

## **2045 RTP Investment Priorities Matrix and Scoring Criteria**

### **Background**

Staff coordinated with the RTP, TIP and other TAC and TPC Subcommittees to develop an approach to project selection that strengthens the linkage to RTP strategies. This work builds upon the prior 2015 Call “investment area” structure, the significant regional planning efforts undertaken since the adoption of the 2040 RTP, as well as feedback received from the Transportation Policy Council and regional stakeholders, to direct investment decisions through clearly defined areas of regional interest.

At the TAC and TPC meetings in December 2017, staff reviewed the draft Investment Priority Matrix. A summary of the comments provided during the meetings are as follows:

- Importance of freight to the state and regional economy and the critical role transportation system plays in moving freight from, to and through the region
- Importance of Infrastructure Resiliency to the region
- Importance of addressing regional traffic congestion in the RTP
- Need for interjurisdictional connectivity between transit systems

Based on the discussion at the meeting, staff has made the following adjustments to the Investment Priorities Matrix:

- Modified the matrix into three tables, one for each investment strategy (Manage, Maintain, and Expand)
- Each strategy table list related investment categories and identifies their direct and related intermodal improvements to the infrastructure
- Included Air Quality and Planning Investment Areas

The revised Investment Priorities and associated evaluation criteria for each of the investment categories were reviewed with the RTP and TIP subcommittees at their February and March 2018 meetings.

### **Current Situation**

Based on the discussion and comments received from the RTP and TIP subcommittee members staff continues to further revise the evaluation criteria for each of the investment categories. The proposed Investment Priority Tables and associated evaluation criteria are attached to this background paper for your review and comment.

### **Action Requested**

Information only

**2045 RTP Investment Strategies**

**Major Investments (>\$100 million)**

Consider individual contribution of major capital investments exceeding \$100 million toward achievement of RTP Goals and Strategies.

**Other Investments (<\$100 million)**

Provide priority direction to other investments to ensure alignment with RTP Strategies (TABLES BELOW):

Investment Categories	RTP Strategy - Manage					
	Transportation Mode				Air Quality	Planning
	Highways	Freight	Transit	Active Transportation (Bike/Ped)		
Access Management & Safety	●	●	●	●	◐	
Grade Separations (Direct connectors/ Interchanges/Rail-Highway)	●	●		◐	◐	
ITS Infrastructure	●	●			◐	
Transit Infrastructure Priority	●		●	◐	◐	
Active Transportation "First Mile/Last Mile"			●	●		
Regional Fare Collection	●	●	●			
Autonomous Vehicle/Connected Vehicle	●	●	●			
Vanpool			●		●	
Commute Solutions			●	●	●	
Safety Planning	●	●	●	●		●

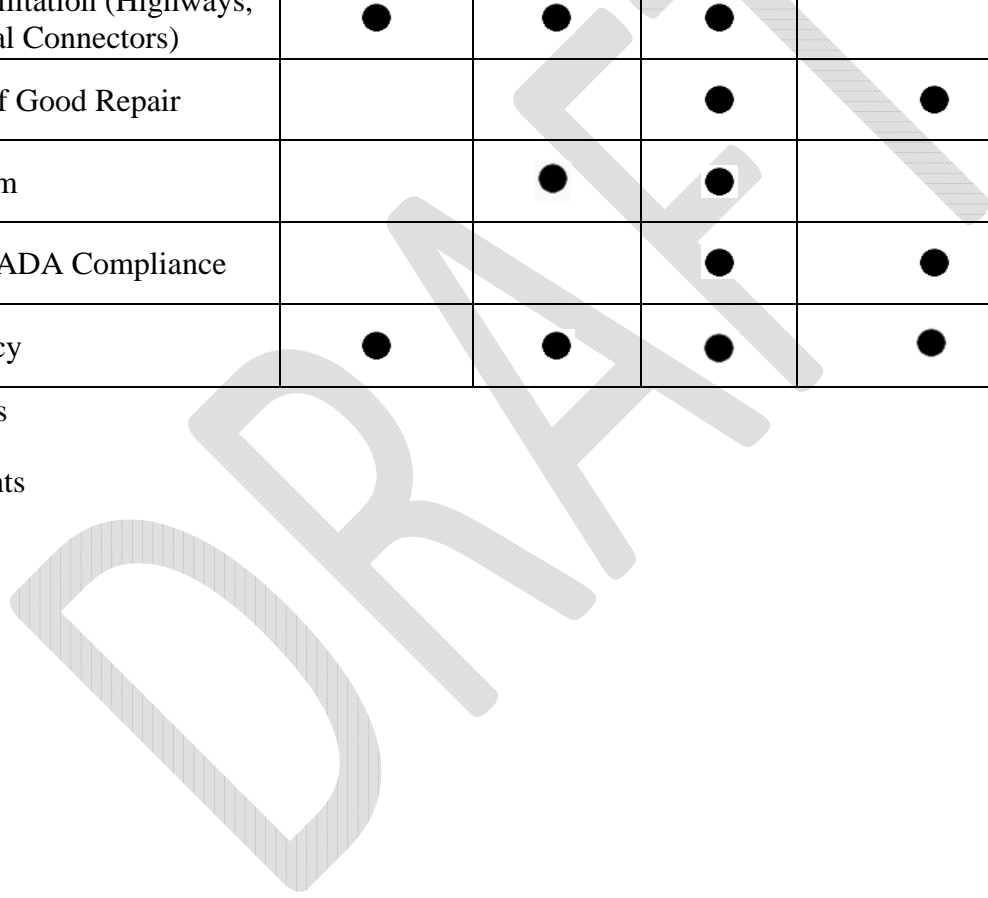
● Direct Improvements

◐ Related Improvements

Investment Categories	RTP Strategy - Maintain					
	Transportation Mode				Air Quality	Planning
	Highways	Freight	Transit	Active Transportation (Bike/Ped)		
Reconstruction/ Rehabilitation (Highways, Bridges, and Intermodal Connectors)	●	●	●			
Transit Facility State of Good Repair			●	●		
Clean Vehicles Program		●	●		●	
Active Transportation ADA Compliance			●	●		
Infrastructure Resiliency	●	●	●	●		

● Direct Improvements

○ Related Improvements



Investment Categories	RTP Strategy - Expand					
	Transportation Mode				Air Quality	Planning
	Highways	Freight	Transit	Active Transportation (Bike/Ped)		
Interjurisdictional Connectivity/Barrier Elimination	●	●	●	●		
Roadway Added Capacity (New Construction/Widening/Complete Streets)	●	●	●	●		
Innovative Freight Movement	●	●			◐	
Transit Passenger Facilities			●		◐	
Transit Expansion (including fleet and transit service)			●		◐	
Active Transportation Elimination of Gaps			●	●		
Alternative Fuel Infrastructure	●	●	●		●	
Sub-regional/Multimodal Planning/Livable Cities Initiative	●	●	●	●		●

● Direct Improvements

◐ Related Improvements

**2018 Call for projects Investment Category planning factors points**

<b>Barrier Elimination (Max - 15 Points)</b>	<b>Points</b>
Eliminates barrier by building a bridge over waterways (Y/N)	15
Eliminates barrier by building bridges over arterial roadways or railroads (Y/N)	10
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> </ul>	

<b>Connectivity to Major Employment Center (Max - 10 Points)</b>	<b>Points</b>
Facility directly connects to or within 1/4 mile of an employment center with more than 1000 jobs (Y/N)	10
Facility directly connects to or within 1/4 mile of an employment center with more than 500 to 1000 jobs (Y/N)	5
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>H-GAC will provide employment density map</i></li> </ul>	

<b>Connectivity to School (Max - 10 Points)</b>	<b>Points</b>
Facility directly connects to or within 1/4 mile of a school (Y/N)	10
Facility directly connects to or within 1/2 mile of a school (Y/N)	5
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>H-GAC will provide school locations maps</i></li> </ul>	

<b>Connectivity to Points of Interest (Max - 10 Points)</b>	<b>Points</b>
Facility directly connects to or within 1/4 mile of points of interest (Y/N)	10
Facility directly connects to or within 1/2 mile of points of interest (Y/N)	5
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>H-GAC will provide other points interest locations maps</i></li> <li>• <i>Points of interest include major shopping centers, medical facilities, museums, parks and other recreational activity centers</i></li> </ul>	

<b>Connectivity to other Transit Routes/Service/Transit Centers (Max – 10 Points)</b>	<b>Points</b>
Provides connections to other transit routes (Y/N)	10
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>H-GAC will provide transit routes and transit centers maps in coordination with transit providers</i></li> </ul>	

<b>Connectivity to Existing Freight System or Freight Generator (Max - 20 Points)</b>	<b>Points</b>
Provides direct Connection to existing freight priority network or freight generator (Y/N)	20
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>H-GAC will provide Greater Houston Freight System map</i></li> <li>• <i>Local Sponsors must provide locally designated freight system maps</i></li> </ul>	

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

<b>Corridor Level of Travel Time Reliability (Max - 20 Points)</b>	<b>Points</b>
If proposed project reduces Planning Time Index (PTI) by more than 30%	20
If proposed project reduces Planning Time Index (PTI) by 21 - 30%	15
If proposed project reduces Planning Time Index (PTI) by 11% - 20%	10
If proposed project reduces Planning Time Index (PTI) by 1% - 10%	5
<ul style="list-style-type: none"> <li>• <i>H-GAC will calculate estimated Planning Time Index (PTI) using PTI estimation template (being developed by TTI)</i></li> <li>• <i>H-GAC will obtain input data from the sponsors</i></li> </ul>	

<b>Eliminates or Prevents at Grade Railroad Crossing (Max - 10 Points)</b>	<b>Points</b>
Proposed project eliminates or prevents at grade railroad crossings (Y/N)	10
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>Project sponsor will provide project location map in GIS or pdf format</i></li> </ul>	

<b>Evacuation Route (Max - 10 Points)</b>	<b>Points</b>
If proposed project is located on a state designated Evacuation Route (Y/N)	10
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>H-GAC will provide state designated Evacuation Routes map</i></li> </ul>	

Environmental Justice (Max - 10 Points)	Points
<p>If all or part of the proposed facility is located within a census tract that has higher proportion of the underserved populations than regional average</p> <ul style="list-style-type: none"> <li>• Minority Populations</li> <li>• Low-Income Households</li> <li>• Senior Populations (Over 65)</li> <li>• Limited Educational Attainment</li> <li>• Zero Automobile Ownership</li> <li>• Limited English Proficiency</li> </ul>	10 points if three or more the underserved population is above regional average
	7 points if two of the underserved population is above regional average
	3 points if one of the underserved population is above regional average
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>H-GAC will provide underserved population maps</i></li> </ul>	

Freight System Priority (Max - 10 Points)	Points
<p>If proposed project is located on Greater Houston Freight System or Locally designated freight corridors (Y/N)</p>	10
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>H-GAC will provide Greater Houston Freight System map</i></li> <li>• <i>Local Sponsors must provide locally designated freight system maps</i></li> </ul>	

Frequency of Transit Service (Max - 20 Points)	Points
15 Minutes or less	20
15 - 30 Minutes	15
30 - 60 Minutes	10
<ul style="list-style-type: none"> <li>• <i>Transit providers will provide transit service frequency</i></li> </ul>	

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

<b>Interagency Coordination (Max - 25 Points)</b>	<b>Points</b>
Will system tie into another agency's systems to allow for data sharing? (Y/N)	10
Will the system allow for potential control by another agency in the event of a primary agency's loss of system control? (Y/N)	15
<ul style="list-style-type: none"> <li>• <i>Project sponsor will provide answers to each of the above questions with descriptive explanation</i></li> </ul>	

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

<b>Multimodal LOS (Max - 20 Points)</b>	<b>Points</b>
If proposed project improves Automobile LOS	10
If proposed project improves Bike/Ped LOS	5
If proposed project improves Transit LOS	5
<ul style="list-style-type: none"> <li>• <i>H-GAC will calculate Multimodal LOS using FDOT's LOSPLAN software</i></li> <li>• <i>H-GAC will obtain input data from project sponsors</i></li> </ul>	

<b>Planning Coordination (Max - 10 Points)</b>	<b>Points</b>
If proposed project is recommended in a regional/sub regional/or locally adopted plan	5
Documentation of consultation with partnering or affected local or state agencies	5
<ul style="list-style-type: none"> <li>• <i>Project sponsor will provide documentation of consultation with affected local or state agencies</i></li> </ul>	



<b>Roadway Hierarchy (Max – 10 Points)</b>	<b>Points</b>
If roadway meets the characteristics of Principal Arterials as defined in USDOT's Highway Functional Classification Concepts, Criteria and Procedures	10
If roadway meets the characteristics of Minor Arterials as defined in USDOT's Highway Functional Classification Concepts, Criteria and Procedures	7
If roadway meets the characteristics of Collector roadways as defined in USDOT's Highway Functional Classification Concepts, Criteria and Procedures	3
<ul style="list-style-type: none"> <li>• <i>Points allocated based on proposed project location</i></li> <li>• <i>Highway Functional Classification Concepts, Criteria and Procedures can be found at: <a href="https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf">https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf</a></i></li> <li>• <i>Existing Functional Classification map can be found at: <a href="http://www.txdot.gov/apps/statewide_mapping/StatewidePlanningMap.html">http://www.txdot.gov/apps/statewide_mapping/StatewidePlanningMap.html</a></i></li> </ul>	

<b>Ridership Plan (Max - 15 Points)</b>	<b>Points</b>
Proposed project includes expected ridership plan	15
<ul style="list-style-type: none"> <li>• <i>Documentation showing expected ridership and potential growth. Backed by supporting data, reasonable and viable ridership given type of service and area to be served</i></li> </ul>	

<b>Improves Safety - Active Transportation (Max - 20 Points)</b>	<b>Points</b>
Documented crash within 1/4 mile on existing facility involving pedestrian and/or bicyclist and proposed project includes safety countermeasures	20
Documented crash within 1/2 mile on existing facility involving pedestrian and/or bicyclist and proposed project includes safety countermeasures	10
<ul style="list-style-type: none"> <li>• <i>H-GAC will provide Crash Record Information System (CRIS) data</i></li> </ul>	

<b>Years Beyond Useful Life Benchmark (Max - 20 Points)</b>	<b>Points</b>
More than 10 Years	20
More than 5 - 10 Years	10
More than 1 - 5 Years	5

**Investment Category:** Access Management & Safety [MANAGE]

**Category Description/Objective:** Improve thoroughfare safety and operational efficiency through the application of access management treatments.

**Typical Projects:**

- 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.

**Base Funding Participation/Match:** 80/20

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

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

<b>Planning Factors: 50%</b>	<b>Max</b>
Roadway Hierarchy	10
Freight System Priority	10
Evacuation Route	10
Multimodal LOS	20
Corridor Level of Travel Time Reliability (LOTTR)	20
Planning Coordination	10
Connectivity to Major Employment Center	10
Environmental Justice	10
<b>Total</b>	<b>100</b>

**Investment Category:** Grade Separations [MANAGE]

**Category Description/Objective:** Improve thoroughfare safety and operational efficiency through the application of interchange and grade separation treatments.

**Typical Projects:**

- Direct connectors, grade separations, associated intersection and reasonable ped/bike accommodations

**Base Funding Participation/Match:** 80/20

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

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

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

**Investment Category:** Regional ITS Infrastructure [MANAGE]

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

**Typical Projects:**

- 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)

**Base Funding Participation/Match:** 80/20

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

**Weight and/or Minimum Ratio:** 50%/1.0

<b>Planning Factors: 50%</b>	<b>Max</b>
Incident/Event Management	25
Interagency Coordination	25
Continuity of Operations	20
Corridor Level of Travel Time Reliability (LOTTR)	20
Life Cycle Maintenance	10
<b>Total</b>	<b>100</b>

**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 within mixed traffic.

**Typical Projects:**

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

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

**Benefit/Cost Analysis Measure(s):** [Transit Passenger Delay Reductions (\$) / Funding Requested

**Weight and/or Minimum Ratio:** 50%/1.0 (benefit must exceed costs)

<b>Planning Factors: 50%</b>	<b>Max</b>
Frequency of Transit Service	20
Connectivity to Other Transit Routes/Services/Transit Centers	10
Multimodal LOS	20
Connectivity to Major Employment Center	10
Connectivity to Schools	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
<b>Total</b>	<b>100</b>

**Investment Category:** Active Transportation “First Mile/Last Mile Connectivity [MANAGE]

**Category Description/Objective:** Increase utilization of existing transit services and active modes of transportation through direct pedestrian and bicycle connections to priority destinations/services.

**Typical Projects:**

- 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)

**Base Funding Participation/Match:** 80/20

**Benefit/Cost Analysis Measure(s):** Cost Effectiveness (Cost \$/Estimated Users)

**Weight:** 50%

<b>Planning Factors: 50%</b>	<b>Max</b>
Improves Safety	20
Barrier Elimination	15
Connectivity to Transit Routes/Services/Transit Centers	10
Connectivity to Major Employment Center	10
Connectivity to Schools	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
Funding Match above 50 %	5
<b>Total</b>	<b>100</b>

**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.

**Selection Process:** Future, Collaborative Planning Process

**Typical Projects:**

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

**Base Funding Participation/Match:** 100%/0% (TDCs)

**Benefit/Cost Analysis Measure(s):** TBD, result of planning process

**Weight or Minimum Ratio:** N/A

**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:**

- Implementation of Regional AV/CV infrastructure technology and equipment

**Base Funding Participation/Match:** 50/50

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

**Weight and/or Minimum Ratio:** 50%/1.0

<b>Planning Factors: 50%</b>	<b>Max</b>
Connectivity to Transit Routes/Services/Transit Center	10
Connectivity to Ped/bike	10
Connectivity University or Medical Facility (Campus environment)	10
Connectivity to Major Employment Center	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
Life Cycle Maintenance Plan	10
Public Private Partnership	20
<b>Total</b>	<b>100</b>



**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 (“First Mile/Last Mile” Freight projects)

**Typical Projects:**

- 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.

**Base Funding Participation/Match:** 50/50

**Benefit/Cost Analysis Measure(s):** 20-year Life-Cycle Cost Analysis (LCCA)

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

<b>Planning Factors: 50%</b>	<b>Max</b>
Roadway Hierarchy	10
Freight System Priority	10
Evacuation Route	10
Multimodal LOS	20
Improves Safety	20
Planning Coordination	10
Corridor Provides Access to Major Employment Center	10
Environmental Justice	10
<b>Total</b>	<b>100</b>

**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:**

- 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.)

**Base Funding Participation/Match:** 50/50 (provider must explain how they are utilizing FTA allocations, provider may use other federal funds to increase federal participation)

**Benefit/Cost Analysis Measure(s):** Cost Effectiveness (Cost \$/Annual PMT)

**Weight and/or Minimum Ratio:** 50%/1.0

<b>Planning Factors: 50%</b>	<b>Max</b>
Years Beyond Useful Life	20
Planning Coordination	10
Provides Interjurisdictional Connectivity	15
Ridership Plan (Expected Ridership Growth)	15
Provides Safe ped/bike accommodations	10
Transit Provider provides facility routine maintenance plan	20
Environmental Justice	10
<b>Total</b>	<b>100</b>

**Investment Category:** Active Transportation ADA Compliance [MAINTAIN]

**Category Description/Objective:** Improve accessibility of the pedestrian network by upgrading existing facilities and constructing new ADA-compliant pedestrian facilities.

**Eligible Projects and Costs:**

- 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.

**Base Funding Participation/Match:** 50/50

**Benefit/Cost Analysis Measure(s):** Cost Effectiveness (Cost/Estimated # of Users)

**Weight:** 50%

<b>Planning Factors: 50%</b>	<b>Max</b>
Improves Safety	20
Barrier Elimination	15
Connectivity to Major Employment Center	10
Connectivity to Schools	10
Connectivity to Transit	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
Funding Match above 50 %	5
<b>Total</b>	<b>100</b>

**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:**

- 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.

**Benefit/Cost Analysis Measure(s):**

A measure will be cost-effectiveness. An example would be a roadway vulnerable to extreme flooding, storm surges, or erosion that is located proximate to high-density at-risk populations.

**Planning Factors:**

<b>Planning Factors: 50%</b>	<b>Max</b>
Roadway Hierarchy	10
Freight System Priority	10
Evacuation Route	10
Frequency of hazard impacting roadway usage	20
Hazard identified in the Regional Hazard Mitigation Plan	15
Does the project include preventative activities to keep the hazard problems from worsening (e.g. floodplain regulation, open space preservation)	15
Planning Coordination	10
Environmental Justice	10
<b>Total</b>	<b>100</b>

**Investment Category:** Interjurisdictional Connectivity [EXPAND]

**Category Description/Objective:** Improve accessibility and mobility of people and goods through enhanced roadway connectivity between local jurisdictions.

**Typical Projects:**

- Construction of roadway pavements and structures including bridges, reasonable pedestrian/bicycle/transit accommodations and drainage improvements related to the roadway impervious surface only.
- Roadway segments up to 2 miles in length.
- Projects must be consistent with H-GAC’s congestion management process.
- 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.

**Base Funding Participation/Match:** 80/20

**Benefit/Cost Analysis Measure(s):** [Delay (PHED) Reduced in \$]/Funding Requested

**Weight and/or Minimum Ratio:** 50%/1.0

<b>Planning Factors: 50%</b>	<b>Max</b>
Barrier Elimination	15
Potential for VMT Reductions on Parallel Route	15
Multimodal LOS	20
Connectivity to Existing Freight System (Freight Generator)	20
Planning Coordination	10
Includes Safety Countermeasures (Y/N)	10
Environmental Justice	10
<b>Total</b>	<b>100</b>

**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:**

- Widening 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.
- 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.

**Base Funding Participation/Match:** 80/20

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

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

<b>Planning Factors: 50%</b>	<b>Max</b>
Roadway Hierarchy	10
Freight System Priority	10
Evacuation Route	10
Multimodal LOS	20
Corridor Travel Time Reliability (LOTTR)	20
Planning Coordination	10
Connectivity to Major Employment Center	10
Environmental Justice	10
<b>Total</b>	<b>100</b>

**Investment Category:** Innovative Freight Movement [EXPAND]

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

**Selection Process:** Future, Collaborative Planning Process

**Typical Projects:**

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

**Base Funding Participation/Match:** 50/50

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

**Weight:** 50%

<b>Planning Factors 50%</b>	<b>Max</b>
Planning Coordination (Consistent with Regional Goods Movement Plan or Texas Freight Mobility Plan or Ports Area Mobility Study)	10
Includes Autonomous/Connected Vehicle Technology (Y/N)	20
Annual Heavy Cargo Movement (in Tonnage)	10
Includes Economic Benefits Analysis (Y/N)	20
Includes Life Cycle Maintenance Plan (Y/N)	20
Public Private Partnership	20
<b>Total</b>	<b>100</b>

**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:**

- 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):** Cost Effectiveness (Annualized \$/Estimated VMT Reduced)

**Weight:** 50%

<b>Planning Factors: 50%</b>	<b>Max</b>
Planning Coordination	10
Provides Interjurisdictional Connectivity	20
Ridership Plan (Expected Ridership Growth)	15
Provides Connection to Other Transit Services (Fixed Route/Commuter/Rail/Demand Response/etc)	10
Provides Safe ped/bike accommodations (Y/N)	15
Project Part of Transit Oriented Development (Y/N)	10
Includes Facility Maintenance Strategies (Y/N)	10
Environmental Justice	10
<b>Total</b>	<b>100</b>



**Investment Category:** Transit Fleet 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).

**Typical Projects:**

- 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):** Cost Effectiveness (Annualized Cost/Current PMT Growth for service type)

**Weight:** 50%

<b>Planning Factors: 50%</b>	<b>Max</b>
Planning Coordination	10
Unlinked Trips Per Vehicle Type for Service Type	20
Ridership Plan (Expected Ridership Growth)	15
Increases Service Frequency by Service Type (Y/N)	15
Expands Service to Improve Interjurisdictional Connectivity	20
Includes Revenue Vehicle Maintenance Strategies	10
Environmental Justice	10
<b>Total</b>	<b>100</b>

**Category Description/Objective:** Active Transportation - Eliminate gaps between existing facilities [EXPAND]

**Eligible Projects and Costs:**

- Construction costs
- 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

**Base Funding Participation/Match:** 80/20

**Benefit/Cost Analysis Measure(s):** Cost Effectiveness (Annualized \$/Estimated VMT Reduced)

**Weight:** 50%

<b>Planning Factors: 50%</b>	<b>Max</b>
Improves Safety	20
Barrier Elimination	15
Connectivity to Major Employment Center	10
Connectivity to Schools	10
Connectivity to Transit	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
Funding Match above 50 %	5
<b>Total</b>	<b>100</b>