CORPUS CHRISTI MPO
METROPOLITAN PLANNING ORGANIZATION

UPWP

FISCAL YEAR 2023
and
FISCAL YEAR 2024

UNIFIED PLANNING WORK PROGRAM (UPWP)

CORPUS CHRISTI METROPOLITAN PLANNING ORGANIZATION URBAN TRANSPORTATION STUDY

DRAFT

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FY 2023 AND FY 2024
UNIFIED PLANNING WORK PROGRAM (UPWP)

Corpus Christi Metropolitan Planning Organization Urban Transportation Study

Corpus Christi MPO Status:
Transportation Management Area (TMA)
Air Quality: Attainment

DRAFT APPROVED BY THE TRANSPORTATION POLICY COMMITTEE: XXX
FINAL ADOPTED BY THE TRANSPORTATION POLICY COMMITTEE: TBD
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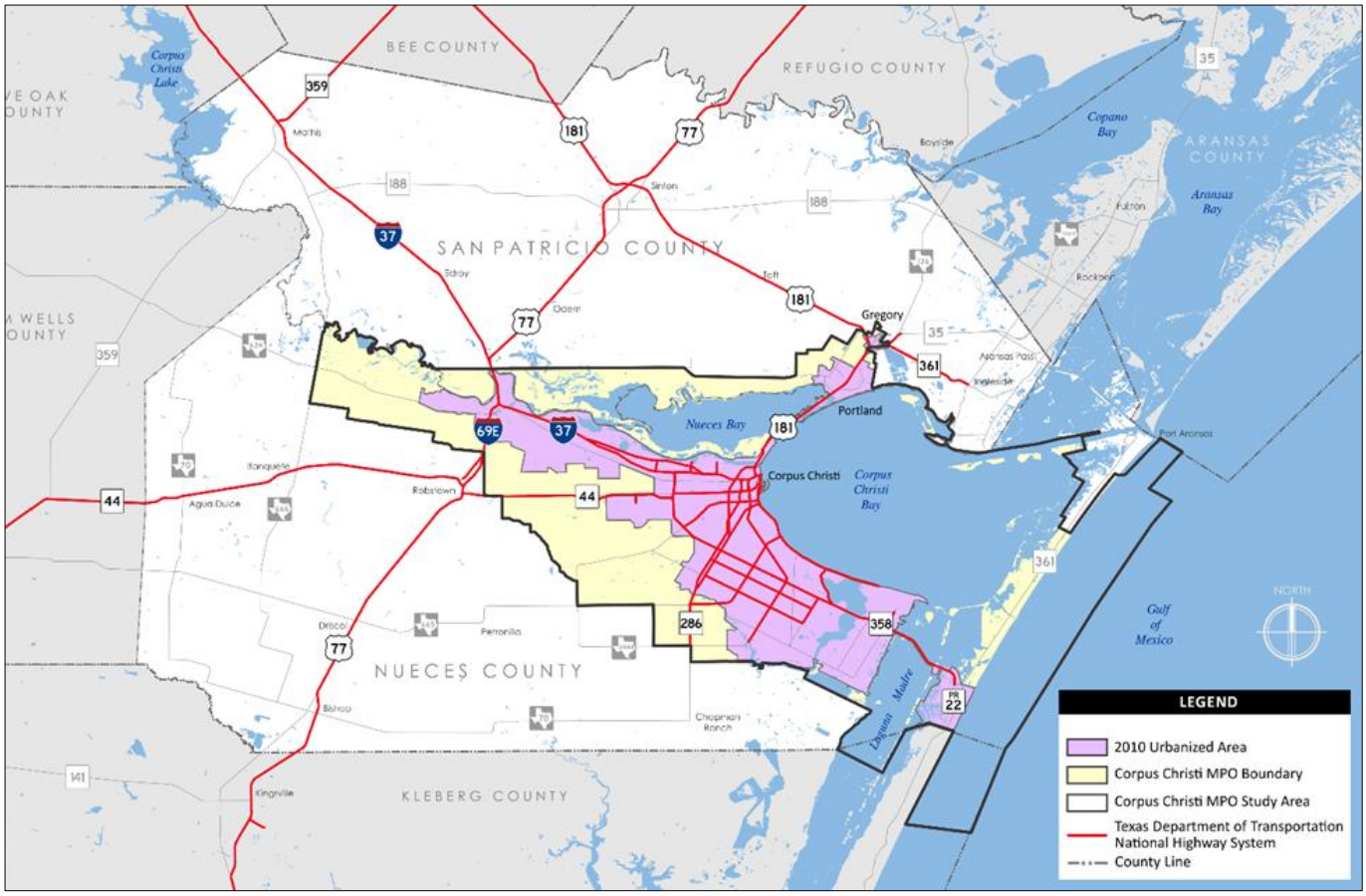
EXECUTIVE SUMMARY

This UPWP is required as a basis and condition for all federal funding assistance for transportation planning by the joint planning regulations of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The guidance from the Federal agencies states: "At a minimum, an UPWP includes a description of the planning work and resulting products, whom will perform the work, time frames for completing the work, the cost of the work, and the source(s) of funds." (23 C.F.R. 450.308).

Exhibit 1. Map of the Corpus Christi Metropolitan Planning Area



This FY 2023 and FY 2024 Unified Planning Work Program (UPWP) documents all known transportation planning activities that will occur in the Corpus Christi MPO Planning Area. While the primary focus of this document is the transportation planning performed by Corpus Christi MPO staff, other transportation-related planning activities that are conducted within the boundaries of the Corpus Christi MPO Planning Area by member agencies and partners are also documented.

While the UPWP documents only the activities to be undertaken during the 2-years covered by the UPWP, the basis of the work program is grounded in the on-going requirements of the 5-year metropolitan transportation planning process. The six foundational requirements of a metropolitan planning organization are:

1. Involve the public in the transportation decision-making process.
2. Develop and maintain the Unified Planning Work Program (UPWP).
3. Develop and maintain the Metropolitan Transportation Plan (MTP).
4. Develop and maintain the Transportation Improvement Program (TIP).
5. Develop and maintain the Congestion Management Process (CMP).
6. Coordinate the development of these products with the State's planning process.

The following five Subtask areas summarize the regional transportation planning activities for the Corpus Christi MPO in FY 2023 and FY 2024:

TASK 1.0: ADMINISTRATION AND MANAGEMENT – describes administrative support activities such as financial management, contract management, public outreach, travel, equipment purchases, training and education, and the general management of the MPO. Direct Expenses (1.9) are products and services directly related to the operation of the Corpus Christi MPO to deliver the UPWP tasks.

TASK 2.0: MODEL AND DATA DEVELOPMENT AND ANALYSES – describes the collection and cleaning of data. It also involves creating and operating models to analyze existing and forecast future conditions in the region. These activities include the development of socio-economic models, pavement management models, corridor operations models, social and environmental impact models, economic and financial models, and travel demand models to support regional transportation decision-making.

TASK 3.0: 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, ongoing initiatives regarding specialized transit planning, regional bicycle and pedestrian planning and operations improvement planning. Subtask 3.2 also includes a major update to the Regional Intelligent Transportation System (ITS), as well as efforts to improve traffic safety and evacuation planning in the region.

TASK 4.0: METROPOLITAN TRANSPORTATION PLAN – describes planning activities for the long-term including development and maintenance of the Metropolitan Transportation Plan (MTP), developing baseline conditions, monitoring change and reporting progress towards the goals.

TASK 5.0: SPECIAL STUDIES – includes special one-time planning activities, including major corridor studies/analyses, surveys and outreach, and tool development activities.

FINANCIAL SUMMARY – The following Exhibits provide a summary of all funding available for Corpus Christi MPO Staff activities by Subtask and year. A total of $2,266,000 in Consolidated Planning Grant (CPG), also known as Transportation Planning Funds (TPF) are forecast to be available over the 2 years of this work program. Approximately 96 percent of these funds are federal for transportation planning purposes. This UPWP also includes carryover of $1,750,000 in Surface Transportation Block Grant (Category 7) from FY2022 funds that have accumulated. A total of $4,116,000 is programmed in this document. Please note that annual operating costs for the organization consume much of the annually appropriated funds, and some Corpus Christi MPO contracts extend beyond the 2-years of this UPWP. Maintaining a reserve sufficient for these contracts is good accounting practice. Some of this accumulated funding is needed to address major planning and development and simulation model support. All carryover FTA planning funds are allocated to work tasks in this UPWP. FHWA “carryover” funds were budgeted to continue major contractual activities in preparation for the 2050 MTP development in each of the next two UPWP program years. Similar programming is planned in the subsequent two-year work program to complete the next cycle of the TIP, further reducing the carryover balance, leaving some in reserve to address continuity of operations in the event of disruption in federal funding for staff operational costs plus open contractual commitments.

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[1]The CPG Program allows FTA and FHWA funding that supports metropolitan transportation planning to be combined into a single consolidated grant, which fosters a cooperative effort between the Federal agencies and the participating States

to streamline the delivery of their planning programs by providing the flexibility to transfer the planning funds to either FTA or FHWA for processing.

Exhibit 2. Corpus Christi MPO FY 2023 and FY 2024 UPWP Financial Summary*

**Dollars are Draft pending finalization*

TASK AND SUBTASK TITLE		FY 2023	FY 2024	2-Year Total
TASK 1.0	**ADMINISTRATION AND OUTREACH TOTAL**	**$3,264,100**	**$1,277,900**	**$4,542,000**
1.1	Program Coordination and Direction	$22,900	$24,000	**$46,900**
1.2	Unified Planning Work Program (UPWP) Maintenance and Development	$11,700	$12,300	**$24,000**
1.3	Monthly Billing and Financial Management	$26,700	$28,000	**$54,700**
1.4	Staff Training and Education	$16,500	$17,400	**$33,900**
1.5	Local, State, and Federal Agency Collaboration Activities	$39,000	$41,700	**$80,700**
1.6	Computer Maintenance and Website Management	$27,000	$28,300	**$55,300**
1.7	Outreach and Public Involvement	$45,000	$52,000	**$97,000**
1.8	Program Evaluation	$17,300	$18,200	**$35,500**
1.9	**DIRECT EXPENSES SUMMARY**	**$3,058,000**	**$1,056,000**	**$4,114,000**
	DIRECT EXPENSES DETAILS			
1.9a	Fiscal Agent, Office Rent, Traffic and Special Studies,	$208,000	$207,000	**$415,000**
1.9b	Printing/Reproduction Services	$3,500	$3,500	**$7,000**
1.9c	Education/Training/Conference	$4,000	$4,000	**$8,000**
1.9d	Travel Out-of-State	$5,500	$5,500	**$11,000**
1.9e	Travel In-State	$2,500	$2,500	**$5,000**
1.9f	Supplies	$6,000	$6,000	**$12,000**
1.9g	Support Services	$5,500	$5,500	**$11,000**
1.9h	Memberships/Subscriptions/Publications	$2,500	$2,500	**$5,000**
1.9i	Maintenance - Software/Equipment	$5,500	$5,500	**$11,000**
1.9j	Capital - Furniture/Equipment	$15,000	$15,000	**$30,000**
1.9k	Consultant Services Summary	$2,800,000	$799,000	**$3,599,000**

TASK AND SUBTASK TITLE		FY 2023	FY 2024	2-Year Total
TASK 2.0	**MODEL AND DATA DEVELOPMENT AND ANALYSES TOTAL**	**$164,200**	**$88,900**	**$253,100**
2.1	MPO Geographic Information System (GIS) Database Management	$15,600	$16,300	**$31,900**
2.2	Travel Demand and Corridor Model Development and Update	$34,800	$13,800	**$48,600**
2.3	Growth Scenarios / Land-Use Model Acquisition and Calibration	$21,200	$10,700	**$31,900**
2.4	Crash Data Acquisition and Crash Model Update	$13,600	$8,600	**$22,200**
2.5	Infrastructure Condition Data Aggregation and Analysis Models	$10,800	$6,000	**$16,800**
2.6	Community Impact Model Development and Implementation	$19,400	$8,600	**$28,000**

Exhibit 2. Corpus Christi MPO FY 2023 and FY 2024 UPWP Financial Summary (continued)

TASK AND SUBTASK TITLE		FY 2023	FY 2024	2-Year Total
2.7	Environmental Resource / Linkages Model Development and Implementation	$16,400	$8,600	**$25,000**
2.8	HAZUS / Resiliency Model Development and Implementation	$19,500	$8,600	**$28,100**
2.9	Economic Analyses Model Development and Implementation	$12,900	$7,700	**$20,600**
TASK 3.0	**SHORT-RANGE PLANNING TOTAL**	**$197,800**	**$134,200**	**$332,000**
3.1	Transportation Improvement Program (TIP) Update	$21,100	$22,200	**$43,300**
3.2	CMP/TSMO/ITS Architecture Plan	$22,700	$7,700	**$30,400**
3.3	Complete Streets, Active Transportation and Micro-mobility Planning	$20,900	$7,700	**$28,600**
3.4	Regional Multimodal Freight and Urban Goods Planning	$11,200	$10,500	**$21,700**
3.5	Equity and Justice40 Planning	$18,700	$11,100	**$29,800**
3.6	Economic Analyses of Projects and Portfolios	$12,200	$17,300	**$29,500**
3.7	Infrastructure Lifecycle Analysis and Reporting	$13,500	$8,600	**$22,100**
3.8	Crash Analyses and Regional Safety Planning	$21,300	$9,200	**$30,500**
3.9	Region 20 Coordinated Transit Planning	$17,100	$14,500	**$31,600**
3.10	Regional Resiliency and Climate Crisis Planning	$19,200	$9,200	**$28,400**
3.11	Planning and Environmental Linkages	$19,900	$16,200	**$36,100**
TASK 4.0	**METROPOLITAN TRANSPORTATION PLANNING TOTAL**	**$70,100**	**$219,000**	**$289,100**
4.1	Refine Vision and Goals	$16,600	$5,500	$22,100
4.2	Refine Performance Measures and Evaluation Criteria	$15,000	$6,300	$21,300
4.3	Identify Needs and Deficiency Locations	$15,200	$9,800	$25,000
4.4	Develop a Financial Plan of Reasonable Available Funding		$13,500	$13,500
4.5	Develop, Analyze, and Refine Scenarios for Analysis and Investment	$23,300	$73,800	$97,100
4.6	Document Plan and Processes	-	$64,500	$64,500
4.7	Evaluate Impacts and Develop Mitigation	-	$24,500	$24,500
4.8	Planning and Programming Process Evaluation and Debrief	-	$12,800	$12,800
4.9	Process Documentation and Enhancement	-	$8,300	$8,300
TASK 5.0	**SPECIAL STUDIES TOTAL**	**$0**	**$0**	**$0**
5.1	To Be Determined	$0	$0	$0
5.2	To Be Determined	$0	$0	$0

The revenue utilized for Corpus Christi MPO ’s work activities documented in the FY 2023 and FY 2024 UPWP originates from federal and non-federal sources (See Section II). These funds are allocated to work activities in accordance with appropriate regulations and are used to pay for program expenditures by the MPO Transportation Planning Program. Federal planning funds, available from both FHWA (PL funds) and FTA (5303 funds), are administered by TxDOT through the Consolidated Planning Grant (CPG) Program. CPG funds are allocated to Corpus Christi MPO. Non-federal funds are provided to Corpus Christi MPO from dues paid by its member entities, and through grants and other ad hoc funding sources.

SECTION I. INTRODUCTION

Metropolitan Planning Organizations (MPOs) were formed to give local communities a stronger voice in achieving their transportation goals and improving regional transportation planning while avoiding duplication of planning efforts. MPOs exist throughout the United States in all urbanized areas of more than 50,000 people and have the authority to plan, prioritize, and program federal funding for transportation projects in urban/metropolitan areas. The Corpus Christi MPO Transportation Policy Committee (TPC) is the designated forum for municipalities, counties, transit agencies, tribal governments, state and private agencies to address regional transportation issues. The U.S. Department of Transportation (USDOT) has established policy guidelines to improve regional transportation planning and give local communities a stronger voice in achieving their transportation goals while avoiding duplication of planning efforts. As the designated metropolitan planning organization Corpus Christi MPO is responsible for carrying out the:

> *"…continuing, cooperative and comprehensive multimodal transportation planning process, including the development of a metropolitan transportation plan and a transportation improvement program (TIP), that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including accessible pedestrian walkways and bicycle transportation facilities) and foster economic growth and development, while minimizing transportation-related fuel consumption and air pollution" (23 CFR 450.300)."*

The Corpus Christi Metropolitan Planning Organization (Corpus Christi MPO) and its Transportation Policy Committee (TPC) have been responsible for conducting the cooperative, comprehensive, and continuing (3C) transportation planning process since 1973. First, as the Corpus Christi Urban Transportation Study, then in Year 2000, as the Corpus Christi Metropolitan Planning Organization. The Corpus Christi MPO Planning Area includes portions of Nueces County and San Patricio County (see Exhibit 1).

A. PURPOSE

This Unified Planning Work Program (UPWP) identifies all transportation and significant transportation-related planning activities that will occur within the Corpus Christi Metropolitan Planning Area (MPA) during the federal years beginning October 1, 2022; and ending September 30, 2024. This work program serves these specific objectives:

- List all transportation planning and related activities conducted by local, state, and federal agencies
- Identify funding sources for planning studies
- Coordinate transportation planning activities within the region (both internal and external)
- Promote the wise use of public resources through sound decision-making and interagency coordination

The Corpus Christi MPO must also develop and implement a Public Participation Process (PPP) that provides complete information, timely notification, and public access to the planning process. The most recent version of this was adopted July 1, 2021. The PPP is designed to educate and inform the public about transportation and to provide the public with opportunities to contribute their ideas and opinions early and often throughout the planning process. Corpus Christi MPO staff will design activities to develop partnerships with, and enhance the participation in the transportation planning process, by groups and individuals of "traditionally underserved" communities. Thus, creating a transportation planning process that is accessible, inclusive, and proactive.

In addition to proactive public outreach incorporating Environmental Justice and Title VI considerations, federal regulations require extensive coordination with federal, state, and local agencies. 23 US Code § 134(h) identifies ten specific factors of the metropolitan transportation planning process, these are described in detail below, in section E: Planning Issues And Emphasis, page 9.

Federal transportation legislation now requires using performance-based planning and programming processes. These increase accountability and transparency of transportation investments. MPOs are required to establish performance measures for the first six of the seven national goals outlined in U.S.C. 23 Sec 150(b).

Exhibit 3. Adopted National Goals

1. **Safety** - Achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2. **Infrastructure condition** - Maintain the highway infrastructure asset system in a state of good repair.
3. **Congestion reduction** - Achieve a significant reduction in congestion on the National Highway System.
4. **System reliability** - Improve the efficiency of the surface transportation system.
5. **Freight movement and economic vitality** - 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** - Enhance the performance of the transportation system while protecting and enhancing the natural environment.
7. **Reduced project delivery delays** - 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.

B. DEFINITION OF AREA: THE CORPUS CHRISTI METROPOLITAN PLANNING AREA

The results of the 2020 Census Urban Area will not be released until the summer of 2022. It is likely that the Census Bureau will make adjustments to the boundary for the Corpus Christi urbanized area. (See Exhibit 1, page 2) While the current 2010 boundary includes the cities of Corpus Christi, Portland, and Gregory, along with unincorporated areas in Nueces and San Patricio Counties, this may expand, especially if the Corpus Christi Urban Area merges with the Port Aransas / Ingleside or the Robstown Urban Area. Exhibit 1, maps the Census Designated UZA, the adopted Corpus Christi MPO metropolitan planning area boundary, and the Metropolitan Study Area. By federal definition, the MPO's planning area must at least include the urbanized area (as defined by the U.S. Census Bureau) and the contiguous area that is forecast to become urbanized in the next 20+ years. The 2020 Census apportionment population includes the resident population of each Census block within the Census Designated Urban Area.

Exhibit 5. Map of the 2010 Census Designated Urban Areas in the Corpus Christi Study Area

C. ORGANIZATION

Nueces County is the fiscal agent for the Corpus Christi MPO. The Transportation Policy Committee (TPC) was designated as the governing Board for the Corpus Christi MPO in June 2000. The Corpus Christi MPO TPC has seven voting positions (4 are Elected, 3 are Appointed) and up to 10 non-voting members.

The seven Voting Members of the Transportation Policy Committee are:

1. Mayor, City of Portland
2. Mayor, City of Corpus Christi
3. County Judge, San Patricio County
4. County Judge, Nueces County
5. An Official Designated by the Corpus Christi Regional Transportation Authority
6. An Official Designated by the Port of Corpus Christi Authority
7. An Official Designated by the District Engineer, Texas Department of Transportation, Corpus Christi District

There are ten potential Non-Voting Members of the Transportation Policy Committee, they are:

1. One representative of the Federal Highway Administration
2. One representative of the Federal Transit Administration
3. One representative of the Coastal Bend Council of Governments
4. One representative of the Texas Natural Resource Conservation Commission
5. United States Congress, Texas 27th District: (Michael Cloud)
6. Texas State Senate District 20: (Juan “Chuy” Hinojosa)
7. Texas State Senate District 21 (Judith Zaffirini)
8. State Representative District 34: (Abel Herrero)
9. State Representative District 32 (Todd A. Hunter)
10. State Representative District 43 (J. M. Lozano)

Rules of the Corpus Christi MPO (Bylaws) are maintained by the organization. The Rules and other documents noted above are kept on file and are readily available for review at the Corpus Christi MPO office and on the Corpus Christi MPO website: http://www.corpuschristi-mpo.org/02_bylaws/corpuschristimpo_bylaw_20160916.pdf

The Corpus Christi MPO TPC’s responsibilities, defined in the Bylaws are:

1. Approve goals and objectives of the transportation planning process.
2. Review and adopt changes in transportation planning concepts.
3. Review and approve the Unified Planning Work Program (UPWP).
4. Review and adopt the Transportation Improvement Program (TIP) including project priorities and approve any changes in the priority schedule.
5. Review and adopt the Metropolitan Transportation Plan (MTP) and its revisions.
6. Ensure the efficient and effective use of the Federal Highway Administration (FHWA) Section 112 and the Federal Transit Administration (FTA) Section 5303 planning funds.
7. Encourage the development, implementation, and surveillance of plans to reduce transportation generated air pollution within the study area.
8. Serve as liaison representatives between various governmental units in the study area to obtain optimum cooperation of all governmental units in implementing various elements of the plan.
9. Ensure citizen participation in the transportation planning process through a proactive policy.
10. Hire, terminate, evaluate, and supervise the Transportation Planning Director.
11. Establish for the MPO staff the salary, salary range, annual or more frequent personnel performance reviews and salary increases based on performance and cost of living indices.

12. Adopt personnel policies and procedures adapted from the personnel policies and procedures of Nueces County for the conduct, rights, and responsibilities of the MPO Staff.

The Corpus Christi MPO responsibilities listed in the Metropolitan Transportation Planning Agreement with TxDOT, are:

1. Document planning activities in a UPWP to indicate who will perform the work, the schedule for completing it, and all products that will be produced. In cooperation with the Department and public transportation operators as defined by 23 CFR Part 450, the MPO must annually or bi-annually develop a UPWP that meets federal requirements.
2. Prepare and submit to the Department an annual performance and expenditure report of progress no later than December 31 of each year. A uniform format for the annual report will be established by the Department, in consultation with the MPOs.
3. Use funds provided in accordance with 43 Texas Administrative Code 16.52 and Article 2 of this agreement to develop and maintain a comprehensive regional transportation planning program in conformity with the requirements of 23 USC 134, 49 USC 5303 and the Texas Comptroller of Public Accounts Uniform Grant Management Standards.
4. Develop a Metropolitan Transportation Plan (MTP), a Transportation Improvement Program (TIP), and a UPWP for the Metropolitan Planning Area (MPA), all of which are consistent with the Statewide Long-Range Transportation Plan (SLRTP), as required by the state and federal law. At a minimum, the MPO shall consider in their planning process the applicable factors outlined in 23 USC 134.
5. Assemble and maintain an adequate, competent staff with the knowledge and experience that will enable them to perform all appropriate MPO activities required by law.
6. Forecast, collect, and maintain appropriate socio-economic, roadway, and travel data on a timely basis, in cooperation with the Department.
7. Prepare all required plans, programs, reports, data, and obtain required certifications in a timely manner.
8. Share information with the Department and information sources concerning transportation planning issues.
9. Use funds provided in accordance with Article 2, Section 1 of MTPC to develop and maintain a comprehensive regional transportation planning program in conformity with requirements of 23 USC Section 134(f) and 49 USC Section 5303.
10. Develop and adopt an MTP that meets federal and state laws, a Transportation Improvement Program (TIP) that is incorporated without modification into the STIP, and a UPWP, along with other planning documents and reports required by state and federal laws and regulations.

The Corpus Christi MPO Technical Advisory Committee (TAC) includes seven voting members and up to 10 non-voting members could be appointed by the TPC. The Technical Advisory Committee reports directly to the Transportation Policy Committee and works closely with the Corpus Christi MPO staff. The Technical Advisory Committee has the following responsibilities:

1. Assist the Transportation Policy Committee with technical tasks associated with developing the Unified Planning Work Program (UPWP) and recommend its adoption by the Transportation Policy Committee.
2. Review transportation related studies within the Corpus Christi Metropolitan Planning Area and make recommendations to the Transportation Policy Committee and other agencies.
3. Provide technical support in the preparation of Metropolitan Transportation Plan and recommend its adoption by the Transportation Policy Committee.
4. Review the Transportation Improvement Program (TIP) and other high priority projects. Recommend its adoption by the Transportation Policy Committee.

5. Advise the Transportation Policy Committee on technical matters and, if specifically authorized by the Transportation Policy Committee, on the policy matters with accompanying recommendations and supporting rationale.

D. PRIVATE SECTOR INVOLVEMENT

The private sector is actively involved in planning efforts outlined in this FY 2023 and FY 2024 UPWP. The Corpus Christi MPO will accomplish some work tasks identified in the UPWP with specialized assistance from consultants. Consultants have been under contract with Corpus Christi MPO during FY 2021 and FY 2022 to assist with travel and land use model development and applications, public involvement efforts, and in several planning studies. These are noted in the applicable work items.

The Corpus Christi MPO utilizes the Nueces County Procurement Policy to guide the procurement process. It is likely that on-call Service Agreements will be solicitated from multiple planning firms to assist with these varied efforts. As part of the development and implementation of the UPWP, Corpus Christi MPO staff, in cooperation with local governments and TxDOT identify work subtasks that consultant assistance is likely. As individual projects move forward, a Request for Proposals (RFP), which includes an overview of the work, is issued for each of these projects. Corpus Christi MPO publishes a notice of intent to retain consultant services on the Corpus Christi MPO website. A review committee is established to review proposals and provide recommendations to the Corpus Christi MPO TPC. The Subtasks that private sector consultants may participate in include:

- Subtask 1.7 Outreach and Public Involvement
- Subtask 2.2 Travel Demand and Corridor Model Development and Update
- Subtask 2.3 Growth Scenarios / Land-Use Model Acquisition and Calibration
- Subtask 2.4 Crash Data Acquisition and Crash Model Update
- Subtask 2.5 Infrastructure Condition Data Aggregation and Analysis Models
- Subtask 2.6 Community Impact Model Development and Implementation
- Subtask 2.7 Environmental Resource / Linkages Model Development and Implementation
- Subtask 2.8 HAZUS / Resiliency Model Development and Implementation
- Subtask 2.9 Economic Analyses Model Development and Implementation
- Subtask 3.2 CMP/TSMO/ITS Architecture Plan Development
- Subtask 3.3 Complete Streets, Active Transportation and Micro-mobility Planning
- Subtask 3.4 Regional Multimodal Freight and Urban Goods Planning
- Subtask 3.5 Equity and Justice40 Planning
- Subtask 3.6 Economic Analyses of Projects and Portfolios
- Subtask 3.7 Infrastructure Lifecycle Analysis and Reporting
- Subtask 3.8 Crash Analyses and Regional Safety Planning
- Subtask 3.9 Coordinated Public Transit – Human Service Transportation Plan
- Subtask 3.10 Regional Resiliency and Climate Crisis Planning
- Subtask 3.11 Planning and Environmental Linkages
- TASK 4.X Metropolitan Transportation Plan (MTP)

E. PLANNING ISSUES AND EMPHASIS

The Infrastructure Investment and Jobs Act (or IIJA) become law on November 15, 2021. The IIJA, as enumerated in CFR 450.306, includes 11 total factors; the eight (8) factors originally outlined in FAST Act (adopted on December 4, 2015), SAFETEA-LU (adopted on August 10, 2005), as well as three additional considerations that the metropolitan planning process must explicitly consider and analyze. These areas are issues of national concern. Specifically, and in alphabetical order as opposed to any implied priority, IIJA compliant metropolitan and statewide planning processes must consider transportation projects and strategies that will:

- Emphasize the preservation of the existing transportation system.

- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Enhance travel and tourism
- Improve transportation system resiliency and reliability
- Increase accessibility and mobility of people and freight
- Increase the safety of the transportation system for motorized and non-motorized users
- Increase the security of the transportation system for motorized and non-motorized users
- Promote efficient system management and operation
- 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
- Reduce (or mitigate) the stormwater impacts of surface transportation
- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency

The IIJA continues to promote an efficient and effective Federal surface transportation program by focusing on transportation issues of national significance, while giving regional transportation decision-makers flexibility for solving transportation problems in their communities. Under IIJA, metropolitan and statewide transportation planning processes are continued, but changes made by the previous federal transportation act, Moving Ahead for Progress in the 21st Century Act (MAP-21), were continued to enhance the planning process for surface transportation; some of these changes add flexibility and efficiency, while others add new consultation and environmental planning requirements. Consultation requirements for states and MPOs remain significantly expanded; and requirements continue for plans to address environmental mitigation, improved performance, multimodal capacity, and enhancement activities. Bicycle, pedestrian, and disabled interests must also be represented.

In addition, during the planning and programming processes, the Corpus Christi MPO will consider the principles adopted by the United States Department of Transportation as a result of its partnership with both the United States Department of Housing and Urban Development and the United States Environmental Protection Agency. These principles are:

1. Provide more transportation choices to decrease household transportation costs, reduce our dependence on foreign oil, improve air quality and promote public health.
2. Expand location and energy efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.
3. Improve economic competitiveness of neighborhoods by giving people reliable access to employment centers, educational opportunities, services and other basic needs.
4. Target federal funding toward existing communities through transit-oriented and land recycling to revitalize communities, reduce public works costs, and safeguard rural landscapes.
5. Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth.
6. Enhance the unique characteristics of all communities by investing in healthy, safe and walkable neighborhoods, whether rural, urban or suburban.

UPWP's in Texas are organized into Tasks. Tasks 1.0 through 5.0 relate to activities accomplished directly by the Corpus Christi MPO staff and are formatted to show the purpose, objective, methodology, expected products, schedule, previous accomplishments, and budget summary. Subtask 1.9 documents expected direct expenses, including contract services, printing, travel, training, office supplies, support services, memberships and publications, equipment, and maintenance expenditures. This FY 2023 and FY 2024 UPWP addresses many

interrelated multimodal transportation issues that support implementing transportation projects and programs to reduce crashes, reduce congestion and improve mobility and accessibility.

Federal Planning Emphasis Areas

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) Offices of Planning jointly issued updated Planning Emphasis Areas (PEAs). The PEAs are areas that FHWA and FTA field offices emphasize with the metropolitan planning organizations, State departments of transportation, Public Transportation Agencies, and Federal Land Management Agency counterparts when developing tasks associated with the Unified Planning Work Program and the Statewide Planning and Research Program.

Tackling the Climate Crisis – Transition to a Clean Energy, Resilient Future

Federal Highway Administration (FHWA) divisions and Federal Transit Administration (FTA) regional offices should work with metropolitan planning organizations (MPO), State departments of transportation (State DOT), and providers of public transportation to ensure that our transportation plans and infrastructure investments help achieve the national greenhouse gas reduction goals of 50-52 percent below 2005 levels by 2030, and net-zero emissions by 2050, and increase resilience to extreme weather events and other disasters resulting from the increasing effects of climate change. Field offices should encourage State DOTs and MPOs to use the transportation planning process to accelerate the transition toward electric and other alternative fueled vehicles, plan for a sustainable infrastructure system that works for all users, and undertake actions to prepare for and adapt to the impacts of climate change. Appropriate Unified Planning Work Program work tasks could include identifying the barriers to and opportunities for deployment of fueling and charging infrastructure; evaluating opportunities to reduce greenhouse gas emissions by reducing single-occupancy vehicle trips and increasing access to public transportation, shift to lower emission modes of transportation ; and identifying transportation system vulnerabilities to climate change impacts and evaluating potential solutions. We encourage you to visit FHWA's Sustainable Transportation or FTA's Transit and Sustainability Webpages for more information.

(See EO 14008 on "Tackling the Climate Crisis at Home and Abroad," EO 13990 on "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis." EO 14030 on "Climate-Related Financial Risk," See also FHWA Order 5520 "Transportation System Preparedness and Resilience to Extreme Weather Events," FTA's "Hazard Mitigation Cost Effectiveness Tool," FTA's "Emergency Relief Manual," and "TCRP Document 70: Improving the Resilience of Transit Systems Threatened by Natural Disasters")

Equity and Justice40 in Transportation Planning

FHWA Division and FTA regional offices should work with MPOs, State DOTs, and providers of public transportation to advance racial equity and support for underserved and disadvantaged communities. This will help ensure public involvement in the planning process and that plans and strategies reflect various perspectives, concerns, and priorities from impacted areas. We encourage the use of strategies that: (1) improve infrastructure for non-motorized travel, public transportation access, and increased public transportation service in underserved communities; (2) plan for the safety of all road users, particularly those on arterials, through infrastructure improvements and advanced speed management; (3) reduce single-occupancy vehicle travel and associated air pollution in communities near high-volume corridors; (4) offer reduced public transportation fares as appropriate; (5) target demand-response service towards communities with higher concentrations of older adults and those with poor access to essential services; and (6) consider equitable and sustainable practices while developing transit-oriented development including affordable housing strategies and consideration of environmental justice populations.

To accomplish both initiatives, our joint planning processes should support State and MPO goals for economic opportunity in disadvantaged communities that have been historically marginalized and overburdened by pollution and underinvestment in housing, transportation, water and wastewater infrastructure, recreation, and health care.

Executive Order 13985 (Advancing Racial Equity and Support for Underserved Communities) defines the term "equity" as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian and provides a whole-of-government approach to advancing environmental justice by stating that 40 percent of Federal investments flow to disadvantaged communities. FHWA Division and FTA regional offices should work with State DOTs, MPOs, and providers of public transportation to review current and new metropolitan transportation plans to advance Federal investments to disadvantaged communities.

Complete Streets

FHWA Division and FTA regional offices should work with MPOs, State DOTs and providers of public transportation to review current policies, rules, and procedures to determine their impact on safety for all road users. This effort should work to include provisions for safety in future transportation infrastructure, particularly those outside automobiles.

A complete street is safe, and feels safe, for everyone using the street. FHWA and FTA seek to help Federal aid recipients plan, develop, and operate streets and networks that prioritize safety, comfort, and access to destinations for people who use the street network, including pedestrians, bicyclists, transit riders, micro-mobility users, freight delivery services, and motorists. The goal is to provide an equitable and safe transportation network for travelers of all ages and abilities, including those from marginalized communities facing historic disinvestment. This vision is not achieved through a one-size-fits-all solution – each complete street is unique and developed to best serve its community context and its primary role in the network.

Per the National Highway Traffic Safety Administration's 2019 data, 62 percent of the motor vehicle crashes that resulted in pedestrian fatalities took place on arterials. Arterials tend to be designed for vehicle movement rather than mobility for non-motorized users and often lack convenient and safe crossing opportunities. They can function as barriers to a safe travel network for road users outside of vehicles.

To be considered complete, these roads should include safe pedestrian facilities, safe transit stops (if present), and safe crossing opportunities on an interval necessary for accessing destinations. A safe and complete network for bicycles can also be achieved through a safe and comfortable bicycle facility located on the roadway, adjacent to the road, or on a nearby parallel corridor. Jurisdictions will be encouraged to prioritize safety improvements and speed management on arterials that are essential to creating complete travel networks for those without access to single-occupancy vehicles.

Public Involvement

Early, effective, and continuous public involvement brings diverse viewpoints into the decision-making process. FHWA Division and FTA regional offices should encourage MPOs, State DOTs, and providers of public transportation to increase meaningful public involvement in transportation planning by integrating Virtual Public Involvement (VPI) tools into the overall public involvement approach while ensuring continued public participation by individuals without access to computers and mobile devices. The use of VPI broadens the reach of information to the public and makes participation more convenient and affordable to greater numbers of people. Virtual tools provide increased transparency and access to transportation planning activities and decision-making processes. Many virtual tools also provide information in visual and interactive formats that enhance public and stakeholder understanding of proposed plans, programs, and projects. Increasing participation earlier in the process can reduce project delays and lower staff time and costs. More information on VPI is available here.

Strategic Highway Network (STRAHNET)/U.S. Department of Defense (DOD) Coordination

FHWA Division and FTA regional offices should encourage MPOs and State DOTs to coordinate with representatives from DOD in the transportation planning and project programming process on infrastructure and

connectivity needs for STRAHNET routes and other public roads that connect to DOD facilities. According to the Declaration of Policy in 23 U.S.C. 101(b)(1), it is in the national interest to accelerate construction of the Federal-aid highway system, including the Dwight D. Eisenhower National System of Interstate and Defense Highways, because many of the highways (or portions of the highways) are inadequate to meet the needs of national and civil defense. The DOD's facilities include military bases, ports, and depots. The road networks that provide access and connections to these facilities are essential to national security. The 64,200-mile STRAHNET system consists of public highways that provide access, continuity, and emergency transportation of personnel and equipment in times of peace and war. It includes the entire 48,482 miles of the Dwight D. Eisenhower National System of Interstate and Defense Highways and 14,000 miles of other non-Interstate public highways on the National Highway System. The STRAHNET also contains approximately 1,800 miles of connector routes linking more than 200 military installations and ports to the primary highway system. The DOD's facilities are also often major employers in a region, generating substantial volumes of commuter and freight traffic on the transportation network and around entry points to the military facilities. Stakeholders are encouraged to review the STRAHNET maps and recent Power Project Platform (PPP) studies. These can be a useful resource in the State and MPO areas covered by these route analyses.

Federal Land Management Agency (FLMA) Coordination

FHWA Division and FTA regional offices should encourage MPOs and State DOTs to coordinate with FLMAs in the transportation planning and project programming process on infrastructure and connectivity needs related to access routes and other public roads and transportation services that connect to Federal lands. Through joint coordination, the State DOTs, MPOs, Tribal Governments, FLMAs, and local agencies should focus on integration of their transportation planning activities and develop cross-cutting State and MPO long range transportation plans, programs, and corridor studies, as well as the Office of Federal Lands Highway's developed transportation plans and programs. Agencies should explore opportunities to leverage transportation funding to support access and transportation needs of FLMAs before transportation projects are programmed in the Transportation Improvement Program (TIP) and Statewide Transportation Improvement Program (STIP). Each State must consider the concerns of FLMAs that have jurisdiction over land within the boundaries of the State (23 CFR 450.208(a)(3)). MPOs must appropriately involve FLMAs in the development of the metropolitan transportation plan and the TIP (23 CFR 450.316(d)). Additionally, the Tribal Transportation Program, Federal Lands Transportation Program, and the Federal Lands Access Program TIPs must be included in the STIP, directly or by reference, after FHWA approval in accordance with 23 U.S.C. 201(c) (23 CFR 450.218(e)).

Planning and Environment Linkages (PEL)

FHWA Division and FTA regional offices should encourage MPOs, State DOTs and Public Transportation Agencies to implement PEL as part of the transportation planning and environmental review processes. The use of PEL is a collaborative and integrated approach to transportation decision-making that considers environmental, community, and economic goals early in the transportation planning process, and uses the information, analysis, and products developed during planning to inform the environmental review process. PEL leads to interagency relationship building among planning, resource, and regulatory agencies in the early stages of planning to inform and improve project delivery timeframes, including minimizing duplication and creating one cohesive flow of information. This results in transportation programs and projects that serve the community's transportation needs more effectively while avoiding and minimizing the impacts on human and natural resources. More information on PEL is available here.

Data in Transportation Planning

To address the emerging topic areas of data sharing, needs, and analytics, FHWA Division and FTA regional offices should encourage MPOs, State DOTs, and providers of public transportation to incorporate data sharing and consideration into the transportation planning process, because data assets have value across multiple programs.

Data sharing principles and data management can be used for a variety of issues, such as freight, bike and pedestrian planning, equity analyses, managing curb space, performance management, travel time reliability, connected and autonomous vehicles, mobility services, and safety. Developing and advancing data sharing principles allows for efficient use of resources and improved policy and decision-making at the State, MPO, regional, and local levels for all parties.

Corpus Christi MPO Agreements

Agreements in force among the participating agencies relative to the metropolitan transportation planning process include:

- Corpus Christi MPO / TXDOT Planning / Nueces County Fiscal Agent MOA signed May 22, 2018
- Corpus Christi MPO / TXDOT TIP / STIP Amendment MOA signed April 1, 2009
- Corpus Christi MPO / CCRTA MOA signed September 8, 2010

F. STATUS OF CORE CORPUS CHRISTI MPO PLANNING DOCUMENTS

The table below lists the core work products of the Corpus Christi MPO, the adoption date, planning horizon and the time when the next update is due.

Exhibit 3. Planning Document Status

Core Documents	Date Adopted	Time Span	Update Due
2021-2024 Transportation Improvement Program (TIP)	July 20, 2020	2-Years	July 2022
2023-2026 Transportation Improvement Program (TIP)	June 2, 2022	2-Years	June 2024
Annual Self-Certification	July 1, 2021	1-Year	July 2022
Public Participation Plan (PPP)	July 1, 2021	4-Years	July 2025
Title VI / Environmental Justice (EJ) Plan – Program for Addressing Discrimination (PAD)	July 1, 2021	2-Years	July 2023
Congestion Management Process (CMP)	February 6, 2020	5-Years	February 2025
2045 Metropolitan Transportation Plan (MTP)	February 6, 2020	5-Years	February 2025

SECTION II. TASK 1.0 – ADMINISTRATION AND MANAGEMENT

Task 1.0 is managing and administering the federal transportation planning requirements in and for the Corpus Christi Metropolitan Planning Organization. Included in this task are the direct expenses associated with the planning effort and products to be delivered within the UPWP.

FUNDING SUMMARY:

Exhibit 4. TASK 1.0: ADMINISTRATION AND MANAGEMENT BUDGET SUMMARY

Subtask	Responsible Agency	Transportation Planning Funds (TPF)[1]		STBG/CAT 7	Local	Total		
		FY 2023	FY 2024			FY 2023	FY 2024	2-Year
1.1	MPO	$22,900	$24,000	$0	$0	$22,900	$24,000	**$46,900**
1.2	MPO	$11,700	$12,300	$0	$0	$11,700	$12,300	**$24,000**
1.3	MPO	$26,700	$28,000	$0	$0	$26,700	$28,000	**$54,700**
1.4	MPO	$16,500	$17,400	$0	$0	$16,500	$17,400	**$33,900**
1.5	MPO	$39,000	$41,700	$0	$0	$39,000	$41,700	**$80,700**
1.6	MPO	$27,000	$28,300	$0	$0	$27,000	$28,300	**$55,300**
1.7	MPO	$45,000	$52,000	$0	$0	$45,000	$52,000	**$97,000**
1.8	MPO	$17,300	$18,200	$0	$0	$17,300	$18,200	**$35,500**
1.9	MPO	$2,008,000	$306,000	$1,750,000[2]	$50,000	$3,058,000	$1,056,000	**$4,114,000**
TOTAL		**$2,214,100**	**$527,900**	**$1,750,000**	**$50,000**	**$3,264,100**	**$1,277,900**	**$4,542,000**

[1] TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds and is also known as the Consolidated Planning Grant (CPG). 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.

[2] Additional Proposed funds from the FY 2022 Amendment 1 allocation of STBG/CAT 7 funding for projects and programs.

OBJECTIVE: Coordinate the transportation planning activities of the Corpus Christi MPO with TxDOT, FHWA, and interested public agencies as part of the metropolitan transportation planning process. Maintain records of all activities needed for the comprehensive, coordinated, and continuing (3C) transportation planning process. Take actions to enhance the technical capacity of the planning process and insure a proactive public involvement process that provides full public access to key decisions in developing both short- and long-range plans and programs.

METHODOLOGY: Work elements in this activity are administrative and management tasks associated with the function, coordination, and day-to-day activities of the Corpus Christi MPO. The development of department goals and policies; committee structures and staffing; interagency coordination and communication; and staffing of various transportation planning related efforts. Required duties include communicating with the public and committee members regarding meetings, preparation of meeting packets, attendance at meetings, coordination of projects/programs, and oversight of planning activities. Additionally, this task will meet the technical objectives of the organization regarding computer equipment and/or software packages. Direct expenses are listed in

subtask 1.9. The additional local funds through the Corpus Christi MPO's Strategic Reserve Fund pays for special projects and for individual professional membership dues for Corpus Christi MPO staff members.

EXPECTED PRODUCTS:

Budget/Finance:

- Maintain current planning agreements and execute annual contracts and amendments for planning funds.
- Prepare and monitor annual operating budgets.
- Consider an annual audit to certify that the proper financial procedures are being considered.
- Participate in semi-annual UPWP monitoring meetings with TxDOT.

Unified Planning Work Program (UPWP):

- Prepare updates to the FY 2022 UPWP and amend FY 2022 funding.
- Develop the FY 2023 and FY 2024 Unified Planning Work Program.

Annual Performance and Expenditure Report (APER):

- Prepare Annual Performance and Expenditure Report (APER) on the FY 2022 – FY 2023 UPWP.
- Complete and approve the annual budget and annual performance and expenditures completion report.

Cooperative Planning:

- Provide data for program reviews and certification. Guidance will be provided to Corpus Christi MPO planning partners on various topics related to Corpus Christi MPO activities. Of particular importance is the review and assessment of existing and proposed legislation and issues relevant to Corpus Christi MPO transportation planning. This will assist in the effective use of member government staff time and clearly identify the roles and responsibilities for Corpus Christi MPO partners.
- Regular coordination and consultation will occur between the Corpus Christi MPO staff and state and federal personnel on the development and implementation of all plans and programs. Staff will participate in state, federal, MPO, and locally-sponsored meetings relevant to the Corpus Christi MPO transportation planning process. Appropriate reports, maps, documents and other forms of technical transportation assistance will be made available as necessary to the general public and government entities.
- Staff will participate in local planning studies carried out by the Corpus Christi MPO partner entities, as appropriate. These may include, but not are limited to, the planning activities described in Section IV.
- Cooperatively work with transportation-related working groups.
- Work with regional, Federal, and State partners to coordinate transportation planning efforts including transit agencies and adjacent COG planning efforts.
- Monitor best practices for transportation planning by attending workshops and conferences and by participating in industry associations such as Texas Association of MPOs (TEMPO), Transportation for America, American Planning Association, National Academies of Science Transportation Research Board, Association of Metropolitan Planning Organizations, Institute of Transportation Engineers, American Society of Civil Engineers, Texas Transportation Institute, among others.
- Cooperatively work with TxDOT to establish the administrative and technical procedures required to meet federal planning requirements; prepare and review contractual agreements as necessary; participate in Corpus Christi MPO meetings; distribute special and annual reports and study documents; review and analyze individual transportation planning projects and studies; and undertake general administrative activities in support of the metropolitan planning program.

Personnel:

- Conduct personnel evaluations;
- Improve the professional capabilities of staff by attending and participating in local, regional, state and national workshops, conferences and coordination meetings;
    - Professional membership dues for individual Corpus Christi MPO staff is paid for by the Corpus Christi MPO's Strategic Reserve Fund. Membership dues for the Corpus Christi MPO for TEMPO and AMPO are paid for through the federal PL/CPG funds.

Committees:

- Administer monthly technical and policy meetings including preparing agendas, minutes, materials, and publicizing the information to citizens,
- Staff will continue its ongoing support and participation on the Corpus Christi MPO technical committees, including the Transportation Advisory Committee (TAC), Regional Traffic Safety Task Force, Infrastructure Committee,
- Live streaming the Transportation Policy Committee (TPC) meetings,
- Recording Committee Meetings

Public Participation Plan:

- Periodic review of the Public Participation Plan for effectiveness according to 23 CFR 450.210 and 450.316).
- Participate TxDOT's annual PPP audit as requested.
- Evaluate new strategies to enhance current social media activities as a public involvement tool into the Public Participation Plan.
- Update the Public Participation Plan as necessary and follow the procedures when notifying the public. Evaluate the effectiveness of the plan for engaging disadvantaged communities in the decision-making process.

Public Outreach:

- Inform the public about federal-aid improvement projects for the area through a project update report at public meetings and through electronic means.
- Social media, website updates, public notices, media coverage, and news releases to allow the general public to be "in the know". Staff will also answer inquiries electronically, through social media, or in person.
- Continue to maintain/update the Corpus Christi MPO public contact list.

EJ/Title VI:

- Monitor and survey local government's Title VI/ADA programs.
- Provide technical support to local governments for development and implementation of their Title VI plans.
- Develop annual Title VI Goals and Accomplishments Report and add to the appendix of the Title VI Implementation Plan.
    - Ensure that all interested parties are treated equally including but not limited to the elderly, disabled, low income, LEP, and minority populations.
    - Create Title VI programs and update the LEP plan as needed. Determine Environmental Justice and Title VI funding spent in these areas. Ensure that LPAs comply with nondiscrimination requirements and monitor implementation of their Title VI program.
    - Provide Title VI, ADA, and LEP awareness training annually to staff.

General Administrative Function:

- Submit monthly billings for reimbursement.
- Perform general administrative functions such as purchasing, account payable, account receivable, filing, etc.
- Coordinate with the Fiscal Agent on AR, AP activities and monthly billings.
- Monitor UPWP task hours and submit the timesheets.
- Monitor and manage the Strategic Reserve Fund for Special Projects as required.

Federal Compliance/Review/Certification:

- Monitor laws and ordinances including the IIJA.

- Update the Planning MOA to address FAST Act requirements especially in the sharing, selection, reporting, and data collection of performance targets.
- Continue to monitor LPA's Americans with Disabilities Act Transition Plans and other ADA compliance requirements. Concentrations around transit facilities, schools, disadvantaged populations, social services, and medical areas will be of concern.
- Activities to assist in the FHWA Certification Review and to address any opportunities listed in the report.

MPO Documentation:

- Continue to update/amend the Corpus Christi MPO Bylaws as needed.
- Prepare updates to the Memorandum of Agreement between the Corpus Christi MPO, TxDOT, and CCRTA.
- Continue to update/amend the Committee member orientation book.
- Continue to update/amend the Corpus Christi MPO Continuation of Operations Plan (COOP).

PREVIOUS ACCOMPLISHMENTS:

- Prepared UPWP annual Scope of Work reports and associate updates;
- Submitted monthly financial reports and billings;
- Prepared UPWP progress reports;
- Reviewed and Amended FY 2021 – FY 2022 UPWP (adoption September 3, 2020);
- Attended conferences and training sessions;
- Attended partner agencies workshops, public meetings (GLO, Air Quality Group, Harbor Bridge, CBCOG, etc.);
- Submit Single Audit Statement annually to TxDOT;
- Issued 4 Public Notices,
- Held X Open-House Public meetings;
- Closely coordinated with the TxDOT Field Representative and Transportation Project Programming Division for State Required documentation;
- Worked with FHWA for Federal Required documentation (CMP, MTP submission).

SCHEDULE: Consolidated Planning Grant (CPG) contract and financial reports prepared monthly; mid-year UPWP review each April; UPWP annual reports scheduled for completion each December; UPWP amendments as needed; adoption of FY 2025 and FY 2026 UPWP is scheduled for June 2024.

SUBTASKS: The subtasks and their objectives are listed in detail on the following pages.

Subtask 1.1 Program Coordination and Direction
Subtask 1.2 Unified Planning Work Program (UPWP) Development
Subtask 1.3 Monthly Billing and Financial Management
Subtask 1.4 Staff Training and Education
Subtask 1.5 Local, State, and Federal Agency Collaboration Activities
Subtask 1.6 Computer Maintenance and Website Management
Subtask 1.7 Outreach and Public Comment
Subtask 1.8 Program Evaluation
Subtask 1.9 Direct Expenses

Full-time staff members will, with the assistance of outside contractors, as needed, perform administrative and technical activities to accomplish the tasks listed in the UPWP. Time is allocated to each employee based on an estimate of anticipated scope of each subtask.

SUBTASK 1.1 – PROGRAM COORDINATION AND DIRECTION

This subtask is the administration of the Corpus Christi MPO program. Corpus Christi MPO staff will prepare and submit required reports, certification and administrative documentation to maintain continuity and credibility of

the MPO. Staff will also prepare requests for proposals, as required, and solicit for contractual services. Assist participating and collaborating agencies as needed.

SUBTASK 1.2 – UNIFIED PLANNING WORK PROGRAM (UPWP) DEVELOPMENT

In this subtask, Corpus Christi MPO staff will maintain and revise the current UPWP for fiscal years by developing and processing changes for any future amendments. Develop the Annual Project Listing (APL) for the transportation projects that used federal aid in FY 2021 and FY 2022. Corpus Christi MPO staff will also develop the FY 2025 and FY 2026 Unified Planning Work Program under this subtask.

SUBTASK 1.3 – MONTHLY BILLING AND FINANCIAL MANAGEMENT

Prepare budgets, maintain financial records, equipment inventory and ensure monies are spent appropriately. Process timesheets, billing and invoicing, budgeting and management of transportation planning funds; the cost of operating the Corpus Christi MPO, office lease, furniture, equipment lease/rental. An Annual Performance and Expenditure Report (APER) will be prepared at the end of each fiscal year (FY 2023 and FY 2024) in accordance with TxDOT policy and procedures for tasks that utilized FHWA and FTA planning funds. The Corpus Christi MPO will seek state recommendation/federal approval for any expenditure exceeding $25,000.

SUBTASK 1.4 – STAFF TRAINING AND EDUCATION

Subtask 1.4 is the Corpus Christi MPO staff professional development and training program. Transportation planning funds will allow the Corpus Christi MPO staff to travel and attend transportation planning and professional development conferences, workshops, and training. The Corpus Christi MPO will organize training sessions for the Transportation Policy Committee, the Technical Advisory Committee, and any subcommittee members, and to local governments and participating agencies. For out of state travel, the Corpus Christi MPO will seek prior TxDOT approval as appropriate. The Corpus Christi MPO staff will attend trainings provided by, but not limited, to the following associations:

- American Association of State Highway and Transportation Officials (AASHTO)
- American Society of Civil Engineers (ASCE)
- American Planning Association (APA)
- American Public Transportation Association (APTA)
- Association of Metropolitan Planning Organization (AMPO)
- Environmental Systems Research Institute (ESRI)
- Institute of Transportation Engineers (ITE)
- Texas Association of MPOs (TEMPO)
- Texas Department of Transportation (TxDOT)
- Transportation Research Board (TRB)
- National Transit Institute (NTI)
- National Highway Institute (NHI)

SUBTASK 1.5 – LOCAL, STATE, AND FEDERAL AGENCY COLLABORATION ACTIVITIES

<u>Coordinated Planning Efforts</u>

Coordinating transportation planning and investments with other planning and investments is a key requirement of the IIJA and FAST Act. The Corpus Christi MPO will undertake efforts to address the harmonization of housing, transportation, and economic development interventions using a process that provides for effective integration, based on a cooperatively developed and implemented set of strategies for new and existing transportation facilities. This will also address coordination between transportation planning and community and conservation planning processes. These efforts will benefit the region by incorporating social, economic, community, and environmental opportunities into transportation decisions earlier in the planning process and identifying strategies to reduce negative impacts during planning, design, construction, and operations. Determining negative impacts earlier in the transportation planning process promotes more efficient decision making and minimizes duplication of effort, promotes stewardship, and reduces delays in project implementation. In FY 2023 and FY 2024, the Corpus Christi MPO will strive to develop closer partnerships with development and resource agencies

and stakeholders to identify key issues (related to both the natural and built environs), identify mitigation strategies for transportation impacts and build partnerships with aimed at environmental stewardship.

Subtask 1.5 is also the implementation of Public Participation Plan policies 1.2 and 1.3, which state:

Policy 1.2 - Consultation with Agencies and Officials: The Corpus Christi MPO shall make a good faith effort to consult with agencies responsible for other planning activities that are affected by transportation as well officials responsible for other planning activities. This shall include Federal, state and local agencies responsible for land use management, natural resources, conservation, and historic preservation, emergency response, tourism, natural disaster risk reduction, environmental protection and other environmental issues. To accomplish this, the MPO shall maintain up to date contact information for the following:

- Coast Guard
- Homeland Security
- National Parks Service (Department of Interior)
- US Fish and Wildlife Service
- US Environmental Protection Agency
- US Geological Survey
- Bureau of Indian Affairs
- Bureau of Land Management
- Forest Service (US Department of Agriculture)
- National Marine Fisheries
- Texas Parks and Wildlife
- Texas Historical Commission
- General Land Office
- Texas Commission on Environmental Quality
- Local Emergency Planning Committee (Corpus Christi)
- Corpus Christi Convention & Visitors Bureau

Policy 1.3 - Coordination with Agencies and Officials: The Corpus Christi MPO shall make a good faith effort to coordinate its metropolitan transportation planning process with other planning activities affected by transportation including:

- Statewide transportation planning, public involvement, and consultation activities.
- Any other planning activities affected by transportation.

Consult with officials responsible for other types of planning activities that are affected by transportation in the area (including State and local planned growth, economic development, environmental protection, airport operations, and freight movements) or to coordinate its planning process, to the maximum extent practicable, with such planning activities.

The consultation shall involve, as appropriate — (i) comparison of transportation plans with State conservation plans or maps, if available; or (ii) comparison of transportation plans to inventories of natural or historic resources, if available. It also includes providing support to both the Transportation Policy Committee and the Technical Advisory Committee, attending mission-related meetings, along with by-law/policy development and implementation.

The Corpus Christi MPO maintains active engagement with CCRTA Operations and Planning departments. The Corpus Christi MPO remains committed to supporting the Regional Public Transportation Coordination Plan, from the Transportation Coordination Network of the Coastal Bend (TCN).

SUBTASK 1.6 – COMPUTER MAINTENANCE AND WEBSITE MANAGEMENT

This subtask supports the efficient operation of the Corpus Christi MPO office computer equipment and software and updates the Corpus Christi MPO website. Acquire supplies, services, software, and equipment to support the Corpus Christi MPO operations. Equipment purchases over $5,000 per unit (including the cost of any modifications, attachments, accessories, or auxiliary apparatus necessary to make it usable for the purpose for which it is acquired) require prior State and Federal approval.

The system administrator assures the working order of all computers and supporting systems. Funding is allocated and/or service contracts are in operation for the maintenance and upgrade of all automated information

processing equipment and software purchased. Staff will continue updating the Corpus Christi MPO equipment; audio/video equipment, server computers, personal computer hardware and software, to include license maintenance of state of practice platforms like ESRI and Caliper. Staff must also stay abreast of current trends in technology. A description of computer hardware and software purchases in excess of $5,000 will be submitted to TxDOT for approval prior to acquisition. Maintenance of the LAN Network System requires various annual licensing agreements for proprietary software, GIS server support, and web hosting expenses. Website information is updated as information becomes available, and agendas and committee packets are published to the website monthly.

SUBTASK 1.7 – OUTREACH AND PUBLIC COMMENT

Subtask 1.7 is the implementation of the Public Participation Plan as adopted on July 1, 2021. The federal rules for metropolitan transportation planning (23 CFR 450.316) require MPOs to develop and use a documented Public Participation Plan that defines the processes that the Corpus Christi MPO will use to provide any interested or potentially impacted citizens, public agencies, representatives of public transportation, freight shippers, private providers of transportation, users of public transportation, users of pedestrian walkways and bicycle transportation facilities, the disabled, and all other interested parties, with reasonable opportunities to participate in the metropolitan transportation planning and programming processes. The Corpus Christi MPO adopted policies in the Public Participation Plan (PPP) stating:

- The Corpus Christi MPO shall actively engage the public in the transportation planning process according to State and Federal law and the policies outlined in the adopted PPP.
- The Corpus Christi MPO shall keep the public informed of ongoing transportation-related activities on a continuous basis.
- The Corpus Christi MPO shall encourage the involvement of all area citizens in the transportation planning process.
- The Corpus Christi MPO shall strive to continuously improve public participation.
- The Corpus Christi MPO shall ensure that no person, on the grounds of race, religion, color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any agency programs or activities.

This subtask supports refining and implementing the Public Participation Plan, including the day-to-day responses to the public (via email and/or phone), monitor social media, conduct of community outreach and public meetings/hearings as needed with emphasis on Environmental Justice populations.

The Corpus Christi MPO will:

- monitor, evaluate and implement Title VI Civil Rights/Environmental Justice compliance, guidance and requirements for plans and programs;
- continue to collect and analyze data related to minority or low-income populations and the effect of the transportation programs and system on those populations;
- identify ways to mitigate impacts of the system and programs on the identified populations;
- expand the database of citizens and businesses in low income or minority areas to facilitate effective outreach to those populations.

General information about the Corpus Christi MPO activities and events will be posted publicly as part of the Public Participation Process and will provide the opportunity for all stakeholders to provide comments.

The Public Participation Plan is designed to facilitate participation by a range of community members, especially at-risk and traditionally under-served groups including minorities, low-income populations, seniors and individuals with disabilities. Implementation of the tactics outlined in the plan will provide an array of opportunities for meaningful public involvement and ensure compliance with all applicable federal regulations. Outreach efforts will be undertaken as necessary in support of transportation planning activities as they occur.

Engage Diverse Stakeholders by "Going To Them" and Integrating All Voices into the Decision-Making Process: The Corpus Christi MPO will identify events with other agencies and organizations as possible opportunities for outreach. The intent is to do outreach at existing events and meetings, and to engage those audiences during the course of their regularly scheduled meetings and events.

Engage Local Officials: In 2023 and 2024 the Corpus Christi MPO will hold sub-regional meetings for local elected officials and municipal staff with the purpose of informing them about the Corpus Christi MPOs role in the region and their communities' role within the Corpus Christi MPO and soliciting input on the region's transportation needs and long-range plan. Staff will have ongoing one-on-one meetings with newly elected officials and provide opportunities for all elected officials to engage with Corpus Christi MPO decision-making.

Engage Vulnerable Populations: The public involvement processes used to develop the transportation plan and investment programs must include a process for "seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low income and minority households, who may face challenges accessing employment and other services." USC 450.318.

Understand Residents' Priorities Through Public Opinion Research: Gathering qualitative and quantitative information on the public's priorities can involve ranking different goals or outcomes to help support making tradeoffs and prioritizing investments. The Corpus Christi MPO will solicit public opinion via an electronic survey. The Corpus Christi MPO will continue to gather data on public opinion using thorough outreach efforts such as the update to the Metropolitan Transportation Plan, as well as through general outreach such as surveys.

Inform the Public Through Collateral, E-Dashboard, Website, Media and Social Media: As the Corpus Christi MPO gathers increasing amounts of data and expands our analysis capabilities, we will work to provide this wealth of information to the public in an interactive way. Having readily accessible information about performance can not only help drive performance-based planning but can also strengthen outreach to stakeholders and other agencies. By enhancing the website, users can efficiently access Corpus Christi MPO materials, including meeting agendas, reports and studies. Staff will continue to engage with the media on the progress of the regional priorities and other transportation issues impacting transportation. The Corpus Christi MPO will develop and maintain a data dashboard which provides members with transportation data specific to their municipalities and the region.

Use Visualizations: Visualizations help translate data into more easily understood graphics and images and more effectively communicate information. Visualizations are highly useful in a performance-based planning process to communicate performance information, particularly for complex, spatially relevant transportation data. The intent of visualization in public engagement is to help the public understand the context, to add insight to problem solving and to communicate with the public. It is used to communicate performance measures, trends and impacts of strategies to the transportation system. Visualization also can help communicate the complex nature of trade-offs between investing in various types of transportation projects and programs.

SUBTASK 1.8 – PROGRAM EVALUATION

The Corpus Christi MPO will review and evaluate the work accomplished during the previous fiscal year under this subtask. This effort will provide analysis for lessons learned, best practices and recommendations for future planning, training, and process development. As improvement actions are identified and addressed, it is important that any relevant plans, policies, and procedures are updated accordingly.

The Corpus Christi MPO staff will develop an After-Action Report to identify strengths of planning and programming processes that should be maintained and built upon, as well as identifying potential areas for improvement. This may include developing / reviewing processes of the Transportation Improvement Program, Metropolitan Transportation Plan and other planning products; develop and use questionnaires, online surveys, and other participation techniques; and provide bilingual materials and translations as appropriate to ensure the

Corpus Christi MPO's plans, programs and activities comply with Title VI / EJ guidance and requirements, collecting and analyzing data related to minority, low income, limited English proficiency and other populations vulnerable to potential disproportional adverse impacts from the planned transportation system and transportation projects. Implementing the Limited English Proficiency Plan and updating that plan as needed. For each major step in the MTP and TIP processes answers to the following questions will be sought:

- What did we want to accomplish?
- How did this change as the process progressed?
- What did the process accomplish?
- Why was there a difference between what we wanted to do and what we did?
- What went well and why?
- What could have gone better?
- What advice would you give yourself if you were to go back to where you were at the start of the project?
- What should we have learned from this project a year from now?
- How do we adapt our processes for a better outcome OR how do we repeat our successes?

SUBTASK 1.9 – DIRECT EXPENSES

Direct Expenses are products and services directly related to the operation of the Corpus Christi MPO to deliver the UPWP tasks. Typically, these products and services are paid for directly through purchase orders and contracts, leases, and agreements. These generally include: office rent, fiscal agent services, consultant contracts, external demographic and planning datasets and supporting information, communications costs for leases and equipment, office supplies and equipment purchases or leases, conference expenses, travel costs, paper, computer equipment and IT system components and software and the associated maintenance fees.

Budget items for direct expenses are shown below and detailed in Appendix I.

SUBTASK 1.9 EXPENDITURES			
FY 2023 and FY 2024 Direct Expense Revenues by Source		**FY 2023**	**FY 2024**
	Federal CPG Funds	$2,008,000	$306,000
	Other Funds*	$1,050,000	$750,000
FY 2023 and FY 2024 Direct Expense Expenditures by Subtask		**FY 2023**	**FY 2024**
Subtask	**Direct Expense**	**Amount**	**Amount**
1.9 a	Fiscal Agent, Office Rent	$208,000	$207,000
1.9 b	Printing/Reproduction Services	$3,500	$3,500
1.9 c	Education/Training/Conference	$4,000	$4,000
1.9 d	Travel Out-of-State	$5,500	$5,500
1.9 e	Travel In-State	$2,500	$2,500
1.9 f	Supplies	$6,000	$6,000
1.9 g	Support Services	$5,500	$5,500
1.9 h	Memberships/Subscriptions/Publications	$2,500	$2,500
1.9 i	Maintenance - Software/Equipment	$5,500	$5,500
1.9 j	Capital - Furniture/Equipment	$15,000	$15,000
1.9 k	Consultant Contract Services (STBG and Local funding, no CPG)	$2,800,000	$799,000
	Total in 1.9 Direct Expenses	**$3,058,000**	**$1,056,000**

***Potential Carryover STBG (Category 7) funding is estimated at $1,000,000 in 2023 and $750,000 in 2024

SECTION III. TASK 2.0 – MODEL AND DATA DEVELOPMENT ANALYSES

The Corpus Christi MPO will use a systematic data collection process sufficient to meet the multitude of federal performance-based planning and programming requirements. The Corpus Christi MPO team will update information describing existing and forecast transportation conditions and other related social, economic, and ecological conditions to support analyses and comparing performance against adopted goals and objectives. The data must support the future analyses at a level that allows comparison between individual investments and identification of tradeoffs within investments. There must be sufficient detail on investments to compare their relative effectiveness and identify tradeoffs between investments across the spectrum of goals.

The Corpus Christi MPO will find data gathering synergies among agencies to magnify individual effort effectiveness and maximize regional efficiency. The Corpus Christi MPO will collaborate with local agencies to assess existing land use and develop future land use scenarios along CMP Corridors.

Travel-related data and models are building blocks of a performance-based planning and programming process. The data and models provide analytical capability to objectively analyze different projects or policies and create consistent and useful information to aid decision-making. During Fiscal Year 2022, the emphasis on data collection and improvements to the travel model and implementation of other performance target related models will continue. The data collection initiatives include the following: traffic counts on the mainline as well as turning movement counts, bicycle counts where appropriate, and related transportation surveys.

FUNDING SUMMARY:

Exhibit 5. TASK 2.0: MODEL AND DATA DEVELOPMENT ANALYSES BUDGET SUMMARY

Subtask	Responsible Agency	Transportation Planning Funds (TPF)[1]		FTA Sect. 5307	Local	Total		
		FY 2023	FY 2024			FY 2023	FY 2024	2-Year
2.1	MPO	$15,600	$16,300	$0	$0	$15,600	$16,300	**$31,900**
2.2	MPO	$34,800	$13,800	$0	$0	$34,800	$13,800	**$48,600**
2.3	MPO	$21,200	$10,700	$0	$0	$21,200	$10,700	**$31,900**
2.4	MPO	$13,600	$8,600	$0	$0	$13,600	$8,600	**$22,200**
2.5	MPO	$10,800	$6,000	$0	$0	$10,800	$6,000	**$16,800**
2.6	MPO	$19,400	$8,600	$0	$0	$19,400	$8,600	**$28,000**
2.7	MPO	$16,400	$8,600	$0	$0	$16,400	$8,600	**$25,000**
2.8	MPO	$19,500	$8,600	$0	$0	$19,500	$8,600	**$28,100**
2.9	MPO	$12,900	$7,700	$0	$0	$12,900	$7,700	**$20,600**
TOTAL		**$164,200**	**$88,900**	**$0**	**$0**	**$164,200**	**$88,900**	**$253,100**

[1] TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds and is also known as the Consolidated Planning Grant (CPG). 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.

OBJECTIVE: The Corpus Christi MPO will collect data primarily using collaborative partnerships with member agencies, including local governments, TxDOT, CCRTA, and other partner agencies. When data must be directly acquired, the Corpus Christi MPO uses a 3-tier system to economize collection efforts: Corridors of Concern, Corridors of Note, and Areas of Interest. Gathering socio-economic data, traffic count data, travel speed data, accident surveillance and analysis, infrastructure condition data, and non- motorized and transit usage data to provide the information upon which all other planning and programming activities will draw. The metropolitan planning process involves extensive use of various forms of data including population, income, household size, employment, car ownership, street configuration, street capacity, traffic counts, bicycle counts, and land use. Collecting data on traffic conditions, roadway conditions, and system users are vital components of efficient and effective performance-based processes. Data helps leaders make informed investment decisions regarding investments into roadway maintenance and expansion priorities and can even feed into other technologies to provide real-time feedback and help maximize operational performance. Data can also keep travelers informed and safe. Examples of data used every day in transportation planning include cellular and Bluetooth data, which can record travel times, travel direction, and provide information about trip origin/destination. Inductive loop detection, video vehicle detection, and Bluetooth detection can provide accurate counts of vehicles and bicycles using a facility. These technologies can also assist signal timing, alerting signals when users are approaching or at an intersection. More recently, communities have begun investing in fiber-optic networks to help connect the data driven components of the transportation network.

METHODOLOGY: The Corpus Christi MPO is committed to monitoring performance of the transportation system at both the regional scale and corridor scale and using our findings to inform and prioritize both capital investments and implementation of policies that impact transportation. This work task is needed to monitor area travel characteristics and factors affecting travel such as socioeconomic, community and land use data, transportation system data, natural, physical, and human environmental concerns and issues in the Corpus Christi Metropolitan Area. Task 2.0 maintains and expands the transportation, socioeconomic, environmental, and land-use data and encompasses the development of models to forecast future conditions. The data will support statistical analyses for a wide variety of performance-based planning activities.

EXPECTED PRODUCTS:

GIS Database Management:

- Maintain an up-to-date GIS portal that is publicly accessible through the Corpus Christi MPO website.
- Dissemination, upon request and as appropriate, of data to inform regional planning efforts.
- Maintain an up-to-date GIS database that incorporates Census Bureau and Census Transportation Planning Package (CTPP) 2020 data, Traffic Analysis Zone (TAZ) data, and the Travel Demand Model (TDM) database.
- Technical support to partners to facilitate effective use of the data generated by the updated model.

TDM and Corridor Model:

- The Corpus Christi MPO will work with TxDOT and a private consultant to turn the information received from TxDOT and TTI into a useable Travel Demand Model and Meso-level corridor model.
- The Corpus Christi MPO staff will work with consulting staff to develop enhancements possible including dynamic traffic assignment, more times-of-day, intersection controls, tours in place of trips, and multiple socio-economic scenarios. Stakeholders from around the region will review and reconcile the updated model with other forecasting efforts. All assumptions, discussions, factors and results shall be documented in sufficient detail to enable an outside observer to validate the model development and usage. The model may consider emerging technologies and services such as electrification, automation, and sharing, and use these to represent traffic flow on the regionally classified network. The modes may include networks for standard vehicles, autonomous vehicles, freight, transit, on demand shuttle services, regional bicycle and

pedestrian movements. The traffic analysis zones will be revised to better reflect socio-economic data and to provide additional detail for land-use scenarios and travel movements.

- A Mesoscopic Model that allows investigation for each Corridor of Concern and Corridor of Note will be developed. Emphasis is on showing problematic traffic and relationships with roadway characteristics.
- As part of the Regional ITS system, tools designed to develop optimal signal phasing and timing plans for isolated signal intersections, arterial streets, or signal networks will be reviewed and acquisition explored.

Social-economic Allocation Model:

- Deployment of UrbanSim to allocate jobs and households by simulating the dynamic interaction of development, jobs, real estate markets and the regional transportation system within the constraints of local growth policies.
- Use finalized regional control totals as inputs to develop at least 3 future-year allocation scenarios for development.

Crash Analysis Model:

- A complete datafile of crashes between 2017 and 2021 that is ready to run on the Vison Zero Suite (VZS) software platform.
- Deployment of VZS to identify the 40 highest frequency KA (severe or fatal) crash locations.
- Identification of no less than the top 20 intersections that require more detailed analysis based on traffic movement of each intersection.

Bridge, Culvert, and Pavement Model:

- Acquire and harmonize pavement condition data from local and state agencies.
- Populate and calibrate a HERS-ST model for regional analysis.
- Work with TxDOT to acquire bridge condition data and an estimate of maintenance needs.
- Acquire culvert information and a method of estimating maintenance needs.

EXPECTED PRODUCTS:

- Travel Speed data for the National Highway System.
- An Updated Regional TDM. Consultants may aid this endeavor.
- A calibrated Meso-scopic Model. Consultants may aid this endeavor.
- Refined Crash Data and detailed analysis. Consultants may aid this endeavor.
- Refined HERS-ST Model. Consultants may aid this endeavor.
- Refined socio-economic allocation model. Consultants may aid this endeavor.

PREVIOUS WORK: The Corpus Christi MPO developed a GIS database that reflects Census 2020 population, household, income, and employment data. The Corpus Christi MPO made these data accessible through the Corpus Christi MPO website and by direct distribution, as appropriate, upon request. The Corpus Christi MPO maintains an up-to-date GIS database to inform internal and external planning processes. As part of this work, the Corpus Christi MPO reviews and converts CTPP 2020 data into the standard ESRI format and has converted TIP data transfer into the GIS format.

Corpus Christi MPO staff refined TDM TAZ boundaries various scenarios and ran traffic assignments and travel forecasts for specific corridor scenarios. Staff refined TDM roadway networks and ran traffic assignments and travel forecasts for specific corridor alternatives in support of the MTP. Corpus Christi MPO staff prepared the input for the emission model and provided technical support for the initiation of the City of Corpus Christi's TDM Study. The Corpus Christi MPO will implement regional traffic model enhancements s such as time-of-day, meso-level corridor information, intersection control, land use, and transit information.

The Corpus Christi MPO staff will complete production of demographic data sets, utilizing Census 2020 data, including population, income, household, and employment data in five-year increments; data sets were delivered to TxDOT for use in updating the Corpus Christi MPO's TDM to a 2050 forecast year. The completion of

demographic data acquisition built upon other tasks that were undertaken to prepare for the model update, including: calibration of the 2050 TDM to prepare transportation forecasts for specific corridor alternatives.

SUBTASK: The subtasks and their objectives are listed in detail on the following pages.

Subtask 2.1 MPO Geographic Information System (GIS) Database Management
Subtask 2.2 Travel Demand and Corridor Model Development and Update
Subtask 2.3 Socio-Economic Allocation Model Data Acquisition and Calibration
Subtask 2.4 Crash Data Acquisition and Crash Model Calibration
Subtask 2.5 Infrastructure Condition Data Aggregation and Analysis Models
Subtask 2.6 Community Impact Model Development and Implementation
Subtask 2.7 Environmental Resource / Linkages Model Development and Implementation
Subtask 2.8 HAZUS / Resiliency Model Development and Implementation
Subtask 2.9 Economic Analyses Model Development and Implementation

SUBTASK 2.1 – MPO GEOGRAPHIC INFORMATION SYSTEM (GIS) DATABASE MANAGEMENT

This subtask allows staff to manage and update the GIS database as part of the Corpus Christi MPO's continuous planning process. Data for state and national performance measures are collected and updated annually. Data for regional performance measures (i.e. measures used to evaluate the performance of the metropolitan transportation system overall) will also be collected and updated annually. Project scale performance measures (i.e. those used to prioritize capital investments on individual corridor segments) are updated at a minimum of every two years to inform project selection in conjunction with updates to the TIP, or as needed to guide regional decision-making. There are efficiencies that will be gained by coordinating this data collection. The Corpus Christi MPO may need to use financial resources to acquire data directly. It could also take the form of purchasing regionally specific data from one or more of the "Big Data" compiler agencies.

A brief, not wholly inclusive, list of these potential sources* includes:

- https://tti.tamu.edu/
- https://www.cattlab.umd.edu/
- https://www.streetlightdata.com/
- https://www.airsage.com/
- http://inrix.com/
- https://www.innovarytech.com/turning-movement-counts/
- https://www.here.com/products
- https://mysidewalk.com/
- https://www.strava.com/
- https://www.waze.com/
- https://www.tomtom.com/en_gb/traffic-index/
- http://www.ihsglobalinsight.com/ProductsServices/ProductDetail838.htm

*Listing these companies in no way, shape, or form, suggests that the Corpus Christi MPO advocates or endorses their work. This is for information purposes only.

The Corpus Christi MPO acquires, aggregates, reviews, and formats data in a geospatial format to inform internal planning processes and the activities of the broader planning community. Analysis of the 2020 census demographic and land use data will be performed for the geographic distribution and aggregation. The Corpus Christi MPO coordinates with local and state agencies to develop trend data on changes in land use through the analysis and review of existing demographic data.

SUBTASK 2.2 – TRAVEL DEMAND AND CORRIDOR MODEL DEVELOPMENT AND UPDATE

Corpus Christi MPO staff will coordinate with TxDOT to update the regional Travel Demand Model and develop meso-scale corridor models as appropriate to assist with Congestion Management Process enhancements and Transportation System Management Operations that improve efficient traffic flows. A consulting firm may be

hired to aid development of forecasting processes. These counts, and counts from other agencies, will be coded into various models to aid analyses of conditions, needs and solutions. Implementation of the Travel Demand Model enhancements including dynamic traffic assignment, time-of-day, intersection control, tours, land use, and transit information.

SUBTASK 2.3 – SOCIO-ECONOMIC ALLOCATION MODEL DATA ACQUISITION AND CALIBRATION

Review local land use files, property information, employment information and U.S. Census databases and update databases as needed. Develop regionally approved population, income, household, and employment data from appropriate sources for the Corpus Christi MPO's planning and forecasting processes. Explore, and implement with consultant help, an advanced allocation model such as Urbanism. A consulting firm may be hired to aid development of forecasting tools or processes.

The socioeconomic database is compiled and maintained using local land use files, property information, employment information and U.S. Census materials such as American Community Survey (ACS), Woods and Poole forecasts, and other information as required.

SUBTASK 2.4 – CRASH DATA ACQUISITION AND CRASH MODEL CALIBRATION

Unlike other performance measures applicable only to the National Highway System (NHS), the safety performance measures apply to all public roads. The Traffic Engineering Accident Analysis System (TEAAS) is a tool to analyze accidents that occur on roads throughout the state. This database is maintained by the Traffic Engineering and Safety Systems Branch of TxDOT. The Corpus Christi MPO staff will acquire and refine crash data and supporting information such as traffic volumes and turning movement counts. These data will be input into the Vision Zero Suite software model, with consultant help, to create a locally calibrated crash analysis model that highlights unusual locations. A consulting firm may be hired to aid development of forecasting tools or processes. Activities will also include participation in multi-disciplinary safety initiatives at the local, regional, or state level.

SUBTASK 2.5 – INFRASTRUCTURE CONDITION DATA AGGREGATION AND ANALYSES MODELS

The Corpus Christi MPO staff will acquire infrastructure condition data from local and state sources and, possibly with consulting help, refine the data into a calibrated regional Highway Economic Requirements System (HERS) model that uses engineering concepts to identify deficiencies and apply economic principles to determine the outcome of different investment strategies. A consulting firm may be hired to aid development of forecasting tools or processes.

HERS can estimate future pavement conditions for specific investment levels, it can also evaluate the impacts of alternative types of investment strategies, develop scenarios for the best use of a limited amount of funds, and determine what the total cost is to completely repair and maintain all roads in the region in 5, 10, and 25 year increments.

SUBTASK 2.6 – COMMUNITY IMPACT MODEL DEVELOPMENT AND IMPLEMENTATION

The Corpus Christi MPO will develop a process to quantify distributional equity using a census based zonal system. A consulting firm may be hired to aid development of forecasting tools or processes. This effort will identify if there are disparities toward vulnerable populations using a three-step process:

1. Establish the baseline distribution of amenities and exposures to hazards within and among communities and geographies.
2. Analyze the forecast outcomes from projects for the different groups and compare the distribution of impacts to the identified needs of the disadvantaged groups.
3. Identify how proposed projects may improve or worsen the situation for the disadvantaged or vulnerable people compared to the most benefitted populations.

While it is difficult to specify what exactly the vulnerable populations will desire until the outreach with them is complete, the data will likely be developed based on the national goals:

- Crash analyses for representative intersections,
- Congestion analyses of representative intersections,

- Pavement and bridge conditions,
- Walk and Bike accessibility score analyses,
- MOVES3 hotspot analysis,
- Extreme weather vulnerability,
- Spatial distributions of trip-ends into the zones, by time of day.
- The analysis may also include an analysis of noise levels.

SUBTASK 2.7 – ENVIRONMENTAL RESOURCE / LINKAGES MODEL DEVELOPMENT AND IMPLEMENTATION

The federal requirement to incorporate mitigation into regional transportation plans requires a continuous, cooperative and comprehensive process that responds to local, state, federal, and non-profit agency needs and priorities. This requires that the Corpus Christi MPO collaboratively consider the goals of these agencies early in the transportation planning process, and use the information, analysis, and products to inform the project selection process. The MPO will acquire the data, create a tool, or develop a process to overlay the locations of critical social, cultural, or ecological attributes such as streams, wetlands, rare plant habitats, and historic sites, along with maps of potential transportation projects. A consulting firm may be hired to aid development of forecasting tools or processes. The exact effort cannot be known until the relationship with each of these agencies is known. This effort will increase opportunities for collaboration that did not easily exist in the past. By sharing information with partner agencies and stakeholders early in the planning process, transparency that creates conditions for more efficient and effective approaches to both projects and mitigation can be identified. This subtask will result in the data and process necessary to identify the both the types of potential environmental mitigation activities that may have the greatest potential to restore and maintain the environmental functions affected by the projects included in the MTP and where the areas to carry out these activities are located.

1. Establish the baseline distribution of amenities and exposures to hazards within and among communities and geographies.
2. Analyze the forecast outcomes from projects for the different groups and compare the distribution of impacts to the identified needs of the disadvantaged groups.
3. Identify how proposed projects may improve or worsen the situation for the disadvantaged or vulnerable people compared to the most benefitted populations.

While it is difficult to specify what exactly the vulnerable populations will desire until the outreach with them is complete, the data will likely be developed based on the national goals:

- Crash analyses for representative intersections,
- Congestion analyses of representative intersections,
- Pavement and bridge conditions,
- Walk and Bike accessibility score analyses,
- MOVES3 hotspot analysis,
- Extreme weather vulnerability,
- Spatial distributions of trip-ends into the zones, by time of day.
- The analysis may also include an analysis of noise levels.

SUBTASK 2.8 – HAZUS / RESILIENCY MODEL DEVELOPMENT AND IMPLEMENTATION

The Corpus Christi MPO will develop one or more tools or processes to identify transportation system vulnerabilities to extreme weather events and climate change impacts. This effort will also produce a tool or process to determine which infrastructure investments may best help increase resilience to extreme weather events and other disasters, especially those resulting from the increasing effects of climate change. A consulting firm may be hired to aid development of forecasting tools or processes.

SUBTASK 2.9 – ECONOMIC ANALYSES MODEL DEVELOPMENT AND IMPLEMENTATION

The Corpus Christi MPO will create a tool and process to allow development of both benefit-cost analysis (BCA) and Net Present Value (NPV) to help ensure that the transportation funding is devoted to projects that are an efficient and effective investment for the region.

The Corpus Christi MPO will develop one or more tools or processes to identify transportation system vulnerabilities to extreme weather events and climate change impacts. This effort will also produce a tool or process to determine which infrastructure investments may best help increase resilience to extreme weather events and other disasters, especially those resulting from the increasing effects of climate change. A consulting firm may be hired to aid development of forecasting tools or processes.

- BCA is a systematic process for identifying, quantifying, and comparing expected benefits and costs of a potential infrastructure project. The intent of benefit-cost analysis is to examine whether the proposed project is justified given its expected benefits; simply comparing one capital investment project to another does not indicate whether either project would be cost-beneficial in its own right.
- NPV is perhaps the most straightforward BCA measure. All benefits and costs over an alternative's life cycle are discounted to the present, and the costs are subtracted from the benefits to yield a NPV. If benefits exceed costs, the NPV is positive, and the project may be considered to be economically justified.

The goal of a well-produced BCA is to provide an objective assessment of a project that carefully considers and measures the outcomes that are expected to result from the investment in the project and quantifies their value. Each analysis needs to include a well-defined baseline to measure the incremental benefits and costs of a proposed project against. A baseline is sometimes referred to as the "no-build alternative." A baseline defines the world without the proposed project. As the status quo, the baseline should incorporate factors—including future changes in traffic volumes and ongoing routine maintenance—that are not brought on by the project itself and would occur even in its absence.

SECTION IV. TASK 3.0 – SHORT RANGE PLANNING

The process of building, operating, maintaining, and reconstructing the region's surface transportation system is complex and demands ongoing metropolitan planning efforts. The activities described in this task depend upon collaborative and coordinated information and decision-making processes among state and local government agencies, transportation providers, and the users of the regional system. The cooperation among all these stakeholders will simplify and harmonize metropolitan transportation planning efforts and lead to greater mobility and accessibility benefits.

FUNDING SUMMARY:

Exhibit 6. TASK 3.0: SHORT RANGE PLANNING BUDGET SUMMARY

Subtask	Responsible Agency	Transportation Planning Funds (TPF)[1]		FTA Sect. 5307	Local	Total		
		FY 2023	FY 2024			FY 2023	FY 2024	2-Year
3.1	MPO	$21,100	$22,200	$0	$0	$21,100	$22,200	**$43,300**
3.2	MPO	$22,700	$7,700	$0	$0	$22,700	$7,700	**$30,400**
3.3	MPO	$20,900	$7,700	$0	$0	$20,900	$7,700	**$28,600**
3.4	MPO	$11,200	$10,500	$0	$0	$11,200	$10,500	**$21,700**
3.5	MPO	$18,700	$11,100	$0	$0	$18,700	$11,100	**$29,800**
3.6	MPO	$12,200	$17,300	$0	$0	$12,200	$17,300	**$29,500**
3.7	MPO	$13,500	$8,600	$0	$0	$13,500	$8,600	**$22,100**
3.8	MPO	$21,300	$9,200	$0	$0	$21,300	$9,200	**$30,500**
3.9	MPO	$17,100	$14,500	$0	$0	$17,100	$14,500	**$31,600**
3.10	MPO	$19,200	$9,200	$0	$0	$19,200	$9,200	**$28,400**
3.11	MPO	$19,900	$16,200	$0	$0	$19,900	$16,200	**$36,100**
TOTAL		**$197,800**	**$134,200**	**$0**	**$0**	**$197,800**	**$134,200**	**$332,000**

[1] TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds and is also known as the Consolidated Planning Grant (CPG). 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.

OBJECTIVE: In addition to maintaining a TIP that outlines a four-year schedule of transportation improvements for the study area and reflects the planning priorities of federal legislation, the MPO carries out various planning studies to assess the need for other projects that have not yet been identified in the MTP or TIP. Such studies may function to guide capital investments and project prioritization by municipalities and other entities in the MPO area.

METHODOLOGY:

- Maintenance of an up-to-date FY 2021-2024 TIP
- Creation of the FY 2023-2026 TIP
- Identify EJ/Title VI funding and project list in the TIP and MTP
- Acquisition and compilation (annually) of myriad Performance Metric data—including seven congestion-specific metrics—relating to eight Performance Measurement topics and four regional Goal Areas, per the

MPO's performance-based planning framework, as defined in the CMP. These data, which are acquired from multiple sources, are used to prioritize capital projects and assess the functionality of the regional transportation network, including evaluating the severity of congestion

- Collaboration with local partners to collect freight origin/destination data to augment the existing hazardous materials commodity flows dataset
- An updated Regional Public Transportation Coordination Plan from the 2017-2021 version
- Compilation of traffic count data from various multiple sources to inform the evaluation of the degree of congestion on various segments
- An updated Coordinated Human Services Transportation Plan.
- CMP / TSMO / ITS Architecture Plan
- Active and Micro-mobility Transportation Planning
- Regional Freight Planning
- Transit Coordination
- Regional and Project Economic Analyses Whitepaper
- Infrastructure Lifecycle Analysis Report
- Crash Analysis and Incident Management Planning

EXPECTED PRODUCTS:

- Amendments to adopted FY 2021-2024 TIP
- A new FY 2023-2026 TIP
- An active and Micro-mobility Transportation Planning Issues Report
- Updated Congestion Management Program corridor information
- Updated Regional ITS Architecture Plan
- Updated Regional ITS Strategic Implementation Plan
- Updated designated National Freight Network routes in the Corpus Christi MPO area
- Updated Functional Classification Map
- Updated Transit Route and Transit Service Coverage Maps
- Regional and Project Economic Analyses Whitepaper
- Calibrated Economic Analysis Model
- Infrastructure Lifecycle Analysis Report
- Calibrated Crash Model
- Top 20 Intersection Crash Locations
- An updated Coordinated Human Services Transportation Plan

PREVIOUS WORK:

- Maintenance of an up-to-date FY 2021-2024 TIP.
- Collaboration with local partners to collect freight origin/destination data to augment the existing hazardous materials commodity flows dataset.
- Technical assistance to regional partners in the interest of sustaining initiatives outlined in the Regional Public Transportation Coordination Plan 2017-2021.
- Identification of possible access management improvement opportunities to address congestion.
- Identification of transportation and traffic improvements that are effective and efficient while enhancing safety and minimizing social and environmental impacts.
- Initiated Category (CAT) 9 Transportation Alternative Set-aside projects for FY 2021 and 2024.
- Continued collaboration with CCRTA and Texas A&M University - Corpus Christi to promote a collaborative autonomous campus shuttle pilot project as a regional case study within the Texas Innovation Alliance.
- An updated Travel Demand Model (to be delivered by TxDOT) per demographic data collected by the MPO in FY 2019.
- Updated of the FY 2020-2030 Ten-Year Plan.
- Completion of the Strategic Integration (Travel Demand Model) Feasibility Study by a consultant ($460K).

- Various interim data products in support of the planned update of the TDM using the 2016 base year for the forecast year 2050.
- Technical support to partners to facilitate effective use of the data generated by the updated model.
- Identification of segments that may merit intervention to address congestion.
- Assessment of feasibility of integrating ITS resources into the incident management strategies.
- Identification of opportunities to partner or leverage public resources into operations and maintenance projects.
- Identification of locally relevant performance measures amidst state and federal performance measures, when published, that will be integrated into the project selection process.

SUBTASKS: The subtasks are listed in detail on the following pages.

Subtask 3.1 Transportation Improvement Program (TIP) Update
Subtask 3.2 CMP/TSMO/ITS Architecture Plan
Subtask 3.3 Complete Streets, Active Transportation and Micro-mobility Planning
Subtask 3.4 Regional Freight Planning
Subtask 3.5 Transit Planning and Programming Coordination
Subtask 3.6 Economic Analyses of Projects and Portfolios
Subtask 3.7 Infrastructure Lifecycle Analysis and Reporting
Subtask 3.8 Crash Analyses and Regional Safety Planning
Subtask 3.9 Coordinated Public Transit – Human Services Transportation Plan
Subtask 3.10 Regional Resiliency Improvement Planning
Subtask 3.11 Planning and Environmental Linkages

SUBTASK 3.1 – TRANSPORTATION IMPROVEMENT PROGRAM (TIP) UPDATE

One of the primary responsibilities of the MPO is the development of a Transportation Improvement Program (TIP). The TIP includes all transportation projects within the Corpus Christi Metropolitan Planning Area for which federal and/or state funds will be used, as well as all projects that have regional significance and are funded using local or private funds. The Corpus Christi MPO staff will maintain and amend the FY 2023-2026 TIP as needed to reflect changes in area priorities, scope, accessibility, and funding for roadways and transit projects. A cooperative interagency input process is part of the public involvement component of this task.

Future project applications will provide, in an easily understood manner and with sufficient detail, the design concept and scope descriptions of all existing and proposed transportation facilities to permit develop cost estimates for major transportation investments for which analyses are not complete. The application shall identify study corridors and subareas and may stipulate either a set of assumptions (assumed alternatives) concerning the proposed improvements or a no-build condition pending the completion of a corridor or subarea level analysis under Sec. 450.318 Sufficient descriptive material (i.e., type of work, termini, length, etc.) to identify the project or phase;

An important and challenging effort is refining the decision support system to reflect adopted regional priorities and aid allocating funds to those projects and programs. The Corpus Christi MPO will also monitor the delivery of capital projects to support on-time and on-budget construction. Another focus is on developing priority projects to the level that allows the Corpus Christi Metropolitan area to compete nationally for discretionary funds.

This task will also produce the required system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the adopted performance targets including progress achieved by the metropolitan planning organization in meeting the performance targets in comparison with system performance recorded in previous reports; and an analysis of how the preferred investment scenario has improved the conditions and performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the identified performance targets.

SUBTASK 3.2 – CONGESTION MANAGEMENT PROGRAM (CMP)/ TRANSPORTATION SYSTEM MANAGEMENT and OPERATIONS (TSMO) / INTELLIGENT TRANSPORTATION SYSTEMS (ITS) ARCHITECTURE PLAN DEVELOPMENT

According to the Federal Highway Administration:

> *"Transportation is in the midst of disruptive change from new technologies; new institutions; and changing attitudes. Across the nation, transportation planners are under pressure to develop performance-oriented policies, plans, and investment decisions that consider an increasingly complex transportation landscape. In the process, planners need to consider, but cannot yet reliably predict, the potential impact of disruptive and transformational technologies on safety, vehicle ownership, road capacity, VMT, land-use, roadway design, future investment demands, and economic development, among others. While some forms of connected and autonomous vehicles are already being deployed across the United States, significant unknowns exist regarding the rate of technology adoption, which types of technologies will prevail in the marketplace, the interaction between CV/AV vehicles and various forms of shared mobility services, and the impacts of interim and widespread levels of CV/ AV usage."*

Increasing traffic congestion is an issue in the region. Faced with growing travel demand and limited resources, the approved IIJA/BIL mandated that MPOs address travel demand and capacity constraints through alternatives to new highway capacity. The Corpus Christi MPO will continue to utilize the Congestion Management Process to develop strategies to improve the operation of the existing system without increasing the physical lane miles on the roads. Although major capital investments may be necessary to meet the forecast travel demand, operational management strategies can postpone the need for major capital investments until funding sources can be identified. The results are a more efficient and effective transportation system, increased mobility and leveraging of resources. The Corpus Christi MPO will update the Regional ITS Architecture and Deployment Plan and develop a regional Transportation System Management and Operations Plan.

The Corpus Christi MPO will update the previous CMP aimed at reducing highway congestion and the economic and environmental costs associated with that congestion, including transportation emissions. The program will optimize existing highway capacity and usage of highway and transit systems. After completion of the updated travel models, each Corridor of Concern shall be evaluated for short, medium and long-range planning horizons based on capacity and operations as compared to expected demand. Corridors of Note will be evaluated as appropriate.

Performance will be measured using appropriate goals and performance metrics. The process will result in a list of roadway segments that have deficiencies when evaluated using adopted metrics for both existing conditions and forecast future conditions, based on updated forecasts from models. A portfolio of projects to address the identified deficiencies will be developed by evaluating the reciprocal impact of individual projects on adjacent corridors. The effort will include evaluating recurring and non-recurring congestion as part of the overall evaluation of the regional transportation network. The Corpus Christi MPO staff will work with cognizant agencies to identify cost effective interventions, based on the adopted Congestion Management Program, to address these "deficiencies".

The CMP is a systematic process that provides information on transportation system performance and deployment and operation of an integrated congestion management strategies to alleviate congestion and enhance the safety and mobility of people and goods in the Corpus Christi Metropolitan Area. Modern roadway operations are driven primarily through advancements in technology, though proper planning and physical projects may play a role as well.

The Intelligent Transportation System (ITS) architecture plan will identify technologies to improve mobility, increase safety, and reduce delays. ITS improves the existing roadway system's operations in a cost-effective manner.

Incorporating Technology

Adopting and supporting innovative technologies and business practices may lead to great improvements in safety, transportation choices, and regional quality of life for our visitors and the local economy. Though there is a great deal of speculation and uncertainty of the potential impacts these technologies will have, MPOs need to determine how best to address the challenges and opportunities presented to them by ACES vehicles. There is a substantial level of interest in Automated/Connected/Electric/Shared-Use (ACES) Vehicles and the potential impacts of these technologies on the transportation system. There is also a great deal of speculation and uncertainty of the potential impacts from these technologies. ACES may lead to great changes in safety, transportation choices, and quality of life. The Corpus Christi MPO supports innovative technologies and business practices to address the challenges and opportunities presented by ACES vehicles. The Corpus Christi MPO will increasingly incorporate emerging technologies into the metropolitan planning process. Activities in FY 2023 and FY 2024 will plan for the arrival of these vehicles, focusing on the implications of automated vehicles on travel demand, land-use, and congestion. Planning tools, including travel forecasting models, will need to account for these emerging technologies in the system. Automated vehicles are also being discussed in the context of freight, transit, and people mover/shuttle systems.

SUBTASK 3.3 – COMPLETE STREETS, ACTIVE TRANSPORTATION, AND MICRO-MOBILTY PLANNING

An ongoing challenge facing planners and public officials is prioritizing safety improvements and speed management on the arterials that are also essential to creating complete travel networks for those without access to single-occupancy vehicles. Emerging micro-mobility modes, such as electric scooters, electric bikes, and powered skateboards look like they might become a measurable share of the urban transportation system. The transportation planners and decision-makers in the Corpus Christi MPO are trying to understand the impacts of micro-mobility and how to incorporate it into existing transportation systems. The Corpus Christi MPO will plan, develop, and fund projects that prioritize safety, comfort, and access to destinations for people who use the street network, including pedestrians, bicyclists, transit riders, micro-mobility users, freight delivery services, and motorists. The purpose is to provide an equitable and safe transportation network for travelers of all ages and abilities. This includes conducting a vulnerability assessment of the infrastructure in local communities that supports active transportation, including bicycling, walking, and personal mobility devices, with a particular focus on areas in local communities that lack sufficient active transportation infrastructure routes to public transportation.

The Corpus Christi MPO strives to reflect non-vehicular and micro-mobility modes of transportation in its transportation planning. This subtask will build on the work previously conducted to review current policies, rules, and procedures to determine their impact on safety for all road users. This effort should work to include provisions for safety in future transportation infrastructure, particularly those outside automobiles. The Corpus Christi MPO will develop a ‘‘Complete Streets policy” that ensure the safe and adequate accommodation of all users of the transportation system, including pedestrians, bicyclists, public transportation users, children, older individuals, individuals with disabilities, motorists, and freight vehicles. This policy will complement a micro-mobility plan that create a network of active transportation facilities, including sidewalks, bikeways, or pedestrian and bicycle trails:

- Identify a specific list of Complete Streets projects to improve the safety, mobility, or accessibility of a street;
- Create a network of active transportation facilities, including sidewalks, bikeways, or pedestrian and bicycle trails, to connect neighborhoods with destinations such as workplaces, schools, residences, businesses, recreation areas, healthcare and child care services, or other community activity centers;
- Integrate active transportation facilities with public transportation service or improve access to public transportation;

- Create multiuse active transportation infrastructure facilities, including bikeways or pedestrian and bicycle trails, that make connections within or between communities;
- Increase public transportation ridership; and to improve the safety of bicyclists and pedestrians;

SUBTASK 3.4 – REGIONAL MULTIMODAL FREIGHT AND URBAN GOODS PLANNING

Safe and efficient multi-modal freight mobility is a cornerstone of the regional economy. Expanding rail capacity, enhancing trucking safety, and bolstering the nexus between modes are Corpus Christi MPO priorities. The Corpus Christi MPO staff will work with TxDOT, the Port of Corpus Christi and other significant freight stakeholders to update the designation of national freight network routes in the region. The Corpus Christi MPO will also continue to collaborate with regional emergency management partners to explore strategies for mitigating risk associated with freight operations in the face of industrial growth.

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. An 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. One specific area of study will be the coordination with the railroads serving the MPO region to ensure the local governments are connected with the rail planning processes. The Technical Advisory Committee (TAC) also serves as the Corpus Christi MPO's Freight Advisory Committee will be the focal point of this effort.

SUBTASK 3.5 – EQUITY AND JUSTICE40 PLANNING

An equitable transportation system is one achieved using when the benefits and burdens created by projects, policies, and plans are shared so that no groups are unduly burdened by a lack of access to adequate transportation nor by the negative impacts resulting from proximity to transportation infrastructure. Key considerations to achieving Transportation Equity are:

1. Race, ethnicity, and income beyond traditional Environmental Justice analyses must be incorporated into planning and programming of transportation interventions.
2. Determining if there are significant disparities in the distribution of transportation benefits such as access to jobs, goods and services and opportunities for physical activity, healthy food, and health care. The availability of these benefits also varies greatly depending on whether a traveler has access to a car or is reliant on public transit.
3. Examining if there are significant disparities in exposure to transportation burdens, such as exposure to noise, air pollution or the risk of collision. The Corpus Christi MPO will conduce MOVES3 hotspot analyses at select intersections in areas with concentrations of disadvantaged or at-risk populations.
4. Balancing the distribution of benefits and burdens within the region and among the different populations. In addition to race, ethnicity, and income-related disparities, transportation analyses must also look for disparate impacts among other groups, such as transit-dependent and elderly populations.

The Corpus Christi MPO will implement the Program Addressing Discrimination by identifying those areas that contain higher than average concentrations of disadvantaged or underserved populations and analyzing investments for disparity for disadvantaged or underserved groups by comparing the estimated positive and negative impacts against other populations. The definition of Disparity is the amount of separation between a group identified as in need and the group identified as the most favored group. This is done using specific measures and expressed in terms of a rate, proportion, mean, or some other quantitative measure. Although it is recognized that much of the detailed evaluation of discrimination will occur at the project level (which is the responsibility of the project sponsor) rather than during regional transportation planning or programming, the Corpus Christi MPO can use a variety of techniques to identify discrimination earlier in project development so that positive corrective actions can be taken and serve as a building block for subsequent interventions. To certify compliance with Title VI and to address environmental justice, the Corpus Christi MPO must:

a. Evaluate and improve the public involvement processes to eliminate participation barriers and engage disadvantaged populations in transportation decision-making.
b. Identify the residential and employment locations and transportation needs of disadvantaged communities.
c. Determine if the needs of the disadvantaged communities are addressed equitably and that the benefits and burdens of transportation investments are fairly distributed.
d. Perform analyses that ensure that the Metropolitan Transportation Plan (MTP) and the Transportation Improvement Program (TIP) comply with federal discrimination laws and regulations.

SUBTASK 3.6 – ECONOMIC ANALYSES OF PROJECTS AND PORTFOLIOS

The Corpus Christi MPO staff will work with consultants to develop appropriate econometric model(s) to complete analyses of potential economic impacts/benefits of both individual projects and portfolios of projects in the region. Planning and promoting economic development is important in developing and sustaining a strong and vibrant community. It is important for the Corpus Christi MPO to collaborate with agencies throughout the region to encourage economic growth, be responsive to the needs of the business community, and work to strengthen the region's position in attracting and retaining businesses. However, those efforts must be undertaken within the context of sustaining what the region already enjoys – a tight-knit community with a rich history and vibrant culture.

Investment decisions are typically based on analyses of benefit-cost analysis (BCA), and/or cost-effectiveness analysis (CEA), to appraise economic viability. Increasingly BCA or CEA are complemented by multicriteria analysis (MCA) to capture the multiple dimensions that affect decision-making – social, economic, environmental, and financial. For projects evaluated and financed by federal agencies, TxDOT, or the Corpus Christi MPO, guidelines are available for economic analysis of investment projects.

SUBTASK 3.7 – INFRASTRUCTURE LIFECYCLE ANALYSIS AND REPORTING

Traditionally, in an effort to construct the greatest number of new projects within limited capital budgets, high importance was placed on construction costs, with little attention given to future costs. As infrastructure ages it is apparent that improving long-term decision-making requires planners and policy-makers to think more strategically about how to operate and maintain the transportation network and manage related assets. Shifting the focus of funding toward system preservation requires greater use of analysis that looks at both upfront and long-term costs while considering the viability of future budgets and better management of vital infrastructure. Life-cycle Cost Analysis (LCCA) calculates up-front development, capital and financing costs, discounted operating and maintenance costs, and end-of-life costs associated with a specific asset or project. LCCA can also factor in uncertainty, risk, and other elements including environmental and equity considerations. When performed correctly, LCCA enables a more accurate and less biased comparison of differing life cycle costs between transportation projects and alternatives.

The need to maximize the benefits of limited funding and stabilize budgets is particularly acute for the preservation of infrastructure. TxDOT and local agencies are grappling with the fact that many critical bridges, roadways, and drainage networks need substantial repair or replacement. Maintenance, upgrades, and replacements are a growing need, and with limited resources it is even more important that decisionmakers prudently plan and spend current and future budgets. When the cost of a project is estimated only for design and construction, the long-term costs associated with maintenance, operation, and the reconstruction of a project are often overlooked. Similarly, comparing project design alternatives by their initial costs can lead to shortsighted decisions. Without careful examination of the full life cycle costs, investment decisions today could cost an agency even more in years ahead. Something as simple as a bridge replacement provides the opportunity to construct an asset, sometimes with higher upfront costs, in a way that reduces the needs for future revenues dedicated to that asset, often referred to as "sustaining capital." A poor choice today can be amplified in future decades as the inflexible and long-life nature of infrastructure can create unaffordable requirements in the future.

This subtask utilizes the HERS-ST model developed in Task 2.5 and other studies to begin approximating the lifecycle burden of the transportation infrastructure in the region, with a focus on the NHS. This will produce a description of the condition of the assets and the costs of operations and maintenance activities. Performance deficiencies will be identified, and lifecycle cost analysis can suggest potential investment strategies for local entities to undertake. In combination with the financial planning, this can encourage conversations about long-term goals, issues, opportunities, and revenue needs. Examples of questions that HERS-ST will answer are:

- How will a reduction (or increase) of x percent in maintenance investment levels affect the condition of the roadway system over the next 5, 10, or 25 years?
- What level of future investment is required in a roadway system to ensure that average pavement condition is maintained?
- What level of investment is required to make all economically beneficial improvements on the system (e.g., those projects where benefits exceed costs)?
- What are reasonable performance targets given forecast funding, policy, and customer satisfaction objectives?

SUBTASK 3.8 – CRASH ANALYSES AND REGIONAL SAFETY ACTION PLAN

Safety on the transportation system is a national, state, regional and local priority. Data collection, analysis, training, education, and enforcement are key aspects of improving transportation system safety. The Corpus Christi MPO will use available data, intense data analysis, and collaborate with stakeholders to improve safety on the region's roads. Locations and types of crashes to focus on are determined by the data, as well as characteristics such as the types of facilities and roadway conditions (e.g. wet weather, lighting). The FY 2023 and FY 2024 UPWP will allow the Corpus Christi MPO staff to acquire data and develop tools and processes to identify locations, projects and policies to reduce injuries and fatalities and speed up incident clearance times. This subtask comprises the rigorous analysis of the most recent 5-year data for crashes on all public roads in the region. The activities will include participation in multi-disciplinary safety initiatives at the local, state or national levels to address traffic safety in a holistic manner; research and analysis of crash data from TxDOT's Crash Record Information System (CRIS) and coordination of trainings and workshops on a safe system approach that emphasizes minimizing the risk of injury or fatality to road users by considering likelihood of human error and accommodating human injury tolerance by examining likely accident types and estimating both the impact forces and the ability of the human body to withstand these forces.

A complete regional study of fatal and serious injury crashes will be undertaken, documenting regional trends and influencing factors. This includes differentiating crash data for vulnerable road users, including bicyclists and pedestrians from all other road users. A quantitative analysis of fatalities and serious injuries that ‘‘(i) includes data such as location, roadway functional classification, design speed, speed limit, and time of day; ‘‘(ii) considers the demographics of the locations of fatalities and serious injuries, including race, ethnicity, income, and age; and ‘‘(iii) based on the data, identifies areas as 'high risk' to vulnerable road users; and ‘‘(B) a program of projects or strategies to reduce safety risks to vulnerable road users in areas identified as high risk.

The plan will include a goal and timeline for eliminating fatalities and serious injuries; an analysis of the location and severity crashes by corridor locality; an analysis of community input, gathered through public outreach and education; a data-driven approach to identify projects or strategies to prevent fatalities and serious injuries, education and community outreach projects, discussion on effective methods to enforce traffic laws and

Regulations, discussions of new vehicle or other transportation-related technologies, roadway planning and design; and mechanisms for evaluating the outcomes and effectiveness of the comprehensive safety action plan.

The Corpus Christi MPO will utilize the Regional Traffic Safety Task Force to explore strategies to address identified issues. This group will help inform local planning and programming efforts to improve transportation safety and achieve/exceed the region's roadway safety targets. demonstrates engagement with a variety of public

and private stakeholders; seeks to adopt innovative technologies or strategies to promote safety; employs low-cost, high-impact strategies that can improve safety over a wider geographical area; (E) ensures, or will ensure, equitable investment in the safety needs of underserved communities in preventing transportation-related fatalities and injuries; (F) includes evidence-based projects or strategies the development of safety countermeasures to minimize fatalities and serious injuries site-specific phase will explore various strategies to address locations with unusual characteristics. This effort will help inform local planning and programming efforts to improve transportation safety and achieve/exceed the region's roadway safety targets.

FHWA encourages the MPOs to consider Traffic Incident Management (TIM) activities as part of their UPWPs. TIM directly supports multiple planning factors related to safety, mobility freight movement, air quality and transportation system reliability. TIM addresses the non-recurring congestion which causes delay that impacts all travelers, including just in time freight haulers. TIM also improves safety by reducing the likelihood of a secondary crash and responders being struck. Furthermore, TIM impacts the economy by reducing delay that impacts consumers, and results in wasted fuel. The Corpus Christi MPO may:

- Propose TIM to elected officials
- Facilitate TIM Responder Training
- Facilitate working groups and activities
- Foster relationships with private haulers and Law Enforcement Agencies
- Facilitate After Action Reviews
- Fund ITS Projects
- Compile data for Performance Measures

SUBTASK 3.9 – COORDINATED PUBLIC TRANSIT - HUMAN SERVICES TRANSPORTATION PLAN

Multiple local, state, and federal programs from the United States Departments of: Agriculture, Education, Health and Human Services, Veterans Affairs fund or support transportation services for their clients. Many of these "human service transportation" funding programs are independent from the transportation funding and services provided by the U.S. Department of Transportation - Federal Transit Administration (FTA). Because of the variety of different missions, agency rules, federal regulations, and bureaucratic processes, human service and public transportation programs are not always mutually supportive or coordinated. The lack of coordination results in duplication of some systems and programs and overly complex, expensive, and difficult to understand rules for use. The goal of coordination planning is untangling the separate systems and encouraging agencies and programs to complement each other and work towards an accessible, easy to use system.

As a practice, mobility management emphasizes the coordination of transportation services to enhance the mobility and special needs of seniors and individuals with disabilities, older adults, and others with barriers to transportation. As stipulated in Federal Transit Administration (FTA) Circular 9070.1G the current Coordinated Public Transit - Human Services Transportation Plan (CPTHSTP) must identify the transportation needs of individuals with disabilities, seniors and people with low incomes; provide strategies for meeting those local needs; and prioritize transportation services and projects for funding and implementation. This plan serves two primary purposes: guide the programming process for FTA Section 5310 funding and provide guidance to enhanced mobility providers on how to best advance the mobility independence of older adults, individuals with disabilities, low-income populations and veterans in the Corpus Christi Urbanized Area. This effort will emphasize coordination among all the key players including public transit providers, private operators, and volunteer driver programs. It will also include the customers, staff, and stakeholders from human services and health care agencies.

The Corpus Christi MPO is working with the Coastal Bend Region (Region 20) to more fully incorporate mobility management into planning processes to help ensure that decisions on funding transportation projects can result in more equitable distribution of services, facilities and resources. The Corpus Christi MPO staff will fulfill requirements related to the 5310 Program: Enhanced Mobility of Seniors and Individuals with Disabilities, including participating in a regional rating and ranking committee for the program. The performance measures

included in the updated Coordinated Public Transit - Human Services Transportation Plan shall require the collection of quantitative and qualitative information, as available, concerning modifications to the geographic coverage of transportation service, the quality of transportation service, or service times that increase the availability of transportation services for seniors and individuals with disabilities; ridership; and accessibility improvements.

SUBTASK 3.10 – REGIONAL RESILIENCY IMPROVEMENT PLAN

The Corpus Christi Metropolitan Study Area is susceptible to a wide range of natural hazards, including floods, hurricanes and tropical storms, drought, extreme heat, lightning, coastal erosion, hailstorms, tornados, dam and levee failure, land subsidence, expansive soils, and wildfire. These life-threatening hazards can destroy property, disrupt the economy, and lower the overall quality of life for residence. The impact of hazards can be lessened in terms of their effect on people and property through effective hazard mitigation action planning and implementation. The MPO will participate more fully in Resiliency Planning and Evacuation activities. The focus of resiliency planning is to reduce future losses within the Study Area by identifying mitigation strategies based on a detailed hazard risk analysis, including both an assessment of regional hazards and vulnerability. The mitigation strategies will identify potential loss-reduction opportunities. The goal of this effort is to work towards more disaster-resistant and resilient communities.

The Corpus Christi MPO Resiliency Improvement Plan will complement State and local plans to reduce the magnitude and duration of impacts from weather events and disasters. The Corpus Christi MPO will include a risk-based assessment of the vulnerabilities of surface transportation assets and systems to current and future weather events and natural disasters, such as severe storms, flooding, drought, high winds, levee failures, wildfire, extreme weather, including extreme temperature, and sea level rise. This information will help local decision-makers anticipate, prepare for, and respond to disruptions in ways that allow for the continued operation or rapid recovery of the surface transportation system.

The Resiliency Plan will identify and prioritize resurfacing, restoration, rehabilitation, reconstruction, replacement, improvement, or realignment projects that have the absorptive and adaptive capacity to ensure that the surface transportation system can quickly recover and continue to serve critical local, regional, and national needs. This includes designating evacuation routes and strategies to access hospitals and other medical or emergency service facilities, major employers, critical manufacturing centers, ports and intermodal facilities, utilities, and Federal facilities. Identified projects should include the incorporation of manmade mitigation measures that strengthen systems and natural infrastructure that protects and enhances transportation assets while improving ecosystem conditions, including culverts that ensure adequate flows in rivers and estuarine systems.

SUBTASK 3.11 – PLANNING AND ENVIRONMENTAL LINKAGES

The Corpus Christi MPO aspires to being as deliberate in identifying environmental impacts and developing coordinated and collaborative mitigation activities as we are in identifying transportation needs and developing transportation projects. With this in mind, the Corpus Christi MPO collaborates with local governments, non-profit organizations, and state and federal resource and regulatory agencies to mitigate adverse impacts of transportation policies and projects. Collaboration among transportation planning, economic development, land development, and wildlife conservation efforts is critical because the impacts of transportation will cut across all these individual efforts. A desired outcome of the Corpus Christi MPO collaboration process is that transportation planning and decision making, including project selection (transportation and mitigation), integrates and coordinates land use, water quality, and natural resource planning and management. Identifying as many environmental concerns as possible will occur early in the transportation planning and project development process to help efficiently and effectively Avoid, Minimize, Mitigate, Enhance and Remediate impacts.

SECTION V. TASK 4.0 – METROPOLITAN TRANSPORTATION PLAN UPDATE

Task 4.0 reflects efforts in support of developing and maintaining the 25-year Metropolitan Transportation Plan (MTP). Key activities for FY 2023 and FY 2024 are listed below. Planning activities for the 2050 MTP will continue during this UPWP time-period. Development of the 2050 MTP has several subcomponents inherent in an update, including but not limited to:

- Demographic Forecasts/Small Area Forecast
- Congestion Management Process
- Regional ITS Plan
- Regional Freight Plan
- Transit Plan (in coordination with CCRTA)
- Specialized Transit Plan (in coordination with Coastal Bend COG and CCRTA)
- Regional Nonmotorized Plan
- Regionally Significant Corridor Studies
- Transportation System Reporting and Needs Identification Studies

FUNDING SUMMARY:

Exhibit 7. TASK 4.0: METROPOLITAN TRANSPORTATION PLAN (MTP) BUDGET SUMMARY

Subtask	Responsible Agency	Transportation Planning Funds (TPF)[1]		FTA Sect. 5307	Local	Total		
		FY 2023	FY 2024			FY 2023	FY 2024	2-Year
4.1	MPO	$16,600	$5,500	$0	$0	$16,600	$5,500	**$22,100**
4.2	MPO	$15,000	$6,300	$0	$0	$15,000	$6,300	**$21,300**
4.3	MPO	$15,200	$9,800	$0	$0	$15,200	$9,800	**$25,000**
4.4	MPO	$0	$13,500	$0	$0	$0	$13,500	**$13,500**
4.5	MPO	$23,300	$73,800	$0	$0	$23,300	$73,800	**$97,100**
4.6	MPO	0	$64,500	$0	$0	0	$64,500	**$64,500**
4.7	MPO	0	$24,500	$0	$0	0	$24,500	**$24,500**
4.8	MPO	0	$12,800	$0	$0	0	$12,800	**$12,800**
4.9	MPO	0	$8,300	$0	$0	0	$8,300	**$8,300**
TOTAL		**$70,100**	**$219,000**	$0	$0	**$70,100**	**$219,000**	**$289,100**

[1] TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds and is also known as the Consolidated Planning Grant (CPG). 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.

OBJECTIVE: The Corpus Christi MPO will perform preparatory and early long-range and regional transportation planning activities to support developing, maintaining and implementing the metropolitan transportation plan; and participate in local and statewide transportation planning and coordination efforts

METHODOLOGY: Corpus Christi MPO staff will support implementation of the preferred strategies within the developing 2050 MTP. These activities will include:

- Non-motorized (bicycle and pedestrian) planning;

- Participation on transportation Subtask forces;
- Technical support and coordinating transportation plan development with ongoing local transportation planning activities;
- Pursuing innovative funding strategies to accelerate needed improvements;
- Participation in statewide and regional planning activities;
- Providing transit planning assistance to member entities;
- Continued coordination for implementation of the recommendations from the Specialized Transportation and Transit Plans;
- Continuing coordination with TSMO / ITS Subtasks;
- Preparing and processing amendments to the 2045 MTP, if necessary; and
- Preparing Metropolitan Systems Performance Report update.

EXPECTED PRODUCTS: A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain environmental functions in habitats throughout the region.

- Refined Vision and Goals
- Refined Performance Measures and Evaluation Criteria
- Updated Needs and Deficiencies
- Begin updating the Financial Plan
- Develop, Analyze, and Refine Scenarios for Analysis and Investment
- Update Document Plan and Processes
- Begin Collaboration for Mitigation
- Process Evaluation and Debrief Reports

SCHEDULE: CPG contract and financial reports prepared monthly; mid-year UPWP review each April; UPWP annual reports scheduled for completion each December; UPWP amendments as needed; adoption of FY 2025 & FY 2026 UPWP is scheduled for June 2025.

PREVIOUS ACCOMPLISHMENTS:

- Maintain an up-to-date fiscally reasonable 10-Year Unified Transportation Plan for period FY 2020-2030.
- Identify opportunities to partner and leverage public resources for projects.
- Participation in City of Corpus Christi Air Quality Committee and Technical Working Group on Mobile Sources.
- Coordination with the Pollution Prevention Partnership on federal reporting and regional outreach.
- Narrative and data contributions to annual Ozone Advance and other regional reporting Documents.
- Identification of segments that may merit intervention to address congestion.
- Assessment of feasibility of integrating ITS resources into the incident management strategies.
- Identification of opportunities to partner or leverage public resources into operations and maintenance projects.
- Identification of locally relevant performance measures amidst state and federal performance measures, when published, that will be integrated into the project selection process.
- Various interim data products in support of the planned update of the TDM using the 2012 base year for the forecast year 2055.
- Technical support to partners to facilitate effective use of the data generated by the updated model.
- The Corpus Christi MPO developed a compliant 2020-2045 MTP through extensive collaboration with member agencies and other stakeholders in the community. Widespread public outreach was implemented to assure that the 2020-2045 MTP reflected regional needs and is in compliance with regulatory requirements.
- Attended conferences and training sessions.

SUBTASKS: The subtasks and their objectives are listed in detail on the following pages.

Subtask 4.1 Refine Vision and Goals
Subtask 4.2 Refine Performance Measures and Evaluation Criteria
Subtask 4.3 Identify Needs and Deficiency Locations
Subtask 4.4 Develop a Financial Plan of Reasonable Available Funding
Subtask 4.5 Develop, Analyze, and Refine Scenarios for Analysis and Investment
Subtask 4.6 Document Plan and Processes
Subtask 4.7 Evaluate Impacts and Develop Mitigation
Subtask 4.8 Planning and Programming Process Evaluation and Debrief
Subtask 4.9 Process Documentation and Enhancement

The Corpus Christi MPO staff will, with the assistance of outside contractors as needed, perform the technical activities to accomplish the tasks listed in Exhibit 7, page 41.

SUBTASK 4.1 – REFINE VISION AND GOALS

While most transportation plans involve the public and stakeholders in defining a vision, a performance-based plan requires clear agreed-upon goals and objectives, since the strategic direction of goals and objectives are used to define performance measures. Consequently, it is critical for public involvement and stakeholder engagement to have a forum for rationally discussing priorities and trade-offs. These discussions will lead to developing and selecting achievable targets and in defining desired outcomes. In a performance-based plan, the public and stakeholders are involved in not just providing general concepts, but clearly defining or prioritizing goals and specific objectives, which leads to performance measures and achievable targets that are used in assessing plan options and/or selecting investments.

The Corpus Christi MPO staff will bring together stakeholders with in-depth knowledge of transportation and community related goal areas to refine the goals and objectives in the MTP. The goals and objectives of other agency plans will inform the development of the goals and objectives of the transportation plan. The process of developing the transportation plan encourages decision-makers and the public to explore goals and objective from different plans, identify potential conflicts and commonalities, and create a prioritization system.

SUBTASK 4.2 – REFINE PERFORMANCE MEASURES AND EVALUATION CRITERIA

Selecting performance measures in a performance-based plan is often thought of as a “data-driven” process. Actually, the public and stakeholders play a critical role in defining performance measures. It is important to work with the public and stakeholders to clearly define what is important and meaningful to them. Engaging participants helps define what is meant by different objectives and what metric is most appropriate. Goals associated with mobility, accessibility, and quality of life manifest themselves in different ways, and stakeholders have different views of what different terms mean. Working with stakeholders to define how to measure performance helps to clarify what is most critical to the public and guides the analysis of strategies in the plan. The materials produced will actively and continuously strive to use plain language and to ensure that measures used in the plan are understood by the stakeholder community.

The Corpus Christi MPO staff will report the specific criteria and analysis procedures that will compare portfolios and scenarios comprised of distinct projects and policies for progress toward achieving the regional, state, and national performance goals.

SUBTASK 4.3 – IDENTIFY NEEDS AND DEFICIENCY LOCATIONS

Use the performance goals and measured conditions to identify specific corridors, roads and areas which are deficient in one or more ways. This dataset is the basis for problems and opportunities that can be addressed by “projects or policies”. Using the adopted goals, metrics and baseline conditions; the Corpus Christi MPO TPC will establish list of needs for at least: pavement condition, bridge condition, crashes, and congestion.

Corpus Christi MPO staff will identify the location of transportation deficiencies where both the current and future system experience safety issues, unacceptable roadway condition, operational problems, lack of interconnectivity, congestion, or other issues.

SUBTASK 4.4 – DEVELOP A FINANCIAL PLAN OF REASONABLY AVAILABLE FUNDING

Transportation systems are challenged to accommodate many competing needs, and fiscal constraint is vital to prioritizing resources to address those needs. Fiscal constraint also helps clarify what is possible with existing funding sources and can inform debate about a need for new funding. Providing realistic funding and revenue forecasts from the outset supports decision-maker, stakeholder, and public trust by providing understanding of the limits of funding to support implementation of strategies.

The Corpus Christi MPO staff will, in cooperation with CCRTA, local municipalities and counties, and TxDOT, develop this financial plan. This effort will require forecasting reasonably foreseeable revenue resources using realistic and collaboratively developed assumptions about existing funding sources, potential funding sources, alternative financing strategies, and inflation rate. It will provide forecasts in both future year and current year dollar values.

The financial plan shall compare the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation uses, and the estimated costs of constructing, maintaining and operating the total (existing plus planned) transportation system over the period of the plan. The estimated revenue by existing revenue source (local, State, and Federal and private) available for transportation projects shall be determined and any shortfalls identified. Proposed new revenues and/or revenue sources to cover shortfalls shall be identified, including strategies for ensuring their availability for proposed investments. Existing and proposed revenues shall cover all forecasted capital, operating, and maintenance costs. All cost and revenue projections shall be based on the data reflecting the existing situation and historical trends.

The effort will include a methodology for identifying costs of individual capital projects and on-going maintenance and operations programs, along with acknowledging restrictions and requirements associated with each funding source. Revenue forecasts, life-cycle costs, and inflationary assumptions for projects and programs will be developed for immediate (existing + committed), short-term (next 2024-2027 TIP) midterm (UTP years 2035) and long-term (2050) investments. Financial information and estimates of risk of shortfalls compared against the lifecycle expenses of the transportation will be available in one-year increments through year 2035 and five-year increments through year 2050.

Corpus Christi MPO staff will create an easily understood document that summarizes available revenues and likely costs of construction, operations, and maintenance of projects and programs, taking into account inflation and year of expenditure. This task establishes the revenue basis for fiscal constraint of both the MTP as well as the funding sources for the TIP. Using the same revenue projections for the long-range plan and the TIP ensures financial consistency between the plan and program.

SUBTASK 4.5 – DEVELOP, ANALYZE, AND REFINE SCENARIOS FOR ANALYSIS AND INVESTMENT

Scenario planning helps decision-makers prepare for an unknowable future by providing a framework for comparing and contrasting various forces. The FHWA Scenario Planning Guidebook provides assistance on using scenario planning. As part of scenario planning, stakeholders shape alternative descriptions or scenarios of what the future could look like. These alternative scenarios are then assessed using transportation models, sketch-planning tools, or other quantitative methods to estimate the differences between the alternative visions of the future on performance measures or indicators of desired outcomes. The Corpus Christi MPO staff will work with regional leaders and local economic groups to adopt unified data and methodologies for existing and future population for households and employment by type.

SUBTASK 4.6 – DOCUMENT PLAN AND PROCESSES

Transparency promotes accountability by providing the public with information about what the Corpus Christi MPO is doing. Corpus Christi MPO will inventory information currently available for download and foster the public's use of this information to increase public knowledge and promote public scrutiny of processes. The Corpus Christi MPO will increase agency accountability and responsiveness; improve public knowledge of the agency and its operations and respond to need and demand as identified through public consultation.

SUBTASK 4.7 – EVALUATE IMPACTS AND DEVELOP MITIGATION

Transportation planning requires examining the complex interactions among social, economic, environmental, and political factors and identifying tradeoffs, especially when different stakeholder groups have conflicting interests. The Corpus Christi MPO MTP is required to be consistent with local land-use development, historic preservation, and environmental protection plans in the region. The Corpus Christi MPO uses an 8-step collaborative mitigation planning. A consistent desire of the Corpus Christi MPO is to add value to other agencies' planning and mitigation efforts and reinforce their individual effectiveness. One crucial example is the Texas Parks and Wildlife Department's (TPWD) Texas Conservation Action Plan (TCAP) Gulf Coast Prairies and Marshes Ecoregion Handbook. This document includes a list of concerns and potential actions that could yield mutual benefit.

The Corpus Christi MPO staff will support of regional planning to address mitigation of environmental, historic preservation, stormwater and air quality impacts of transportation in alignment of environmentally related performance measures.

SUBTASK 4.8 – PLANNING AND PROGRAMMING PROCESS EVALUATION AND DEBRIEF

This effort will provide analysis for lessons learned, best practices and recommendations for future planning, training, and process development. As improvement actions are identified and addressed, it is important that any relevant plans, policies, and procedures are updated accordingly.

Corpus Christi MPO staff will develop an After-Action Report to identify strengths of planning and programming processes that should be maintained and built upon, as well as identifying potential areas of improvement. For each step in the MTP and TIP processes the following questions will be answered.

- What did we want to accomplish?
- How did this change as you progressed?
- What did we accomplish?
- Why was there a difference between what we wanted and what we did?
- What went well and why?
- What could have gone better?
- What advice would you give yourself if you were to go back to where you were at the start of the project?
- What should we have learned from this project a year from now?
- How do we adapt our processes for a better outcome OR how do we repeat our successes?

SUBTASK 4.9 – PROCESS DOCUMENTATION AND ENHANCEMENT

MPO staff will review efforts in support of regional transportation planning to address mitigation of storm water impacts and air quality impacts of transportation in alignment of environmentally related performance measures.

SECTION VI. TASK 5.0 – SPECIAL STUDIES

Task 5.0 encompasses the special projects to be undertaken by the Corpus Christi MPO.

Prior Major Accomplishments

- At the request of TTI, the MPO is participating in a TTI pilot where they are developing a web-based platform to extract travel speed data from the INRIX dataset. There are no consultant costs associated with this collaborative effort with TTI.
- Establish a network that will be used to monitor congestion

EXPECTED PRODUCTS:

- Completion of FHWA Resiliency Pilot Project on Laguna Shores Road
- Projects To-Be-Determine by the TPC with input from the TAC and local governments

SCHEDULE: Complete in 1 year.

SUBTASK: The subtask and their objectives are listed in detail on the following pages.

Subtask 5.1 Regional Safety Planning
Subtask 5.2 TBD
Subtask 5.3 TBD

The Corpus Christi MPO staff will, with the assistance of outside contractors as needed, perform the technical activities to accomplish the tasks listed below.

FUNDING SUMMARY:

Exhibit 8. TASK 5.0: SPECIAL STUDIES AND PARTNER AGENCY COORDINATION BUDGET SUMMARY

Subtask	Responsible Agency	Transportation Planning Funds (TPF)[1]		FTA Sect. 5307	Local	Total		
		FY 2023	FY 2024			FY 2023	FY 2024	2-Year
5.1	MPO	$0	$0	$0	$0	$0	$0	**$0**
5.2	MPO	$0	$0	$0	$0	$0	$0	**$0**
TOTAL		**$0**	**$0**	$0	$0	**$0**	**$0**	**$0**

[1] TPF – This includes both FHWA PL-112 and FTA Section 5303 Funds and is also known as the Consolidated Planning Grant (CPG). 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.

SUBTASK 5.1 – TO BE DETERMINED

OBJECTIVE: .

EXPECTED PRODUCTS: .

SUBTASK 5.2 – TO BE DETERMINED

OBJECTIVE: .

EXPECTED PRODUCTS: .

SECTION VII. BUDGET SUMMARY – REVENUE INFORMATION

This section describes revenue sources used by the Corpus Christi MPO. The revenue utilized for work activities identified in the UPWP originate from two basic sources: federal transportation planning funds and non-federal sources. Exhibit 10 provides estimates of FY 2023 and FY 2024 revenues and expenses. Actual revenue amounts are calculated following the beginning of the Federal fiscal year, October 1, when Congress appropriates the funds.

FEDERAL FUNDING SOURCES: The United States Department of Transportation (USDOT), FHWA and FTA grant planning funds are authorized through 23 USC 104(f) and 49 USC 5305(d). These funds are allocated to work activities in accordance with appropriate regulations and are used for program expenditures by the Corpus Christi MPO.

- Metropolitan Planning Organizations (MPOs) in the state of Texas have received federal metropolitan transportation planning funds via a Consolidated Planning Grant (CPG) that lists all of the Transportation Planning Funds (TPF). The aspects of this process are currently as follows:
- The approved UPWP allocates federal transportation planning funds to individual work items in the Work Program performed by Corpus Christi MPO and is the basis for the CPG.
- The Corpus Christi MPO transportation planning tasks are funded through a two-year CPG that combines the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) into metropolitan transportation planning funds (TPF).
- TxDOT and CCRTA federal transportation planning funds are not included in the CPG; however, metropolitan transportation planning activities by TxDOT and CCRTA are included in the UPWP with the appropriate sources of federal funding listed.
- The FTA transfers FTA Section 5303 funds allocated for metropolitan transportation planning in the UPWP to FHWA.
- FHWA consolidates the transferred FTA funds with Metropolitan Planning (PL) and Category 7 (STP) funds allocated for metropolitan transportation planning in the UPWP and makes a CPG to the TxDOT.
- TxDOT administers the CPG through a contract with Corpus Christi MPO and reimburses the Corpus Christi MPO monthly for transportation planning activities in the UPWP.
- The UPWP includes additional Corpus Christi MPO work efforts not funded through the CPG.

Federal Consolidated Planning Grant funds are allocated using a matching ratio of 82.79% Federal and 17.21% local funds. In lieu of local funds, the Texas Department of Transportation applies federally approved transportation development credits in sufficient volume to match both the FHWA PL and FTA Section 5303 funding programs. As the credits reflect neither cash nor person-hours, they are not shown in the funding tables.

Surface Transportation Block Grant funds (Category 7) are commonly used for Metropolitan Planning purposes and may be requested for specific needed projects that do not have sufficient revenues from PL/FTA 5303.

There are also several federal grant programs that can be competed for nationally, including safety and resiliency projects. The Corpus Christi MPO staff applied for a safety grant in FY 2020. Although not funded in this selection process, the MPO staff will continue to look for opportunities to leverage additional transportation planning funds.

STATE FUNDING SOURCES: Any potential State funds used by the Corpus Christi MPO originate from grants received for specific Subtasks. These are a non-federal source of funds.

OTHER NON-FEDERAL FUNDING SOURCES: Non-federal funds used by the Corpus Christi MPO typically originate from annual contributions for services paid by local entities to Corpus Christi MPO. Other funds, if any, are directly attributable to the governmental unit identified or through a project specific funding partnership. This includes in-kind services.

PLANNING FUNDS ALLOCATION PROCESS: Federal planning funds allocated to the State of Texas are distributed according to a formula developed by the State, in consultation with Texas's metropolitan planning organizations, and is formalized in a memorandum of understanding approved by the USDOT. As directed by legislation, the formula to distribute federal planning funds considers population, status of planning, attainment of air quality standards, metropolitan area transportation needs, and other factors necessary to provide for an appropriate distribution of funds to carry out the requirements of 23 USC 134 and other applicable sections of Federal law.

According to the Memorandum of Understanding between TXDOT, FHWA and FTA, the distribution formula for the CPG is based on the MPO's percentages of the total urbanized area (UZA) population, as defined by the 2010 U.S. Census. For the purpose of calculating FY 2021 and FY 2022 federal planning funding, the portion of the 2010 statewide urban population allocated to the Texas Corpus Christi Urbanized Area is 14.5 percent.

Exhibit 9. Corpus Christi MPO 2-Year Budget Summary for FY 2023 and FY 2024

UPWP Task	Description	2-Year TPF[1] Federal Funds	2-Year FTA 5307 Funds	State Funds	Other Funds	Total Funds
1.0	Administration-Management	$2,742,000	$0	$0	$ 1,800,000	**$4,542,000**
2.0	Model and Data Development and Analyses	$253,100	$0	$0	$ 0	**$253,100**
3.0	Short Range Planning	$332,000	$0	$0	$ 0	**$332,000**
4.0	Metropolitan Transportation Planning	$289,100	$0	$0	$ 0	**$289,100**
5.0[2]	Special Studies	$0	$0	$0	$0	**$0**
	TOTAL	**$3,616,200**	**$0**	**$0**	**$1,800,000**	**$5,416,200**

[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.

[2]Strategic Reserves funded special projects TBD by TPC. Estimated cost: $50,000

Combined Transportation Planning Funds[3]	$3,616,200
Estimated Unexpected Carryover	$0
TOTAL Transportation Planning Funds	$5,416,200

Exhibit 10. Corpus Christi MPO FY 2023 & FY 2024 Revenue Sources

TRANSPORTATION PLANNING FUNDS (TPF)	
FY 2023 FHWA CPG (PL-112 + FTA Section 5303)	$760,000
FY 2024 FHWA CPG (PL-112 + FTA Section 5303)	$760,000
Programmed TPF Carryover	$1,050,000
Estimated Unprogrammed TPF Carryover	$128,000
Total TPF Available to Program	**$2,570,000**
Total 2-Year TPF Programmed	**$2,570,000**
TPF Programmed in FY 2023	$1,810,000
TPF Programmed in FY 2024	$760,000
TPF Unprogrammed Balance	$0
OTHER PLANNING FUNDS	
Local Contributions Paid to Corpus Christi MPO	$60,000 per year for a $120,000 total
STBG/Category 7 Funding Carryover from FY 2022 to FY 2023 and FY 2024	$1,750,000
Federal Discretionary Planning Grants FY 2023 and FY 2024	$250,000
Total Other Funds Programmed	$2,120,000
TOTAL FUNDS PROGRAMMED	**$4,690,000**

VIII. PARTNER AGENCY PLANNING STUDY COORDINATION

(Pending Edits by Local Governments)

Other Regionally Significant Transportation-Related Planning Activities

In addition to the tasks previously outlined in this UPWP for Corpus Christi MPO staff, other transportation transportation-related activities will be conducted by various transportation planning and implementation agencies. The FAST Act requires that the UPWP include a description of all metropolitan transportation planning activities anticipated within the next two-year period, regardless of funding source or agencies conducting the activities. The following information summarizes the efforts that were submitted to Corpus Christi MPO for inclusion in this document. Note: Project descriptions are provided by the respective government entity staff.

TxDOT – Corpus Christi District Office Planning Efforts

- Regional TSMO / Regional ITS Update Planning Effort
- Household Travel Survey
- Regional Crash Analysis
- District Traffic Count Program
- Pavement Condition Gathering Program
- Smart Mobility Study
- Resiliency
- Evacuation
- Freight Corridor
- Performance Attainment
- Portland – FM 893: Proposed improvements to FM 893 (Moore Ave) from CR 3685 (Stark Road) to 0.2 miles west of CR 79 (Gum Hollow).
- Gregory and Portland and Ingleside – SH 361: A feasibility study is to identify opportunities to better connect US 181 and SH 361 while also improving safety and mobility.
- Nueces County – FM 70: Proposed improvements to FM 70 from the SH 286/FM 70 intersection to US 77 and on SH 286 from south of FM 244 to FM 70.
- Corpus Christi – IH 37: Proposed upgrades to I-37 from Redbird Lane to US 77.
- Corpus Christi – SH 358: Construction of improvements to enhance safety and increase mobility.
- Corpus Christi – SH 286: Proposed improvements to SH 286 from FM 43 to FM 2444
- Woodsboro and Refugio – US 77: Corridor study to review potential route options and environmental constraints for developing I-69.
- South Texas – US 77 Upgrade: Upgrade between Corpus Christi and Harlingen to meet interstate highway standards.

City of Corpus Christi Planning Efforts

- Pavement Condition Data gathering and Asset Management Study
- Traffic Signal and Intelligent Traffic Systems Study

Northwest Boulevard Corridor Study – The City of Corpus Christi is working with urban planning consultants from Asakura Robinson to create a plan that will guide future development in the area and identify opportunities to improve Northwest Boulevard. The plan will include conceptual drawings and implementation strategies to bring the ideas in the plan to reality. The community's input is needed to create the plan, and the community will have several opportunities to participate, including online surveys and two public meetings. The nearly three-mile study area comprises a 500-foot buffer to the north and south of Northwest Boulevard from Interstate 69 to Wright Moravek Road (County Road 73).

The City of Corpus Christi anticipates additional residential and commercial development, as well as a new elementary school, in the Northwest Boulevard (FM 624) Corridor. Plans to build a new steel factory in nearby Sinton, Texas, could drive additional demand for new housing and commerce in Calallen.

While new development creates new opportunities for people to live, work and do business in Calallen, it can also bring new challenges, such as more auto traffic, and more demands on critical infrastructure. This planning study represents the City of Corpus Christi's effort to proactively plan for orderly, attractive and sustainable growth and development consistent with the community's vision.

Schedule:

- May 2020: Visioning
- June 2020: Selection of Preferred Development Alternative
- September 2020: Public Hearings/Plan Adoption

Flour Bluff Area Redevelopment Plan Update – The City of Corpus Christi is currently working with the Freese and Nichols planning team to create a new Flour Bluff Area Development Plan. This plan will give guidance for future development in the area and identify opportunities to improve existing facilities.

The plan will include conceptual drawings and implementation strategies to bring the ideas in the plan to reality. The community's input is needed to create the plan and the community will have several opportunities to participate, including an online survey and public meetings.

Westside Area Development Plan Update – The City of Corpus Christi is currently working with the Freese and Nichols planning team to create a new Westside Area Development Plan. This plan will give guidance for future development in the area and identify opportunities to improve existing facilities.

The plan will include conceptual drawings and implementation strategies to bring the ideas in the plan to reality. The community's input is needed to create the plan and the community will have several opportunities to participate, including an online survey and public meetings.

Padre Mustang Island Area Development Plan Update – The City of Corpus Christi is currently working with the Freese and Nichols planning team to create a new Padre/Mustang Area Development Plan. This plan will give guidance for future development in the area and identify opportunities to improve existing facilities.

The plan will include conceptual drawings and implementation strategies to bring the ideas in the plan to reality. The community's input is needed to create the plan and the community will have several opportunities to participate, including an online survey and public meetings.

Downtown Gateways Vision Plan – The City of Corpus Christi is working with urban planning consultants from Asakura Robinson, in addition to community members, residents, organizations, and other stakeholders to develop a vision plan for former and current highway infrastructure, key entryways, and the surrounding public areas in the downtown area. A variety of new projects are changing the public realm, most notably the new Harbor Bridge project and associated changes to Interstate 37. This project will engage stakeholders and the public to take advantage of this key opportunity in Downtown's evolution, push forth implementation efforts from existing plans, and creatively improve the public experience for those living in and visiting Downtown Corpus Christi.

Vision Zero Process for the City of Corpus Christi – Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, equitable, mobility for all. It was first implemented in the 1990's in Sweden and has been gaining momentum in major American Cities.

Vision Zero starts with the ethical belief that everyone has the right to move safely in their communities, and that system designers and policy makers share the responsibility to ensure safe systems for travel. Working together, we will take equitable and data driven actions that will eliminate deaths and serious injuries for all who share Corpus Christi streets and waterways by 2050. The City is committed to decreasing crash statistics by endorsing Vision Zero and increasing safe, healthy, equitable mobility for cities, commuters and tourists who live, work and play here. Corpus Christi is a leader in becoming the fourth city in the State to pursue these efforts along with San Antonio, Austin, and Laredo.

- Crossgate Trail Hike and Bike Study
- Schanen Hike and Bike Trail Study

- Oso Creek Trail Study
- FM 43 Corridor Study (likely joint venture with TxDOT)

Nueces County Planning Efforts

- Operation Code Blue: Reviving South Texas' Coastal Economy
- CIP Transportation Projects – Corridor Plans
- County Airport Facilities/Master Plan

City of Portland Planning Efforts

Plan Portland 2040 – The City of Portland is beginning a 12-month process to update its 2012 Comprehensive Plan. The Plan serves as a roadmap for the next 10 to 20 years, which will help guide decisions related to land uses, transportation, housing, parks, community image, and public facilities. Over the next year, the City will host two Community Open House meetings, an online survey, and several steering committee meetings that will be open to the public. Future work will be occurring in the following areas:

- Chapter 1 Baseline Analysis
- Chapter 2 Vision
- Chapter 3 Transportation
- Chapter 4 Parks & Open Space
- Chapter 5 Housing
- Chapter 6 Public Facilities
- Chapter 7 Future Land Use
- Chapter 8 Community Image
- Chapter 9 Implementation

San Patricio County Planning Efforts

- Countywide Industrial Master Plan

Corpus Christi Regional Transportation Authority Planning Efforts

- On-board Rider Survey
- Specialized Transit Plan Update

Port of Corpus Christi Authority Planning Efforts

Joe Fulton Corridor, Rincon Industrial Complex Improvements – The Port of Corpus Christi was awarded a grant by the Texas Department of Transportation (TxDOT) under the 2019-2020 Port Access Program for safety improvements to the Joe Fulton International Trade Corridor and Rincon Road leading to the Rincon Industrial Complex. The Port Access Program is funded by the Texas Mobility Fund and is designed to improve safety and fluidity of roads around Texas seaports. The Mobility Fund is underwritten through vehicle title fees, driver record fees, driver's license fees and vehicle inspections.

The significant growth in recent years along the Corpus Christi Ship Channel Inner Harbor, including additional rail infrastructure, necessitates a new frontage road south of the rail corridor that parallels the Joe Fulton Corridor to maintain vehicle safety and mobility.

The Rincon Industrial Complex is one of the newest facilities targeting breakbulk cargo such as wind energy components, military cargo and steel pipe. The Port of Corpus Christi has made significant capital investments on Rincon in the past two years, including the construction of 40 acres of flexible cargo storage space and roughly 12,000 linear feet of rail to accommodate liquid transloading and processing of breakbulk cargo. Additional congestion from the construction of the new Harbor Bridge has increased the traffic burden on Rincon Road. The TxDOT-funded improvements will enhance truck mobility, highway connectivity and safety, including the addition of intelligent transportation system (ITS) components.

Joe Fulton International Trade Corridor – Corridor Mobility Plan – The project is a three-part corridor mobility plan (assessment, modeling, and concept design) for the Joe Fulton International Trade Corridor. Part I of the plan will evaluate current conditions; Part II will develop scenario-based projections (five- and ten-year time horizons) of travel demand based on pending commercial agreements for development of the last remaining greenfield sites along the Inner Harbor; Part III will yield a prioritized list of/concept design for iterative interventions that include both engineering and traffic management solutions.

First Phase of Avery Point Terminal Redevelopment – The Port of Corpus Christi has received a federal grant of more than $17 million from the U.S. Department of Transportation – Maritime Administration to expand Oil Dock 3 as the first of four phases in the redevelopment of the Avery Point Terminal (Avery Point).

Located on the Corpus Christi Ship Channel's Inner Harbor, Avery Point is one of the Port of Corpus Christi's most productive public oil terminals, currently operating at over 84% capacity. The four ship docks, however, are more than 55 years old and require major rehabilitation or reconstruction to safely and efficiently accommodate today's modern vessel fleet. This high utilization prohibits the decommissioning and redevelopment without the creation of new berth capacity nearby to accommodate existing (and growing) demand during the reconstruction.

The $17.6 million grant will double barge berthing capacity at Oil Dock 3 (OD3), located on the easternmost edge of the terminal, to accommodate 90 percent of barge traffic currently calling on the other three Avery Point docks (Docks 4, 7 and 11). This will create enough surplus capacity at the other three docks to allow phased decommissioning and redevelopment of each without any disruption of operations. The Port is committed to maintaining close coordination with all users of the Avery Point Terminal throughout the process to ensure continuity of operations. Total project cost is estimated at $22 million, with $17.6 million coming from the Port Infrastructure Development Grant and the remaining balance coming from the Port of Corpus Christi.

Corpus Christi International Airport Planning Efforts

- Master Plan Update

Coastal Bend Council of Governments Planning Efforts

- Specialized Transit Plan Update

Coastal Bend Air Quality Partnership

Continue to participate in the studies and analysis of this group focused on air quality impacts and emerging trends related to air quality in the MPO region.

Military Installation Coordination

Future projects to be identified.

SECTION IX

APPENDICES

APPENDIX A

TRANSPORTATION POLICY COMMITTEE MEMBERSHIP,
TECHNICAL ADVISORY COMMITTEE MEMBERSHIP, AND MPO STAFF

TRANSPORTATION POLICY COMMITTEE (TPC)		
VOTING MEMBERS		
Hon. David R. Krebs, Chair	County Judge	San Patricio County
Charles W. Zahn, Jr., Vice-Chair	Board Chairman	Port of Corpus Christi Authority
Hon. Barbara Canales	County Judge	Nueces County
Hon. Cathy Skurow	Mayor	City of Portland
Hon. Paulette Guajardo	Mayor	City of Corpus Christi
Dan Leyendecker	Board Chairman	Corpus Christi Regional Transportation Authority
Valente Olivarez, Jr., P.E.	District Engineer	Texas Department of Transportation – Corpus Christi District
EX-OFFICIO NON-VOTING MEMBERS		
Jamik Alexander	Transportation Planner	Federal Highway Administration – Texas Division
Tony Ogboli	Community Planner	Federal Highway Administration – Region VI
Sara Garza	Transportation Planner	Texas Department of Transportation – Transportation Planning & Programming (TPP)
Lynn Hayes	Community Planner	Federal Highway Administration – Region VI
John Buckner	Executive Director	Coastal Bend Council of Governments
State Legislators or Member of U.S. Congress		Texas Legislators / United States Congress (District included in the MPO Study Area)

TECHNICAL ADVISORY COMMITTEE (TAC)		
VOTING MEMBERS		
Brian DeLatte, P.E.*, Chair	Deputy City Manager	City of Portland
Gordon Robinson, AICP*, Vice-Chair	Director of Planning	Corpus Christi Regional Transportation Authority
Howard Gillespie	County Commissioner Pct. 4	San Patricio County
Sarah F. Munoz, P.E.	Deputy of Director of Public Works	City of Corpus Christi
Jeff Pollack, AICP, ENV SP	Chief Strategic Officer	Port of Corpus Christi Authority
Juan Pimentel, P.E.	Director of Public Works	Nueces County
Paula Sales-Evans, P.E.	Director Transportation Planning & Development	Texas Department of Transportation – Corpus Christi District
EX-OFFICIO NON-VOTING MEMBERS		
Jamik Alexander	Transportation Planner	Federal Highway Administration – Texas Division
Tony Ogboli	Community Planner	Federal Highway Administration – Region VI
Sara Garza	Transportation Planner	Texas Department of Transportation – Transportation Planning & Programming (TPP)
Lynn Hayes	Community Planner	Federal Highway Administration – Region VI
Emily Martinez	Director of Planning and Economic Development	Coastal Bend Council of Governments
State Legislators or Member of U.S. Congress		Texas Legislators / United States Congress (District included in the MPO Study Area)

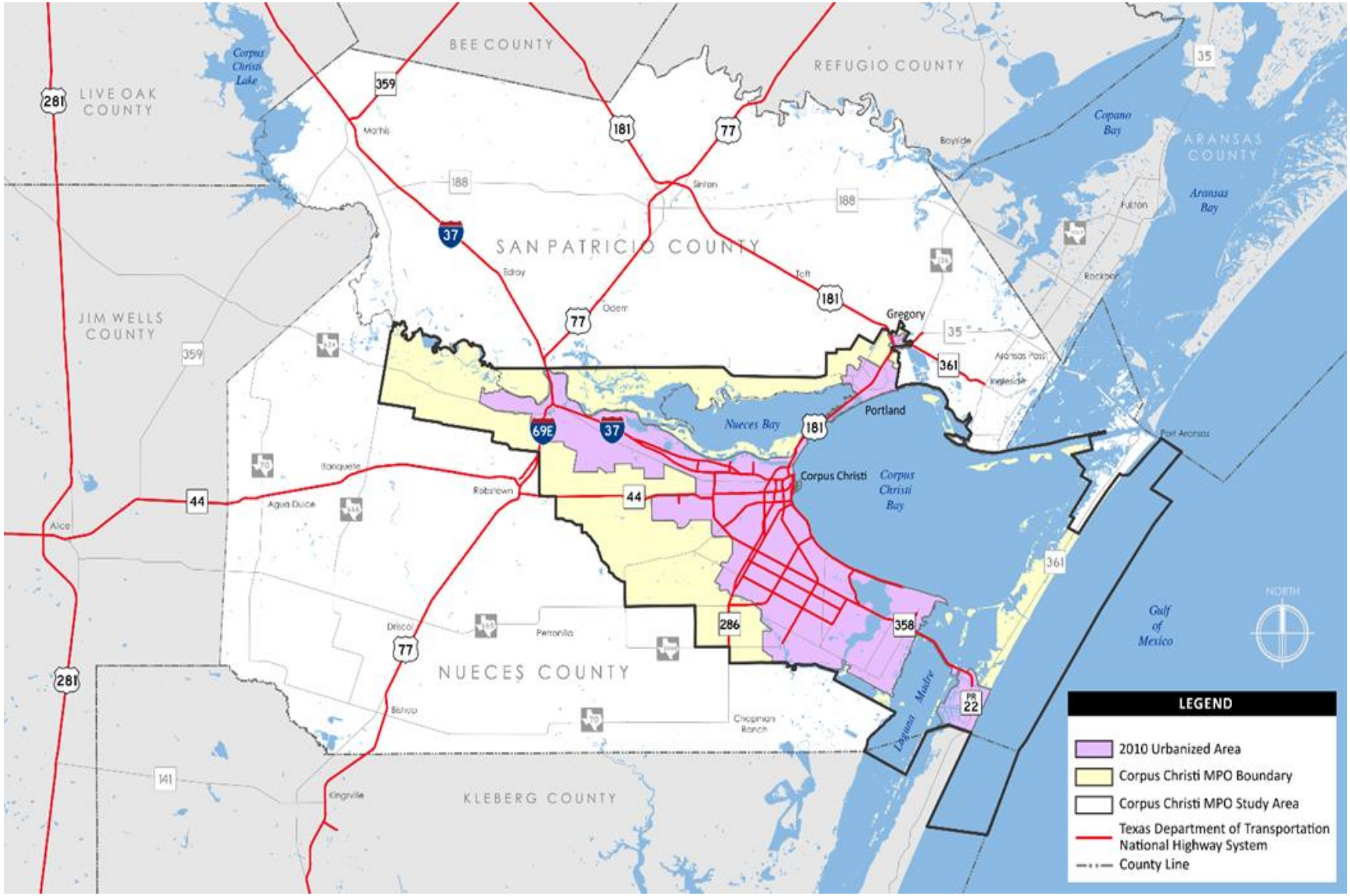
*Designated Alternate

CORPUS CHRISTI MPO PLANNING STAFF		
Robert F. MacDonald, MPA, P.E. Transportation Planning Director	Craig T. Casper, AICP Senior Transportation Planner	
Daniel V. Carrizales System Administrator	Victor Mendieta GIS Manger	Yoshiko Boulan Office Coordinator

APPENDIX B

METROPOLITAN AREA BOUNDARY MAP
(Governor or Governor's Designee Approved)

Corpus Christi MPO Metropolitan Area Boundary Map



APPENDIX C

DEBARMENT CERTIFICATION
(Negotiated Contracts)

DEBARMENT CERTIFICATION
(Negotiated Contracts)

(1) The **Corpus Christi Metropolitan Planning Organization** 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*

Honorable Judge David R. Krebs, San Patricio County
Transportation Policy Committee – Chair
Corpus Christi Metropolitan Planning Organization

Date

APPENDIX D

LOBBYING CERTIFICATION
(Certifications for Contracts, Grants, Loans and
Cooperative Agreements)

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.

Honorable Judge David R. Krebs, San Patricio County
Transportation Policy Committee – Chair
Corpus Christi Metropolitan Planning Organization

Date

APPENDIX E

CERTIFICATION OF COMPLIANCE

CERTIFICATE OF COMPLIANCE

I, **David R. Krebs**, County Judge for San Patricio County, a duly authorized officer/representative of the **Corpus Christi Metropolitan Planning Organization** 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.

Honorable Judge David R. Krebs, San Patricio County
Transportation Policy Committee – Chair
Corpus Christi Metropolitan Planning Organization

Date

ATTEST:

Robert F. MacDonald, MPA, P.E.

Transportation Planning Director

Title

APPENDIX F

CERTIFICATION OF INTERNAL ETHICS AND COMPLIANCE PROGRAM

CERTIFICATION OF INTERNAL ETHICS AND COMPLIANCE PROGRAM

I, **David R. Krebs**, County Judge for San Patricio County, a duly authorized officer/representative of the **Corpus Christi Metropolitan Planning Organization**, 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.

Honorable Judge David R. Krebs, San Patricio County
Transportation Policy Committee – Chair
Corpus Christi Metropolitan Planning Organization

Date

ATTEST:

Robert F. MacDonald, MPA, P.E.

Transportation Planning Director

Title

APPENDIX G

TRANSPORTATION TERMS AND ABBREVIATIONS

TRANSPORTATION TERMS AND ABBREVIATIONS

3-C - Continuing, Cooperative, and Comprehensive: planning process.

AADT - Average Annual Daily Traffic: The number of vehicles passing a fixed point in a year, averaged over 365 days.

Accessibility: A measure of how easy it is to reach (and interact with) destinations or activities around a city or county.

ADA - Americans with Disabilities Act of 1990: Federal law that requires public facilities (including transportation services) to be accessible to persons with disabilities including those with mental disabilities, temporary disabilities, and the conditions related to substance abuse.

ADT - Average Daily Traffic: The number of vehicles passing a fixed point in a day, averaged over a number of days. The number of count days included in the average varies with the intended use of data.

AMPO - Association of Metropolitan Planning Organizations: Nonprofit membership organization serving the interests of metropolitan planning organizations nationwide.

AVO - Average Vehicle Occupancy: The ratio of person trips to vehicle trips; often used as a criteria in judging the success of trip reduction programs.

AVR - Average Vehicle Ridership: The number of employees scheduled to start work during specified period divided by the number of vehicles arriving at the site during that same period.

CCRTA - Corpus Christi Regional Transportation Authority: "The B" as it is locally known, is the urban public transportation service provider. Operations began in January 1986 with services to the citizens of the Coastal Bend, including the cities of Agua Dulce, Banquete, Bishop, Corpus Christi, Driscoll, Gregory, Por t Aransas, Robstown, and San Patricio City.

CMP - Congestion Management Process: A systematic process that addresses congestion in the metropolitan area. It emphasizes effective management and operations, and shall include methods to monitor and evaluate the performance of the multi-modal transportation systems, identify causes of congestion, identify and evaluate alternative actions, provide information supporting the implementation of actions, and evaluate the efficiency and effectiveness of implementation actions.

CSJ - Control Section Job Number: TxDOT assigned number for projects entered into the Project Development Program (PDP). This number is unique to each individual project.

DOT - Department of Transportation: Agency responsible for transportation at the local, state, or federal level. For title 23 U.S.C. federal-aid highway actions, this would mean the Federal Highway Administration and for federal-aid transit actions under title 49 U.S.C, this would mean the Federal Transit Administration.

EIS - Environmental Impact Statement: A National Environmental Policy Act (NEPA) document that explains the purpose and need for a project, presents project alternatives, analyzes the likely impact of each, explains the choice of a preferred alternative, and finally details measures to be taken in order to mitigate the impacts of the preferred alternative.

EJ - Environmental Justice: Describes the impact of transportation plans or projects, either positive or negative, on a particular community or population. Derived from Title VI of the Civil Rights Act of 1964. Environmental Justice strives to ensure public involvement of low income and minority groups in decision making, to prevent disproportionately high and adverse impacts on low income and minority groups, and to assure that these groups receive equal benefits from transportation improvements.

ETJ - Extraterritorial Jurisdiction: Geographic area subject to urban municipality ordinance and platting requirements.

FAST ACT – Fixing America's Surface Transportation: The federal law passed in 2015 to provide long-term funding for surface transportation infrastructure, planning and investment. It expires on September 30, 2020. It is likely that continuing resolutions will be necessary to extend past this expiration date.

Federal Aid Highway: Those highways eligible for assistance under Title 23 of the United States Code (U.S.C), which does not include those functionally classified as local streets or rural minor collectors.

FHPP - Federal High Priority Projects: Discretionary projects earmarked by the U.S. Congress as high priorities at the federal level during the Congressional appropriations and reauthorization process. This amounts to roughly 5% of the total transportation budget.

FHWA - Federal Highway Administration: U.S. Department of Transportation Division responsible for administrating federal highway transportation programs under title 23 U.S.C.

Fiscal Constraint: A requirement, that all plans be financially – constrained, balanced programmed expenditures are not more than the reasonably expected sources of funding over the period of the TIP or Long-Range Transportation Plan.

FTA - Federal Transit Administration: Federal entity responsible for transit planning and programs under title 49 U.S.C.

Funding Category: The Texas Transportation Commission (Commission) and TxDOT use the UTP as TxDOT's ten-year plan to guide transportation project development and construction. The UTP has two major components: Preservation & Safety and Mobility.

F. CLASS – Functional Class: Categorizes streets and highways according to their ability to 1) move traffic, and 2) provide access to adjacent properties. It also determines eligibility for federal funds. There are three main functional classes as defined by the United States Federal Highway Administration: arterial, collector, and local. In addition to mobility and access, other factors can help determine the proper category to which a particular roadway belongs - such as trip length, speed limit, volume, and vehicle mix.

FY - Fiscal Year: A federal fiscal or budget year; runs from October 1 through September 30 for the MPO and the federal government.

Goals: The description of a desired outcomes. The purpose toward which funding is directed. (e.g., provide safe and secure transportation across modes.)

HOV - High Occupancy Vehicle: In Texas, vehicles carrying two (2) or more people receive this designation and may travel on freeways, expressways and other large volume roads in lanes designated for high occupancy vehicles.

IMS - Incident Management System: A systematic process first required under SAFETEA-LU, and continued under the FAST Act to provide information on accidents and identify causes and improvements to the Transportation system to increase safety of all users.

Intergovernmental Agreement: Legal instrument describing tasks to be accomplished and/or funds to be paid between government agencies.

Indicator: A performance measure that is used to identify relevant background conditions and trends.

ITE - Institute of Transportation Engineers: An international society of professionals in transportation and traffic engineering; publishes Trip Generation (a manual of trip generation rates by land use type).

ITS - Intelligent Transportation Systems: A range of advanced computer and communications technologies that improve mobility, enhance safety, maximize the use of existing transportation facilities, conserve energy resources and reduce adverse environmental effects.

LCA – Lifecycle Cost Analysis: A methodology for assessing the sum of project costs for all stages of the lifespan of a transportation project. This includes planning, design, construction, environmental impact mitigation, operations, preventive maintenance, and reconstruction.

LEP - Limited English Proficiency: Clarifies the responsibilities of recipients of federal financial assistance and assist them in fulfilling their responsibilities to LEP persons, pursuant to Title VI of the Civil Rights Act of 1964 and its implementing regulations.

LOS - Level of Service: A qualitative assessment of a road's operating condition, generally described using a scale of A (little congestion) to E/F (severe congestion).

MAP-21 - Moving Ahead for Progress in the 21st Century Act: Enacted July 6, 2012, the federal law creates a streamlined and performance-based surface transportation program and builds on highway, transit, bike, and pedestrian programs and policies established in 1991.

MPA - Metropolitan Planning Area: Encompass the entire existing urbanized area and the contiguous area expected to become urbanized within a 20-year forecast period for the metropolitan transportation plan.

Maintenance: Activities undertaken to keep transportation infrastructure and equipment operating as intended, to eliminate deficiencies, and to extend or achieve the expected life of facilities before reconstruction is needed. These include routine or day-to-day activities (e.g., pothole patching, mowing, litter removal, guardrail repair and striping, routine bus inspection and maintenance, and periodic dredging of channels) and periodic major projects (e.g., resurfacing roadways and runways and rehabilitating bridges).

Measures: Indicators of how well the transportation system or specific transportation projects will improve transportation conditions. Used in assessing relevant background conditions and trends to aid identifying projects for funding and trajectory toward desired future conditions.

MG - Minimum Guarantee: A funding category created in TEA-21 that guarantees a 90% return of contributions on formula funds to every state.

Mobility: The ability to move or be moved freely and easily. It is typically used in conjunction with accessibility. This term is also used by TxDOT for one of the major groups of transportation funds. funds.CAT 7: Metropolitan Mobility and Rehabilitation; CAT 9: Transportation Enhancements; CAT 10: Supplemental Transportation Projects; CAT 11: District Discretionary; CAT 12: Strategic Priority.

MPO - Metropolitan Planning Organization: The forum of local elected officials responsible for cooperative transportation decision-making; required for urbanized areas with populations over 50,000.

MTP - Metropolitan Transportation Plan: 25-year forecast required of MPOs and state planning agencies; considers a range of social, environmental, energy, and economic factors in determining overall regional goals and how transportation can best meet these goals.

NHS - The National Highway System: Consists of roadways important to the nation's economy, defense, and mobility. The NHS includes the following subsystems of roadways:

- **Interstate**: The Eisenhower Interstate System of highways retains its separate identity within the NHS.
- **Other Principal Arterials**: These are highways in rural and urban areas which provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.

- **Strategic Highway Network (STRAHNET)**: This is a network of highways which are important to the United States' strategic defense policy and which provide defense access, continuity, and emergency capabilities for defense purposes.
- **Major Strategic Highway Network Connectors**: These are highways which provide access between major military installations and highways which are part of the Strategic Highway Network.
- **Intermodal Connectors**: These highways provide access between major intermodal facilities and the other four subsystems making up the National Highway System. A listing of all official NHS Intermodal Connectors is available.

Operations: The implementation of policies, projects, and technologies to improve road performance. The overriding objectives of operations programs include minimizing congestion (and its side effects), improving safety, and enhancing overall mobility.

Performance Based Planning and Programming: The process developed to evaluate and select transportation projects. This includes monitoring progress toward achieving goals and objectives at the agency strategic, decision-making and project delivery levels.

Officials: Are people who have governmental decision-making, planning or administrative responsibilities that relate to MPO activities.

Phase: Project phase for federal funding - PE: Preliminary Engineering; ROW: Right of Way Acquisition; CON: Construction; T: Transfer.

PMS - Pavement Management System: A systematic process utilized by state agencies and MPOs to analyze and summarize pavement information for use in selecting and implementing cost-effective pavement construction, rehabilitation, and maintenance programs; required for roads in the National Highway System as a part of ISTEA; the extent to which the remaining public roads are included in the process is left to the discretion of state and local officials; criteria found in 23 CFR 500.021-209.

Preservation & Safety: funding category of the UTP includes maintenance and rehabilitation projects to maintain the existing transportation system and to improve certain safety aspects. Categories are: CAT 1: Preventive Maintenance and Rehabilitation; CAT 6: Structures Replacement and Rehabilitation (Bridges); CAT 8: Safety.

PROJ ID - Project Identification: Identification number assigned by the MPO for local tracking and identification. Used to relate projects to the MTP.

PTMS - Public Transportation Facilities and Equipment Management System: A systematic process utilized by state agencies and MPOs to collect and analyze information on the condition and cost of transit assets on a continual basis; data is to be used to help people choose cost effective strategies for providing and keeping transit facilities and equipment in good condition; process must be developed in Transportation Management Areas (TMAs); the use of CMS in non-TMAs is left to the discretion of state and local officials.

PPP - Public Participation Plan: Is an integral part of a planning or major decision-making process. It provides opportunities for the public to be involved with the MPO in an exchange of data and ideas. Citizen participation offers an open process in which the rights of the community, to be informed to provide comments to the Government and to receive a response from the Government, are met through a full opportunity to be involved and to express needs and goals.

Public: Includes citizens, public agencies, advocacy groups and the private sectors that have an interest in or may be affected by MPO activities.

RCAT - CCRTA Committee on Accessible Transportation: Members act as ambassadors on transportation ridership issues related to transportation disadvantaged riders and services.

Resurfacing: Projects that are intended to preserve the structural integrity of highway pavements by rehabilitation, minor reconstruction, and pavement milling and recycling.

ROW - Right-of-Way: Real property that is used for transportation purposes; defines the extent of the corridor that can be used for the road and associated drainage.

Routine Maintenance: Operations that may be predicted and planned in advance. These operations (e.g.: cleaning and debris removals, regular inspections, mowing, preventive maintenance, etc.), which may be preventive or corrective in nature, should be conducted on a regularly scheduled basis using standard procedures.

RTDM - Regional Travel Demand Model: This is a tool for forecasting impacts of urban developments on travel patterns as well as testing various transportation alternative solutions to traffic patterns. The travel patterns are determined from US census results and in simple terms tell where residents live and where they go to work or school on a regional wide basis.

Safety Analysis: A comprehensive assessment of safety outcomes with and without a specific project under consideration, including a general analysis of historical crash data on the facility under consideration, a detailed review of fatal crashes and their causes.

SHSP – Strategic Highway Safety Plan: A Federally required plan to reduce crashes on all public roads adopted by TxDOT in 2019. The current plan includes 7 emphasis areas.

SIB - State Infrastructure Bank: Method of financing large capital projects by taking advantage of borrowing against future state revenues.

SMP - Statewide Mobility Plan: TxDOT's 10-year plan for adding capacity to the system by using the Mobility Category Funds of Federal and State Transportation funding.

Sponsoring Agencies: Organizations or governmental units, which enter into agreements with the MPO to undertake transportation related activities.

SPP - Statewide Preservation Plan: TxDOT's 10-year plan for maintaining the system using the preservation categories of Federal and State Transportation funding. It is one half of the overall 10-year Unified Transportation Plan.

Stakeholders: Individuals and groups with an interest in the outcomes of policy decisions and actions.

STIP - State Transportation Improvement Program: The TxDOT Five Year Work Program as prescribed by federal law. It incorporates the TIPs from all MPO in the state without modification. Projects included in the STIP must be consistent with the regional and state long-range transportation plan.

TAC - Technical Advisory Committee: A standing committee of most metropolitan planning organizations (MPOs); function is to provide advice on plans or actions of the MPO from planners, engineers, and other staff members (not general citizens).

TCEQ - Texas Commission on Environmental Quality: The TCEQ is the environmental agency for the state.

TCI - Texas Congestion Index: An index to measure the magnitude of congestion in a single performance measure across the state. The index measures the mobility of people and goods in each Texas metropolitan area, with attention to the delay time experienced by drivers.

TIP - Transportation Improvement Program: A priority list of transportation projects developed by a metropolitan planning organization that is to be carried out within the four (4) year period following its adoption; must include documentation of federal and state funding sources for each project and be consistent with adopted MPO long range transportation plans and local government comprehensive plans.

Title VI - Civil Rights Act: As a recipient of federal funds, the MPO ensures that no person shall, on the grounds of race, religion, color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any agency programs or activities.

TMA - Transportation Management Area: An area designated by the U.S. Department of Transportation given to all urbanized areas with a population over 200,000 (or other area when requested by the Governor and MPO); these areas must comply with special transportation planning requirements regarding congestion management systems, project selection and certification; requirements identified in 23 CFR - 450.300-33.6.

TMMP - Texas Metropolitan Mobility Plan: This is a state-based requirement intended to serve as a framework for identifying unmet transportation needs in the state's larger metropolitan areas. The TMMP is a needs-based plan which quantifies transportation needs beyond the fiscal constraint barrier.

TPC - Transportation Policy Committee: The decision-making body for the MPO. This committee was created toto serve as spokespersons for the citizens of the metropolitan area and to prioritize and direct federal transportation funds to local projects. The TPC is comprised of elected officials from the cities and two counties in the urbanized area, along with TXDOT, RTA, and Port Authority. TPC meetings are open to the public on the first Thursday of each month at 1:30 P.M. at the Corpus Christi City Hall, City Council Chambers.

Transportation Disadvantaged: People who are unable to transport themselves or to purchase transportation due to disability, income status or age.

Transportation Alternatives Program: A funding program that includes the federal Transportation Alternatives (TA) Set-Aside Program. These funds may be awarded for the following activities: Construction of sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic-calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act Construction of infrastructure-related projects that provide safe routes for non-drivers. Conversion and use of abandoned railroad corridors for trails for pedestrian, bicyclists, or other non-motorized transportation users. Construction of infrastructure-related projects to improve the ability of students to walk and bicycle to school.

TSMO - Transportation Systems Management and Operations: Strategies to improve the efficiency of the transportation system through operational improvements such as the use of bus priority or reserved lanes, signalization, access management, turn restrictions, etc.

TTI - Texas Transportation Institute: A legislatively created research center, located at Texas A&M University in College Station, Texas, whose purpose is to conduct and facilitate research and serve as an information exchange on issues related to urban transportation problems in Texas.

TxDOT - Texas Department of Transportation: State agency responsible for transportation issues in Texas.

UZA - Urbanized Area: A Census-designated area consisting of a central core and adjacent densely settled territory with populations of 50,000 residents or more.

UPWP - Unified Planning Work Program: Developed by MPOs to identify transportation and planning activities anticipated within the next one to two years, including a schedule for the completion of the identified tasks and activities.

UTP - Unified Transportation Plan: This is the state's 10-year Transportation Plan with the first 10 years programmed and the second 15 years of projects under design. This document has two parts. The two parts are: The SMP and SPP, respectively.

V/C Ratio Volume over Capacity Ratio: This is a roadway performance measure to show how a highway volume compares with a highway's capacity.