CORPUS CHRISTI MPO
METROPOLITAN PLANNING ORGANIZATION

TECHNICAL ADVISORY COMMITTEE (TAC) REGULAR MEETING/WORKSHOP AGENDA

THURSDAY FEBRUARY 16, 2023 - 9:00 A.M.

Location: Corpus Christi Regional Transportation Authority (CCRTA) Building
602 N. Staples Street, Room 210, Corpus Christi, TX 78401

1. **CALL TO ORDER, ROLL CALL, AND QUORUM DETERMINATION**
2. **PUBLIC COMMENTS FOR ITEMS NOT ON THE AGENDA:**

   Opportunity for public suggestions and comments for any items not on the Agenda and within the TAC's jurisdiction (except in matters related to pending litigation). Proceedings are recorded. To make a public suggestion or comment at the meeting, please fill out the printed comment card available at the meeting and submit it to Corpus Christi MPO staff 10 minutes before the meeting starts. We ask that remarks be limited to three minutes, that you identify yourself, and give your address. Those persons addressing the TAC through a translator are given twice the amount of time, or six (6) minutes to provide their comments. All Public Comments submitted shall be placed into the record of the meeting.
3. **APPROVAL OF THE TAC JANUARY 19, 2023 REGULAR MEETING MINUTES** ✉
4. **INFORMATION ITEMS**
   - A. **Census Designated Urban Area Update** ✉
   - B. **Regional Safety Task Force Meeting Recap** ✉
   - C. **Small Area Forecast Task Force Meeting Agenda Review** ✉
   - D. **2024 UTP Development Update Presentation to the Texas Transportation Commission** ✉
   - E. **Member Agency Project and Program Updates**
5. **REGIONAL FREIGHT TOPIC**
   - A. **Texas 2050 Freight Mobility Plan Excerpt – Corpus Christi Regional Freight Routes** ✉
6. **REGIONAL GRANT COORDINATION TOPIC**
   - A. **Corpus Christi MPO Regional Coordination Group for Federal Transportation Grants Update** ✉
7. **TAC MEMBER STATEMENTS ON LOCAL AGENCY ACTIVITIES OR ITEMS OF INTEREST**
8. **UPCOMING MEETINGS/EVENTS**

A. **Transportation Policy Committee:**	**Regular Meeting**	**March 2, 2023**
B. **Regional Traffic Safety Task Force:**	**Meeting**	**March 2, 2023**
C. **Technical Advisory Committee:**	**Regular Meeting**	**March 16, 2023**
D. **Small Area Forecast Task Force:**	**Meeting**	**March 16, 2023**

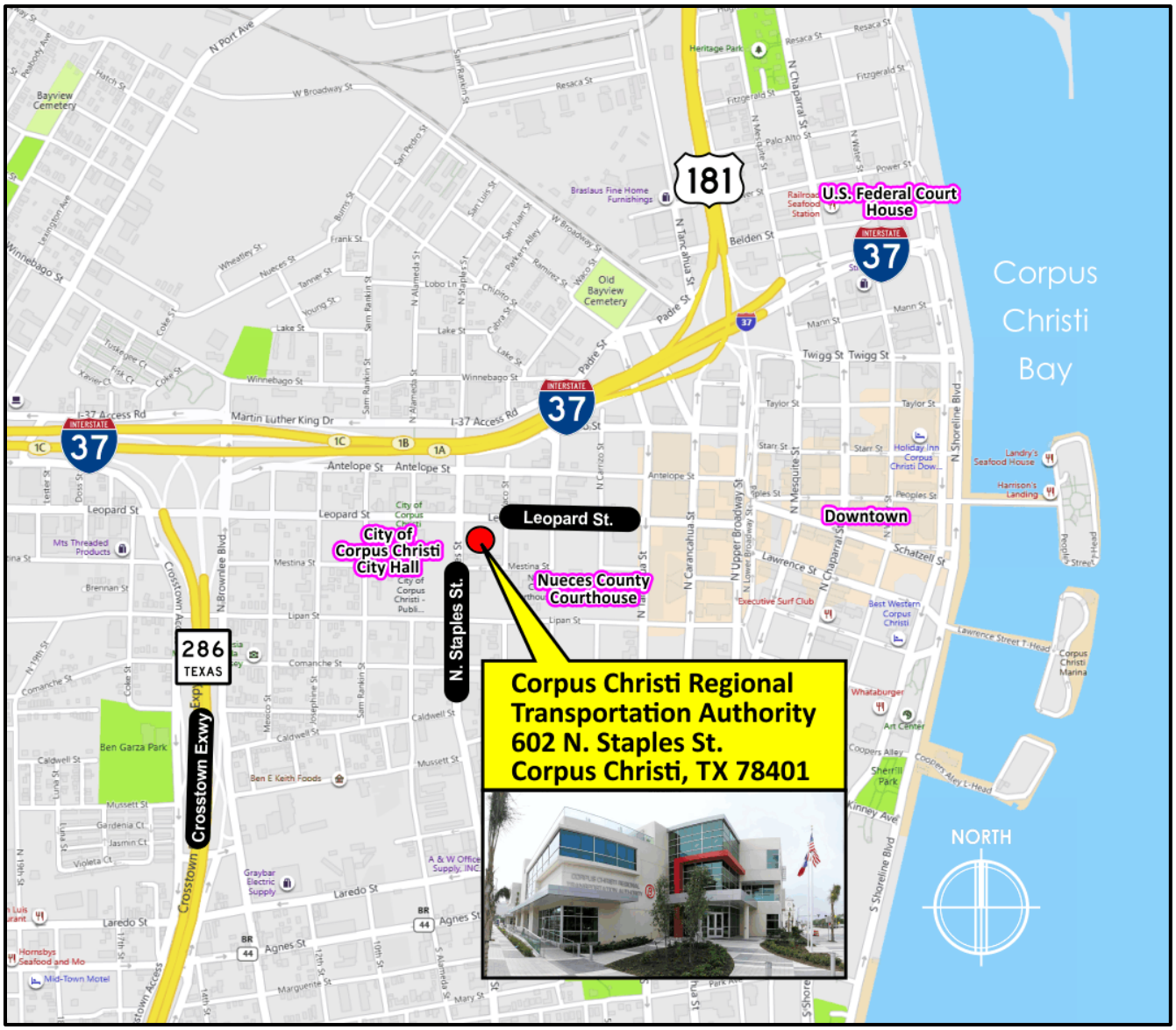
9. **ADJOURN**

✉ - Indicates attachment(s) for the agenda item. 🔗 - Indicates a weblink for agenda item

Public suggestions and comments may be provided before the meeting by emailing ccmpo@cctxmpo.us, by regular mail, or by hand-delivery to the Corpus Christi MPO Office at 602 N. Staples St., Suite 300, Corpus Christi, TX 78401. Please limit written comments to 1,000 characters. Written comments should be provided at least 1 hour before the start of the TAC meeting.

All Corpus Christi MPO Committee meetings are public meetings and open to the public subject to the access policies of the building owner where the meeting is being held. Any persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services are requested to contact the Corpus Christi MPO at (361) 884-0687 at least 48 hours in advance so that appropriate arrangements can be made.

MEETING LOCATION MAP



CORPUS CHRISTI METROPOLITAN PLANNING ORGANIZATION (CORPUS CHRISTI MPO)
TECHNICAL ADVISORY COMMITTEE (TAC) MEETING MINUTES
Thursday, January 19, 2023

1. Call to Order, Roll Call, and Quorum Determination

Chairperson Brian DeLatte called the meeting to order at 9:00 A.M.

TAC Members Present:

Chairperson Brian DeLatte, P.E., City of Portland
Vice Chairperson Gordon Robinson, AICP, Corpus Christi Regional Transportation Authority
Paula Sales-Evans, P.E., TxDOT – Corpus Christi District (CRP)
Jeff Pollack, AICP, Port of Corpus Christi Authority
Dan McGinn, AICP, City of Corpus Christi

MPO Staff Present: Rob MacDonald, P.E., Craig Casper, AICP, Daniel Carrizales, Victor Mendieta, and Yoshiko Boulan

2. Election of Officers for the Technical Advisory Committee

In accordance with the Corpus Christi MPO Bylaws, the Technical Advisory Committee shall elect a Chairperson and a Vice Chairperson from among its voting members during the first meeting of each calendar year.

Ms. Sales-Evans made a motion to re-elect Chairperson DeLatte for Chairperson and re-elect Vice Chairperson Robinson for Vice Chairperson. Mr. Pollack seconded; the motion passed unanimously. Chairperson DeLatte and Vice Chairperson Robinson are re-elected for the TAC Chairperson and Vice Chairperson for Calendar Year 2023.

3. Public Comments for Items not on the Agenda

None were made or offered.

4. Approval of the November 17, 2022, TAC Regular Meeting Minutes

Ms. Sales-Evans made a motion to approve the November 17, 2022, TAC Regular Meeting Minutes. Mr. Pollack seconded; the motion passed unanimously.

5. Discussion and Possible Action Items

A. Safety Performance Measures and Targets (PM1)

The Corpus Christi MPO is required to adopt Safety (PM1) Performance Measures and Targets annually. The PM1 Targets aim to reduce the number and rate of traffic fatalities and serious injuries. The Corpus Christi MPO can either (1) support the State Safety Performance Measures and Targets or (2) establish its own Safety Performance Measures and Targets. The Corpus Christi MPO has been supporting the State Safety Performance Measures and Targets and Corpus Christi MPO staff recommends adopting the State Safety Measures and Targets for 2023 as well.

The Item 5A memo provided the TxDOT's 2023 Safety (PM1) Performance Measures and Targets that would be adopted upon the Transportation Policy Committee (TPC)'s approval, and regionally relevant Performance Measures and Targets for illustration purposes. A draft Resolution is attached.

Ms. Sales-Evans made a motion to recommend to the Transportation Policy Committee the Safety Performance Measures and Targets as presented by the Corpus Christi MPO staff. Mr. Gordon seconded; the motion passed unanimously.

6. Information Items

A. Census Designated Urban Area Update

Mr. Casper provided the TAC with the Census Designated Urban Area Update. The Corpus Christi Metropolitan Planning Area (MPA) is reviewed after the decennial US Census Urban Area is updated and the Adjusted Urban Area completed, if necessary. The designation of urban areas by the US Census is the basis

of the MPA and as a result, determines the TPC membership and federal funding levels and eligibilities for the Corpus Christi MPO. As previously reported, the release of urban areas originally scheduled in March 2022 has been delayed. The map of the 2020 Census Designated Urban Area was just released on January 12, 2023 and was attached as Attachment 1. The difference between the 2010 Census and the 2020 Census is provided as a handout, a notable change is Port Aransas is now part of the Ingleside-Aransas Pass urban area.

After the release of the designation of Urban Areas, the Corpus Christi MPO staff, TxDOT Corpus Christi District, Corpus Christi Regional Transportation Authority, local governments, and planning partners will discuss and adjust the boundaries using the 9 considerations listed in Section 6 of FHWAs Functional Classification manual. It would take approximately six months to a year to complete.

The Corpus Christi MPO has formed the Small Area Forecast Task Force that comprises diverse entities such as local governments, economic development organizations, and Independent School Districts. The Small Area Forecast Task Force will start meeting monthly.

B. Member Agency Project and Program Updates

Mr. MacDonald explained the purpose of this information item is for sharing the member agencies' projects and programs. For example, the Corpus Christi Regional Transportation Authority (CCRTA) just adopted their Long-Range System Plan, also the City of Portland holds an Open House for their PLAN 2040 Comprehensive Plan on January 19, 2023, City of Corpus Christi's Area Development Plans and Bond projects, the Port of Corpus Christi's projects listed in 2024-2025 Texas Port Mission Plan; these are the great items to share and discuss during the TAC as regionally significant projects. Mr. MacDonald requested the TAC members to share their projects or programs by using this platform.

7. <u>Regional Freight Topic</u>

A. 2024-2025 Port Mission Plan Executive Summary

Mr. MacDonald represents all Texas MPOs (TEMPO) on the Texas Freight Advisory Committee. The 2024-2025 Port Mission Plan is a part of the Texas Freight Plan, Texas Delivers 2050 that will be adopted by the Texas Transportation Committee in January. Mr. MacDonald provided the Executive Summary to the TAC. As mentioned in Item 6B, the Port of Corpus Christi has three Capital Investment Projects, one Ship Channel Improvement, and twelve Port Connectivity Projects in the 2024-2025 Port Mission Plan. The Port of Corpus Christi received $157.3 million for the Ship Channel Improvement Project's final phase in December 2022. These projects should, as a best practice, be included in the Corpus Christi MPO's long and short-range transportation plans as regionally significant projects. For example, one of the listed projects, Elevate Nueces Bay Causeway (US 181) for improved ship passage and flood risk mitigation estimated project cost is $340M. Mr. MacDonald asked Mr. Pollack to provide information on these projects so that these projects can be included in the 2050 Metropolitan Transportation Plan (MTP) and the Transportation Improvement Program (TIP) as appropriate.

8. <u>Regional Grant Coordination Topic</u>

A. Corpus Christi MPO Regional Coordination Group for Federal Transportation Grants

Mr. MacDonald reminded the TAC members, who also act as the Regional Coordination Group for Federal Transportation Grants, of the many opportunities for them to apply for grants through the Infrastructure Investment and Jobs Act. The 2023 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Notice of Funding Opportunity was released in December 2022 and the deadline is February 28, 2023. Mr. MacDonald requested that any entities interested in applying for the 2023 RAISE grant or other grants that need coordination with other entities to notify the Grant Coordination Group and the Corpus Christi MPO staff.

Mr. Pollack said that the Port of Corpus Christi is planning to apply for funds for stormwater infrastructure, bulk terminal improvements, the port infrastructure improvements, and the US Department of Energy's Hydrogen Hub under the Infrastructure Investment and Jobs Act/Bipartisan Infrastructure Law (IIJA/BIL).

9. TAC Member Statements on Local Agency Activities or Items of Interest

Mr. MacDonald provided the Corpus Christi MPO Strategic Reserve Fund (SRF) Contribution letter. Every calendar year, the Corpus Christi MPO requests $10,000 from participating entities for the SRF that is used for special studies and activities ineligible for federal funds. The amount was determined and approved by the TPC. The letter and invoice will also be sent electronically to the participating TAC members.

10. Upcoming Meetings/Events:

A.	**Transportation Policy Committee:**	**Regular Meeting**	**February 2, 2023**
B.	**Regional Traffic Safety Task Force:**	**Regular Meeting**	**February 2, 2023**
C.	**Technical Advisory Committee:**	**Regular Meeting**	**February 16, 2023**

11. Adjourn

The meeting was adjourned at 9:24 a.m.

CORPUS CHRISTI MPO
METROPOLITAN PLANNING ORGANIZATION

Date:	February 9, 2023
To:	Technical Advisory Committee (TAC)
From:	Craig Casper, Senior Transportation Planner
Through:	Robert MacDonald, Transportation Planning Director
Subject:	Item 4A: Census Designated Urban Area Update
Action:	Review and Discuss Issues and Opportunities

Summary

As mentioned last month, the Census Bureau released the map of Census Urban Areas on January 12th 2023. Attachment 1 depicts the new Corpus Christi Census Urban Area, along with both the Robstown Census Urban Area and the Aransas Pass--Port Aransas--Ingleside Census Urban Area. We have until January 2024 to create an Adjusted Urban Boundary using the 9 factors listed in FHWA's *Highway Functional Classification Criteria and Procedures, Section 6. Urban Boundaries*. It should be noted that the only official requirement is that an Adjusted Urban Area boundary includes the Census Urban Area boundary in its entirety. In other words, any adjustment must expand, not contract, the Census designated Urban Area. ***Please note that both of these are different from the Metropolitan Planning Area boundary, which will be updated to incorporate the Urbanizing Area at a later date.*** During the 2010 adjustments the most intense discussions around the country focused on the definition of a "reasonable distance" and applying philosophies equally around the region.

Background

Participants in the process are TxDOT, the Corpus Christi MPO team, local governments, and the Corpus Christi Regional Transit Agency. If a State DOT chooses not or is unable to gain consensus on an Adjusted Urban Area boundary, the most recent Census Urban Area boundary will take effect.

When adjusting the urban area boundary participants should use the following 9 factors from FHWA's *Highway Functional Classification Criteria and Procedures, Section 6. Urban Boundaries*:

a. The adjusted urban area boundary will be one, single contiguous area.
b. The adjusted urban area boundary should include terminals (e.g. airports, seaports) and their access roads, if such terminals lie within a reasonable distance of the urban area.
c. The adjusted urban area boundary is adjusted in many instances to encompass all large traffic generators that are within a reasonable distance from the urban area (e.g., fringe area public parks, large places of assembly, large industrial plants, etc.).
d. The adjusted urban area boundary should consider transit service routes (e.g., bus route, passenger rail line) in the placement of a boundary location.
e. The adjusted urban area boundary should be defined so that its physical location is easy to discern in the field. Whenever possible it should follow physical features (e.g., rivers, streams, irrigation canals, transmission lines, railroads, streets or highways).
f. All ramps and interchanges should be either included or excluded from the adjusted urban area boundary and interchanges should not be divided by the boundary.

g. For coastal areas, the generally accepted coastal boundaries most commonly used for spatial analysis or map-making should be used.
h. It is important to recognize that the adjusted urban area boundary is a significant factor in developing the functional classification of a road in an urban/rural context.
i. The adjusted urban area boundary should be designed to eliminate or minimize a roadway's snaking in and out of the boundary. In these cases, as the boundary is adjusted, it needs to be clearly defined that the road is either in or out.

After reviewing the map, the first thing to note is that there are several areas where the new Census Urban Area is outside of the current MPO Planning Area. Attachments 2-4 show these areas. It is also necessary to point out that the triangle area shown in Attachment 5 as Corpus Christi Urban Area is inside of the municipal boundary of the City of Robstown. This may necessitate an invitation for them to join the Corpus Christi MPO TPC and TAC. It also may mean the entirety of the Robstown Urban Area should be incorporated into the Corpus Christi MPO Planning Area. This investigation is on-going.

The following definitions are provided for the discussion:

Census Urban Area: The area defined by the Census as Urban based on density of residential units.

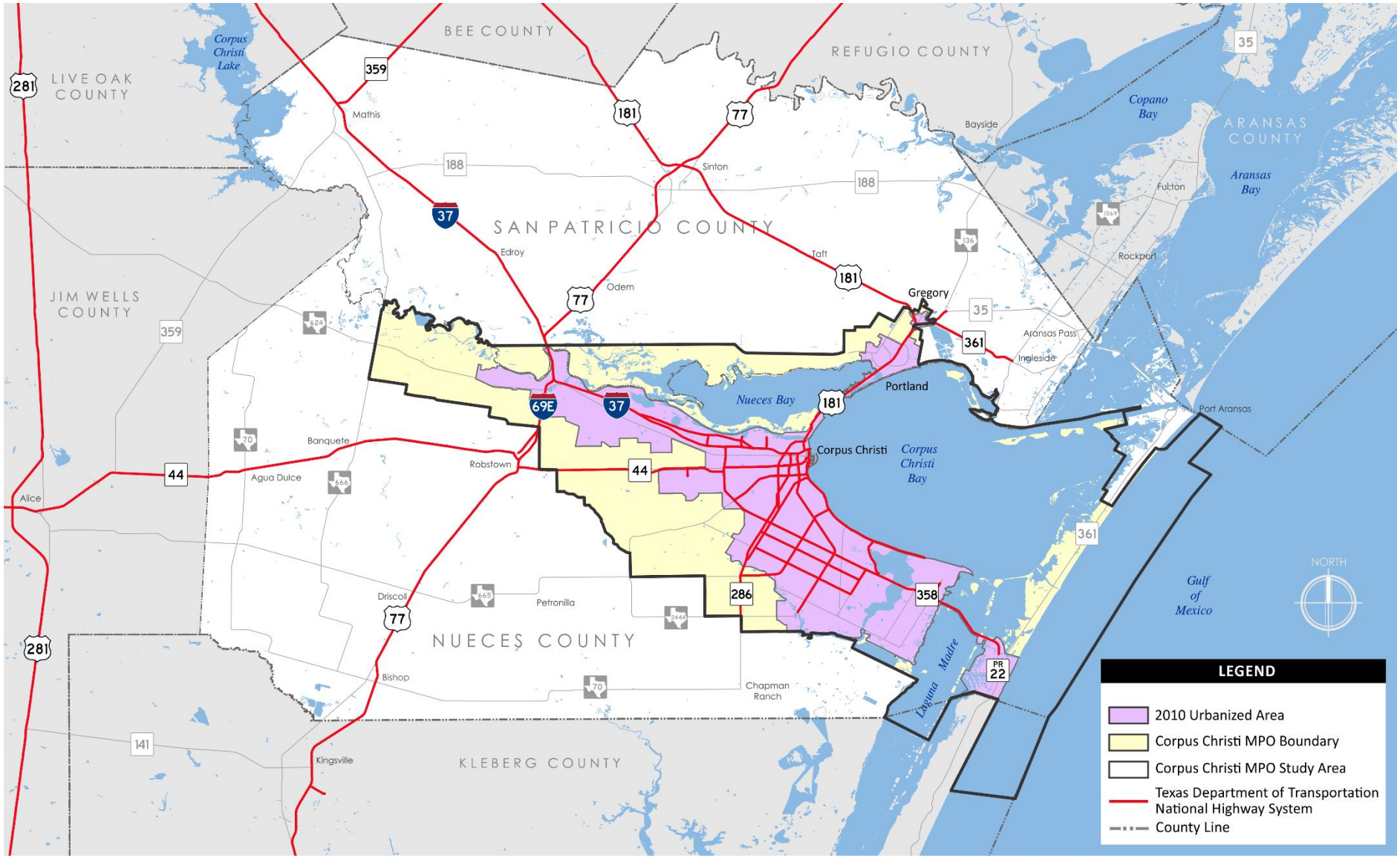
Adjusted Urban Area: The area smoothed by local entities and TxDOT to create a single, contiguous boundary. It is approved by FHWA and is based on the 9 factors and must include all of the Census Urban Area.

Urbanizing Area: The area that is currently rural according to the Census, but the Corpus Christi TPC adopted Small Area Forecast says will reach urban density. This often overlaps with the areas that are added during the Adjusted Urban Area process.

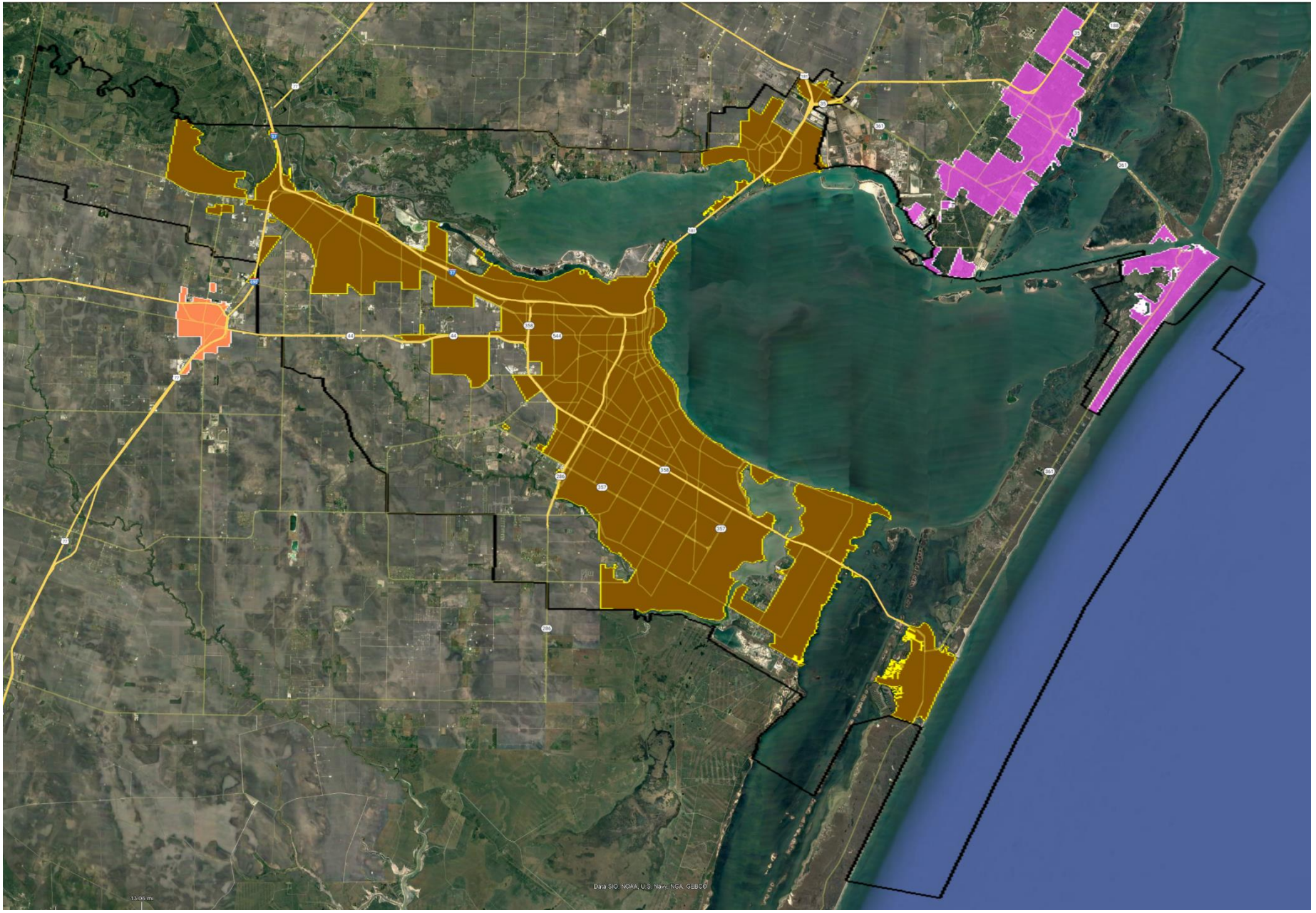
Metropolitan Planning Boundary: The area that the Transportation Policy Committee is responsible for conducting the 3C Planning Process for. This must be approved by the Governor.

Attachments:

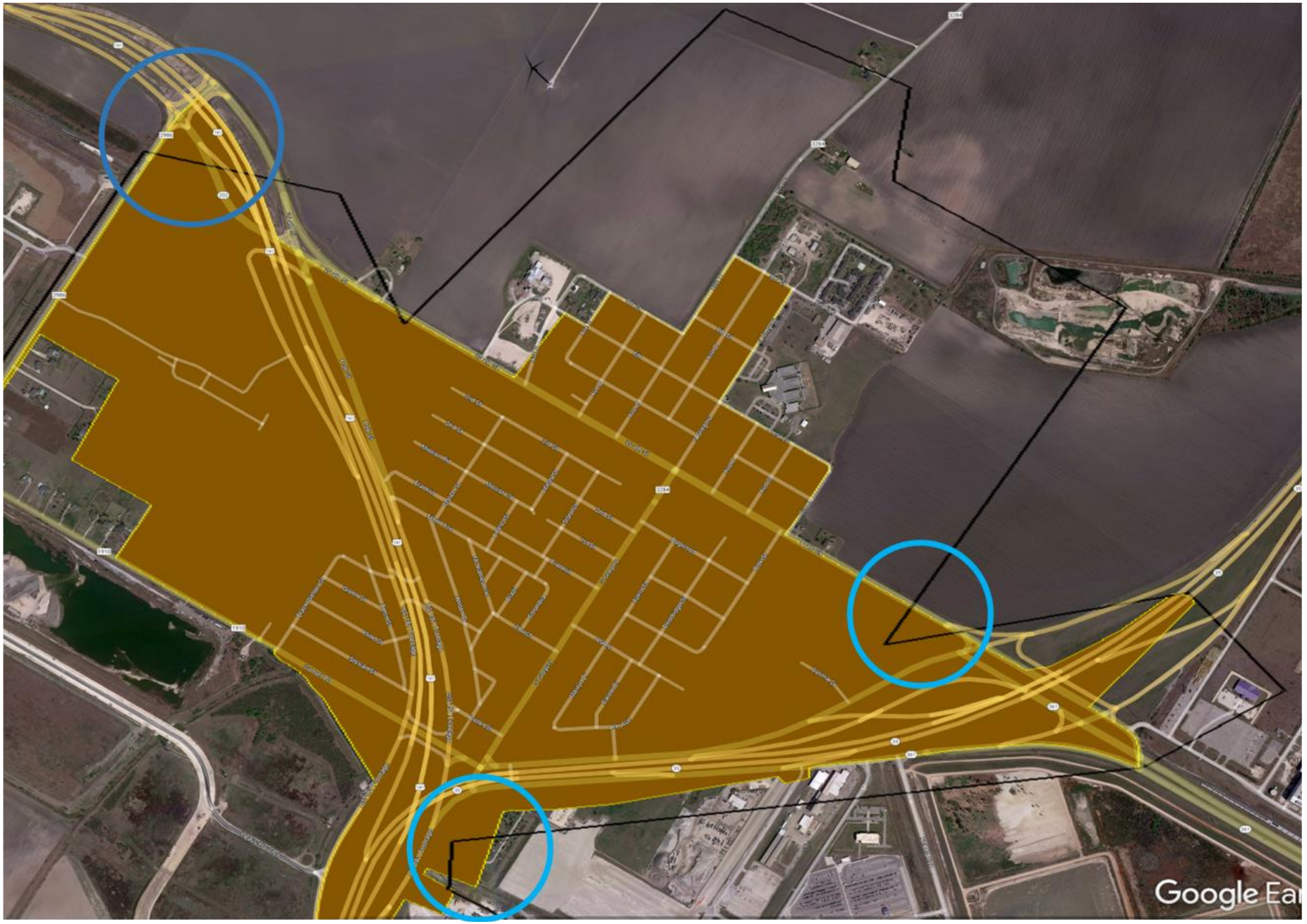
1. Map of the Corpus Christi Metropolitan Planning Organization Area
2. Map of 2020 Census Designated Urban Areas
3. Gregory Area Urban Areas Outside of the MPA
4. Portland Area Urban Area Outside of the MPA
5. Urban Area North of Robstown Outside of the MPA
6. Map of the Interchanges near Gregory with Possible Adjustment
7. Map of Corpus Christi Regional Transportation Authority Bus Stops
8. Map of Northeast Docks and Terminals
9. Map of the Gap between Gregory and Portland
10. Map of Portland Sunset Lake Park Area with Possible Adjustment
11. Map of Core Port Area with Possible Adjustment
12. Map of Airport Area with Possible Adjustment
13. Map of Cabaniss Area with Possible Adjustment
14. Map of Crosstown Expressway Area with Possible Adjustment
15. Map of Flour Bluff Area with Possible Adjustment
16. Map of North Padre Island Area with Possible Adjustment



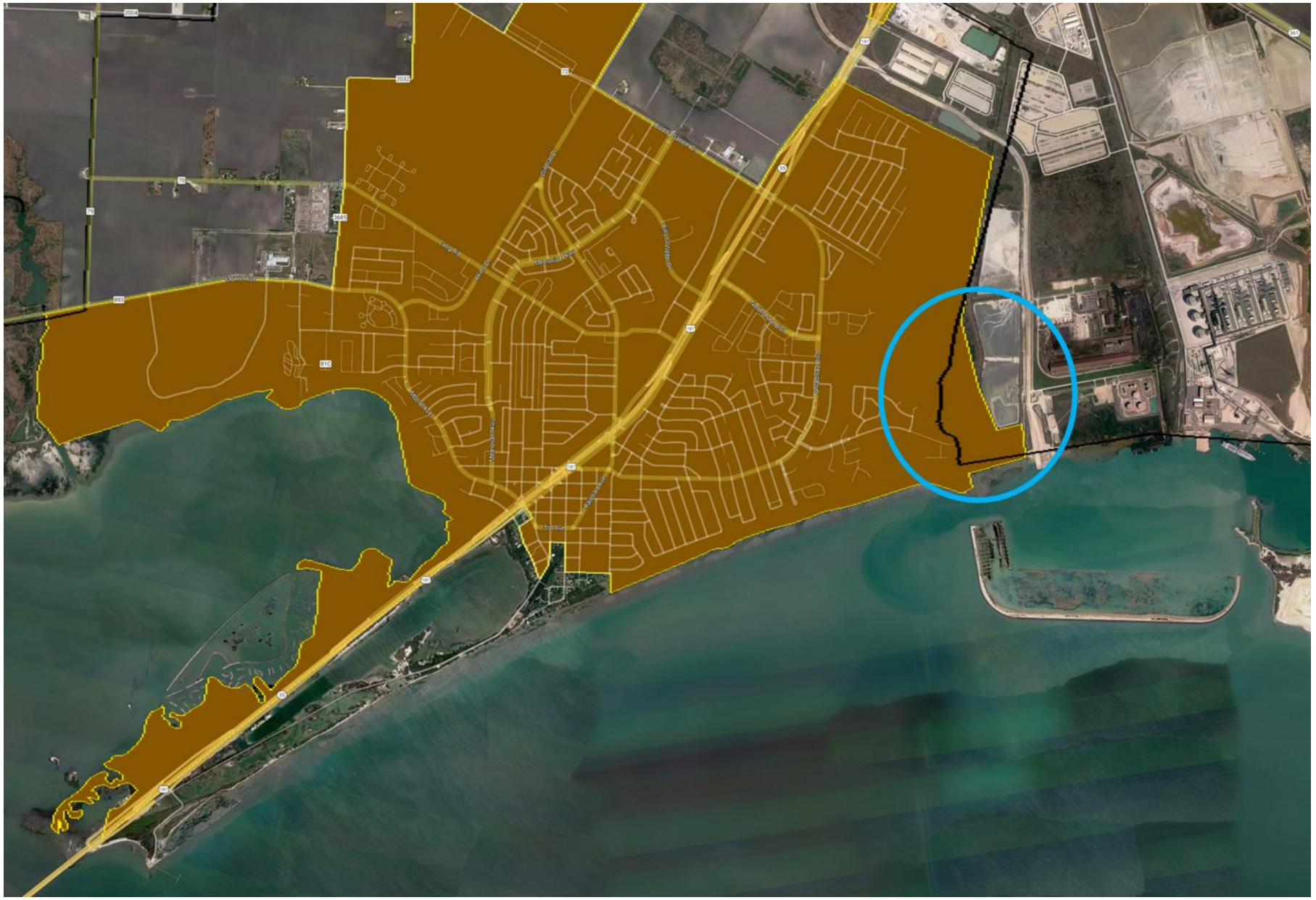
Attachment 1: Map of the Corpus Christi Metropolitan Planning Organization Area



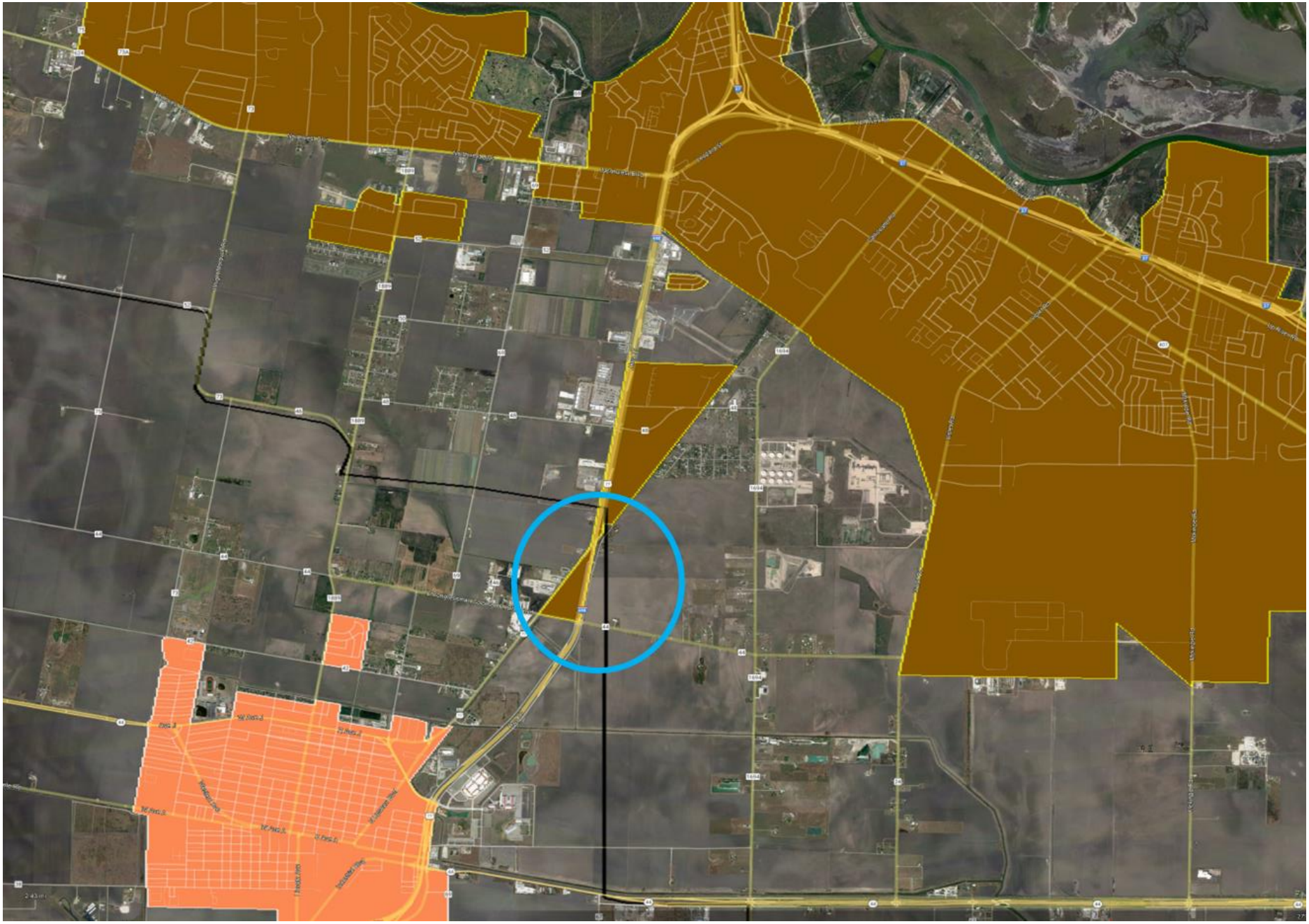
Attachment 2: Map of the 2020 Census Designated Urban Areas



Attachment 3: Gregory Area Urban Areas Outside of the MPA



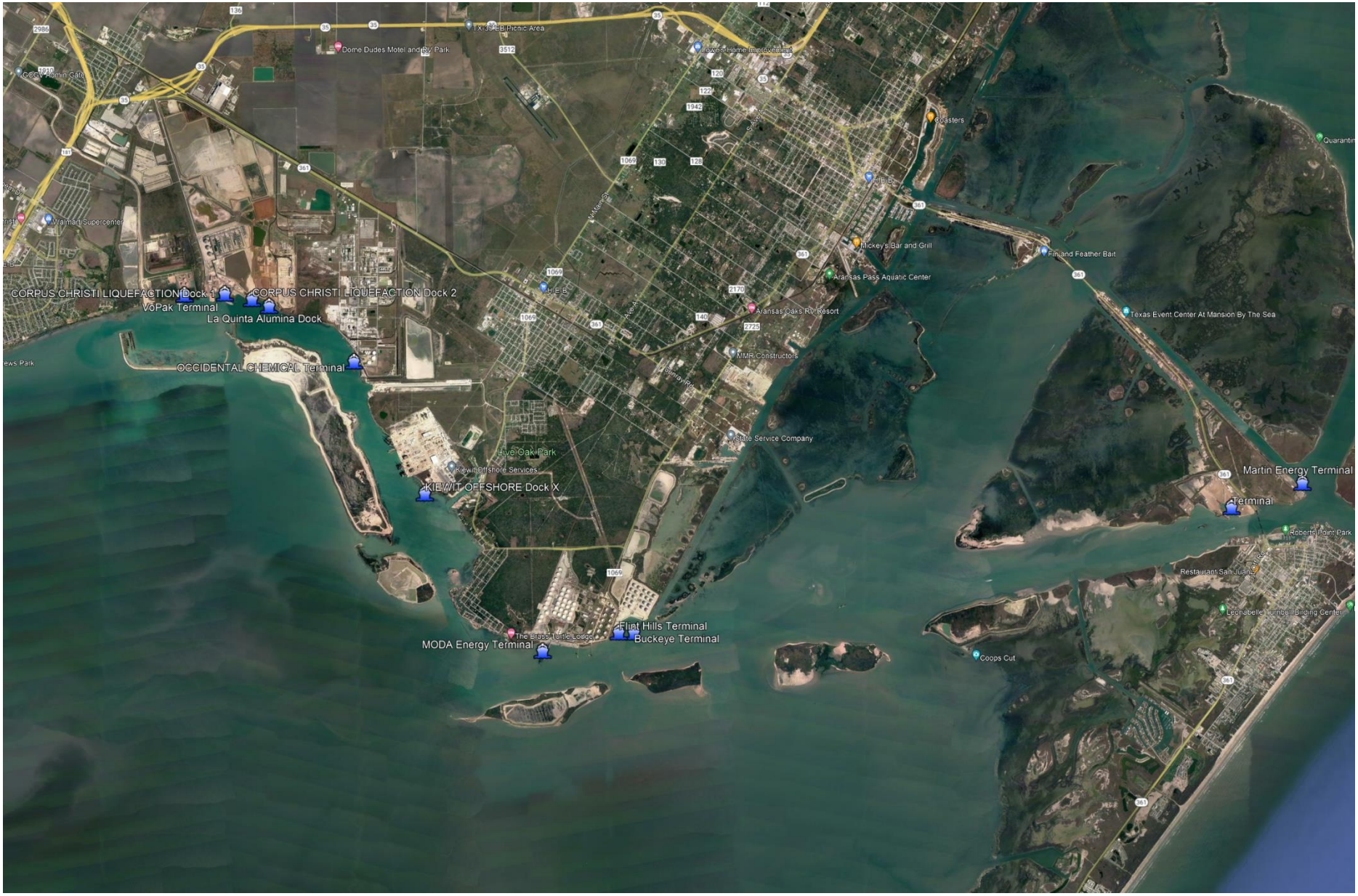
Attachment 4: Portland Area Urban Areas Outside of the MPA



Attachment 5: Urban Area North of Robstown Outside of the MPA

Attachment 6: Map of the Interchanges near Gregory with Possible Adjustment

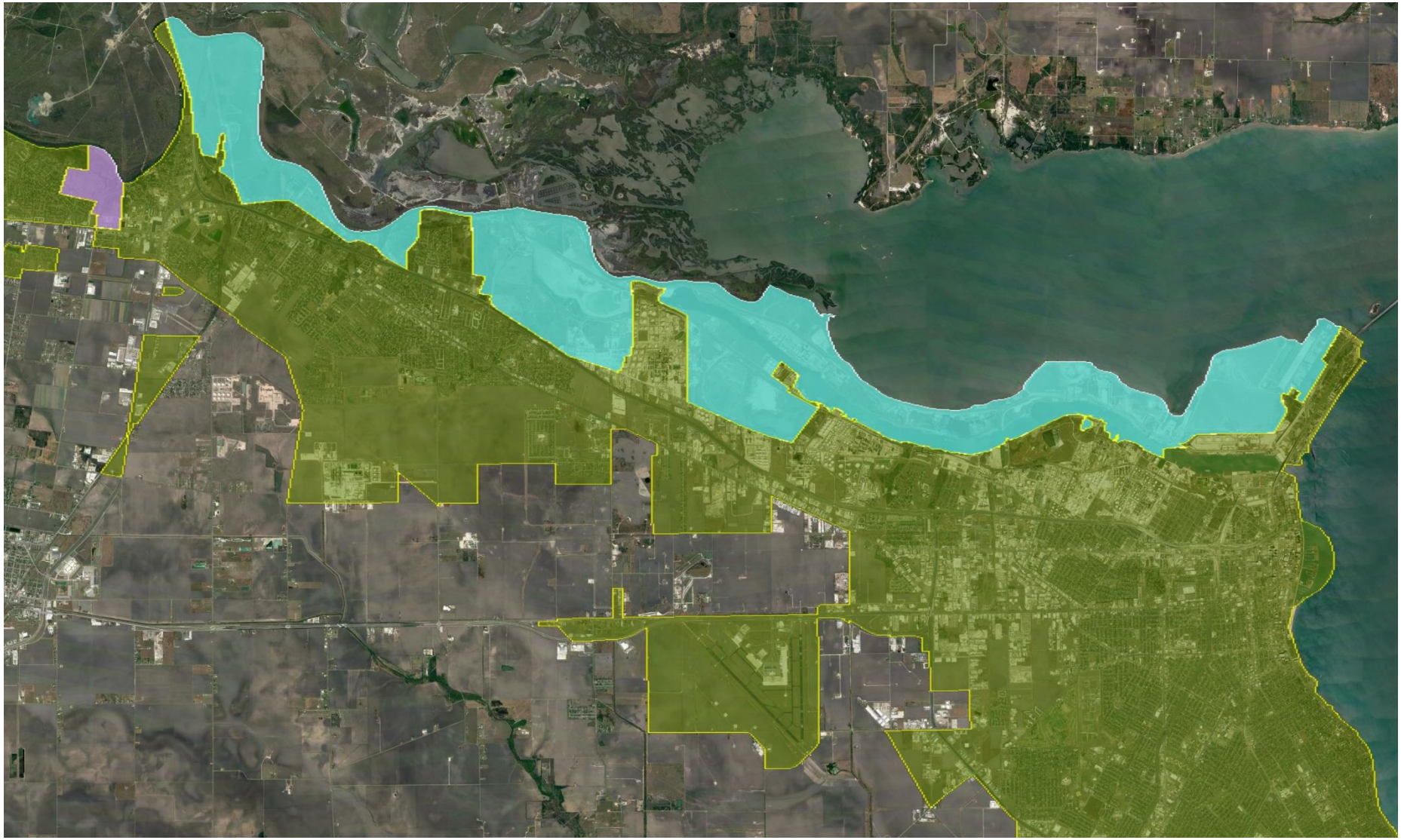
Attachment 7: Map of Corpus Christi Regional Transportation Authority Bus Stops



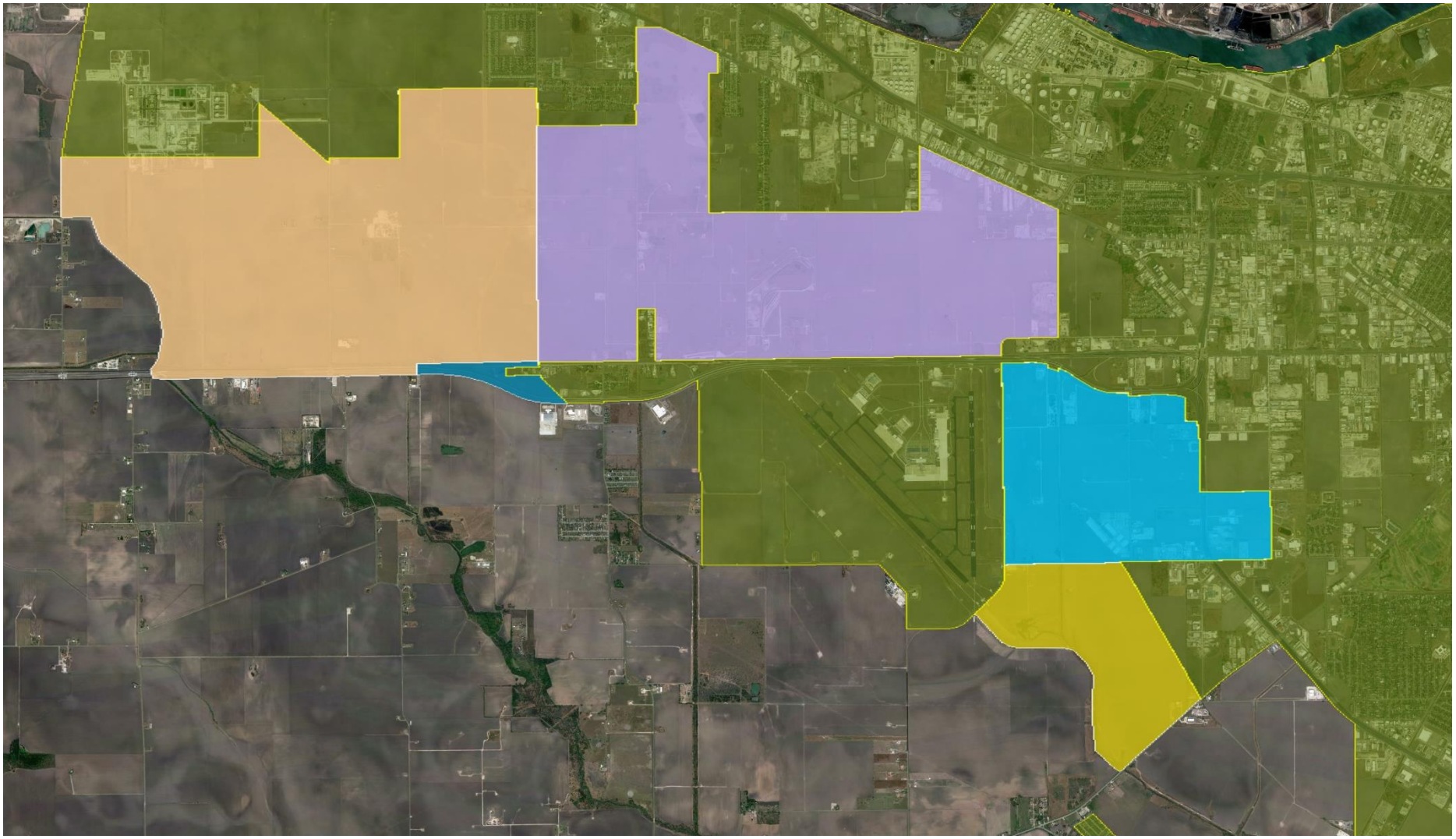
Attachment 8: Map of Northeast Docks and Terminals

Attachment 9: Map of the Gap between Gregory and Portland

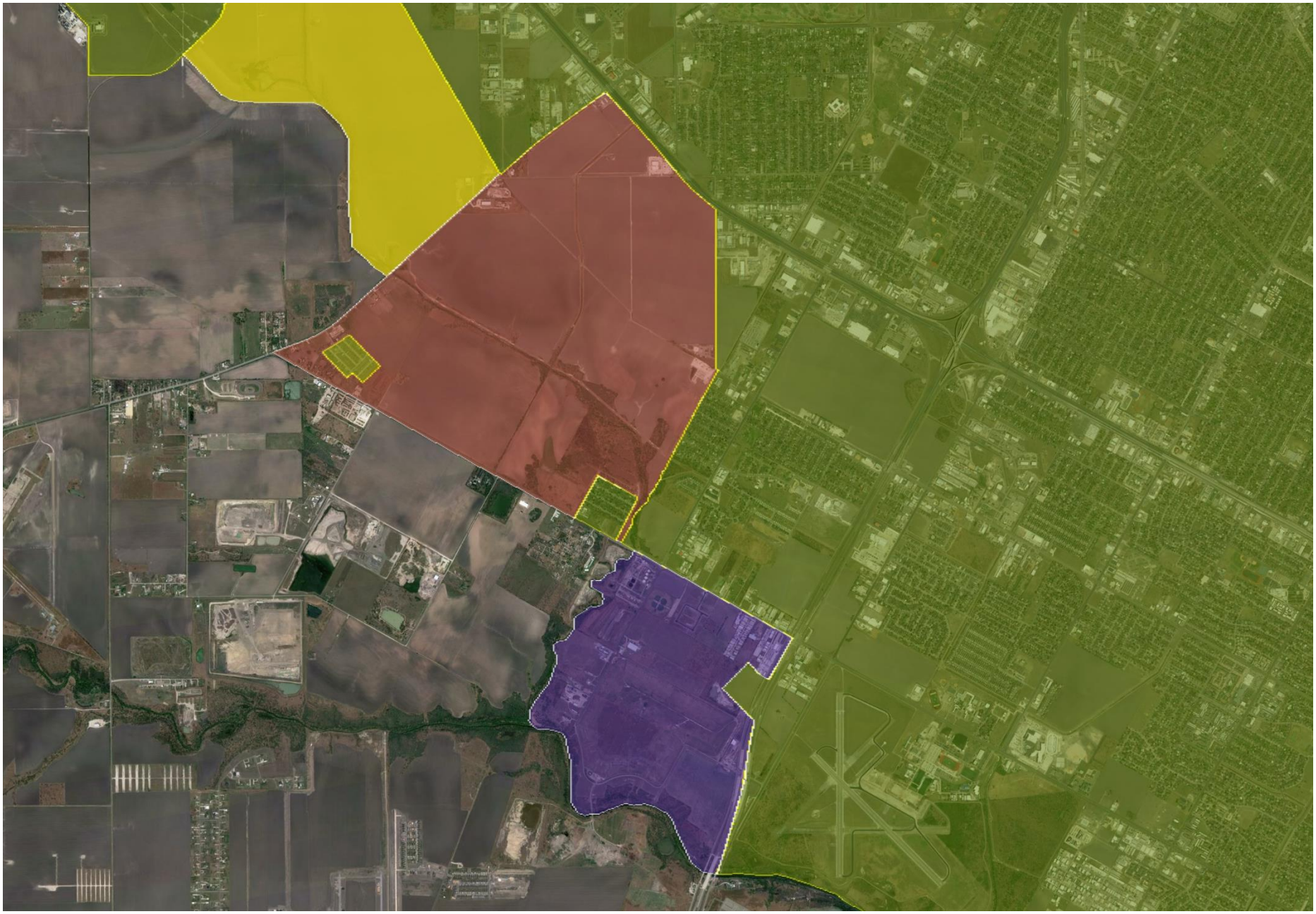
Attachment 10: Map of Portland Sunset Lake Park Area with Possible Adjustment



Attachment 11: Map of Core Port Area with Possible Adjustment

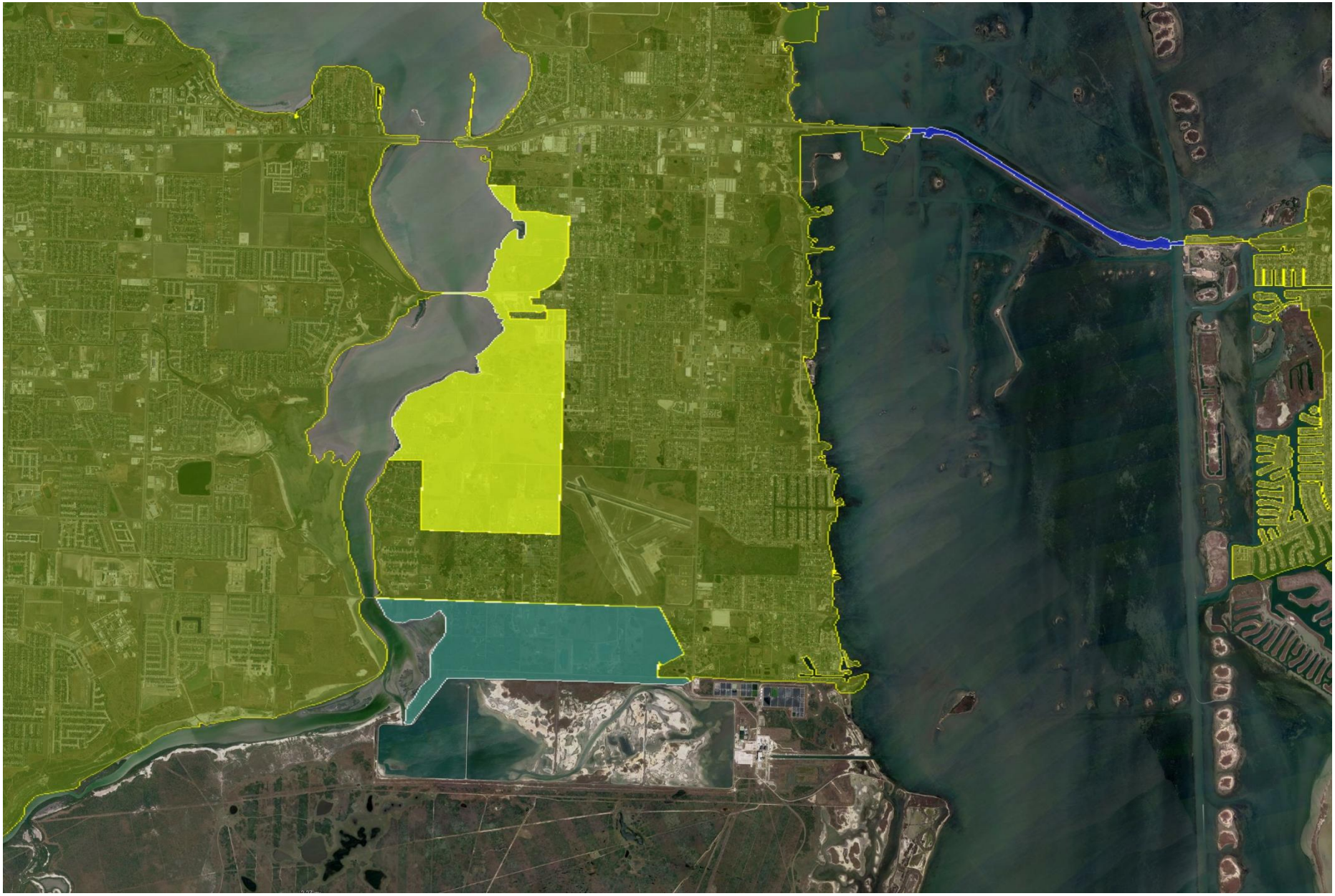


Attachment 12: Map of Airport Area with Possible Adjustment



Attachment 13: Map of Cabaniss Area with Possible Adjustment

Attachment 14: Map of Crosstown Expressway Area with Possible Adjustment



Attachment 15: Map of Flour Bluff Area with Possible Adjustment

Attachment 16: Map of North Padre Island Area with Possible Adjustment

CORPUS CHRISTI MPO
METROPOLITAN PLANNING ORGANIZATION

REGIONAL TRAFFIC SAFETY TASK FORCE MEETING

THURSDAY, February 2, 2023 - 3:00 P.M.

Location: Corpus Christi Regional Transportation Authority (CCRTA) Staples Center Building Multi-Purpose Meeting Room 324, located at 602 N. Staples Street in Corpus Christi, Texas 78401

THIS MEETING WILL BE CONVENED IN-PERSON

1. **WELCOME AND INTRODUCTIONS**
2. **TRAINING SESSION**
   - A. **Corpus Christi MPO Traffic Crash Data Dashboard**
   - B. **Vision Zero Suite Overview and Next Steps**
3. **SAFETY INITIATIVES**
   - A. The **Regional Safety Action Plan (RSAP)** will result in a Plan that meets all requirements described in the SS4A document. The RSAP will establish a timeline for achieving zero fatalities, other goals and objectives, and confirm regional performance measures. Safety Focus Areas will be identified, crash trends described, hot spots for motor vehicles and non-motorized travel will be located. The top 20 locations will be identified, as will regionally appropriate locations for implementing FHWA's Proven Safety Countermeasures.
   - B. The **Regional Safe System Plan (SSP)** will meet all requirements from the USDOT Strategic Plan. Specific outcomes include creating a Targeted Road Safety Program (TRSP) and the coordination necessary to building a transportation network safe for pedestrians, bicyclists, transit riders, large truck operators, and motor vehicle occupants. The Safe System Approach starts with a mindset that it is unacceptable to allow deaths and serious injuries to occur on the roads. The Safe System Approach considers five elements of a safe transportation system—safe road users, safe vehicles, safe speeds, safe roads, and post-crash care—in an integrated and holistic manner.
   - C. **TxDOT 2023 Transportation Alternatives (TA) Call for Projects**
4. **TxDOT 2023 SAFETY (PM1) PERFORMANCE MEASURES**
   - A. **Adoption of 2023 Safety (PM1) Performance Measures and Targets**
   - B. **Texas Statewide Safety Task Force update**
5. **LOCAL SAFETY INITIATIVES**
   - A. **City of Corpus Christi, Nueces County, or ISDs report of safety activities**
   - B. **TxDOT Update Item: Moody High School STEM & DRIVE SAFE Night Event**
6. **OPEN DISCUSSION AND COMMENTS**
   - A. **Comments from members**
7. **NEXT MEETINGS:**
   - A. **Regional Traffic Safety Task Force regular meeting: March 2, 2023**
8. **ADJOURN**

- Indicates attachment(s) for the agenda item. - Indicates a weblink for agenda item

CORPUS CHRISTI MPO SMALL AREA FORECAST TASK FORCE

KICK-OFF MEETING

When: Thursday, February 16, 2023 at 10:00 A.M.
(Following the Technical Advisory Committee (TAC) Workshop)

Location: Corpus Christi Regional Transportation Authority (CCRTA) Building
602 N. Staples Street, *Room 324*, Corpus Christi, TX 78401

1. **WELCOME AND INTRODUCTIONS**
2. **DISCUSSION OF THE SMALL AREA FORECAST (SAF) TASK FORCE PURPOSE**

   The Corpus Christi MPO prepares a socioeconomic forecast for each update of the Metropolitan Transportation Plan (MTP). Socioeconomic data are a vital component of Long-Range Transportation Planning and travel demand forecasting models. Development of a demographic forecast (i.e. the Small Area Forecast) is required by federal regulations to ensure that long-range Metropolitan Transportation Plans are based on "the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity" (23 CFR 450.324(e)). The proposed purpose of this new task force is to develop the Small Area Forecast process and help create future development scenarios. These scenarios will bracket some of the uncertainties and reduce the risk of making inefficient transportation investments by identifying future transportation needs based on several different allocations of population. The "control total" forecast for future years is produced for the entirety of each individual county: Nueces, San Patricio, and Aransas Counties. The UrbanSim allocation software allocates the demographic information into the Transportation Analysis Zones (TAZs). The proposed length of term for operations of the Corpus Christi MPO Small Area Forecast Task Force is eighteen months.

3. **ORGANIZATION AND OPERATION OF THE CORPUS CHRISTI MPO SMALL AREA FORECAST (SAF) TASK FORCE**
   A. Current Roster of the SAF Task Force
   B. Facilitated Meetings with Technical/Communications Staff from Consultant Teams and MPO Staff
   C. Work Groups (if needed for specific topics)
4. **2020-2045 METROPOLITAN TRANSPORATION PLAN (MTP) Chapter 4: Demographics and Forecasting**
   A. Prior SAF for the 2020 and 2045 Population and Employment Maps
5. **REGIONAL CONTROL TOTAL ESTIMATES**
6. **CONSULTANT TEAMS AND SCOPE OF SERVICES FOR THE 2050 SAF**
7. **OPEN DISCUSSION AND COMMENTS**
8. **NEXT MEETING:**
   A. March 16, 2023 Proposed for 3rd Thursday of the month.
   B. Future Agenda Topics: Traffic Analysis Zones (TAZs) Explanation; Major Land Uses (NAS/CCAD, Industry, Housing Developments, City's Area Development Plans (ADPs), Special Generators of Traffic)
9. **ADJOURN**

- Indicates attachment(s) for the agenda item. - Indicates a weblink for the agenda item.

2024 Unified Transportation Program Development

TEXAS TRANSPORTATION COMMISSION

January 26, 2023

Humberto "Tito" Gonzalez, Jr.
Director, Transportation Planning and Programming Division

Unified Transportation Program Purpose

"Despite its importance to TxDOT as a planning and programming tool, the UTP is neither a budget nor a guarantee that projects will or can be built. However, it is a critical tool in guiding transportation project development within the long-term planning context. In addition, it serves as a communication tool for stakeholders and the public in understanding the project development commitments TxDOT is making."

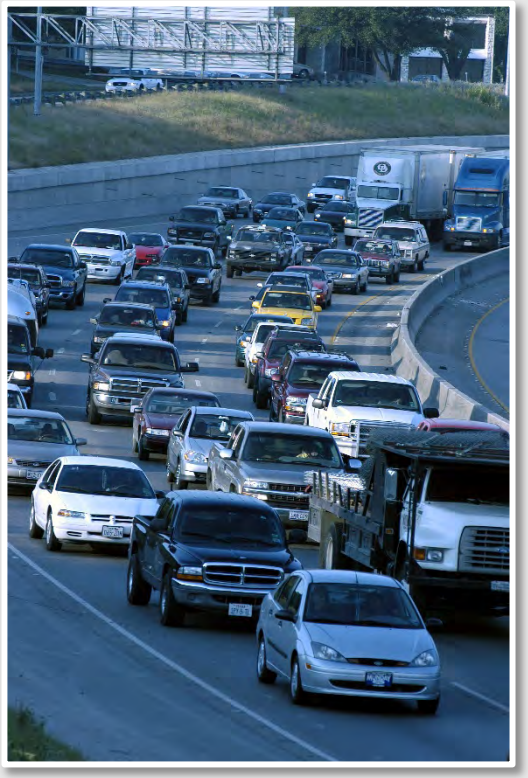
https://www.txdot.gov/projects/planning/utp.html

"The funding levels in the UTP are based on a forecast of potential transportation revenue that may be available over the next 10 years. Because funding levels may change in the future, the UTP does not serve as a budget or a guarantee that certain projects will be built. Instead, the plan authorizes TxDOT and local partnering agencies to prepare projects for construction based on potential future cash flow."

2023 Unified Transportation Program

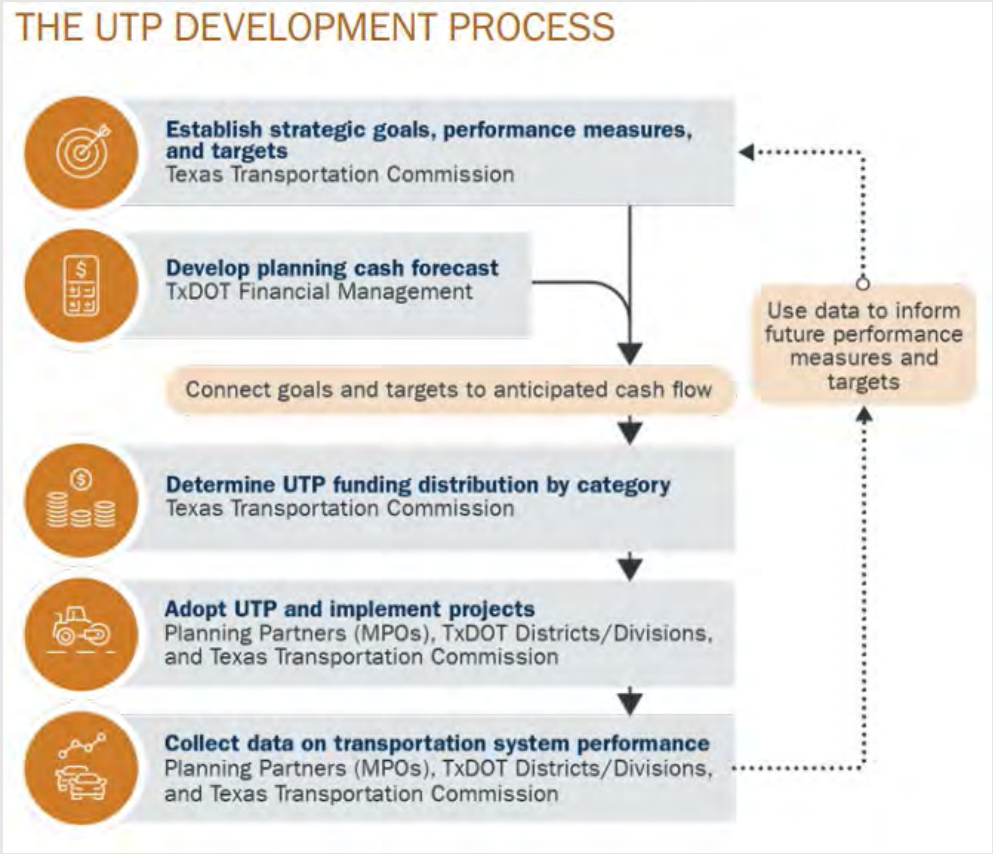
What is the Unified Transportation Program?

- TxDOT's annual 10-year plan that guides the funding development of transportation projects across the state
  - Identifies how much transportation funding the state expects to have over the next decade and how to distribute it to address TxDOT's strategic goals
  - Includes all transportation projects that TxDOT is developing for construction over the next 10 years
- Organized into 12 funding categories that focus on different highway project types or ranges of activities
- Required by state law to be updated and approved annually by the Texas Transportation Commission by August 31st
  - May be updated more frequently if necessary to authorize a major change to one or more funding allocations or project listings



UTP Development Process

We are here



2024 UTP Development Process Timeline

We are here

Annual process involves many stakeholders and steps including the forecast, funding distribution, scoring and selection of projects, and public outreach.

2022-SEP	OCT	NOV	DEC	2023-JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
Draft 2024 UTP Timeline	2024 UTP Timeline Review	Scenarios and UTP Distributions	Scenarios and UTP Distribution	Present Investment Scenarios and UTP Distribution	Distribute Planning Targets and Review Mobility Project List Based on Priority Scores	Finalize Statewide Prioritization and Scoring of Mobility Projects	Candidate Mobility Project List**	Review Draft Candidate Mobility Project List and Process for Comments	Present Draft 2024 UTP	Public Comment Period Opens	Commission Votes on 2024 UTP
2024 Mobility Project Call Open	Receive New 10-Year Forecast	1st Quarter Pre-Alignment Meeting	Scenarios and UTP Distributions	Scenarios and UTP Distribution	2nd Quarter Pre-Alignment Meeting	Project Review and Selection of Mobility Projects*	**Final District Cost Estimate Updates for FY 2024 Projects**	Draft 2024 UTP Document (text) Review		Post Draft 2024 UTP Publicly	Present Final 2024 UTP
			District Project List Due	Scenarios and UTP Distributions	Final District Project List Due			Review Draft 2024 UTP Document (text) & Draft Candidate Mobility Project List**			Review Draft 2024 UTP
			District / Regional Prioritization and Scoring Due					3rd Quarter Pre-Alignment Meeting			Review of Draft 2024 UTP
											Public Comment Period Closes
											4th Quarter Pre-Alignment Meeting

UTP Timeline Key

- Commission Actions
- Special Meeting
- Commission Meeting
- Chairman & Commissioner Briefings
- ADM Briefing
- UTP Development

* Subject to change
** Staff recommendations

Impacts of Financial Forecast on Draft 2024 UTP Distribution

Changes to UTP Planning Forecast	2024 UTP 10 Year Impact ($B)
FY 2033 Addition and FY 2023 Removal	$(4.2)
Federal Additions & Adjustments	$0.7
State Motor Fuel Tax & Vehicle Reg. Fee Increase	$1.3
Prop 1: Oil & Natural Gas Severance Tax Increase	$7.7
Prop 7: Motor Vehicle Sales Tax Increase	$4.6
Prop 7: Bond Debt Service Funding Change	$(0.2)
Total Changes between 2023 & 2024 UTP Forecast	**$9.9**

Changes to UTP Funding	2023 UTP ($B)	2024 UTP ($B)	Diff ($B)
UTP Funding Distributions	**$80.1**	**$90.0**	**$9.9**
Cat 3 Non-traditional Funding	$4.9	TBD	TBD

Draft 2024 UTP Distribution Process

- 2024 Planning Forecast includes funding related to the Infrastructure Investment and Job Act (IIJA), State Highway Funds, the State's Proposition 1 & 7, as well as Texas Mobility Bond Funds

- Estimated required levels
  - Federal categories at estimated IIJA levels (Cat. 6, 7, 8, 9, 10 Carbon Reduction)
  - Federal Congestion Mitigation and Air Quality (Cat. 5) at historical levels
  - Federal earmarks (Cat. 10)
  - State riders and sub-programs (Cat. 10 & 11)

- Increase to Commission Strategic Priority (Cat. 12) to align with the biennial budget

- Bridge & Safety supplemental increase (Cat. 6 & Cat 11 – District Safety)

- Additional funding to advance strategic statewide initiatives, projects, & address maintenance and preservation needs (Cat. 10, Cat. 11 Energy Sector, Cost Overrun/Change Orders)

- Remainder distributed to mobility and connectivity needs in Cat. 2 & 4

*Category = Cat.

Draft 2024 UTP Distribution Comparisons

	Category and Description	2023 UTP Distribution	Draft 2024 UTP Distribution	Difference ($)
1	Preventive Maintenance & Rehabilitation	$16,648,909,956	$16,970,800,000	$321,890,044
2	Metro and Urban Corridor Funding	$10,751,683,174	$11,487,980,409	$736,297,235
4R	Statewide Connectivity (Rural)	$6,885,499,478	$8,358,093,948	$1,472,594,470
4U	Statewide Connectivity (Urban)	$5,345,074,880	$6,081,372,115	$736,297,235
5	Congestion Mitigation and Air Quality	$2,322,790,000	$2,322,790,000	$0
6	Bridge	$4,178,006,000	$4,681,612,746	$503,606,746
7	Federal Metropolitan Mobility	$5,740,408,284	$5,751,838,385	$11,430,100
8	Safety	$3,739,951,654	$3,747,421,009	$7,469,355
9	Transportation Alternatives	$1,716,889,577	$1,736,508,188	$19,618,611
10	Supplemental Transportation Projects	$734,554,873	$1,183,035,507	$448,480,634
10CR	Carbon Reduction Program	$0	$1,250,492,601	$1,250,492,601
11	District Discretionary	$1,400,000,000	$1,400,000,000	$0
11ES	Energy Sector	$2,494,143,000	$3,291,143,000	$797,000,000
11SF	District Safety	$496,638,346	$1,191,932,030	$695,293,684
11CO	Cost Overruns/Change Orders	$0	$780,000,000	$780,000,000
12	Strategic Priority	$12,677,859,790	$13,780,000,000	$1,102,140,210
12CL	Strategic Priority (Texas Clear Lanes)	$5,000,000,000	$6,000,000,000	$1,000,000,000
	Sub-Total Distribution (Less Cat 3)	**$80,132,409,011**	**$90,015,019,936**	**$9,882,610,925**
3	Non-traditional (SUBJECT TO CHANGE)	$4,932,482,742	$5,000,000,000	$67,517,258
	Total UTP Distribution	**$85,064,891,753**	**$95,015,019,936**	**$9,950,128,183**

Performance Measures, Draft Targets, & Current Conditions

PLAN GOAL	PROMOTE SAFETY			PRESERVE OUR ASSETS			OPTIMIZE SYSTEM PERFORMANCE		
MEASURE	FATALITIES EACH YEAR	Desired Trend ↓	FATALITY RATE	PAVEMENT CONDITION	Desired Trend ↑	BRIDGE CONDITION	URBAN CONGESTION INDEX	Desired Trend ↓	RURAL RELIABILITY INDEX
2019 Actual*	3,623		1.26	88.0%		89.0	1.21		1.14
2020 Actual*	3,894		1.49	88.8%		88.9	1.09		1.13
2021 Actual*	4,494		1.58	89.3%		88.9	1.11		1.17
2033 Target	2,031		0.58	90.0%		90.0	1.20		1.12
2033 Forecast	3,605		1.04	90.5%		88.6	1.37		1.15

*Source: TxDOT Performance Dashboard.

Safety Component of Each Category in Draft 2024 UTP

	Category and Description	Estimated Safety Investment by Category		
		Draft 2024 UTP Distribution	Safety %	Effective Safety Investment
1	Preventive Maintenance & Rehabilitation	$16,970,800,000	8%	$1,357,664,000
2	Metro and Urban Corridor Funding	$11,487,980,409	12%	$1,378,557,649
3	Non-traditional (SUBJECT TO CHANGE)	$5,000,000,000	9%	$450,000,000
4R	Statewide Connectivity (Rural)	$8,358,093,948	12%	$1,002,971,274
4U	Statewide Connectivity (Urban)	$6,081,372,115	12%	$729,764,654
5	Congestion Mitigation and Air Quality Improvement	$2,322,790,000	33%	$766,520,700
6	Bridge	$4,681,612,746	3%	$140,448,382
7	Federal Metropolitan Mobility	$5,751,838,385	11%	$632,702,222
8	Safety	$3,747,421,009	100%	$3,747,421,009
9	Transportation Alternatives	$1,736,508,188	66%	$1,146,095,404
10	Supplemental Transportation Projects	$1,183,035,507	19%	$224,776,746
10CR	Carbon Reduction Program	$1,250,492,601	50%	$625,246,300
11	District Discretionary	$1,400,000,000	21%	$294,000,000
11ES	Energy Sector	$3,291,143,000	12%	$394,937,160
11SF	District Safety	$1,191,932,030	100%	$1,191,932,030
11CO	Cost Overruns/Change Orders	$780,000,000	21%	$163,800,000
12	Strategic Priority	$13,780,000,000	11%	$1,515,800,000
12CL	Strategic Priority (Texas Clear Lanes)	$6,000,000,000	10%	$600,000,000
	Total UTP Distribution	**$95,015,019,936**		**$16,362,637,531**

Draft 2024 UTP Estimated Investment

- The draft 2024 UTP includes a total of $95.0 billion dollars distributed across the 12 UTP funding categories for construction
- Projects in the UTP are selected by TxDOT Districts, Metropolitan Planning Organizations (MPOs), or the Texas Transportation Commission using performance-based selection processes
- The UTP guides and authorizes the development of projects estimated to let over the next 10-years, which totals $32.3 billion

	Category and Description	Draft 2024 UTP Distribution ($B)
1	Preventive Maintenance & Rehabilitation	$17.0
2	Metro and Urban Corridor Funding	$11.5
4R	Statewide Connectivity (Rural)	$8.4
4U	Statewide Connectivity (Urban)	$6.1
5	Congestion Mitigation and Air Quality	$2.3
6	Bridge	$4.7
7	Federal Metropolitan Mobility	$5.8
8	Safety	$3.7
9	Transportation Alternatives	$1.7
10	Supplemental Transportation Projects	$1.2
10CR	Carbon Reduction Program	$1.3
11	District Discretionary	$1.4
11ES	Energy Sector	$3.3
11SF	District Safety	$1.2
11CO	Cost Overruns/Change Orders	$0.8
12	Strategic Priority	$13.8
12CL	Strategic Priority (Texas Clear Lanes)	$6.0
	Sub-Total Distribution (Less Cat 3)	**$90.0**
3	Non-traditional (SUBJECT TO CHANGE)	$5.0
	Total UTP Distribution	**$95.0**
	Estimated Development Costs	$32.3
	Estimated Routine Maintenance Contracts	$7.0
	Total Ten-Year Estimated Investment in Projects	**$134.3**

Next Steps

- February 2023: Distribute DRAFT planning targets to the districts and metropolitan planning partners
- February 2023: Begin statewide scoring for categories 2, 4 and 12 candidate projects
- March – May 2023: Brief Administration and Commission on progress of project selection and scoring
- June 2023: Present draft 2024 UTP to Commission
- July 2023: Begin public involvement
- August 2023: Request Commission consider adopting 2024 UTP

DISCUSSION

Chapter 3 The Texas Multimodal Freight Network

A key outcome of Texas Delivers 2050 is the designation of the TMFN. The network consists of key roadways (the Texas Highway Freight Network), railroads, pipelines, ports and waterways, airports and international border crossings. The multimodal network outlines the key corridors that facilitate the efficient and safe movement of goods in Texas and are most critical for focusing investment. At the federal level, the National Multimodal Freight Network (NMFN) includes highways, railways, waterways and pipelines, ports, airports, border crossings and intermodal facilities.

This chapter summarizes the freight demand on Texas' multimodal system and discusses designation of the TMFN and the freight demand on that network.

3.1 DEMAND ON THE TEXAS MULTIMODAL FREIGHT NETWORK

Freight mobility requires a multimodal network that includes roadways, railroads, maritime ports and waterways, airports and pipelines. In Texas, freight mobility also requires efficient commercial international border ports of entry.

As stated previously, nearly 4 billion tons of freight traveled across the Texas Multimodal

Highlights

Over **80,000** miles of TxDOT system roadways
- ► Over 23,000 miles on THFN
- ► 745 miles of Critical Rural Freight Corridors
- ► 372 miles of Critical Urban Freight Corridors

14,771 miles of railroad operated on the TMFN
- ► **3** Class I railroads
- ► 55 Class III or short line railroads

20 ports and the Gulf Intracoastal Waterway (GIWW) system
- ► **11** deep water ports | 9 on the TMFN
- ► 9 shallow draft ports | 1 on the TMFN
- ► 379 miles of GIWW |all on TMFN

24 commercial airports
- ► **10** cargo airports on TMFN

426,000 miles of pipeline
- ► 59% intrastate
- ► 41% interstate

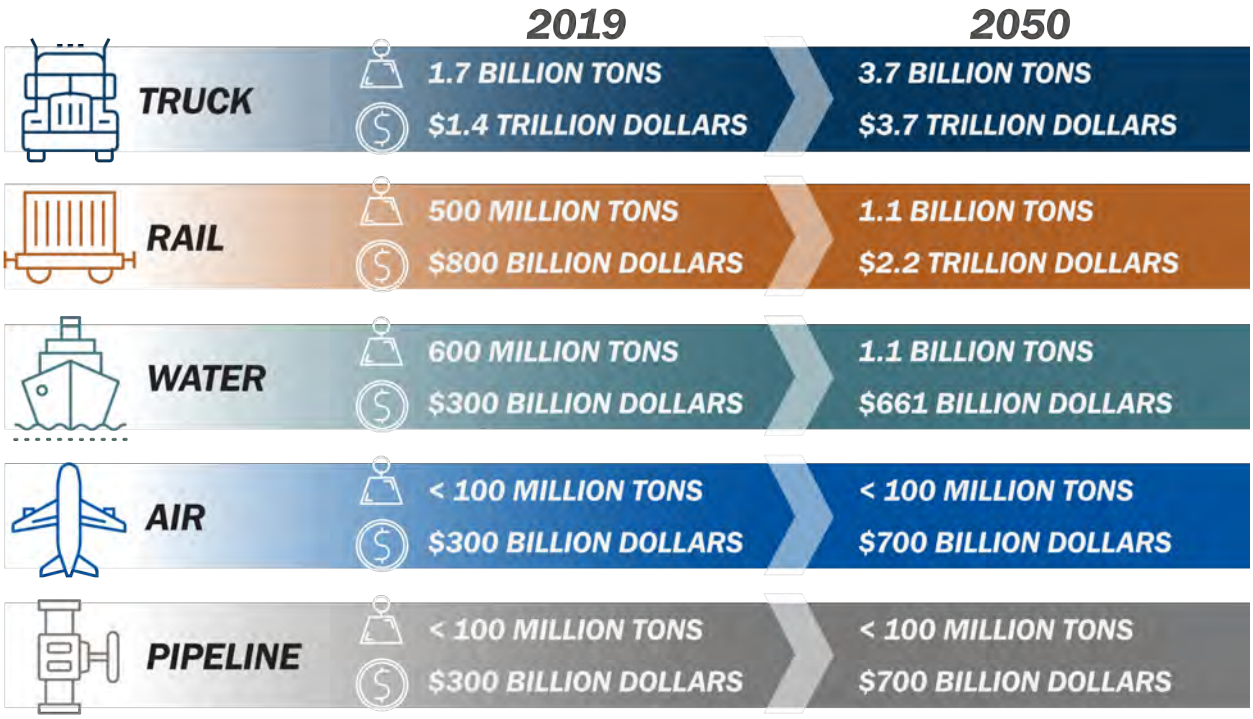
20 commercial international border crossings, all on the TMFN
- ► **15** commercial vehicle crossings
- ► 5 rail crossings

Source: TxDOT.

Freight Network in 2019. **Trucks carried more freight than any other mode** in Texas, in terms of both tonnage and value in 2019 (1.7 billion tons or 43%), and the same is forecast to remain true in 2050 (3.7 billion tons or 45%). Pipeline is the second largest mode by weight, carrying 30% of freight by tonnage in Texas. Rail and water each carry between 10–15% of freight tonnage in both years, and air and other accounts for less than 1% of tonnage in both years, but almost 10% of value. The tonnage and value split for all modes and approximate totals for each are shown in **Exhibit 4.**

These industry-standard forecasts assume goods will generally move on the same modes in the future as they do today, and they do not take into account potential for mode shift due to cost, reliability, or policy changes. Owners and operators of freight infrastructure for all modes report preparing for more aggressive growth than forecasted in order to capture potential growth, mode shifts, or changing preferences.

EXHIBIT 4: TONNAGE BY MODE AND VALUE, 2019 AND 2050



Source: Transearch, Waybill, USA Trade Online, Enverus. Analysis by Cambridge Systematics.

Shippers will make modal decisions based on cost, shipping time, connectivity and reliability. The inventory, performance and conditions of the Texas multimodal transportation network impact all of these factors. The remainder of this chapter covers the inventory assets, while the condition and performance of the network are covered in **Chapters 5, 6 and 7**.

3.2 THE TEXAS HIGHWAY FREIGHT NETWORK

There are more than 80,700 centerline miles of state-maintained highways in Texas. The THFN is the portion of that network that is most critical to moving freight and supporting the state's key goods-producing industries and supply chains. The National Highway Freight Network (NHFN) is included in the THFN.

Facility Designations

Texas Highway Freight Network (THFN) is the freight highway network prioritized by the state for freight movements.

Texas Multimodal Freight Network (TMFN) consists of key highways, railroads, airports, pipelines, ports and waterways prioritized by the state for freight movements.

National Highway Freight Network (NHFN) is the nationally prioritized network for freight movements; all of the NHFN is included in the THFN.

Primary Highway Freight System (PHFS) is the network of highways within the NHFN most critical to U.S. freight movements.

Critical Rural/Urban Freight Corridor (CRFC/CUFC) are designations by the state of Texas for those critical freight routes on rural or urban corridors within the NHFN.

3.2.1 NATIONAL HIGHWAY FREIGHT NETWORK IN TEXAS

The NHFP is focused on improving the efficient movement of freight on the NHFN. The Fixing America's Surface Transportation (FAST) Act funded the NHFP at $1.49 billion in Fiscal Year (FY) 2021 under the extension of the FAST Act. The **IIJA authorizes $1.37 billion in FY2022 and $1.40 billion in FY2023.**[15] The FAST Act required the Federal Highway Administration (FHWA) to establish a NHFN which has been continued under the recent IIJA and is comprised of the following components:

- **Primary Highway Freight System (PHFS)** – The PHFS, as designated by FHWA, is a network of highways identified as the most critical highway portions of the U.S. freight transportation system. Texas' portion of the PHFS totals 3,727.77 miles.
- **Other Interstate portions not on the PHFS** – These highways consist of the remaining portion of interstate highways not included in the PHFS. These routes provide important continuity

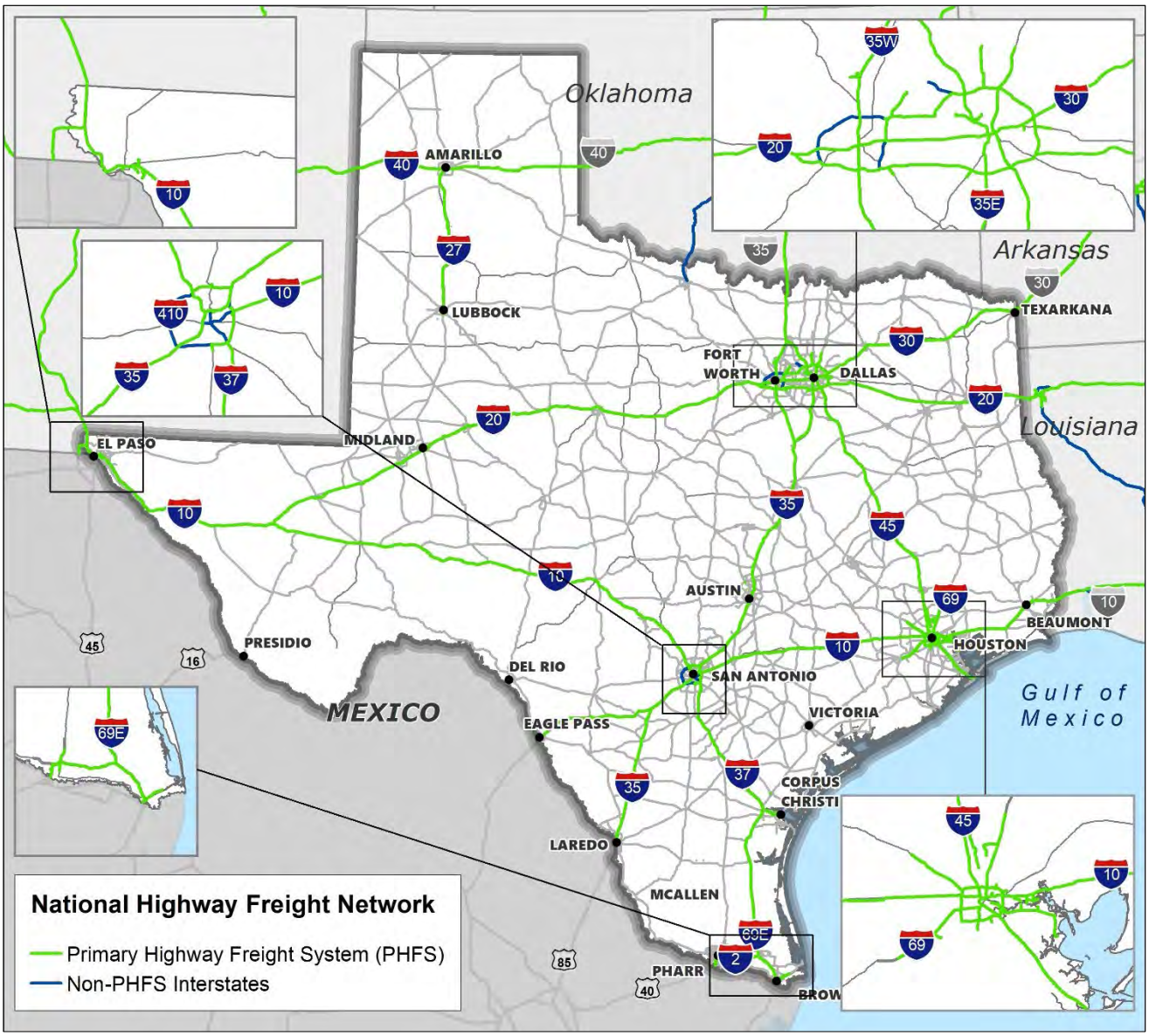
[15] American Concrete Pavement Association (ACPA). The Infrastructure Investment and Jobs Act.

and access to freight transportation facilities. Texas has a total of 95 miles of non-PHFS Interstates.

- **Critical Urban/Critical Rural Freight Corridors** – These designations were created at the federal level to allow TxDOT and metropolitan planning organizations (MPOs) to add to the NHFN. CUFCs are determined by TxDOT in partnership with metropolitan planning organizations (MPOs), and CRFCs are designated by TxDOT. TxDOT is limited by federal law to approximately 745 miles of CRFC corridors and 382 miles of CUFC corridors. These locations must meet federal criteria and are submitted to FHWA to become eligible for NHFP funding.

The FAST Act restricts NHFP funding on non-PHFS interstates in states deemed high mileage states, defined as containing more than 2% of the national PHFS. Texas is a high mileage state, and thus, cannot use NHFP funding on non-PHFS interstate locations. **Exhibit 5** displays the PHFS and non-PHFS interstates on the NHFN in Texas. In addition to these national freight designations, the Strategic Highway Network (STRAHNET) designation identifies the highways most important for military transportation.

EXHIBIT 5: NATIONAL HIGHWAY FREIGHT NETWORK IN TEXAS



Source: National Highway Freight Network, Federal Highway Administration.

3.2.2 DESIGNATING THE TEXAS HIGHWAY FREIGHT NETWORK

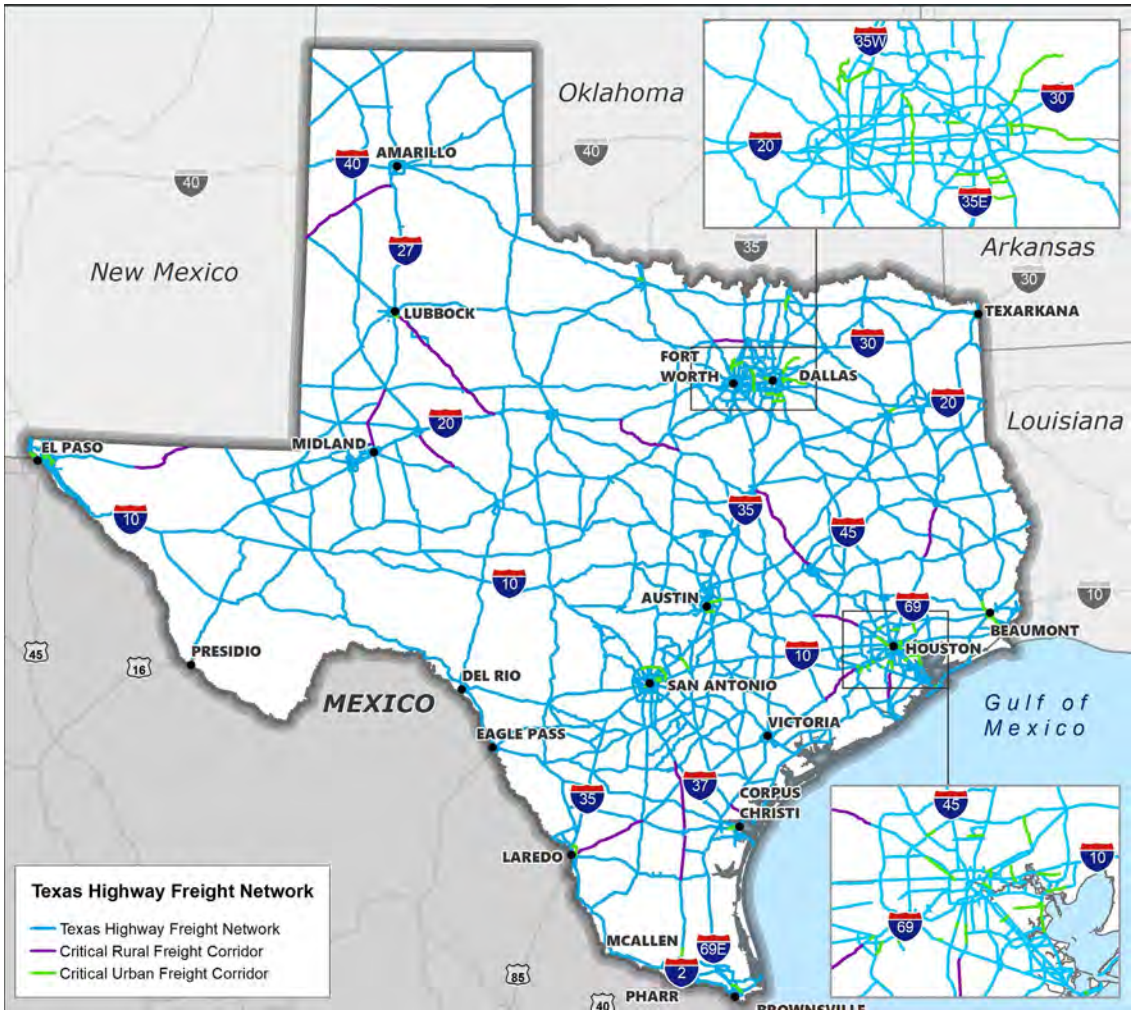
The designation of the THFN is based on a data-driven, stakeholder-informed process. The evaluation process scores every roadway network segment on the state-maintained system based on criteria measuring the role of the roadway in supporting four key factors: economic competitiveness, goods movement, strategic supply chain and market access and connectivity (**Exhibit 6**).

EXHIBIT 6: FOUR FACTORS OF THFN DESIGNATION PROCESS

The process uses multiple metrics for each factor. This is the data-driven part of the designation process. Stakeholders also provide input on the network, identifying important freight facilities the scoring process should include and suggesting facilities be removed if the scoring process overstated their importance or based it on community input.

The resulting designated network consists of over 23,300 miles, an increase of 1,500 miles since the 2018 TFMP. U.S. and State Highways in South and Central Texas were added because of the data-driven analysis. Stakeholders further recommended the addition of corridors linking urban and rural areas, predominantly State Highways are located at the periphery of Dallas-Fort Worth; in the Permian Basin, west of Waco; and north of Amarillo. **Exhibit 7** displays the THFN, including the CRFCs and CUFCs described above.

EXHIBIT 7: TEXAS DELIVERS 2050 TEXAS HIGHWAY FREIGHT NETWORK



Source: TxDOT, 2022.

3.2.3 DEMAND FOR HIGHWAY FREIGHT IN TEXAS

The vast highway network in Texas and throughout the nation provides more access and flexibility than any other mode. As a result of this public investment in infrastructure, **trucking is the dominant freight mode in Texas, in terms of both tonnage and value.** Highways provide first-and-last mile connections to and from intermodal terminals, warehouses and customers. Trucking also is cost-competitive

Freight Value Matters

Advanced manufacturing is among the key sectors in Texas that produce commodities and goods high in the value chain. Transportation delays and bottlenecks impacting high-value freight can lead to greater costs and losses in productivity throughout the economy. Therefore, an efficient and safe multimodal freight system enables industries to better compete in the global marketplace and contribute to the vibrant Texas economy.

and flexible over long-haul distances, moving freight cross-country and internationally. Intermediate distance truck trips support regional economies, connect rural and urban areas and reach nearby markets.

Texas highways moved an estimated 1.7 billion tons of freight valued at $1.4 trillion in 2019, a 28% increase in tonnage from 2014. By 2050, highway freight is forecast to grow to 3.7 billion tons valued at $3.7 trillion. **Exhibit 8** highlights major commodity movements by highway tonnage and value in 2019. Secondary traffic consists of movements of consumer goods between warehouse and distribution centers.

EXHIBIT 8: TOP FIVE TONNAGE AND VALUE HIGHWAY FLOWS BY COMMODITY, 2019

Top 5 Highway Flows by Tonnage (in thousands), 2019		Top 5 Highway Flows by Value (in millions), 2019	
Commodity	**Tonnage**	**Commodity**	**Value**
Nonmetallic Minerals	396,910	Secondary Traffic	$238,280
Wastewater	342,680	Machinery	$163,970
Petroleum or Coal Products	217,580	Transportation Equipment	$158,580
Clay, Concrete, Glass or Stone	127,040	Electrical Equipment	$123,920
Secondary Traffic	106,950	Food or Kindred Products	$114,650
Subtotal for Top 5	**1,191,160**	**Subtotal for Top 5**	**$799,400**
Total Tonnage	**1,737,813**	**Total Value**	**$1,401,890**

Source: Transearch 2019-2050, modified by Cambridge Systematics.

3.3 FREIGHT RAIL NETWORK IN TEXAS

Most of the rail infrastructure in Texas is owned and operated by three private sector Class I railroads: BNSF Railway (BNSF), Kansas City Southern Railway (KCS) and the Union Pacific Railroad (UP). UP operates the most miles of track (6,307) in Texas, while BNSF operates the second highest miles of track (4,984). KCS operates 929 track-miles within Texas. All of the Class I railroads are part of the Strategic Rail Corridor Network (STRACNET), the national network of rail corridors most important for defense.

The Surface Transportation Board (STB) classifies rail carriers as Class I, Class II and Class III, separated by annual operating revenues. Class I carrier operating revenues must be greater than $900 million annually, while Class II carrier operating revenues are between $40.4 million and $900 million annually. Class III carriers have annual operating revenues below $40.4 million.

While Class I railroads make up most of the rail infrastructure in Texas, short line railroads (typically Class II or Class III) make up 12% of the rail network. Short lines provide critical first-mile/last-mile connections for shippers and are crucial links in the supply chain. As the first and last mile of the shipment, short lines provide flexibility and responsiveness to shippers, especially in rural Texas where access to the rail network provides a vital transportation link and limits pressure on the highway system.

Freight railroads are a capital-intensive industry. According to the American Association of Railroads, on average, freight railroads spend six times more on capital expenditures as a percentage of revenue than the average U.S. manufacturer. The Class I railroads in Texas made substantial capital investments in 2021:[16]

- BNSF invested $205 million in Texas of an overall systemwide investment of $2.97 billion.
- KCS invested $156 million in Texas of an overall systemwide investment of $380 million.
- UP invested $647 million in Texas of an overall systemwide investment of $3.3 billion.

The American Short Line and Regional Railroad Association reports that most short lines invest a minimum of 25% of their annual revenues in rehabilitation and maintenance. In Texas, the short lines report that additional capital investment beyond required maintenance is a challenge because of constrained budgets.

3.3.1 FREIGHT RAIL ASSETS IN TEXAS

Exhibit 9 depicts the Class I and Class III railroads operating throughout Texas. These include railroads leading into international rail crossings. Currently, there are no Class II operators in Texas. According to information included in the Texas Rail Plan, the existing major rail freight system consists of the Class I and Class III mileages shown at right.

Class I Rail Statistics:

- Three Class I Railroads
- 8,396 Total Miles Owned
- 12,221 Total Miles Operated

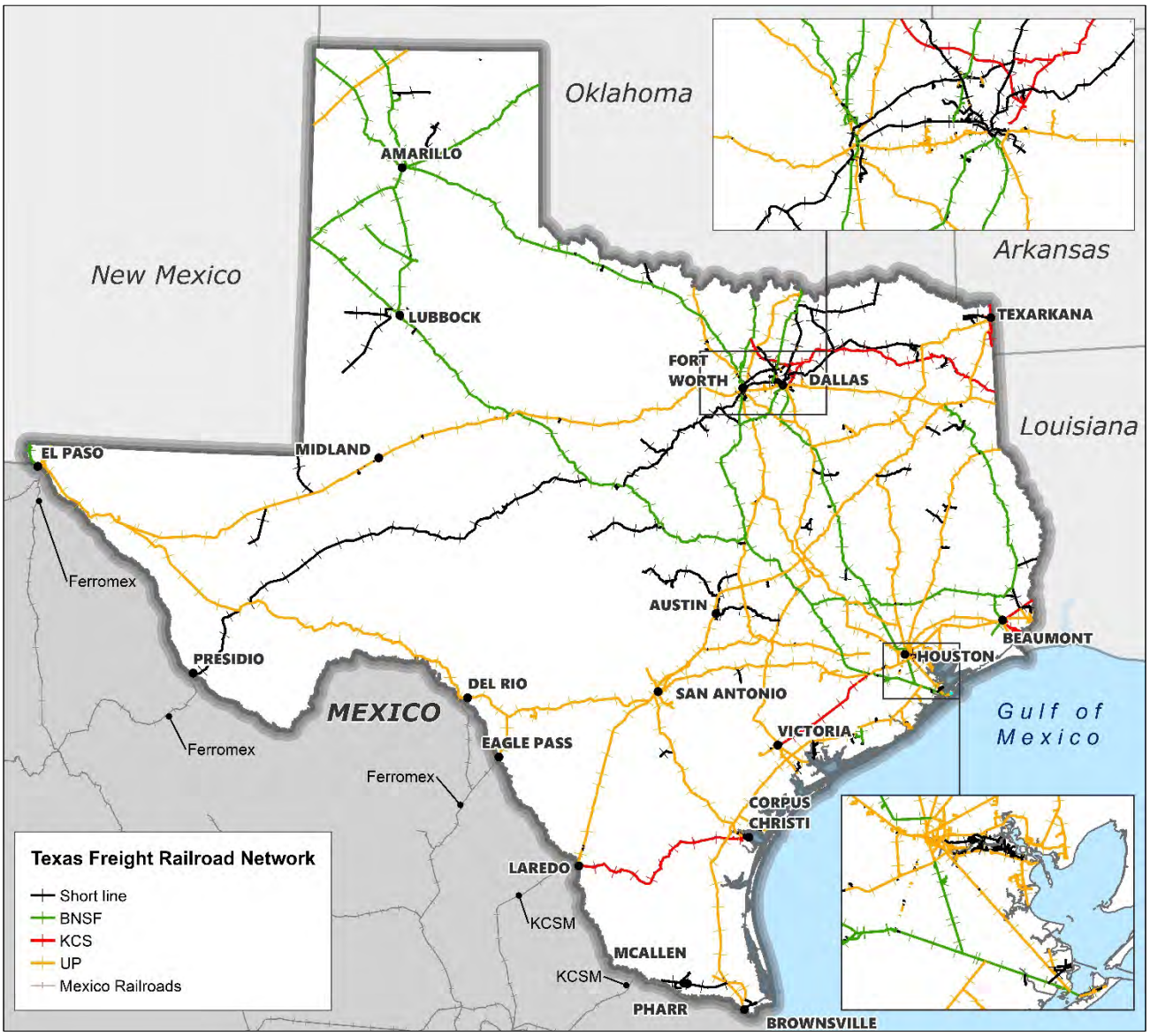
Class III Rail Statistics:

- Fifty-five Class III Railroads
- 1,148 Total Miles Owned
- 2,550 Total Miles Operated

Source: Texas Rail Plan, 2019.

[16] Investment figures provided to TxDOT by the railroad companies.

EXHIBIT 9: TEXAS FREIGHT RAILROAD NETWORK



Source: National Transportation Atlas Database, TxDOT Transportation Planning and Programming Division.

Railroads Use Trackage Right Agreements to Access Key Facilities

While **Exhibit 9** shows railroad ownership in Texas, there are trackage right agreements in place that provide some railroads with access to facilities and gateways along infrastructure owned by other railroads. Examples include trackage rights through the Houston rail network or "complex" where BNSF, KCS, and UP operate on track other than their own.

Reconstruction of the South Orient Railroad (SORR) and Presidio International Rail Bridge

Texas Pacifico Transportation (TXPF) implemented a large capital improvement plan to rehabilitate and upgrade the state-owned facilities on the SORR. TXPF recently completed $110 million in upgrades, including construction of the new international rail bridge in Presidio. An additional $40 million is planned in improvements. TxDOT and the Federal Railroad Administration (FRA) contributed additional funds and resources to improve grade crossings, ties and bridges in Presidio County.

Source: 2021 Annual Report South Orient Rail Line. TxDOT Rail Division. October 2021.

3.3.2 FREIGHT RAIL DEMAND IN TEXAS

Rail transported 486 million tons worth $850 billion in Texas in 2019 and is projected to grow to more than one billion tons by 2050. Major commodities transported by rail include chemicals and allied products, nonmetallic minerals, coal, miscellaneous mixed shipments, and farm products (**Exhibit 10**). The most rapidly growing commodity groups as a percentage of 2019 tons include shipping containers, apparel or related products, textile mill products, chemicals or allied products and food or kindred products. Coal, the third highest commodity by tonnage in 2019, is forecast to decrease by 87% by 2050, in part due to the availability of other electricity generating fuels such as natural gas, solar and wind.

EXHIBIT 10: TOP FIVE TONNAGE AND VALUE FORECAST BY COMMODITY, 2019

Top 5 Rail Flows by Tonnage (in thousands), 2019		Top 5 Rail Flows by Value (in millions), 2019	
Commodity	**Tonnage**	**Commodity**	**Value**
Chemicals or Allied Products	92,500	Misc. Mixed Shipments	$256,769
Nonmetallic Minerals	55,863	Transportation Equipment	$198,639
Coal	52,427	Chemicals or Allied Products	$149,179
Misc. Mixed Shipments	50,434	Small Packaged Freight Shipments	$55,464
Farm Products	49,865	Food or Kindred Products	$38,375
Subtotal for Top 5	**301,089**	**Subtotal for Top 5**	**$698,426**
Total Tonnage	**485,711**	**Total Value**	**$849,978**

Source: Transearch with Waybill 2019-2050

3.4 MARITIME AND WATERWAY NETWORK IN TEXAS

Texas ports and waterways handle a large and growing share of total U.S. waterborne freight cargo. With the largest port system in the Gulf of Mexico, **Texas handled more waterborne tonnage than any other state in the country, with more than 590 million tons of foreign and domestic cargo in 2019** — all of which is transported by truck, rail or pipeline at some point in time.[17] As such, the state's ports and waterways play a large part in the Texas economy and throughout the U.S. — generating close to $450 billion in total economic value to Texas and contributing 25% of the state's GSP.[18]

Ports included in the TMFN are those with two million or more short tons of cargo annually, aligned with federal criteria for inclusion on the NMFN. It should be noted that a number of additional Texas ports do not meet the 2 million ton threshold for inclusion in the TMFN, but handle significant tonnage important for manufacturing, energy and agricultural users. Three ports are also strategic military ports identified by the U.S. DOT Maritime Administration: Beaumont, Corpus Christi, and Port Arthur.

Waterways are also part of the TMFN and are critical for providing maritime access to Texas ports and port ship channels off of the Gulf of Mexico. The primary shallow draft waterway in Texas is the Gulf Intracoastal Waterway (GIWW) which runs the length of the Gulf of Mexico from Texas to Florida and serves as a vital inland waterway for freight barge transportation. The entire length of the GIWW is designated as Marine Highway 10 (M-10). In 2016, the U.S. Department of Transportation (USDOT) added a dual designation within Texas: M-69.[19] The main channel of the GIWW in Texas is 379 miles from Brownsville near the border with Mexico to the Sabine River at the Texas-Louisiana border. **Exhibit 11** displays the GIWW (M-10/M-69) with the 10 ports on the TMFN.

Seven Texas ports handled at least 10 million tons of cargo annually as of 2019: Houston, Corpus Christi, Beaumont, Texas City, Port Arthur, Freeport and Galveston. This qualifies those ports as designated High Use Harbors under the Water Resources Reform and Development Act of 2014 (WRRDA). WRRDA authorizes federal spending to improve critical U.S. waterway infrastructure.

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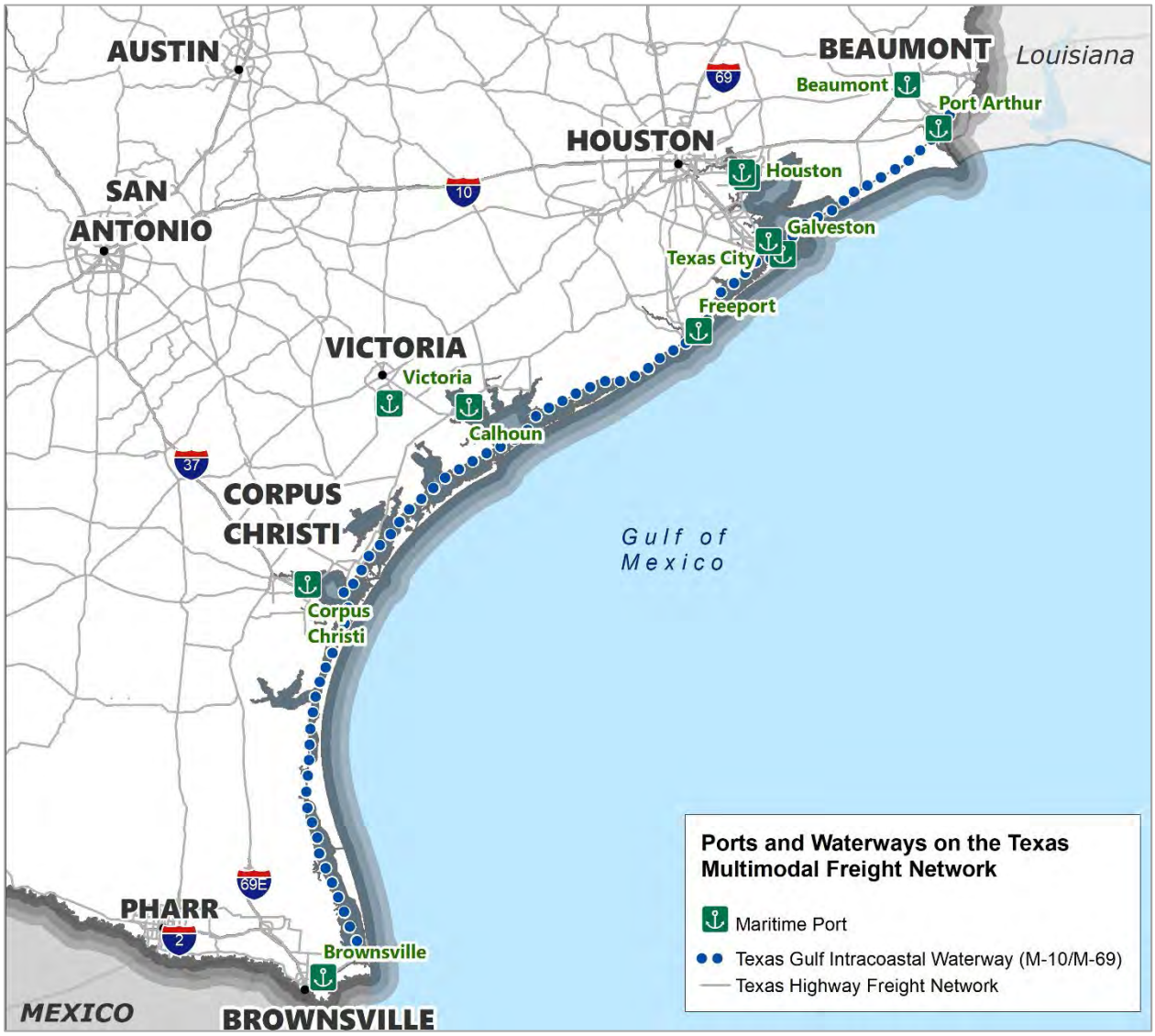
17 USACE. Waterborne Commerce Statistics Center: CY 2019 Waterborne Tonnage by State (In Units of 1000 Tons). Available at: https://usace.contentdm.oclc.org/digital/collection/p16021coll2/id/6753

18 Texas Ports Association. Economic Impact of the Texas Ports on the State of Texas and the United States, 2018. Available at: https://www.texasports.org/wp-content/uploads/2020/10/NationalEconomicImpactoftheTexasPorts-2018-7-25-2019.pdf

19 TxDOT. Statewide News. "Texas' Intracoastal Waterway Wins Marine Highway Status", June 8, 2016. https://www.txdot.gov/about/newsroom/statewide/2016/018-2016.html.

EXHIBIT 11: PORTS AND WATERWAYS ON THE TEXAS MULTIMODAL FREIGHT NETWORK



Source: TxDOT Transportation Planning and Programming Division.

3.4.1 DEMAND FOR MARITIME FREIGHT IN TEXAS

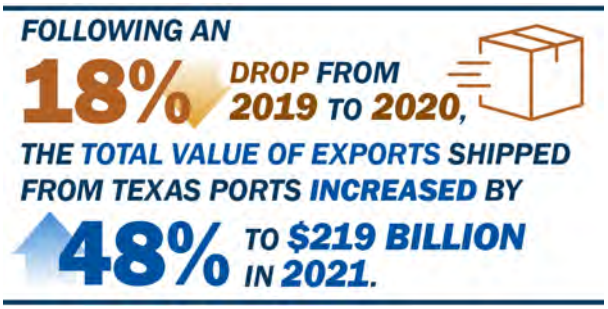
Among the 10 ports on the TMFN, seven ports rank in the top 50 in the United States in terms of total tonnage. Port Houston handled the most volume of all Texas and U.S. ports with over 284 million tons in 2019. Overall, foreign tonnage handled by the top 10 ports in Texas represented 71% of the total compared to 29% for domestic tonnage (**Exhibit 12**).

EXHIBIT 12: WATERBORNE TONNAGE, PORTS - TEXAS MULTIMODAL FREIGHT NETWORK, 2019

Port/City Name	Total Tonnage	U.S. Total Ranking	Foreign Tonnage	Domestic Tonnage
Houston	284,944,468	1	209,751,223	75,193,245
Corpus Christi	111,223,976	4	85,439,257	25,784,719
Beaumont	101,089,801	5	64,176,881	36,912,920
Texas City	41,338,934	16	24,637,039	16,701,895
Port Arthur	33,943,782	19	22,674,154	11,269,628
Freeport	29,844,416	23	25,971,619	3,872,797
Galveston	10,958,425	47	6,070,169	4,888,256
Brownsville	6,632,612	68	3,939,985	2,692,627
Calhoun Port Authority	5,220,760	76	2,203,654	3,017,106
Victoria	2,672,649	102	0	2,672,649
Total	**627,869,823**	**N/A**	**444,863,981**	**183,005,842**

Note: (1) The total shown for the top 10 ports is reported in port tonnage per U.S. Army Corps of Engineers (USACE). (2) Texas has seven ports that exceed 10 million tons annually, which qualifies these ports as designated High Use Harbors under the WRRDA; the WRRDA authorizes federal spending on critical waterway projects.

Source: USACE. Waterborne Commerce Statistics Center: CY 2019 Waterborne Tonnage by State (In Units of 1000 Tons). Available at: https://usace.contentdm.oclc.org/digital/collection/p16021coll2/id/6753



Source: U.S. Census Bureau. USA Trade® Online, HS Port-level data. https://usatrade.census.gov/.

Crude petroleum and refined petroleum products (principally fuels) have been the top two commodity groups at Texas ports by tonnage for many years, representing over 70% of total volumes from 2015 through 2019.[20] Energy products refined and exported from the Texas Gulf Coast have continued to diversify with the approval and construction of liquefied natural gas (LNG) plants. These plants require significant landside freight access during construction for workers and materials, and transition to primarily pipeline and maritime modes once operational. Once operational, LNG facilities result in significant liquid cargo flows transported by water modes. Waterborne exports of energy products are expected to continue to grow rapidly as more plants are approved and constructed.

[20] USACE. Waterborne Commerce of the United States: Manuscript cargo and trips data files, statistics on foreign and domestic waterborne commerce move on the United States waters (2000-2020). Available at: https://usace.contentdm.oclc.org/digital/collection/p16021coll2/id/1794/rec/1

3.4.2 CONTAINER IMPORTS AND EXPORTS

Three major points characterize container trade at Texas ports. First, given the dominance of crude oil and petroleum products in Texas' foreign waterborne trade, containerized trade comprises a smaller portion of Texas' total trade tonnage than the U.S. average. For imports, containerized tons represented almost 30% of total U.S. waterborne tonnage in 2019, while the share in Texas was 12%. For exports, containerized tons represented 17% of total U.S. waterborne tons, while the Texas share was 6%.[21]

The second feature is that Texas' container trade balance is fluid. In 2019, Texas container exports significantly outweighed container imports, reflecting Texas' role as a major manufacturing exporter. Texas' share of import container tonnage was 7% of the U.S. total during the 2015 to 2020 period. In contrast, Texas' share of U.S. containerized export tonnage was 15% in 2019.This trend began to shift in 2020. Since the start of the COVID pandemic, imports have increased to record levels as shippers seek alternatives to bottlenecks at West Coast ports. This has resulted in more balanced trade flows.

The third key point is that Port Houston is the predominant Texas container port for both imports and exports, handling the most tonnage for Texas and the U.S. From 2015 to 2020, Houston's containerized import volumes increased by 25% and export volumes by 36%.[22]

Source: U.S. Census Bureau. U.S. International Trade Data: USA Trade Online.

3.5 AIR CARGO IN TEXAS

Texas has one of the largest state airport systems in the United States with nearly 400 public use airports and 24 commercial service airports. Five of the top 50 cargo airports in the United States (by total landed weight) in 2019 are in Texas.[23] Although air cargo carried less than 1% of the freight in Texas by tonnage in 2019, air cargo provides an important service for time-

21 U.S. Census Bureau. U.S International Trade Data: USA Trade Online. Retrieved March 4, 2022, from https://www.census.gov/foreign-trade/data/index.html

22 Ibid.

23 FAA. (2022, January 11). Passenger Boarding (Enplanement) and All-Cargo Data for U.S. Airports. Retrieved January 20, 2022, from https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/

sensitive goods. Major cargo airports are generally located within or near major metropolitan areas, as they provide the most efficient access to markets.

Air cargo encompasses the smallest amount of freight by volume as it typically consists of lightweight, time-sensitive, and high-value items. A recent example of such a commodity was COVID-19 vaccines and tests. Air freight includes perishables (fish and produce), electronics, automotive parts, pharmaceuticals and medical supplies. Costs of shipping by air exceed those of other modes, but the overall value per ton of goods is much higher, mitigating to some degree the financial impact to shippers. Air cargo is increasingly used for e-commerce shipments, because of changing consumer shopping habits, in part because of restrictions imposed at the beginning of the COVID-19 pandemic and estimates suggest the pandemic may have accelerated e-commerce growth by as much as five years.[24] There have also been instances of companies using air cargo as a method of bypassing or avoiding congestion at ports. Texas, especially Houston's airports ship specialty equipment worldwide by air, mostly for the oil and gas industry.

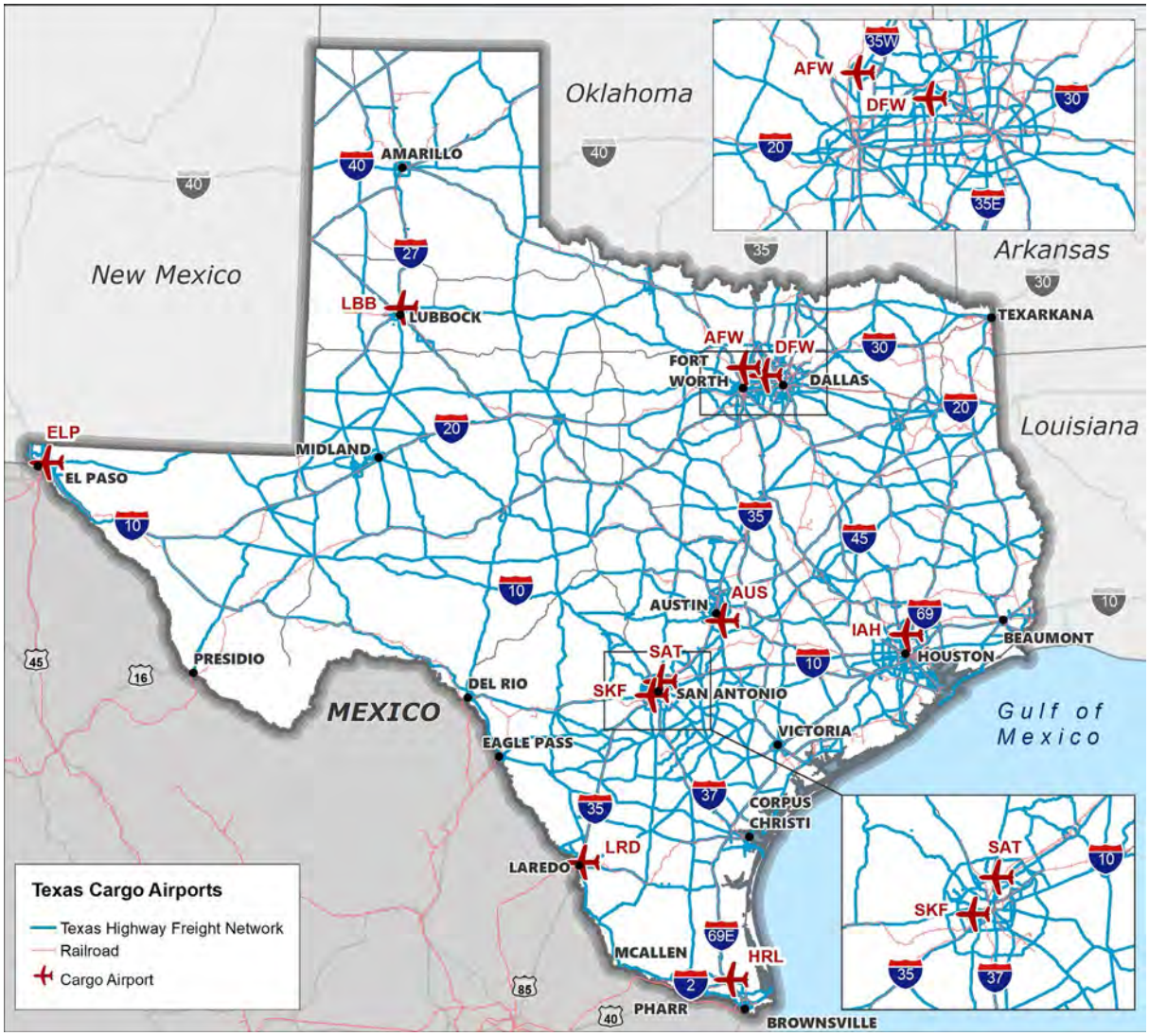
3.5.1 AIR CARGO FACILITIES ON THE TMFN

FHWA includes Fort Worth Alliance (AFW), Austin (AUS), Dallas-Fort Worth International (DFW), El Paso International (ELP), George Bush Intercontinental/Houston (IAH) and San Antonio (SAT) airports as part of the NMFN. During the 2018 TFMP, these six airports plus the Laredo International Airport (LRD) were included in the TMFN. TxDOT added Kelly Field in San Antonio (SKF), Lubbock Preston Smith International (LBB) and Harlingen Valley International (HRL) airports during the Texas Delivers 2050 designation process based on analysis of data from the Bureau of Transportation Statistics (BTS) T-100 Market (All Carriers) dataset, which includes weight of freight and mail enplaned (**Exhibit 13**) and the increased importance of air cargo in Texas.[25]

[24] Cargo Trends. (September-October 2021). Retrieved January 23, 2022, from https://drive.google.com/file/d/1HgHeLLYY7j06B2XCMdLmuLkIXPlhTQSU/view

[25] Air Carrier Statistics (Form 41 Traffic)- All Carriers Overview. BTS. (n.d.). Retrieved January 14, 2022, from https://www.transtats.bts.gov/DatabaseInfo.asp?QO_VQ=EEE&DB_URL=.

EXHIBIT 13: AIRPORTS ON THE TEXAS MULTIMODAL FREIGHT NETWORK



Source: TxDOT Planning and Programming Division.

3.5.2 DEMAND FOR AIR CARGO IN TEXAS

Exhibit 14 shows the top 10 cargo airports in Texas by enplaned weight for 2019.

EXHIBIT 14: TOP 10 CARGO AIRPORTS IN TEXAS BY ENPLANED WEIGHT (POUNDS), 2018-2020

ID	Airport Name	2018 (lb.)	2019 (lb.)	2020 (lb.)
DFW	Dallas/Fort Worth International	1,789,746,863	1,905,814,041	1,773,748,224
IAH	George Bush Intercontinental	1,143,681,047	1,126,751,783	1,017,127,282
AFW	Fort Worth Alliance	340,805,359	364,706,105	558,259,090
SAT	San Antonio International	283,812,914	287,999,579	285,299,960

ID	Airport Name	2018 (lb.)	2019 (lb.)	2020 (lb.)
AUS	Austin-Bergstrom International	209,365,576	211,889,945	222,617,290
ELP	El Paso International	217,642,826	207,672,645	214,835,390
LBB	Lubbock Preston Smith International	123,460,008	141,535,081	137,609,202
HRL	Valley International	105,215,352	101,787,305	102,098,795
LRD	Laredo International	75,348,200	51,238,758	40,721,507
SKF	Port San Antonio (Kelly Field)	31,762,086	35,882,758	28,477,812

Source: T-100 Market (all-carrier). 2018-2020. Bureau of Transportation Statistics.

Nearly 1.8 million tons of air cargo valued at nearly $258 billion moved in Texas in 2019 (**Exhibit 15**). Air cargo volumes are projected to grow by about 250% by 2050 to over 4.6 million tons. The top commodity by tonnage is small, packaged freight shipments fueled by e-commerce. The top commodity by value is electrical equipment. The top five commodities by weight represent approximately 60% of air cargo tonnage, while the top five commodities by value represent approximately 80% of air cargo value.

EXHIBIT 15: TEXAS AIR CARGO TONNAGE AND VALUE FOR TOP COMMODITIES, 2019

Top 5 Air Flows by Tonnage (in thousands), 2019		Top 5 Air Flows by Value (in millions), 2019	
Commodity	**Tonnage**	**Commodity**	**Value**
Small Packaged Freight Shipments	376	Electrical Equipment	$78,589
Electrical Equipment	267	Misc. Manufacturing Products	$44,578
Machinery	198	Transportation Equipment	$35,030
Chemicals or Allied Products	114	Machinery	$26,293
Transportation Equipment	89	Chemicals or Allied Products	$26,089
Subtotal for Top 5	**1,044**	**Subtotal for Top 5**	**$210,579**
Total Tonnage	**1,797**	**Total Value**	**$257,682**

Source: Transearch, 2019-2050. USA Trade Online, 2019.

Air cargo relies on connections to other modes, primarily highways, to get the goods to their final destinations. Therefore, efficient access to major highways and interstates is important for airports that handle large volumes of air cargo.

3.6 PIPELINES IN TEXAS

Texas is the leading domestic producer of oil and natural gas. The petroleum industry in the state relies on pipelines as a primary mode for transporting natural gas, crude oil, and a variety of liquefied products. As a result, **Texas has the most extensive pipeline network of any state** with nearly 470,000 miles of pipelines, representing 1/6th of the total pipeline mileage in the country.[26]

Pipeline Statistics:

- 412,463 miles of distribution and gathering pipelines
- 57,274 miles of long distance transmission pipelines
- 469,737 total miles of pipelines in 2019
- 89% of network are intrastate pipelines

Source: Railroad Commission of Texas (RRC). Texas Pipeline System Mileage.

Petroleum industry supply chains are organized into upstream, mid-stream and downstream operations. Pipelines and product terminals are a part of midstream operations involved in the storage and transport of crude oil and natural gas. Pipelines link upstream producers with downstream refineries and processing plants, which produce petrochemicals used by manufacturers to create plastic and synthetic rubber that find their way into various consumer and industrial products. The industry depends heavily on pipelines as safe, efficient and reliable mode of freight transportation. Compared to other freight modes, pipelines are not impacted by most weather conditions, operational conflicts with other modes and congestion on highways and waterways. Pipelines are also important to the economic competitiveness of the industry in Texas by providing a cost-effective mode for transporting bulk, liquefied products to markets in other states and with trading partners in Mexico and Canada, as well as overseas via maritime ports.

The private sector owns, operates and maintains the pipelines in the state. Texas has about 1,500 operators who transmit and distribute natural gas and liquified petroleum products to downstream users, such as refineries and petrochemical plants, powerplants, airports and residential customers.

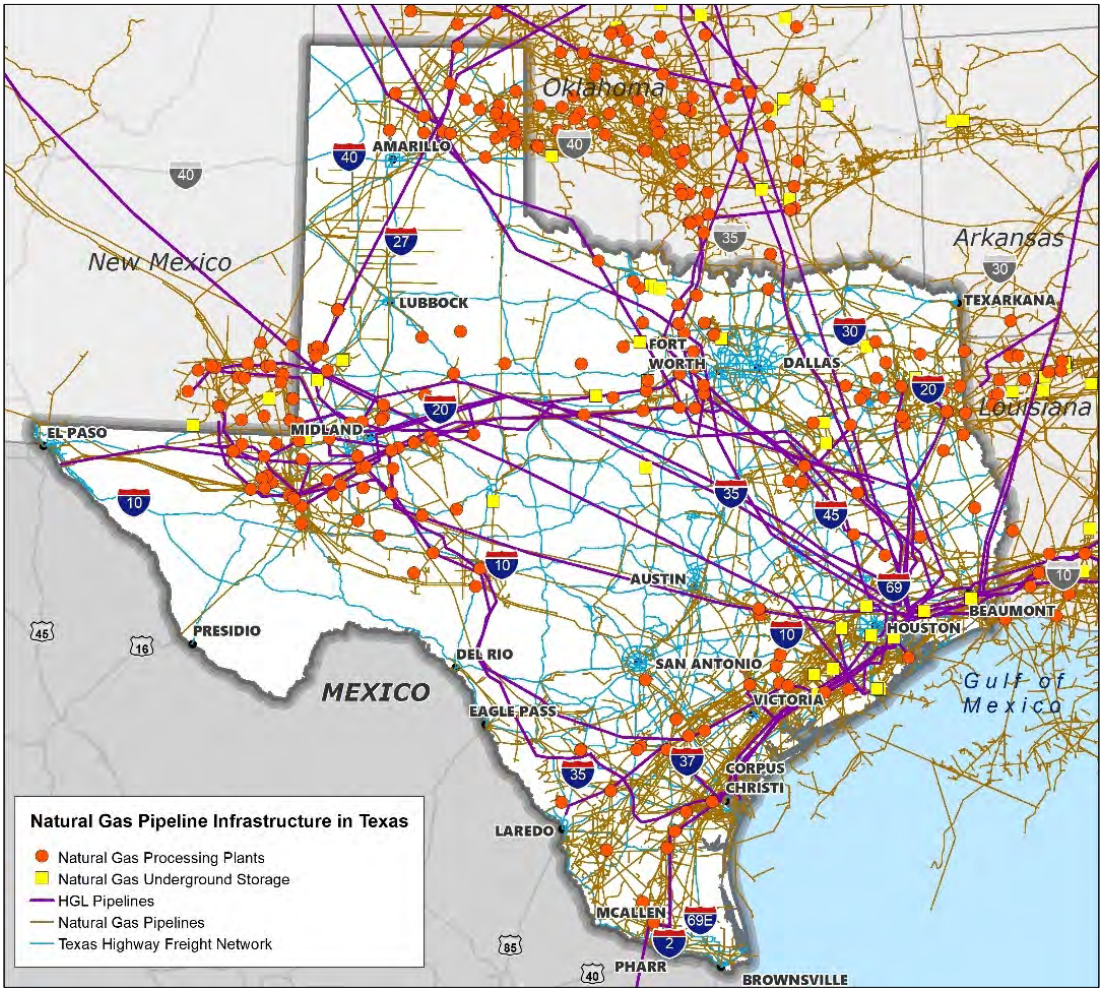
3.6.1 NATURAL GAS PIPELINE INFRASTRUCTURE IN TEXAS

Exhibit 16 shows the natural gas pipeline infrastructure in Texas, highlighting the network of pipelines that gather and transport raw natural gas to processing plants. Processing plants remove natural gas liquids, water and other contaminants to produce dry gas that is ready for consumption. Processed natural gas is distributed directly by pipeline to a variety of end users,

[26] Railroad Commission of Texas (RRC). Texas Pipeline System Mileage. https://www.rrc.texas.gov/pipeline-safety/reports/texas-pipeline-system-mileage.

from electric power plants, industrial facilities and manufacturers to smaller sources of demand, such as commercial and residential customers and vehicle fueling stations. The plants also produce hydrogen gas liquids (HGLs), which has a variety of uses from heating and cooking to serving as feedstocks for petrochemical manufacturing. Shown on the map are 44,978 miles of natural gas pipelines and 976 miles of HGL pipelines. The network supplies natural gas to 35 underground storage sites and 176 natural gas processing plants in Texas.

EXHIBIT 16: NATURAL GAS PIPELINE INFRASTRACTURE IN TEXAS



Source: U.S. Energy Information Administration (EIA).

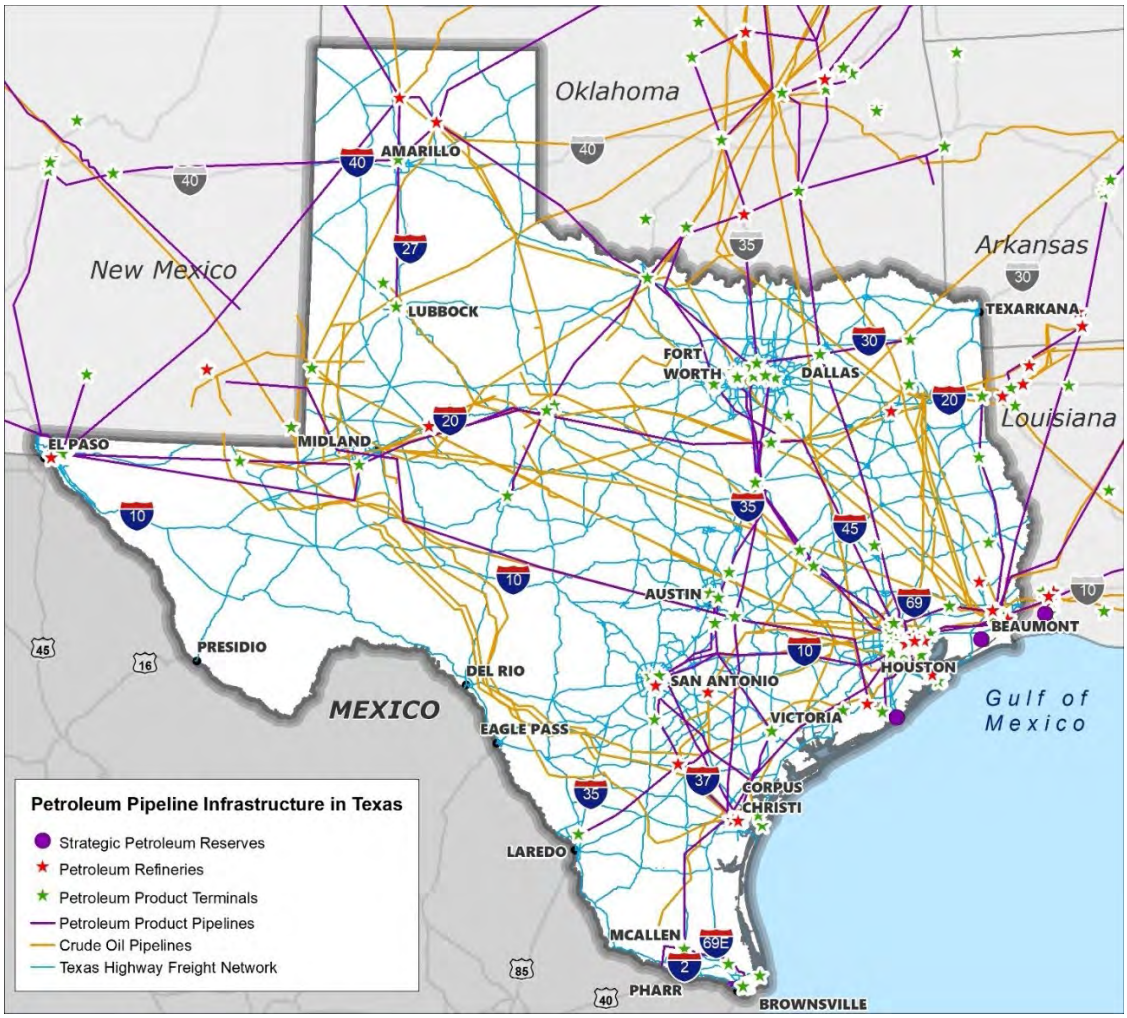
3.6.2 PETROLEUM PIPELINE INFRASTRUCTURE IN TEXAS

Exhibit 17 shows the petroleum pipeline infrastructure in Texas, highlighting the pipelines that transport crude oil to refineries and the product pipelines that transport gasoline, fuels, lubricants, and other liquids. Note, the small diameter pipes representing the "gathering" pipelines that connect to the wells are underrepresented in the exhibit. There are 31 refineries concentrated along the Gulf Coast, with the largest refinery and petrochemical complexes

located in Houston, Beaumont, Corpus Christi and Galveston. There are 170 product terminals that store and distribute motor gasoline and various finished fuels. The terminals are concentrated in and around metropolitan areas to serve regional demand.

The map also shows Texas' two storage sites for the Strategic Petroleum Reserve (SPR) that serves as the national emergency stockpile of crude oil (the other two SPR sites are in Louisiana). The SPR sites are located near the major refinery complexes on the Gulf Coast. The Big Hill and Bryan Mound sites in Texas are connected to refineries via pipelines in Houston and Beaumont.[27]

EXHIBIT 17: PETROLEUM PIPELINE INFRASTRUCTURE IN TEXAS



Note: the small diameter pipes representing the "gathering" pipelines that connect to the wells are underrepresented in the exhibit.
Source: U.S. Energy Information Administration (EIA).

27 U.S. Department of Energy. Strategic Petroleum Reserve Annual Report for Calendar Year 2017. December 2018. https://www.energy.gov/sites/prod/files/2019/02/f59/EXEC-2018-001277%20-%202017%20SPR%20Report.pdf.

3.7 INTERNATIONAL BORDER CROSSINGS IN TEXAS

The international border crossings on the Texas border with Mexico are important gateways for trade between the U.S. and Mexico. A significant portion of trade is between the economies of Texas and Mexico, where Mexico the is state's top trading partner; in 2019, the amount of trade between the two economies was worth $213 billion.[28] The commercial vehicle and rail crossings on the TMFN facilitates the movement of goods and commodities that are vital to businesses and industries in Texas, as well as the rest of the country. Texas supply chains for key manufacturing industries such as automobiles and electronics are integrated with factories in Mexico that produce parts and assemble components into finished products such as passenger vehicles. The transportation infrastructure at the border crossing locations provides important connectivity between the TMFN and the flow of imports and exports that cross the border each day. In 2019, 49.3 million tons of freight worth $249.2 billion entered Texas from Mexico by truck or rail. Flows in the southbound direction amounted to 64.9 million tons of freight worth $167.8 billion.[29]

Exhibit 18 shows the 18 border crossing locations on the TMFN that allow truck or train traffic. Fifteen of the 18 crossing locations allows for trucks. The Bridge of the Americas in El Paso and the Camino Real International Bridge in Eagle Pass are the only two crossings that allow both trucks and trains. The World Trade Bridge in El Paso is the only crossing closed to passenger vehicles. The Presidio Rail Bridge is currently undergoing reconstruction as the result of a fire in 2009 that damaged the bridge and suspended rail service.[30] Once reopened, the Presidio Rail Bridge will join the West Rail Bridge in Brownsville and the El Paso Rail Bridges as the only five crossings dedicated to rail, and the sixth overall that allows train traffic.

EXHIBIT 18: COMMERCIAL VEHICLE AND RAIL CROSSINGS ON THE TEXAS-MEXICO BORDER

ID	Crossing Name	Port of Entry	Commercial Vehicles	Passenger Vehicles	Rail
1	El Paso Rail Bridges (UP and BNSF)	El Paso			●
2	Bridge of the Americas	El Paso	●	●	
3	Ysleta-Zaragoza Bridge	El Paso	●	●	
4	Tornillo-Guadalupe International Bridge	Tornillo	●	●	
5	Presidio Bridge	Presidio	●	●	

28 TxDOT, Border Transportation Master Plan. 2021.

29 Ibid.

30 FreightWaves. "New rail port to connect Texas and Mexico." November 17, 2020. https://www.freightwaves.com/news/rail-port-connect-texas-and-mexico.

ID	Crossing Name	Port of Entry	Commercial Vehicles	Passenger Vehicles	Rail
6	Del Rio-Ciudad Acuna International Bridge	Del Rio	●	●	
7	Presidio Railroad Bridge (Under Reconstruction)	Presidio			●
8	Camino Real International Bridge	Eagle Pass	●	●	●
9	Laredo-Colombia Solidarity Bridge	Laredo	●	●	
10	World Trade Bridge	Laredo	●		
11	Laredo Texas Mexican Railway International Bridge	Laredo			●
12	Roma-Ciudad Miguel Alemán Bridge	Roma	●	●	
13	Rio Grande City Camargo Bridge	Rio Grande City	●	●	
14	Anzalduas International Bridge	Hidalgo	●	●	
15	Pharr-Reynosa International Bridge on the Rise	Hidalgo	●	●	
16	Donna International Bridge	Progreso	●	●	
17	Weslaco-Progreso International Bridge	Progreso	●	●	
18	Free Trade Bridge	Brownsville	●	●	
19	West Rail Bridge	Brownsville			●
20	Veterans International Bridge at Los Tomates	Brownsville	●	●	

Source: TxDOT. Texas Border Crossings. Border Transportation Master Plan. 2021.

Between 2009 and 2019, northbound train movements from Mexico increased 163% to 10,473. For northbound movements by truck into Texas, the number of trucks entering increased 157% to 4.4 million in 2019.[31] **Exhibit 19** shows the location of the commercial border crossings on the TMFN.

[31] Bureau of Transportation Statistics (BTS). Border Crossing/Entry Data. https://explore.dot.gov/views/BorderCrossingData/Annual?%3Aembed=y&%3AisGuestRedirectFromVizportal=y.

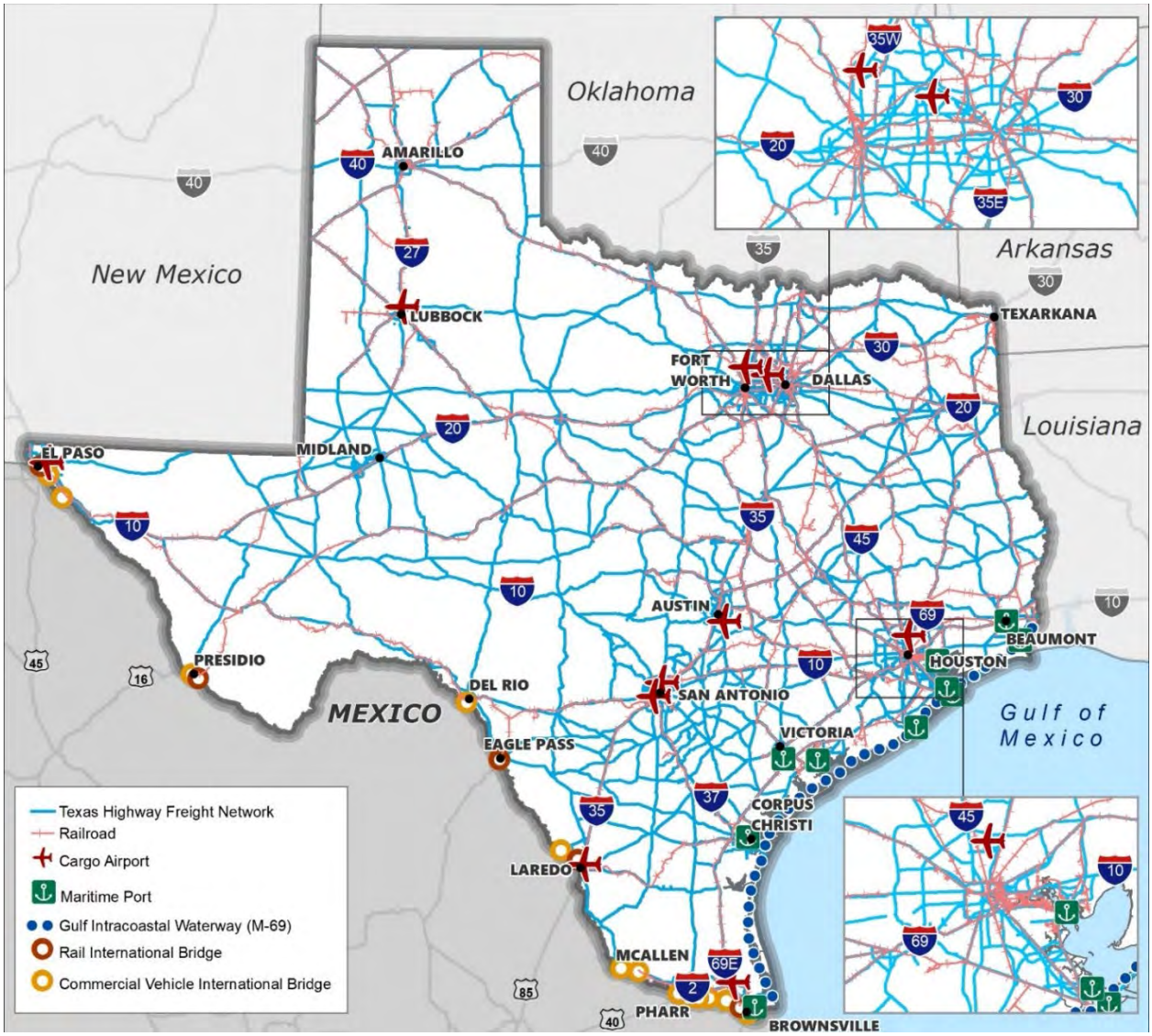
EXHIBIT 19: COMMERCIAL BORDER CROSSINGS ON THE TEXAS-MEXICO BORDER

Source: TxDOT. Texas Border Crossings.

3.8 TEXAS MULTIMODAL FREIGHT NETWORK

The TMFN, shown in **Exhibit 20**, is the basis of each analysis step in the development of Texas Delivers 2050. These facilities are central to the analysis of conditions, needs, supply chains and opportunities related to freight movement in Texas. The updated TMFN includes an additional 1,500 miles of highway and three additional airports when compared to the 2018 TFMP. Railroads, ports and pipeline designations remained unchanged.

EXHIBIT 20: TEXAS MULTIMODAL FREIGHT NETWORK



Source: TxDOT Planning and Programming Division.

This Chapter presented an overview of the TMFN, including a summary of each mode and designation of the TMFN. Chapter 4 describes the role of the TMFN, specifically, how it is used by six of Texas' key industry clusters.

Corpus Christi MPO Regional Coordination Group for Federal Transportation Grants Update

https://www.transportation.gov/bipartisan-infrastructure-law/key-notices-funding-opportunity

Program	Description	Eligible Entity	2023 Deadline
Transportation Safety, Equity, Resilience & Other			
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	Provides grants for surface transportation infrastructure projects that will have a significant local or regional impact (aka Local and Regional Project Assistance).	State, MPO, Local Government	2/28/2023
Nationally Significant Multimodal Freight and Highway Projects (INFRA)	Provides grants for multimodal freight and highway projects of national or regional significance.	State, MPO, Local Government, FLMA	Spring 2023 (TBA)
Bridge Investment Program	Provides grants for projects to improve the condition of bridges and culverts and the safety, efficiency, and reliability of the movement of people and freight over bridges.	State, MPO, Local Government, FLMA	Summer 2023 (TBA)
Natural Gas Distribution Infrastructure Safety and Modernization Program	Repair, rehabilitate, or replace the natural gas distribution pipeline systems	Local Governments or Community Owned Utility	March/April 2023 (TBA)
Safe Streets and Roads for All	Provides grants to support local initiatives to prevent transportation-related death and serious injury on roads and streets (commonly referred to as “Vision Zero” or “Toward Zero Deaths” initiatives).	MPO, Local Government	April 2023 (TBA)
Reconnecting Communities Pilot Program — Capital Construction Grants	Provides grants for projects to restore community connectivity by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, including to mobility, access, or economic development.	State, MPO, Local Government	Late Spring 2023 (TBA)
Reconnecting Communities Pilot Program — Planning Grants	Provides grants for feasibility studies and other planning activities for projects to restore community connectivity by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, including to mobility, access, or economic development.	State, MPO, Local Government	Late Spring 2023 (TBA)
Nationally Significant Federal Lands and Tribal Projects (NSFLTP) Program	Provides grants to Tribes and Federal land management agencies to complete projects that will provide substantial benefits to their communities or parklands.	FLMA, *State, MPO, Local Government with FLMA sponsor	

Program	Description	Eligible Entity	2023 Deadline
Advanced Transportation Technologies and Innovative Mobility Deployment	Provides grants to deploy, install, and operate advanced transportation technologies to improve safety, mobility, efficiency, system performance, intermodal connectivity, and infrastructure return on investment.	State, MPO, Local Government	
Strengthening Mobility and Revolutionizing Transportation (SMART)	Projects utilizing innovative technology to Improve Transportation Efficiently and Safety	State, MPO, Local Government, Public Transit	Fall 2023 (TBA)
Accelerated Innovation Deployment (AID) Demonstration Program	Provides grants to support the pilot/demonstration of innovations on projects, in areas such as planning, financing, operations, pavements, structures, materials, environment, and construction.	State, FLMA, *MPO & Local Government through State	
Charging and Fueling Infrastructure Grants Program (Community Charging)	Provides grants for projects to develop electric vehicle charging and hydrogen, propane, and natural gas fueling infrastructure access along alternative fuel corridors throughout the country, including in rural areas, low- and moderate-income neighborhoods, and communities with a low ratio of private parking spaces to households or a high ratio of multiunit dwellings to single family homes.	State, MPO, Local Government, FLMA	Winter 2023 (TBA)
Charging and Fueling Infrastructure Grants Program (Corridor Charging)	Deploys publicly accessible EV charging infrastructure and hydrogen, propane, and natural gas fueling infrastructure along designated Alternative Fuel Corridors.	State, MPO, Local Government, FLMA	Winter 2023 (TBA)
National Electric Vehicle Infrastructure (NEVI) Set-aside Discretionary Grant	10 percent set-aside each fiscal year to provide grants to provide additional assistance to strategically deploy EV charging infrastructure.	State, Local Government, FLMA	
Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) Discretionary Grants	Provides grants for activities that enable communities to address vulnerabilities to current and future weather events, natural disasters, and changing conditions, including sea level rise, and plan transportation improvements and emergency response strategies to address those vulnerabilities.	State, MPO, Local Government, *FLMA with State	

Program	Description	Eligible Entity	2023 Deadline
Transit & Intercity Rail			
Areas of Persistent Poverty Program			3/10/2023
Railroad Crossing Elimination Program	Railway Grade Separation		Summer 2023 (TBA)
Low/Zero Emission Bus Program		Public Transit	4/13/2023
Bus and Bus Facilities Competitive Grants	Bus and Bus Facility Procurements		4/13/2023
Port and Freight			
Port Infrastructure Development	Port Safety, Reliability, Efficiency		4/28/2023
America's Marine Highway Program	Marine Highway development and expansion		
Reduce Truck Emissions at Port Facilities	Port Emissions Reduction		
Climate, Energy & Environment			
Building Resilient Infrastructure and Communities Program	Hazard mitigation projects		
Flood Mitigation Assistance	Reduce/Eliminate the risk of repetitive flood damage to buildings insured by the national flood insurance program		
Regional Clean Hydrogen Hubs	Development of minimum 4 regional clean hydrogen hubs to improve hydrogen production, processing, delivery, storage, and end use		