

**TIP - RTP SUBCOMMITTEES JOINT MEETING
HOUSTON-GALVESTON AREA COUNCIL**

June 6, 2018

1:30 p.m.

AGENDA

1. Introductions

ACTION ITEMS

2. 2018 Call for Projects Funding

INFORMATION/DISCUSSION

3. 2018 Call for Projects Schedule
4. Level of Travel Time Reliability (LOTTR) Estimation Template
5. Safety and Delay Benefits Templates
6. Evaluation Criteria
7. Announcements
 - a. TAC Meeting – June 13, 2018, 9:30 a.m., Room B
 - b. TPC Meeting – June 22, 2018, 1:30 p.m., Conf. Room B/C
 - c. TIP-RTP Subcommittee Meeting – July 11, 2018

2018 Call for Projects Funding

Background

At the May TAC meeting staff reviewed revised investment categories, available funding and Evaluation criteria for the 2018 Call for Projects. Based on the discussion and feedback received from the TAC members staff is proposing to revise the available funding scenarios. The revised available funding scenarios for 2018 call for projects will be discussed at the June 6, 2018 RTP – TIP Subcommittee meeting. A summary of the available funding scenarios includes:

- Reserving 25% of available flexible (CMAQ, STBG, and TASA) and 100% of Category 2 (Highways only) funding from FY 2024 – FY 2028
- Reserving 50% of available flexible (CMAQ, STBG, and TASA) and 100% of Category 2 (Highways only) funding from FY 2024 – FY 2028

Proposed available and reserved funding amounts are listed in the following tables.

Flexible (CMAQ, STBG, and TASA) Funding Reserved		Available for Programming FY19 - FY28
25%	<i>FY24-FY28 Reserve = \$307.66</i>	\$1,287.35
50%	<i>FY24-FY28 Reserve = \$615.32</i>	\$979.68
Category 2. (Highway only) Funding Reserved		
100%	<i>FY24-FY28 Reserve = \$288.00</i>	NA

Action Requested

Recommendation to the TAC to approve the available funding for programming through the 2018 Call for Projects.

Flexible Funding Available, \$ millions (as of April 11, 2018, includes all Draft 2019 TIP actions)

	Starting Balance (est.)		Annual Total Funding Available (est.)								Total
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
CMAQ	134.47	-1.23	55.97	81.34	101.87	108.23	109.48	110.66	111.76	112.87	925.42
CMAQ Flex	13.70	-18.00	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-4.30
STBG	30.02	28.40	81.60	39.62	126.79	99.73	104.94	143.71	145.13	145.13	945.06
TASA	3.89	-3.75	-7.83	1.28	6.82	2.60	9.38	9.38	9.38	9.38	40.53
STP Reconciliation	8.84	1.88	1.88	-0-	-0-	-0-	-0-	-0-	-0-	-0-	12.60
Subtotal, Flexible Funds:	190.92	7.30	131.62	122.24	235.48	210.56	223.80	263.75	266.27	266.27	1,918.21

Programming Allocations, Proposed, \$ millions

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Continue Existing Program Commitments											
Regional ITS (TranStar)	n/a	n/a	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	16.00
Regional Incident Management (Towing)	n/a	n/a	8.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	84.00
Regional Incident Management (MAP/IMU)	n/a	n/a	4.00	5.00	5.00	5.00	5.00	6.00	6.00	6.00	42.00
Clean Cities/Clean Vehicles	n/a	n/a	5.00	5.00	6.00	6.00	7.00	7.00	8.00	8.00	52.00
TDM Marketing/Outreach (Commute Solutions)	n/a	n/a	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	30.00
Regional Vanpool	n/a	n/a	5.00	5.00	5.00	5.00	5.00	6.00	6.00	6.00	43.00
Pilot/Commuter Transit Operations	n/a	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	39.00
1 % for Planning	n/a	n/a	1.32	1.22	2.35	2.11	2.24	2.64	2.66	2.66	17.20
Subtotal:	-0-	4.00	32.32	35.22	38.35	38.11	39.24	44.64	45.66	45.66	323.20

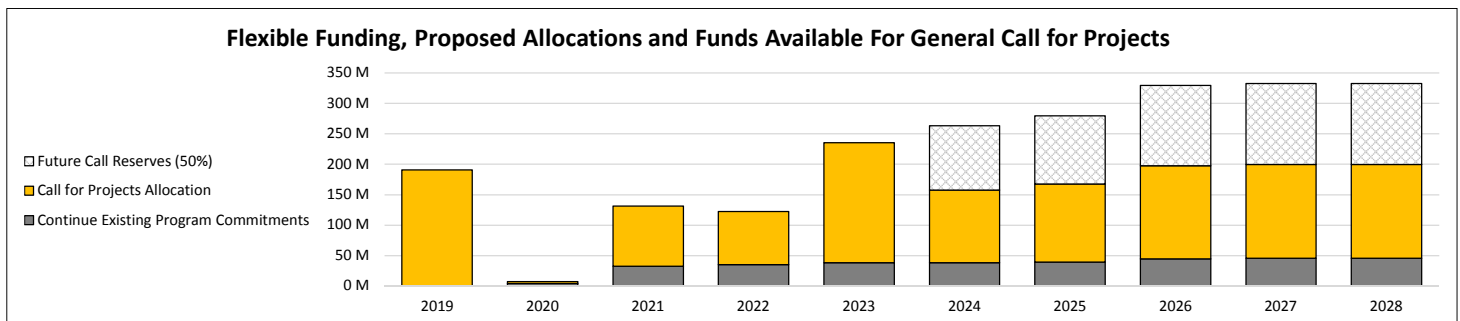
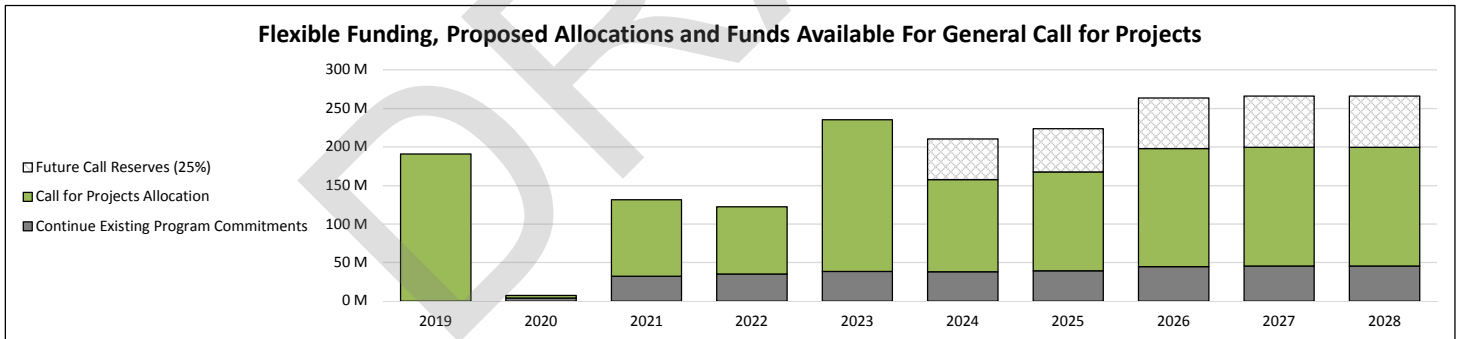
Remainder for Call for Projects, \$ millions

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Full Allocation Scenario (100% of available funds):	190.92	3.30	99.31	87.02	197.12	172.45	184.56	219.11	220.61	220.61	1,595.01

Reserve a % of total funding from 2nd Five Years Scenarios:

20%	(FY24-FY28 Reserve = \$246.13)	190.92	3.30	99.31	87.02	197.12	130.34	139.80	166.36	167.35	167.35	1,348.88
25%	(FY24-FY28 Reserve = \$307.66)	190.92	3.30	99.31	87.02	197.12	119.81	128.61	153.18	154.04	154.04	1,287.35
30%	(FY24-FY28 Reserve = \$369.19)	190.92	3.30	99.31	87.02	197.12	109.29	117.42	139.99	140.73	140.73	1,225.81
40%	(FY24-FY28 Reserve = \$492.26)	190.92	3.30	99.31	87.02	197.12	88.23	95.04	113.61	114.10	114.10	1,102.75
50%	(FY24-FY28 Reserve = \$615.32)	190.92	3.30	99.31	87.02	197.12	67.17	72.66	87.24	87.47	87.47	979.68

Reserve 100% of Category 2 funding from 2nd Five Years:	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	288.00	288.00	288.00
--	------------	------------	------------	------------	------------	------------	------------	------------	---------------	---------------	---------------



2018 Call for Projects Applications Evaluation Criteria

Background

At the May18 TAC meeting staff reviewed the 2018 Call for project schedule, draft applications and project evaluation criteria. Based on the discussion and comments received from members the evaluation criteria were adjusted. A summary of the call for projects general rules, project applications, evaluation criteria reference tables and revised investment category worksheets are attached for you reference.

Current Situation

Staff proposes to announce the 2018 Call for projects beginning July 30, 2018. The application period for this call will be open for 60 days ending at 5:00 pm on September 28, 2018. Project proposals requesting federal funding will be aligned with the 2045 RTP Goals, Strategies, and Investment Priorities. Eligible project applicants may request funding in two investments groups Major Investments (Total Capital Investment > \$100 million) and Other Investments (Total Capital Investment < \$100 million).

Major Investments will be evaluated on how each proposal advances all the five RTP goals:

- Improve Safety
- Move People and Goods Efficiently
- Achieve/Maintain State of Good Repair
- Strengthen Regional Economic Competitiveness
- Conserve and Protect Natural and Cultural Resources

Other Investments applications will be evaluated based on the evaluation criteria set for each of the Investment Categories listed below:

- Access Management/Safety/Grade Separations (Manage)
- Regional ITS Infrastructure (Manage)
- AV/CV Infrastructure (Manage)
- Transit Priority Infrastructure (Manage)
- Regional Fare Collection (Manage)
- Rehabilitation/Reconstruction (Maintain)
- Infrastructure Resiliency (Maintain)
- Transit Facility State of Good Repair (Maintain)
- Roadway Added Capacity/New Construction/Complete Streets (Expand)
- Innovative Freight Movement (Expand)
- Transit Passenger Facilities (Expand)
- Transit Expansion (Expand)
- Active Transportation

The draft pre-application, applications, investment categories evaluation criteria reference, and individual investment category work sheets are attached.

Action Requested

Information only.

DRAFT

H-GAC 2018 Call for Projects Summary

1. Project applicants may begin the online application process after the release of the application on **July 30, 2018**. Online applications must be submitted by **September 28, 2018, at 5 p.m.**
2. In addition to an electronic submittal, all applicants must submit two paper copies of a completed and signed application with all required attachments to the H-GAC offices by **5 p.m. on September 28, 2018**. Applications must be in hand by the 5 p.m. deadline. Post marked applications not received by the deadline are considered late. Incomplete applications or those not received by the deadline will not be accepted. Supplemental information will not be accepted after the deadline.
3. All funding will be handled on a reimbursement basis and expenditures made prior to signing an agreement on the project will not be eligible expenses.
4. Funds can only be applied in the H-GAC eight county non-attainment areas.
5. The TPC will make all project selections and federal funding determinations for candidate projects.
6. Only eligible costs identified in the project application will be considered. Costs for design, environmental determination and mitigation, right of way acquisition, must be identified in the application if federal participation is desired.
7. The funding requested must be at least **\$500,000** to be considered for the 2018 Call for Projects.
8. Projects with a proposed capital investment of more than or equal to \$100 million must support all RTP Goals. Please refer to "Major Investments" for application requirements.
9. Projects with a proposed capital investment of less than \$100 million, must fall within at least one of the Investment Categories of the 2018 Call for Projects. Please refer to "Other Investments" for application requirements by Investment Category for more details.
10. Eligible applicants include H-GAC, State, Local Governments, Public Transit Providers, Public Ports. Other project sponsors must have a letter of support from the owner of the asset or general purpose local government.
11. All projects must have a letter of support from the organization's leadership expressing the agency's support for the project. Projects within multiple jurisdictions must provide letters of support for multiple jurisdictions.

Major Investments Evaluation

Individual contributions of major capital investments exceeding \$100 million toward achievement of RTP Goals and Strategies.

Benefit/Cost Analysis:

Goal	B/C Analysis	Narrative (Examples)
Safety	Crash Reduction Savings (\$)	Design improvements, incident management strategies, safety countermeasures
Efficiency	Travel Time Savings (\$)	Extent/duration, operations management strategies (pricing, etc.)
State of Good Repair	Maintenance and Operations Costs (Not included in B/C Ratio)	Condition, operations management and asset management strategies
Economic Competitiveness	Property Value Increased > Investment Cost, jobs created or retained (Not included in B/C Ratio)	Announced developments or Associated investments
Environment/Resiliency	Emissions reductions (\$)	Mitigation and avoidance strategies

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Enhances or provides intra/inter-regional mobility/Enhances or provides direct connections to Greater Houston Freight Network or Evacuation Routes	20
Barrier Elimination	15
Planning Coordination	10
Includes Life Cycle Maintenance Strategies	10
Reduction in Truck VMT on Parallel Routes	25
Includes Flood Mitigation practices in the Project Scope	20
Total	100

Investment Category: Access Management/Safety/Grade Separations [MANAGE]

Category Description/Objective: Improve thoroughfare safety and operational efficiency through the application of access management, safety treatments, or interchange and grade separations.

Typical Projects and requirements:

- Driveway consolidation/elimination/relocation, raised medians, dedicated turn lanes, roundabouts/innovative intersections, road diet/reconfiguration, associated reasonable ped/bike accommodations, and improvements to circulation and connectivity between land uses along major thoroughfares.
- Direct connectors, grade separations, associated intersection and reasonable ped/bike accommodations.

Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay + Emissions Reductions (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0 (benefits exceed costs)

Planning Factors: 50%	Max
Roadway Hierarchy/Freight System Priority/Evacuation Route	20
Improves Multimodal LOS	30
Improves Corridor Level of Travel Time Reliability (LOTTR)	20
Connectivity to Employment/Eliminates or Prevents at grade Railroad Crossing	10
Planning Coordination	10
Environmental Justice	10
Total	100

Investment Category: Regional ITS Infrastructure [MANAGE]

Category Description/Objective: Improve transportation operational efficiency through the deployment and expansion of regional ITS infrastructure.

Typical Projects and requirements:

- Regional communications (connectivity with TranStar, interagency redundancy, etc.), traveler information systems (dynamic message signage, warning systems, real-time transit vehicle location/next-bus arrival, active parking management), active traffic management/dynamic facility management (automated ramp/gate operations, signage, etc.)

Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay + Emissions Reductions (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Roadway Hierarchy/Freight System Priority/Evacuation Route	20
Interagency Coordination/Continuity of Operations	25
Incident/Event Management	25
Improves Corridor Level of Travel Time Reliability (LOTTR)	20
Includes Life Cycle Maintenance	10
Total	100

Investment Category: Autonomous and Connected Vehicle Infrastructure [MANAGE]

Category Description/Objective: Support the broad deployment of autonomous and connected vehicles through implementation of eligible construction and technology equipment investments.

Typical Projects and requirements:

- Implementation of Regional AV/CV infrastructure technology and equipment

Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay + Emissions Reductions (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Connectivity to Other Transit Routes/Services (Commuter/Rail/Demand Response) /Transit Centers	10
Provides Connectivity to Employment/Schools/Medical facilities/Other Points of Interest	30
Public Private Partnership	30
Includes Life Cycle Maintenance Strategies	10
Planning Coordination	10
Environmental Justice	10
Total	100

Investment Category: Transit Priority Infrastructure [MANAGE]

Category Description/Objective: Improve operational efficiency of transit services within H-GAC’s 8-county planning area by prioritizing the movement of transit vehicles.

Typical Projects and requirements:

- Bus pullouts, queue jump lanes, stop consolidation, ITS systems (detection, controllers, communications), signage

Funding Participation/Match: 80/20 (TDC eligible)

Benefit/Cost Analysis Measure(s): [Safety + Delay + Emissions Reductions (\$)]/Funding Requested

Safety, Delay and Emissions benefits must be calculated based on reduced VMT/VHT associated with an estimated increase in transit users as a result of implementing the project.

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Enhance Frequency of existing Transit Service/Add New Transit Service	20
Improves Multimodal LOS	30
Expands/Improves connectivity to Employment/Schools/Medical facilities/Other Points of Interest	30
Planning Coordination	10
Environmental Justice	10
Total	100

Investment Category: Regional Transit Fare Collection [MANAGE]

Category Description/Objective: Provide federal funding assistance to achieve regional coordination of fare collection and fare structure among providers of public transportation within H-GAC’s 8-county planning area.

Typical Projects and requirements:

- Planning associated with creation of a Regional Fare Collection Plan
- Implementation of Regional Fare Collection Plan recommendations

Base Funding Participation/Match: 80/20 (TDC eligible)

Benefit/Cost Analysis Measure(s): [Safety + Delay + Emissions Reductions (\$)]/Funding Requested

Safety, Delay and Emissions benefits must be calculated based on reduced VMT/VHT associated with an estimated increase in transit users as a result of implementing the project.

Weight: 50%

Planning Factors: 50%	Max
Supported/Served by Multiple Transit Providers	25
Ridership Impact (Expected Ridership Growth)	25
Interagency Coordination	10
Continuity of Operations	15
Life Cycle Maintenance	10
Recommended in RCTP or Local Transit Plan	15
Total	100

Investment Category: Rehabilitation/Reconstruction [MAINTAIN]

Category Description/Objective: Improve state of good repair and operational efficiency of the network through major rehabilitation and reconstruction. Including intermodal connectors and “First Mile/Last Mile” Freight projects.

Typical Projects and requirements:

- Major rehabilitation and reconstruction of roadway pavements and structures including bridges, including reasonable pedestrian/bicycle/transit accommodations and drainage improvements related to the roadway impervious surface only.
- Jurisdictions must have adopted asset management plan that demonstrates how preservation/preventive maintenance strategies are being utilized to extend the useful life of roadway infrastructure and reduce the need for major rehabilitation or reconstruction.

Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay + Emissions Reductions (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0 (benefits exceed costs)

Planning Factors: 50%	Max
Roadway Hierarchy/Freight System Priority/Evacuation Route	20
Improves Multimodal LOS	30
Connectivity to Employment/Eliminates or Prevents at grade Railroad Crossing	10
Does the Project Scope Includes Flood Mitigation	20
Planning Coordination	10
Environmental Justice	10
Total	100

Investment Category: Infrastructure Resiliency [MAINTAIN]

Category Description/Objective: Address vulnerabilities of highways and regional thoroughfares to extreme weather, sea level change and changes in environmental conditions through implementation of eligible construction investments.

Typical Projects and requirements:

- Elevation or hardening of roadways on corridors that have required multiple emergency repairs, experience regular inundation, and/or are critical to evacuation plans
- Building capacity of routes that serve as alternates to roadways that become impacted by extreme weather
- Rebuilding roadways that have required multiple repairs due to extreme heat. This includes drought conditions, subsidence, expansive soils, etc.

Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay + Emissions Reductions (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Roadway Hierarchy/Freight System Priority/Evacuation Route	20
Frequency of hazard impacting roadway usage	20
Hazard identified in the Regional Hazard Mitigation Plan	20
Does the project include preventative activities to keep the hazard problems from worsening (e.g. floodplain regulation, open space preservation)	20
Planning Coordination	10
Environmental Justice	10
Total	100

Investment Category: Transit Facility State of Good Repair [MAINTAIN]

Category Description/Objective: Improve the safety and operational efficiency of transit services within H-GAC’s 8-county planning area by supporting the replacement or overhaul of transit passenger and vehicle maintenance facilities that have exceeded their Useful Life Benchmark (ULB) and construction of new transit maintenance facilities, consistent with each transit provider’s adopted Transit Asset Management Plan (TAMP) and performance targets.

Typical Projects and requirements:

- Major rehabilitation and reconstruction of transit passenger facilities including Park & Rides/Pool, Multi-route transfer points/Super Stops, Shelters
- Construction, major rehabilitation and reconstruction of vehicle maintenance facilities
- Costs allocable to other functions are not eligible (e.g. administration, emergency operations, etc.)

Funding Participation/Match: 80/20 (provider must explain how they are utilizing FTA allocations, provider may use other federal funds to increase federal participation)

Benefit/Cost Analysis Measure(s): [Safety + Delay + Emissions Reductions (\$)]/Funding Requested

Safety, Delay and Emissions benefits must be calculated based on reduced VMT/VHT associated with an estimated increase in transit users as a result of implementing the project.

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Planning Coordination	10
Supported/Served by Multiple Transit Providers	20
Ridership Impact (Expected Ridership Growth)	20
Provides Safe ped/bike accommodations	10
Includes Facility Maintenance Strategies (Y/N)	10
Years Beyond Useful Life	20
Environmental Justice	10
Total	100

Investment Category: Roadway Added Capacity/New Construction/Widening/Complete Streets [EXPAND]

Category Description/Objective: Improve accessibility and mobility of people and goods on the regional thoroughfare network through the addition of roadway capacity.

Typical Projects and requirements:

- Widening, new construction and reconstruction of roadway pavements and structures including bridges, including reasonable pedestrian/bicycle/transit accommodations and drainage improvements related to the roadway impervious surface only.
- Projects must be consistent with H-GAC’s congestion management process.

Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay + Emissions Reductions (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Roadway Hierarchy/Freight System Priority/Evacuation Route	20
Improves Multimodal LOS	30
Improves Corridor Level of Travel Time Reliability (LOTTR)	20
Connectivity to Employment/Eliminates or Prevents at grade Railroad Crossing	10
Planning Coordination	10
Environmental Justice	10
Total	100

Investment Category: Innovative Freight Movement [EXPAND]

Category Description/Objective: Improve transportation safety and operational efficiency through the deployment of innovative intermodal freight transfer technologies.

Typical Projects and requirements:

- Capital equipment and installation/construction costs
- Intermodal transfer equipment

Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay + Emissions Reductions (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors 50%	Max
Planning Coordination (Consistent with Regional Goods Movement Plan or Texas Freight Mobility Plan or Ports Area Mobility Study)	10
Reduction in Truck VMT on Parallel Routes	25
Annual Heavy Cargo Movement (in Tonnage)	25
Includes Life Cycle Maintenance Strategies	10
Public Private Partnership	30
Total	100

Investment Category: Transit Passenger Facilities [EXPAND]

Category Description/Objective: Increase transit usage within H-GAC’s 8-county planning area by supporting the construction of new or expanded passenger facilities.

Typical Projects and requirements:

- New or Expanded Park & Rides/Pool, Multi-route transfer points/Super Stops, Shelters

Base Funding Participation/Match: 80/20 (TDC Eligible, provider must explain how they are utilizing FTA allocations)

Benefit/Cost Analysis Measure(s): [Safety + Delay + Emissions Reductions (\$)]/Funding Requested

Safety, Delay and Emissions benefits must be calculated based on VMT/VHT reduced associated with estimated increase in transit users as a result of implementing the project.

Weight: 50%/1.0

Planning Factors: 50%	Max
Planning Coordination	10
Supported/Served by Multiple Transit Providers	20
Ridership Impact (Expected Ridership Growth)	20
Provides Safe ped/bike accommodations	10
Includes Facility Maintenance Strategies	10
Project Part of a Transit Oriented Development	20
Environmental Justice	10
Total	100

Investment Category: Transit Expansion [EXPAND]

Category Description/Objective: Increase transit usage within H-GAC’s 8-county planning area by supporting the purchase of additional revenue vehicles for transit providers demonstrating ridership growth, as documented in reporting to FTA’s National Transit Database (NTD). Transit provider may provide documentation such as transit demand modeling results showing expected ridership demand.

Typical Projects and requirements:

- Revenue vehicle purchase

Base Funding Participation/Match: 80/20 (TDC Eligible, provider must provide a plan describing how they plan to utilize FTA funding allocations)

Benefit/Cost Analysis Measure(s): [Safety + Delay + Emissions Reductions (\$)]/Funding Requested

Safety, Delay and Emissions benefits must be calculated based on VMT/VHT reduced associated with estimated increase in transit users as a result of implementing the project.

Weight: 50%/1.0

Planning Factors: 50%	Max
Planning Coordination	10
Ridership Impact (Expected Ridership Growth)	20
Enhances/Increases Service Frequency by Service Type (Commuter/Rail/Demand Response)	20
Expands/Improves connectivity to Employment/Schools/Medical facilities/Other Points of Interest	30
Includes Revenue Vehicle Maintenance Strategies	10
Environmental Justice	10
Total	100

Investment Category: Active Transportation

Category Description/Objective: Improve active transportation (bicycle and pedestrian) networks to provide safe and accessible connectivity for people of all ages and abilities to community destinations such as employment, schools, medical facilities, social service agencies, parks, and transit.

Typical Projects and requirements:

- New and enhanced bicycle facilities such as bicycle lanes (buffered, separated), shared-use trails, amenities (lighting, landscaping, furniture, etc.) and necessary utilities capped at 25% of funding request. Improvements must fill a gap within and connect to the existing Regional Bikeway Network.
- New and widened sidewalks/multi-use trails/protected bicycle facilities, bicycle station infrastructure, pedestrian amenities and necessary utilities (lighting/landscaping/furniture/etc, capped at 25% of funding request)
- ADA-compliant pedestrian facilities such as sidewalks, curb ramps, tactile detectors, pedestrian signals, etc. Improvements must be identified within a jurisdiction’s adopted ADA self-evaluation or transition plan.

Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety + Delay + Emissions Reductions (\$)]/Funding Requested

Safety, Delay and Emissions benefits must be calculated based on reduced VMT/VHT associated with an estimated increase in bicyclists and pedestrians as a result of implementing the project.

Weight: 50%

Planning Factors: 50%	Max
Barrier Elimination	20
Expands/Improves Bicycle & Pedestrian connectivity to Employment/Schools/Medical facilities/Transit/Other Points of Interest	50
Planning Coordination	10
Environmental Benefits (Emission Reductions - NOX, VOCs)	10
Environmental Justice	10
Total	100

Planning Factors Reference Matrix - Roadway/Freight							
Planning Factors	Access Management/Safety/Grade Separations	Rehabilitation/Reconstruction	Roadway Added Capacity/New Construction/Complete Streets	Infrastructure Resiliency	ITS Infrastructure	Autonomous and Connected Vehicle Infrastructure	Innovative Freight Movement
Roadway Hierarchy/Freight System	X	X	X	X	X		
Planning Coordination	X	X	X	X		X	X
Environmental Justice	X	X	X	X		X	
Improves Multimodal LOS	X	X	X				
Corridor Level of Travel Time Reliability (LOTTR)	X		X		X		
Connectivity to Employment/Eliminates or Prevents at grade Railroad Crossing	X	X	X				
Includes Flood Mitigation		X					
Reduction in VMT/ Truck VMT on Parallel Routes			X				X
Frequency of hazard impacting roadway usage				X			
Hazard identified in the Regional Hazard Mitigation Plan				X			
Does the project include preventative activities to keep the hazard problems from worsening (e.g., floodplain regulation, open space preservation)				X			
Incident/Event Management					X		
Life Cycle Maintenance Plan					X		X
Interagency Coordination/Continuity of Operations					X		
Connectivity to Other Transit Routes/Services (Commuter/Rail/Demand Response)/ Transit Centers						X	
Enhances/Provides Connectivity to Employment/Schools/Medical facilities/Other Points of Interest						X	
Public Private Partnership						X	X
Heavy Cargo Movement (in Tonnage)							X

Planning Factors Reference Matrix - Transit					
Planning Factors	Transit Priority Infrastructure	Transit Facility State of Good Repair	Transit Passenger Facilities	Transit Expansion (Vehicle Purchase)	Regional Fare Collection
Planning Coordination/Recommended in RCTP or Local Transit Plan	X	X	X	X	X
Environmental Justice	X	X	X	X	
Ridership Impact (Expected Ridership Growth)		X	X	X	X
Expands/Improves connectivity to Employment/Schools/Medical facilities/Other Points of Interest	X			X	
Enhances Frequency/Provides new Service by Service Type (Commuter/Rail/Demand Response)	X			X	
Life Cycle/Facility/Revenue Vehicle Maintenance Strategies (Y/N)		X	X	X	X
Improves Multimodal LOS	X				
Supported/Served by Multiple Transit Providers		X	X		X
Provides Safe ped/bike accommodations		X	X		
Years Beyond Useful Life		X			
Project Part of a Transit Oriented Development			X		
Interagency Coordination/Continuity of Operations					X

2018 Call for Projects Investment Category Planning Factors points

Connectivity to Employment Center/Prevents or Eliminates at-grade Railroad Crossings (Max - 10 Points)	Points
Proposed facility provides direct connections or is located within 1/2 mile of an employment center	1 point for every 100 jobs (maximum of 10 points)
Proposed facility prevents or eliminates at-grade railroad crossing (Yes/No)	10 Points for Yes, 0 for No
<ul style="list-style-type: none"> • <i>If project provides access to jobs and prevents or eliminates at-grade railroad crossing it will receive 10 points.</i> • <i>H-GAC will provide employment density map</i> 	

Connectivity to Other Transit Routes, Services (Commuter/Rail/Demand Response), or Transit Centers (Max - 10 points)	Points
Provides connections to or enhances (increased frequency) other transit routes or services (Commuter/Rail/Demand Response)	5
Provides new connections or expands service where none exists	5
<ul style="list-style-type: none"> • <i>Points allocated based on proposed project location</i> • <i>H-GAC will provide transit routes and transit centers maps in coordination with transit providers</i> 	

Continuity of Operations (Max - 20 Points)	Points
Will this project enhance continuity of operations in the event of a disruption? (Y/N)	20
<ul style="list-style-type: none"> • <i>Sponsors must provide description of how the ITS system enhances continuity of operations in the event of a disruption</i> 	

Corridor Level of Travel Time Reliability (Max - 20 Points)	Points
If proposed project reduces Planning Time Index (PTI) by more than 0.30	20
If proposed project reduces Planning Time Index (PTI) by 0.21 – 0.30	15
If proposed project reduces Planning Time Index (PTI) by 0.11 – 0.20	10
If proposed project reduces Planning Time Index (PTI) by 0.01 – 0.10	5
<ul style="list-style-type: none"> • <i>H-GAC will provide template to calculate estimated Planning Time Index (PTI)</i> • <i>H-GAC will obtain input data from the sponsors</i> 	

Hazard Prevention Activities (Max - 20 Points)	Points
Does the project include preventative activities to keep the hazard problems from worsening? (e.g. floodplain regulation, open space preservation)	20
<ul style="list-style-type: none"> • <i>Sponsors must provide documentation</i> 	

Flood Mitigation Activities (Max - 20 Points)	Points
Does the project include flood mitigation activities?	20
<ul style="list-style-type: none"> • <i>Sponsors must provide documentation</i> 	

Enhance Frequency of existing Transit Service/Add New Transit Service (Max - 20 Points)	Points
Does the proposed project increase frequency of existing transit service or provide new transit service where none exists?	20
<ul style="list-style-type: none"> • <i>The maximum number of points to be awarded is 20 for this category.</i> 	

Regional Hazard Mitigation Plan Coordination	Points
Is the Hazard identified in the Regional or County Hazard Mitigation Plan?	20
<ul style="list-style-type: none"> • <i>Please provide link to the Hazard Mitigation Plan</i> 	

Multimodal LOS (Max - 20 Points)	Points
Does the proposed project improve automobile LOS?	10
Does the proposed project improve bike/pedestrian LOS?	5
Does the proposed project improve transit LOS?	5
<ul style="list-style-type: none"> • Sponsor must provide a completed Multimodal LOS Analysis report generated from LOSPLAN software. H-GAC can provide assistance with LOS analysis with LOSPLAN if requested. 	

Incident/Event Management (Max - 25 Points)	Points
Will the system be an integral part of an incident management system? (Y/N)	5
Is the proposed system located on H-GAC's CMP network? (Y/N)	5
Will the proposed system provide notification of potential congestion to facility users? (Y/N)	5
Will the proposed system give priority to Emergency vehicles? (Y/N)	5
Will the proposed system provide priority to transit or high occupancy vehicles? (Y/N)	5
<ul style="list-style-type: none"> • <i>Project sponsor will provide answers to each of the above questions with descriptive explanation</i> • <i>H-GAC will provide CMP network map</i> 	

Include Facility Maintenance Strategies (Max - 10 Points)	Points
Does sponsor have a funded routine facility maintenance program in place? (Y/N)	10
<ul style="list-style-type: none"> • <i>Project sponsor provides routine maintenance plan</i> 	

Life Cycle Maintenance (Max - 10 Points)	Points
Does sponsor have a funded routine maintenance program in place? (Y/N)	10
<ul style="list-style-type: none"> • <i>Project sponsor provides routine maintenance plan</i> 	

Planning Coordination (Max - 10 Points)	Points
Is the proposed project recommended in a regional/sub regional/or locally adopted plan including regional thoroughfare plans?	10

Expands/Improves connectivity to Employment/Schools/Medical facilities/Other Points of Interest (Max – 30)	Points
Does the proposed project improve existing or expand connectivity to employment?	10
Does the proposed project improve existing or expand connectivity to schools or university?	10
Does the proposed project improve existing or expand connectivity to other points of interest?	10
<ul style="list-style-type: none"> • <i>Points allocated based on proposed project location with a maximum of 30 points</i> • <i>H-GAC will provide other points interest locations maps</i> • <i>Points of interest include major shopping centers, museums, parks, social service agencies and other recreational activity centers</i> 	

Years Beyond Useful Life Benchmark (Max - 20 Points)	Points
Is the facility more than 10 years beyond its useful life?	20
Is the facility more than 5 - 10 years beyond its useful life?	10
Is the facility more than 1 - 5 years beyond its useful life?	5

Frequency Hazard impacting roadway usage (Max - 20 Points)	Points
Was the roadway usage impacted by a hazard in the last five years? (Y/N)	20
<ul style="list-style-type: none"> <i>If yes please explain what type of hazard impacted roadway usage, has the roadway been closed for traffic and how often (number of days in year the roadway was closed to traffic)</i> 	

Hazard Identified in the Regional Hazard Mitigation Plan (Max - 20 Points)	Points
Is the Hazard identified in the Regional or County Hazard Mitigation Plan	20
<ul style="list-style-type: none"> <i>If yes please provide documentation including links to the adopted Hazard Mitigation Plan</i> 	

Annual Heavy Cargo Movement (in Tonnage) (Max 25 Points)	Points
Please indicate the annual estimated heavy cargo (in Tons) transported on proposed facility?	
1 - 10 million Tons	10
11 - 20 million Tons	15
21 - 30 million Tons	20
More than 30 million Tons	25
<ul style="list-style-type: none"> <i>Please provide appropriate documentation of methodology used for estimating annual heavy cargo movement</i> 	

Reduction in Truck VMT on Parallel Routes (Max - 25 Points)	Points
Please indicate the percentage of Truck VMT reduced on parallel routes?	
1% - 10%	10
11% - 20%	15
21% - 30%	20
More than 30%	25
<ul style="list-style-type: none"> <i>Please provide appropriate documentation showing how the proposed project will reduce the Truck VMT on parallel routes</i> 	

Provides Safe Ped/Bike Accommodations (Max 10 Points)	Points
Does the proposed project enhance or provide safe pedestrian and bicycle accommodations?	10

Supported or Served by Multiple Transit Providers (Max-20 Points)	Points
Is the facility supported by or used by multiple transit providers?	20

Interagency Coordination/Continuity of Operations (Max 25 Points)	Points
Will system tie into another agency's systems to allow for data sharing? (Y/N)	10
Will the system enhance continuity of operations or the system be operational in the event of a disruption? (Y/N)	15
<ul style="list-style-type: none"> • If Yes please provide a brief narrative describing what other agencies the proposed ITS system ties into to allow for data sharing and how the system enhances continuity of operation or be operation in the event of a disruption. 	

DRAFT