



FISCAL YEAR 2022-2023

UNIFIED PLANNING WORK PROGRAM (UPWP)

**HOUSTON-GALVESTON TRANSPORTATION
MANAGEMENT AREA**

APPROVED BY THE TRANSPORTATION POLICY COUNCIL ON:

August 27,2021



Resolution

No. UPWP 22/23-0

ADOPTING THE 2022-2023 UNIFIED PLANNING WORK PROGRAM FOR TRANSPORTATION PLANNING BY THE TRANSPORTATION POLICY COUNCIL FOR THE HOUSTON-GALVESTON TRANSPORTATION MANAGEMENT AREA AND CERTIFYING COMPLIANCE WITH FEDERAL PLANNING REQUIREMENTS.

WHEREAS, the U.S. Department of Transportation, prior to the funding of any planning or capital grant project within an urban region, requires the preparation and adoption of a Unified Planning Work Program (UPWP) describing transportation planning activities to be accomplished during the two year period of 2022-2023; and

WHEREAS, the 2022-2023 Unified Planning Work Program address the needs for planning Administration/Management, Data Development and Maintenance, Short Range Planning, Long Range Planning, and Special Studies, identifying agency responsibilities by work task and anticipated funding requirements; and

WHEREAS, the Transportation Policy Council certifies its compliance with federal planning requirements as outlined in the introduction of the 2022-2023 Unified Planning Work Program and in accordance with 23 CFR Part 450.334 and 450.220; and

WHEREAS, The Transportation Policy Council certifies its compliance with federal and state statutes in regard to debarment, lobbying, procurement practices, and ethical practices; and

NOW, THEREFORE, BE IT RESOLVED BY THE TRANSPORTATION POLICY COUNCIL FOR THE HOUSTON-GALVESTON TRANSPORTATION MANAGEMENT AREA THAT:

- The 2022-2023 Unified Planning Work Program (UPWP) is hereby adopted; and
- Cost overruns of up to 25 percent at the activities task level are allowable, provided that the total as shown in the Funding Summary for the 2022-2023 UPWP are not exceeded.

PASSED AND APPROVED, this 27th day of August 2021, at a regularly called meeting of the Transportation Policy Council for the Houston-Galveston Transportation Management Area.

Houston-Galveston Area Council Unified Planning Work Program

APPROVED:

ATTEST:

DocuSigned by:

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Kenneth Clark, Chairman
Transportation Policy Council

DocuSigned by:

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Hon. Grady Prestage Secretary
Transportation Policy Council

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2022-2023 UNIFIED PLANNING WORK PROGRAM

I. INTRODUCTION

Houston Galveston Area Council (H-GAC) and its Transportation Policy Council (TPC) has served as the Metropolitan Planning Organization (MPO) for the Houston Transportation Management Area (TMA) since 1974. This Houston TMA includes Harris County and seven surrounding counties which include Montgomery, Liberty, Chambers, Galveston, Brazoria, Fort Bend, and Waller. Our TPC provides policy guidance and overall coordination of the transportation planning activities within the region. The TPC consists of 28 members representing cities and counties, the Texas Department of Transportation (TxDOT), the Metropolitan Transit Authority of Harris County (METRO) one at-large member appointed by the H-GAC Board of Directors representing cities with a population greater than 50,000, one-at-large member representing Other Transportation Interests, and one position for the Gulf Coast Rail District. Each of the 28 Members has an alternate who is also a voting member in the absence of their voting primary representative.

H-GAC follows the Fixing America's Surface Transportation Act's (FAST Act) final planning rules for Metropolitan Planning Processes and the Metropolitan Transportation Plan (MTP) which became effective on May 27, 2018. The FAST Act builds on the changes made by MAP-21 including provisions to make surface transportation more streamlined, performance-based, and multimodal, and to address challenges facing the U.S. transportation system, including safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery.

A. PURPOSE

The *2022-2023 Unified Planning Work Program* (UPWP) describes the transportation plans and programs and the transportation-related air quality planning activities that will be conducted during Fiscal Years 2022 and 2023 (October 1, 2021 – September 30, 2023) regardless of funding sources or agencies conducting these activities. Through the development of the UPWP, changes in regional transportation planning priorities are identified. In addition, the role of the Houston-Galveston Metropolitan Planning Organization (MPO) for the Houston-Galveston Transportation Management Area (TMA) is documented.

The process of operating, maintaining, and improving the region's surface transportation system is complex and demands ongoing regional planning efforts. Many of the activities described in this document support the collaborative and coordinated decision-making process

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between state and local government agencies, transportation providers, shippers, and carriers of goods, and the residents of the region. Through the cooperation of these stakeholders, the products of these planning efforts will provide the region with greater mobility benefits. The following five tasks document the transportation planning activities in the TMA in 2022-2023:

- **Task I – Administration and Management** describes the administrative support activities such as financial management, contract management, public outreach, and the general management of the MPO.
- **Task II – Data Development and Maintenance** describes the collection, maintenance, and analysis of transportation data. These activities include the development of socio- economic forecasts and travel demand models to determine where future transportation investments will be made.
- **Task III – Short-Range Planning** addresses planning for activities taking place within a three to ten-year timeframe, including the Transportation Improvement Program (TIP), the Ten-Year Transportation Plan, as well as transit feasibility studies, and operations planning. Task III also includes ongoing maintenance of the Regional Intelligent Transportation System (ITS), as well as efforts to improve traffic safety in the region and evacuation planning.
- **Task IV – Long-Range Planning** describes planning activities for the long-term including development and maintenance of the Regional Transportation Plan (RTP) as well as ongoing initiatives regarding transportation-related air quality planning, regional bicycle and pedestrian planning, activities involving H-GAC's Livable Centers program, and Transportation Performance Management (TPM) activities.
- **Task V – Special Studies** includes special one-time planning activities, including major corridor studies/analyses and support of tourism and transportation resiliency planning activities.

The Fixing America's Surface Transportation (FAST) Act requires the consideration of 10 factors in the metropolitan and statewide planning processes listed in 23 USC 134(h). The list below illustrates how the MPO addresses these factors:

1. **Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency**
 - *The Regional Transportation Plan (RTP) focuses on strategic corridor plans that will improve the movement of people and goods within and through the region*

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(Subtask 4.1).

- *The MPO supports transit service activities that foster urban redevelopment and improve access around transit stations (Subtasks 3.2 and 4.3).*
- *The MPO supports activities of the Greater Houston Freight Committee to better incorporate private sector freight user perspectives into the transportation planning process (Subtask 4.3).*

2. Increase the safety of the transportation system for motorized and non-motorized users

- *The TIP provides funding for improved bicycling & pedestrian facilities (Subtask 4.3).*
- *The RTP focuses on identification of crash hot spots and strategies to reduce crashes (Subtask 3.4).*
- *The MPO convenes a Regional Safety Council to address transportation safety in the region and engages in various safety-related initiatives (Subtask 3.4).*

3. Increase the security of the transportation system for motorized and non-motorized users

- *The TIP provides funding for improved lighting in and around transit centers (Subtask 3.2).*
- *The RTP supports connections at port entrances and exits that facilitate enhanced security (Subtask 4.1).*
- *The MPO participates in emergency preparedness and evacuation activities initiated by state and local governments (Subtask 3.5)*

4. Increase the accessibility and mobility of people and for freight

- *The TIP project selection criteria assign benefits to projects that: a) support/improve port operations, b) remove bottlenecks & fill gaps on the existing system that inhibit the movement of people and goods, and c) provide improved access between activity centers (Subtask 3.1).*
- *The RTP focuses on strategic corridor plans that will improve the movement of people and goods within and through the region (Subtask 4.1).*

5. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns

- *The MPO engages in Sub-regional Planning initiatives designed to link local land*

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use goals with transportation investments (Subtask 4.3).

- *The MPO develops geographic information system (GIS) layers of regional environmental assets (Subtask 2.2).*
- *The MPO Air Quality planning supports all regional efforts to comply with federal air quality standards, while seeking to preserve the region's transportation needs and vitality (Subtask 4.2)*

6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight

- *The Livable Centers initiative is designed to improve access and connectivity to and around transit stations (Subtask 4.4).*
- *The TIP and RTP support projects such as intermodal terminals that link a variety of modes in one station (Subtasks 3.1 and 4.1).*
- *The MPO supports regional vanpooling, carpooling and telework initiatives (Subtask 4.6).*
- *The TIP provides funding for transit implementations and studies (Subtask 3.1).*
- *Local Active Transportation Studies is designed to improve various means of active transportation such as biking and walking (subtask 4.6).*

7. Promote efficient system management and operation

- *The Congestion Management Process (CMP) focuses on identifying non-added capacity alternatives that will improve traffic flow and safety for motorists (Subtask 4.6).*
- *The RTP includes an expanded managed lane system to derive improved efficiency from new capacity projects (Subtask 4.1).*
- *The TIP provides funding for expansion of traffic management systems throughout the region (Subtask 3.1).*
- *Operations efforts, such as Intelligent Transportation Systems (ITS) Planning and Incident Management, promote lower-cost, non-added capacity alternatives for improving traffic flow (Subtask 3.3).*

8. Emphasize the preservation of the existing transportation system

- *Intelligent Transportation Systems (ITS) Planning and the development of Incident Management activities address alternatives that maximize the efficiency of the current system (Subtask 3.3).*

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- *The MPO works with the state to identify major reconstruction needs over the life of the plan (Subtask 3.1).*
- 9. Improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation**
- *The MPO works with regional stakeholders to collect and analyze information to improve resiliency and reliability of the transportation system and reduce or mitigate storm water impacts on surface transportation (Subtask 5.1).*
- 10. Enhance travel and tourism**
- *The MPO coordinates with specific representatives in the tourism industry to further understand tourism industry trends and needs related to transportation infrastructure and planning (Subtask 5.1).*
 - *The MPO coordinates with specific representatives in the private transportation operators, tour bus operators and intercity bus operators to further understand industry trends and needs related to transportation infrastructure and planning (Subtask 5.1).*
 - *The Livable Centers program supports the development of walkable, mixed-use places that utilize multi-modal travel choices and improve accessibility for regional residents and visitors (Subtask 4.4).*

Federal transportation legislation has placed an increased emphasis on performance-based planning and programming in order to increase accountability and transparency in regard to transportation investments. This includes the requirement that MPOs establish performance measures in conjunction with the following seven national goals outlined in U.S.C. 23 Sec 150(b):

1. **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2. **Infrastructure condition** - To maintain the highway infrastructure asset system in a state of good repair.
3. **Congestion reduction** - To achieve a significant reduction in congestion on the National Highway System.
4. **System reliability** - To improve the efficiency of the surface transportation system.
5. **Freight movement and economic vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
6. **Environmental sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment.

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- 7. Reduced project delivery delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

H-GAC, in conjunction with its update of the Regional Transportation Plan, will review and reassess performance measures to reflect the seven national goals.

MPOs must also develop a public involvement process that provides complete information, timely notification, and public access to the planning process. H-GAC developed and adopted its Public Participation Plan (PPP) in 2007, which was updated in November 2012, July 2017, and January 2021. The intent of the plan is to create a transportation planning process that is accessible, inclusive, and proactive. The plan is designed to educate and inform the public about transportation and related air quality issues, and to provide the public with opportunities to contribute their ideas and opinions early and often throughout the planning process.

B. DEFINITION OF SERVICE AREA

The Houston-Galveston Area Council has been designated by the Governor of Texas to serve as the Metropolitan Planning Organization (MPO) for transportation planning in the urbanized region that consists of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties. This eight-county TMA includes an estimated 6.8 million people. The TMA includes four U.S. Census-designated urbanized areas with populations greater than 50,000 (the Houston Urbanized Area, the Texas City/La Marque Urbanized Area, The Woodlands Urbanized Area, and the Angleton/Lake Jackson Urbanized Area), Appendix B contains a map of the Houston-Galveston TMA.

C. ORGANIZATION and STAKEHOLDERS

The Transportation Policy Council (TPC) is the policy-making board for the MPO. Its twenty-eight (28) voting members are responsible for the development and approval of transportation plans and programs within the TMA. Membership on the TPC consists of chief elected officials and their designated alternates from the ten major cities (over 50,000 in population) and each of the eight counties within the TMA. In addition, Harris, Brazoria, and Montgomery counties each have an at-large city representative appointed by the H-GAC Board of Directors. The H-GAC Board of Directors also appoints one member to the TPC to represent regional concerns. The TPC appoints one representative for "Other Transportation Interests" that would otherwise not be formally represented. The Texas Department of Transportation (TxDOT) has two representatives, one from each of their two districts in the TMA and the Metropolitan Transit Authority of Harris County (METRO) has one representative. Current TPC membership is listed in **Appendix A**.

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The TPC created a standing Transportation Advisory Committee (TAC) to assist with the technical aspects related to the development of the RTP; the TIP; the Regional Bicycle and Pedestrian Plan; major corridor studies; and other transportation programs and plans. Its membership consists of forty-four (44) transportation planning and air quality experts from agencies throughout the TMA, as well as representatives from various advocacy groups with an interest in transportation decisions. The TAC exists to assure that transportation-planning decisions are considered in their broadest context. The TAC currently has established six (6) subcommittees to assist with specific program activities. These are: Regional Transportation Plan (RTP) Subcommittee, Transportation Improvement Program (TIP) Subcommittee, Transportation Air Quality Subcommittee, Regional Transit Coordination Subcommittee, Transportation Systems and Management Operations (TSMO) subcommittee, and the Pedestrian and Bicyclist Subcommittee. Current TAC membership can also be found in **Appendix A**.

In 1991, the Regional Air Quality Planning Committee (RAQPAC) was specifically created to work with H-GAC staff and other governmental agencies on coordination of regional air quality programs to meet federal clean air standards and to advise the H-GAC Board of Directors and the TPC on air quality policy. This committee is composed of members representing a variety of public agencies, private industry, business, local health organizations, and citizen and environmental groups.

In 2005, the Regional Safety Council (RSC) was set up by the TPC and renamed the Transportation Safety Committee to provide recommendations for improving transportation safety in our region. Its membership consists of professionals with backgrounds in transportation, law enforcement, emergency medical service, injury prevention, public health, trucking, railroads, insurance, shipping, safety advocacy, and safety research.

In 2016, the Transportation Policy Council (TPC) created the Greater Houston Freight Committee to better incorporate private sector freight user perspectives into the transportation planning process. The Committee, with co-chairs appointed by the TPC, seeks to accomplish this through regular open meeting highlighting relevant industry trends and needs. The Committee identified a locally significant freight roadway network, recommended investment in critical facilities associated with a boom in petrochemical manufacturing and coordinated with Texas Freight Advisory Committee in the updating of the State Freight Mobility Plan.

D. PRIVATE SECTOR INVOLVEMENT

The private sector is actively involved in planning efforts outlined in the 2022-2033 UPWP. H-GAC utilizes private sector contractors and consultants to execute many of its planning responsibilities. In addition, the private sector participates in H-GAC's transportation policy structure. Industry interests and business groups have representatives serving on the Transportation Advisory Committee, the Regional Air Quality Planning Committee, the

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Regional Safety Council, the Greater Houston Freight Committee, and their respective subcommittees.

Private businesses also serve on steering committees, which provide guidance for various transportation-related plans & studies. Transportation Management Organizations (TMOs) also provide opportunities for private sector involvement related to ridesharing, vanpooling, and other trip reduction activities. H-GAC provided start-up funds for many area TMOs, which assist employers in implementing transportation demand management (TDM) strategies.

H-GAC staff continues to provide technical assistance to private and public transit and para-transit operators in the planning and delivery of expanded transit services in coordination with METRO and other regional public transportation providers. Staff will continue to work through the FTA 5307 and FTA 5311 programs to expand the public transportation services through public/private partnership agreements.

E. PLANNING ISSUES AND EMPHASIS AREAS

Regional Transportation Plan – The MPO completed an update of the Regional Transportation Plan (RTP) in FY 2019. Key focus areas for the 2045 RTP include the connection between transportation and land use, an analysis of regional transit needs and opportunities, environmental considerations and implications for project development, an enhanced congestion management system, and a consideration of the growth in regional freight activity and the related infrastructure needed to improve regional multi-modal mobility. In addition, emphasis was placed on the development of performance measures to ascertain the benefits of the region's improvements.

Freight Planning – Freight facilities and services are strongly linked to regional economic competitiveness and quality of life and, from a transportation perspective, freight shipments continue to grow steadily across all modes. Planning for freight is also an effective means of addressing safety, security, environmental, and air quality issues. A major objective of the freight program is to initiate and sustain meaningful outreach to the local freight community and to build awareness and expertise among planners and the general public. A freight advisory committee is the focal point of this effort. The Ports Area Mobility Study was completed in 2019 that created strategies to improve goods movement for the deep-water ports in the region. An update to the Regional Goods Movement Study will be conducted in this UPWP.

Safety Planning – H-GAC assesses safety data as it is provided to determine the problem areas in terms of traffic safety. Staff work on a regional safety plan based on the data assessments and provide potential countermeasures for consideration. H-GAC provides

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technical support on traffic safety issues, including the support of various outreach initiatives to promote safer driving.

Air Quality Planning - Air quality planning efforts are aimed at finding control strategies and policies to ensure that on-road mobile sources in the eight-county Houston-Galveston-Brazoria nonattainment area comply with federal pollution standards and State Implementation Plan (SIP) requirements. Activities include engaging with regional business/industry leaders, environmental organizations, federal, state, and local governments to develop/review clean air strategies, aiding in the implementation of SIP strategies through demonstration projects and contractual programs.

Livable Centers – H-GAC provides outreach, training, and technical assistance to local governments and private developers to help achieve an improved connection between development patterns and the transportation system. H-GAC’s Livable Centers program provides local governments with opportunities to assess new strategies and utilize best practices in land use/transportation coordination. The Livable Centers program helps to create quality, mixed-use places that provide multi-modal transportation options through studies and implementation projects.

Bicycle and Pedestrian Planning – H-GAC supports the implementation of the Transportation Policy Council’s adopted pedestrian and bicycle policy goals and recommended actions. This includes maintenance of the Active Transportation Plan, the development of a supplemental long-range plans in conjunction with the RTP, provision of technical support to local governments, and the hosting of training sessions for best practices.

In addition, The US Department of Transportation issued Planning Emphasis Areas are to be identified within the UPWP. The list below illustrates how the MPO addresses these Emphasis Areas:

1. Transition to Performance Based Planning and Programming

- **Subtask 3.4** – Staff conducts an annual assessment of crash statistics to assess the regional crash experience and utilize the information for planning efforts to improve regional traffic safety.
- **Subtask 4.1** - The update of the Regional Transportation Plan (RTP) continues to assess potential performance measures, which will be utilized in project selection criteria and project prioritization to link RTP goals and objectives.
- **Subtask 4.3** - Calls for the development of freight performance measures to gauge system conditions and use, evaluate transportation programs and projects,

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and help decision-makers to allocate limited resources.

- **Subtask 4.6** – The Congestion Management Process calls for tracking and updating of congestion indices, which will play a role in assessing system performance and for project prioritization in the RTP process.

2. Ensure a Regional Approach to Transportation Planning by Promoting Cooperation and Coordination across Transit Agency, MPO and State Boundaries

The Houston-Galveston MPO has representation from TxDOT's Beaumont District, which covers the Beaumont MPO, as well as two counties within the Houston-Galveston MPO.

- **Subtask 3.5** - Evacuation Planning activities include the planning and coordination of regional evacuation activities.
- **Subtask 4.2** – H-GAC Air Quality Program staff meet with their MPO counterparts from other regions to share information on regional air quality programs, including vehicle replacement and commute alternative programs.

3. Access to Essential Services – as part of the transportation planning process, identify transportation connectivity gaps in access to essential services.

- **Subtask 3.2** - Short-Range Transit Planning activities include the planning and coordination of public transportation projects that operate in underserved areas of the region, and provide service to low-income, physically and mentally challenged, and elderly populations that may not have access to an automobile.
- **Subtask 4.1** - The RTP addresses the incorporation of Environmental Justice to identify socially and economically disadvantaged areas of the region, their proximity to jobs, and access to transit options.
- **Subtask 4.6** - Bicycle/Pedestrian System Planning addresses non-motorized options of travel, including the identification of facilities and proposed improvements to facilities to allow those users safe access to their destinations.

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TASK I Administration and Management

The purposes of the activities listed under Task I are to provide administrative support to the transportation planning process for the eight-county Houston-Galveston Transportation Management Area (TMA) and to facilitate interagency cooperation and coordination.

Objectives:

- To maintain operations of the MPO, including the fiscal management, contracts, handling of personnel matters, and the procurement of equipment and supplies required for operations.
- To assist in the obtaining and maintenance of computer hardware, software, technical support, and training necessary to maintain transportation and related air quality planning activities.
- To maintain the Unified Planning Work Program for fiscal years 2022 and 2023 and to fulfill all the associated reporting requirements.
- To provide technical assistance to local governments, public agencies, other qualified grant sponsors, and staff regarding transportation planning activities, and management issues.
- To provide technical assistance to the TPC and TAC, and other associated subcommittees. Technical assistance includes preparing meeting materials, meeting notices, maintaining meeting records, an annual training workshop for the respective members, and other assistance as directed.
- To maintain historical data, publications, and map warehousing/archive libraries, along with an online-query system for public research and access to historical information.
- To provide DBE support to the MPO through data collection, reporting, compliance, and education.
- To provide Buy America provisions support to MPO staff and consultants.
- To provide support for contract implementation, management, and compliance activities.
- To support public information exchange and education programs that increase public interest and participation in ongoing transportation and air quality planning activities.
- To follow the public involvement guidelines outlined in the Public Participation Plan to ensure an open planning process that supports early and continued public involvement, timely public notices, and full public access to information regarding key transportation decisions.
- To support public outreach activities and provide administrative support for public meetings that correspond with current and future transportation projects, plans, and studies by publishing legal notices, press releases and advertisements, conducting public meeting arrangements, slideshow presentation and production, and development of educational materials for distribution at the meetings.

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Expected Products:

- Completed and managed contracts using the Agiloft contract system.
- Billing submissions and the filing of billing/invoicing documentation.
- Meeting agendas, meeting notices, meeting minutes and agenda items, and background materials for TPC and TAC meetings.
- Amendments to the UPWP.
- The Annual Performance Evaluation Report (APER).
- Computer distribution, inventory, meeting set ups, software, product assessments, and purchasing.
- Historical data, publications, and map warehousing/archive libraries, along with an online-query system for public research and access to historical information.
- The developed and approved UPWP every two years.
- Maintained documentation for audit and informational purposes.
- Training and educational materials for staff and consultants on MPO regulations and requirements.
- Various databases that support programs (DBE and Buy America) and management of the MPO.
- Published legal notices, press releases and advertisements, public meeting arrangements, slideshow presentations, and educational materials for distribution at the meetings.
- Face to face and virtual meetings for TPC and TAC and other subcommittees. Provide meeting live streaming when necessary.
- Educational and outreach materials that include graphics and other visualization components to deliver information to interested parties through digital media communications including websites, webinars, social media, video and audio technologies, and photography.
- Listservs and community contact lists for distribution of materials.
- Various outreach campaigns to address needs in the region.
- MPO Transportation e-newsletter monthly “Region View”.

Previous and Continuing Work:

- Worked on consultant and pass-through contracts for awarded planning projects.
- Prepared meeting agendas, meeting notices, minutes and agenda item background materials for TPC and TAC meetings during the 2020-2021 fiscal years, as well as annual workshops for TPC and TAC members.
- Maintained the 2020-2021 UPWP with amendments during the two-year period to reflect changes and additions to included projects and activities.
- Distributed the MPO Transportation e-newsletter monthly “Region View”.
- Participated in meetings of the Association of Metropolitan Planning Organizations (AMPO), Texas Metropolitan Planning Organizations (TEMPO), National Association

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of Regional Councils (NARC), Texas Association of Regional Councils (TARC), Transportation Research Board (TRB), American Association of State Highway and Transportation Officials (AASHTO), ITS Texas and other transportation planning organizations.

- Completed the APER for years 2020 and 2021.
- Supported daily operations for the MPO in the areas of public outreach, program administration, office management, grant management, computer systems management, and quality control.
- Offered technical support to staff for computer distribution, inventory, meeting set ups, software, product assessments, and purchasing.
- Contract implementation, management, and compliance.
- Day to day operations of the MPO, including the fiscal management, contracts, handling of personnel matters, and the procurement of equipment and supplies required for operations.
- Creating and implementing virtual meetings during the COVID-19 pandemic to continue important meetings such as TAC and TPC using various meeting platforms.
- Developed and implemented the Brown Bag Lunch Series which provides staff and member jurisdictions a forum on education in transportation trends and topics, emerging technologies, and key transportation planning issues facing the industry.
- Publicized public meetings and public comment periods for MPO programs, projects, plans, and studies, the public outreach program utilized various communication tactics that included legal notices, social media postings, website postings, community calendar and event postings, social media advertising, digital advertising, news releases, flyers, e-mail marketing, presentations, letters, information kits, and direct mail.
- Coordinated public meetings and received public comments.
- Conducted the annual Zip Zone Map Campaign that educated residents in the zip zone map area codes on which zip zone they live in and how to prepare for an evacuation. The Together Against the Weather campaign also ran in fiscal years 2020-2021 and educated residents, stakeholders, community organizations, and local governments on how to prepare for hurricane season during the COVID-19 pandemic
- Continued to maintain a community contact and stakeholder list (through Constant Contact) for distribution of public meeting information and materials during fiscal years 2020-2021.

Subtask 1.1 Program Support/Unified Planning Work Program (MPO)

This subtask includes all administrative support for the MPO planning program in general, including the financial management of the MPO's operations, contract management, departmental reporting, the provision of technical assistance to member agencies, and participation in state and national organizations involved in transportation planning and development.

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This subtask also includes the development and maintenance of the Unified Planning Work Program (UPWP), which describes the transportation plans and programs and the transportation- related air quality planning activities conducted during the fiscal year(s) regardless of funding sources or agencies conducting these activities. All tasks will be funded by Transportation Planning Funds (TPF) unless noted otherwise.

1.1a Program Support and Administration

- Manage contracts and agreements between the MPO and participating agencies or subcontractors. Support contract implementation, management, and compliance.
- Maintain financial records for departmental contracts and ensure payment of invoices.
- Maintain the federal certification of the Houston-Galveston Transportation Management Area's transportation planning process, related requirements associated with the budgeting and expenditures of Federal, State, and local funding, including the Annual Performance & Expenditure Report (APER), and meeting requirements for the Disadvantaged Business Enterprise goal development and reporting, Buy America requirements, and self-certification assurances.
- Provide technical assistance to local governments, public agencies, other qualified grant sponsors, and staff regarding federal grant applications, transportation planning activities, and transportation management issues.
- Provide technical assistance to the TPC, the TAC, and other associated committees and subcommittees. Technical assistance includes preparing meeting materials, meeting notices, maintaining meeting records, an annual training workshop for the respective members, and other assistance as directed.
- Provide food and non-alcoholic beverages, pending TxDOT approval, at selected meetings and events when deemed appropriate.
- Conduct non-lobbying participation in the Association of Metropolitan Planning Organizations (AMPO), Texas Metropolitan Planning Organizations (TEMPO), National Association of Regional Councils (NARC), Texas Association of Regional Councils (TARC), Transportation Research Board (TRB), American Association of State Highway and Transportation Officials (AASHTO), ITS Texas, and other organizations that enhance the planning process. This may include agency memberships in these organizations (individual memberships are not a reimbursable expense).
- Provide analysis of State and federal laws, regulations, and legislation for TPC and TAC members, and local government officials to aid them in the application of regional transportation policy strategies.
- Maintain historical data, publications, and map warehousing/archive libraries, along with an online-query system for public research and access to historical information.
- The acquisition of supplies, services, software, and equipment to support MPO operations.

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- The acquisition of equipment and software with prior FHWA approval for those procurements with a threshold of \$5,000.00 per unit cost.
- Engage in transportation planning-related travel, administration works to retain prior State and Federal Approval for all travel taking place out-of-state; ensuring all procedures are followed.
- Acquire legal defense/advice with prior State and Federal approval for conformity determinations and other issues as determined to be necessary and reasonable to carry out the metropolitan planning process per 23 CFR 420.113.
- Planning, administration and management to transition of work activities in virtual and hybrid-work in post-pandemic work environment.

1.1b Unified Planning Work Program Development

- Maintain the 2022-2023 Unified Planning Work Program (UPWP), reflecting current plans, programs, and regional priorities, by amendments approved by the TPC, TxDOT, FHWA, and FTA.
- Develop and adopt the 2024-2025 UPWP per schedule determined by staff in coordination with other transportation partnering agencies.

Subtask 1.2 Public Involvement and Outreach Program

MPO staff engages in an ongoing, inclusive, and active public involvement process for transportation planning. The goals and objectives of the public involvement process are described in the Public Participation Plan, with the primary objective to provide timely, accurate, and complete information to the public on important transportation issues and solicit feedback as appropriate. Fulfilling this objective requires the continuous development of visualization techniques, educational materials, transportation websites, newsletters, and other public outreach activities.

1.2a Public Involvement

- Conduct public outreach activities and provide administrative and outreach support for public meetings that correspond with current and future transportation projects, plans, and studies by publishing legal notices, press releases and advertisements, conducting public meeting arrangements, slideshow presentation and production, and development of educational materials for distribution at the meetings.
- Online engagement tools/platforms/software, including surveys and/or polling, may be used on various projects within the region to increase regional residents' participation.
- Provide public information on regional transportation issues through a multitude of outreach activities including public meetings, television, radio, digital and social media, and print.
- Solicit public comments on transportation programs, projects, and policies and to respond to public comment in a timely fashion.

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- Create graphics and other visualization components to deliver information to interested parties through digital media communications including websites, webinars, social media, video and audio technologies, and photography. Develop and maintain listservs and community contact lists to ensure adequate distribution and notices of public meetings and materials to interested parties.
- Provide live-streaming of Transportation Policy Committee meetings and other meetings and events as determined.
- Develop partnerships with community organizations to provide public information on regional transportation issues, projects, and studies.
- Conduct a hurricane preparedness public outreach campaign to promote the Together Against the Weather program and the zip zone maps. (TPF)

1.2b Public Policy and Governmental Affairs

- Provide MPO comments to federal and state agencies regarding proposed rules as part of the rule-making process.
- Organize seminars, peer exchanges, and peer reviews as necessary to facilitate communication between MPOs, federal, state, and local agencies.
- Provide outreach support including briefings and printed materials for policymakers on federal and state issues relevant to the regional transportation planning process.

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Task 1.0 - FY 2022-2023

Subtask	Responsible Agency	TPF		STBG		Local		Total	
		2022	2023	2022	2023	2022	2023	2022	2023
1.1	MPO	\$3,225,713	\$3,503,570	-----	-----	-----	-----	\$3,225,713	\$3,503,570
1.2	MPO	\$788,586	\$810,566	-----	-----	-----	-----	\$788,586	\$810,566
	Total	\$4,014,298	\$4,314,136	-----	-----	-----	-----	\$4,014,298	\$4,314,136

¹ TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds. TxDOT will apply transportation development credits sufficient to provide the match for TPF. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.

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TASK II Data Development and Maintenance

The purposes of the activities listed under Task II is to collect, update, model and maintain the basic data and tools required for executing the planning activities described in this document.

Objectives:

- To collect, process, and analyze demographic, socioeconomic, and land use data to develop and implement regional transportation plans and systems.
- To develop and maintain interactive web mapping tools and applications in support of regional transportation plans, programs, and projects.
- To develop and maintain travel demand modeling tools and explore advanced practice modeling methods that enhance the region's capabilities for regional, sub regional, and corridor planning and analysis.
- To participate in data collection efforts of other transportation agencies in the region to expedite the sharing of roadway inventory data and candidate roadway project information between various transportation agencies.
- To maintain a regional database clearinghouse on the H-GAC Transportation web site to provide easier access to the large quantities of data generated by the various transportation agencies.

Expected Products:

- Socioeconomic databases maintained by staff will be used in transportation planning and modeling activities.
- Schedule updates of population, employment, and land use forecast data for long range transportation planning.
- Web mapping applications and tools will be used to assist in regional transportation planning activities.
- Traffic simulations for three ongoing sub regional studies (Liberty, Southeast Harris County, and Montgomery County Precinct 2).
- Transportation model validations based on revised freeway traffic counts and speed data.
- Regional travel models that incorporate updated modeling practices and theories as well as new travel survey data.
- A model to analyze the regional societal and economic impact through integrated travel demand forecast and social economic forecast data to improve transportation planning efficiency.
- Cartographic materials in support of public outreach and environmental justice programs.
- Traffic data to be used in base year networks, including Automated Vehicle Identification (AVI), Wavetronix, Bluetooth, private data, LBS and Automatic Traffic Recorder (ATR) data resulting in an improved regional transportation modeling network.

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Previous and Continuing Work:

- Continue to monitor releases of aggregate socioeconomic data from federal and state agencies and other public and private sources. Maintenance and updates on relevant databases with the provided socioeconomic information as needed.
- Continue to maintain and update databases such as the model Buildings and model Parcels base year data.
- Continued updates to the Annual Regional Growth forecast demographic and economic forecasting model as needed.
- Analyzed the impacts of the COVID-19 pandemic on the future of teleworking and land use.
- An interactive web report was published analyzing the impacts of the COVID-19 pandemic on local businesses and their employees.
- Web mapping tools were developed and enhanced which provided quick and easy access to socioeconomic data and assisted in regional planning activities.
- Developed dashboards for Liberty, Southeast Harris County, and Montgomery County Precinct 2 sub-regional studies.
- Developed a scenario-based, regionally integrated, land use-transportation small-area population and employment forecast.
- Continued the enhancement of the GIS capabilities that support Cube Voyager modeling software through customized menus, macros, and programs to perform some repetitive tasks of the 4-step modeling processes.
- Continued the enhancement of mapping and plotting techniques for the display and evaluation of transportation tasks using Geographic Information System (GIS).
- Continued modeling supports for conformity, and various corridor studies within the region using GIS and Cube Voyager GIS functionalities.
- Utilized GIS to support planning activities of the agency to provide technical support and assistance to member agencies; will continue support as needed.
- Conducted traffic speed and count collection on the freeway system to validate travel demand models; will continue activity as needed.
- Continued GIS and modeling support for the regional conformity analysis through added capacity projects development, highway and transit networks development and coding, and the modeling of the various required scenario year.
- Published an interactive web report analyzing the demographic and socioeconomic changes of the region as compared to other major metropolitan areas in the US.
- Published an interactive web report and tool analyzing the job flows to and from the region.

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Subtask 2.1 Socioeconomic Data and Models

Subtask 2.1 addresses the ongoing development of socioeconomic data and socioeconomic forecasting models, along with informational services and analytical support of Transportation planning activities and studies. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

2.1a Socioeconomic Data

- Releases of aggregate socioeconomic data from federal and state agencies, and other public and private sources will be monitored, and staff will maintain and update databases as needed.
- Research, obtaining, and processing of information in the region will include location, timing, and details of planned development projects, and staff will maintain and update databases as needed.
- Research, obtaining, processing, and synthesizing of disaggregate regional data will include information on parcels, buildings, businesses, and households. Staff will maintain and update databases as needed.

2.1b Socioeconomic Models

- Improve and enhance the existing operational version of the demographic, economic and land use forecasting model.
- Produce scheduled updates of population, employment, and land use forecast.
- Develop scenario-based regional integrated “land use-transportation” small-area population and employment forecasts for transportation planning purposes.

2.1c Informational Services and Analytical Support

- Improve and enhance the existing web-based mapping and database query applications allowing easy access to socioeconomic data by transportation partners and public.
- Provide informational services and analytical support to regional transportation agencies, local governments, and their consultants in support of regional transportation planning activities and studies.

Subtask 2.2 Physical Features, Data, and Modeling Support

Subtask 2.2 describes the ongoing development, maintenance, and training activities associated with travel demand data development, mapping, and modeling. This subtask describes efforts directed toward the continued development, enhancement, and maintenance of the MPO’s travel demand models, including the physical collection, entry, preliminary tabulation, GIS-based mapping, maintenance, and analysis of transportation-related data. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

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2.2 a Travel Demand Forecasting

- Development of socioeconomic databases to be used for transportation planning and modeling activities.
- Update population, employment and land use forecast data for long range transportation planning.
- Development of web mapping applications and data dashboards to assist in regional transportation planning activities.
- Conduct collection of traffic speed and classification counts on the freeway system to validate travel demand models.
- Update a regional activity-based model that incorporates updated modeling practices and theories as well as new travel survey data.
- Secure a model to analyze the regional societal and economic impact through integrating travel demand and social economic forecast data to improve transportation planning efficiency.
- Develop cartographic materials in support of public outreach and environmental justice programs.
- Review and assessment of traffic data used in base year networks, including Automated Vehicle Identification (AVI), Wavetronix, Bluetooth, private data and Automatic Traffic Recorder (ATR) data resulting in an improved regional transportation modeling network.
- Development of web-based dashboards using speed counts, safety, employment, and population data.
- Support development of the TIP, RTP, subarea planning studies, and other studies as needed.
- Participate in a VisionEval pooled funding project with AASHTO, FHWA, and other partners for the development of a strategic model capable of assessing emerging challenges such as shared mobility, automated vehicles, and roadway pricing policies.
- A consultant will be utilized to assist with the non-motorized quantitative analysis assessment of data needs and development of quantitative tools to create a model-based approach to analyzing non-motorized demand.
- Implementation and support of the Active Transportation Survey, the Transit Origin and Destination survey, and the Regional Travel Survey. (TPF, STBG, and Local)
- A consultant will be utilized to assist in the development of an export process from GIS to Bentley Voyager software, for model support with traffic data and analysis, and the implementation of the Regional Travel Survey for data collection and analysis for the region.
- Several tools will be developed, implemented, and supported to execute analysis and collection of various survey and other types of regional data to be used in models, dashboards, studies, and research for transportation.
 - Implementation of the regional Dynus T model

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- Support the TxDOT modeling efforts such as the Sustainable Mobility Alternatives for the Region Transportation (SMART) model
- Utilize ARCPro-GIS software, MS2 software, REMI software, AIMSUN software, Bentley (Voyager Cube) software, and PTV-Vissim software on various data analysis, modeling, and mapping tasks.

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Task 2.0 - FY 2022-2023

Subtask	Responsible Agency	TPF		STBG		Local		Total	
		2022	2023	2022	2023	2022	2023	2022	2023
2.1	MPO	\$1,101,660	\$1,158,217	-----	-----	-----	-----	\$1,101,660	\$1,158,217
2.2	MPO	\$2,775,994	\$2,853,350	\$374,028	\$374,028	\$400,000	-----	\$3,550,022	\$3,227,378
	Total	\$3,877,654	\$4,011,567	\$374,028	\$374,028	\$400,000	-----	\$4,651,682	\$4,385,595

¹ TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds. TxDOT will apply transportation development credits sufficient to provide the match for TPF. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.

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TASK III Short-Range Planning

Short-range planning efforts will be focused on the continued coordination and development of Transit and Transportation Demand Management (TDM) projects, maintenance of the Regional Intelligent Transportation System (ITS), efforts to improve traffic safety in the region, the development of the Transportation Improvement Program (TIP), sub-regional or county-level mobility studies, transit feasibility studies, and operations planning.

Objectives:

- To support the development of short-range transportation planning consistent with federal planning and air quality requirements.
- To facilitate the implementation of transportation projects and programs in the TIP through coordination and consultation with local agencies.
- To involve the private sector in the planning of transit services and the joint development of transit facilities.
- To maintain and enhance the transportation project database.
- To assist transit providers and local government partners in their implementation of priorities established in the Regional Transportation Plan and other regional transit planning products. #
- To use strategies that proactively improve mobility for all modes of transportation by integrating planning and design, with operations and maintenance, to holistically manage the transportation network and optimize existing infrastructure. This subtask will assist in:
 - Improving quality of life
 - Providing Smoother and more reliable traffic flow
 - Improving safety
 - Reducing congestion
 - Wasting less fuel
 - Provide Cleaner air
 - Increasing economic vitality
 - More efficient use of resources (facilities, funding)
- To provide information to the region concerning performance measures, regional crash experiences, and about the various efforts to address traffic related crashes.
- To use the Crash Record Information System (CRIS) to aid regional agencies in examining safety issues.
- To promote traffic safety in the region through research studies, public outreach, and Transportation Safety Committee meetings.
- To promote and support regional hurricane evacuation efforts through web-based evacuation maps, zip zone and evacuation route maps, and public outreach for hurricane preparedness.

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Expected Products:

- The developed TIP and the RTP project tracking system.
- Amendments and maintenance to the 2019-2022 TIP.
- The development of the 2023-2026 TIP.
- The ten-year plan maintained for the uses of funding allocated to the region; consistent with the TIP and RTP.
- An enhanced Call for Projects and Project Evaluation processes.
- Completion of the Call for Projects and TPC approval of awards.
- The provision of assistance to local governments for environmental analyses of projects.
- General Transit Feed Specification Files for Regional Transit Agencies needing assistance. #
- Assessments of Regional Transit Agencies for Regional Transit Connectivity Coordination. #
- Expansion of the Regional Quick Clearance Towing Program; Tow and Go.
- An implemented Traffic Incident Management Training for first responders in the region.
- Quarterly meetings for the Transportation Systems Maintenance and Operations Subcommittee for the TAC.
- An update to the Annual Safety Performance Measures.
- An annual State of Safety in the Region report, summarizing the regional crash experience and various efforts to address traffic-related crashes in the region.
- Trainings and workshops on safety-related issues for agencies and regional implementers; if available or needed.
- Research and analyze crash data from TxDOT's Crash Record Information System (CRIS) and assist agencies in assessing traffic safety problems with CRIS data.
- Safety Audits on candidate intersections.
- A public outreach campaign for traffic safety in the region, including but not limited, distracted driving, driving while intoxicated, and speeding.
- Transportation Safety Committee meetings at least three times a year.
- A web-based evacuation map, to track local law enforcement and transportation resource deployments at traffic control points during a hurricane evacuation.
- Updated zip zone and evacuation route maps for the region.
- Public outreach campaign on hurricane preparedness and evacuations

Previous and Continuing Work:

- Facilitated the development and creation of the Strategic Regional Transportation Fund which the TPC approved in November 2020.
- Worked with the TIP Subcommittee to start the development of the call for projects process including the benefit/cost analysis and the creation of planning factors that will be used to evaluate projects.

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- Completed the development of the 2021-2024 TIP that included over \$8.5 Billion in surface transportation projects to be implemented over the next four years.
- Continued monthly coordination with the TxDOT Houston and Beaumont Districts and the Federal Highway Administration to discuss the pending TIP and other projects.
- Completed development of the H-GAC ten-year plan in November 2020 which included over \$10B in total funding for surface transportation projects.
- Provided planning support for the Commuter and Transit Pilot Program, including evaluation/monitoring of program design and performance and coordination with potential service providers. #
- Supported designated recipients of FTA formula funds in their annual development of programs of projects. #
- Maintained the Regional ITS Architecture, the Regional Database of ITS Devices, and the Regional Database of Traffic Signals.
- Operated the Regional Quick Clearance Towing Program; “Tow and Go TM”.
- Provided Traffic Incident Management Training to first responders.
- Hosted Quarterly Meetings for the Transportation Systems Maintenance and Operations Sub-committee for the Transportation Advisory Committee.
- Provided technical expertise to on ITS and Incident Management.
- Produced Safety Performance Measures for the region.
- Produced a State of Safety in the Region report, summarizing the regional crash experience and various efforts to address traffic-related crashes in the region.
- Coordinated trainings and workshops on safety-related issues for local governments and other interested agencies.
- Researched and analyzed crash data from TxDOT’s Crash Record Information System (CRIS). Assisted agencies within the region in assessing problem locations with CRIS data.
- Selected a contractor to conduct Safety Audits on high crash intersections.
- Completed materials for a public outreach campaign involving traffic safety in the region.
- Purchased digital advertising including a website, social media partnerships, email blasts, streaming services, billboards, and radio advertising.
- Conducted Transportation Safety Committee meetings at least three times a year.
- Maintained a web-based evacuation map, to track local law enforcement and transportation resource deployments at traffic control points during a hurricane evacuation.
- Updated the Zip Zone and Evacuation Route maps for the region.
- Completed a public outreach campaign on hurricane preparedness for hurricane evacuations and information on the Zip Zone Maps Evacuation Zones through social media, radio advertisement, billboards, and other means.
- Worked with State and Local Governments before, during, and after hurricane evacuations.

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Subtask 3.1 Transportation Project Programming

As the MPO, H-GAC is responsible for the coordination and programming of federal and state transportation funds allocated to the region with the state, providers of public transportation and local governments. In addition, H-GAC plans and programs include all regionally significant transportation investments, regardless of funding source. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

3.1a Transportation Improvement Program

The Transportation Improvement Program (TIP) is a cooperatively developed, four-year program outlining transit, highway, and traffic improvements, as well as other transportation- and air quality-related activities within the MPO planning area. The purpose of the TIP is to inform the public regarding the commitment of funds to implement transportation improvement projects, including those selected by the TPC. The TIP must be consistent with the Regional Transportation Plan, conform to adopted vehicle emissions reduction targets, and be financially constrained within reasonable estimates of federal, state, and local revenues for the four-year time frame.

- Develop and maintain the TIP including the development of the initial document and required amendments.
- Analyze proposed amendments to the current TIP for conformity implications, financial impact, and administrative changes.
- Consistent with the TIP and RTP, maintain a 10-year plan for the use of funding allocated to the region.
- Produce electronic and printed materials to illustrate the projects and programs funded in the Ten-Year Plan.

3.1b Project Evaluation and Prioritization

The MPO works with the state and project sponsors to consider project funding requests using evaluation criteria developed through the coordinated planning process. This includes consideration of project benefits using quantitative analysis and qualitative factors, anticipated project costs, and the suitability and readiness of projects to be successfully delivered under federal and state requirements.

- Re-assess and modify the Call for Projects processes including submission requirements, readiness determination, timing, and project evaluation criteria.
- Conduct Call for Projects, evaluate applications, and facilitate the project approval process by TAC and TPC.
- A consultant will be used to assist in the review cost estimates for surface transportation projects submitted in the call for projects.
- Staff will coordinate with TxDOT regarding statewide project evaluation and selection processes.

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- Presentations will be provided, and workshops conducted to inform potential project sponsors on project funding opportunities and evaluation requirements.
- The Regional Strategic Transportation Fund will be administered to support lower-cost high impact transportation projects and to improve funding flexibility.

3.1c Project Tracking, Monitoring, and Supports

As the MPO, H-GAC maintains a database of project information to support production of TIP, Ten-Year Plan and RTP documentation and to track the progress of projects toward implementation. The project database is linked to internal and external data sources and provides content to the H-GAC and partner agency websites. H-GAC requires sponsors to provide regular updates on the status of their projects and maintains systems to collect and analyze this information. H-GAC also conducts project development educational workshops to share information and best-practices with partner agencies with the aim of improving on-time on-budget project delivery.

- A consultant will be used to develop and improve of the online project information database to allow for enhanced project tracking and access by member agencies.
- Quarterly tracking and reporting of the development status on projects using information from available databases and sponsor data requests.
- Provide planning assistance to local governments in the development of candidate and selected TIP projects with the objective of accelerating project delivery and reducing unanticipated changes in project scope and cost.
- Reporting on the progress of TIP projects through the annual reports for the Listing of Obligated Projects, Transportation Development Credits, Congestion Mitigation and Air Quality, and Transportation Alternatives Set-Asides through a Quarterly Milestone Report. (TPF)

Subtask 3.2 Planning Support for Transit Service Implementation

The MPO provides a forum for coordination between the providers of public transportation within the region and the development of new and expanded transit services. These short-term focused efforts assist transit providers and local government partners in their implementation of priorities established in the Regional Transportation Plan and other regional transit planning products. This subtask includes the identification of eligible planning activities performed by transit providers using Urbanized Area (5307) federal transit formula funds.

- Provide planning support for the Commuter and Transit Pilot Program including evaluation/monitoring of program design and performance and coordination with potential service providers.
- A consultant will be utilized to evaluate the effectiveness of new innovative mobility options for local governments and transit agencies that promote and enhance regional connectivity.

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- Support designated recipients of FTA formula funds in their annual development of programs of projects. Current designated recipients are shown below.
- Planning projects performed by transit providers using FTA 5307 funds. Eligible project activities include, but are not limited to, system planning, project planning and preliminary engineering, maintenance plans, asset management plans, safety plans, and management and operation studies. The following table reflects both the ongoing work and special projects (e.g. special planning studies, major data collection/surveys, planning for specific capital projects, etc.) conducted by regional transit agencies.
- The Coronavirus Aid, Relief, and Economic Security Act (CARES), was established to allow the allocation of funds in support for public transit through FTA to assist with the public health emergency. FTA will reimburse any actual, eligible expenses incurred on or after January 20, 2020 (the date on which the public health emergency was declared), including eligible expenses that may have otherwise been offset by lost revenue. This includes all expenses normally eligible under Urbanized Area Formula Grants (Section 5307), the Formula Grants for Rural Areas Program (Section 5311), or the Enhanced Mobility for Seniors and Individuals with Disabilities Program (Section 5310) that occurred on or after January 20, 2020, at a 100% Federal share.

Area	Designated Recipient(s)	Planning Budget		CARES Funds		Local		Total	
		2022	2023	2022	2023	2022	2023	2022	2023
Lake Jackson/Angleton UZA, Texas City UZA	Gulf Coast Transit District	\$60,000	\$60,000	93,544	93,544	\$0	\$0	\$153,544	\$153,544
Houston UZA	Harris County Transit	\$1,091,010	\$1,313,982	125,000	125,000	\$0	\$0	\$1,216,010	\$1,438,982
Conroe/Woodlands UZA	City of Conroe	\$232,000	\$232,000	102,000	102,000	\$41,250	\$41,250	\$375,250	\$375,250
Conroe/Woodlands UZA	The Woodlands Township	\$175,000	\$175,000	\$0	\$0	\$50,000	\$97,120	\$225,000	\$272,120
Houston UZA	Fort Bend County Transit	\$952,411	\$952,411	\$0	\$0	\$0	\$0	\$952,411	\$952,411
Total:		\$2,510,421	\$2,733,393	\$320,544	\$320,544	\$91,250	\$138,370	\$2,922,215	\$3,192,307

- Gulf Coast Transit planning activities for the areas of Lake Jackson/Angleton UZA and Texas City UZA include:
 - Service line standards for fixed routes.
 - Micro-transit pilot project and project evaluation.
 - Examine the feasibility of expanding district to include the council of governments.
 - Procurement planning-electrification of fleet; fleet planning.

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- Harris County Transit planning activities for the area of Houston UZA include:
 - Grant management, routine service planning, mapping and project planning, interagency and internal data collection.
 - Training for Federal requirements and operational development; engineering and design studies for sidewalks and crosswalk improvements.
 - Other special projects include on board mystery shopper, quality assurance checks, and expansion of services for rides. Additional trainings for federal compliance and safety planning for bus routes and bus operations. Contractor safety plans and safety monitoring.

- City of Conroe planning activities for the areas of Conroe/Woodlands UZA include:
 - An anticipated transportation planning consultant contract annually with a 10% annual increase.
 - A transit Mobility Planner position for the COC Transit Department both expenses reimbursed at 80%, with a total for the three fiscal years being \$696,000.

- The Woodlands Township planning activities for the areas of Conroe/Woodlands UZA areas:
 - FTA administration compliance and reporting, financial planning, transportation planning and operations management, assessments and evaluations of transit program and project, and emergency.
 - Management and safety oversight.

- Fort Bend County Transit planning activities for the area of Houston UZA:
 - General planning activities related to financial, operational, marketing, and reporting activities. Routine transit services studies.
 - Continuation of Rail Study with Gulf Coast Rail District.

Subtask 3.3 Regional Incident Management/Operations and Intelligent Transportation System (ITS) Planning

The aim of Regional Operations Planning is to improve efficiency and safety of the transportation system in the area through deployment of advanced technologies and systems management techniques. Operations strategies and ITS technologies offer benefits ranging from improved safety on the existing transportation infrastructure to enhanced travel information to users of the transportation facilities. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

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3.3a Intelligent Transportation Systems

The MPO has been tasked with the development and maintenance of the ITS Architecture, which provides a blueprint on how the various ITS elements implemented throughout the region interact with each other to allow for improved system operations. With changes in technology, this architecture needs revisiting to better describe the activity and connectivity of these systems.

- Maintain and update information on the regional databases for ITS architecture, ITS devices, and traffic signals.
- Provide technical expertise on ITS for the region.
- A consultant will be utilized to update the Intelligent Transportation System (ITS) Architecture.

3.3b Incident Management

This subtask promotes the continued pursuit and analysis of safety issues as they relate to our long-range planning efforts. These efforts range from the collection of crash data to the sponsoring of planning studies and initiatives to address high crash locations. A multi-disciplinary Regional Safety Council has been developed to bring interested and involved parties to the table to address regional safety in a holistic manner.

- Operate and expand the Regional Quick Clearance Towing Program, Tow and Go, to other areas in the region. (CMAQ and STBG)
- Provide Traffic Incident Management Training to first responders. (STBG)
- Host quarterly meetings for Transportation Systems Maintenance and Operations subcommittee for the Transportation Advisory Committee. (TPF)

Subtask 3.4 Safety Planning

This subtask promotes the continued pursuit and analysis of safety issues as they relate to our long-range planning efforts. These efforts range from the collection of crash data to the sponsoring of planning studies and initiatives to address high crash locations. A multi-disciplinary Transportation Safety Committee has been developed to bring interested and involved parties to the table to address regional safety in a holistic manner. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

3.4a Safety Data, Analysis, Reporting, and Planning

- Research and data collection to update the annual Safety Performance Measures.
- Research and data collection to produce the annual State of the Safety in the Region report, summarizing the regional crash experience and various effects to address traffic-related crashes in the region.
- Research and analyze crash data from TxDOT's CRIS to assist agencies in assessing traffic safety problems in the region.

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- Developing and conducting Safety Audits on candidate intersections within the region to address safety issues that have occurred in or near traffic intersections chosen. (TPF and STBG)

3.4b Safety Outreach

- Conduct a safety public outreach campaign that addresses distracted driving, speeding, and driving while intoxicated through various types of media such as digital advertising, website, social media, email blasts, billboards, radio advertising, etc. (TPF and STBG)
- Coordinate trainings and workshops on safety related issues for agencies and regional implementers. (TPF and STBG)
- Conduct a region wide Transportation Safety Committee at least three times a year.

Subtask 3.5 Evacuation Planning

The massive evacuation from the Houston metropolitan area in response to Hurricane Rita brought into sharp focus the difficulties in evacuating the metropolitan region efficiently and safely. Past planning activities have focused on traffic operations, communications and logistics. Operational improvements have focused on accident detection and management, changes in transit vehicle routing and scheduling, the elimination of bottlenecks at specific intersections and contra- flow lane operations. Current activities have included improving communications with the public and within the emergency response community. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

- Development and maintenance of a Web Based Evacuation Map and the Zip Zone and Evacuation Route maps for the region.
- Provide public outreach to the region on hurricane preparedness and evacuations through social media, radio advertisement, print, billboards, etc.
- Work with state and local governments in planning before, during, and after hurricane evacuations.

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Task 3.0 - FY 2022 – 2023

Subtask	Responsible Agency	TPF		FTA Sect. 5307		FTA Sect. 5310		5307 CARES Funds		STBG		Other Funds CMAQ		Local Funds		Total	
		2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
3.1	MPO	\$528,885	\$590,819	----	----	----	----	----	----	----	----	----	----	----	----	\$528,885	\$590,819
3.2	MPO/FTA	\$38,117	\$39,742	\$2,510,421	\$2,733,393	\$25,000	----	\$320,544	\$320,544	----	----	----	----	\$91,250	\$138,370	\$2,922,215	\$3,192,307
3.3	MPO	\$176,938	\$178,379	----	----	----	----	----	----	\$5,040,000	\$8,000,000	\$3,000,000	\$1,000,000	----	----	\$8,216,938	\$9,178,379
3.4	MPO	\$123,175	\$129,297	----	----	----	----	----	----	\$760,000	\$280,000	----	----	----	----	\$883,175	\$409,297
3.5	MPO	\$43,066	\$74,420	----	----	----	----	----	----	----	----	----	----	----	----	\$43,066	\$74,420
	Total	\$910,181	\$1,012,657	\$2,510,421	\$2,733,393	\$25,000	----	\$320,544	\$320,544	\$5,800,000	\$8,280,000	\$3,000,000	\$1,000,000	\$91,250	\$138,370	\$12,594,279	\$13,445,222

*TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds. TxDOT will apply transportation development credits sufficient to provide the match for TPF. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.

***STBG and “Other Funds” are implementation programs for subtask 3.3

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TASK IV Long-Range Planning

The work elements contained in Task IV include the development and maintenance of the RTP as well as ongoing initiatives regarding transportation-related air quality planning, regional bicycle and pedestrian planning, activities involving the MPO's Livable Centers program, and Transportation Performance Management (TPM) activities.

Objectives:

- To develop an update to the RTP.
- To develop project selection criteria, project evaluation measures, and performance measures.
- To address federal performance-based planning requirements including the adoption of performance measure targets in the areas of system condition, safety, congestion and air quality, and freight.
- To comply with the Clean air Act as outlined in the State implementation Plan (SIP), its development and revisions, and to provide implementation assistance for local governments.
- To provide local governments with information regarding the strategies, alternatives, implications, and consequences of SIP measures
- To develop and/or update mobile emission inventories and participate in the establishment of emissions budgets for ozone precursors emitted by the region's transportation system.
- To develop regional, sub-regional, and local area plans with continued emphasis on analyses of alternative land use and transportation system development scenarios, safety, and security related projects, goods movement, and regional public transportation needs.
- To support state level freight planning efforts by attending and supporting the Texas Freight Advisory Committee meetings and other state level efforts.
- To conduct freight education outreach efforts including engaging shippers, intermodal interests, freight stakeholders, and the public through quarterly meeting of the Greater Houston Freight Committee.
- To conduct mobility and access management studies to assist local governments to mitigate congestion and improve safety.
- To work with local governments to conduct TOD planning to improve first-mile/last-mile connections and improve economic potential of station areas.
- To promote public involvement and communication in 'best practices' for land use/transportation coordination.
- To develop additional Livable Centers plans and projects, assisting local governments in creating quality mixed-use places that reduce dependence on single-occupancy vehicles.
- To address federal performance-based planning requirements by the adoption of performance measure targets and reporting on the progress of achieving targets in the

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areas of safety, travel reliability, congestion, air quality, freight and the asset management of pavement, bridges, and public transportation.

- To develop performance measures used to gauge potential projects (project selection), project performance (project evaluation), plan performance (plan evaluation), and planning process performance (planning process evaluation).
- To Implement a performance-based planning process to move the region's transportation system to improved performance and better conditions: improving safety, maintaining infrastructure conditions and a state of good repair, reducing traffic congestion, improving the safety of public transportation, air quality and the efficiency of the system and freight movement.
- To support planning projects and strategies that have the ability to decrease the share of trips made by single-occupancy vehicles and increase connectivity, quality and access for walking, biking, telework, vanpool, carpool, and transit. #
- To develop and maintain the congestion management process (CMP) and monitor performance; work with transportation team members to integrate into the RTP and project selection for the TIP. #
- To address federal performance-based planning requirements including the adoption of performance measure targets related to transit asset management and public transportation safety. #

Expected Products

- An updated 2050 RTP which will consider the prioritization of candidate projects for inclusion into the plan's recommendations, updated future revenue estimates, and consideration of alternative funding scenarios.
- An updated H-GAC Financial Model to be used in the development of the next RTP.
- Regional project sponsor assistance with project development and environmental mitigation planning activities.
- State Implementation Plan (SIP) development, coordination, and implementation efforts.
- Support for air quality projects for local governments.
- A sub-regional mobility study for Montgomery County Precinct 2.
- A sub-regional mobility study for Liberty County.
- A sub-regional mobility study for a portion of Southeast Harris County including portions of the cities of Houston, South Houston, Pasadena, Deer Park, and La Porte.
- Various Mobility and Thoroughfare Plans throughout the region
- Significant progress or completion of the North Houston Communities Transportation Priorities Plan.
- An update of the 2013 Regional Goods Movement Plan.
- A Transit-Oriented Development (TOD) guide for the region and an online tool to evaluate potential success of TOD implementation in geographic areas based on evaluation criteria including physical and demographic features.

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- Livable Centers studies to assist local areas in creating walkable, mixed-use places that provide transportation options.
- Targets for improving the performance of the transportation system and reports on the progress of achieving targets.
- Additional performance measures in support of the TIP, RTP, and other regional priorities.
- Two and four-year performance targets and updated Performance Measures Progress Report.
- Report on performance progress towards the federal and regional safety targets and goals annually.
- Updated Performance Measures Scorecard webpage for reporting progress of the transportation system and for the purposes of engaging and informing the public.
- Updated Congestion Mitigation Air Quality (CMAQ) Performance Plan in 2022.
- Up to four Bicycle/Pedestrian Local Active Transportation studies, that will assist local entities, in identifying areas with high potential to increase the walking and bike mode share. #
- An updated Regional Bikeways Map with layers that include presence/absence and quality data. #
- An updated Regional Sidewalks Map. #
- Procurement of bike/pedestrian permanent and mobile counters. #
- A developed and implemented mobile counter training.#
- Bicycle Safety Courses, both virtually and in-person, throughout the eight-county region.#
- The production of regular Bike and Pedestrian Count Reports. #
- Feasibility study and needs assessment for a regional bike highway. #
- The 2022-2026 Regionally Coordinated Transportation Plan.#
- A long-range Regional Transit plan. #
- Coordination and support for recommendations resulting from the Regionally Coordinated Transportation Plan (RCTP). #
- Local area transit needs assessments and/or feasibility studies. #
- Regional targets for transit asset management and public transportation agency safety plans.#
- An updated Regional Congestion Management process.#
- The 2050 Active Transportation Plan #

Previous and Continuing Work

- Development of the 2045 RTP and anticipate TPC action was finalized and completed in May 2019.
- Updated the RTP financial model with results incorporated into the 2045 RTP.

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- Continue the development of the RTP amendment process that began in December 2020.
- Provided ongoing support to the Regional Air Quality Planning Advisory Committee (RAQPAC), its Executive Committee, and other air quality subcommittees.
- Completed and published the 2018 Air Quality Initiatives Report.
- Surveyed intercity tour, transit, and school buses for fleet and vehicle size, fuel usage, and age distribution to determine inventory share of emissions.
- Completed updates to the RTP that include existing and future transportation corridors that have been identified in state, county, and city thoroughfare plans.
- Brazoria County Thoroughfare Plan was successfully completed and adopted by the Brazoria County Commissioners Court in August 2020.
- The Ports Area Mobility Study was successfully completed in January 2020.
- The Waller County Transportation Plan was completed in May 2019 and adopted by the Waller County Commissioners Court in January 2020.
- Contract management activities for sub-regional studies and thoroughfare plans.
- The Spring Branch Trail Study was completed in January 2020 in partnership with the Spring Branch Management District.
- Maintenance of the H-GAC RTP.
- Worked with project Livable Centers study sponsors to prioritize projects and promote development patterns that improve safety, increase access to high speed transit, encourage walking and bicyclist opportunities, and support environmental justice. Provided technical assistance and developed tools to advance said priority projects and initiatives.
- Conducted one-on-one meetings with past and current Livable Center project sponsors to ascertain opportunities and barriers to moving projects forward. Assistance provided may include status review of study recommendations, identification of ‘Instant [60] Impact’ (small-scale, low-cost demonstration) projects, and the coordination of the infrastructure design and construction to ensure investments yield multiple benefits (e.g., providing broadband internet lines to underserved areas during roadway construction).
- Developed a database that tracks and maps the implementation of projects and their status including potential internal H-GAC partnerships and external partnerships.
- Developed resource guide for local governments on regulatory and permitting practices that can advance Livable Center principles. Topics may include management of potentially incompatible land uses, promotion of active ground floor uses, and activation and usage of public spaces.
- Conduct workshops for local government staff and officials on coordinating land use implementation strategies such as property acquisition and assembly, incentives, and regulations with the design of multimodal transportation facilities that improve safety for all users.

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- Assisted project sponsors by achieving project readiness for TIP eligibility and other funding sources. Support included planning related assistance for environmental processes, planning level costs, and partnership development.
- Provided technical assistance and data to support the development of Livable Center project evaluation for future RTP and TIP updates, as well as other funding programs.
- Conducted Livable Centers Call for Planning Study Partners. New study applications were received and evaluated for future funding consideration. Handled procurement of consulting services and project management.
- Consultants were utilized to conduct Livable Centers Studies in conjunction with local project sponsors. Studies provide a framework for promoting efficient use of existing infrastructure, creating multi-modal travel choices; improving.
- Gathered performance data of current conditions, formulated a quantitative forecast, set targets for improving the performance of the transportation system; monitored the conditions, reported target achievement, and adjusted targets. This work was documented in Appendix B of the 2021-2024 Transportation Improvement program and Appendix P of the 2045 Regional Transportation Plan.
- Coordinated with TxDOT, local governments, and providers of public transportation to select and adjust regional performance targets.
- Created a Performance Measures Scorecard webpage for reporting progress and for the purposes of engaging and informing the public.
- Reviewed and adjusted performance targets and reported the progress towards meeting the targets at the mid-point of the performance period.
- Collaborated and coordinated with the providers of public transportation, TxDOT and developed and set the initial Public Transportation Safety Plan targets for the region.
- Conducted planning to support inter-city buses and ensuring connection to affordable housing and major employment centers.
- Provided monitoring and planning support for the implementation of priority projects identified in the RCTP. Activity included counties adjacent to MPO region, but not beyond 13-county H-GAC region.
- Coordinated with local transit service providers to initiate plans for the development of new or expanded transit services in counties adjacent to Harris County including but not limited to; Brazoria, Fort Bend, Galveston, Liberty, Montgomery and Waller Counties (where feasible).#
- Provided analysis and recommendations to improve transportation connections to regional destinations.
- Continued to be available to support TxDOT's study to assess access for commuter # and high-speed rail on US 290 to an intermodal terminal within the Central Business # District.#
- Began updating the RCTP to examine connectivity and coordination between public, private-profit, and private non-profit transportation providers.

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- Initiated TOD Corridor Data Collection and Interactive Web Mapping to capture accurate data related to demographics, employment, housing, transit, ridership, land values in existing and future HCT corridors, and rail station areas to assist cities, transit agencies, developers, and other stakeholders in identifying development trends and opportunities.
- Identified employment hubs with a higher likelihood of active transportation use. #
- Began work to create a regional pedestrian and bicycle safety action plan.
- Worked with a consultant to conduct regular classes for both motorists and bicyclists to spread awareness about safe travel behaviors throughout the region. #
- Shared resources on best practices for local governments and other transportation agencies on topics such as: innovative bicycle/pedestrian policies, programs, and practices related to design and maintenance for pedestrian and bicyclist facilities; improving connectivity; project management; cost estimation; ADA Transition Plans; Vision Zero strategies; Complete Streets policies; first- and last-mile connections to transit; intelligent transportation systems (ITS) that improve safety for active transportation users; Safe Routes to School strategies; and pedestrian and bicyclist safety generally.
- Coordinated with and provided feedback to CAV initiatives in the region.
- Assisted METRO and Texas Southern University and Automated Vehicle pilot project, including evaluation of patronage, operation, and potential expansion.
- Completed planning for a multimodal network connectivity pilot project working with the City of Sugar Land and METRO. #
- Worked with local governments and other transportation agencies to improve the accuracy of existing pedestrian and bicycle mapping tools. #
- Worked to grow and improve the pedestrian and bicycle counter program. #
- Coordinated regular pedestrian and bicycle counts at locations throughout the TMA. #
- Maintained existing counter technology and purchase additional devices as needed. #
- Developed a method for accepting and processing regular counter requests that #
- meet the needs of H-GAC and local stakeholders. #
- Provided technical assistance to local governments and other transportation agencies to identify bicycle and pedestrian issues, opportunities, needs and barriers, and aid in project planning and conceptual design. #
- Conducted on Active Transportation Plan to identify specific infrastructure improvements for pedestrian and bicyclist mobility. #
- Conducted consultant contract management and oversight activities for Active Transportation Plans.#

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Subtask 4.1 Regional Transportation Plan and Project Planning

The following subtasks describe the activities related to the Regional Transportation Plan and project planning. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

4.1a Regional Transportation Plan (RTP) Development

As the designated MPO for the region, H-GAC is responsible for developing and maintaining a long-range transportation plan that establishes goals and objectives, articulates priority areas of investment, and coordinates local and state efforts to improve the performance of the regional transportation system. Key tasks for the RTP development include:

- Public outreach strategy development that solicits input throughout the updating process from required planning stakeholders and the general public through surveying and commenting opportunities. A public engagement software or consultant may be used.
- Updates to the vision and goal statements
- Use of performance measures for identifying needs and evaluating current and future system performance and investment effectiveness.
- Updates for populations, employment, household, land use, and traffic forecast scenarios.
- Incorporating regional transit investments and identifying additional needs and opportunities.
- Utilization of objective scoring criteria for long-range planning and prioritization efforts that aligns with the regional vision, goals, and performance measures.
- Estimates of reasonably available federal, state, and local revenues, as described in subtask 4.1b, to use for the long-range implementation schedule.
- Recommendation for a fiscally constrained implementation schedule of projects and programs that align with the regional vision and goals.
- Recommendations for a list of studies and planning needs and an illustrative list of unfunded projects and programs that could be implemented if funding becomes available.
- Determination of air quality conformity development with regional air quality goals.
- Monitoring changes to planning and project assumptions and amend the RTP as necessary.

4.1b Financial Planning

The MPO undertakes several efforts to understand federal state and local investment in transportation and to support the development of financially constrained plans and programs. This includes the development of financial models and the study of specific revenue measures and financing strategies to inform regional and local decision-making.

- Update and maintain the financial model used to reflect data from current financial reports and reasonable future revenue sources.

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- Provide planning support to local governments and transportation agencies to evaluate the use of innovative funding strategies.

4.1c Project Development and Mitigation Planning

The MPO supports the sponsor evaluation of project alternatives during the planning and environmental review stages of project development to ensure consistency with the RTP and consider regional approaches to the mitigation of impacts.

- Provide planning assistance to TxDOT and local governments with the development of pre-environmental and environmental analyses related to proposed projects. Support the enhancement of transportation planning and environmental linkages. Work shall not include any project engineering and design.
- Maintain and update the Eco-Logical Environmental Screening tool.
- Coordinate with the State, resource agencies, and local governments to prepare Regional Mitigation Plans and Implementation Strategies.
- Serve as a resource for planning partners, counties, subrecipients, etc. in meeting Title VI, Environmental Justice (EJ) requirements.
- Conduct planning to support strategies identified in the environmental justice planning report and to address transportation issues that disparately affect environmental justice communities.

Subtask 4.2 Air Quality Planning

Air Quality Planning supports all regional efforts to comply with federal air quality standards, while seeking to preserve the region's transportation needs and economic vitality. The MPO works closely with federal, state, and local officials, planning and regulatory agencies, and area stakeholders to develop on-road mobile emission budgets and emission reduction strategies to demonstrate attainment, model transportation conformity, and monitor and track TCMs, SIP weight of evidence measures, and VMEPs. Some of these measures when needed are included in the on-road emission inventories for the Reasonable Further Progress State Implementation Plan (SIP) and for the Attainment Demonstration SIP. H-GAC provides support and guidance for regional congestion mitigation and air quality improvement programs for compliance with the SIP and federal clean air requirements. #All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

- Develop, coordinate, and participate in responses to state and federal air quality plans and new regulations affecting the region. Examine legal and sanction ramifications regarding different standards for the region.
- Provide coordination, participation, and expertise to local and statewide air quality planning committees.
- Provide support to H-GAC advisory committees and subcommittees such as the Regional Air Quality Planning Committee (RAQPAC) and Transportation Air Quality Subcommittee. Provide information and research regarding current regional air quality

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issues and make recommendations to committee members, the H-GAC Board of Directors and the Transportation Policy Council as necessary.

- Support the development of materials for the SIP; as warranted. This could include working directly in dialog with staff from the Texas Commission on Environmental Quality (TCEQ) as well as with H-GAC advisory committees and subcommittees to develop and advise on local project selection.
- Revise and distribute the Annual Air Quality Initiatives Report.
- Complete annual update of PM2.5 Advance Path Forward Plan. Develop potential control strategies for PM2.5 emissions in response to the needs identified in the revised plan utilizing potential strategies throughout the region.
- Provide training, public relations and/or sponsorship support for air quality technical workshops. Training may include technical training on new EPA emissions models and federal air quality standards. Public outreach activities such as podcasts, webinars, workshops, and newsletters, will be conducted to educate stakeholders and the general public on regional air quality issues.
- A consultant may be utilized to develop a regional greenhouse gas (GHG) inventory for the 8-county region. This will include efforts to identify the primary sectors that contribute regionally to GHG emissions as well as a total inventory for the region by sector. A summary report of these findings will be developed and distributed.
- To implement the engine modification program or the Clean Vehicles Program. (STBG)
- A consultant will be used to understand the current state of emission reduction methodologies used by MPOs to assess and report on CMAQ funded projects. Based on these findings, work with staff and advisory committee members will be done to determine the most appropriate methodology for all types of CMAQ-funded projects. Use the consultant to create an assessment spreadsheet for perspective projects.

Subtask 4.3 Multimodal System Planning

The following subtasks address thoroughfare, freight, and sub-regional planning activities. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

4.3a Thoroughfare Planning

The objective of this subtask is to undertake planning and coordination of local thoroughfare plans by representing the single source of information that identifies the thoroughfare planning efforts in the region. The Regional Thoroughfare Plan, to be developed, incorporates the primary features of local government thoroughfare planning efforts into a single, comprehensive transportation plan to promote region wide consistency and continuity regarding arterial street alignments and function between jurisdictions to help guide local government thoroughfare planning decisions on facilities that have inter-jurisdictional and regional significance.

- Coordinate with the State and local governments to update thoroughfare plans which includes a review of existing thoroughfare plans and associated policies.

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- Conduct consultant contract management and oversight activities for active thoroughfare studies.
- Online engagement tools/platforms/software, including surveys and/or polling, may be used on various projects within the region to increase regional residents' participation.

4.3b Freight Planning

A major objective of the freight program will be to build freight database, plan for a well-connected freight network, sustain outreach to the local freight community, and to build awareness and expertise among planners and the general public on freight related issues.

- Support state-level freight planning efforts by attending and supporting the Texas Freight Advisory Committee meetings and other state-level efforts as needed.
- Conduct research and provide updates to committees on freight legislation, policies, ordinances, and best practices.
- Monitor and update the Critical Urban Freight Corridors and work with partners to identify deficiencies on the network and potential projects.
- Develop the freight database and create a freight data portal to facilitate the exchange of information.
- Develop and conduct a freight educational outreach effort to engage shippers, intermodal interests, freight stakeholders and the public through quarterly meetings of the Greater Houston Freight Committee. (TPF and STBG)
- Support freight planning efforts conducted by TxDOT such as state-wide freight planning.
- Conduct an update to the 2013 Regional Goods Movement Plan to understand the changes in the freight industry and prepare for increasing freight traffic in our region. A consultant may be used towards study efforts on the 2013 Regional Goods Movement Plan update. (TPF and STBG) A consultant may be utilized to complete this task.

4.3c Sub-Regional Planning Initiatives

The objective of this subtask is to conduct sub-regional planning projects in various counties, cities, or subareas of the region. These projects may include analysis of existing transportation and land uses, stakeholder and public outreach, transportation modeling, scenario development, and development of recommendations for subareas to guide future transportation infrastructure investment. Consultant(s) may be utilized to assist with the following studies below.

- A Liberty County Mobility Study that will examine growth, mobility, and safety for residents. The study will define future investments that will move people and goods from destinations in a safe and efficient manner. (TPF and STBG)
- The Montgomery County Precinct 2 Mobility Study Plan will identify existing and future transportation needs by integrating land use and growth scenarios. This study will explore the short, medium, and long-range transportation investment decisions. (TPF and STBG)

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- The Southeast Harris County Sub-Regional Study will be performed to examine multimodal mobility issues in the southeast Harris County area. (TPF and STBG)
- Conduct consultant contract management and oversight activities for active sub-regional studies. (TPF and STBG)
- Several mobility, and thoroughfare studies will be conducted over the next two fiscal years in which a consultant may be utilized that include: (TPF and STBG)
 - First Ward/Old 6 Ward Mobility Study
 - Chambers County Thoroughfare Plan
 - City of Pearland Thoroughfare Plan
- Conduct North Houston Communities Transportation Priorities Plan. (TPF and STBG)
- Support City of Sugar Land's Mobility Master Plan as needed.
- Conduct mobility and access management studies to assist local governments to mitigate congestion and improve safety. Consultant may be utilized for the various studies. (TPF and STBG)
- Online engagement tools/platforms/software, including surveys and/or polling, may be used on various projects within the region to increase regional residents' participation.

4.3d Transit Oriented Development (TOD) Planning

The objective of this task is to conduct planning activities to support TOD in the region. The task will include coordination activities with local governments and public transportation providers to identify opportunities for Transit Oriented Design in conjunction with their plans for existing and proposed services.

- TOD Corridor Data Collection and Interactive Web Mapping to capture accurate data related to demographics, employment, housing, transit, ridership, and land values in existing and future High-Capacity Transit corridors, high-ridership bus route corridors, and rail station areas to assist cities, transit agencies, developers, and other stakeholders in identifying development trends and opportunities.
- Conduct TOD planning to improve first-mile and last-mile connections, and to improve economic potential of station areas.
- Online engagement tools/platforms/software, including surveys and/or polling, may be used on various projects within the region to increase regional residents' participation.

4.3e Connected and Automated Vehicles

- Conduct research and analysis of emerging technologies related to the planning, implementation, and adoption of autonomous/connect vehicle technology, autonomous freight shuttle technology, and other emerging transportation technologies related to freight and vehicular movement.
- Work on a regional strategy or policy document on automated and connected vehicle technologies.

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- Conduct phase II of the AV Texas Southern University project, connecting Texas Southern University, University of Houston, and the Metro Light Rail System for a University District AV Circulator. A consultant may be utilized to complete phase two of this project. (TPF)

Subtask 4.4 Livable Centers

This subtask provides outreach and technical assistance to local governments and private developers to achieve more efficient coordination between development patterns and the transportation system; to develop policies, plans and projects that will help achieve this objective within MPO Transportation Management Area (TMA). All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

- Conduct one-on-one meetings with past and current Livable Center project sponsors to identify opportunities and barriers associated with project implementation.
- Provide monitoring support for the implementation Livable Centers recommendations. Activities include development of spatial database and online mapping tool. Initial focus will be to populate database with recommendations from most recently completed studies but with the intent to expand database to capture all past and future recommendations.
- Provide technical assistance and develop tools to advance Livable Centers Program priority projects and initiatives. Work with local partners to prioritize projects and promote development patterns that improve safety, encourage walking and bicyclist opportunities, and support environmental justice.
- Provide liaison assistance to facilitate Livable Center partnerships to build institutional capacity of local partners. Prioritize building synergies with existing H-GAC programs and resources including, but not limited to economic development, housing, transit, and workforce development.
- Conduct trainings/workshop to advance coordinated land use implementation strategies such as community reinvestment, equity, property acquisition and assembly, incentives, and regulations with the design of multimodal transportation facilities that improve safety for all users.
- Identify policies, regulations and best management practices that can advance Livable Center principles. Topics may include community reinvestment, equitable housing, aging-in-place, and activation and usage of public spaces.
- Provide technical assistance and data to support the development of Livable Center project evaluation for future RTP and TIP updates, as well as other funding programs.
- Manage Call for Planning Study Partners for full and focused Livable Centers studies. Related activities may include partner solicitation, consultant procurement, project scope development and contract negotiation. (TPF and STBG)
- Conduct Livable Centers Studies in conjunction with local project sponsors. Consultants and H-GAC staff may be utilized for the studies. Provide project management, oversight, and compliance activities. Studies will provide a framework for promoting efficient use

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of existing infrastructure, creating multi-modal travel choices, improving accessibility and circulation, and leveraging private resources for strategic investment. Studies will identify TIP eligible transportation projects and include estimated Vehicle Miles Traveled reductions and air-quality benefits. (TPF, STBG, and Local)

Subtask 4.5 Transportation Performance Measurement

Transportation Performance Management (TPM) is a strategic approach that uses system information to inform investment and policy decision to achieve adopted performance goals. TPM allows H-GAC to gauge system conditions and use, evaluate transportation programs and projects and help decision-makers allocate limited resources more effectively. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

4.5a Performance Measures and Targets

Performance measures are key metrics selected to understand the current, anticipated, and desired level of performance and to illustrate tradeoffs between resource allocation scenarios and investment strategies. For each measure, a targeted level of performance is selected to gauge the effectiveness of actual investments over time. The federal performance measures include safety, the asset management of pavement, bridges, and public transportation, personal and freight travel reliability, congestion, air quality and public transportation safety.

- Determine trends in transportation by gathering and analyzing data and formulate a quantitative forecast. Set targets for improving the performance of the transportation system, and then monitor the conditions, report on the progress of achieving targets, and adjust targets, as needed.
- Coordinate with TxDOT, local governments, and providers of public transportation to collect data for evaluating regional target values for each performance measure.
- Develop additional performance measures in support of the TIP, RTP, and other regional priorities.
- Develop two and four-year performance targets and update the Performance Measures Progress Report included in Appendix B of the 2021-2024 TIP and Appendix P of the 2045 RTP.
- Update the Performance Measures Scorecard webpage for reporting progress of the transportation system and for the purposes of engaging and informing the public.

Subtask 4.6 Travel Demand Management, Transit, Shared and Active Transportation #

This subtask will focus on continued transportation planning for people movement; specifically, to coordinate and increase access to transit, shared, and active transportation modes in the region and to better manage the demand for when, where, how and if we travel. This area focuses on the transit, bicycle, and pedestrian planning as well as carpool, vanpool and telework. Activities in this subtask include existing condition assessments, review and coordination among local transportation plans, technical assistance, capacity building tools and

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activities, coordination with subcommittees, development of recommendations, implementation plans, and performance measures to advance congestion management and shared and active transportation in the region. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

4.6a.1 Transit Planning

- Leverage recommendations from the Regional Transit Framework Study and High Capacity Transit Task Force to develop long-range plans for regional transit coordination, integration, and implementation.
- Consultant assistance may be utilized for the following studies:
 - Conduct a Feasibility Studies to support recommendations from the High Capacity Transit Plan. (TPF and STBG)
 - Provide planning to support expanding transit in the region to improve quality, connectivity, and close gaps in public transportation in the region.
- Online engagement tools/platforms/software, including surveys and/or polling, may be used on various projects within the region to increase regional residents' participation.

4.6a.2 Local Area Transit Studies

- Work with local governments and nonprofits to provide transit feasibility studies and needs assessments to assess community readiness for public transit, and to provide guidance to shape planning and implementation of public transit services in local communities. Consultants may be utilized for these planning studies. #
 - City of Dayton Transit Systems Needs Assessment
 - Gulf Rail District Update to the US90A Commuter Rail Study
- Online engagement tools/platforms/software, including surveys and/or polling, may be used on various projects within the region to increase regional residents' participation.

4.6a.3 Transit Coordinated Planning

The purpose of the RCTP effort is to provide more efficient and effective public transportation services, especially for priority populations including seniors (65 and older), persons with disabilities, persons with low incomes, veterans, youth, and others. This effort includes developing, adopting, implementing and updating a coordinated public transit/human services plan as well as assessing progress of activities called for in the plan. The coordinated plan provides strategies for meeting the public's transportation needs and prioritizes transportation services for funding and implementation.

A consultant may be utilized to conduct the following studies:

- Update the RCTP for 2022-2026, identify, analyze needs, gaps, and inefficiencies in regional human service and public transportation to make recommendations for improvements and better coordination. (TPF and FTA 5304) #

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- Provide planning and coordination support to the region for recommendations resulting from the RCTP, including but not limited to, Mobility Links, Regional Bus, Regional Fare Integration, and Regional Trip Planner. #

4.6a.4 Regional Transit Agency Coordination

- Support planning and service coordination of regional transit agencies that include providing coordination and planning support for recommendations resulting from regional plans, and requirements related to federal funding programs including, but not limited to, FTA 5307, 5310, and 5311 formula funding. #

#

4.6b Pedestrian and Bicycle Planning

The Transportation Policy Council adopted the 2045 Active Transportation Plan, which identifies actions that can be taken to improve the safety, comfort, and convenience of walking and biking. This subtask program support is for the continued implementation of the TPC's adopted policy recommendations which tasks include bicycle pedestrian data collection, mapping, reporting, analysis, outreach, and system planning.

4.6b.1 Pedestrian/Bicycle Data Collection, Mapping, and Reporting

- Collect and share data related to bike and pedestrian activity in the eight-county region by conducting regular counts throughout the TMA and by developing and maintaining online tools to share bike and pedestrian data.
- Maintain and purchase bike and pedestrian counters to meet national best practice for data collection of a region of H-GAC size.
- Update the Regional Bikeways and Regional Sidewalk maps and associated GIS layers.
- Extend bike and sidewalk network data to include information about network quality.
- Conduct surveys to document resident feedback on active transportation use in the region.
- Work with local governments and other transportation agencies to improve the accuracy of existing pedestrian and bicycle mapping tools.

4.6b.2 Pedestrian/Bicycle Planning

- Conduct local active transportation studies in partnership with local governments or nonprofits to improve bike and pedestrian connectivity and safety in the region.

Consultants may be utilized for these studies. (TPF and STBG)#

- Buffalo Bayou Partnership Connecting Buffalo Bayou East#
- City of Friendswood Master Trail Plan#
- Bay Area Bicycle-Pedestrian Safety Plan#
- Energy Corridor District Memorial Drive Bicycle and Pedestrian Study#
- Precinct 2 Bike Safety Plan#
- Provide consultant contract management and oversight activities. (TPF and STBG)#

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- Update the regional active transportation plan by analyzing new demographic, safety, travel and traffic data, updates to related transportation plans and public input. A consultant may be utilized for this task. #
- Create a toolbox to accompany the regional active transportation plan that shares best practices for designing, funding, and building active transportation infrastructure. #
- Conduct a needs assessment and feasibility study for a regional bicycle highway. Develop a plan to support implementation of a regional bike highway in the MPO eight-county region. A Consultant may be utilized to complete this task.
- Conduct a literature review and best practices study of Safe Routes to School (SRTS) including recommendations for the MPOs role in moving SRTS forward in the region. Provide planning support for implementation of SRTS best practices in the region including developing a regional SRTS Plan. Lastly, provide technical support for regional, local area, corridor, and site specific SRTS plans.
- Provide active transportation planning support for regional and local transportation studies, included but not limited to the Pearland Transit Needs Assessment, SE Harris, Montgomery County Precinct 2, Liberty and North Houston Communities Transportation Priorities Plan. (TPF and STBG)
- Online engagement tools/platforms/software, including surveys and/or polling, may be used on various projects within the region to increase regional residents' participation.

4.6b.3 Pedestrian/Bicycle Outreach

- Coordination and support for regional bike month activities. #
- Conduct and support the Pedestrian and Bicycle Subcommittee of the TAC. #
- Coordinate with the internal and external agencies to improve access to bike and pedestrian infrastructure and encourage increased and safe use of bike and pedestrian infrastructure to improve mobility, access to jobs, quality of life, air quality, and congestion. #
- Provide regular trainings for staff and the community regarding the use of and data collection efforts from mobile counters used within the region. #
- Share resources on best practices for local governments and other transportation agencies on topics such as: innovative bicycle/pedestrian policies, programs, and practices related to design and maintenance for pedestrian and bicyclist facilities; improving connectivity; project management; cost estimation; Vision Zero strategies; complete Streets policies; first- and last-mile connections to transit; intelligent transportation systems (ITS) that improve safety for active transportation users; Safe Routes to School strategies; and pedestrian and bicyclist safety generally. #

4.6c Congestion Management Process

The Congestion Management Process (CMP) involves the analysis of system, corridor and segment-level performance data to understand the location, extent and duration congestion

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within the transportation system. Using this data H-GAC informs the selection of performance measure targets related to multimodal congestion and identifies strategies to mitigate and manage congestion. Roadway projects providing additional capacity for single-occupant vehicles are required to conduct an analysis demonstrating alignment with the targeted levels of performance and mitigation strategies.

- Work with internal and external stakeholders to revise the region's congestion management process; including goals and objectives, priority areas and corridors, strategies to be implemented, methods of measuring success, and how the process will integrate with the RTP and TIP.
- Work to annually evaluate the impact of the congestion management process on area congestion.
- Update and maintain the Congestion Management Plan as needed.

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Task 4.0 - FY 2022- 2023

Sub-task	Responsible Agency	TPF		STBG		Other Funds CMAQ		FTA 5304		Local		Total	
		2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
4.1	MPO	\$421,877	\$443,209	----	----	----	----	----	----	----	----	\$421,877	\$443,209
4.2	MPO	\$389,218	\$403,335	----	----	\$7,000,000	\$6,000,000	----	----	----	----	\$7,389,218	\$6,403,335
4.3	MPO	\$529,959	\$553,409	\$2,408,593	\$1,408,593	----	----	----	----	\$110,000	\$110,000	\$3,048,552	\$2,072,002
4.4	MPO, Other Government Agencies	\$339,928	\$353,213	\$583,460	\$630,263	----	----	----	----	----	----	\$923,388	\$983,476
4.5	MPO	\$140,517	\$147,247	----	----	----	----	----	----	----	----	\$140,517	\$147,247
4.6	MPO	\$2,050,866	\$2,438,490	\$875,000	\$1,125,000	\$4,770,000	\$3,400,000	\$100,000	----	\$125,000	\$125,000	\$7,920,866	\$7,088,490
	Total	\$3,872,365	\$4,338,903	\$3,867,053	\$3,163,856	\$11,770,000	\$9,400,000	\$100,000	----	\$235,000	\$235,000	\$19,844,418	\$17,137,759

TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds. TxDOT will apply transportation development credits sufficient to provide the match for TPF. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.
 *** “Other Funds” are implementation programs

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TASK V Special Planning Projects

The special studies of Task V include one-time planning activities such as major corridor studies/analyses focused on tourism and transportation resiliency planning activities.

Objectives:

- To collect and analyze information regarding transportation resiliency. #
- To understand the movement of goods and freight in the transportation network. #
- To analyze information on transportation connections to tourist destinations.#
- To work with local governments on corridor studies within the region.#

Expected Products:

- Incorporation of the 25 Adaptation Strategies identified by the Resilience and Durability to Extreme Weather Pilot Plan into transportation plans and processes. #
- Region-wide Transportation Resiliency Plan to improve resiliency of transportation infrastructure. #
- Development of a Low-Impact Development Toolbox to serve as a resource to encourage sustainable planning, construction, and design of roadways and transportation facilities in the region. #
- Several Corridor Studies throughout the region. #

Previous Work:

- The Resiliency and Durability to Extreme Weather Pilot Study was completed in January 2021 and submitted to the Federal Highway Administration (FHWA). Work on the pilot included a transportation system vulnerability assessment of the 8-county TMA region and development of 25 adaptation strategies. The Pilot resulted in a report submitted to FHWA and a regional resilience tool, which displays the criticality and vulnerability assessment information in an interactive web-based map (<https://datalab.h-gac.com/resilience/>).
- Conducted research to develop a Low-Impact Development Toolbox to serve as a resource to encourage sustainable planning, construction, and design of roadways and transportation facilities in the region (continuing work).

Subtask 5.1 Resiliency Planning

Coordinate resiliency efforts to improve reliability and security of the transportation system to withstand threats from man-made and natural disasters. Region-wide plans will be coordinated with homeland security, disaster preparedness, and post-disaster redevelopment efforts.

Deliverable will be a region-wide transportation resiliency plan. In 2018, H-GAC was selected to participate as one of the FHWA Resilience Pilots to develop Resilience and Durability to Extreme Weather Pilot Program projects. All tasks will be funded by Transportation Planning

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Funds (TPF) unless it is noted otherwise. Consultant may be utilized for the studies.

- Develop a region-wide resiliency plan and performance measures.
- Coordinate regional transportation resiliency policy and legislative recommendations.
- Develop policies and best practices to reduce stormwater impacts on surface transportation.
- Convene resiliency focused workshop(s) on topics such as asset management and performance measures.
- Develop a region wide Low Impact Development study to examine how to cost-effectively integrate low impact development into transportation projects in the Houston area. Develop a toolbox of strategies for low impact development in transportation projects, including maintenance approaches, to allow the Houston region to better adapt to the recent increase in flooding events.
- Online engagement tools/platforms/software, including surveys and/or polling, may be used on various projects within the region to increase regional residents' participation.

5.2 Corridor, Technology, and Special Studies

The following corridor, technology, and special transportation studies will be conducted. All tasks will be funded by Transportation Planning Funds (TPF) unless it is noted otherwise.

- Review scenarios for adoption of new technologies in the Houston-Galveston TMA and potential impacts on mobility and congestion. Identify infrastructure and policy necessary to maximize mobility, congestion management and safety.
- Conduct corridor studies within the region. A consultant may be utilized to assist with these studies: (TPF, STBG, and Local)
 - City of Houston Washington Avenue Corridor Study.
 - City of Pearland FM 518 Corridor Study.
 - Galveston County Cemetery Road Corridor Study.
 - City of Friendswood Planning Phase of Friendswood Lakes Boulevard Extension Corridor Study.
- Online engagement tools/platforms/software, including surveys and/or polling, may be used on various projects within the region to increase regional residents' participation.

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Task 5.0 - FY 2022 – 2023

Subtask	Agency Budget	TPF		STBG		Local		Total	
		2022	2023	2022	2023	2022	2023	2022	2023
5.1	MPO	\$182,604	\$189,276	----	----	----	----	\$182,604	\$189,276
5.2	MPO	\$493,993	\$493,993	\$875,000	\$875,000	\$60,000	\$60,000	\$1,428,993	\$1,428,993
	Total	\$676,597	\$683,269	\$875,000	\$875,000	\$60,000	\$60,000	\$1,611,597	\$1,618,269

TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds. TxDOT will apply transportation development credits sufficient to provide the match for TPF. As the credits reflect neither cash nor man-hours, they are not reflected in the funding tables.

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Summary Table

UPWP Task	Description	TPF Funds		STBG		FTA Sect. 5304, 5307,5310		Other Funds CMAQ		5307 CARES Funds		Local Funds		Total Funds
		2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	Combined
1.0	Administration-Management	\$4,014,298	\$4,314,136	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	\$8,328,435
2.0	Data Development and Maintenance	\$3,877,654	\$4,011,567	\$374,028	\$374,028	-----	-----	-----	-----	-----	-----	\$400,000	-----	\$9,037,277
3.0	Short Range Planning	\$910,181	\$1,012,657	\$5,800,000	\$8,280,000	\$2,535,421	\$2,733,393	\$3,000,000	\$1,000,000	\$320,544	\$320,544	\$91,250	\$138,370	\$26,142,360
4.0	Metropolitan Transportation Plan	\$3,872,365	\$4,338,903	\$3,867,053	\$3,163,856	\$100,000	----	\$11,770,000	\$9,400,000	-----	-----	\$235,000	\$235,000	\$36,982,177
5.0	Special Studies	\$676,597	\$683,269	\$875,000	\$875,000	-----	-----	-----	-----	-----	-----	\$60,000	\$60,000	\$3,229,866
TOTAL		\$13,351,095	\$14,360,532	\$10,916,081	\$12,692,884	\$2,635,421	\$2,733,393	\$14,770,000	\$10,400,000	\$320,544	\$320,544	\$786,250	\$433,370	\$83,720,114

Estimated Combined Transportation Planning Funds	\$27,711,627
Estimated Unexpended Carryover	<u>\$11,500,000</u>
Total TPF	\$39,211,627

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APPENDIX A
COMMITTEE MEMBERSHIP

Houston-Galveston Area Council Unified Planning Work Program

Transportation Policy Council (TPC)

The Transportation Policy Council (TPC) was formed in 1992 to provide policy guidance and overall coordination of the transportation planning activities within the region. The TPC consists of 28 members representing cities and counties, the Texas Department of Transportation (TxDOT), the Metropolitan Transit Authority of Harris County (METRO) one at-large member appointed by the H-GAC Board of Directors representing cities with a population greater than 50,000, and one voting member position for representation from the Gulf Coast Rail District.

All members of the TPC are local elected officials, officials of public agencies that administer or operate major modes of transportation in the Houston-Galveston Transportation Management Area, or appropriate officials of the Texas Department of Transportation. TPC also examines the adequacy and appropriateness of the continuing transportation planning process and reviews various agreements entered into for the execution of transportation planning, including the Unified Planning Work Program (UPWP) and the Transportation Improvement Program (TIP).

Regional Air Quality Planning Advisory Committee (RAQPAC)

The Regional Air Quality Planning Advisory Committee (RAQPAC) is appointed by the H-GAC Board of Directors to assist and advise H-GAC, regional and local governments, transportation organizations and other agencies on air quality issues. The Committee reviews air quality plans for the H-GAC region and recommends actions necessary to improve the region's air quality. RAQPAC includes representatives of local government, public health, transportation, industry, business, environmental organizations and citizens drawn from the eight-county nonattainment area.

Transportation Safety Committee

On October 26, 2018, the Transportation Policy Council changed the name of the Regional Safety Council to the Transportation Safety Committee. The committee was established by the Transportation Policy Council to improve road safety in the region. Membership includes officials from local and State governments, transportation, law enforcement, health care, insurance, trucking, railroads and non-profit organizations involved in safety. The purpose is to promote information-sharing, establish safety goals and performance measures, coordinate safety efforts across the region's jurisdictions, and identify policy issues concerning safety.

Greater Houston Freight Committee (GHFC)

In 2016, the TPC created the Greater Houston Freight Committee with the goal of better incorporating private sector freight user perspectives into the transportation planning process. The Committee, with co-chairs appointed by the TPC, seeks to accomplish this through regular open meeting highlighting relevant industry trends and needs. The Committee has identified a

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locally significant freight roadway network, recommended investment in critical facilities associated with a boom in petrochemical manufacturing and coordinated with Texas Freight Advisory Committee in the updating of the State Freight Mobility Plan.

TPC Officers

Representing	Officer	Alternate
Galveston County	Chairman Ken Clark County Commissioner	Joe Giusti County Commissioner
City of Houston	First Vice Chair David Robinson Council Member	Abbie Kamin Council Member
Waller County	Second Vice Chair Justin Beckendorff County Commissioner, Pct. 4	Walter Smith County Commissioner, Pct. 2
Fort Bend County	Secretary Grady Prestage County Commissioner	Stacy Slawinski, P.E. County Engineer
Brazoria County	Past Chair Matt Sebesta County Judge	David Linder County Commissioner, Pct.4

TPC Members

Representing	Member	Alternate
City of Baytown	Heather Betancourth Council Member, District 4	Brandon Capetillo Mayor
City of Conroe	Thomas Woolley Director, Capital Projects/Engineering	Chris Bogert City Engineer
City of Galveston	David Collins Council Member, District 2	John Paul Listowski Council Member, District 2
City of Houston	Carolyn Evans-Shabazz Council Member	Sallie Alcorn Council Member
City of Houston	Carol Haddock, P.E. Director Houston Public Works	Veronica O. Davis, P.E. Deputy Director Houston Public Works
City of League City	Larry Millican Council Member	Andy Mann Council Member

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City of Missouri City	Shashi Kumar Director, Public Works	Clifford Brouhard Assistant Director, Public Works
City of Pasadena	Cary Bass Council Member	James Rodriguez Chief of Staff
City of Pearland	Kevin Cole Mayor	Tom Reid Mayor Emeritus
City of Sugar Land	Joe Zimmerman Mayor	Jennifer Lane Council Member, At-Large, Pos. 2
City of Texas City	Dedrick Johnson Mayor	Doug Kneupper, P.E. Director, Transportation & Planning
Chambers County	Billy Combs County Commissioner, Pct. 4	Cory Taylor County Engineer
Harris County	Adrian Garcia County Commissioner, Pct. 2	Milton Rahman Director, Engineering
Harris County	Lina Hidalgo County Judge	John Blount County Engineer
Liberty County	David Douglas Engineering Administrator	Jay Knight County Judge
Montgomery County	Mark Keough County Judge	James Metts County Commissioner, Pct. 4
Gulf Coast Rail District	Carol Lewis Chairman, GCRD	Jeff Ross Board Member, GCRD
METRO	Carrin Patman Chair, Board of Directors	Thomas Lambert President/CEO
Smaller Cities, Harris County	Nancy Arnold Council Member, City of Waller	(Vacant)
H-GAC At-Large	Chuck Wemple Executive Director	Jeff Taebel Director, Community/Environmental
Other Transportation Interests	Roger Guenther Executive Director, Port Houston	Phyllis Saathoff Executive Director, Port Freeport
TxDOT Beaumont District	Chad Bohne, P.E. District Engineer	Adam Jack Director, Transportation Planning/Development
TxDOT Houston District	Eliza Paul, P.E. District Engineer	Varuna A. Singh, P.E. Deputy District Engineer

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Non-Voting TPC Ex-Officio Members

Representing	Ex-Officio Member
Texas State Senate	Carol Alvarado, District 6
Freight Rail Interests	Chad Schelbitzki Union Pacific Railroad, Asst Vice President Public Affairs-Southern Region
Freight Rail Interests	Hugh McCulley BSNF Railway
Texas House of Representatives	Dennis Paul, District 129
Wharton County	Phillip Spenrath, County Judge
Texas House of Representatives	Ed Thompson, District 29

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Transportation Advisory Committee (TAC)

The Transportation Advisory Committee (TAC) reviews and evaluates H-GAC's regional transportation plans and provides its recommendations to the TPC. The TAC is an appointed body, which is comprised of representatives of member governments and special citizen interest groups with expertise in transportation planning. TAC members are appointed by the TPC to assist with the coordination of the Transportation Improvement Program, Metropolitan Transportation Plan and other transportation planning activities.

The Transportation Advisory Committee is comprised of elected officials, agency staff, or when appropriate, citizens who have expertise or interest in developing transportation and land use plans, implementing transportation projects, or in related fields. TAC membership reflects the diversity of transportation modes and interests affected by transportation policy decisions to assure transportation planning decisions are considered in their broadest context. The TAC advises the TPC in its development of the UPWP, and the Regional Transportation Plan (RTP) and assists with the development of the Transportation Improvement Program (TIP). To more efficiently perform its advisory duties, the TAC has created the following subcommittees:

Transportation Systems Management Operations (TSMO)

TSMO is responsible for the development of a comprehensive conceptual plan for regional traffic operations projects.

Pedestrian & Bicycle Subcommittee

The Pedestrian and Bicycle Subcommittee is responsible for providing guidance and recommendations to MPO staff in updating and implementation of the Regional Bikeway Plan.

Regional Transit Coordination (RTC) Subcommittee

The RTC Subcommittee is responsible for providing guidance regarding the implementation of regional transit coordination pilot projects. The subcommittee also assists with development of initiatives that expand and improve the efficiency and effectiveness of the current regional transit system.

Regional Transportation Plan (RTP) Subcommittee

The RTP Subcommittee is responsible for assisting MPO staff in the development of the Regional Transportation Plan. The subcommittee examines and makes recommendations regarding proposed RTP projects and activities and ensures that these proposals are consistent with the TIP and other regional plans.

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Transportation Improvement Plan (TIP) Subcommittee

The TIP Subcommittee is responsible for providing guidance to MPO staff in the development of the TIP. The subcommittee recommends guidelines for the ranking of proposed TIP projects, as well as provides guidance for major TIP amendments and funding decisions.

Transportation Air Quality (TAQ) Subcommittee

The TAQ Subcommittee is responsible for assisting MPO staff in expanding existing air quality programs and projects and developing new programs for TIP consideration as well as the analysis and development of on-road transportation emission reduction measures.

TAC Officers

Representing	Primary	Alternate
Harris County	Chairman Loyd Smith, P.E.	Brannan Hicks
Active Transportation (2)	1st Vice Chair Veronica Chapa-Gorczyński	Joe Cutrufo
Smaller Cities (3)	2nd Vice Chair Morad Kabiri, P.E., AICP	Vacant

TAC Members

Representing	Primary	Alternate
Smaller Cities (1)	Ricardo Villagrán, CFM Community Development Director City of Mont Belvieu	Jorge Flores Economic Development Coordinator City of Galena Park
Smaller Cities (2)	Sean Landis Deputy City Manager City of Seabrook	Teresa Evans Director City of LaPorte
Transit (1)	Perri D'Armond Director Public Transportation Fort Bend County	Yvette Maldonado Finance and Administration Manager
Transit (2)	Ken Fickes Director Harris County Office of Transit Services	Vernon Chambers Assistant Director Harris County Office of Transit Services
Transit (3)	Ruthanne Haut Deputy Director, Community Services The Woodlands Township	John Powers Assistant General Manager The Woodlands Township

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Environmental (1)	Carl Woodward Manager Harris County Flood District	Craig Maske Chief Planning Officer Harris County Flood District
Environmental (2)	Katherine Parker Executive Director Gulf Coast Rail District	Dr. Carol Lewis Director of CTTR Transportation Studies Texas Southern University
Planning (1)	David Fields Chief Transportation Planner City of Houston	Katrina Bayer Deputy Assistant Director-Traffic Management Branch-City of Houston
Planning (2)	Faustino Benavidez, P.E. Director of Engineering Harris County	Reynaldo Guerra, PhD Director of Government Affairs & Community Relations Harris County
Planning (3)	Lisa Kocich-Meyer Director of Planning City of Sugar Land	Fabio Capillo Assistant Director, Transportation & Drainage Operations City of Houston
Business Interests (1)	Marlisa Briggs Executive Director North Houston Association	Elijah Williams Executive Director Energy Corridor District
Business Interests (2)	B.J. Simon Associate Executive Director Baytown-West Chambers County EDF	Stephanie Pizzoferrato Deputy Director Covestro
Citizen Interests (1)	(Vacant)	Jonathan Brooks Director of Policy & Planning LINK Houston
Citizen Interests (2)	Andrea French Executive Director Transportation Advocacy Group (TAG)	Sherry Weesner, P.E., CPM President Memorial-Heights TIRZ 5
Port of Houston	Bruce Mann Director of Freight Mobility Port Houston	Rohit Saxena Interim Director, Facility Planning Port Houston
Ports	Michael Wilson Director of Economic Development & Mobility Port Freeport	Brett Milutin Director of Port Operations Port Freeport

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Toll Road (1)	Heather Jinkins Cantu Deputy Director, Policy, Compliance and Stakeholder Engagement Harris County Toll Road Authority	Dr. David Abraham Green Infrastructure and Sustainability Planner Harris County Toll Road Authority
Toll Road (2)	James Thompson Executive Consultant Fort Bend County Toll Road Authority	(Vacant)
Active Transportation (1)	Ana Ramirez-Huerta Transportation Planner TxDOT Houston	Catherine McCreight Senior Transportation Planner TxDOT
Airport	Bill Zrioka Senior Planner Houston Airport System	David Leslie Managing Engineer City of Houston
Regional Planning	Jeff Taebel, AICP At-Large H-GAC Director of Community & Environmental	Meagan Coughlin At-Large H-GAC Director of Communications
METRO	Clint Harbert Vice President System & Capital Planning	Priya Zachariah Manager Regional & Long- Range Planning
TxDOT Beaumont District	Adam Jack, P.E. Director Transportation Planning & Development	Scott Ayres, P.E. Supervisor Transportation Engineering
TxDOT Houston District	James Koch Director Transportation Planning & Development	Andrew C. Mao, P.E. Director Advanced Transportation Planning
Brazoria County	Matt Hanks, P.E. County Engineer	Karen McKinnon Assistant County Engineer
Chambers County	Cory Taylor, P.E. County Engineer	Billy Combs, P.E. Commissioner, Pct. 4
Fort Bend County	Stacy Slawinski, P.E. County Engineer	Rick J. Staigle, P.E. First Assistant County Engineer
Galveston County	Michael Shannon, P.E. County Engineer	Nancy Baher, P.E. Assistant County Engineer
Liberty County	David Douglas Permits & Inspections Dept. Admin	Hon. Jay Knight County Judge
Montgomery County	Jeff Johnson, P.E. County Engineer	Brian Clark Assistant County Engineer

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Waller County	Yancy Scott, P.E. County Engineer	Jared Chen Assistant County Engineer
City of Baytown	Nick Woolery Assistant Manager City of Baytown	Frank Simoneaux Director of Public Works/Engineering
City of Conroe	Adam France City Planner	Chris Bogert, P.E. City Engineer
City of Galveston	Robert Winiecke, P.E., CFM Director of Public Works	Daniel Christodoss, P.E. City Engineer
City of Houston	Veronica O. Davis, P.E. Deputy Director	David Wurdlow Assistant Director, PWE
City of League City	Christopher Sims Director of Engineering	Hon. Chad Tressler Council Member
City of Missouri City	Shashi Kumar, P.E. Dir. of Public Works & City Engineer	(Vacant)
City of Pasadena	Robin Green, P.E. Director of Public Works	Sarah Benavides, P.E. Sr. Assistant Director of Public Works
City of Sugar Land	Monique Johnson, AICP Transportation & Mobility Innovation Manager	Rick Ramirez, P.E. Intergovernmental Relations Manager
City of Texas City	Doug Kneupper, P.E. Director of Transportation & Planning	(Vacant)

TAC Ex-Officio Members

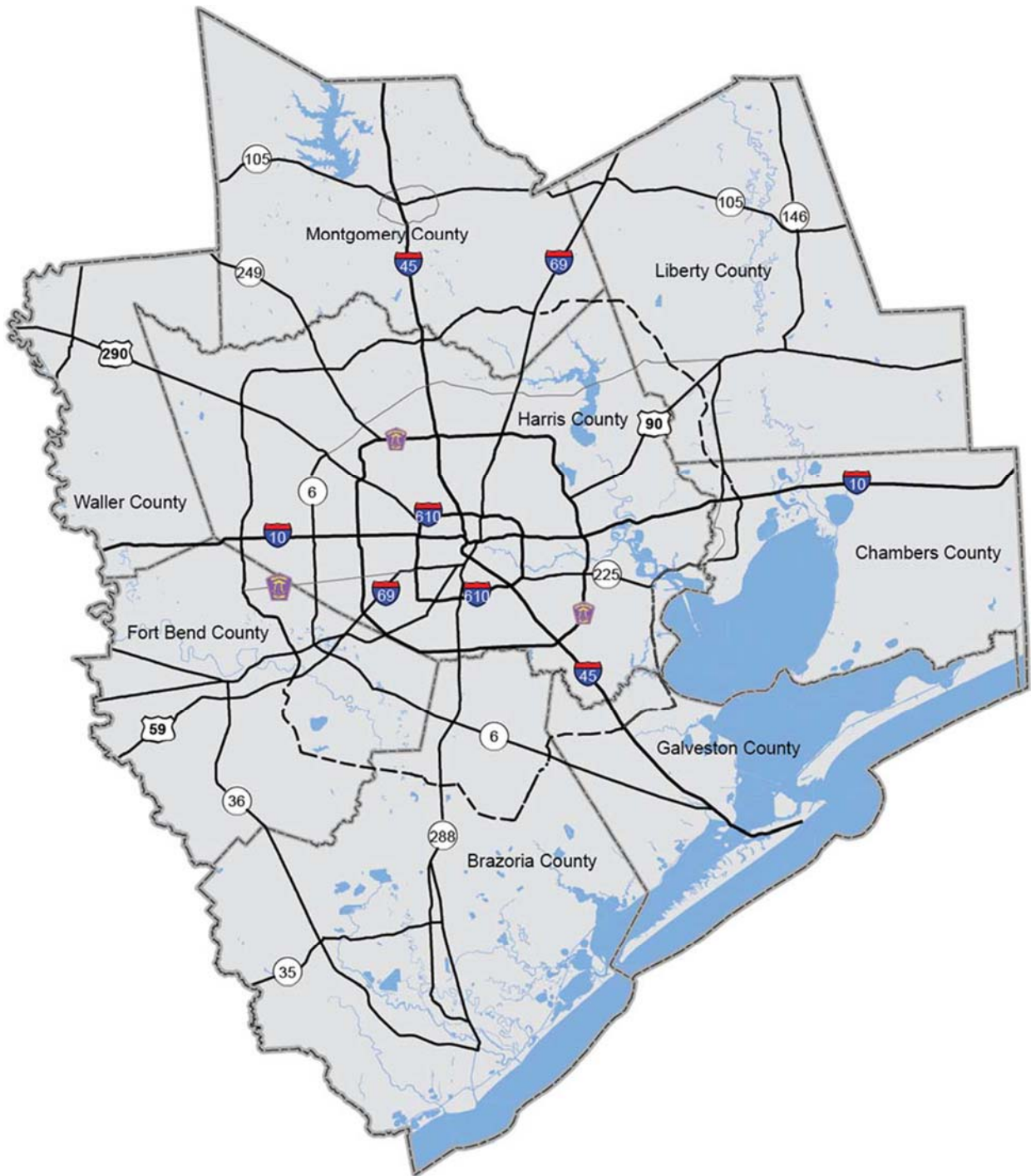
Roger E. Rees, Port Director for Port of Galveston

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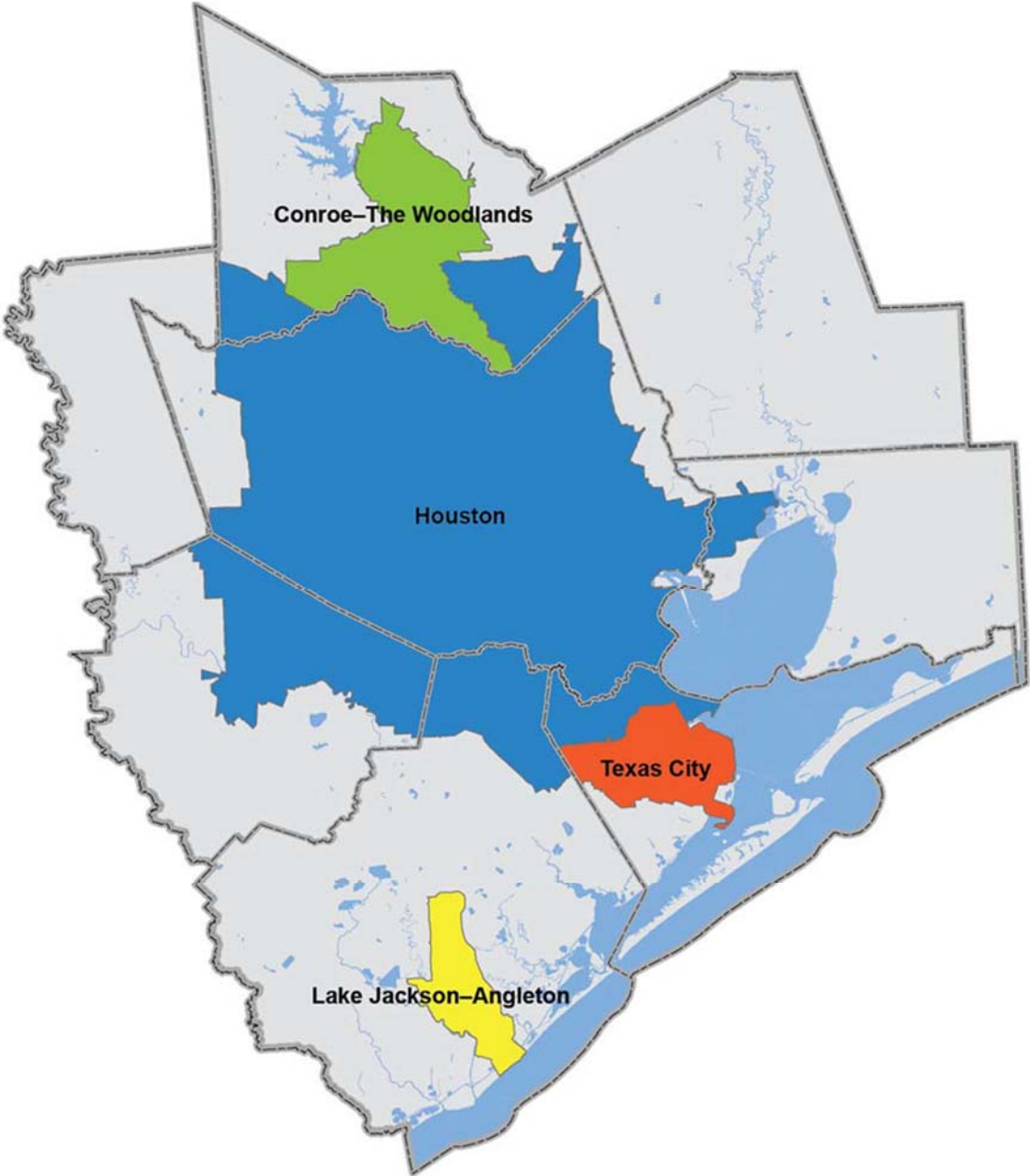
APPENDIX B

**MAPS OF THE HOUSTON-GALVESTON TRANSPORTATION
MANAGEMENT AREA (TMA) AND URBANIZED AREAS (UZA)**

Eight-County Houston-Galveston



Urbanized Area Boundaries



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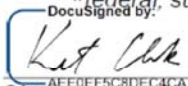
APPENDIX C

DEBARMENT CERTIFICATION

Houston-Galveston Area Council Unified Planning Work Program

DEBARMENT CERTIFICATION (Negotiated Contracts)

- (1) The **Houston-Galveston Area Council (H-GAC) MPO** as **CONTRACTOR** certifies to the best of its knowledge and belief that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public* transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity* with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions* terminated for cause or default.
- (2) Where the **CONTRACTOR** is unable to certify to any of the statements in this certification, such **CONTRACTOR** shall attach an explanation to this certification.

*federal, state or local
DocuSigned by:

Signature - Chairman Ken Clark, MPO Policy Committee

Chairman, Transportation Policy Committee
Title

8/31/2021
Date

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APPENDIX D

LOBBYING CERTIFICATION

Houston-Galveston Area Council Unified Planning Work Program

LOBBYING CERTIFICATION

CERTIFICATION FOR CONTRACTS, GRANTS, LOANS AND COOPERATIVE AGREEMENTS

The undersigned certifies to the best of his or her knowledge and belief, that:

- (1) No federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclosure accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

DocuSigned by:



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Signature - Chairman Ken Clark, MPO Transportation Policy Committee

Chairman, Transportation Policy Committee

Title

Houston-Galveston Area Council (H-GAC)

Agency

8/31/2021

Date

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APPENDIX E
CERTIFICATION OF COMPLIANCE

Houston-Galveston Area Council Unified Planning Work Program

CERTIFICATION OF COMPLIANCE

I, Ken Clark, Chairman-Transportation Policy Council, a duly authorized officer/representative of Houston-Galveston Area Council (H-GAC) Transportation MPO do hereby certify that the contract and procurement procedures that are in effect and used by the forenamed MPO are in compliance with 2 CFR 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards," as it may be revised or superseded.

8/31/2021

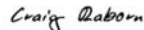
Date

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Signature - Chairman Ken Clark,
MPO Transportation Policy Committee

Attest:
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MPO Director, Craig Raborn

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APPENDIX F

**CERTIFICATION OF INTERNAL ETHICS AND COMPLIANCE
PROGRAM**

Houston-Galveston Area Council Unified Planning Work Program

CERTIFICATION OF INTERNAL ETHICS AND COMPLIANCE PROGRAM

I, Ken Clark, a duly authorized officer/representative of Houston-Galveston Area Council (H-GAC), Transportation MPO, do hereby certify that the forenamed MPO has adopted and does enforce an internal ethics and compliance program that is designed to detect and prevent violations of law, including regulations and ethical standards applicable to this entity or its officers or employees and that the internal ethics and compliance program satisfies the requirements of by 43 TAC § 31.39 "Required Internal Ethics and Compliance Program" and 43 TAC § 10.51 "Internal Ethics and Compliance Program" as may be revised or superseded.

8/31/2021

Date

Attest:

DocuSigned by:

Craig Raborn

MPO Director, Craig Raborn

DocuSigned by:
Ken Clark
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Signature - Chairman Ken Clark,
MPO Transportation Policy Committee