.0
Total Split (%)	14.3%	35.7%	11.4%	32.9%	32.9%	15.7%	34.3%	18.6%	37.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.5	22.1	3.5	18.5	18.5	6.5	19.5	8.5	21.5
Actuated g/C Ratio	0.08	0.32	0.05	0.26	0.26	0.09	0.28	0.12	0.31
v/c Ratio	0.85	0.87	0.80	0.94	0.49	0.88	0.82	0.90	0.80
Control Delay	80.9	30.7	91.8	41.5	5.8	62.3	32.2	59.0	29.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.9	30.7	91.8	41.5	5.8	62.3	32.2	59.0	29.4
LOS	F	C	F	D	A	E	C	E	C
Approach Delay		34.6		36.5			40.1		38.5
Approach LOS		C		D			D		D

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 37.2	Intersection LOS: D
Intersection Capacity Utilization 80.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 131: Allen Genoa Rd./S. Allen Genoa Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1060	220	66	1153	305	264	658	79	354	719	74
Future Volume (veh/h)	110	1060	220	66	1153	305	264	658	79	354	719	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	115	1104	229	69	1201	318	275	685	82	369	749	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	138	1218	253	87	1324	411	316	876	105	416	986	101
Arrive On Green	0.08	0.29	0.29	0.05	0.26	0.26	0.09	0.28	0.28	0.12	0.31	0.31
Sat Flow, veh/h	1753	4171	865	1753	5025	1560	3401	3145	376	3401	3201	329
Grp Volume(v), veh/h	115	887	446	69	1201	318	275	381	386	369	409	417
Grp Sat Flow(s),veh/h/ln	1753	1675	1685	1753	1675	1560	1700	1749	1773	1700	1749	1782
Q Serve(g_s), s	4.5	17.8	17.9	2.7	16.2	8.7	5.6	14.0	14.1	7.5	14.8	14.8
Cycle Q Clear(g_c), s	4.5	17.8	17.9	2.7	16.2	8.7	5.6	14.0	14.1	7.5	14.8	14.8
Prop In Lane	1.00		0.51	1.00		1.00	1.00		0.21	1.00		0.18
Lane Grp Cap(c), veh/h	138	979	492	87	1324	411	316	487	494	416	539	549
V/C Ratio(X)	0.83	0.91	0.91	0.79	0.91	0.77	0.87	0.78	0.78	0.89	0.76	0.76
Avail Cap(c_a), veh/h	138	981	493	88	1328	412	316	487	494	416	539	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.12	0.12	0.12	0.85	0.85	0.85	0.85	0.85	0.85
Uniform Delay (d), s/veh	31.8	23.8	23.9	32.9	25.0	10.4	31.3	23.3	23.3	30.2	21.9	21.9
Incr Delay (d2), s/veh	28.4	9.8	17.1	5.8	1.3	1.1	19.5	10.2	10.1	17.7	8.3	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	7.8	8.8	1.2	6.1	2.7	3.1	6.8	6.9	4.0	6.9	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	33.6	41.0	38.7	26.3	11.5	50.8	33.4	33.4	47.9	30.2	30.1
LnGrp LOS	E	C	D	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h		1448			1588			1042			1195	
Approach Delay, s/veh		38.0			23.9			38.0			35.6	
Approach LOS		D			C			D			D	

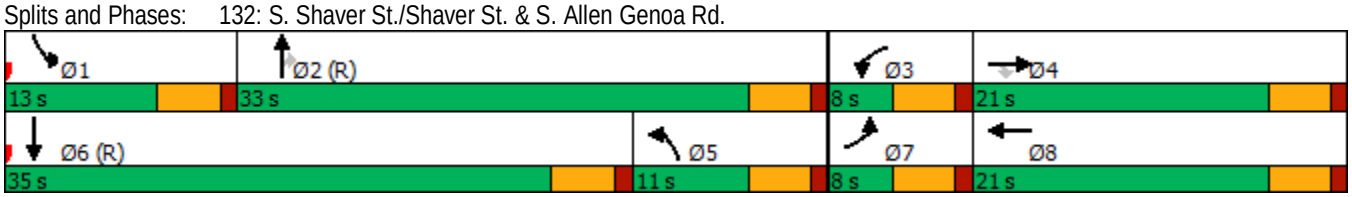
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	24.0	8.0	25.0	11.0	26.1	10.0	22.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	19.5	3.5	20.5	6.5	21.5	5.5	18.5
Max Q Clear Time (g_c+I1), s	9.5	16.1	4.7	19.9	7.6	16.8	6.5	18.2
Green Ext Time (p_c), s	0.0	1.5	0.0	0.5	0.0	2.2	0.0	0.2

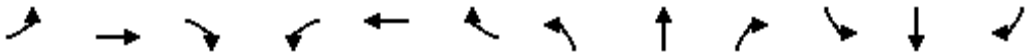
Intersection Summary	
HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	15	423	320	20	518	255	978	28	166	1128
Future Volume (vph)	15	423	320	20	518	255	978	28	166	1128
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases			4					2		
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	21.0	21.0	8.0	21.0	11.0	33.0	33.0	13.0	35.0
Total Split (%)	10.7%	28.0%	28.0%	10.7%	28.0%	14.7%	44.0%	44.0%	17.3%	46.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	3.5	19.8	19.8	3.5	21.4	6.5	29.2	29.2	9.3	32.0
Actuated g/C Ratio	0.05	0.26	0.26	0.05	0.29	0.09	0.39	0.39	0.12	0.43
v/c Ratio	0.20	0.49	0.55	0.26	0.76	0.92	0.76	0.04	0.81	0.80
Control Delay	40.3	26.0	10.1	42.6	29.3	72.8	24.6	0.1	63.8	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	26.0	10.1	42.6	29.3	72.8	24.6	0.1	63.8	24.7
LOS	D	C	B	D	C	E	C	A	E	C
Approach Delay		19.6			29.6		33.8			29.7
Approach LOS		B			C		C			C

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 29.1	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 132: S. Shaver St./Shaver St. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	423	320	20	518	206	255	978	28	166	1128	3
Future Volume (veh/h)	15	423	320	20	518	206	255	978	28	166	1128	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	16	445	337	21	545	217	268	1029	0	175	1187	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	23	758	338	29	538	213	408	1446		199	1455	4
Arrive On Green	0.01	0.22	0.22	0.02	0.22	0.22	0.12	0.41	0.00	0.11	0.41	0.41
Sat Flow, veh/h	1753	3497	1560	1753	2445	970	3401	3497	1560	1753	3579	9
Grp Volume(v), veh/h	16	445	337	21	389	373	268	1029	0	175	580	610
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1666	1700	1749	1560	1753	1749	1839
Q Serve(g_s), s	0.7	8.6	11.2	0.9	16.5	16.5	5.6	18.3	0.0	7.4	22.1	22.1
Cycle Q Clear(g_c), s	0.7	8.6	11.2	0.9	16.5	16.5	5.6	18.3	0.0	7.4	22.1	22.1
Prop In Lane	1.00		1.00	1.00		0.58	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	23	758	338	29	385	367	408	1446		199	711	748
V/C Ratio(X)	0.69	0.59	1.00	0.72	1.01	1.02	0.66	0.71		0.88	0.82	0.82
Avail Cap(c_a), veh/h	82	769	343	82	385	367	408	1446		199	711	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.35	0.35	0.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	36.9	26.4	14.1	36.7	29.2	29.3	31.5	18.3	0.0	32.8	19.8	19.8
Incr Delay (d2), s/veh	30.6	1.1	47.5	28.6	49.0	51.3	1.3	1.1	0.0	27.4	7.8	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.5	8.0	0.6	11.7	11.4	2.3	6.8	0.0	4.5	9.6	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	27.5	61.6	65.4	78.2	80.5	32.9	19.3	0.0	60.1	27.5	27.2
LnGrp LOS	E	C	E	E	F	F	C	B		E	C	C
Approach Vol, veh/h		798			783			1297	A		1365	
Approach Delay, s/veh		42.7			79.0			22.1			31.6	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	35.5	5.7	20.8	13.5	35.0	5.5	21.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	28.5	3.5	16.5	6.5	30.5	3.5	16.5
Max Q Clear Time (g_c+I1), s	9.4	20.3	2.9	13.2	7.6	24.1	2.7	18.5
Green Ext Time (p_c), s	0.0	4.2	0.0	1.4	0.0	3.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

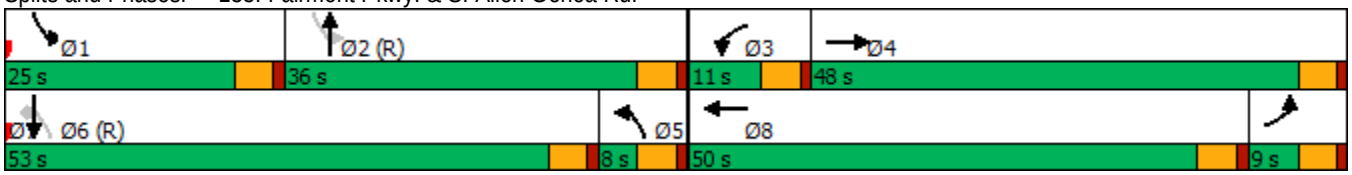
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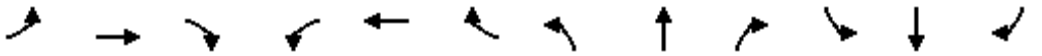
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	41	771	34	778	52	288	301	284	50
Future Volume (vph)	41	771	34	778	52	288	301	284	50
Turn Type	Prot	NA	Prot	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4	3	8	5	2	1	6	
Permitted Phases					6		2		6
Detector Phase	7	4	3	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	9.0	48.0	11.0	50.0	8.0	36.0	25.0	53.0	53.0
Total Split (%)	7.5%	40.0%	9.2%	41.7%	6.7%	30.0%	20.8%	44.2%	44.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	4.8	45.1	6.3	44.4	55.7	37.4	54.8	52.9	52.9
Actuated g/C Ratio	0.04	0.38	0.05	0.37	0.46	0.31	0.46	0.44	0.44
v/c Ratio	0.59	0.47	0.37	0.91	0.12	0.59	0.69	0.36	0.07
Control Delay	90.0	28.9	66.7	44.5	14.2	26.6	28.7	25.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.0	28.9	66.7	44.5	14.2	26.6	28.7	25.5	0.2
LOS	F	C	E	D	B	C	C	C	A
Approach Delay		31.7		45.1		24.9		25.0	
Approach LOS		C		D		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 44 (37%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 34.6	Intersection LOS: C
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 133: Fairmont Pkwy. & S. Allen Genoa Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	771	88	34	778	359	52	288	41	301	284	50
Future Volume (veh/h)	41	771	88	34	778	359	52	288	41	301	284	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	41	779	89	34	786	363	53	291	41	304	287	51
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	52	1698	193	43	850	392	450	505	71	467	744	630
Arrive On Green	0.03	0.37	0.37	0.02	0.37	0.37	0.05	0.32	0.32	0.13	0.40	0.40
Sat Flow, veh/h	1753	4577	520	1753	2325	1071	1753	1578	222	1753	1841	1560
Grp Volume(v), veh/h	41	569	299	34	591	558	53	0	332	304	287	51
Grp Sat Flow(s),veh/h/ln	1753	1675	1747	1753	1749	1648	1753	0	1801	1753	1841	1560
Q Serve(g_s), s	2.8	15.4	15.6	2.3	38.8	39.0	0.0	0.0	18.4	13.7	13.2	2.4
Cycle Q Clear(g_c), s	2.8	15.4	15.6	2.3	38.8	39.0	0.0	0.0	18.4	13.7	13.2	2.4
Prop In Lane	1.00		0.30	1.00		0.65	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	52	1243	648	43	639	603	450	0	577	467	744	630
V/C Ratio(X)	0.79	0.46	0.46	0.79	0.92	0.93	0.12	0.00	0.58	0.65	0.39	0.08
Avail Cap(c_a), veh/h	66	1243	648	95	663	625	450	0	577	531	744	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	0.42	0.42	0.42	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	28.6	28.6	58.2	36.5	36.5	27.2	0.0	34.0	23.6	25.2	22.0
Incr Delay (d2), s/veh	26.6	0.2	0.3	12.9	9.3	10.1	0.1	0.0	4.1	2.3	1.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.2	6.6	1.2	17.9	17.1	1.1	0.0	8.6	5.8	6.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	28.8	29.0	71.2	45.8	46.7	27.3	0.0	38.1	25.9	26.7	22.3
LnGrp LOS	F	C	C	E	D	D	C	A	D	C	C	C
Approach Vol, veh/h		909			1183			385			642	
Approach Delay, s/veh		31.4			46.9			36.6			26.0	
Approach LOS		C			D			D			C	

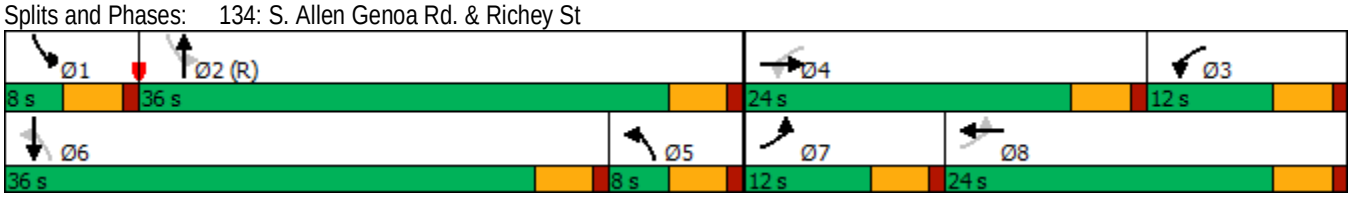
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	42.9	7.4	49.0	10.6	53.0	8.1	48.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	31.5	6.5	43.5	3.5	48.5	4.5	45.5
Max Q Clear Time (g_c+I1), s	15.7	20.4	4.3	17.6	2.0	15.2	4.8	41.0
Green Ext Time (p_c), s	0.4	1.4	0.0	6.3	0.0	1.9	0.0	2.9

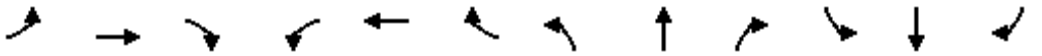
Intersection Summary	
HCM 6th Ctrl Delay	36.8
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	203	660	203	726	55	683	51	895
Future Volume (vph)	203	660	203	726	55	683	51	895
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	24.0	12.0	24.0	8.0	36.0	8.0	36.0
Total Split (%)	15.0%	30.0%	15.0%	30.0%	10.0%	45.0%	10.0%	45.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	27.0	19.5	27.0	19.5	36.8	34.7	36.8	34.7
Actuated g/C Ratio	0.34	0.24	0.34	0.24	0.46	0.43	0.46	0.43
v/c Ratio	0.84	0.95	0.84	0.94	0.32	0.57	0.22	0.77
Control Delay	48.9	51.0	58.0	50.8	22.5	19.0	13.0	23.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	51.0	58.0	50.8	22.5	19.0	13.0	23.9
LOS	D	D	E	D	C	B	B	C
Approach Delay		50.6		52.3		19.2		23.4
Approach LOS		D		D		B		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 36.2	Intersection LOS: D
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 134: S. Allen Genoa Rd. & Richey St





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	660	99	203	726	29	55	683	116	51	895	187
Future Volume (veh/h)	203	660	99	203	726	29	55	683	116	51	895	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	214	695	104	214	764	31	58	719	122	54	942	197
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	272	744	111	267	833	34	241	1219	207	285	1063	222
Arrive On Green	0.09	0.24	0.24	0.09	0.24	0.24	0.07	0.41	0.41	0.03	0.37	0.37
Sat Flow, veh/h	1753	3051	456	1753	3425	139	1753	2991	507	1753	2880	602
Grp Volume(v), veh/h	214	398	401	214	390	405	58	420	421	54	572	567
Grp Sat Flow(s),veh/h/ln	1753	1749	1759	1753	1749	1816	1753	1749	1749	1753	1749	1732
Q Serve(g_s), s	7.4	17.8	17.9	4.7	17.4	17.4	0.0	15.0	15.0	1.4	24.5	24.6
Cycle Q Clear(g_c), s	7.4	17.8	17.9	4.7	17.4	17.4	0.0	15.0	15.0	1.4	24.5	24.6
Prop In Lane	1.00		0.26	1.00		0.08	1.00		0.29	1.00		0.35
Lane Grp Cap(c), veh/h	272	426	429	267	425	441	241	713	713	285	646	640
V/C Ratio(X)	0.79	0.93	0.94	0.80	0.92	0.92	0.24	0.59	0.59	0.19	0.89	0.89
Avail Cap(c_a), veh/h	272	426	429	268	426	443	241	713	713	308	689	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	29.6	29.6	33.8	29.5	29.5	33.4	18.5	18.5	14.6	23.6	23.7
Incr Delay (d2), s/veh	14.3	27.7	27.9	15.9	24.5	24.0	0.5	3.6	3.6	0.3	12.7	12.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	10.3	10.4	5.0	9.8	10.1	1.1	6.3	6.3	0.5	11.5	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	57.3	57.5	49.7	54.0	53.5	33.9	22.0	22.0	14.9	36.3	36.6
LnGrp LOS	D	E	E	D	D	D	C	C	C	B	D	D
Approach Vol, veh/h		1013			1009			899			1193	
Approach Delay, s/veh		53.0			52.9			22.8			35.5	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	37.1	11.9	24.0	10.0	34.0	12.0	23.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	31.5	7.5	19.5	3.5	31.5	7.5	19.5
Max Q Clear Time (g_c+I1), s	3.4	17.0	6.7	19.9	2.0	26.6	9.4	19.4
Green Ext Time (p_c), s	0.0	4.6	0.1	0.0	0.0	3.0	0.0	0.1

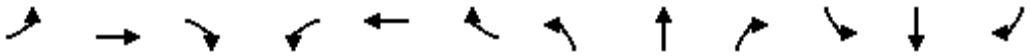
Intersection Summary	
HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	206	3	147	143	646	147	984
Future Volume (vph)	29	206	3	147	143	646	147	984
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	30.0	30.0	30.0	30.0	27.0	63.0	27.0	63.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	22.5%	52.5%	22.5%	52.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		18.1		18.1	15.5	65.9	22.5	72.8
Actuated g/C Ratio		0.15		0.15	0.13	0.55	0.19	0.61
v/c Ratio		0.79		0.51	0.67	0.36	0.47	0.51
Control Delay		51.7		27.8	63.5	16.4	49.0	15.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		51.7		27.8	63.5	16.4	49.0	15.8
LOS		D		C	E	B	D	B
Approach Delay		51.7		27.8		24.9		19.9
Approach LOS		D		C		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 113 (94%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 26.7	Intersection LOS: C
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 135: S. Allen Genoa Rd. & Queens St./Queens Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	206	124	3	147	123	143	646	4	147	984	44
Future Volume (veh/h)	29	206	124	3	147	123	143	646	4	147	984	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	215	129	3	153	128	149	673	4	153	1025	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	56	281	176	32	305	233	178	1738	10	411	2114	95
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.10	0.49	0.49	0.23	0.62	0.62
Sat Flow, veh/h	128	1695	1063	9	1839	1407	1753	3564	21	1753	3409	153
Grp Volume(v), veh/h	194	0	180	155	0	129	149	330	347	153	526	545
Grp Sat Flow(s),veh/h/ln	1401	0	1484	1833	0	1422	1753	1749	1837	1753	1749	1813
Q Serve(g_s), s	6.7	0.0	13.8	0.0	0.0	10.0	10.0	14.3	14.3	8.8	19.6	19.6
Cycle Q Clear(g_c), s	16.7	0.0	13.8	9.2	0.0	10.0	10.0	14.3	14.3	8.8	19.6	19.6
Prop In Lane	0.15		0.72	0.02		0.99	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	267	0	246	335	0	236	178	852	895	411	1084	1124
V/C Ratio(X)	0.73	0.00	0.73	0.46	0.00	0.55	0.84	0.39	0.39	0.37	0.48	0.48
Avail Cap(c_a), veh/h	344	0	315	419	0	302	329	852	895	411	1084	1124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.60	0.60	0.60	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	0.0	47.5	45.6	0.0	45.9	52.9	19.4	19.4	38.5	12.4	12.4
Incr Delay (d2), s/veh	5.4	0.0	6.2	1.0	0.0	2.0	6.2	0.8	0.8	0.6	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	0.0	5.4	4.2	0.0	3.6	4.7	5.9	6.2	3.8	7.6	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	0.0	53.8	46.6	0.0	47.9	59.1	20.2	20.2	39.1	13.9	13.9
LnGrp LOS	D	A	D	D	A	D	E	C	C	D	B	B
Approach Vol, veh/h		374			284			826			1224	
Approach Delay, s/veh		53.9			47.2			27.2			17.1	
Approach LOS		D			D			C			B	

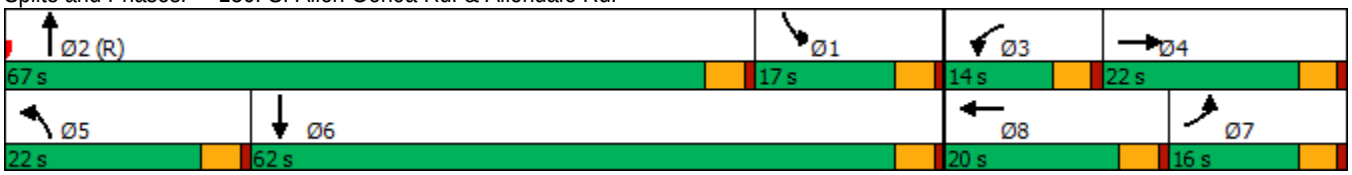
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.6	63.0		24.4	16.7	78.9		24.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	22.5	58.5		25.5	22.5	58.5		25.5				
Max Q Clear Time (g_c+I1), s	10.8	16.3		18.7	12.0	21.6		12.0				
Green Ext Time (p_c), s	0.3	4.5		1.1	0.3	8.4		1.2				

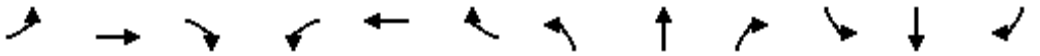
Intersection Summary			
HCM 6th Ctrl Delay		28.4	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	221	55	197	128	705	88	1035
Future Volume (vph)	76	221	55	197	128	705	88	1035
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	16.0	22.0	14.0	20.0	22.0	67.0	17.0	62.0
Total Split (%)	13.3%	18.3%	11.7%	16.7%	18.3%	55.8%	14.2%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	None
Act Effct Green (s)	10.1	15.1	8.4	13.6	14.1	69.9	10.7	66.4
Actuated g/C Ratio	0.08	0.13	0.07	0.11	0.12	0.58	0.09	0.55
v/c Ratio	0.54	0.72	0.49	0.65	0.68	0.41	0.60	0.63
Control Delay	66.5	52.4	54.6	44.2	67.2	15.7	68.2	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	52.4	54.6	44.2	67.2	15.7	68.2	21.9
LOS	E	D	D	D	E	B	E	C
Approach Delay		55.1		46.1		22.8		25.2
Approach LOS		E		D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 22 (18%), Referenced to phase 2:NBT, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 30.8	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 136: S. Allen Genoa Rd. & Allendale Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	221	96	55	197	43	128	705	89	88	1035	110
Future Volume (veh/h)	76	221	96	55	197	43	128	705	89	88	1035	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	79	230	100	57	205	45	133	734	0	92	1078	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	119	286	120	73	266	57	162	1822		295	2087	
Arrive On Green	0.07	0.12	0.12	0.04	0.09	0.09	0.09	0.52	0.00	0.17	0.60	0.00
Sat Flow, veh/h	1753	2398	1010	1753	2863	616	1753	3589	0	1753	3589	0
Grp Volume(v), veh/h	79	166	164	57	124	126	133	734	0	92	1078	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1659	1753	1749	1730	1753	1749	0	1753	1749	0
Q Serve(g_s), s	5.3	11.1	11.6	3.9	8.3	8.6	8.9	15.3	0.0	5.5	21.6	0.0
Cycle Q Clear(g_c), s	5.3	11.1	11.6	3.9	8.3	8.6	8.9	15.3	0.0	5.5	21.6	0.0
Prop In Lane	1.00		0.61	1.00		0.36	1.00		0.00	1.00		0.00
Lane Grp Cap(c), veh/h	119	208	198	73	162	161	162	1822		295	2087	
V/C Ratio(X)	0.66	0.80	0.83	0.78	0.76	0.79	0.82	0.40		0.31	0.52	
Avail Cap(c_a), veh/h	168	255	242	139	226	223	256	1822		295	2087	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.6	51.4	51.7	56.9	53.1	53.3	53.5	17.4	0.0	43.8	14.1	0.0
Incr Delay (d2), s/veh	6.2	13.3	18.0	15.7	9.1	11.4	11.0	0.7	0.0	0.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.6	5.8	2.0	4.0	4.2	4.4	6.2	0.0	2.5	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	64.7	69.7	72.6	62.3	64.7	64.5	18.1	0.0	44.4	14.3	0.0
LnGrp LOS	E	E	E	E	E	E	E	B		D	B	
Approach Vol, veh/h		409			307			867	A		1170	A
Approach Delay, s/veh		66.0			65.2			25.2			16.7	
Approach LOS		E			E			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.7	67.0	9.5	18.8	15.6	76.1	12.7	15.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	62.5	9.5	17.5	17.5	57.5	11.5	15.5
Max Q Clear Time (g_c+I1), s	7.5	17.3	5.9	13.6	10.9	23.6	7.3	10.6
Green Ext Time (p_c), s	0.1	6.1	0.0	0.7	0.2	9.8	0.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

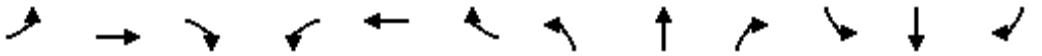
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	147	137	74	104	11	818	85	20	923	150
Future Volume (vph)	147	137	74	104	11	818	85	20	923	150
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	24.0	10.0	20.0	86.0	86.0	86.0	86.0	86.0	86.0
Total Split (%)	11.7%	20.0%	8.3%	16.7%	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	23.2	15.6	15.1	9.6	87.4	87.4	87.4		87.4	87.4
Actuated g/C Ratio	0.19	0.13	0.13	0.08	0.73	0.73	0.73		0.73	0.73
v/c Ratio	0.71	0.47	0.50	0.46	0.04	0.68	0.08		0.46	0.15
Control Delay	46.4	26.3	53.3	54.0	5.5	12.4	2.5		7.7	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	46.4	26.3	53.3	54.0	5.5	12.4	2.5		7.7	1.7
LOS	D	C	D	D	A	B	A		A	A
Approach Delay		34.7		53.7		11.4			6.8	
Approach LOS		C		D		B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 76 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 72.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 137: Allendale Rd. & Richey St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	137	69	74	104	13	11	818	85	20	923	150
Future Volume (veh/h)	147	137	69	74	104	13	11	818	85	20	923	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	156	146	0	79	111	0	12	870	90	21	982	160
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	223	293		194	177		377	1395	1182	59	2510	1182
Arrive On Green	0.08	0.08	0.00	0.05	0.05	0.00	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1753	3589	0	1753	3589	0	485	1841	1560	37	3313	1560
Grp Volume(v), veh/h	156	146	0	79	111	0	12	870	90	527	476	160
Grp Sat Flow(s),veh/h/ln	1753	1749	0	1753	1749	0	485	1841	1560	1759	1591	1560
Q Serve(g_s), s	9.5	4.8	0.0	5.1	3.7	0.0	1.1	26.1	1.8	0.0	12.4	3.3
Cycle Q Clear(g_c), s	9.5	4.8	0.0	5.1	3.7	0.0	13.5	26.1	1.8	11.7	12.4	3.3
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	0.04		1.00
Lane Grp Cap(c), veh/h	223	293		194	177		377	1395	1182	1364	1206	1182
V/C Ratio(X)	0.70	0.50		0.41	0.63		0.03	0.62	0.08	0.39	0.39	0.14
Avail Cap(c_a), veh/h	223	568		194	452		377	1395	1182	1364	1206	1182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	52.5	0.0	51.3	55.9	0.0	7.3	6.7	3.7	4.9	5.0	3.9
Incr Delay (d2), s/veh	6.2	0.9	0.0	1.4	3.6	0.0	0.2	2.1	0.1	0.8	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	2.1	0.0	2.3	1.7	0.0	0.1	9.0	0.5	4.0	3.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	53.4	0.0	52.7	59.5	0.0	7.5	8.8	3.9	5.8	6.0	4.2
LnGrp LOS	E	D		D	E		A	A	A	A	A	A
Approach Vol, veh/h		302	A		190	A		972			1163	
Approach Delay, s/veh		54.3			56.7			8.3			5.6	
Approach LOS		D			E			A			A	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		95.4	10.0	14.6		95.4	14.0	10.6				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		81.5	5.5	19.5		81.5	9.5	15.5				
Max Q Clear Time (g_c+I1), s		28.1	7.1	6.8		14.4	11.5	5.7				
Green Ext Time (p_c), s		8.9	0.0	0.6		9.1	0.0	0.3				

Intersection Summary	
HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

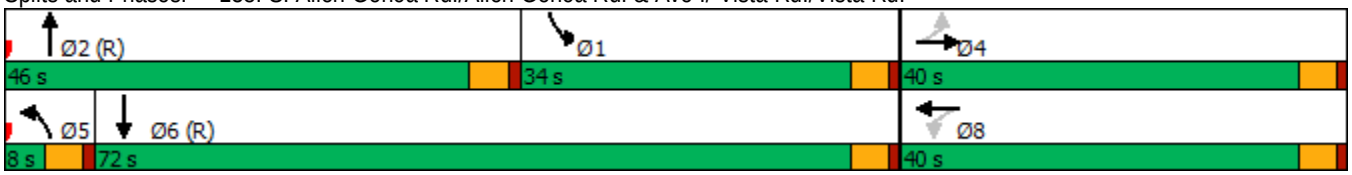
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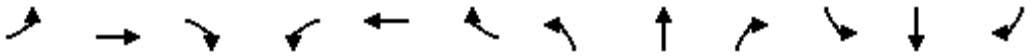
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	14	30	17	48	9	693	229	717
Future Volume (vph)	14	30	17	48	9	693	229	717
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	40.0	40.0	40.0	40.0	8.0	46.0	34.0	72.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	6.7%	38.3%	28.3%	60.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		21.3		21.3	6.0	55.7	29.5	87.6
Actuated g/C Ratio		0.18		0.18	0.05	0.46	0.25	0.73
v/c Ratio		0.31		0.85	0.12	0.50	0.58	0.31
Control Delay		32.4		41.4	57.4	25.3	46.3	7.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		32.4		41.4	57.4	25.3	46.3	7.7
LOS		C		D	E	C	D	A
Approach Delay		32.4		41.4		25.7		17.0
Approach LOS		C		D		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 50 (42%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 138: S. Allen Genoa Rd./Allen Genoa Rd. & Ave I/ Vista Rd./Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	30	19	17	48	277	9	693	48	229	717	5
Future Volume (veh/h)	14	30	19	17	48	277	9	693	48	229	717	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	15	33	21	18	52	301	10	753	52	249	779	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	81	169	94	42	66	328	14	1148	79	505	2229	14
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.01	0.35	0.35	0.29	0.63	0.63
Sat Flow, veh/h	176	668	370	41	260	1292	1753	3319	229	1753	3562	23
Grp Volume(v), veh/h	69	0	0	371	0	0	10	397	408	249	382	402
Grp Sat Flow(s),veh/h/ln	1214	0	0	1592	0	0	1753	1749	1799	1753	1749	1837
Q Serve(g_s), s	0.0	0.0	0.0	12.9	0.0	0.0	0.7	23.0	23.0	14.1	12.6	12.6
Cycle Q Clear(g_c), s	3.7	0.0	0.0	27.2	0.0	0.0	0.7	23.0	23.0	14.1	12.6	12.6
Prop In Lane	0.22		0.30	0.05		0.81	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	344	0	0	435	0	0	14	605	622	505	1094	1149
V/C Ratio(X)	0.20	0.00	0.00	0.85	0.00	0.00	0.69	0.66	0.66	0.49	0.35	0.35
Avail Cap(c_a), veh/h	407	0	0	502	0	0	51	605	622	505	1094	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.64	0.00	0.00	1.00	1.00	1.00	0.49	0.49	0.49
Uniform Delay (d), s/veh	34.8	0.0	0.0	43.5	0.0	0.0	59.4	33.2	33.2	35.4	10.8	10.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	8.0	0.0	0.0	45.1	5.5	5.3	0.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	11.6	0.0	0.0	0.5	10.6	10.9	6.1	4.8	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	0.0	0.0	51.6	0.0	0.0	104.5	38.7	38.6	35.8	11.2	11.2
LnGrp LOS	D	A	A	D	A	A	F	D	D	D	B	B
Approach Vol, veh/h		69			371			815			1033	
Approach Delay, s/veh		35.1			51.6			39.4			17.1	
Approach LOS		D			D			D			B	

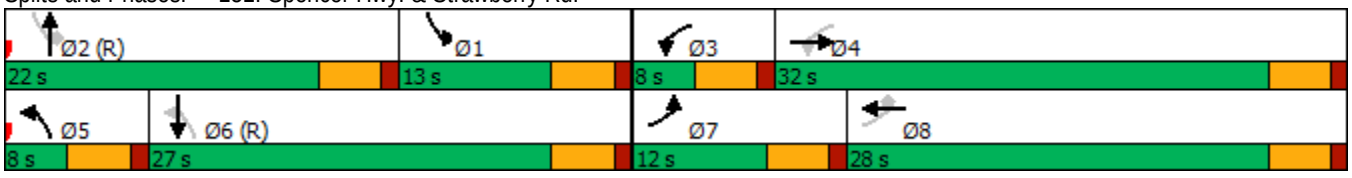
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.1	46.0		34.9	5.5	79.6		34.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	29.5	41.5		35.5	3.5	67.5		35.5				
Max Q Clear Time (g_c+I1), s	16.1	25.0		5.7	2.7	14.6		29.2				
Green Ext Time (p_c), s	0.6	4.7		0.4	0.0	5.9		1.3				

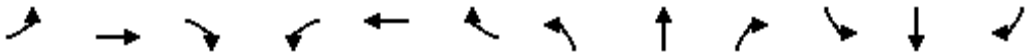
Intersection Summary			
HCM 6th Ctrl Delay		31.2	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	249	1481	141	1416	201	113	615	193	282	664
Future Volume (vph)	249	1481	141	1416	201	113	615	193	282	664
Turn Type	D.P+P	NA	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	7	4	3	8		5	2		1	6
Permitted Phases	8		4		8	6		2	2	
Detector Phase	7	4	3	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	12.0	32.0	8.0	28.0	28.0	8.0	22.0	22.0	13.0	27.0
Total Split (%)	16.0%	42.7%	10.7%	37.3%	37.3%	10.7%	29.3%	29.3%	17.3%	36.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	31.0	27.5	31.0	23.5	23.5	26.9	17.5	17.5	26.0	24.1
Actuated g/C Ratio	0.41	0.37	0.41	0.31	0.31	0.36	0.23	0.23	0.35	0.32
v/c Ratio	0.97	0.92	0.81	0.96	0.32	0.69	0.80	0.43	1.03	0.84
Control Delay	69.3	33.1	50.0	41.5	4.2	40.8	36.6	10.6	93.2	30.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.3	33.1	50.0	41.5	4.2	40.8	36.6	10.6	93.2	30.8
LOS	E	C	D	D	A	D	D	B	F	C
Approach Delay		38.0		37.9			31.7			45.5
Approach LOS		D		D			C			D

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 38.5	Intersection LOS: D
Intersection Capacity Utilization 93.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 151: Spencer Hwy. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	1481	112	141	1416	201	113	615	193	282	664	254
Future Volume (veh/h)	249	1481	112	141	1416	201	113	615	193	282	664	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	254	1511	114	144	1445	205	115	628	197	288	678	259
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	281	1741	131	199	1567	487	200	816	364	340	746	285
Arrive On Green	0.10	0.37	0.37	0.05	0.31	0.31	0.05	0.23	0.23	0.11	0.30	0.30
Sat Flow, veh/h	1753	4767	360	1753	5025	1560	1753	3497	1560	1753	2474	945
Grp Volume(v), veh/h	254	1062	563	144	1445	205	115	628	197	288	479	458
Grp Sat Flow(s),veh/h/ln	1753	1675	1776	1753	1675	1560	1753	1749	1560	1753	1749	1671
Q Serve(g_s), s	7.5	22.1	22.1	3.5	20.8	5.1	3.4	12.6	6.5	5.9	19.8	19.8
Cycle Q Clear(g_c), s	7.5	22.1	22.1	3.5	20.8	5.1	3.4	12.6	6.5	5.9	19.8	19.8
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	281	1224	649	199	1567	487	200	816	364	340	527	504
V/C Ratio(X)	0.90	0.87	0.87	0.72	0.92	0.42	0.57	0.77	0.54	0.85	0.91	0.91
Avail Cap(c_a), veh/h	281	1228	651	199	1575	489	200	816	364	340	527	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.19	0.19	0.19	0.58	0.58	0.58	0.80	0.80	0.80
Uniform Delay (d), s/veh	18.8	22.1	22.1	20.5	24.9	8.9	20.2	26.9	15.5	30.2	25.2	25.2
Incr Delay (d2), s/veh	26.3	5.8	10.3	2.5	2.1	0.1	2.3	4.1	3.3	14.7	18.7	19.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	8.7	10.0	1.5	7.8	2.5	1.4	5.4	3.1	6.1	10.3	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	27.9	32.4	23.0	27.0	9.0	22.5	31.0	18.8	44.9	43.9	44.6
LnGrp LOS	D	C	C	C	C	A	C	C	B	D	D	D
Approach Vol, veh/h		1879			1794			940			1225	
Approach Delay, s/veh		31.6			24.7			27.4			44.4	
Approach LOS		C			C			C			D	

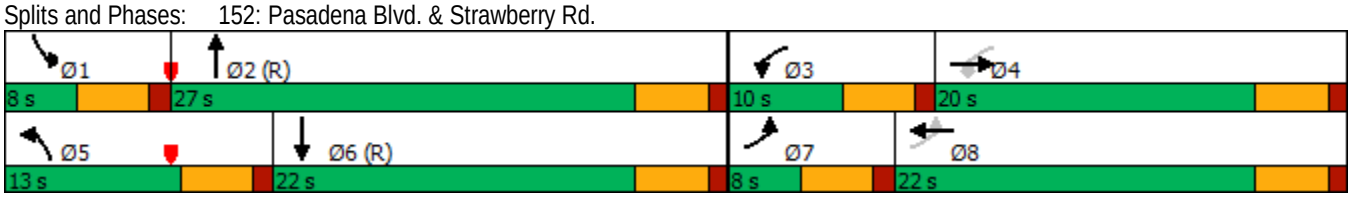
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	22.0	8.0	31.9	8.0	27.1	12.0	27.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	17.5	3.5	27.5	3.5	22.5	7.5	23.5
Max Q Clear Time (g_c+I1), s	7.9	14.6	5.5	24.1	5.4	21.8	9.5	22.8
Green Ext Time (p_c), s	0.1	1.4	0.0	2.7	0.0	0.4	0.0	0.6

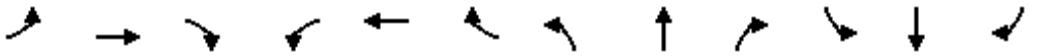
Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	66	681	467	221	597	347	650	113	733
Future Volume (vph)	66	681	467	221	597	347	650	113	733
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases	8		4	4					
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	8.0	20.0	20.0	10.0	22.0	13.0	27.0	8.0	22.0
Total Split (%)	12.3%	30.8%	30.8%	15.4%	33.8%	20.0%	41.5%	12.3%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	22.8	15.5	15.5	21.0	20.7	8.5	24.1	3.5	17.5
Actuated g/C Ratio	0.35	0.24	0.24	0.32	0.32	0.13	0.37	0.05	0.27
v/c Ratio	0.30	0.85	0.86	0.92	0.64	0.87	0.68	0.64	0.87
Control Delay	16.3	35.6	28.7	61.8	22.6	51.9	20.4	48.4	34.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	35.6	28.7	61.8	22.6	51.9	20.4	48.4	34.5
LOS	B	D	C	E	C	D	C	D	C
Approach Delay		31.9			32.2		30.0		36.2
Approach LOS		C			C		C		D

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 82.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 152: Pasadena Blvd. & Strawberry Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	681	467	221	597	88	347	650	138	113	733	52
Future Volume (veh/h)	66	681	467	221	597	88	347	650	138	113	733	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	68	702	481	228	615	91	358	670	142	116	756	54
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	256	834	372	281	862	127	445	994	210	183	891	64
Arrive On Green	0.04	0.24	0.24	0.08	0.28	0.28	0.13	0.35	0.35	0.05	0.27	0.27
Sat Flow, veh/h	1753	3497	1560	1753	3057	451	3401	2872	608	3401	3310	236
Grp Volume(v), veh/h	68	702	481	228	351	355	358	408	404	116	399	411
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1759	1700	1749	1731	1700	1749	1798
Q Serve(g_s), s	1.8	12.4	15.5	5.5	11.7	11.8	6.6	12.9	12.9	2.2	14.1	14.1
Cycle Q Clear(g_c), s	1.8	12.4	15.5	5.5	11.7	11.8	6.6	12.9	12.9	2.2	14.1	14.1
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.35	1.00		0.13
Lane Grp Cap(c), veh/h	256	834	372	281	493	496	445	605	599	183	471	484
V/C Ratio(X)	0.27	0.84	1.29	0.81	0.71	0.71	0.80	0.67	0.67	0.63	0.85	0.85
Avail Cap(c_a), veh/h	279	834	372	281	493	496	445	605	599	183	471	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.47	0.47	0.47	0.90	0.90	0.90	0.94	0.94	0.94
Uniform Delay (d), s/veh	16.7	23.6	24.8	20.5	21.0	21.0	27.4	18.1	18.1	30.1	22.5	22.5
Incr Delay (d2), s/veh	0.5	7.6	150.1	8.3	2.3	2.3	9.4	5.3	5.4	6.5	16.2	15.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.6	20.7	3.0	4.6	4.7	3.1	5.5	5.5	1.0	7.3	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	31.1	174.8	28.8	23.3	23.3	36.9	23.4	23.5	36.7	38.7	38.4
LnGrp LOS	B	C	F	C	C	C	D	C	C	D	D	D
Approach Vol, veh/h		1251			934			1170			926	
Approach Delay, s/veh		85.6			24.6			27.6			38.3	
Approach LOS		F			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	27.0	10.0	20.0	13.0	22.0	7.2	22.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	22.5	5.5	15.5	8.5	17.5	3.5	17.5
Max Q Clear Time (g_c+I1), s	4.2	14.9	7.5	17.5	8.6	16.1	3.8	13.8
Green Ext Time (p_c), s	0.0	3.0	0.0	0.0	0.0	0.7	0.0	1.5

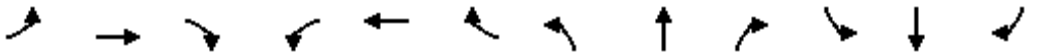
Intersection Summary	
HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	104	3	1	1	141	1065	1	1277
Future Volume (vph)	104	3	1	1	141	1065	1	1277
Turn Type	Perm	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	21.0	21.0	21.0	21.0	17.0	79.0	8.0	70.0
Total Split (%)	19.4%	19.4%	19.4%	19.4%	15.7%	73.1%	7.4%	64.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lag	Lag	Lead	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.2	13.2		13.2	81.3	84.2	84.9	68.8
Actuated g/C Ratio	0.12	0.12		0.12	0.75	0.78	0.79	0.64
v/c Ratio	0.66	0.54		0.01	0.47	0.42	0.00	0.68
Control Delay	62.9	12.4		39.5	16.5	2.1	3.0	14.9
Queue Delay	0.0	0.0		0.0	0.3	0.2	0.0	0.0
Total Delay	62.9	12.4		39.5	16.8	2.3	3.0	15.0
LOS	E	B		D	B	A	A	B
Approach Delay		30.9		39.5		4.0		15.0
Approach LOS		C		D		A		B

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 107 (99%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 12.0	Intersection LOS: B
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 153: Strawberry Rd. & Pauline St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	3	178	1	1	0	141	1065	3	1	1277	119
Future Volume (veh/h)	104	3	178	1	1	0	141	1065	3	1	1277	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	111	3	189	1	1	0	150	1133	3	1	1359	127
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	216	3	217	65	49	0	402	2623	7	426	1962	182
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.00	0.26	1.00	1.00	0.00	0.61	0.61
Sat Flow, veh/h	1394	24	1539	105	346	0	1753	3578	9	1753	3234	301
Grp Volume(v), veh/h	111	0	192	2	0	0	150	554	582	1	732	754
Grp Sat Flow(s),veh/h/ln	1394	0	1564	451	0	0	1753	1749	1839	1753	1749	1787
Q Serve(g_s), s	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.6	31.0
Cycle Q Clear(g_c), s	11.6	0.0	13.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	30.6	31.0
Prop In Lane	1.00		0.98	0.50		0.00	1.00		0.01	1.00		0.17
Lane Grp Cap(c), veh/h	216	0	220	113	0	0	402	1282	1348	426	1061	1084
V/C Ratio(X)	0.51	0.00	0.87	0.02	0.00	0.00	0.37	0.43	0.43	0.00	0.69	0.70
Avail Cap(c_a), veh/h	232	0	239	130	0	0	402	1282	1348	481	1061	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.80	0.80	0.80	0.37	0.37	0.37
Uniform Delay (d), s/veh	44.8	0.0	45.4	40.5	0.0	0.0	22.3	0.0	0.0	3.8	14.4	14.5
Incr Delay (d2), s/veh	1.9	0.0	26.3	0.1	0.0	0.0	0.5	0.9	0.8	0.0	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	6.6	0.0	0.0	0.0	2.8	0.3	0.3	0.0	11.6	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	0.0	71.8	40.5	0.0	0.0	22.7	0.9	0.8	3.8	15.8	15.9
LnGrp LOS	D	A	E	D	A	A	C	A	A	A	B	B
Approach Vol, veh/h		303			2			1286			1487	
Approach Delay, s/veh		62.6			40.5			3.4			15.8	
Approach LOS		E			D			A			B	

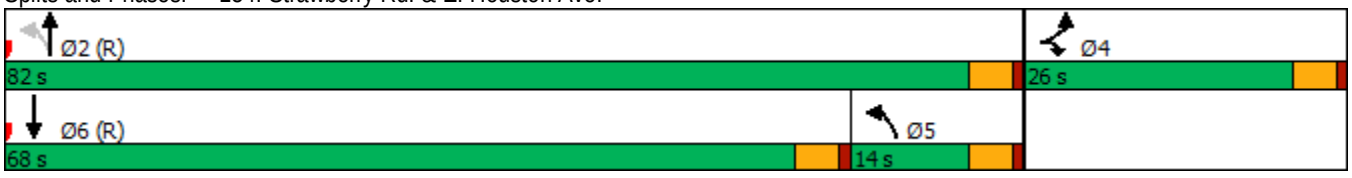
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	83.7		19.7	18.3	70.0		19.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	3.5	74.5		16.5	12.5	65.5		16.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		15.0	2.0	33.0		15.0				
Green Ext Time (p_c), s	0.0	9.7		0.2	0.3	14.2		0.0				

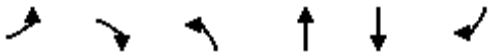
Intersection Summary			
HCM 6th Ctrl Delay		15.2	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	51	89	48	739	824
Future Volume (vph)	51	89	48	739	824
Turn Type	Prot	Prot	pm+pt	NA	NA
Protected Phases	4	4	5	2	6
Permitted Phases			2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	26.0	26.0	14.0	82.0	68.0
Total Split (%)	24.1%	24.1%	13.0%	75.9%	63.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.7	8.7	93.2	93.2	82.0
Actuated g/C Ratio	0.08	0.08	0.86	0.86	0.76
v/c Ratio	0.39	0.45	0.09	0.26	0.36
Control Delay	54.2	16.3	2.4	2.1	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	16.3	2.4	2.1	6.3
LOS	D	B	A	A	A
Approach Delay	30.0			2.1	6.3
Approach LOS	C			A	A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 12 (11%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.45	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 154: Strawberry Rd. & E. Houston Ave.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	89	48	739	824	51
Future Volume (veh/h)	51	89	48	739	824	51
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	54	95	51	786	877	54
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	141	125	680	2925	1967	121
Arrive On Green	0.08	0.08	0.21	0.84	0.59	0.59
Sat Flow, veh/h	1753	1560	1753	3589	3438	206
Grp Volume(v), veh/h	54	95	51	786	458	473
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1804
Q Serve(g_s), s	3.2	6.4	0.0	5.1	15.8	15.8
Cycle Q Clear(g_c), s	3.2	6.4	0.0	5.1	15.8	15.8
Prop In Lane	1.00	1.00	1.00			0.11
Lane Grp Cap(c), veh/h	141	125	680	2925	1028	1060
V/C Ratio(X)	0.38	0.76	0.08	0.27	0.45	0.45
Avail Cap(c_a), veh/h	349	311	680	2925	1028	1060
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.71	0.71	0.68	0.68
Uniform Delay (d), s/veh	47.1	48.6	8.1	1.9	12.4	12.4
Incr Delay (d2), s/veh	1.6	8.3	0.0	0.2	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.8	0.5	1.0	6.0	6.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.7	56.9	8.1	2.0	13.4	13.3
LnGrp LOS	D	E	A	A	B	B
Approach Vol, veh/h	149			837	931	
Approach Delay, s/veh	54.0			2.4	13.4	
Approach LOS	D			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.8		13.2	26.8	68.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		77.5		21.5	9.5	63.5
Max Q Clear Time (g_c+I1), s		7.1		8.4	2.0	17.8
Green Ext Time (p_c), s		6.4		0.3	0.0	7.0

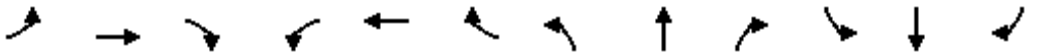
Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	29	255	46	230	77	474	221	899
Future Volume (vph)	29	255	46	230	77	474	221	899
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	13.0	27.0	15.0	29.0	18.0	42.0	36.0	60.0
Total Split (%)	10.8%	22.5%	12.5%	24.2%	15.0%	35.0%	30.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.3	16.9	8.4	20.2	10.7	57.6	21.2	70.2
Actuated g/C Ratio	0.06	0.14	0.07	0.17	0.09	0.48	0.18	0.58
v/c Ratio	0.29	0.71	0.40	0.63	0.52	0.35	0.75	0.48
Control Delay	60.4	52.4	62.4	34.7	63.2	22.4	61.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.4	52.4	62.4	34.7	63.2	22.4	61.8	18.1
LOS	E	D	E	C	E	C	E	B
Approach Delay		53.0		37.6		27.4		26.5
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 155: Pasadena Blvd. & Harris Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	255	84	46	230	173	77	474	75	221	899	32
Future Volume (veh/h)	29	255	84	46	230	173	77	474	75	221	899	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	30	266	88	48	240	180	80	494	78	230	936	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	37	364	118	62	299	215	102	1590	250	262	2126	75
Arrive On Green	0.02	0.14	0.14	0.04	0.15	0.15	0.06	0.53	0.53	0.15	0.62	0.62
Sat Flow, veh/h	1753	2598	840	1753	1940	1397	1753	3028	476	1753	3446	121
Grp Volume(v), veh/h	30	177	177	48	215	205	80	284	288	230	475	494
Grp Sat Flow(s),veh/h/ln	1753	1749	1689	1753	1749	1589	1753	1749	1755	1753	1749	1819
Q Serve(g_s), s	2.0	11.6	12.1	3.3	14.3	15.0	5.4	11.1	11.2	15.4	17.1	17.1
Cycle Q Clear(g_c), s	2.0	11.6	12.1	3.3	14.3	15.0	5.4	11.1	11.2	15.4	17.1	17.1
Prop In Lane	1.00		0.50	1.00		0.88	1.00		0.27	1.00		0.07
Lane Grp Cap(c), veh/h	37	245	237	62	269	245	102	919	922	262	1079	1122
V/C Ratio(X)	0.80	0.72	0.75	0.78	0.80	0.84	0.79	0.31	0.31	0.88	0.44	0.44
Avail Cap(c_a), veh/h	124	328	317	153	357	324	197	919	922	460	1079	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	49.4	49.6	57.4	49.0	49.3	55.8	16.1	16.2	50.0	12.1	12.1
Incr Delay (d2), s/veh	21.6	3.3	4.3	18.7	9.2	13.5	12.5	0.9	0.9	9.1	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.3	5.3	1.8	6.8	6.8	2.7	4.5	4.6	7.3	6.7	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.0	52.7	53.8	76.1	58.2	62.8	68.3	17.0	17.1	59.1	13.4	13.4
LnGrp LOS	F	D	D	E	E	E	E	B	B	E	B	B
Approach Vol, veh/h		384			468			652			1199	
Approach Delay, s/veh		55.4			62.0			23.3			22.1	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	67.5	8.7	21.3	11.5	78.5	7.1	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	31.5	37.5	10.5	22.5	13.5	55.5	8.5	24.5
Max Q Clear Time (g_c+I1), s	17.4	13.2	5.3	14.1	7.4	19.1	4.0	17.0
Green Ext Time (p_c), s	0.5	3.5	0.0	1.3	0.1	7.2	0.0	1.5

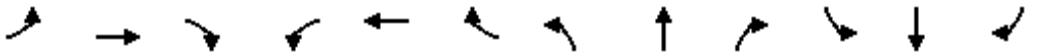
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	10	117	10	28	1086	151	1288
Future Volume (vph)	10	117	10	28	1086	151	1288
Turn Type	NA	Perm	NA	D.P+P	NA	D.P+P	NA
Protected Phases	4		8	5	2	1	6
Permitted Phases		8		6		2	
Detector Phase	4	8	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	25.0	25.0	25.0	8.0	65.0	18.0	75.0
Total Split (%)	23.1%	23.1%	23.1%	7.4%	60.2%	16.7%	69.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag				Lag	Lag	Lead	Lead
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	15.2	15.2	15.2	81.1	70.5	79.3	79.0
Actuated g/C Ratio	0.14	0.14	0.14	0.75	0.65	0.73	0.73
v/c Ratio	0.12	0.68	0.42	0.12	0.57	0.50	0.56
Control Delay	22.1	61.2	12.5	5.5	12.6	12.2	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	22.1	61.2	12.5	5.5	12.6	12.2	2.1
LOS	C	E	B	A	B	B	A
Approach Delay	22.1		36.0		12.5		3.2
Approach LOS	C		D		B		A

Intersection Summary	
Cycle Length: 108	
Actuated Cycle Length: 108	
Offset: 4 (4%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 156: Strawberry Rd. & Gary Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	10	17	117	10	116	28	1086	80	151	1288	3
Future Volume (veh/h)	0	10	17	117	10	116	28	1086	80	151	1288	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	0	11	19	129	11	127	31	1193	88	166	1415	3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	0	81	139	226	17	194	466	2287	169	373	2337	5
Arrive On Green	0.00	0.13	0.13	0.13	0.13	0.13	0.09	0.69	0.69	0.10	1.00	1.00
Sat Flow, veh/h	0	606	1046	1358	126	1453	1753	3302	243	1753	3580	8
Grp Volume(v), veh/h	0	0	30	129	0	138	31	631	650	166	691	727
Grp Sat Flow(s),veh/h/ln	0	0	1652	1358	0	1579	1753	1749	1797	1753	1749	1839
Q Serve(g_s), s	0.0	0.0	1.7	10.0	0.0	9.0	0.0	18.7	18.8	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.7	11.7	0.0	9.0	0.0	18.7	18.8	3.1	0.0	0.0
Prop In Lane	0.00		0.63	1.00		0.92	1.00		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	220	226	0	210	466	1211	1245	373	1142	1201
V/C Ratio(X)	0.00	0.00	0.14	0.57	0.00	0.66	0.07	0.52	0.52	0.44	0.61	0.61
Avail Cap(c_a), veh/h	0	0	314	303	0	300	466	1211	1245	506	1142	1201
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.58	0.58	0.58	0.68	0.68	0.68
Uniform Delay (d), s/veh	0.0	0.0	41.3	46.5	0.0	44.5	3.9	8.0	8.0	6.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	2.3	0.0	3.5	0.0	0.9	0.9	0.6	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	3.5	0.0	3.7	0.2	6.3	6.5	0.9	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	41.6	48.8	0.0	47.9	4.0	8.9	8.9	6.8	1.6	1.6
LnGrp LOS	A	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		30			267			1312			1584	
Approach Delay, s/veh		41.6			48.3			8.8			2.1	
Approach LOS		D			D			A			A	

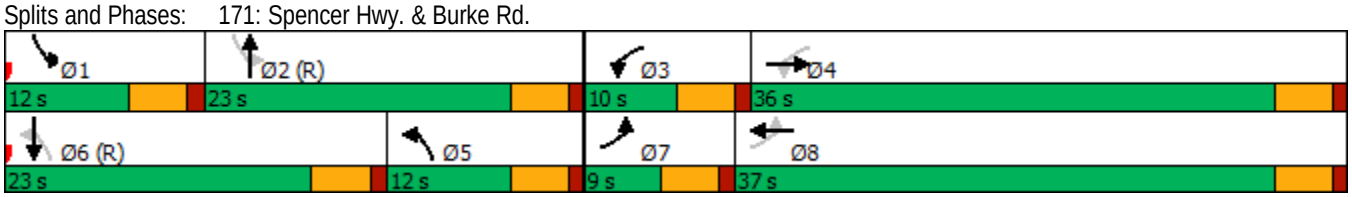
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	79.3		18.9	14.1	75.0		18.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	60.5		20.5	3.5	70.5		20.5				
Max Q Clear Time (g_c+I1), s	5.1	20.8		3.7	2.0	2.0		13.7				
Green Ext Time (p_c), s	0.3	11.3		0.1	0.0	14.6		0.6				

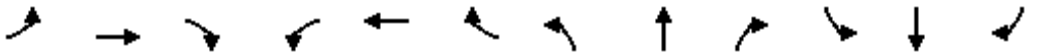
Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	145	1451	166	1609	190	401	206	359
Future Volume (vph)	145	1451	166	1609	190	401	206	359
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	9.0	36.0	10.0	37.0	12.0	23.0	12.0	23.0
Total Split (%)	11.1%	44.4%	12.3%	45.7%	14.8%	28.4%	14.8%	28.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	37.0	31.5	37.0	32.5	26.0	18.5	26.0	18.5
Actuated g/C Ratio	0.46	0.39	0.46	0.40	0.32	0.23	0.32	0.23
v/c Ratio	0.84	0.93	0.86	0.98	0.77	0.76	0.90	0.67
Control Delay	51.4	34.3	51.0	40.9	36.2	24.8	55.1	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	34.3	51.0	40.9	36.2	24.8	55.1	20.2
LOS	D	C	D	D	D	C	E	C
Approach Delay		35.7		41.7		27.7		30.7
Approach LOS		D		D		C		C

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 4 (5%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 36.1	Intersection LOS: D
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 171: Spencer Hwy. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	1451	166	166	1609	141	190	401	150	206	359	123
Future Volume (veh/h)	145	1451	166	166	1609	141	190	401	150	206	359	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	156	1560	178	178	1730	152	204	431	161	222	386	132
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	197	1765	201	226	1872	164	335	579	214	308	586	198
Arrive On Green	0.06	0.39	0.39	0.07	0.40	0.40	0.10	0.23	0.23	0.09	0.23	0.23
Sat Flow, veh/h	1753	4576	521	1753	4704	412	1753	2499	924	1753	2567	867
Grp Volume(v), veh/h	156	1142	596	178	1231	651	204	300	292	222	261	257
Grp Sat Flow(s),veh/h/ln	1753	1675	1747	1753	1675	1767	1753	1749	1674	1753	1749	1685
Q Serve(g_s), s	4.3	25.7	25.8	5.0	28.3	28.5	0.9	12.9	13.1	7.5	11.0	11.2
Cycle Q Clear(g_c), s	4.3	25.7	25.8	5.0	28.3	28.5	0.9	12.9	13.1	7.5	11.0	11.2
Prop In Lane	1.00		0.30	1.00		0.23	1.00		0.55	1.00		0.51
Lane Grp Cap(c), veh/h	197	1292	674	226	1333	703	335	405	388	308	399	385
V/C Ratio(X)	0.79	0.88	0.89	0.79	0.92	0.93	0.61	0.74	0.75	0.72	0.65	0.67
Avail Cap(c_a), veh/h	197	1303	679	226	1344	709	335	405	388	308	399	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.33	0.33	0.33	0.47	0.47	0.47	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	23.2	23.2	19.2	23.2	23.2	31.8	28.9	29.0	23.3	28.4	28.4
Incr Delay (d2), s/veh	7.1	2.7	5.0	8.4	5.7	10.1	3.2	11.6	12.6	8.0	8.1	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	9.6	10.4	2.3	11.0	12.5	3.8	6.4	6.4	3.7	5.3	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	25.9	28.2	27.6	28.9	33.4	34.9	40.5	41.6	31.3	36.5	37.3
LnGrp LOS	C	C	C	C	C	C	C	D	D	C	D	D
Approach Vol, veh/h		1894			2060			796			740	
Approach Delay, s/veh		26.7			30.2			39.5			35.2	
Approach LOS		C			C			D			D	

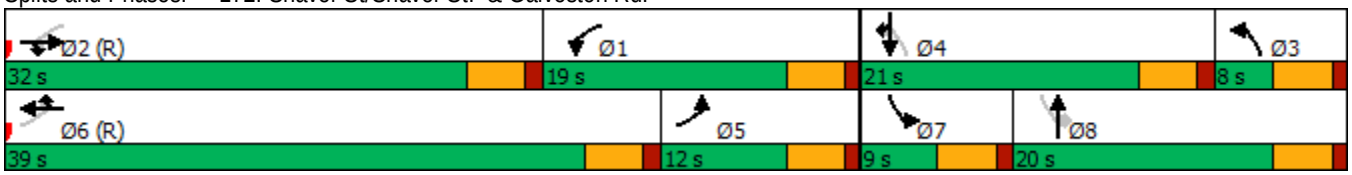
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.3	10.0	35.7	12.3	23.0	9.0	36.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	7.5	18.5	5.5	31.5	7.5	18.5	4.5	32.5
Max Q Clear Time (g_c+I1), s	9.5	15.1	7.0	27.8	2.9	13.2	6.3	30.5
Green Ext Time (p_c), s	0.0	1.1	0.0	3.0	0.2	1.4	0.0	1.8

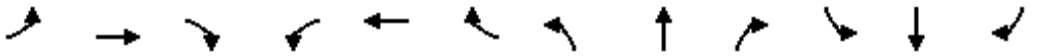
Intersection Summary	
HCM 6th Ctrl Delay	31.0
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	1143	114	419	1030	160	109	599	267	145	630	243
Future Volume (vph)	203	1143	114	419	1030	160	109	599	267	145	630	243
Turn Type	D.P+P	NA	Prot	D.P+P	NA	Prot	D.P+P	NA	Perm	D.P+P	NA	Prot
Protected Phases	5	2	2	1	6	6	3	8		7	4	4
Permitted Phases	6			2			4		8	8		
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	12.0	32.0	32.0	19.0	39.0	39.0	8.0	20.0	20.0	9.0	21.0	21.0
Total Split (%)	15.0%	40.0%	40.0%	23.8%	48.8%	48.8%	10.0%	25.0%	25.0%	11.3%	26.3%	26.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	42.0	27.5	27.5	42.0	34.5	34.5	20.9	15.5	15.5	20.0	18.1	18.1
Actuated g/C Ratio	0.52	0.34	0.34	0.52	0.43	0.43	0.26	0.19	0.19	0.25	0.23	0.23
v/c Ratio	0.77	0.99	0.17	1.06	0.71	0.21	0.68	0.92	0.53	0.81	0.83	0.47
Control Delay	43.6	50.9	0.5	90.1	21.9	1.8	51.3	53.0	8.0	57.6	41.3	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	50.9	0.5	90.1	21.9	1.8	51.3	53.0	8.0	57.6	41.3	7.8
LOS	D	D	A	F	C	A	D	D	A	E	D	A
Approach Delay		45.9			37.7			40.5			35.6	
Approach LOS		D			D			D			D	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:EBWB and 6:EBWB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 40.2	Intersection LOS: D
Intersection Capacity Utilization 99.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 172: Shaver St/Shaver St. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1143	114	419	1030	160	109	599	267	145	630	243
Future Volume (veh/h)	203	1143	114	419	1030	160	109	599	267	145	630	243
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	209	1178	118	432	1062	165	112	618	275	149	649	251
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	336	1202	536	412	1508	673	182	678	302	201	721	321
Arrive On Green	0.09	0.34	0.34	0.18	0.43	0.43	0.04	0.19	0.19	0.06	0.21	0.21
Sat Flow, veh/h	1753	3497	1560	1753	3497	1560	1753	3497	1560	1753	3497	1560
Grp Volume(v), veh/h	209	1178	118	432	1062	165	112	618	275	149	649	251
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1560	1753	1749	1560	1753	1749	1560
Q Serve(g_s), s	0.9	26.7	4.3	14.5	19.8	3.8	0.1	13.8	8.8	4.5	14.5	12.2
Cycle Q Clear(g_c), s	0.9	26.7	4.3	14.5	19.8	3.8	0.1	13.8	8.8	4.5	14.5	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	336	1202	536	412	1508	673	182	678	302	201	721	321
V/C Ratio(X)	0.62	0.98	0.22	1.05	0.70	0.25	0.61	0.91	0.91	0.74	0.90	0.78
Avail Cap(c_a), veh/h	336	1202	536	412	1508	673	182	678	302	201	721	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	26.0	18.6	31.1	18.6	7.2	36.4	31.6	12.8	28.2	31.0	30.0
Incr Delay (d2), s/veh	3.5	21.6	0.9	57.5	2.8	0.9	6.0	16.7	29.8	13.5	14.4	11.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	13.8	1.6	13.6	8.0	1.9	2.4	7.2	5.3	1.5	7.3	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	47.5	19.6	88.6	21.4	8.0	42.4	48.3	42.5	41.7	45.4	41.7
LnGrp LOS	C	D	B	F	C	A	D	D	D	D	D	D
Approach Vol, veh/h		1505			1659			1005			1049	
Approach Delay, s/veh		43.4			37.5			46.1			44.0	
Approach LOS		D			D			D			D	

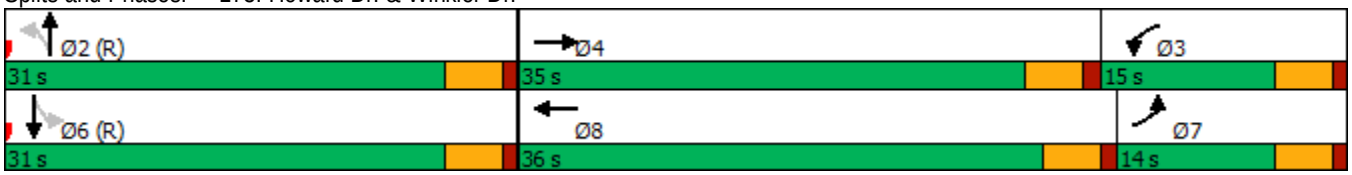
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	32.0	8.0	21.0	12.0	39.0	9.0	20.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	27.5	3.5	16.5	7.5	34.5	4.5	15.5
Max Q Clear Time (g_c+I1), s	16.5	28.7	2.1	16.5	2.9	21.8	6.5	15.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	6.5	0.0	0.0

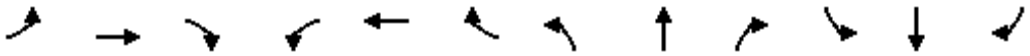
Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	66	596	77	479	127	265	13	51
Future Volume (vph)	66	596	77	479	127	265	13	51
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	14.0	35.0	15.0	36.0	31.0	31.0	31.0	31.0
Total Split (%)	17.3%	43.2%	18.5%	44.4%	38.3%	38.3%	38.3%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.6	25.7	8.6	21.7		35.2		35.2
Actuated g/C Ratio	0.16	0.32	0.11	0.27		0.43		0.43
v/c Ratio	0.25	0.76	0.43	0.68		0.40		0.10
Control Delay	31.1	27.0	40.6	27.7		17.9		10.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	31.1	27.0	40.6	27.7		17.9		10.0
LOS	C	C	D	C		B		B
Approach Delay		27.3		29.1		17.9		10.0
Approach LOS		C		C		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 59 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 61.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 173: Howard Dr. & Winkler Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	596	232	77	479	143	127	265	96	13	51	61
Future Volume (veh/h)	66	596	232	77	479	143	127	265	96	13	51	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	67	608	237	79	489	146	130	270	98	13	52	62
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	209	740	288	102	637	189	411	814	297	172	654	673
Arrive On Green	0.12	0.30	0.30	0.06	0.24	0.24	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1753	2459	958	1753	2659	789	725	1715	626	250	1379	1420
Grp Volume(v), veh/h	67	432	413	79	321	314	253	0	245	65	0	62
Grp Sat Flow(s),veh/h/ln	1753	1749	1668	1753	1749	1699	1503	0	1562	1629	0	1420
Q Serve(g_s), s	2.8	18.6	18.6	3.6	13.8	14.0	6.3	0.0	7.9	0.0	0.0	1.9
Cycle Q Clear(g_c), s	2.8	18.6	18.6	3.6	13.8	14.0	8.3	0.0	7.9	7.9	0.0	1.9
Prop In Lane	1.00		0.57	1.00		0.46	0.51		0.40	0.20		1.00
Lane Grp Cap(c), veh/h	209	526	502	102	419	407	780	0	741	826	0	673
V/C Ratio(X)	0.32	0.82	0.82	0.78	0.77	0.77	0.32	0.00	0.33	0.08	0.00	0.09
Avail Cap(c_a), veh/h	209	658	628	227	680	661	780	0	741	826	0	673
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	26.3	26.3	37.6	28.7	28.7	13.3	0.0	13.3	11.6	0.0	11.7
Incr Delay (d2), s/veh	0.9	6.7	7.1	11.9	2.9	3.1	1.1	0.0	1.2	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	8.2	7.9	1.8	5.8	5.8	2.9	0.0	2.8	0.6	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	33.0	33.4	49.5	31.6	31.9	14.4	0.0	14.5	11.8	0.0	12.0
LnGrp LOS	C	C	C	D	C	C	B	A	B	B	A	B
Approach Vol, veh/h		912			714			498			127	
Approach Delay, s/veh		33.2			33.7			14.4			11.9	
Approach LOS		C			C			B			B	

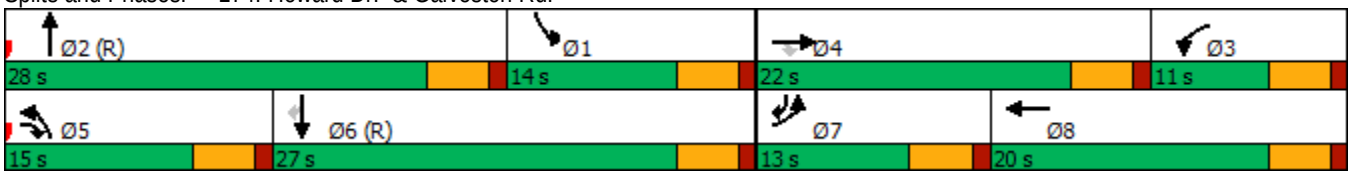
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.9	9.2	28.9		42.9	14.2	23.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		26.5	10.5	30.5		26.5	9.5	31.5				
Max Q Clear Time (g_c+I1), s		10.3	5.6	20.6		9.9	4.8	16.0				
Green Ext Time (p_c), s		2.7	0.1	3.7		0.5	0.0	3.4				

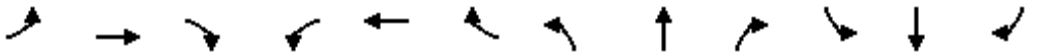
Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	146	386	279	53	449	288	810	175	1063	348
Future Volume (vph)	146	386	279	53	449	288	810	175	1063	348
Turn Type	Prot	NA	pm+ov	Prot	NA	Prot	NA	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	5	2	1	6	7
Permitted Phases			4							6
Detector Phase	7	4	5	3	8	5	2	1	6	7
Switch Phase										
Minimum Initial (s)	3.5	5.0	3.5	3.5	5.0	3.5	5.0	3.5	5.0	3.5
Minimum Split (s)	8.0	20.0	8.0	8.0	20.0	8.0	20.0	8.0	20.0	8.0
Total Split (s)	13.0	22.0	15.0	11.0	20.0	15.0	28.0	14.0	27.0	13.0
Total Split (%)	17.3%	29.3%	20.0%	14.7%	26.7%	20.0%	37.3%	18.7%	36.0%	17.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	None
Act Effct Green (s)	8.4	20.2	32.1	7.5	15.0	10.1	24.1	9.5	23.5	36.4
Actuated g/C Ratio	0.11	0.27	0.43	0.10	0.20	0.13	0.32	0.13	0.31	0.49
v/c Ratio	0.78	0.43	0.38	0.33	0.83	0.66	0.84	0.82	0.70	0.43
Control Delay	60.7	25.7	6.2	36.9	38.5	38.2	32.2	62.9	25.9	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	25.7	6.2	36.9	38.5	38.2	32.2	62.9	25.9	9.0
LOS	E	C	A	D	D	D	C	E	C	A
Approach Delay		25.3			38.4		33.6		26.3	
Approach LOS		C			D		C		C	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 30.0	Intersection LOS: C
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 174: Howard Dr. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	386	279	53	449	119	288	810	93	175	1063	348
Future Volume (veh/h)	146	386	279	53	449	119	288	810	93	175	1063	348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	151	398	288	55	463	123	297	835	96	180	1096	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	186	570	432	246	540	142	388	990	114	251	1721	
Arrive On Green	0.11	0.16	0.16	0.14	0.20	0.20	0.11	0.31	0.31	0.14	0.34	0.00
Sat Flow, veh/h	1753	3497	1560	1753	2737	722	3401	3161	363	1753	5025	1560
Grp Volume(v), veh/h	151	398	288	55	295	291	297	462	469	180	1096	0
Grp Sat Flow(s),veh/h/ln	1753	1749	1560	1753	1749	1711	1700	1749	1775	1753	1675	1560
Q Serve(g_s), s	6.3	8.1	6.8	2.1	12.2	12.4	6.4	18.5	18.5	7.4	13.8	0.0
Cycle Q Clear(g_c), s	6.3	8.1	6.8	2.1	12.2	12.4	6.4	18.5	18.5	7.4	13.8	0.0
Prop In Lane	1.00		1.00	1.00		0.42	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	186	570	432	246	345	337	388	548	556	251	1721	
V/C Ratio(X)	0.81	0.70	0.67	0.22	0.85	0.86	0.76	0.84	0.84	0.72	0.64	
Avail Cap(c_a), veh/h	199	816	542	246	361	354	476	548	556	251	1721	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.8	29.6	9.3	28.6	29.1	29.1	32.2	24.0	24.0	30.7	20.7	0.0
Incr Delay (d2), s/veh	20.8	1.6	2.2	0.5	17.2	18.8	5.9	14.6	14.4	9.4	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	3.3	2.8	0.9	6.5	6.5	2.8	9.1	9.2	3.6	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	31.2	11.5	29.1	46.3	47.9	38.1	38.7	38.5	40.1	22.6	0.0
LnGrp LOS	D	C	B	C	D	D	D	D	D	D	C	
Approach Vol, veh/h		837			641			1228			1276	A
Approach Delay, s/veh		28.4			45.6			38.4			25.0	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	28.0	15.0	16.7	13.1	30.2	12.5	19.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	23.5	6.5	17.5	10.5	22.5	8.5	15.5
Max Q Clear Time (g_c+I1), s	9.4	20.5	4.1	10.1	8.4	15.8	8.3	14.4
Green Ext Time (p_c), s	0.0	1.6	0.0	2.2	0.2	3.7	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

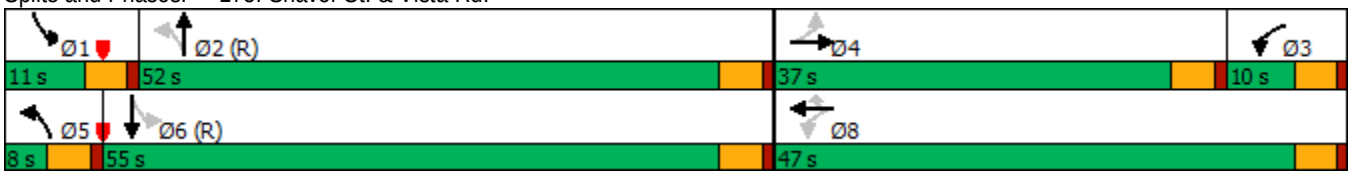
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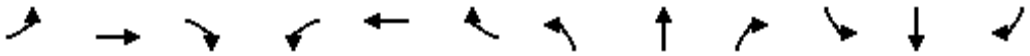
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	28	344	223	397	179	20	1268	147	1409
Future Volume (vph)	28	344	223	397	179	20	1268	147	1409
Turn Type	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4	3	8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	3	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	37.0	37.0	10.0	47.0	47.0	8.0	52.0	11.0	55.0
Total Split (%)	33.6%	33.6%	9.1%	42.7%	42.7%	7.3%	47.3%	10.0%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag			Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		22.6	35.6	35.6	35.6	55.8	50.6	64.8	61.8
Actuated g/C Ratio		0.21	0.32	0.32	0.32	0.51	0.46	0.59	0.56
v/c Ratio		0.96	0.84	0.74	0.35	0.12	0.98	0.71	0.57
Control Delay		76.3	62.9	40.5	15.9	13.1	48.9	39.9	18.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		76.3	62.9	40.5	15.9	13.1	48.9	39.9	18.2
LOS		E	E	D	B	B	D	D	B
Approach Delay		76.3		41.2			48.4		20.2
Approach LOS		E		D			D		C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 39.0	Intersection LOS: D
Intersection Capacity Utilization 99.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 175: Shaver St. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	344	20	223	397	179	20	1268	142	147	1409	37
Future Volume (veh/h)	28	344	20	223	397	179	20	1268	142	147	1409	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	31	378	22	245	436	197	22	1393	156	162	1548	41
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	49	608	41	266	634	537	188	1503	167	188	2603	69
Arrive On Green	0.25	0.25	0.25	0.05	0.34	0.34	0.02	0.47	0.47	0.06	0.52	0.52
Sat Flow, veh/h	46	2399	160	1753	1841	1560	1753	3173	353	1753	5034	133
Grp Volume(v), veh/h	204	0	227	245	436	197	22	764	785	162	1030	559
Grp Sat Flow(s),veh/h/ln	958	0	1646	1753	1841	1560	1753	1749	1777	1753	1675	1817
Q Serve(g_s), s	2.3	0.0	13.1	4.0	22.4	10.4	0.7	44.9	45.9	5.0	23.6	23.6
Cycle Q Clear(g_c), s	24.7	0.0	13.1	4.0	22.4	10.4	0.7	44.9	45.9	5.0	23.6	23.6
Prop In Lane	0.15		0.10	1.00		1.00	1.00		0.20	1.00		0.07
Lane Grp Cap(c), veh/h	281	0	418	266	634	537	188	828	842	188	1733	940
V/C Ratio(X)	0.73	0.00	0.54	0.92	0.69	0.37	0.12	0.92	0.93	0.86	0.59	0.59
Avail Cap(c_a), veh/h	345	0	486	266	711	603	217	828	842	188	1733	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.00	0.84	1.00	1.00	1.00	0.57	0.57	0.57	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	0.0	35.5	47.1	31.0	27.0	16.3	27.0	27.3	25.2	18.5	18.5
Incr Delay (d2), s/veh	5.0	0.0	0.9	35.0	2.4	0.4	0.2	11.1	12.1	31.4	1.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	5.2	8.9	10.0	3.8	0.3	20.1	21.1	3.6	9.0	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.0	36.5	82.2	33.4	27.5	16.4	38.2	39.4	56.6	20.0	21.3
LnGrp LOS	D	A	D	F	C	C	B	D	D	E	C	C
Approach Vol, veh/h		431			878			1571			1751	
Approach Delay, s/veh		38.4			45.7			38.5			23.8	
Approach LOS		D			D			D			C	

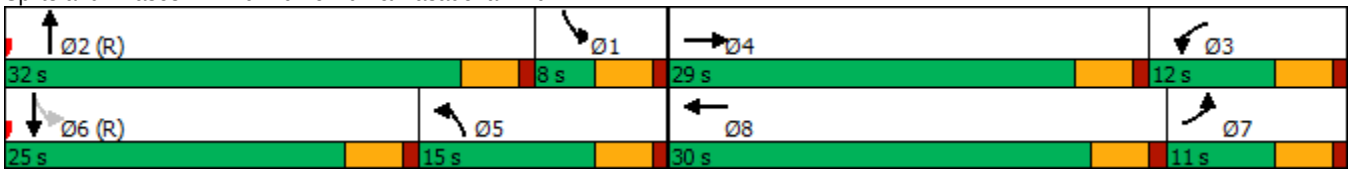
Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	56.6	10.0	32.4	6.2	61.4		42.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	47.5	5.5	32.5	3.5	50.5		42.5				
Max Q Clear Time (g_c+I1), s	7.0	47.9	6.0	26.7	2.7	25.6		24.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	12.5		3.0				

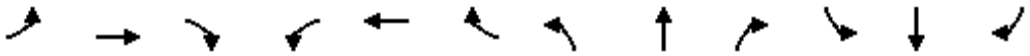
Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	625	71	688	116	302	48	286
Future Volume (vph)	63	625	71	688	116	302	48	286
Turn Type	Prot	NA	Prot	NA	Prot	NA	pm+pt	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases							6	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	11.0	29.0	12.0	30.0	15.0	32.0	8.0	25.0
Total Split (%)	13.6%	35.8%	14.8%	37.0%	18.5%	39.5%	9.9%	30.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5		4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	6.4	23.6	7.3	24.4	9.5	38.6		26.9
Actuated g/C Ratio	0.08	0.29	0.09	0.30	0.12	0.48		0.33
v/c Ratio	0.49	0.83	0.51	0.85	0.62	0.28		0.50
Control Delay	48.4	33.8	47.4	35.7	41.9	11.0		18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	48.4	33.8	47.4	35.7	41.9	11.0		18.7
LOS	D	C	D	D	D	B		B
Approach Delay		34.9		36.7		17.7		18.7
Approach LOS		C		D		B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 31 (38%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 176: Burke Rd. & Pasadena Blvd.





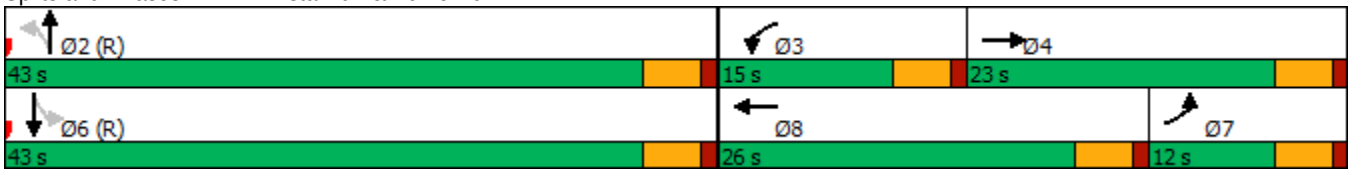
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	625	141	71	688	72	116	302	113	48	286	84
Future Volume (vph)	63	625	141	71	688	72	116	302	113	48	286	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	10	12	12	12	12	12	10	12
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95			0.95	
Frt	1.00	0.97		1.00	0.99		1.00	0.96			0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1736	3375		1678	3194		1736	3329			3124	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.85	
Satd. Flow (perm)	1736	3375		1678	3194		1736	3329			2680	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	679	153	77	748	78	126	328	123	52	311	91
RTOR Reduction (vph)	0	24	0	0	10	0	0	39	0	0	27	0
Lane Group Flow (vph)	68	808	0	77	816	0	126	412	0	0	427	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases										6		
Actuated Green, G (s)	5.4	23.6		6.2	24.4		8.2	37.7			25.0	
Effective Green, g (s)	5.4	23.6		6.2	24.4		8.2	37.7			25.0	
Actuated g/C Ratio	0.07	0.29		0.08	0.30		0.10	0.47			0.31	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	115	983		128	962		175	1549			827	
v/s Ratio Prot	0.04	0.24		c0.05	c0.26		c0.07	0.12				
v/s Ratio Perm											c0.16	
v/c Ratio	0.59	0.82		0.60	0.85		0.72	0.27			0.52	
Uniform Delay, d1	36.7	26.7		36.2	26.6		35.3	13.2			23.0	
Progression Factor	1.00	1.00		1.00	1.00		1.01	0.92			0.74	
Incremental Delay, d2	7.9	5.6		7.7	7.1		7.5	0.2			0.5	
Delay (s)	44.6	32.4		43.9	33.6		43.1	12.4			17.5	
Level of Service	D	C		D	C		D	B			B	
Approach Delay (s)		33.3			34.5			19.1			17.5	
Approach LOS		C			C			B			B	

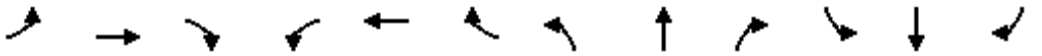
Intersection Summary			
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	81.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	74	430	140	503	119	519	99	609
Future Volume (vph)	74	430	140	503	119	519	99	609
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases					2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	23.0	15.0	26.0	43.0	43.0	43.0	43.0
Total Split (%)	14.8%	28.4%	18.5%	32.1%	53.1%	53.1%	53.1%	53.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	17.5	10.0	22.1		40.0		40.0
Actuated g/C Ratio	0.09	0.22	0.12	0.27		0.49		0.49
v/c Ratio	0.51	0.81	0.71	0.74		0.73		0.73
Control Delay	46.9	36.8	53.1	30.9		21.4		11.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	46.9	36.8	53.1	30.9		21.4		11.5
LOS	D	D	D	C		C		B
Approach Delay		38.0		34.8		21.4		11.5
Approach LOS		D		C		C		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 37 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 25.8	Intersection LOS: C
Intersection Capacity Utilization 88.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 177: Vista Rd. & Burke Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	430	146	140	503	151	119	519	74	99	609	124
Future Volume (veh/h)	74	430	146	140	503	151	119	519	74	99	609	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	80	462	157	151	541	162	128	558	80	106	655	133
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	136	541	182	186	635	189	199	968	152	170	1075	235
Arrive On Green	0.08	0.21	0.21	0.11	0.24	0.24	0.52	0.52	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1753	2568	866	1753	2655	792	265	1873	295	222	2080	456
Grp Volume(v), veh/h	80	314	305	151	356	347	326	0	440	429	0	465
Grp Sat Flow(s),veh/h/ln	1753	1749	1685	1753	1749	1698	811	0	1622	1164	0	1593
Q Serve(g_s), s	3.6	14.0	14.2	6.8	15.7	15.9	16.0	0.0	14.6	12.5	0.0	16.1
Cycle Q Clear(g_c), s	3.6	14.0	14.2	6.8	15.7	15.9	32.1	0.0	14.6	27.1	0.0	16.1
Prop In Lane	1.00		0.51	1.00		0.47	0.39		0.18	0.25		0.29
Lane Grp Cap(c), veh/h	136	368	355	186	418	406	481	0	838	657	0	823
V/C Ratio(X)	0.59	0.85	0.86	0.81	0.85	0.86	0.68	0.00	0.53	0.65	0.00	0.56
Avail Cap(c_a), veh/h	162	399	385	227	464	451	481	0	838	657	0	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.22	0.22	0.22	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	30.7	30.8	35.4	29.4	29.5	19.5	0.0	13.0	16.2	0.0	13.4
Incr Delay (d2), s/veh	4.0	15.1	16.7	4.2	3.3	3.5	7.5	0.0	2.3	5.0	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	7.2	7.2	3.1	6.7	6.6	6.1	0.0	5.4	7.0	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	45.9	47.6	39.6	32.7	33.0	26.9	0.0	15.3	21.2	0.0	16.2
LnGrp LOS	D	D	D	D	C	C	C	A	B	C	A	B
Approach Vol, veh/h		699			854			766			894	
Approach Delay, s/veh		45.9			34.0			20.3			18.6	
Approach LOS		D			C			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		46.3	13.1	21.6		46.3	10.8	23.9				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s		38.5	10.5	18.5		38.5	7.5	21.5				
Max Q Clear Time (g_c+I1), s		34.1	8.8	16.2		29.1	5.6	17.9				
Green Ext Time (p_c), s		2.1	0.1	0.9		4.2	0.0	1.5				

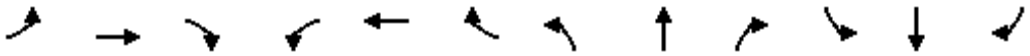
Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	56	4	3	1	163	669	3	1022
Future Volume (vph)	56	4	3	1	163	669	3	1022
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	61.0	61.0	61.0	61.0
Total Split (%)	24.7%	24.7%	24.7%	24.7%	75.3%	75.3%	75.3%	75.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		4.5		4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		9.2		9.2		62.8		62.8
Actuated g/C Ratio		0.11		0.11		0.78		0.78
v/c Ratio		0.60		0.02		0.57		0.46
Control Delay		21.5		0.0		5.9		4.1
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		21.5		0.0		5.9		4.1
LOS		C		A		A		A
Approach Delay		21.5				5.9		4.1
Approach LOS		C				A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 72 (89%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 6.7	Intersection LOS: A
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 178: Park Pl. Blvd. & Galveston Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	4	184	3	1	5	163	669	3	3	1022	79
Future Volume (veh/h)	56	4	184	3	1	5	163	669	3	3	1022	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	60	4	196	3	1	5	173	712	3	3	1087	84
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	297	17	231	120	39	201	314	1371	6	46	2337	180
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	1294	105	1420	202	238	1232	332	1889	8	1	3220	248
Grp Volume(v), veh/h	64	0	196	3	0	6	271	0	617	622	0	552
Grp Sat Flow(s),veh/h/ln	1398	0	1420	219	0	1453	555	0	1674	1839	0	1630
Q Serve(g_s), s	3.1	0.0	10.9	0.1	0.0	0.3	18.7	0.0	13.0	0.0	0.0	11.4
Cycle Q Clear(g_c), s	3.3	0.0	10.9	11.0	0.0	0.3	30.1	0.0	13.0	11.3	0.0	11.4
Prop In Lane	0.94		1.00	0.97		0.85	0.64		0.00	0.00		0.15
Lane Grp Cap(c), veh/h	314	0	231	123	0	237	476	0	1215	1379	0	1183
V/C Ratio(X)	0.20	0.00	0.85	0.03	0.00	0.02	0.57	0.00	0.51	0.45	0.00	0.47
Avail Cap(c_a), veh/h	354	0	272	156	0	278	476	0	1215	1379	0	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	32.9	32.8	0.0	28.5	8.9	0.0	4.8	4.6	0.0	4.6
Incr Delay (d2), s/veh	0.3	0.0	19.0	0.1	0.0	0.0	4.9	0.0	1.5	1.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	4.8	0.1	0.0	0.1	3.0	0.0	3.3	3.1	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	51.9	32.9	0.0	28.5	13.8	0.0	6.3	5.7	0.0	5.9
LnGrp LOS	C	A	D	C	A	C	B	A	A	A	A	A
Approach Vol, veh/h		260			9			888			1174	
Approach Delay, s/veh		46.6			30.0			8.6			5.8	
Approach LOS		D			C			A			A	

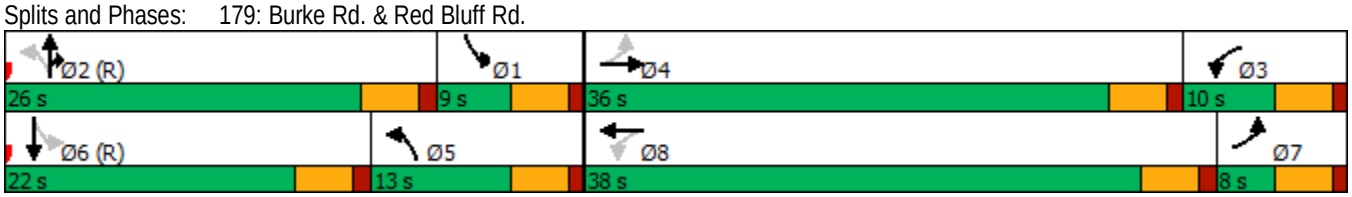
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		63.3		17.7		63.3		17.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		56.5		15.5		56.5		15.5				
Max Q Clear Time (g_c+I1), s		32.1		12.9		13.4		13.0				
Green Ext Time (p_c), s		8.0		0.4		9.4		0.0				

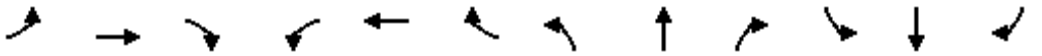
Intersection Summary												
HCM 6th Ctrl Delay			11.5									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	32	853	135	905	245	296	102	122	239
Future Volume (vph)	32	853	135	905	245	296	102	122	239
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Prot	pm+pt	NA
Protected Phases	7	4	3	8	5	2	2	1	6
Permitted Phases	4		8		2			6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	20.0	8.0	20.0
Total Split (s)	8.0	36.0	10.0	38.0	13.0	26.0	26.0	9.0	22.0
Total Split (%)	9.9%	44.4%	12.3%	46.9%	16.0%	32.1%	32.1%	11.1%	27.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	34.4	31.4	39.9	36.6	30.0	21.5	21.5	22.0	17.5
Actuated g/C Ratio	0.42	0.39	0.49	0.45	0.37	0.27	0.27	0.27	0.22
v/c Ratio	0.19	0.93	0.73	0.69	0.80	0.67	0.22	0.65	0.79
Control Delay	15.8	36.5	24.7	4.8	42.3	32.3	5.6	41.9	45.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	36.5	24.7	4.8	42.3	32.3	5.6	41.9	45.5
LOS	B	D	C	A	D	C	A	D	D
Approach Delay		35.9		7.1		31.9			44.4
Approach LOS		D		A		C			D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 56 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 26.3	Intersection LOS: C
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 179: Burke Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	853	317	135	905	133	245	296	102	122	239	51
Future Volume (veh/h)	32	853	317	135	905	133	245	296	102	122	239	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	33	879	327	139	933	137	253	305	105	126	246	53
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	244	952	353	177	1104	162	370	489	414	309	317	68
Arrive On Green	0.06	0.38	0.38	0.04	0.36	0.36	0.14	0.27	0.27	0.09	0.22	0.22
Sat Flow, veh/h	1753	2497	926	1753	3059	449	1753	1841	1560	1753	1468	316
Grp Volume(v), veh/h	33	615	591	139	533	537	253	305	105	126	0	299
Grp Sat Flow(s),veh/h/ln	1753	1749	1674	1753	1749	1760	1753	1841	1560	1753	0	1784
Q Serve(g_s), s	0.0	27.2	27.4	1.7	22.7	22.7	4.7	11.8	4.3	0.0	0.0	12.8
Cycle Q Clear(g_c), s	0.0	27.2	27.4	1.7	22.7	22.7	4.7	11.8	4.3	0.0	0.0	12.8
Prop In Lane	1.00		0.55	1.00		0.26	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	244	667	638	177	631	635	370	489	414	309	0	385
V/C Ratio(X)	0.14	0.92	0.93	0.79	0.84	0.85	0.68	0.62	0.25	0.41	0.00	0.78
Avail Cap(c_a), veh/h	244	680	651	218	723	728	370	489	414	309	0	385
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.87	0.87	0.87	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	23.9	24.0	37.1	23.8	23.8	30.8	26.2	23.4	32.2	0.0	29.9
Incr Delay (d2), s/veh	0.2	17.9	19.3	1.4	0.8	0.8	4.5	5.2	1.3	0.9	0.0	14.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	13.8	13.5	2.7	9.0	9.0	4.8	5.6	1.7	2.3	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	41.8	43.2	38.6	24.6	24.6	35.2	31.4	24.7	33.1	0.0	44.1
LnGrp LOS	C	D	D	D	C	C	D	C	C	C	A	D
Approach Vol, veh/h		1239			1209			663			425	
Approach Delay, s/veh		42.2			26.2			31.8			40.8	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	26.0	8.1	35.4	15.5	22.0	9.7	33.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	21.5	5.5	31.5	8.5	17.5	3.5	33.5
Max Q Clear Time (g_c+I1), s	2.0	13.8	3.7	29.4	6.7	14.8	2.0	24.7
Green Ext Time (p_c), s	0.1	1.3	0.1	1.5	0.1	0.4	0.0	4.5

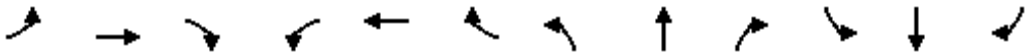
Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	60	4	60	25	250	15	800
Future Volume (vph)	20	60	4	60	25	250	15	800
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	25.0	25.0	25.0	25.0	56.0	56.0	56.0	56.0
Total Split (%)	30.9%	30.9%	30.9%	30.9%	69.1%	69.1%	69.1%	69.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5		4.5		4.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	8.6	8.6		66.3		66.3
Actuated g/C Ratio	0.11	0.11	0.11	0.11		0.82		0.82
v/c Ratio	0.16	0.43	0.03	0.35		0.13		0.34
Control Delay	24.7	22.6	31.0	36.1		2.6		3.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	24.7	22.6	31.0	36.1		2.6		3.0
LOS	C	C	C	D		A		A
Approach Delay		23.1		35.8		2.6		3.0
Approach LOS		C		D		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 32 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of 1st Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 190: E. Houston Ave. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Future Volume (veh/h)	20	60	20	4	60	4	25	250	25	15	800	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	22	65	22	4	65	4	27	272	27	16	870	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	147	106	36	131	138	8	211	2114	215	66	2749	50
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1311	1315	445	1289	1716	106	197	2615	266	25	3399	62
Grp Volume(v), veh/h	22	0	87	4	0	69	161	0	165	472	0	430
Grp Sat Flow(s),veh/h/ln	1311	0	1761	1289	0	1822	1451	0	1627	1822	0	1664
Q Serve(g_s), s	1.3	0.0	3.9	0.2	0.0	2.9	0.0	0.0	1.8	0.0	0.0	5.4
Cycle Q Clear(g_c), s	4.3	0.0	3.9	4.1	0.0	2.9	1.5	0.0	1.8	5.3	0.0	5.4
Prop In Lane	1.00		0.25	1.00		0.06	0.17		0.16	0.03		0.04
Lane Grp Cap(c), veh/h	147	0	141	131	0	146	1225	0	1316	1519	0	1345
V/C Ratio(X)	0.15	0.00	0.62	0.03	0.00	0.47	0.13	0.00	0.13	0.31	0.00	0.32
Avail Cap(c_a), veh/h	373	0	446	354	0	461	1225	0	1316	1519	0	1345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.00	0.98	1.00	0.00	1.00	1.00	0.00	1.00	0.51	0.00	0.51
Uniform Delay (d), s/veh	37.6	0.0	36.0	38.0	0.0	35.6	1.6	0.0	1.7	2.0	0.0	2.0
Incr Delay (d2), s/veh	0.5	0.0	4.2	0.1	0.0	2.3	0.2	0.0	0.2	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.8	0.1	0.0	1.4	0.3	0.0	0.3	1.0	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	40.2	38.1	0.0	38.0	1.8	0.0	1.8	2.3	0.0	2.3
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		109			73			326			902	
Approach Delay, s/veh		39.8			38.0			1.8			2.3	
Approach LOS		D			D			A			A	

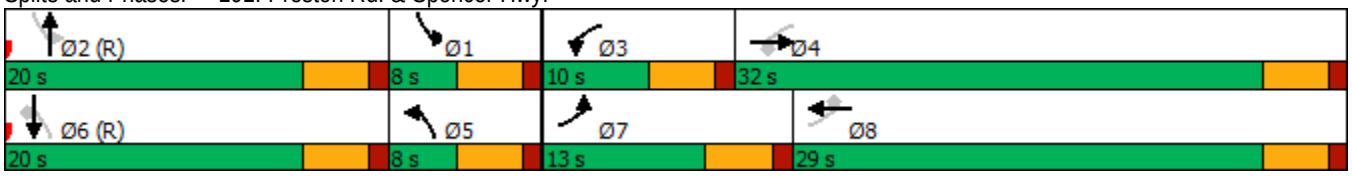
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		11.0		70.0		11.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		51.5		20.5		51.5		20.5				
Max Q Clear Time (g_c+I1), s		3.8		6.3		7.4		6.1				
Green Ext Time (p_c), s		2.3		0.4		7.1		0.2				

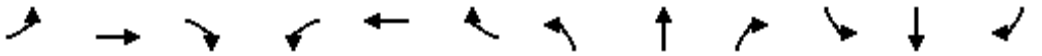
Intersection Summary		
HCM 6th Ctrl Delay		6.9
HCM 6th LOS		A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	368	1679	336	193	1708	190	193	886	258	1049	409
Future Volume (vph)	368	1679	336	193	1708	190	193	886	258	1049	409
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	7	4		3	8		5	2	1	6	
Permitted Phases	8		4	4		8	6		2		6
Detector Phase	7	4	4	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0	3.5	5.0	5.0
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	8.0	20.0	20.0
Total Split (s)	13.0	32.0	32.0	10.0	29.0	29.0	8.0	20.0	8.0	20.0	20.0
Total Split (%)	18.6%	45.7%	45.7%	14.3%	41.4%	41.4%	11.4%	28.6%	11.4%	28.6%	28.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	33.0	27.5	27.5	33.0	24.5	24.5	19.0	15.5	19.0	15.5	15.5
Actuated g/C Ratio	0.47	0.39	0.39	0.47	0.35	0.35	0.27	0.22	0.27	0.22	0.22
v/c Ratio	1.19	0.90	0.47	0.82	1.00	0.30	1.03	0.95	1.38	0.97	0.85
Control Delay	134.4	28.6	9.2	40.8	45.7	5.1	104.3	44.9	225.6	49.5	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	134.4	28.6	9.2	40.8	45.7	5.1	104.3	44.9	225.6	49.5	32.7
LOS	F	C	A	D	D	A	F	D	F	D	C
Approach Delay		42.2			41.6			54.2		71.9	
Approach LOS		D			D			D		E	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.38	
Intersection Signal Delay: 50.9	Intersection LOS: D
Intersection Capacity Utilization 108.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 191: Preston Rd. & Spencer Hwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	368	1679	336	193	1708	190	193	886	152	258	1049	409
Future Volume (veh/h)	368	1679	336	193	1708	190	193	886	152	258	1049	409
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	376	1713	343	197	1743	194	197	904	155	263	1070	417
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	317	1974	613	256	1759	546	194	957	163	198	1113	345
Arrive On Green	0.12	0.39	0.39	0.08	0.35	0.35	0.05	0.22	0.22	0.05	0.22	0.22
Sat Flow, veh/h	1753	5025	1560	1753	5025	1560	1753	4320	738	1753	5025	1560
Grp Volume(v), veh/h	376	1713	343	197	1743	194	197	700	359	263	1070	417
Grp Sat Flow(s),veh/h/ln	1753	1675	1560	1753	1675	1560	1753	1675	1708	1753	1675	1560
Q Serve(g_s), s	8.5	22.0	8.5	4.7	24.2	4.7	3.5	14.4	14.5	3.5	14.7	10.5
Cycle Q Clear(g_c), s	8.5	22.0	8.5	4.7	24.2	4.7	3.5	14.4	14.5	3.5	14.7	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	317	1974	613	256	1759	546	194	742	378	198	1113	345
V/C Ratio(X)	1.19	0.87	0.56	0.77	0.99	0.36	1.01	0.94	0.95	1.33	0.96	1.21
Avail Cap(c_a), veh/h	317	1974	613	256	1759	546	194	742	378	198	1113	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.32	0.32	0.32	0.43	0.43	0.43	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	17.2	19.6	8.2	16.2	22.6	8.9	32.3	26.8	26.9	32.3	27.0	12.6
Incr Delay (d2), s/veh	94.4	1.5	0.4	6.0	12.0	0.2	68.3	21.9	35.0	174.7	17.5	114.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	7.6	3.4	2.0	10.2	2.0	6.7	7.7	9.2	12.7	7.4	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.6	21.1	8.6	22.2	34.7	9.1	100.5	48.7	61.9	207.0	44.5	127.3
LnGrp LOS	F	C	A	C	C	A	F	D	E	F	D	F
Approach Vol, veh/h		2432			2134			1256			1750	
Approach Delay, s/veh		33.3			31.2			60.6			88.6	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	20.0	10.0	32.0	8.0	20.0	13.0	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.5	15.5	5.5	27.5	3.5	15.5	8.5	24.5
Max Q Clear Time (g_c+I1), s	5.5	16.5	6.7	24.0	5.5	16.7	10.5	26.2
Green Ext Time (p_c), s	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0

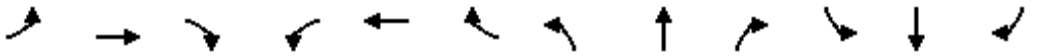
Intersection Summary	
HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	130	457	165	541	157	872	126	1008
Future Volume (vph)	130	457	165	541	157	872	126	1008
Turn Type	D.P+P	NA	D.P+P	NA	D.P+P	NA	D.P+P	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases	8		4		6		2	
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	3.5	5.0	3.5	5.0	5.0	5.0
Minimum Split (s)	9.5	20.0	8.0	20.0	8.0	20.0	9.5	20.0
Total Split (s)	9.6	20.6	9.0	20.0	8.0	30.5	9.9	32.4
Total Split (%)	13.7%	29.4%	12.9%	28.6%	11.4%	43.6%	14.1%	46.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	20.8	15.4	19.9	16.7	32.1	28.7	33.0	27.9
Actuated g/C Ratio	0.30	0.22	0.28	0.24	0.46	0.41	0.47	0.40
v/c Ratio	0.59	0.79	0.80	0.82	0.75	0.72	0.53	0.88
Control Delay	29.1	31.7	48.7	34.7	38.2	21.7	17.8	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	31.7	48.7	34.7	38.2	21.7	17.8	28.6
LOS	C	C	D	C	D	C	B	C
Approach Delay		31.3		37.5		23.9		27.6
Approach LOS		C		D		C		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of 1st Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 29.2	Intersection LOS: C
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 192: Preston Rd. & Pasadena Blvd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	457	147	165	541	127	157	872	128	126	1008	179
Future Volume (veh/h)	130	457	147	165	541	127	157	872	128	126	1008	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	133	466	150	168	552	130	160	890	131	129	1029	183
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	252	597	191	263	620	146	227	1171	172	290	1185	210
Arrive On Green	0.07	0.23	0.23	0.06	0.22	0.22	0.05	0.38	0.38	0.07	0.40	0.40
Sat Flow, veh/h	1753	2607	833	1753	2811	660	1753	3058	450	1753	2968	527
Grp Volume(v), veh/h	133	311	305	168	343	339	160	509	512	129	606	606
Grp Sat Flow(s),veh/h/ln	1753	1749	1691	1753	1749	1722	1753	1749	1760	1753	1749	1746
Q Serve(g_s), s	4.1	11.7	11.9	4.5	13.3	13.4	3.5	17.7	17.7	3.1	22.3	22.4
Cycle Q Clear(g_c), s	4.1	11.7	11.9	4.5	13.3	13.4	3.5	17.7	17.7	3.1	22.3	22.4
Prop In Lane	1.00		0.49	1.00		0.38	1.00		0.26	1.00		0.30
Lane Grp Cap(c), veh/h	252	401	387	263	386	380	227	670	674	290	698	697
V/C Ratio(X)	0.53	0.78	0.79	0.64	0.89	0.89	0.71	0.76	0.76	0.44	0.87	0.87
Avail Cap(c_a), veh/h	252	402	389	263	387	381	227	670	674	308	698	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	25.3	25.4	22.1	26.4	26.5	18.1	18.8	18.8	14.4	19.3	19.3
Incr Delay (d2), s/veh	2.0	9.3	10.2	5.1	21.3	22.4	7.5	6.2	6.2	1.1	13.7	13.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.5	5.5	2.3	7.4	7.5	1.8	7.5	7.6	1.2	10.8	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	34.6	35.5	27.2	47.8	48.9	25.6	25.0	25.0	15.5	33.0	33.3
LnGrp LOS	C	C	D	C	D	D	C	C	C	B	C	C
Approach Vol, veh/h		749			850			1181			1341	
Approach Delay, s/veh		32.8			44.2			25.1			31.4	
Approach LOS		C			D			C			C	

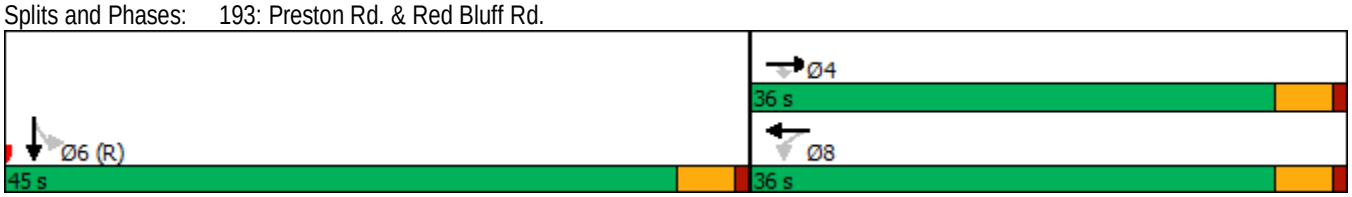
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	31.3	9.0	20.5	8.0	32.5	9.6	19.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.4	26.0	4.5	16.1	3.5	27.9	5.1	15.5
Max Q Clear Time (g_c+I1), s	5.1	19.7	6.5	13.9	5.5	24.4	6.1	15.4
Green Ext Time (p_c), s	0.0	3.3	0.0	0.8	0.0	2.4	0.0	0.0

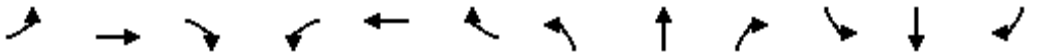
Intersection Summary	
HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	872	386	67	1322	326	1194
Future Volume (vph)	872	386	67	1322	326	1194
Turn Type	NA	Perm	Perm	NA	Perm	NA
Protected Phases	4			8		6
Permitted Phases		4	8		6	
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	36.0	36.0	36.0	36.0	45.0	45.0
Total Split (%)	44.4%	44.4%	44.4%	44.4%	55.6%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	31.5	31.5	31.5	31.5	40.5	40.5
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.50	0.50
v/c Ratio	0.68	0.65	0.57	1.03	0.40	0.56
Control Delay	10.7	10.6	37.4	54.8	14.3	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	10.6	37.4	54.8	14.3	15.1
LOS	B	B	D	D	B	B
Approach Delay	10.7			53.9		14.9
Approach LOS	B			D		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 44 (54%), Referenced to phase 2: and 6:SBTL, Start of 1st Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 26.3	Intersection LOS: C
Intersection Capacity Utilization 75.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 193: Preston Rd. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	872	386	67	1322	0	0	0	0	326	1194	116
Future Volume (veh/h)	0	872	386	67	1322	0	0	0	0	326	1194	116
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1841	1841	0				1841	1841	1841
Adj Flow Rate, veh/h	0	918	406	71	1392	0				343	1257	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	1360	607	159	1360	0				877	2513	
Arrive On Green	0.00	0.39	0.39	0.52	0.52	0.00				0.50	0.50	0.00
Sat Flow, veh/h	0	3589	1560	408	3589	0				1753	5191	0
Grp Volume(v), veh/h	0	918	406	71	1392	0				343	1257	0
Grp Sat Flow(s),veh/h/ln	0	1749	1560	408	1749	0				1753	1675	0
Q Serve(g_s), s	0.0	17.6	17.4	13.9	31.5	0.0				9.9	13.5	0.0
Cycle Q Clear(g_c), s	0.0	17.6	17.4	31.5	31.5	0.0				9.9	13.5	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.00
Lane Grp Cap(c), veh/h	0	1360	607	159	1360	0				877	2513	
V/C Ratio(X)	0.00	0.67	0.67	0.45	1.02	0.00				0.39	0.50	
Avail Cap(c_a), veh/h	0	1360	607	159	1360	0				877	2513	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.40	0.40	0.66	0.66	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	20.5	20.4	28.5	19.6	0.0				12.6	13.5	0.0
Incr Delay (d2), s/veh	0.0	0.5	1.1	1.3	26.0	0.0				1.3	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.9	6.1	1.3	14.8	0.0				3.9	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.0	21.6	29.8	45.6	0.0				13.9	14.2	0.0
LnGrp LOS	A	C	C	C	F	A				B	B	
Approach Vol, veh/h		1324			1463						1600	A
Approach Delay, s/veh		21.2			44.8						14.1	
Approach LOS		C			D						B	

Timer - Assigned Phs		4		6		8			
Phs Duration (G+Y+Rc), s		36.0		45.0		36.0			
Change Period (Y+Rc), s		4.5		4.5		4.5			
Max Green Setting (Gmax), s		31.5		40.5		31.5			
Max Q Clear Time (g_c+I1), s		19.6		15.5		33.5			
Green Ext Time (p_c), s		6.2		11.8		0.0			

Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

Notes

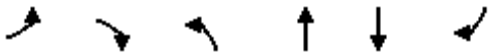
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	122	225	244	1456	1629
Future Volume (vph)	122	225	244	1456	1629
Turn Type	Prot	Perm	pm+pt	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0
Total Split (s)	20.0	20.0	13.0	61.0	48.0
Total Split (%)	24.7%	24.7%	16.0%	75.3%	59.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag		Lead
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.3	11.3	60.7	60.7	47.7
Actuated g/C Ratio	0.14	0.14	0.75	0.75	0.59
v/c Ratio	0.54	0.62	0.97	0.61	0.98
Control Delay	40.8	15.3	73.5	3.1	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	15.3	73.5	3.1	35.1
LOS	D	B	E	A	D
Approach Delay	24.3			13.2	35.1
Approach LOS	C			B	D

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 20 (25%), Referenced to phase 2:NBTL and 6:SBT, Start of 1st Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 86.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 195: Preston Rd. & Cherry Brook Ln.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	122	225	244	1456	1629	203
Future Volume (veh/h)	122	225	244	1456	1629	203
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	123	227	246	1471	1645	205
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	297	264	312	2517	1684	206
Arrive On Green	0.17	0.17	0.25	1.00	0.54	0.54
Sat Flow, veh/h	1753	1560	1753	3589	3228	384
Grp Volume(v), veh/h	123	227	246	1471	905	945
Grp Sat Flow(s),veh/h/ln	1753	1560	1753	1749	1749	1772
Q Serve(g_s), s	5.1	11.5	6.1	0.0	40.2	42.9
Cycle Q Clear(g_c), s	5.1	11.5	6.1	0.0	40.2	42.9
Prop In Lane	1.00	1.00	1.00			0.22
Lane Grp Cap(c), veh/h	297	264	312	2517	939	951
V/C Ratio(X)	0.41	0.86	0.79	0.58	0.96	0.99
Avail Cap(c_a), veh/h	335	299	312	2517	939	951
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.89	0.89	0.37	0.37
Uniform Delay (d), s/veh	30.1	32.7	27.5	0.0	18.0	18.6
Incr Delay (d2), s/veh	0.9	19.9	11.5	0.9	11.1	16.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	10.8	4.7	0.3	16.6	19.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.0	52.6	39.1	0.9	29.1	34.9
LnGrp LOS	C	D	D	A	C	C
Approach Vol, veh/h	350			1717	1850	
Approach Delay, s/veh	45.0			6.4	32.1	
Approach LOS	D			A	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		62.8		18.2	14.8	48.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		56.5		15.5	8.5	43.5
Max Q Clear Time (g_c+I1), s		2.0		13.5	8.1	44.9
Green Ext Time (p_c), s		16.9		0.3	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		22.0
HCM 6th LOS		C

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	43	124	1007	121	1389
Future Volume (vph)	43	124	1007	121	1389
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	3.5	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	22.0	22.0	46.0	13.0	59.0
Total Split (%)	27.2%	27.2%	56.8%	16.0%	72.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lead	Lag	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.7	7.7	56.8	67.2	67.2
Actuated g/C Ratio	0.10	0.10	0.70	0.83	0.83
v/c Ratio	0.27	0.49	0.45	0.27	0.50
Control Delay	37.2	13.3	8.1	1.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.3
Total Delay	37.2	13.3	8.1	1.0	0.9
LOS	D	B	A	A	A
Approach Delay	19.4		8.1		0.9
Approach LOS	B		A		A

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 28 (35%), Referenced to phase 2:NBT and 6:SBTL, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 4.8	Intersection LOS: A
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 196: Pine St. & Preston Rd.





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	43	124	1007	55	121	1389
Future Volume (veh/h)	43	124	1007	55	121	1389
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	44	128	1038	57	125	1432
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	186	166	1727	95	603	2737
Arrive On Green	0.11	0.11	0.51	0.51	0.43	1.00
Sat Flow, veh/h	1753	1560	3463	185	1753	3589
Grp Volume(v), veh/h	44	128	538	557	125	1432
Grp Sat Flow(s),veh/h/ln	1753	1560	1749	1807	1753	1749
Q Serve(g_s), s	1.9	6.5	17.6	17.6	0.0	0.0
Cycle Q Clear(g_c), s	1.9	6.5	17.6	17.6	0.0	0.0
Prop In Lane	1.00	1.00		0.10	1.00	
Lane Grp Cap(c), veh/h	186	166	896	926	603	2737
V/C Ratio(X)	0.24	0.77	0.60	0.60	0.21	0.52
Avail Cap(c_a), veh/h	379	337	896	926	603	2737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.25	0.25	0.23	0.23
Uniform Delay (d), s/veh	33.2	35.2	13.9	13.9	9.5	0.0
Incr Delay (d2), s/veh	0.6	7.4	0.8	0.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.7	6.5	6.7	1.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.8	42.7	14.7	14.6	9.5	0.2
LnGrp LOS	C	D	B	B	A	A
Approach Vol, veh/h	172		1095			1557
Approach Delay, s/veh	40.4		14.7			0.9
Approach LOS	D		B			A

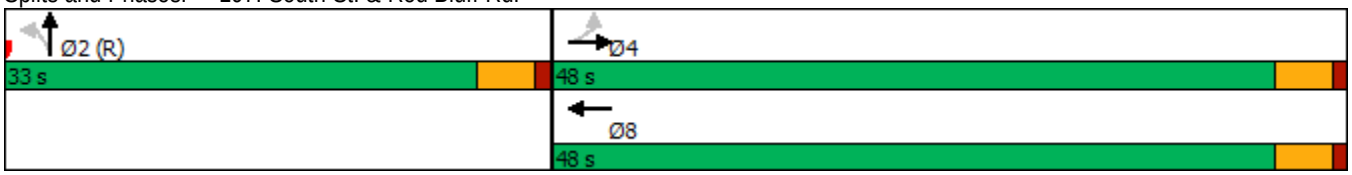
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	21.9	46.0			67.9	13.1
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	41.5			54.5	17.5
Max Q Clear Time (g_c+I1), s	2.0	19.6			2.0	8.5
Green Ext Time (p_c), s	0.1	7.8			17.0	0.3

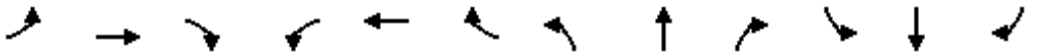
Intersection Summary	
HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Configurations					
Traffic Volume (vph)	94	924	860	428	649
Future Volume (vph)	94	924	860	428	649
Turn Type	Perm	NA	NA	Perm	NA
Protected Phases		4	8		2
Permitted Phases	4			2	
Detector Phase	4	4	8	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0
Total Split (s)	48.0	48.0	48.0	33.0	33.0
Total Split (%)	59.3%	59.3%	59.3%	40.7%	40.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	37.4	37.4	37.4	34.6	34.6
Actuated g/C Ratio	0.46	0.46	0.46	0.43	0.43
v/c Ratio	0.90	0.60	0.73	0.60	0.47
Control Delay	72.0	12.2	18.9	15.8	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	72.0	12.2	18.9	15.8	12.1
LOS	E	B	B	B	B
Approach Delay		17.7	18.9		13.6
Approach LOS		B	B		B

Intersection Summary	
Cycle Length: 81	
Actuated Cycle Length: 81	
Offset: 57 (70%), Referenced to phase 2:NBTL and 6:, Start of 1st Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 75.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 197: South St. & Red Bluff Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	924	0	0	860	246	428	649	17	0	0	0
Future Volume (veh/h)	94	924	0	0	860	246	428	649	17	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1841	1841	0	0	1841	1841	1841	1841	1841			
Adj Flow Rate, veh/h	98	962	0	0	896	0	446	676	0			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	4	4	0	0	4	4	4	4	4			
Cap, veh/h	233	1509	0	0	1509		802	1600				
Arrive On Green	0.86	0.86	0.00	0.00	0.43	0.00	0.15	0.15	0.00			
Sat Flow, veh/h	611	3589	0	0	3681	0	1753	3589	0			
Grp Volume(v), veh/h	98	962	0	0	896	0	446	676	0			
Grp Sat Flow(s),veh/h/ln	611	1749	0	0	1749	0	1753	1749	0			
Q Serve(g_s), s	10.1	6.8	0.0	0.0	15.9	0.0	19.1	14.2	0.0			
Cycle Q Clear(g_c), s	26.0	6.8	0.0	0.0	15.9	0.0	19.1	14.2	0.0			
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00			
Lane Grp Cap(c), veh/h	233	1509	0	0	1509		802	1600				
V/C Ratio(X)	0.42	0.64	0.00	0.00	0.59		0.56	0.42				
Avail Cap(c_a), veh/h	298	1878	0	0	1878		802	1600				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	0.77	0.77	0.00	0.00	0.86	0.00	0.87	0.87	0.00			
Uniform Delay (d), s/veh	11.1	3.6	0.0	0.0	17.6	0.0	26.8	24.7	0.0			
Incr Delay (d2), s/veh	0.9	0.4	0.0	0.0	0.3	0.0	2.4	0.7	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	1.3	0.0	0.0	6.0	0.0	9.4	6.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	4.0	0.0	0.0	17.9	0.0	29.2	25.4	0.0			
LnGrp LOS	B	A	A	A	B		C	C				
Approach Vol, veh/h		1060			896	A		1122	A			
Approach Delay, s/veh		4.7			17.9			26.9				
Approach LOS		A			B			C				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		41.5		39.5				39.5				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		28.5		43.5				43.5				
Max Q Clear Time (g_c+I1), s		21.1		28.0				17.9				
Green Ext Time (p_c), s		3.6		7.0				7.1				

Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									

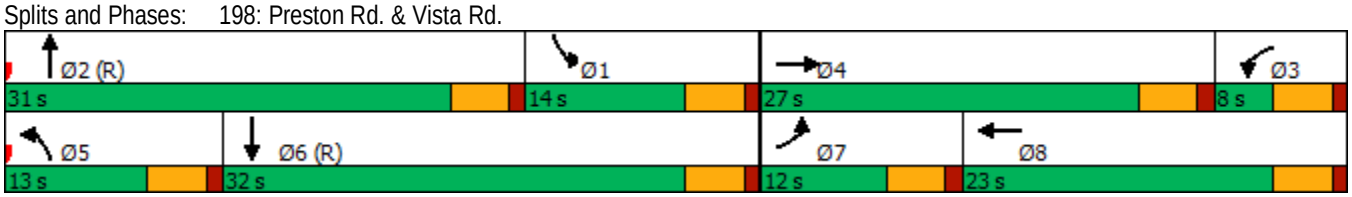
Notes

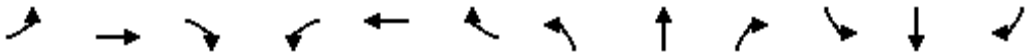
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	132	602	63	518	118	848	174	1058
Future Volume (vph)	132	602	63	518	118	848	174	1058
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	5	2	1	6
Permitted Phases								
Detector Phase	7	4	3	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	3.5	5.0	3.5	5.0	3.5	5.0	3.5	5.0
Minimum Split (s)	8.0	20.0	8.0	20.0	8.0	20.0	8.0	20.0
Total Split (s)	12.0	27.0	8.0	23.0	13.0	31.0	14.0	32.0
Total Split (%)	15.0%	33.8%	10.0%	28.8%	16.3%	38.8%	17.5%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	7.5	22.2	3.8	18.5	8.3	26.5	9.5	27.7
Actuated g/C Ratio	0.09	0.28	0.05	0.23	0.10	0.33	0.12	0.35
v/c Ratio	0.86	0.91	0.84	0.98	0.73	0.87	0.90	0.74
Control Delay	81.1	40.8	107.2	57.0	60.2	35.2	78.7	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.1	40.8	107.2	57.0	60.2	35.2	78.7	25.6
LOS	F	D	F	E	E	D	E	C
Approach Delay		46.3		61.0		38.0		32.3
Approach LOS		D		E		D		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 42.4	Intersection LOS: D
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 198: Preston Rd. & Vista Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	602	231	63	518	220	118	848	91	174	1058	138
Future Volume (veh/h)	132	602	231	63	518	220	118	848	91	174	1058	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	140	640	246	67	551	234	126	902	97	185	1126	147
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	4	4	4	4	4	4	4	4	4
Cap, veh/h	164	690	265	80	553	234	158	1055	113	208	1620	211
Arrive On Green	0.09	0.28	0.28	0.05	0.23	0.23	0.09	0.33	0.33	0.12	0.36	0.36
Sat Flow, veh/h	1753	2470	949	1753	2393	1014	1753	3185	343	1753	4498	587
Grp Volume(v), veh/h	140	453	433	67	402	383	126	495	504	185	838	435
Grp Sat Flow(s),veh/h/ln	1753	1749	1670	1753	1749	1658	1753	1749	1779	1753	1675	1735
Q Serve(g_s), s	6.3	20.2	20.2	3.0	18.4	18.5	5.6	21.1	21.1	8.3	17.1	17.1
Cycle Q Clear(g_c), s	6.3	20.2	20.2	3.0	18.4	18.5	5.6	21.1	21.1	8.3	17.1	17.1
Prop In Lane	1.00		0.57	1.00		0.61	1.00		0.19	1.00		0.34
Lane Grp Cap(c), veh/h	164	489	467	80	404	383	158	579	589	208	1206	625
V/C Ratio(X)	0.85	0.93	0.93	0.84	0.99	1.00	0.80	0.85	0.85	0.89	0.70	0.70
Avail Cap(c_a), veh/h	164	492	470	80	404	383	186	579	589	208	1206	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	1.00	1.00	1.00	0.50	0.50	0.50	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	28.0	28.0	37.9	30.7	30.7	35.7	25.0	25.0	34.7	21.8	21.9
Incr Delay (d2), s/veh	18.2	13.8	14.4	51.7	43.2	45.5	10.1	8.1	8.0	34.0	3.3	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	9.6	9.3	2.4	12.0	11.7	2.7	9.3	9.4	5.3	6.6	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	41.9	42.5	89.6	73.9	76.2	45.8	33.1	33.0	68.7	25.2	28.2
LnGrp LOS	D	D	D	F	E	E	D	C	C	E	C	C
Approach Vol, veh/h		1026			852			1125			1458	
Approach Delay, s/veh		43.8			76.2			34.5			31.6	
Approach LOS		D			E			C			C	

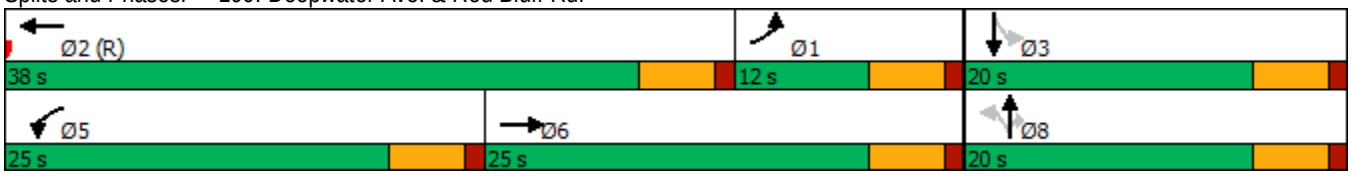
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	31.0	8.1	26.9	11.7	33.3	12.0	23.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	26.5	3.5	22.5	8.5	27.5	7.5	18.5
Max Q Clear Time (g_c+I1), s	10.3	23.1	5.0	22.2	7.6	19.1	8.3	20.5
Green Ext Time (p_c), s	0.0	1.9	0.0	0.2	0.0	4.9	0.0	0.0

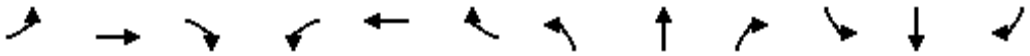
Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	74	654	324	847	10	143	320	51	197
Future Volume (vph)	74	654	324	847	10	143	320	51	197
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA
Protected Phases	1	6	5	2		8			3
Permitted Phases					8		8	3	
Detector Phase	1	6	5	2	8	8	8	3	3
Switch Phase									
Minimum Initial (s)	5.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	13.0	10.0	13.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	12.0	25.0	25.0	38.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	17.1%	35.7%	35.7%	54.3%	28.6%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0	5.0		5.0
Lead/Lag	Lag	Lag	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)	6.7	25.2	17.5	38.0		12.4	12.4		12.4
Actuated g/C Ratio	0.10	0.36	0.25	0.54		0.18	0.18		0.18
v/c Ratio	0.46	0.57	0.77	0.49		0.51	0.60		0.61
Control Delay	39.2	21.4	36.8	12.2		31.6	8.4		27.1
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Total Delay	39.2	21.4	36.8	12.2		31.6	8.4		27.1
LOS	D	C	D	B		C	A		C
Approach Delay		23.1		18.7		15.9			27.1
Approach LOS		C		B		B			C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:WBT, Start of 1st Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 199: Deepwater Ave. & Red Bluff Rd.





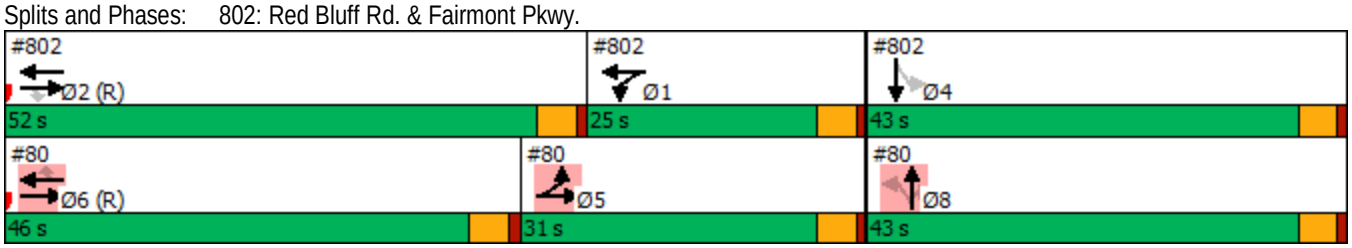
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	654	28	324	847	50	10	143	320	51	197	75
Future Volume (vph)	74	654	28	324	847	50	10	143	320	51	197	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		0.95	
Frt	1.00	0.99		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		0.99	
Satd. Flow (prot)	1736	3450		1736	3442			1821	1553		3324	
Flt Permitted	0.95	1.00		0.95	1.00			0.96	1.00		0.85	
Satd. Flow (perm)	1736	3450		1736	3442			1755	1553		2863	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	76	674	29	334	873	52	10	147	330	53	203	77
RTOR Reduction (vph)	0	4	0	0	6	0	0	0	272	0	42	0
Lane Group Flow (vph)	76	699	0	334	919	0	0	157	58	0	291	0
Turn Type	Prot	NA		Prot	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2			8			3	
Permitted Phases							8		8	3		
Actuated Green, G (s)	5.6	25.1		17.5	37.0			12.4	12.4		12.4	
Effective Green, g (s)	5.6	25.1		17.5	37.0			12.4	12.4		12.4	
Actuated g/C Ratio	0.08	0.36		0.25	0.53			0.18	0.18		0.18	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	138	1237		434	1819			310	275		507	
v/s Ratio Prot	0.04	c0.20		c0.19	0.27							
v/s Ratio Perm								0.09	0.04		c0.10	
v/c Ratio	0.55	0.57		0.77	0.51			0.51	0.21		0.57	
Uniform Delay, d1	31.0	18.1		24.4	10.6			26.0	24.6		26.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	4.7	0.6		8.0	1.0			1.3	0.4		1.6	
Delay (s)	35.7	18.7		32.4	11.6			27.3	25.0		28.0	
Level of Service	D	B		C	B			C	C		C	
Approach Delay (s)		20.3			17.1			25.8			28.0	
Approach LOS		C			B			C			C	

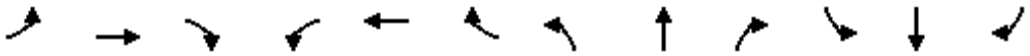
Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	1379	215	193	1674	232	697			
Future Volume (vph)	1379	215	193	1674	232	697			
Turn Type	NA	Perm	Prot	NA	Perm	NA			
Protected Phases	2		1	1 2		4	5	6	8
Permitted Phases		2			4				
Detector Phase	2	2	1	1 2	4	4			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	52.0	52.0	25.0		43.0	43.0	31.0	46.0	43.0
Total Split (%)	43.3%	43.3%	20.8%		35.8%	35.8%	26%	38%	36%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.5	4.5	4.5		4.5	4.5			
Lead/Lag	Lead	Lead	Lag				Lag	Lead	
Lead-Lag Optimize?							Yes		
Recall Mode	C-Max	C-Max	None		None	None	None	C-Max	None
Act Effct Green (s)	51.1	51.1	20.2	75.8	35.2	35.2			
Actuated g/C Ratio	0.43	0.43	0.17	0.63	0.29	0.29			
v/c Ratio	0.57	0.33	0.37	0.58	0.50	0.80			
Control Delay	27.7	14.7	40.7	6.2	38.3	45.5			
Queue Delay	0.1	0.0	0.0	1.4	0.0	0.7			
Total Delay	27.7	14.7	40.7	7.6	38.3	46.1			
LOS	C	B	D	A	D	D			
Approach Delay	26.0			11.0		44.3			
Approach LOS	C			B		D			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 38 (32%), Referenced to phase 2:EBWB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 802: Red Bluff Rd. & Fairmont Pkwy.





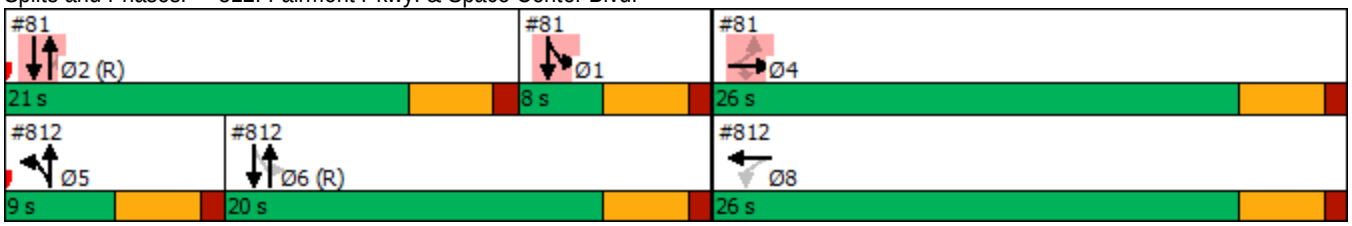
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1379	215	193	1674	0	0	0	0	232	697	43
Future Volume (vph)	0	1379	215	193	1674	0	0	0	0	232	697	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5					4.5	4.5	
Lane Util. Factor		0.86	1.00	0.97	0.91					1.00	0.95	
Frt		1.00	0.85	1.00	1.00					1.00	0.99	
Flt Protected		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (prot)		6285	1553	3367	4988					1736	3441	
Flt Permitted		1.00	1.00	0.95	1.00					0.95	1.00	
Satd. Flow (perm)		6285	1553	3367	4988					1736	3441	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	1515	236	212	1840	0	0	0	0	255	766	47
RTOR Reduction (vph)	0	0	60	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	1515	176	212	1840	0	0	0	0	255	809	0
Turn Type		NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4	
Permitted Phases			2							4		
Actuated Green, G (s)		51.1	51.1	20.2	75.8					35.2	35.2	
Effective Green, g (s)		51.1	51.1	20.2	75.8					35.2	35.2	
Actuated g/C Ratio		0.43	0.43	0.17	0.63					0.29	0.29	
Clearance Time (s)		4.5	4.5	4.5						4.5	4.5	
Vehicle Extension (s)		3.0	3.0	3.0						3.0	3.0	
Lane Grp Cap (vph)		2676	661	566	3150					509	1009	
v/s Ratio Prot		0.24		0.06	c0.37						c0.24	
v/s Ratio Perm			0.11							0.15		
v/c Ratio		0.57	0.27	0.37	0.58					0.50	0.80	
Uniform Delay, d1		26.1	22.3	44.3	12.9					35.1	39.2	
Progression Factor		1.00	1.00	0.88	0.42					1.00	1.00	
Incremental Delay, d2		0.9	1.0	0.3	0.2					0.8	4.7	
Delay (s)		26.9	23.3	39.4	5.6					35.9	43.9	
Level of Service		C	C	D	A					D	D	
Approach Delay (s)		26.4			9.1			0.0			42.0	
Approach LOS		C			A			A			D	

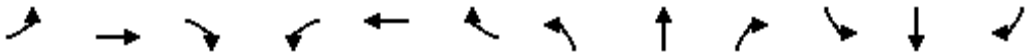
Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	Ø1	Ø2	Ø4
Lane Configurations									
Traffic Volume (vph)	453	2174	306	655	1	895			
Future Volume (vph)	453	2174	306	655	1	895			
Turn Type	Perm	NA	Prot	NA	Perm	NA			
Protected Phases		8	5	5 6		6	1	2	4
Permitted Phases	8				6				
Detector Phase	8	8	5	5 6	6	6			
Switch Phase									
Minimum Initial (s)	5.0	5.0	3.5		5.0	5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	8.0		20.0	20.0	8.0	20.0	20.0
Total Split (s)	26.0	26.0	9.0		20.0	20.0	8.0	21.0	26.0
Total Split (%)	47.3%	47.3%	16.4%		36.4%	36.4%	15%	38%	47%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0			
Total Lost Time (s)	4.5	4.5	4.5			4.5			
Lead/Lag			Lead		Lag	Lag	Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None		C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	21.5	21.5	4.5	24.5		15.5			
Actuated g/C Ratio	0.39	0.39	0.08	0.45		0.28			
v/c Ratio	0.70	1.01	1.16	0.44		0.91			
Control Delay	20.9	38.0	136.3	4.8		31.8			
Queue Delay	54.5	0.0	0.0	0.6		0.0			
Total Delay	75.4	38.0	136.3	5.4		31.8			
LOS	E	D	F	A		C			
Approach Delay		44.0		47.1		31.8			
Approach LOS		D		D		C			

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 55	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of 1st Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 41.8	Intersection LOS: D
Intersection Capacity Utilization 90.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 812: Fairmont Pkwy. & Space Center Blvd.





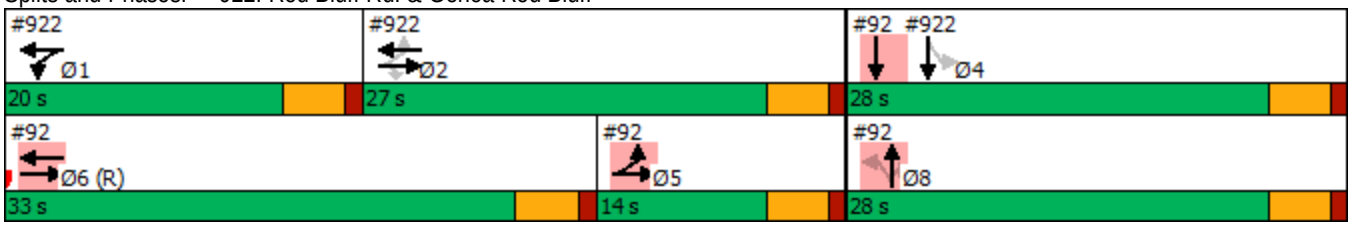
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	453	2174	192	306	655	0	1	895	222
Future Volume (vph)	0	0	0	453	2174	192	306	655	0	1	895	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)				4.5	4.5		4.5	4.5			4.5	
Lane Util. Factor				1.00	0.86		0.97	0.95			0.91	
Frt				1.00	0.99		1.00	1.00			0.97	
Flt Protected				0.95	1.00		0.95	1.00			1.00	
Satd. Flow (prot)				1736	6208		3367	3471			4839	
Flt Permitted				0.95	1.00		0.95	1.00			0.94	
Satd. Flow (perm)				1736	6208		3367	3471			4546	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	472	2265	200	319	682	0	1	932	231
RTOR Reduction (vph)	0	0	0	0	26	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	472	2439	0	319	682	0	0	1163	0
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	5 6			6	
Permitted Phases				8						6		
Actuated Green, G (s)				21.5	21.5		4.5	24.5			15.5	
Effective Green, g (s)				21.5	21.5		4.5	24.5			15.5	
Actuated g/C Ratio				0.39	0.39		0.08	0.45			0.28	
Clearance Time (s)				4.5	4.5		4.5				4.5	
Vehicle Extension (s)				3.0	3.0		3.0				3.0	
Lane Grp Cap (vph)				678	2426		275	1546			1281	
v/s Ratio Prot					c0.39		c0.09	0.20				
v/s Ratio Perm				0.27							c0.26	
v/c Ratio				0.70	1.01		1.16	0.44			0.91	
Uniform Delay, d1				14.0	16.8		25.2	10.5			19.1	
Progression Factor				1.00	1.00		1.49	0.38			1.00	
Incremental Delay, d2				3.1	19.6		99.3	0.2			11.0	
Delay (s)				17.1	36.4		137.0	4.2			30.0	
Level of Service				B	D		F	A			C	
Approach Delay (s)		0.0			33.3			46.5			30.0	
Approach LOS		A			C			D			C	

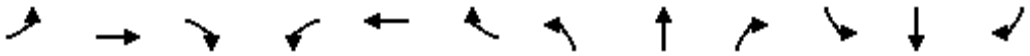
Intersection Summary			
HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	SBT	Ø5	Ø6	Ø8
Lane Configurations									
Traffic Volume (vph)	1	865	320	353	1464	663			
Future Volume (vph)	1	865	320	353	1464	663			
Turn Type	Perm	NA	Perm	Prot	NA	NA			
Protected Phases		2		1	2 1	4	5	6	8
Permitted Phases	2		2						
Detector Phase	2	2	2	1	2 1	4			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	3.5		5.0	3.5	5.0	5.0
Minimum Split (s)	20.0	20.0	20.0	8.0		20.0	8.0	20.0	20.0
Total Split (s)	27.0	27.0	27.0	20.0		28.0	14.0	33.0	28.0
Total Split (%)	36.0%	36.0%	36.0%	26.7%		37.3%	19%	44%	37%
Yellow Time (s)	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0			
Total Lost Time (s)		4.5	4.5	4.5		4.5			
Lead/Lag	Lag	Lag	Lag	Lead			Lag	Lead	
Lead-Lag Optimize?									
Recall Mode	None	None	None	None		None	None	C-Max	None
Act Effct Green (s)		22.5	22.5	15.5	42.5	23.5			
Actuated g/C Ratio		0.30	0.30	0.21	0.57	0.31			
v/c Ratio		0.66	0.65	1.05	0.55	0.60			
Control Delay		25.6	23.4	76.7	7.1	23.0			
Queue Delay		0.0	0.0	18.7	1.6	0.0			
Total Delay		25.6	23.4	95.4	8.7	23.0			
LOS		C	C	F	A	C			
Approach Delay		25.0			25.6	23.0			
Approach LOS		C			C	C			

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 6:EBWB, Start of 1st Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 80.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 922: Red Bluff Rd. & Genoa Red Bluff





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	865	320	353	1464	0	0	0	0	56	663	142
Future Volume (vph)	1	865	320	353	1464	0	0	0	0	56	663	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)		4.5	4.5	4.5	4.5						4.5	
Lane Util. Factor		0.91	1.00	1.00	0.91						0.91	
Frt		1.00	0.85	1.00	1.00						0.98	
Flt Protected		1.00	1.00	0.95	1.00						1.00	
Satd. Flow (prot)		4987	1553	1736	4988						4848	
Flt Permitted		0.94	1.00	0.95	1.00						1.00	
Satd. Flow (perm)		4680	1553	1736	4988						4848	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	1	920	340	376	1557	0	0	0	0	60	705	151
RTOR Reduction (vph)	0	0	61	0	0	0	0	0	0	0	18	0
Lane Group Flow (vph)	0	921	279	376	1557	0	0	0	0	0	898	0
Turn Type	Perm	NA	Perm	Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4	
Permitted Phases	2		2							4		
Actuated Green, G (s)		22.5	22.5	15.5	42.5						23.5	
Effective Green, g (s)		22.5	22.5	15.5	42.5						23.5	
Actuated g/C Ratio		0.30	0.30	0.21	0.57						0.31	
Clearance Time (s)		4.5	4.5	4.5							4.5	
Vehicle Extension (s)		3.0	3.0	3.0							3.0	
Lane Grp Cap (vph)		1404	465	358	2826						1519	
v/s Ratio Prot				c0.22	c0.31							
v/s Ratio Perm		c0.20	0.18								0.19	
v/c Ratio		0.66	0.60	1.05	0.55						0.59	
Uniform Delay, d1		22.9	22.4	29.8	10.2						21.7	
Progression Factor		1.00	1.00	0.87	0.65						1.00	
Incremental Delay, d2		1.1	2.2	47.3	0.1						0.6	
Delay (s)		24.0	24.6	73.3	6.7						22.3	
Level of Service		C	C	E	A						C	
Approach Delay (s)		24.2			19.7			0.0			22.3	
Approach LOS		C			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			