

HOUSTON-GALVESTON AREA COUNCIL



Temporary Pedestrian/Bicycle Counters
Data Summary

Deployment Summary	
Sponsoring Agency	Houston-Galveston Area Council Texas Transportation Institute
Deployment Period	Thursday, September 1, 2016 – Monday, September 12, 2016
Number of Counters Deployed	4
Facility Description	Sidewalks along Heights Boulevard at Interstate 10 (City of Houston)
Locations Deployed (Houston-Galveston Area Council + Texas Transportation Institute)	
Counter T11	Heights Boulevard Southbound North of Interstate 10
Counter T12	Heights Boulevard Northbound North of Interstate 10
Counter T13	Heights Boulevard Southbound South of Interstate 10
Counter T14	Heights Boulevard Northbound South of Interstate 10

About the Temporary Pedestrian/Bicycle Counters

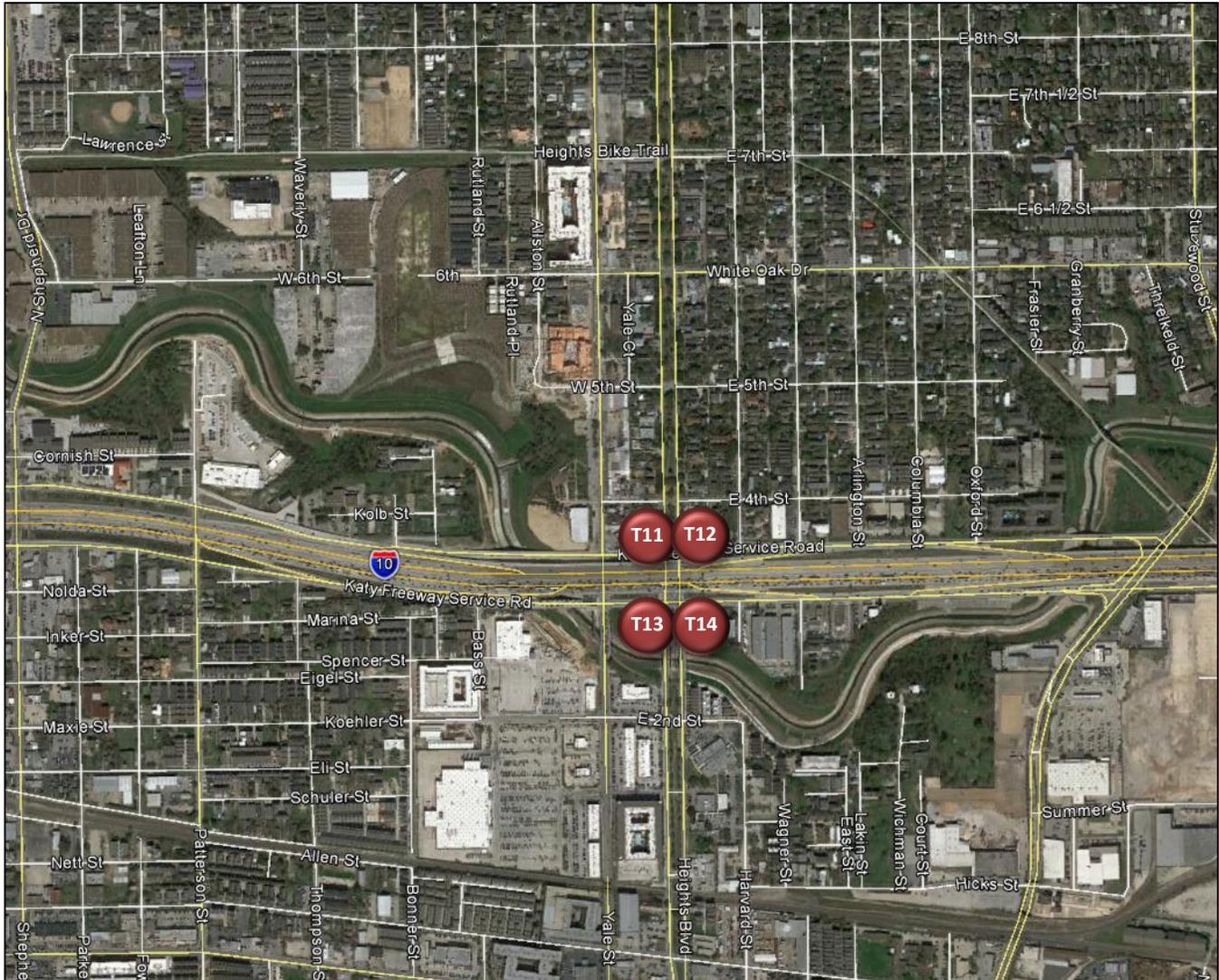
The Houston-Galveston Area Council (H-GAC) has temporary counters (TRAFx Infrared Trail Counters: Generation III) that can be borrowed by local governments and transportation agencies to count the number of people using off-street pedestrian and bicycle facilities. Infrared technology is used to count the number of people passing the counter. The counters do not differentiate between pedestrians and bicyclists, but count the total number of users.

The Texas Transportation Institute (TTI) owns additional temporary counters that it deploys along off-street pedestrian and bicycle facilities statewide.

Counter Locations

Heights Boulevard at Interstate 10 (City of Houston)

Thursday, September 1, 2016 – Monday, September 12, 2016



Counter	Location	Average Daily Usage	Total Users	Page Number
T11	Heights Boulevard Southbound North of Interstate 10	62	749	3
T12	Heights Boulevard Northbound North of Interstate 10	48*	265*	7
T13	Heights Boulevard Southbound South of Interstate 10	54**	645**	11
T14	Heights Boulevard Northbound South of Interstate 10	75	896	15

*Counter T12 began collecting inaccurate data during the afternoon of Tuesday, September 6, 2016. Data collected after 12:00 p.m. on Tuesday, September 6, 2016 was excluded from analysis.

**Usage recorded by Counter T13 dropped significantly after 11:15 a.m. on Saturday, September 10, 2016. Only one user was recorded on September 11, and none were recorded on September 12.

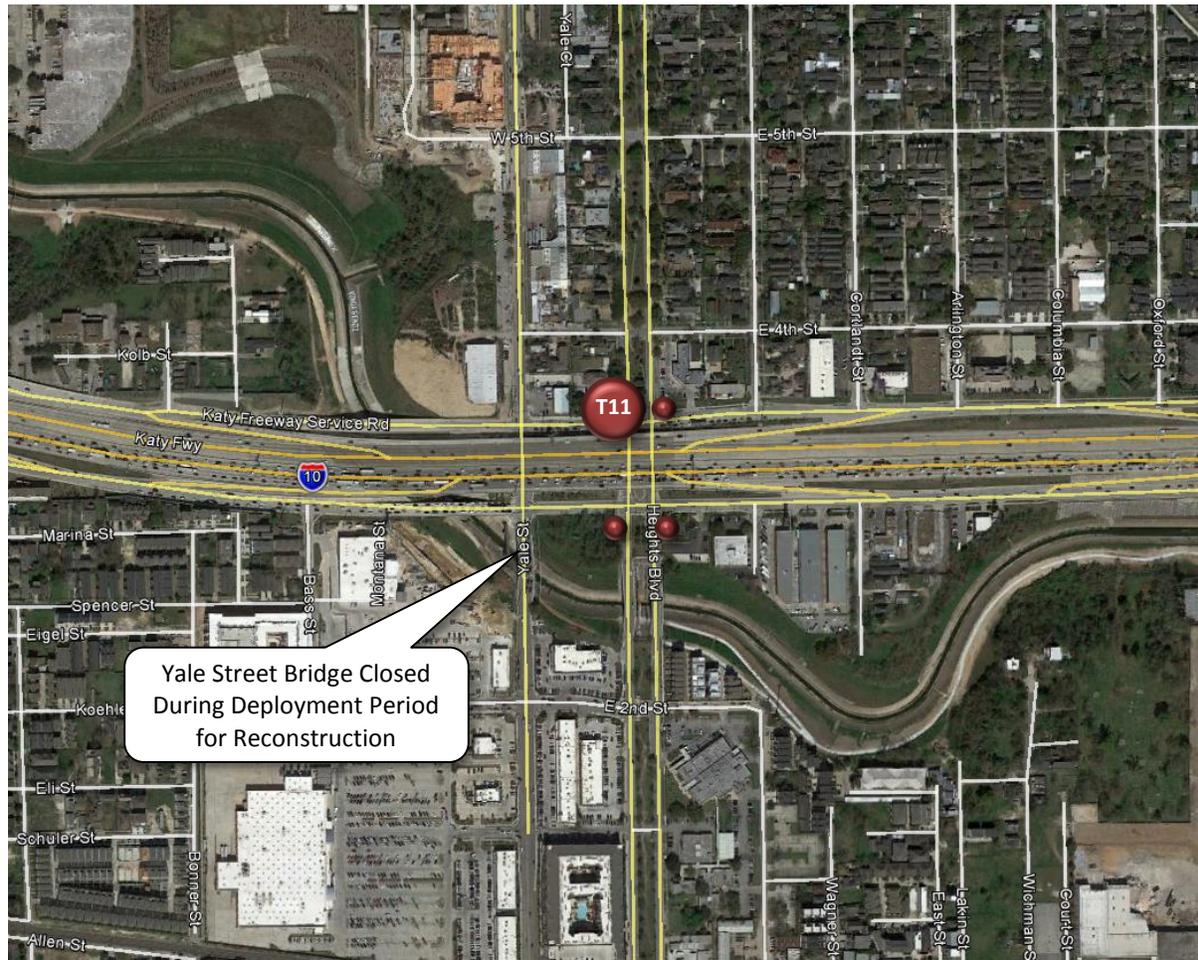
Counter T11

Heights Boulevard Southbound North of Interstate 10

Location Information		
Location Name	Heights Boulevard Southbound North of Interstate 10	
Location Description	Sidewalk along Heights Boulevard Southbound North of Interstate 10	
Jurisdiction	City of Houston	
Agency Deployed	Houston-Galveston Area Council/Texas Transportation Institute	
GPS Coordinates	29°46'37.34"N, 95°23'51.52"W	
Surrounding Land Uses	North	Office, Commercial/Retail, Single-Family Residential, Multi-Family Residential, Industrial
	South	Interstate 10, Vacant Land, White Oak Bayou, Commercial/Retail, Multi-Family Residential
	East	Commercial/Retail, Single-Family Residential
	West	Office, Commercial/Retail, Industrial, White Oak Bayou
What object was device secured to?	Sign Post (One Way)	
Sidewalk Width	5'	
Buffer Width	5.5'	
Street Width	Four-Lane Divided Roadway	
Parallel Parking	No	
Landscaping or Trees	Yes	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	15,821 (425 Heights Boulevard: City of Houston – 2010)	
Transit	Yes (METRO Bus Stop 200' North at Heights Boulevard Southbound/W. 4th Street)	
Shade	Yes	
Have counts been collected by H-GAC at this location before?	No	
Notes	During the deployment period, Yale Street (which parallels Heights Boulevard) was closed at White Oak Bayou, just south of Interstate 10. The Texas Department of Transportation (TxDOT) was building a new bridge over White Oak Bayou.	

Trends
<ul style="list-style-type: none"> • Average daily usage is 62 users/day. • Usage tends to be higher during weekends (73 users/day) than on weekdays (57 users/day). • On weekdays, usage remains relatively steady throughout the day. • During weekends, usage is highest in the morning (7:00 a.m. – 10:00 a.m.).

Location Information: Map



Location Information: Photos



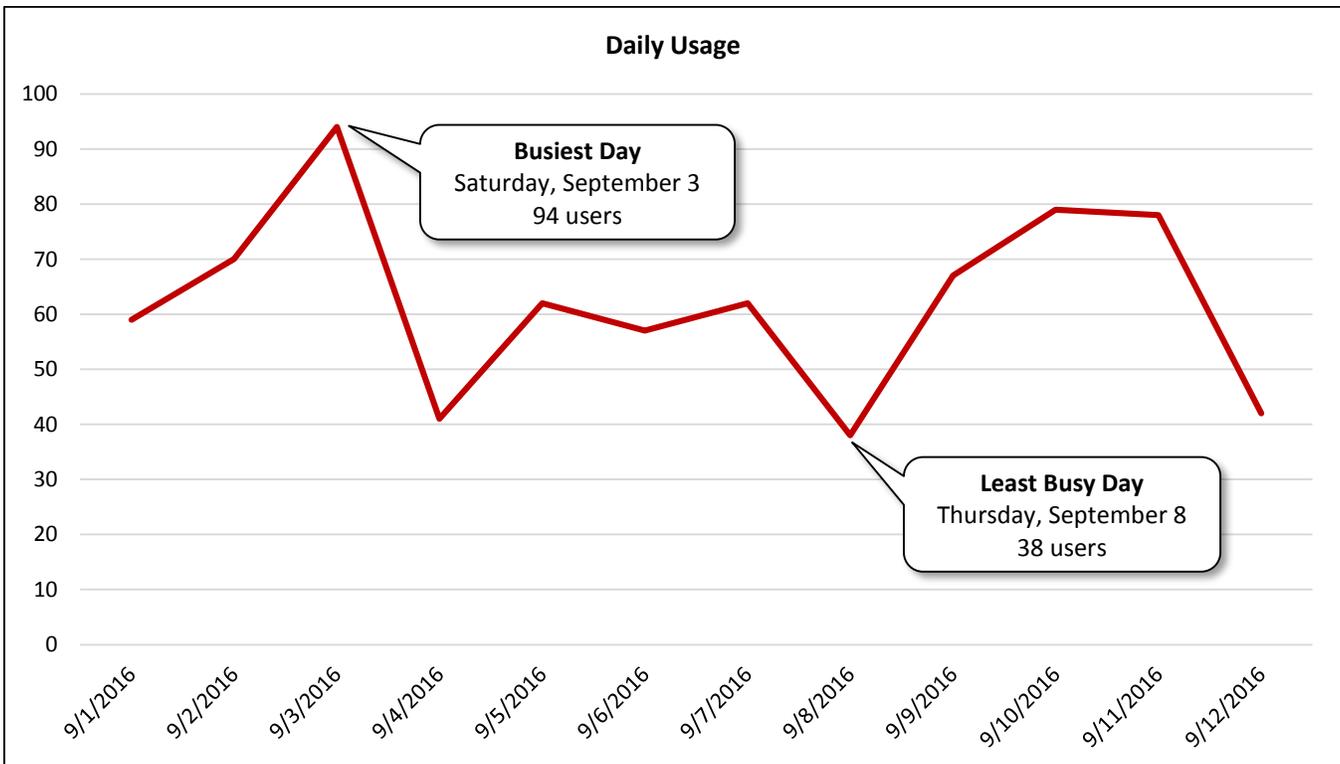
Image 1: Heights Boulevard Southbound North of Interstate 10 Facing North



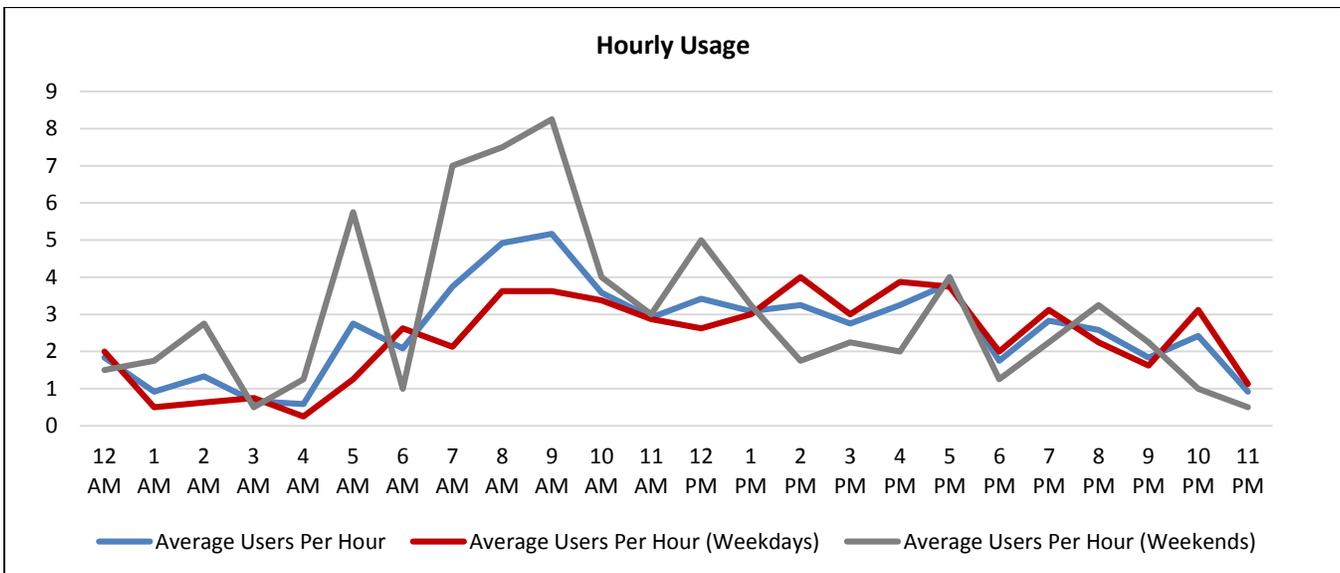
Image 2: Heights Boulevard Southbound North of Interstate 10 Facing South

Daily Usage Heights Boulevard Southbound North of Interstate 10				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Thursday, September 1, 2016	59	97	77	0
Friday, September 2, 2016	70	95	77	0
Saturday, September 3, 2016	94	93	75	0
Sunday, September 4, 2016	41	94	74	0.29
Monday, September 5, 2016	62	90	75	0.02
Tuesday, September 6, 2016	57	93	75	0
Wednesday, September 7, 2016	62	94	74	T
Thursday, September 8, 2016	38	94	76	0
Friday, September 9, 2016	67	91	75	0.04
Saturday, September 10, 2016	79	90	74	T
Sunday, September 11, 2016	78	91	72	0
Monday, September 12, 2016	42	92	73	0
Total	749			
Average Daily Usage	62			
Average Daily Usage (Weekday)	57			
Average Daily Usage (Weekend)	73			
		Notes		
		Labor Day: Monday, September 5, 2016		

*Weather conditions recorded at KHOU.



Hourly Usage Heights Boulevard Southbound North of Interstate 10			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	1.8	2.0	1.5
1:00 a.m.	0.9	0.5	1.8
2:00 a.m.	1.3	0.6	2.8
3:00 a.m.	0.7	0.8	0.5
4:00 a.m.	0.6	0.3	1.3
5:00 a.m.	2.8	1.3	5.8
6:00 a.m.	2.1	2.6	1.0
7:00 a.m.	3.8	2.1	7.0
8:00 a.m.	4.9	3.6	7.5
9:00 a.m.	5.2	3.6	8.3
10:00 a.m.	3.6	3.4	4.0
11:00 a.m.	2.9	2.9	3.0
12:00 p.m.	3.4	2.6	5.0
1:00 p.m.	3.1	3.0	3.3
2:00 p.m.	3.3	4.0	1.8
3:00 p.m.	2.8	3.0	2.3
4:00 p.m.	3.3	3.9	2.0
5:00 p.m.	3.8	3.8	4.0
6:00 p.m.	1.8	2.0	1.3
7:00 p.m.	2.8	3.1	2.3
8:00 p.m.	2.6	2.3	3.3
9:00 p.m.	1.8	1.6	2.3
10:00 p.m.	2.4	3.1	1.0
11:00 p.m.	0.9	1.1	0.5



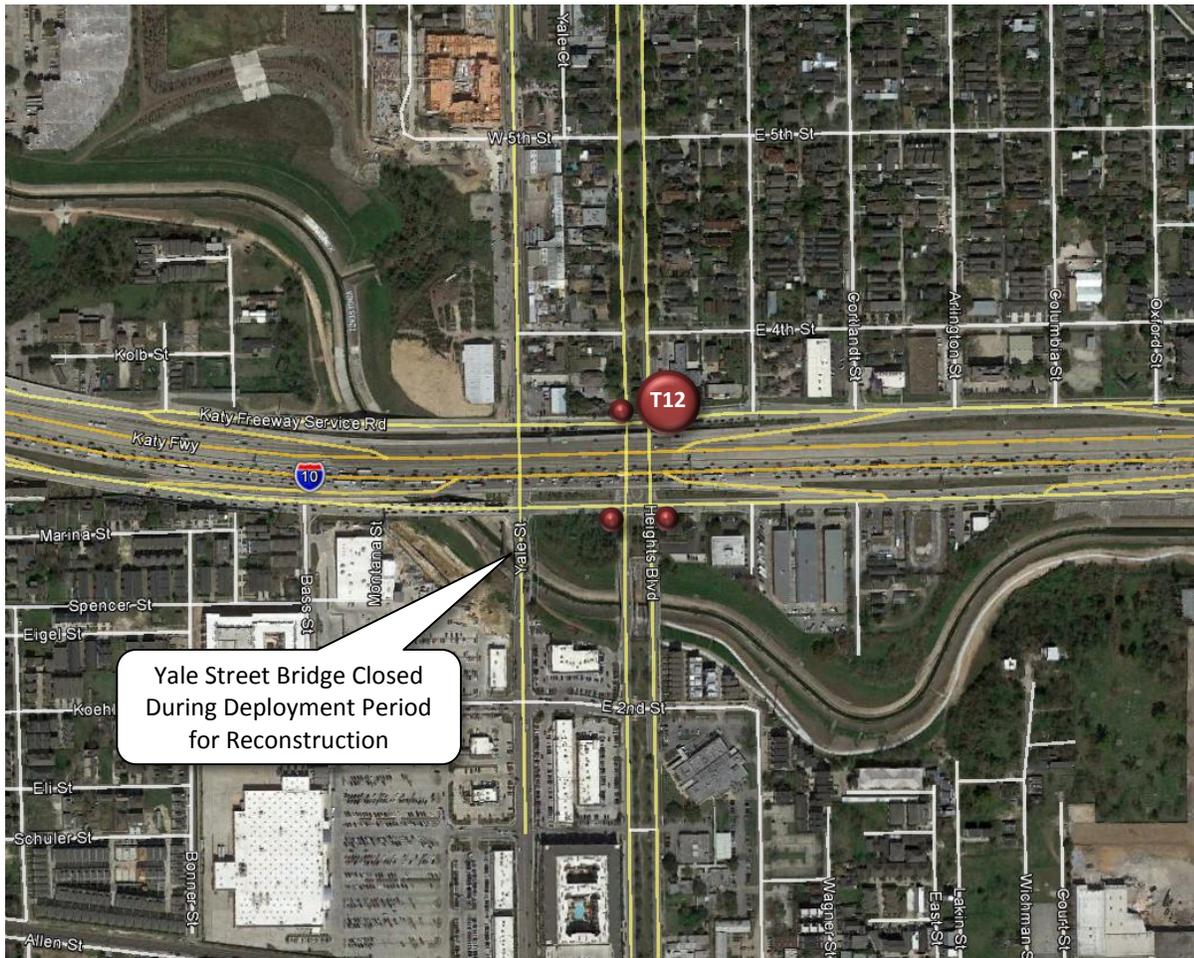
Counter T12

Heights Boulevard Northbound North of Interstate 10

Location Information		
Location Name	Heights Boulevard Northbound North of Interstate 10	
Location Description	Sidewalk along Heights Boulevard Northbound North of Interstate 10	
Jurisdiction	City of Houston	
Agency Deployed	Houston-Galveston Area Council/Texas Transportation Institute	
GPS Coordinates	29°46'37.73"N, 95°23'50.10"W	
Surrounding Land Uses	North	Commercial/Retail, Office, Single-Family Residential, Multi-Family Residential, Industrial
	South	Interstate 10, Office, Vacant Land, White Oak Bayou, Commercial/Retail, Multi-Family Residential
	East	Commercial/Retail, Single-Family Residential
	West	Office, Commercial/Retail, Industrial, White Oak Bayou
What object was device secured to?	Sign Post (Bicycle Lane)	
Sidewalk Width	6'	
Buffer Width	4.5'	
Street Width	Four-Lane Divided Roadway	
Parallel Parking	No	
Landscaping or Trees	No	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	15,821 (425 Heights Boulevard: City of Houston – 2010)	
Transit	Yes (METRO Bus Stop 220' North at Heights Boulevard Northbound/E. 4th Street)	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	
Notes	During the deployment period, Yale Street (which parallels Heights Boulevard) was closed at White Oak Bayou, just south of Interstate 10. The Texas Department of Transportation (TxDOT) was building a new bridge over White Oak Bayou.	
	Counter T12 began collecting inaccurate data during the afternoon of Tuesday, September 6, 2016. Data collected after 12:00 p.m. on Tuesday, September 6, 2016 was excluded from analysis.	

Trends
<ul style="list-style-type: none"> • Average daily usage is 48 users/day. • Usage tends to be higher during weekends (55 users/day) than on weekdays (45 users/day). • On weekdays, usage varies throughout the day. There are spikes in usage during the morning (7:00 a.m. – 8:00 a.m. and 9:00 a.m. – 10:00 a.m.), midday (12:00 p.m. – 2:00 p.m.), and later in the evening (8:00 p.m. – 9:00 p.m.). • During weekends, usage is highest in the late morning (10:00 a.m. – 11:00 a.m.).

Location Information: Map



Location Information: Photos



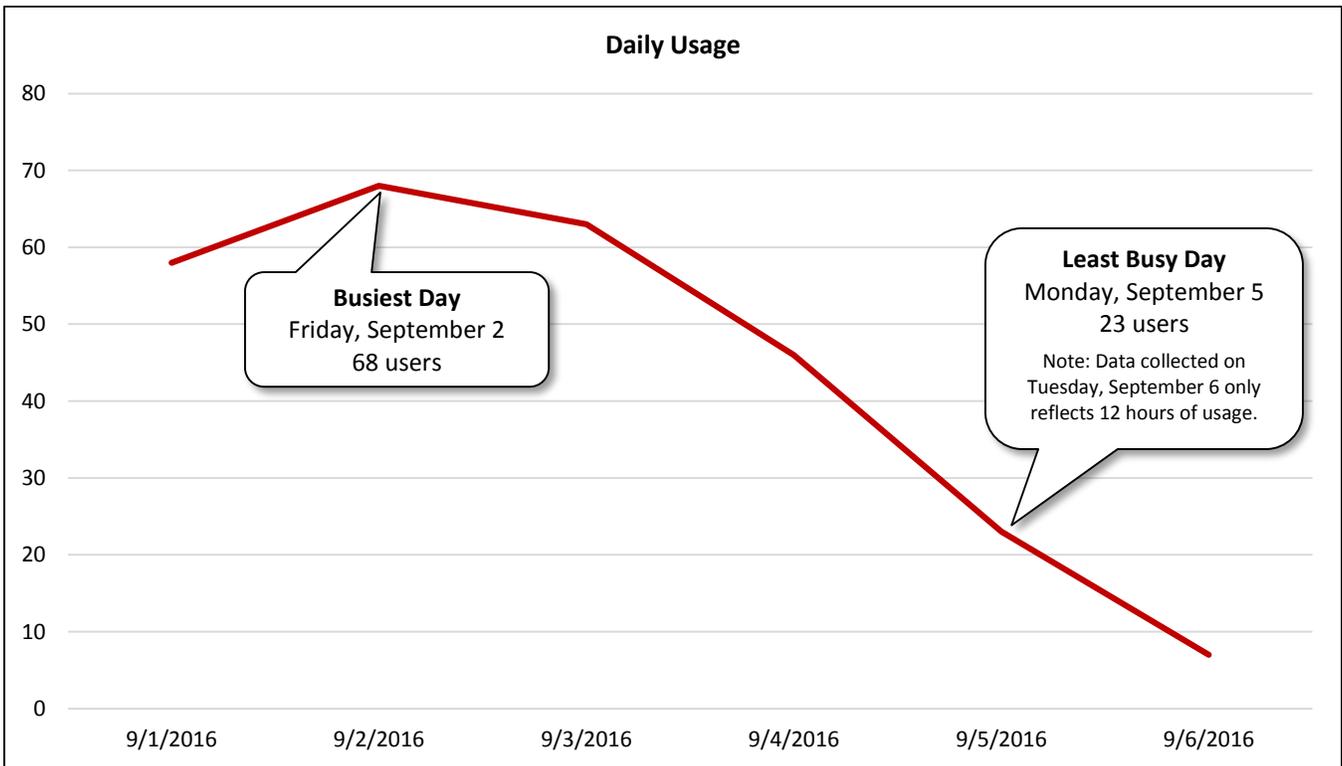
Image 3: Heights Boulevard Northbound North of Interstate 10 Facing North



Image 4: Heights Boulevard Northbound North of Interstate 10 Facing South

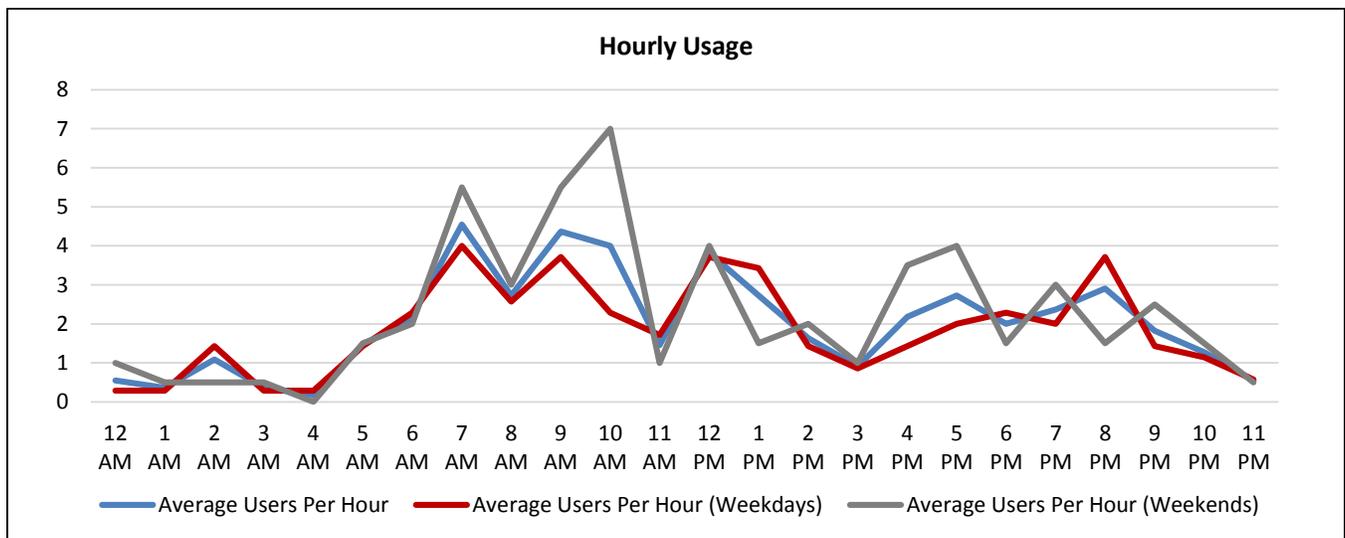
Daily Usage Heights Boulevard Northbound North of Interstate 10				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Thursday, September 1, 2016	58	97	77	0
Friday, September 2, 2016	68	95	77	0
Saturday, September 3, 2016	63	93	75	0
Sunday, September 4, 2016	46	94	74	0.29
Monday, September 5, 2016	23	90	75	0.02
Tuesday, September 6, 2016 (until 12:00 p.m.)	7	93	75	0
Total	265			
Average Daily Usage	48			
Average Daily Usage (Weekday)	45			
Average Daily Usage (Weekend)	55			
		Notes		
		Labor Day: Monday, September 5, 2016		
		Counter T12 began collecting inaccurate data during the afternoon of Tuesday, September 6, 2016. Data collected after 12:00 p.m. on Tuesday, September 6, 2016 was excluded from analysis.		

*Weather conditions recorded at KHOU.



Hourly Usage Heights Boulevard Northbound North of Interstate 10			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.5	0.3	1.0
1:00 a.m.	0.4	0.3	0.5
2:00 a.m.	1.1	1.4	0.5
3:00 a.m.	0.4	0.3	0.5
4:00 a.m.	0.2	0.3	0.0
5:00 a.m.	1.5	1.4	1.5
6:00 a.m.	2.2	2.3	2.0
7:00 a.m.	4.5	4.0	5.5
8:00 a.m.	2.7	2.6	3.0
9:00 a.m.	4.4	3.7	5.5
10:00 a.m.	4.0	2.3	7.0
11:00 a.m.	1.5	1.7	1.0
12:00 p.m.	3.8	3.7	4.0
1:00 p.m.	2.7	3.4	1.5
2:00 p.m.	1.6	1.4	2.0
3:00 p.m.	0.9	0.9	1.0
4:00 p.m.	2.2	1.4	3.5
5:00 p.m.	2.7	2.0	4.0
6:00 p.m.	2.0	2.3	1.5
7:00 p.m.	2.4	2.0	3.0
8:00 p.m.	2.9	3.7	1.5
9:00 p.m.	1.8	1.4	2.5
10:00 p.m.	1.3	1.1	1.5
11:00 p.m.	0.5	0.6	0.5

Note: Counter T12 began collecting inaccurate data during the afternoon of Tuesday, September 6, 2016. Data collected after 12:00 p.m. on Tuesday, September 6, 2016 was excluded from analysis.



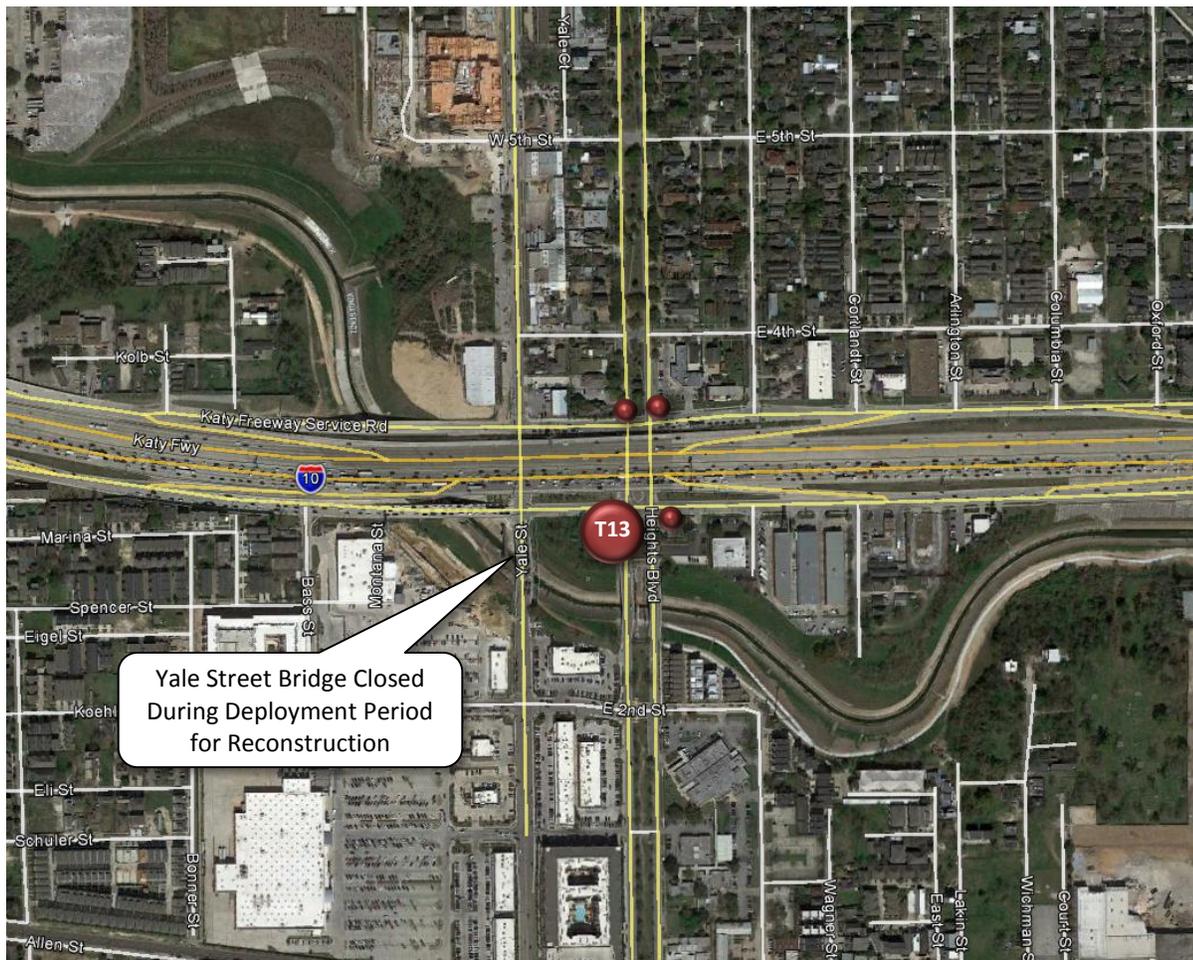
Counter T13

Heights Boulevard Southbound South of Interstate 10

Location Information		
Location Name	Heights Boulevard Southbound South of Interstate 10	
Location Description	Sidewalk along Heights Boulevard Southbound South of Interstate 10	
Jurisdiction	City of Houston	
Agency Deployed	Houston-Galveston Area Council/Texas Transportation Institute	
GPS Coordinates	29°46'33.47"N, 95°23'51.48"W	
Surrounding Land Uses	North	Interstate 10, Office, Commercial/Retail, Single-Family Residential, Multi-Family Residential
	South	Vacant Land, White Oak Bayou, Commercial/Retail, Multi-Family Residential
	East	Office, Industrial
	West	Vacant Land, White Oak Bayou, Commercial/Retail
What object was device secured to?	Sign Post (Yale St. Southbound Thru Trucks Route)	
Sidewalk Width	6'	
Buffer Width	5.5'	
Street Width	Four-Lane Divided Roadway	
Parallel Parking	No	
Landscaping or Trees	No	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Poor (Smooth Pavement, but Overgrown Vegetation and Debris Obstruct Sidewalk)	
Speed Limit	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	10,530 (200 Heights Boulevard: TxDOT – 2012)	
Transit	Yes (METRO Bus Stop 140' East at Heights Boulevard Northbound/Interstate 10 Eastbound Frontage Road)	
Shade	Intermittent	
Have counts been collected by H-GAC at this location before?	No	
Notes	During the deployment period, Yale Street (which parallels Heights Boulevard) was closed at White Oak Bayou, just south of Interstate 10. The Texas Department of Transportation (TxDOT) was building a new bridge over White Oak Bayou.	
	Recorded usage dropped significantly after 11:15 a.m. on Saturday, September 10, 2016. Only one user was recorded on September 11, and none were recorded on September 12.	

Trends
<ul style="list-style-type: none"> • Average daily usage is 54 users/day. • Usage tends to be higher on weekdays (60 users/day) than during weekends (41 users/day). • On weekdays, usage varies throughout the day. There are spikes in usage during the morning (7:00 a.m. – 8:00 a.m. and 9:00 a.m. – 10:00 a.m.), midday (12:00 p.m. – 1:00 p.m.), and later in the evening (7:00 p.m. – 8:00 p.m.). • During weekends, usage is highest in the morning (9:00 a.m. – 10:00 a.m.).

Location Information: Map



Location Information: Photos



Image 5: Heights Boulevard Southbound South of Interstate 10 Facing North

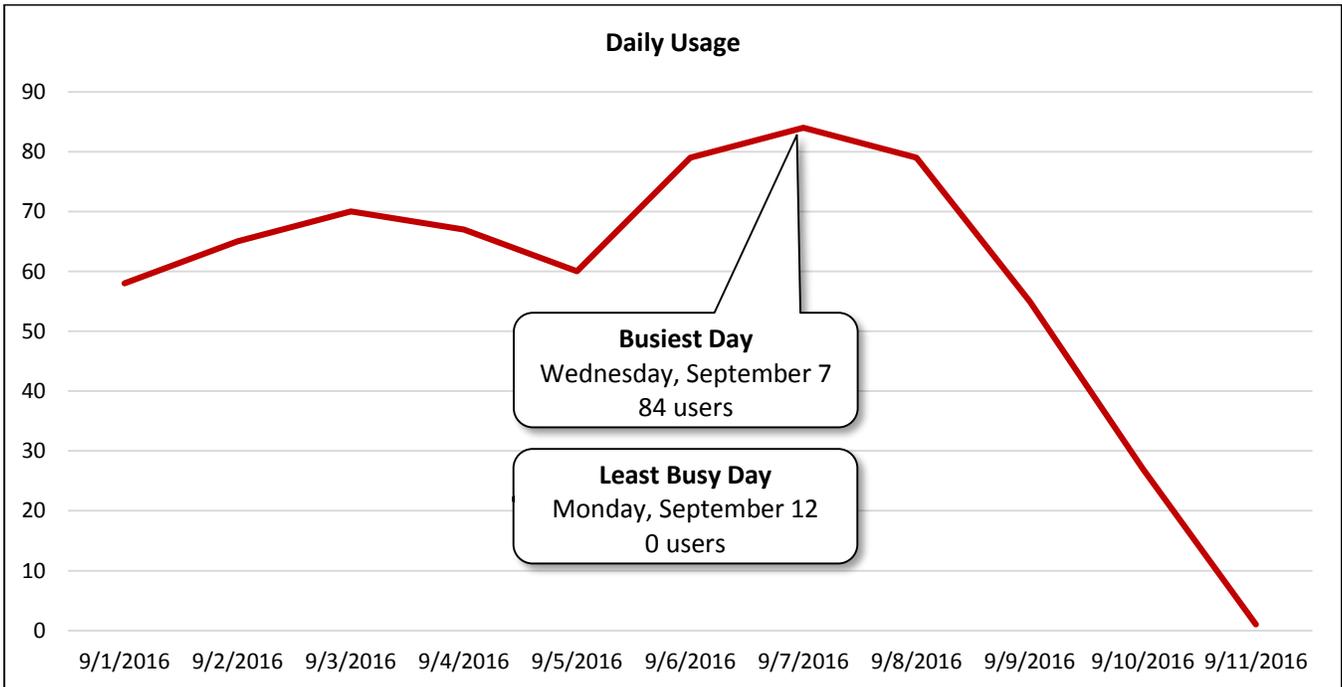


Image 6: Heights Boulevard Southbound South of Interstate 10 Facing South

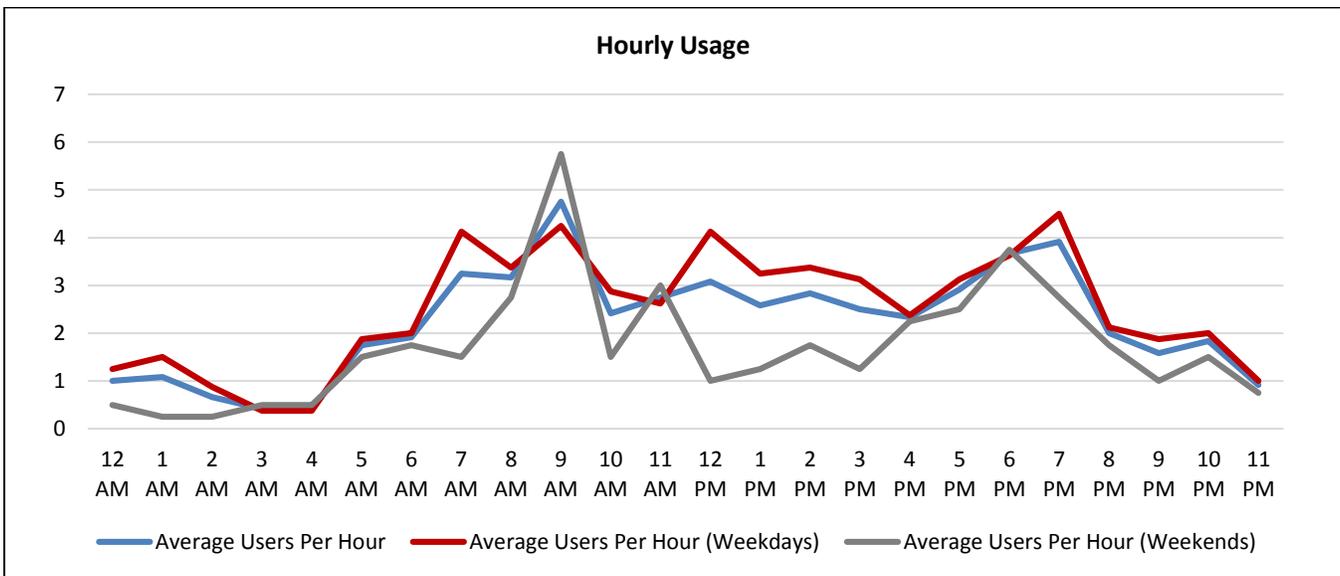
Daily Usage Heights Boulevard Southbound South of Interstate 10				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Thursday, September 1, 2016	58	97	77	0
Friday, September 2, 2016	65	95	77	0
Saturday, September 3, 2016	70	93	75	0
Sunday, September 4, 2016	67	94	74	0.29
Monday, September 5, 2016	60	90	75	0.02
Tuesday, September 6, 2016	79	93	75	0
Wednesday, September 7, 2016	84	94	74	T
Thursday, September 8, 2016	79	94	76	0
Friday, September 9, 2016	55	91	75	0.04
Saturday, September 10, 2016	27	90	74	T
Sunday, September 11, 2016	1	91	72	0
Monday, September 12, 2016	0	92	73	0

Total	645	Notes Labor Day: Monday, September 5, 2016 Recorded usage dropped significantly after 11:15 a.m. on Saturday, September 10, 2016. Only one user was recorded on September 11, and none were recorded on September 12.
Average Daily Usage	54	
Average Daily Usage (Weekday)	60	
Average Daily Usage (Weekend)	41	

*Weather conditions recorded at KHOU.



Hourly Usage Heights Boulevard Southbound South of Interstate 10			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	1.0	1.3	0.5
1:00 a.m.	1.1	1.5	0.3
2:00 a.m.	0.7	0.9	0.3
3:00 a.m.	0.4	0.4	0.5
4:00 a.m.	0.4	0.4	0.5
5:00 a.m.	1.8	1.9	1.5
6:00 a.m.	1.9	2.0	1.8
7:00 a.m.	3.3	4.1	1.5
8:00 a.m.	3.2	3.4	2.8
9:00 a.m.	4.8	4.3	5.8
10:00 a.m.	2.4	2.9	1.5
11:00 a.m.	2.8	2.6	3.0
12:00 p.m.	3.1	4.1	1.0
1:00 p.m.	2.6	3.3	1.3
2:00 p.m.	2.8	3.4	1.8
3:00 p.m.	2.5	3.1	1.3
4:00 p.m.	2.3	2.4	2.3
5:00 p.m.	2.9	3.1	2.5
6:00 p.m.	3.7	3.6	3.8
7:00 p.m.	3.9	4.5	2.8
8:00 p.m.	2.0	2.1	1.8
9:00 p.m.	1.6	1.9	1.0
10:00 p.m.	1.8	2.0	1.5
11:00 p.m.	0.9	1.0	0.8



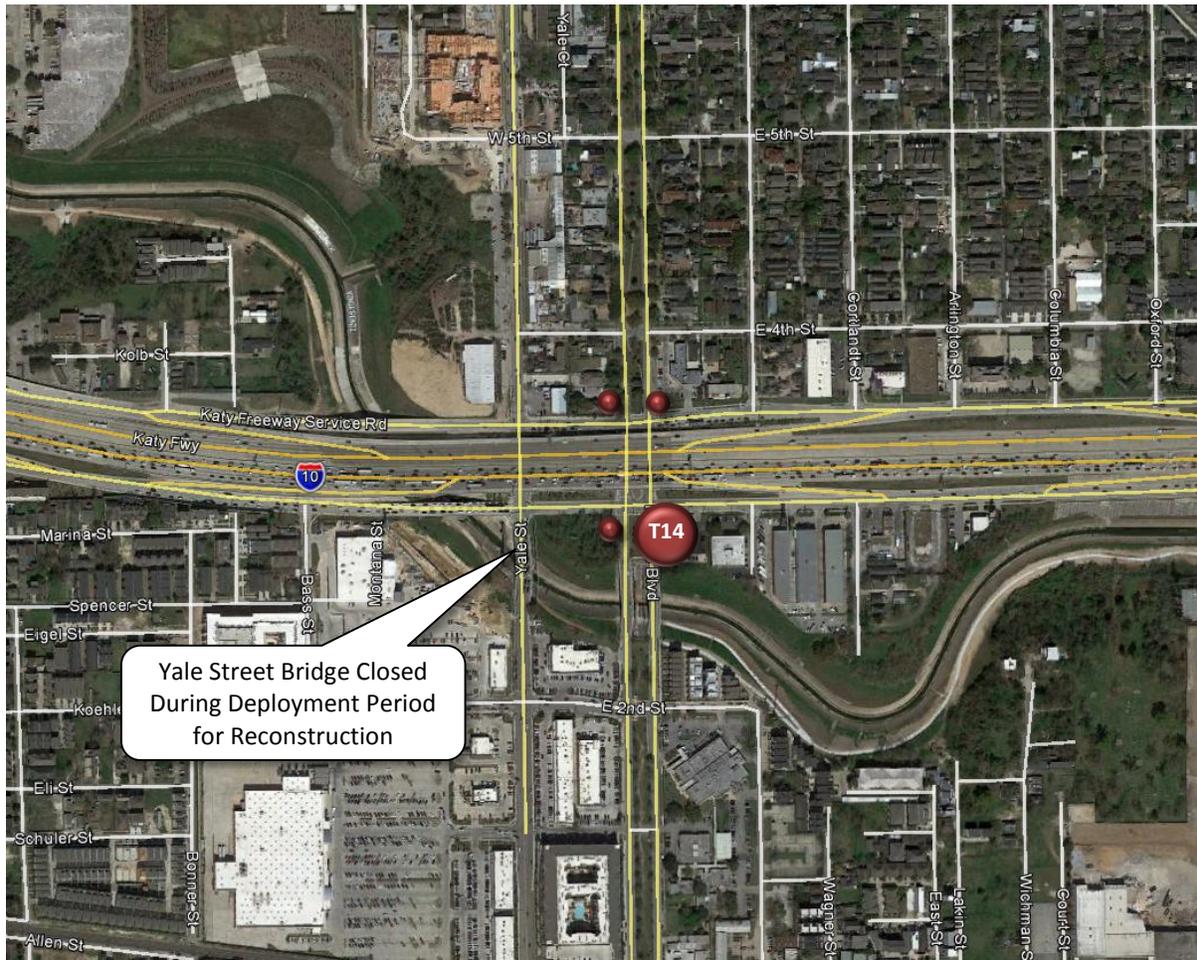
Counter T14

Heights Boulevard Northbound South of Interstate 10

Location Information		
Location Name	Heights Boulevard Northbound South of Interstate 10	
Location Description	Sidewalk along Heights Boulevard Northbound South of Interstate 10	
Jurisdiction	City of Houston	
Agency Deployed	Houston-Galveston Area Council/Texas Transportation Institute	
GPS Coordinates	29°46'33.63"N, 95°23'50.01"W	
Surrounding Land Uses	North	Interstate 10, Commercial/Retail, Office, Single-Family Residential, Multi-Family Residential
	South	Office, White Oak Bayou, Multi-Family Residential, Commercial/Retail
	East	Office, Industrial
	West	Vacant Land, White Oak Bayou, Commercial/Retail
What object was device secured to?	Sign Post (Interstate 10 Directional Signs)	
Sidewalk Width	4'	
Buffer Width	4'	
Street Width	Four-Lane Divided Roadway	
Parallel Parking	No	
Landscaping or Trees	No	
Sidewalk Pavement Type	Concrete	
ADA Ramps	Yes	
Sidewalk Condition	Good	
Speed Limit	35 miles per hour	
Street Lighting	Yes	
Street Traffic Volume	10,530 (200 Heights Boulevard: TxDOT – 2012)	
Transit	Yes (METRO Bus Stop 10' North at Heights Boulevard Northbound/Interstate 10 Eastbound Frontage Road)	
Shade	No	
Have counts been collected by H-GAC at this location before?	No	
Notes	During the deployment period, Yale Street (which parallels Heights Boulevard) was closed at White Oak Bayou, just south of Interstate 10. The Texas Department of Transportation (TxDOT) was building a new bridge over White Oak Bayou.	

Trends
<ul style="list-style-type: none"> • Average daily usage is 75 users/day. • Usage tends to be much higher during weekends (93 users/day) than on weekdays (66 users/day). • On weekdays, usage is highest in the late afternoon (3:00 p.m. – 4:00 p.m.). • During weekends, usage is highest in the late morning (10:00 a.m. – 11:00 a.m.).

Location Information: Map



Location Information: Photos



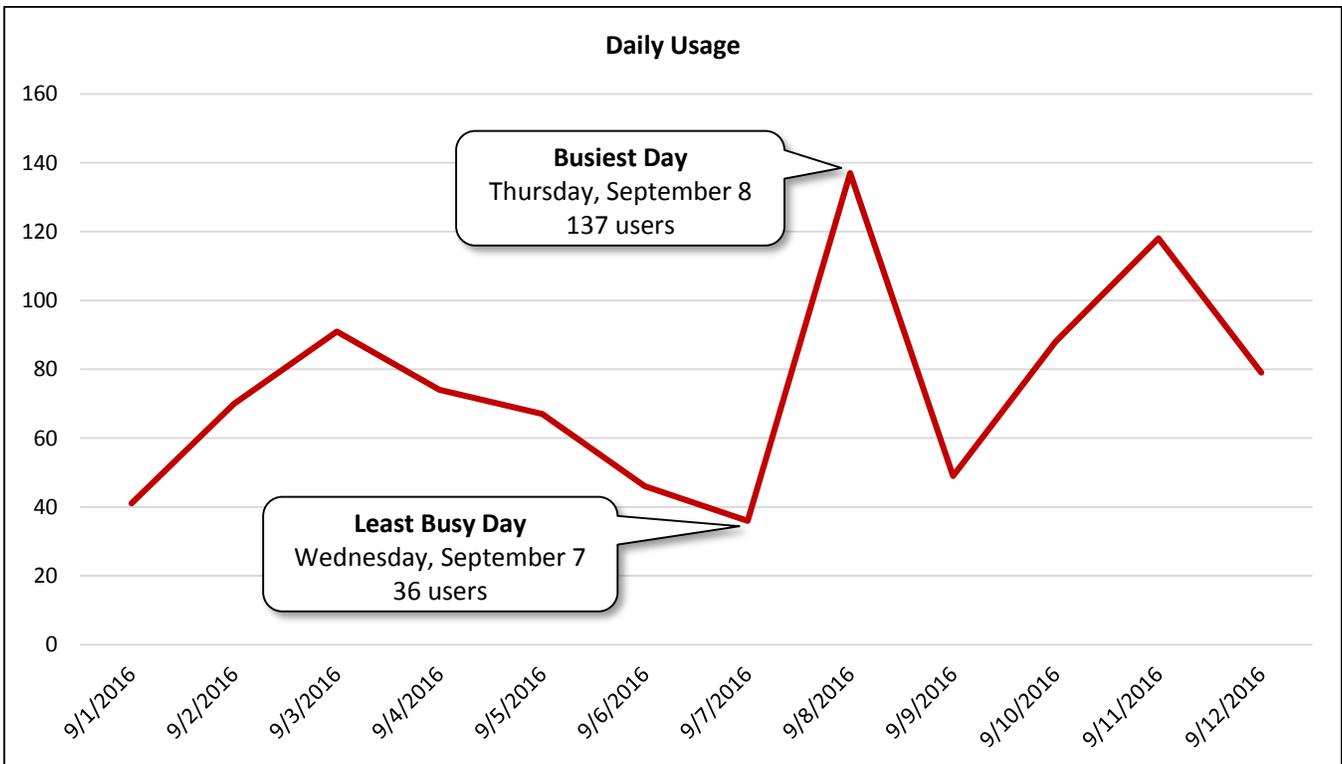
Image 7: Heights Boulevard Northbound South of Interstate 10 Facing North



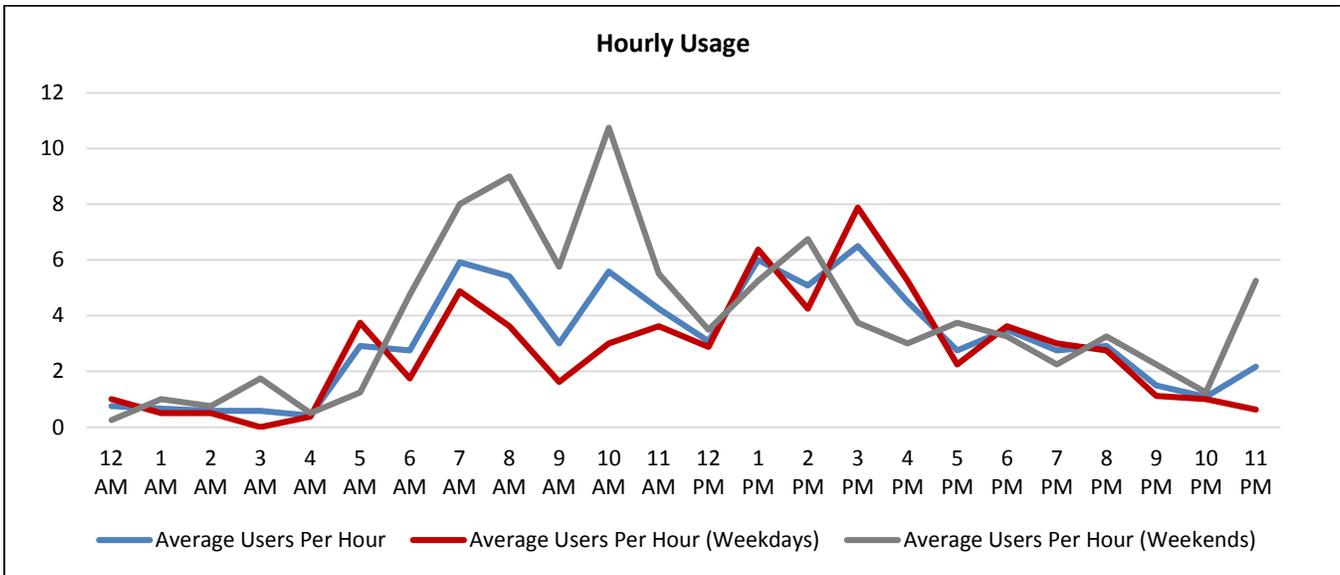
Image 8: Heights Boulevard Northbound South of Interstate 10 Facing South

Daily Usage Heights Boulevard Northbound South of Interstate 10				
Date	Users	Select Weather Data*		
		High Temperature (°F)	Low Temperature (°F)	Precipitation (inches)
Thursday, September 1, 2016	41	97	77	0
Friday, September 2, 2016	70	95	77	0
Saturday, September 3, 2016	91	93	75	0
Sunday, September 4, 2016	74	94	74	0.29
Monday, September 5, 2016	67	90	75	0.02
Tuesday, September 6, 2016	46	93	75	0
Wednesday, September 7, 2016	36	94	74	T
Thursday, September 8, 2016	137	94	76	0
Friday, September 9, 2016	49	91	75	0.04
Saturday, September 10, 2016	88	90	74	T
Sunday, September 11, 2016	118	91	72	0
Monday, September 12, 2016	79	92	73	0
Total	896			
Average Daily Usage	75			
Average Daily Usage (Weekday)	66			
Average Daily Usage (Weekend)	93			
		Notes		
		Labor Day: Monday, September 5, 2016		

*Weather conditions recorded at KHOU.



Hourly Usage Heights Boulevard Northbound South of Interstate 10			
Time of Day	Average Users Per Hour	Average Users Per Hour (Weekdays)	Average Users Per Hour (Weekends)
12:00 a.m.	0.8	1.0	0.3
1:00 a.m.	0.7	0.5	1.0
2:00 a.m.	0.6	0.5	0.8
3:00 a.m.	0.6	0.0	1.8
4:00 a.m.	0.4	0.4	0.5
5:00 a.m.	2.9	3.8	1.3
6:00 a.m.	2.8	1.8	4.8
7:00 a.m.	5.9	4.9	8.0
8:00 a.m.	5.4	3.6	9.0
9:00 a.m.	3.0	1.6	5.8
10:00 a.m.	5.6	3.0	10.8
11:00 a.m.	4.3	3.6	5.5
12:00 p.m.	3.1	2.9	3.5
1:00 p.m.	6.0	6.4	5.3
2:00 p.m.	5.1	4.3	6.8
3:00 p.m.	6.5	7.9	3.8
4:00 p.m.	4.5	5.3	3.0
5:00 p.m.	2.8	2.3	3.8
6:00 p.m.	3.5	3.6	3.3
7:00 p.m.	2.8	3.0	2.3
8:00 p.m.	2.9	2.8	3.3
9:00 p.m.	1.5	1.1	2.3
10:00 p.m.	1.1	1.0	1.3
11:00 p.m.	2.2	0.6	5.3



Participants

City of Houston: Parks and Recreation Department
www.houstontx.gov/parks/

Houston-Galveston Area Council: Pedestrian-Bicyclist Planning
www.h-gac.com/go/pedbike

Texas Transportation Institute
<http://tti.tamu.edu/>