

CHAPTER 5 – EXISTING TRANSPORTATION SYSTEM CONDITIONS

Cover page: The objective of a regional transportation plan is to provide a framework for the development, operation, and management of the transportation system within the larger context of the area's social, economic, mobility, and environmental goals.

CHAPTER 5

A comprehensive understanding of the existing transportation system is the foundation of the Corpus Christi Metropolitan Planning Organization (MPO) 2050 Metropolitan Transportation Plan (MTP). This chapter documents current conditions, identifies system gaps and deficiencies, and establishes the baseline from which the plan's needs assessment and investment strategy are developed.

This chapter is organized around the seven Federal Planning Goals established by Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), which frame the federal government's transportation planning priorities and guide how MPOs demonstrate the responsiveness of their long-range plans to national goals. Each section addresses one goal, drawing together the relevant modes, infrastructure, and conditions that bear on that area's planning objectives. The chapter closes with a cross-cutting system performance summary.

The existing conditions are presented in relation to the seven National Goals: (1) Reduction in traffic fatalities and serious injuries; (2) Maintain infrastructure in good condition; (3) Congestion reduction; (4) Transportation system efficiency; (5) Freight movement and economic vitality; (6) Environmental Sustainability; and (7) Reduced project costs and delivery delays.

The Corpus Christi MPO's goal is to involve the public in how the funds they pay in taxes and fees are invested in the transportation system. With this in mind, the Corpus Christi MPO undertook the outreach detailed in Chapter 2. Goals were identified for the regional transportation system during the concurrent planning processes, as detailed in Chapter 3: Goals, Objectives, and Performance Measures.

REGIONAL OVERVIEW

The Corpus Christi MPO serves as the federally designated MPO for the Corpus Christi urbanized area as defined by the U.S. Census Bureau following the 2020 decennial census. The MPO planning area encompasses portions of Nueces and San Patricio Counties, including the City of Corpus Christi, the City of Portland, the City of Gregory and surrounding unincorporated communities. The Transportation Policy Committee (TPC) provides policy oversight for all federally required planning products.

The region's Gulf Coast location shapes transportation planning in fundamental ways. Coastal geography constrains route alignments and exposes critical infrastructure to hurricane storm surge, sea-level rise, and flooding. The Port of Corpus Christi — the nation's leading crude oil export hub — generates substantial freight demand on the regional network. The Port, military installations, schools, hospital campuses, downtown and tourist attractions are major employment and transportation demand generators. Population for Nueces and San Patricio Counties is projected to either hold relatively steady or grow very modestly through 2050 according to the Texas Demographic Center population projections. However, household location preferences may shift transportation needs within the two-county area, with some areas growing while others decline in population.

The Corpus Christi MPO maintains an ongoing planning partnership with member governments including key relationships with the Texas Department of Transportation (TxDOT) Corpus Christi District (CRP), which owns and operates the state highway system within the planning area and coordinates with the Corpus Christi MPO on the Transportation Improvement Program (TIP) and the 10-year Unified Transportation Program (UTP). The Corpus Christi Regional Transportation Authority (CCRTA) provides fixed-route and demand-responsive public transportation services within the MPO. The CCRTA coordinates with the MPO on services plans, safety plans as well as the TIP and long-range regional transportation plan known as the Metropolitan Transportation Plan (MTP).

TRAFFIC FATALITIES AND SERIOUS INJURIES

Safety is the highest priority goal of the 2050 MTP, and the first Federal Planning goal. The transportation system's ability to protect motorized and nonmotorized users from death and serious injury is the foundational obligation of the planning process. This section documents crash conditions within the Corpus Christi MPO as analyzed through the Regional Safety Action Plan (RSAP) that was adopted by the TPC in October 2024. The RSAP was developed through a consultant team working with a Regional Traffic Safety Task Force created by the TPC, member governments and MPO staff. Through those efforts, all crashes were studied and causes identified from the data in the TxDOT Crash Records Information System (CRIS) database. A set of 32 locations were identified as ones that were highly susceptible to safety improvements using FHWA Proven Countermeasures. Additionally, a High-Injury Network was developed to address the vulnerabilities of pedestrians and bicyclists. Moreover, the transit safety planning framework for the Corpus Christi Regional Transportation Authority (CCRTA) was reviewed and incorporated into this section and the complete document provided in Appendix R. Safety conditions documented here became the basis for the 2050 MTP's safety goals, objectives, and investment priorities.

More recently, in the Summer of 2026, there has been a heightened awareness of traffic safety concerns highlighted by media reports and agency meetings concerning State Highway (SH) 361 on North Padre Island and Mustang Island. These multiple fatal crashes were specifically related to safety and the recent fatalities on the Texas Department of Transportation (TxDOT) roadway.

Traffic Safety is one of the critical aspects of the Corpus Christi MPO's planning efforts. Key efforts by the MPO include:

- Establishment by the TPC of a Regional Traffic Safety Task Force in March of 2022.
- Development of the Corpus Christi MPO's Crash Data Dashboard on our website to illustrate the crash history from the TxDOT Crash Records Information System (CRIS) database for the 2010-2024 time period. This on-line tool is being updated with the most recently available information from the CRIS system.
- The adoption of the Regional Safety Action Plan (RSAP) in October 2024. The RSAP follows the standard aspect of safety analysis identified by the Federal Highway Administration (FHWA) and reviewed all crashes in the CRIS database for the years 2016-2022 to be used in the RSAP analysis. The Corpus Christi MPO's RSAP identified 32 locations that were targeted to receive proposed FHWA identified proven countermeasures as ways to reduce fatalities and serious injury crashes at these locations.
- Development of annual Safety Performance Measures and Targets for Performance Measure 1 (PM1) required of all 24 MPOs and TxDOT.
- Creation of a Regional Safe System Plan (RSSP) that is in its final stages in the Autumn of 2026 to be presented by the Corpus Christi MPO's consultant team to the Regional Safety Task Force in September. The RSSP uses the national standard for safety analysis and efforts as stated by the FHWA.

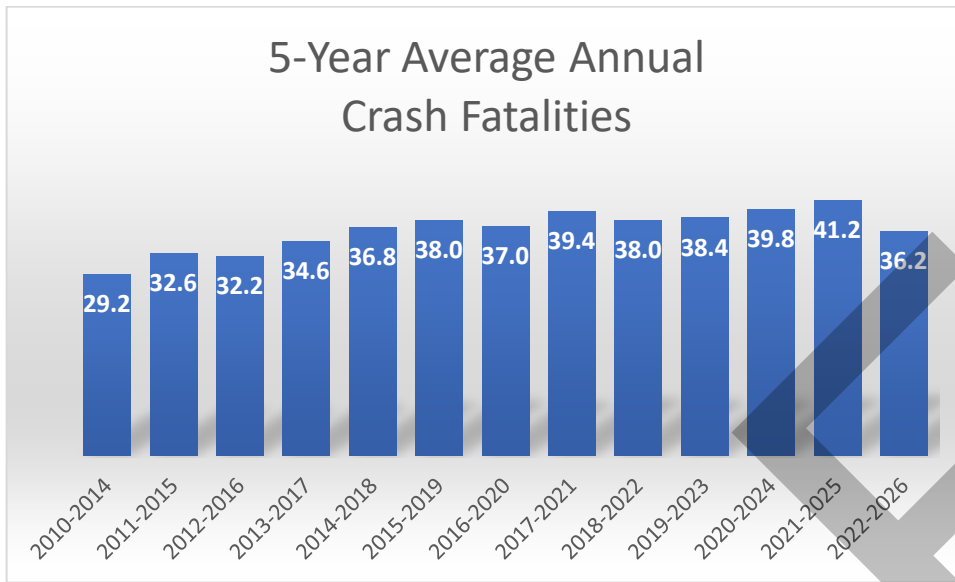
Current Crash Trends

Federal transportation law requires that states and MPOs track and address traffic safety outcomes as part of the performance-based planning process. Key safety indicators include the number of traffic fatalities and serious injuries, the rates of these occurrences expressed per 100 million vehicle miles traveled (VMT), and outcomes specifically affecting non-motorized road users. These indicators are tracked using a five-year rolling average to account for year-to-year variability in crash data.

Based on data from the CRIS through August 2026, the Corpus Christi MPO planning area recorded 181 traffic fatalities and 707 serious injuries during the most recent five-year analysis period, 2022-2026. The Corpus Christi MPO supports TxDOT's Safety Target as well as their "Road to Zero" goal to eliminate all traffic fatalities on Texas roads by 2050. Additionally, the MPO supports the City of Corpus Christi and Nueces County in the "Vision Zero" policies to also reduce traffic fatalities to zero by 2050. As demonstrated by Exhibit 5-1, overall

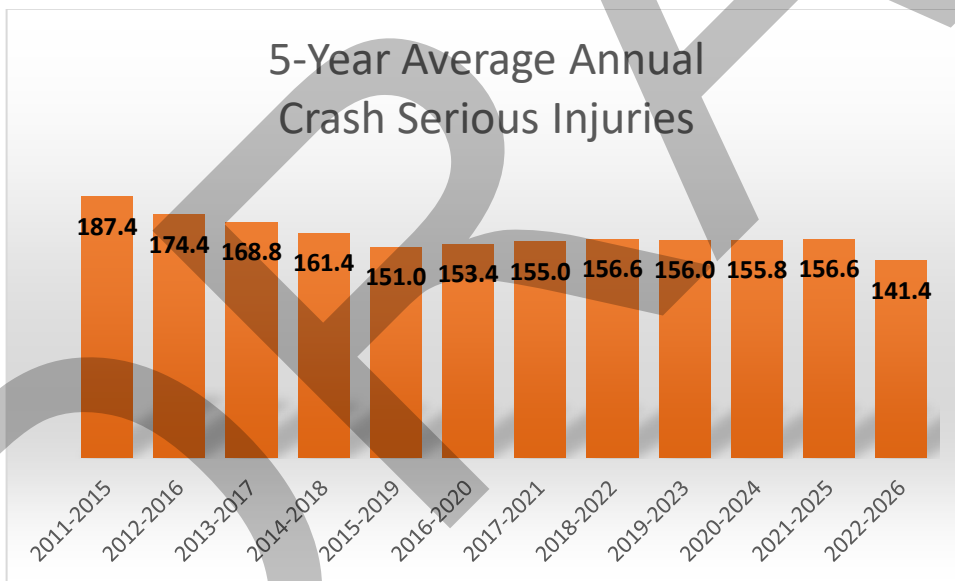
fatalities from traffic crashes in the Corpus Christi MPO region have increased, based on a five-year rolling average between 2010 through August 2026.

Exhibit 5-1. Chart of 5-Year Rolling Average Crash Fatalities



This contrasts with the declining trends in serious injuries recorded in the TxDOT CRIS database, as illustrated in Exhibit 5-2.

Exhibit 5-2. Chart of 5-Year Rolling Average Crash Serious Injuries



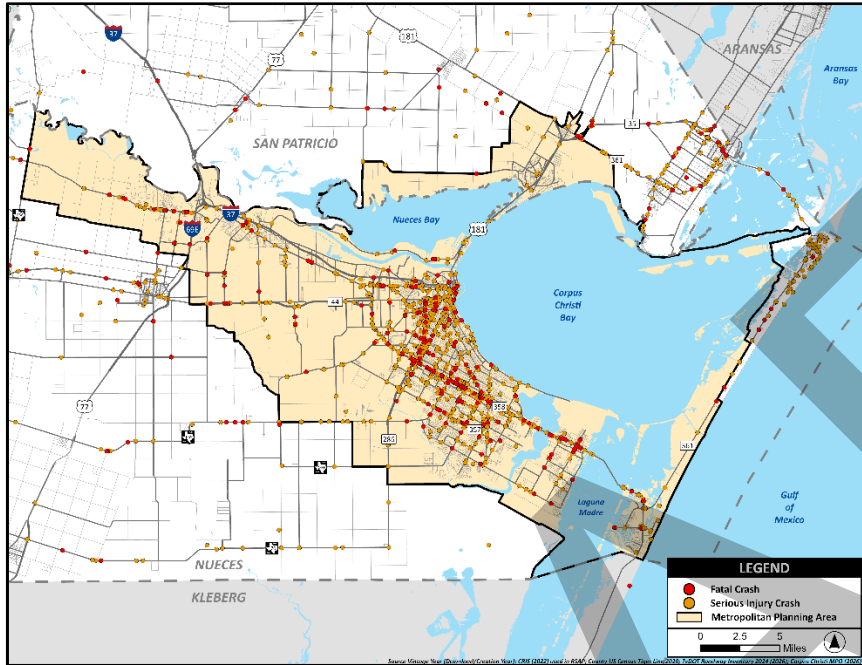
Regional Safety Action Plan

According to FHWA’s Safe Streets and Roads for All (SS4A) grant program, comprehensive Safety Action Plans are the basic building block to significantly improve roadway safety. Action Plans that are eligible for SS4A grant funding must include analysis of existing conditions and historical trends that provide a baseline level of crashes involving fatalities or serious injuries across a jurisdiction, locality, or region.

Each year, there are more than 40,000 traffic related deaths in the United States. The following sections related to the data available during development of the RSAP document. In 2022, there were 4,481 fatalities

and 15,299 serious injury crashes in Texas alone. For the RSAP analysis using data from 2016 and 2022, the Corpus Christi MPO area experienced over 74,057 crashes, of which 1,760 resulted in a serious injury or death. These serious injuries and deaths are often called “accidents,” but with the proper planning, design, construction, and implementation, they can be prevented. Exhibit 5-3 illustrates the location of crashes excluding the Interstate facilities.

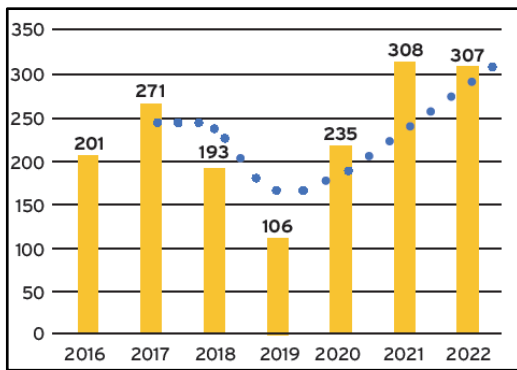
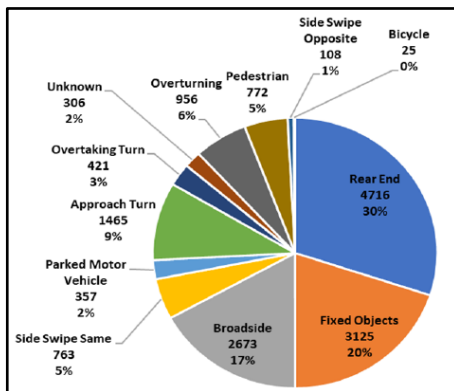
Exhibit 5-3. Map of Non-Interstate Crashes



As the federally designated Metropolitan Planning Organization (MPO) for the Corpus Christi area, the Corpus Christi MPO is responsible for coordinating regional transportation planning initiatives. In this role, the MPO is positioned to advise and educate its member communities on all transportation topics, including how to address traffic-related deaths and serious injuries.

Implementing the RSAP is one step towards reaching the Corpus Christi MPO Safety (PM1) Performance Measure adopted goals and targets to significantly reduce traffic fatalities and serious injuries on all public roads. Work towards this goal, and ultimately zero fatalities and serious injuries, will take a collected effort from the region and local partners.

The Corpus Christi MPO prepared this Regional Safety Action Plan (RSAP) to provide local context and recommendations that support the state of Texas’ Highway Safety Improvement Program (HSIP) and the State Highway Safety Plan (SHSP). The safety planning process acknowledges that there are many factors that contribute to safe mobility – including the design of the roadways, the speed of travel, enforcement of traffic laws, behavior of travelers, technology, and policies. Examples of the trends in the Corpus Christi MPO region are shown in exhibits 5-4 and 5-5:

Exhibit 5-4. Chart of Impaired Driving Trends from RSAP Data**Exhibit 5-5. Pie Chart of Fatal and Serious Injury Crashes by Crash Type, Nueces and San Patricio Counties**

This RSAP sets clear strategies to achieve the shared goal of zero fatalities and serious injuries. Interventions may include any combination of education, enforcement, engineering and new policies to target the eight region-specific emphasis areas. The RSAP is provided as an Appendix for this 2050 MTP.

Regional Safe System Plan

The Regional Safe System Plan (RSSP) is the Corpus Christi MPO's long-range strategy for preventing traffic deaths and serious injuries across the metropolitan region. It builds on the 2024 Regional Safety Action Plan (RSAP) with a deeper, data-driven examination of each element of the Federal Highway Administration's Safe System Approach and translates those findings into a coordinated set of strategies that partner agencies can implement over the next decade. The plan also provides locations where severe crashes are persistent, called the High Injury Network (HIN). A summary of this plan is incorporated in the MPO's 2050 Metropolitan Transportation Plan (MTP).

Over the past ten years, close to 400 fatalities and over 1,500 serious injuries have occurred on roads in the Corpus Christi MPO region over the 10-year analysis period (2014-June 2024) for the RSSP. The regional fatality rate fortunately remains below state targets but unfortunately is not trending down, while statewide trends have begun to decline. Vulnerable road users bear a disproportionate share of severe outcomes. Pedestrians, bicyclists, and motorcyclists account for far more deaths and serious injuries than their share of total crashes would suggest. Drivers of speeding vehicles are nearly six times more likely to be killed or seriously injured than drivers of non-speeding vehicles. Over half of all fatal and serious injury crashes occur when vehicles leave the roadway. These patterns are not random. Several challenges in the regional transportation system contribute to such behaviors and crash types yielding more severe outcomes, from roadway design to heavier vehicle types. These can be addressed through deliberate, coordinated action.

Exhibits 5-6, 5-7, and 5-8 illustrate the crash statistics from the RSSP analysis.

Exhibit 5-6. Table of Corpus Christi MPO Historical Safety and Crash Statistics

Area	Metric	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Persons	Serious Injuries	135	168	153	163	136	147	176	159	160	135
	Fatalities	38	33	42	37	40	33	45	35	39	47
Crashes	Total Crashes	5,291	9,428	9,969	9,661	9,206	7,542	8,694	8,285	8,118	7,877
	Avg Crashes per Day	14	26	27	26	25	21	24	23	22	22
	Fatal Crashes	35	33	39	34	38	32	45	31	37	45
	Serious Injury Crashes	5,291	9,428	9,969	9,661	9,206	7,542	8,694	8,285	8,118	7,877
Rates	Fatalities per 100M VMT	1.3	1.1	1.3	1.2	1.3	1.1	1.4	1.2	1.3	-
	Serious Injuries per 100M VMT	4.5	5.3	4.9	5.1	4.3	5.0	5.6	5.3	5.3	-
Vulnerable Road Users	Pedalcyclist	6	4	4	4	4	8	8	7	9	9
	Pedestrian	30	28	32	40	24	34	30	29	28	29
	Motorcyclist	30	28	21	34	26	23	27	31	38	34

Exhibit 5-7. Table of Top 10 Crash Patterns in the RSSP HIN

Crash Pattern	Serious Injury Crash Count (2014-June 2024)
Off Road	67
Sideswipe	57
Lighting	40
Rear End	27
Total Fixed Objects	24
Parked Motor Vehicle	21
Off Road in Median	12
Other Fixed Object	10
Illegal Drugs	7
Injury	6

Exhibit 5-8. Table of Top 10 Crash Patterns at LOSS Level III & IV Intersections

Crash Pattern	Serious Injury Crash Count (2014-June 2024)
Rear End	47
Lighting	29
Sideswipe	25
Injury	21
Broadside	21
Overtaking Turn	19
Three or More Vehicles	13
Approach Turn	12
Total Fixed Objects	8
Wet Road	3

High Injury Network

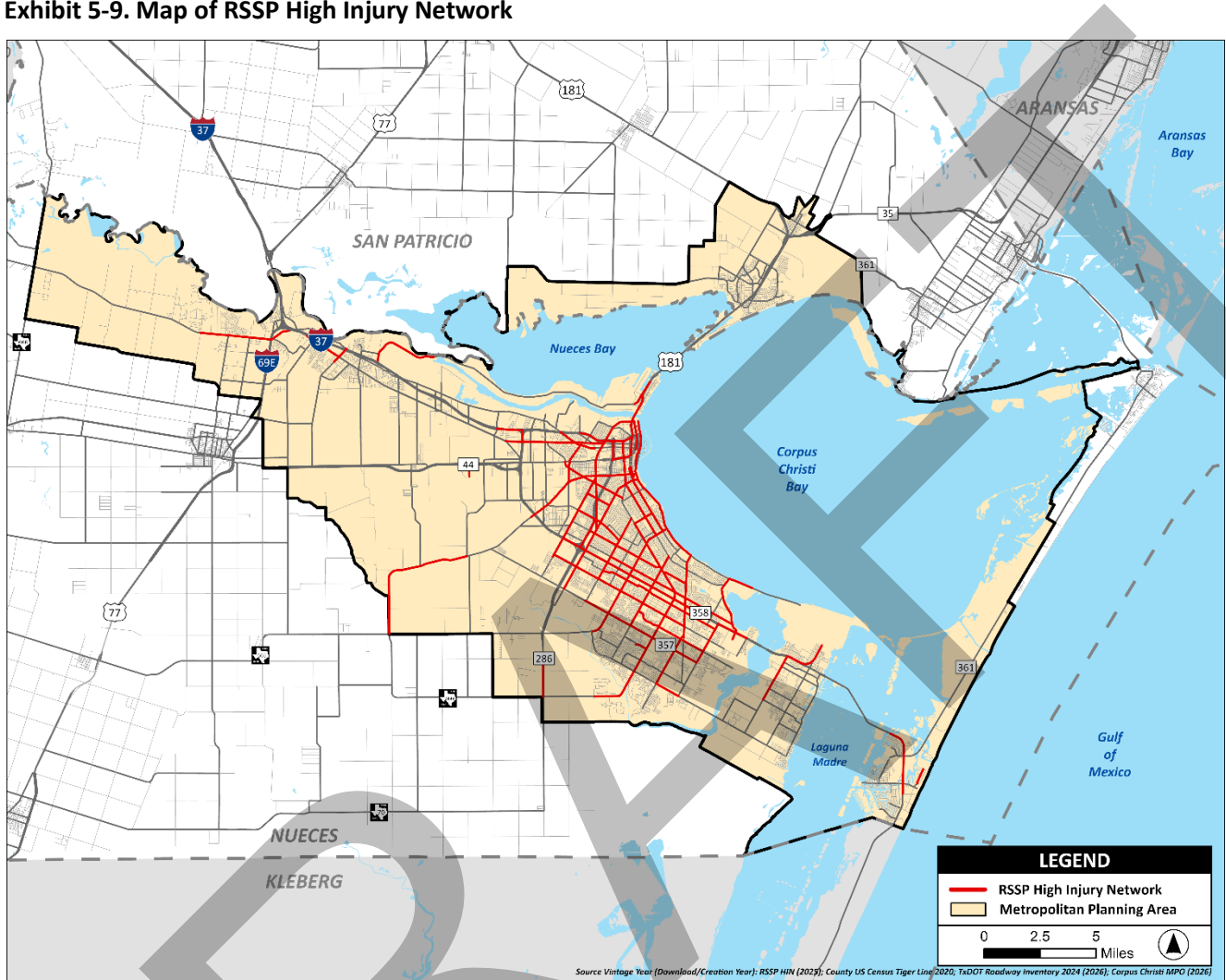
The safety analysis results in a geospatial identification of high-risk locations, also known as a High Injury Network (HIN), or equivalent. HINs have become a widely used tool intended to assist agencies charged with improving the safety of streets and highways. Their utility in prioritizing the application of finite resources may be limited in some cases when an individual site's magnitude of deviation from crash levels observed at similar sites is not accounted for.

To address this issue, the development of a High Injury Network for the Corpus Christi MPO region using Texas-specific Safety Performance Functions (SPFs) in the evaluation of all arterial and freeway corridors within the MPO boundaries was completed. Exhibit 5-9, Map of High Injury Network, from the RSSP identifies roadway segments throughout the Corpus Christi MPO area that have crash frequencies greater than average.

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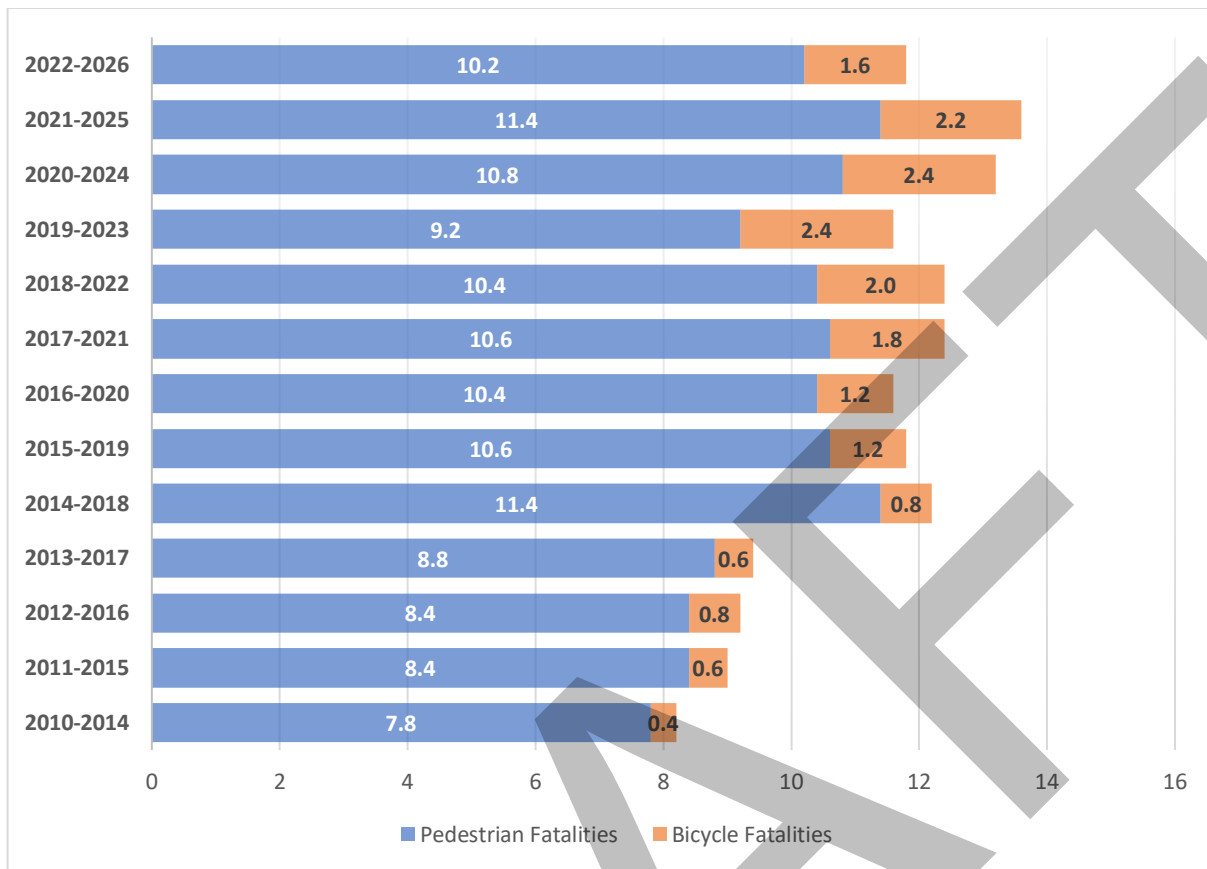
Each of these segments was analyzed using Texas statewide arterial and freeway SPFs and the most-recent five years of available crash data to determine its Level of Service of Safety (LOSS).

Exhibit 5-9. Map of RSSP High Injury Network

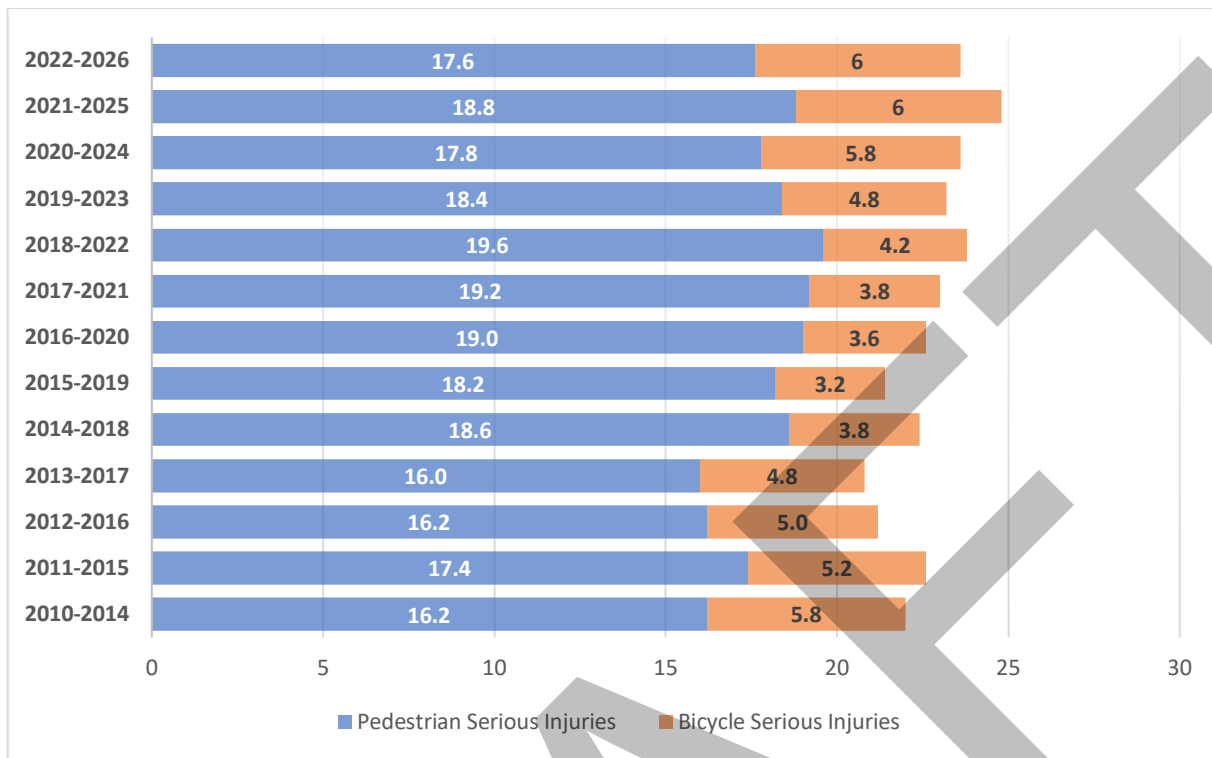


Pedestrian and Bicycle Rider Safety

Federal transportation law directs specific attention to non-motorized fatalities and serious injuries, reflecting the disproportionate crash risk faced by pedestrians and bicyclists relative to vehicle occupants. Within the MPO area, 51 pedestrian fatalities and 8 bicycle rider fatalities were recorded during the 2022-2026 analysis period, collectively representing one-third (33%) of all traffic fatalities and serious injuries in the MPO planning area. Exhibit 5-10 illustrates the trend of increasing pedestrian and bicyclist fatalities in the MPO planning area since 2010.

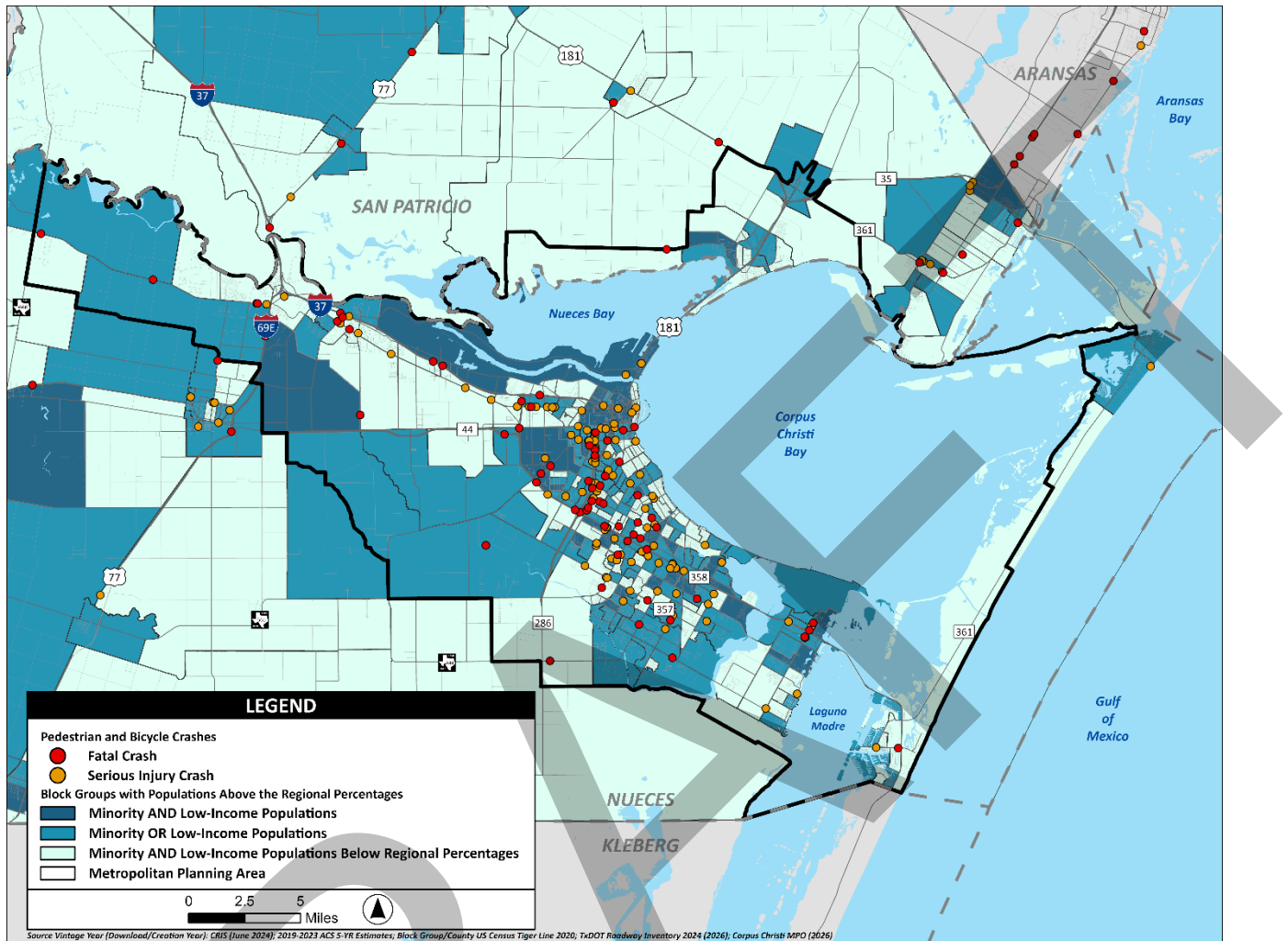
Exhibit 5-10. Chart of 5-Year Rolling Average Pedestrian and Bicycle Rider Crash Fatalities

Serious Injury trends for pedestrians and bicycle riders similarly increased over the 15-year period between 2010 and August 2026 within the Corpus Christi MPO area, as shown in Exhibit 5-11. This increase contrasts with overall declining trends for serious injuries exhibited in Exhibit 5-2 above, indicating that any roadway safety improvements have not equally benefitted pedestrians and bicycle riders.

Exhibit 5-11. Chart of 5-Year Rolling Average Pedestrian and Bicycle Rider Crash Serious Injuries

Pedestrian crash concentrations are highest along high-volume arterials with incomplete sidewalk networks, high travel speeds, and limited lighting, particularly in lower-income neighborhoods with higher rates of transit dependence and pedestrian travel. The absence of continuous sidewalk infrastructure and marked crosswalks on many urban arterials creates significant exposure for pedestrians who are dependent on walking for daily travel.

Exhibit 5-12 shows high concentrations of pedestrian- and bicyclist-involved crashes in Census Block Groups that have been identified as areas with high numbers of disadvantaged populations. High concentrations of pedestrian- or bicyclist-involved crashes in these areas are likely attributed to large amounts of the population relying on the pedestrian and / or bicycle network for transportation due to low household income and low vehicle ownership. Individuals 65 and older account for over 54 percent of all pedestrian and bicycle crashes and 56 percent of fatal and serious injury crashes. Adults 65 and older make up nearly 13 percent of the total population, underscoring that crashes involving individuals 65 and older that are pedestrians and bicyclists are disproportionately high.

Exhibit 5-12. Map of Pedestrian and Bicyclist Crashes

Transit Safety Planning

The FTA Public Transportation Agency Safety Plan (PTASP) rule (49 CFR Part 673), finalized in 2018 and updated with the April 2024 Final Rule, requires transit agencies receiving FTA Section 5307 funds to develop and maintain a PTASP based on the Safety Management System (SMS) framework. CCRTA has developed and maintains a PTASP that addresses safety risks across its fixed-route bus and demand-response operations, with a focus on identifying and mitigating hazards that could lead to fatalities, injuries, or service disruptions. The current PTASP is provided in Appendix R.

The MPO supports and coordinates with CCRTA's safety planning process, recognizing that transit safety is integral to the region's broader transportation safety objectives. The 2050 MTP incorporates CCRTA's transit safety framework consistent with 23 CFR § 450.306(d), reflecting the MPO's commitment to supporting CCRTA's mission and the FTA's goal of eliminating transit-related fatalities and serious injuries.

INFRASTRUCTURE CONDITION

The Infrastructure Condition goal addresses the preservation of the existing transportation system — the second National Goal and the eighth national planning factor under 23 USC 134(h)(1). Maintaining the regional highway, bridge, and transit network in a state of good repair is both a federal requirement and a fiscal imperative: deferred maintenance compounds over time, reducing service life and increasing long-term costs. This section documents the condition of the NHS pavement and bridge network, the regional roadway

hierarchy and key corridors, and the condition of CCRTA's transit fleet and facilities. The CCRTA's most recent Transit Asset Management (TAM) Plan is provided as Appendix Q.

Proper maintenance of existing transportation infrastructure is rapidly growing in importance. System preservation was repeatedly identified as a priority investment area throughout public and stakeholder outreach efforts and the Infrastructure Investment and Jobs Act (IIJA) /Bipartisan Infrastructure Law (BIL) places clear emphasis on the need to first maintain and preserve existing assets before adding new capacity. Road and bridge infrastructure deteriorate at known predictable rates, taking into account materials, craftsmanship, weather conditions, traffic type and volume, along with several other factors. As part of the 2050 MTP needs identification analyses, the Corpus Christi MPO defined existing conditions for both road and bridge assets in the region. Using this base-case condition information, an analysis was conducted to define funding levels needed to maintain existing conditions in the next 25 years. Adequately maintaining the transportation system is a major challenge for the Corpus Christi MPO region, the state of Texas, and the entire country.

The cost of neglecting maintenance is not limited to simply repairing roads and vehicles. Poorly maintained transportation systems cost the local economy by deterring private investment, creating unsafe conditions for travelers, adding unnecessary delays due to mechanical failure, and causing potential limitations for emergency vehicle services. The condition and aesthetic quality of the region's infrastructure is a reflection of regional values and community pride. Continuing to keep preservation of the transportation system as the top priority can mitigate these undesirable consequences of poor maintenance.

Preventive maintenance, if systematically implemented, can extend the life of the infrastructure, pushing off major rehabilitation/reconstruction for a decade or more. Just as private cars deteriorate under heavy wear and tear and many miles of service, so do transit vehicles and assets. However, the condition of transit assets has a much greater influence over the success of the transit system than the condition of the roads on vehicular traffic. Compounding the issue is that vehicular deterioration, both public and private, is increased when the roads themselves are in poor condition.

Over the current 10-year time period, the region is spending over \$900 Million on needed investments for maintenance, rehabilitation, reconstruction of existing highways, bridges, and transit assets. Additional maintenance funding beyond this amount is needed to maintain a progressive approach to management of the region's transportation system and to continue improving its condition. Deferring this responsibility due to the increasingly tight fiscal environment is not optimal. Preservation of the existing system is fiscally responsible and will remain the basic tenet of the transportation planning and programming process.

Roadway Functional Classification and Network Inventory

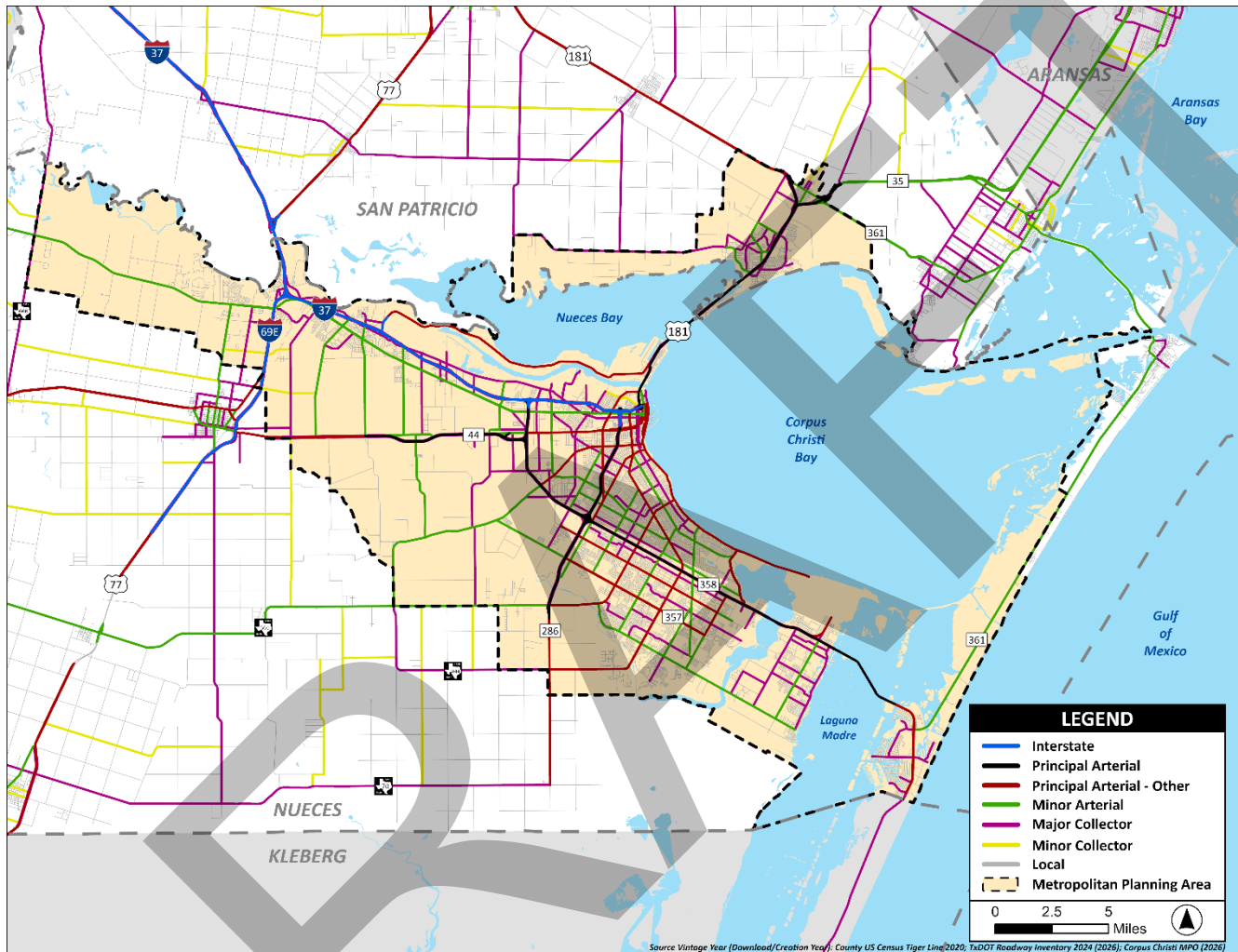
The regional roadway network is classified into a hierarchy of functional classes that reflects each facility's role in moving people and goods. Within the MPO planning area, the network includes approximately 4,187 total lane miles organized as follows: Interstate Highway (I-37 and I-69E) carrying the highest volumes and serving as the region's primary evacuation and freight spines; US and State Highways (including SH 358/SPID, SH 286/Crosstown, US 181, and SH 44) forming the principal arterial backbone; other principal and minor arterials providing connectivity between communities; collector streets linking local streets to the arterial network; and local streets serving individual properties.

Key corridors of regional significance include I-37, the primary interstate connecting Corpus Christi to San Antonio; the Harbor Bridge corridor (US 181), that recently underwent transformational reconstruction with the new cable-stayed replacement bridge; South Padre Island Drive (SH 358/SPID), the primary east-west commercial spine; and the Crosstown Expressway (SH 286), providing north-south freeway connectivity between SPID and downtown. Additional regionally significant corridors include SH 44 serving the Calallen, the CCIA and northwest growth areas, and the Flour Bluff / Padre Island access network serving barrier island communities and the NAS Corpus Christi and Corpus Christi Army Depot (CCAD).

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Roads and highways are typically classified according to their intended function in providing traffic movement. These functional classifications carry a hierarchy as well as a set of design standards consistent with the type of service each facility is intended to provide. Criteria for designation of road and highway facilities include travel desires of the public, access requirements for adjacent land uses, and continuity of the system. Classifications used in the Corpus Christi Metropolitan Area are illustrated in Exhibit 5-13.

Exhibit 5-13. Map of Roadway Functional Classification



Pavement Condition

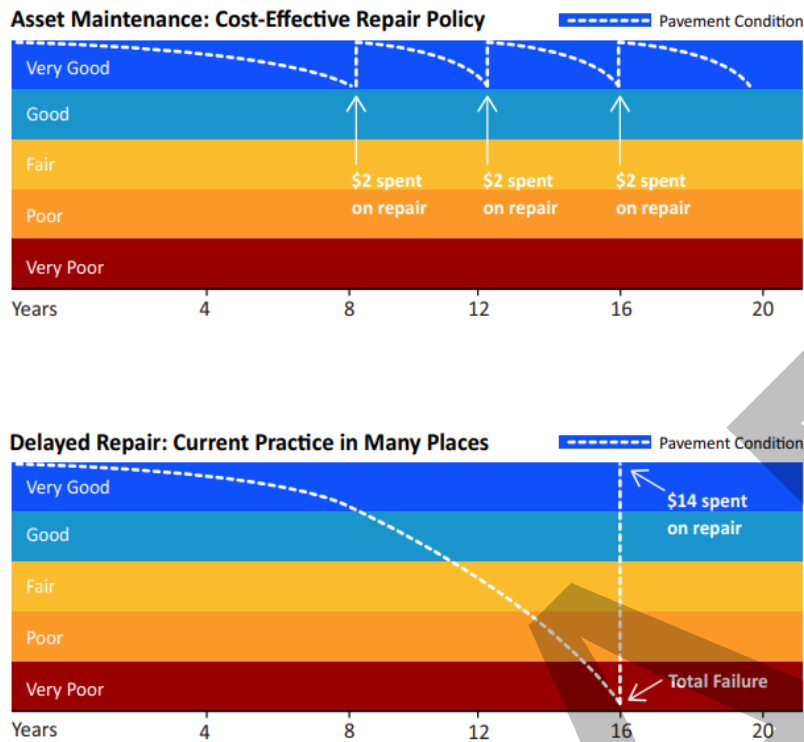
Federal transportation law requires monitoring of pavement conditions on the National Highway System (NHS) using standardized metrics to classify lane miles as Good, Fair, or Poor. Pavement conditions on both Interstate and non-Interstate NHS segments are assessed using the International Roughness Index (IRI) and supplemental distress measures. These assessments are reported through the FHWA Highway Performance Monitoring System (HPMS) and inform both statewide and MPO-level infrastructure investment planning.

Pavement deterioration is accelerated in the Corpus Christi region by the coastal climate environment — salt air corrosion, high humidity, and extreme heat cycles — and by heavy truck loads associated with port and petrochemical operations on certain industrial access corridors.

Pavements represent the largest capital investment in any modern roadway system. Maintaining and operating pavements typically involves complex decisions about how and when to resurface or apply other treatments to keep the highway performing and operating costs at a reasonable level. Neglecting the pavement preservation needs of the Corpus Christi MPO region is not a recommended policy choice; deferring maintenance due to fiscal pressure would necessitate spending substantially more on transportation

investments in the future. As shown in Exhibit 5-14, the worse the condition of a roadway surface, the exponentially greater the cost to repair it.

Exhibit 5-14. Infographic of Preferred vs Deferred Pavement Maintenance Life-Cycle



Pavement management uses a quantitative analysis approach to investment based on pavement life cycle. It consists of three major components as shown below.

- A procedure to regularly collect highway condition data.
- A computer database to sort and store the collected data.
- An analysis program to evaluate repair or preservation strategies and suggest cost effective projects to maintain optimal highway conditions.

Pavement condition data was gathered from the City of Portland, City of Corpus Christi and the TxDOT-Corpus Christi District. IRI pavement conditions for all facilities were given a Good, Fair or Poor rating and are illustrated in Exhibits 5-15, 5-16, 5-17, 5-18, and 5-19. Pavement condition data are available by Functional Class for TxDOT system roadways. The breakdown of pavement conditions by street classification is not available for either municipality.

The most recent TxDOT data available indicates that Interstate Highway pavement conditions exceed TxDOT statewide baseline and targets by nearly ten percent, as detailed in Chapter 3. However, with the additional consideration of local arterials and collectors, only one-third of the TxDOT system pavement rated as good condition within the Corpus Christi MPO area. Approximately 11% of the roads in the City of Corpus Christi and 24% of the roads in the City of Portland were rated as good condition. This may be attributed to a combination of deferred maintenance and the presence of expansive soils, combined with extremes of drought and flood.

Exhibit 5-15. Table of TxDOT IRI Pavement Condition Ratings (2025)

	TxDOT								
IRI Rating	Good		Fair		Poor		Not Rated		TOTAL
Functional Class	Miles	%	Miles	%	Miles	%	Miles	%	Miles
Interstate	17.1	73%	2.5	11%	1.9	8%	1.8	8%	23.3
Principal Arterial	32.3	69%	13.4	29%	0.7	2%	0.2	0%	46.6
Principal Arterial – Other	41.6	44%	28.5	30%	24.7	26%	0.7	1%	95.5
Minor Arterial	37.1	25%	48	33%	32.8	23%	27.8	19%	145.7
Major Collector	53.5	24%	93.1	41%	47.3	21%	30.5	14%	224.4
Minor Collector	0.3	5%	1.6	26%	1.4	23%	2.9	47%	6.2
Local	1.3	39%	0.3	9%	0.2	6%	1.5	45%	3.3
Total Miles	183.2	34%	187.4	34%	109	20%	65.4	12%	545

Exhibit 5-16. Tables of Corpus Christi IRI Pavement Condition Ratings (2022)

Corpus Christi		
IRI Rating	Miles	%
Good	189	11%
Fair	592	35%
Poor	89	54%
Total	294	100%

Source: HERS 2022 analysis year using the most current pavement condition file from the City of Corpus Christi at the time.

Exhibit 5-17. Tables of Portland IRI Pavement Condition Ratings (2022)

Portland		
IRI Rating	Miles	%
Good	18	24%
Fair	35	47%
Poor	22	29%
Total	75	100%

Source: HERS 2022 analysis year using the most current pavement condition file from the City of Portland at the time.

Exhibit 5-18. Map of TxDOT IRI Pavement Condition Ratings (2025)

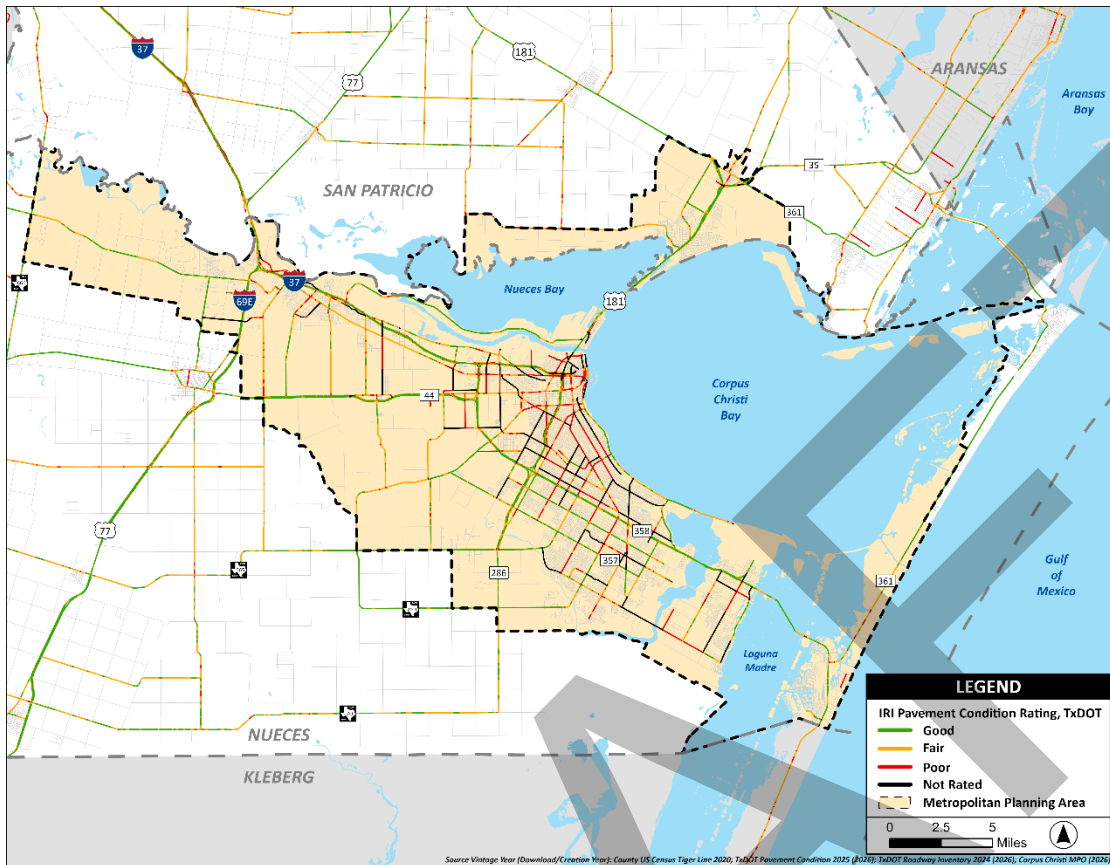
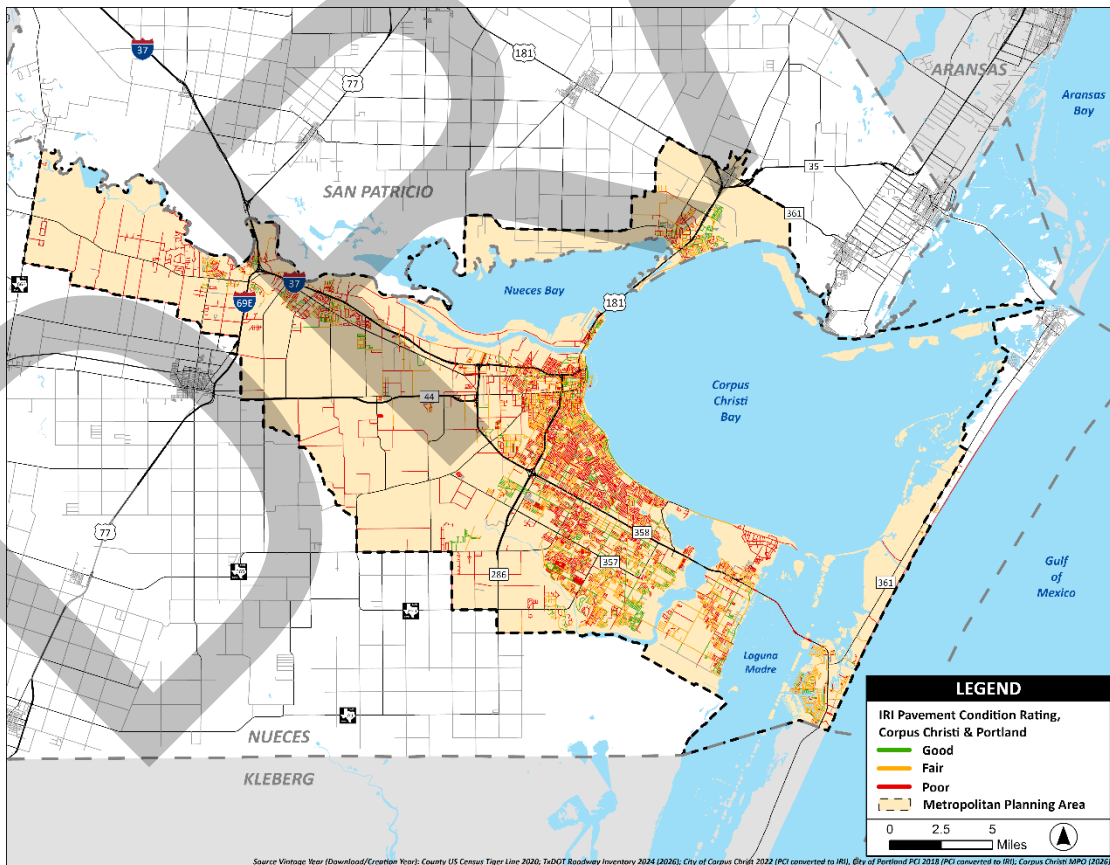


Exhibit 5-19. Map of Corpus Christi and Portland IRI Pavement Condition Ratings (2022,2018)



Bridge Condition

Federal transportation law requires tracking the condition of NHS bridges, classified by deck area as Good, Fair, or Poor. Bridge inspections in Texas are conducted by TxDOT under the National Bridge Inspection Program (NBIP), with data reported to the National Bridge Inventory (NBI) maintained by FHWA.

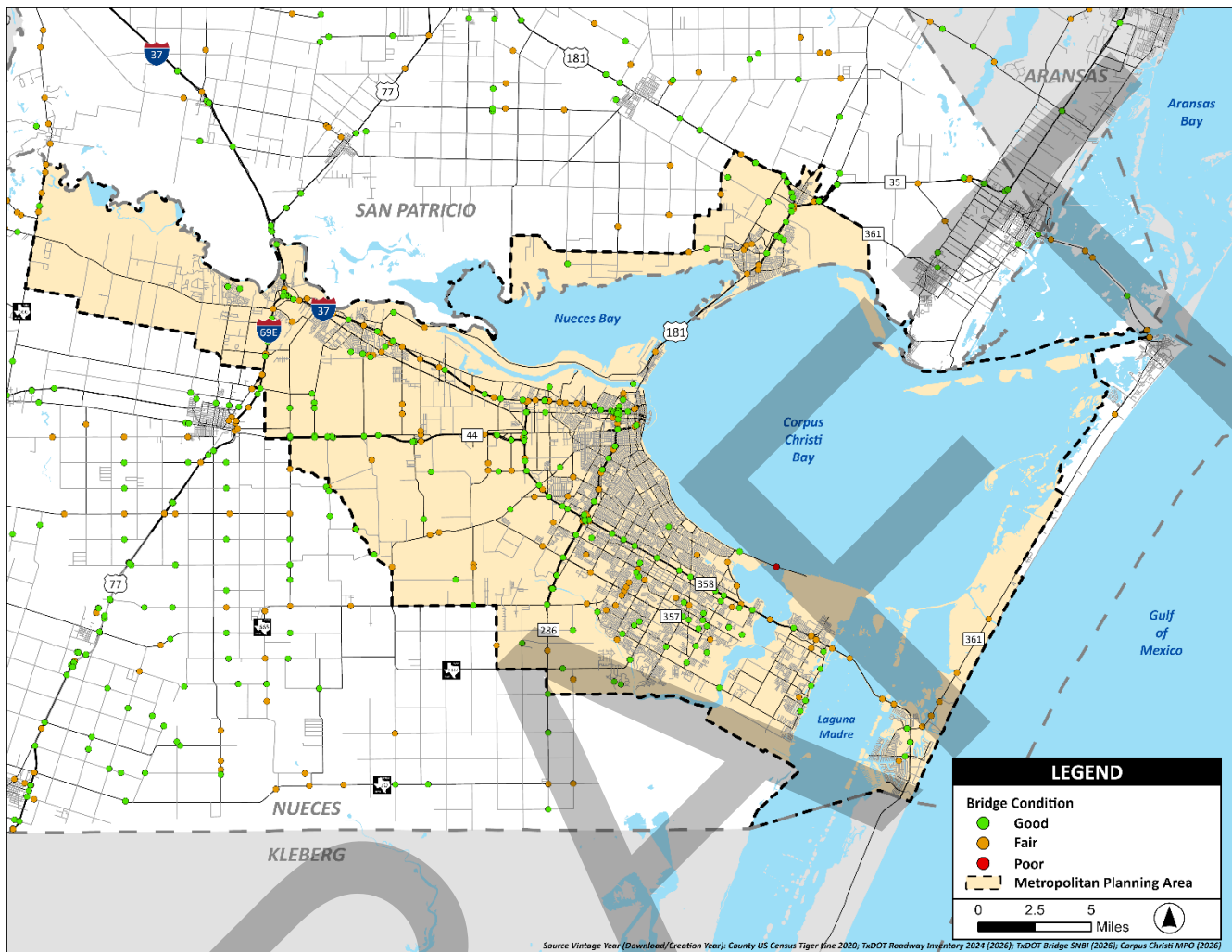
Bridges are another critical element of the transportation system that require constant upkeep and maintenance. Current bridge conditions in the Corpus Christi MPO region are obtained from the TxDOT Bridges data. The Bridge dataset is from the Bridge Inspection Database. The Bridge Inspection Database contains a record for each Bridge Structure on public roadways in Texas. A bridge structure must have an opening of greater than a 20-foot threshold, which includes bridges maintained by TxDOT, Toll Authorities, Counties, Municipalities, and other jurisdictions. Bridge Inspection data is used to update the National Bridge Inspection File (NBI).

Structural deficiencies are characterized by deterioration of significant bridge elements and reduced load-carrying capacity. Functional obsolescence refers to the geometrics of the bridge not meeting current design standards. Neither deficiency necessarily indicates that a bridge is unsafe; it refers to bridges that require significant maintenance and repairs to remain in service as designed.

A bridge is structurally deficient when the structural condition or weight-bearing capacity of the bridge is less than fully adequate. Elements of the bridge need to be monitored and may also need maintenance, rehabilitation, or replacement. Monitoring the bridge's condition is accomplished by maintenance patrols. Structurally deficient bridges may have load restrictions to ensure their safe use.

A bridge is functionally obsolete when its size or geometric clearances are less than fully adequate. Bridges that do not have adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demands are categorized as functionally obsolete. Bridges used for water crossings that have inadequate openings for floodwaters are also categorized as functionally obsolete.

In contrast to pavement conditions, data shows the region's dedication to preservation has begun to improve the condition of both state and locally maintained bridges. Exhibit 5-20 illustrates the location of bridges in the region that are maintained by TxDOT. Preservation of the local system is a particular challenge in today's fiscal environment, in which all local governments in the Corpus Christi MPO region are faced with extremely tight budgets, an aging system, and growing investment needs. A compounding factor is that older areas are experiencing a loss in tax base as development moves further away from the central core of the region. A limited amount of federal funds are made available through the Corpus Christi MPO's Transportation Improvement Program (TIP). Local governments must compete against one another on a statewide basis for the relatively small amount of funds.

Exhibit 5-20. Map of Bridge Conditions as Monitored by TxDOT

Based on TxDOT data, of the 371 bridges in the Corpus Christi MPO study area, 53 percent are classified as being in good condition. Of the remaining bridges, 46 percent are in fair condition and only 1 bridge is classified as being in poor condition. Local bridge conditions outperform the overall statewide baseline bridge condition performance measure of 49.2 percent of Texas bridges classified as being in good condition and 1.1 percent being in poor condition. Current local baseline conditions also exceed the adopted TxDOT two- and four-year bridge condition performance measure targets.

Notable local bridge structures include:

- the new \$1.4 Billion Harbor Bridge (US 181) that was completed in 2025 and has a condition rating of “Good”;
- the Nueces Bay Causeway (US 181), built in 1963 with a “Fair” condition classification;
- the I-37 bridge over the Nueces River near Labonte Park, constructed in 2025 and in “Good” condition;
- the JFK Causeway connecting Corpus Christi to North Padre Island, constructed in 2006 and in “Fair” condition;
- South Padre Island Drive (SPID)/HWY 358 bridge, connecting the Flour Bluff peninsula to the rest of the City of Corpus Christi over the Oso Bay, is in Fair condition and was built in 1986
- the Yorktown Boulevard “Mud Bridge” extending over the Oso Creek and connecting Southside Corpus Christi neighborhoods to Flour Bluff was recently reconstructed and has a “Good” condition rating;

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- Oso Bridge has two segments, the first connecting Ocean Drive with Texas A&M University - Corpus Christi (TAMU-CC) is rated in “Good” condition and was built 1999, and the second segment connecting TAMU-CC with Naval Air Station Corpus Christi (NASCC) was constructed in 1976 and is the singular bridge in the Corpus Christi MPO area that is currently in “Poor” condition.

The coastal environment — including saltwater exposure and hurricane-force wind and surge events — represents an accelerated deterioration risk for bridge structures throughout the planning area. With these environmental pressures, along with the importance of maintaining hurricane evacuation routes, investments in well-maintained bridges becomes an integral part of the regional transportation expenditures.

Transit Fleet and Facilities Condition

The CCRTA, or “The B” as it is locally known, was established by referendum to develop, maintain and operate a public mass transportation system, principally within Nueces County, Texas and certain neighboring communities. CCRTA is the public transportation provider in the Corpus Christi Urbanized Area and is the Designated Recipient for FTA 5307 and 5310 funds allocated within the Corpus Christi Urbanized area. The CCRTA provides bus, paratransit, and other services to two of the three cities within the Corpus Christi Metropolitan Planning Area and to seven cities outside of the Corpus Christi Metropolitan Area.

The CCRTA maintains a fleet of vehicles for fixed-route service and vehicles for demand-response operations, including 40-foot diesel buses and cutaway vehicles. Fleet condition is tracked under the FTA Transit Asset Management (TAM) Plan requirements of 49 CFR Part 625, which establishes Useful Life Benchmarks (ULBs) for rolling stock, equipment, infrastructure, and facilities.

In the 2022 Transit Asset Management (TAM) Plan, the CCRTA reported only 4 of 65 fixed-route bus and trolley fleet vehicles had reached or exceeded their Useful Life Benchmark (ULB). The CCRTA tracks asset conditions in accordance with State of Good Repair (SGR) principles, with the goal of maintaining transit assets at a level that supports safe, reliable, and efficient service. Fleet aging is a fiscal planning concern. Vehicles operating beyond their useful life benchmarks incur higher maintenance costs, experience more frequent service interruptions, and may pose reliability concerns that reduce ridership.

The FTA 5307 funds capital investments in bus and bus-related activities such as replacement, overhaul and rebuilding of buses, security equipment and construction of maintenance and passenger facilities; and capital investments in new rolling stock, overhaul and rebuilding of vehicles, station infrastructure, communications, and computer hardware and software planning, engineering, design and evaluation of transit projects and other technical transportation-related studies. The 5307 funds can also be used for planning, engineering, design and evaluation of transit projects and other technical transportation-related studies.

The CCRTA is also the designated recipient of Urban FTA 5310 funds. The 5310 funds are distributed to enhance the mobility of seniors and individuals with disabilities.

CCRTA collects a half of a percent sales and use tax on certain transactions for transit purposes, including both capital improvement and operating expenses from the nine (9) participating cities and communities which include the cities of Corpus Christi, Agua Dulce, Banquete, Bishop, Driscoll, Gregory, Port Aransas, Robstown, and the unincorporated areas of San Patricio and Nueces County.

CONGESTION REDUCTION

The Corpus Christi MPO’s 2025 Congestion Management Process (CMP) identifies congestion at traffic signals as the greatest cause of travel delays in the Corpus Christi MPO area. Studies from the Texas Transportation Institute reveal that in 2022 the Corpus Christi Urban Area has the second worst functioning traffic signals in the United States and that 95% of the delay in the Corpus Christi Urban Area is on surface streets and primarily attributable to the independent and uncoordinated functioning of traffic signals regionwide.

According to 2024 data, only three percent (3%) of delay in the Corpus Christi region occurred on freeways during peak travel times, while four-percent (4%) of delay in the region occurred on freeways during off-peak

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travel times. In contrast forty-seven percent (47%), of delay happened on streets during peak travel periods and forty-six percent (46%) of delay happened on streets during off-peak travel periods in 2024. Generally, delay on streets correlate directly with poor traffic signal interconnections and outdated operations plans.

Despite the lack of traffic signal coordination, the 2025 Urban Mobility Report ranked the Corpus Christi Urban area 98th most congested out of 101 Urban Areas in the nation, with only three Urban Areas experiencing less congestion than the Corpus Christi Area. The measured travel time to work in the Corpus Christi MPO area is faster than either the average travel time to work for the state of Texas or for the Nation as a whole. Exhibit 5-21 displays the table of TxDOT's Most Congested Roadways in the Corpus Christi District in 2023. Exhibit 5-22 shows the map of TxDOT Congested Corridors within the Corpus Christi MPO.

Exhibit 5-21. Table of TxDOT's Most Congested Roadways in the Corpus Christi District (2023)

MPO CMP Network*	Rank	Road Name	From	To	Delay/ Mile	TCI	PTI (95th%)	Annual Congestion Cost
No	247	Kostoryz Rd	Brawner Pkwy	Holly Rd	86,128	1.33	1.50	\$4,122,070
No	269	Airline Rd	Ocean Dr	Rodd Field Rd	81,493	1.35	1.56	\$11,036,886
Yes*	270	Saratoga Blvd / Rodd Field Rd	Greenwood Dr	S Padre Island Dr	81,361	1.31	1.48	\$18,226,618
Yes*	276	S Staples St	S Padre Island Dr / SH 358	Yorktown Blvd	80,459	1.17	1.32	\$6,965,536
No	278	Everhart Rd	S Alameda St	Yorktown Blvd	80,180	1.26	1.42	\$9,703,151
Yes*	299	Weber Rd / FM 43	Ocean Dr	Aaron Dr	74,917	1.32	1.50	\$9,577,428
Yes*	326	Northwest Rd	Ware Rd	US 77	71,765	1.25	1.38	\$5,247,485
No	370	Cimarron Blvd	Airline Rd	Lens Dr	66,455	1.30	1.47	\$5,604,106
Yes*	450	N Staples St / S Staples St	IH 37	S Padre Island Dr / SH 358	58,957	1.26	1.44	\$10,354,927
No	674	Horne Rd	Greenwood Dr	Kostoryz Rd	42,721	1.22	1.34	\$2,213,144
Yes*	717	Waldron Rd	SH 22	Yorktown Blvd	40,128	1.27	1.48	\$3,791,853
No	860	Baldwin Blvd	Leopard St	S Staples St	33,253	1.21	1.38	\$3,546,602
Yes*	964	Holly Rd	SH 286	SH 357	29,085	1.15	1.23	\$4,843,181
Yes*	1157	Yorktown Blvd	FM 43	Roscher Rd	21,891	1.13	1.21	\$3,824,960
No	1180	S Alameda St	Doddridge St	SH 3 Spur	21,243	1.14	1.24	\$2,179,931
Yes*	1247	Ennis Josline Rd	Sand Dollar Dr	SH 358	19,059	1.07	1.15	\$1,748,003
No	1312	Leopard St	FM 1694	FM 24	16,285	1.07	1.14	\$595,295
Yes*	1330	US 181 / SH 35 / Harbor Bridge	Carrizo St	Moore Ave	15,560	1.03	1.06	\$3,039,778
No	1416	Violet Rd	IH 37	CR 44	12,995	1.08	1.18	\$1,355,401
Yes*	1423	SH 361	SH 35	Main St	12,868	1.12	1.21	\$1,766,205
Yes**	1444	Old Brownsville Rd / Morgan Ave	Saratoga Blvd / SH 357	Ocean Dr	12,294	1.08	1.15	\$2,416,647
Yes*	1485	Agent St / SS 544	N Padre Island Dr / SH 358	Kinney St	11,202	1.08	1.15	\$1,599,374
Yes*	1500	Ocean Dr	Morgan Ave	Ennis Joslin Rd	10,810	1.05	1.08	\$1,854,087
No	1538	Flour Bluff Dr	SH 358	Caribbean Dr	9,687	1.07	1.14	\$653,256
No	1556	Road Morgan Rd	IH 37	McNorton Rd	9,219	1.10	1.23	\$359,738
Yes*	1560	S Padre Island Dr / SH 358	Crosstown Expy / SH 286	Waldron Rd	9,048	1.02	1.03	\$2,629,758
Yes*	1570	S Padre Island Dr	Waldron Rd	Viento del Mar Dr	8,822	1.03	1.05	\$1,697,403
No	1576	Main St	Business SH 35	8th St	8,741	1.10	1.18	\$1,156,367
Yes*	1589	US 181 / SH 35	E 4th St / SH 202	Moore Ave	8,397	1.03	1.05	\$1,276,589
Yes*	1615	Crosstown Expy / SH 286	IH 37	Greenwood Dr	7,733	1.01	1.02	\$1,476,346
Yes*	1658	IH 37	N Padre Island Dr / SH 358	Carrizo St	6,718	1.02	1.04	\$839,526
No	1686	McKinzie Rd / FM 3386	IH 37	SH 44	6,157	1.09	1.18	\$804,186
Yes*	1694	S Staples St	Chapman Ranch Rd	Yorktown Blvd	5,981	1.04	1.08	\$719,412
Yes*	1751	Padre Island Dr / SH 358	IH 37	Crosstown Expy / SH 286	4,601	1.01	1.03	\$840,559
Yes*	1899	Chapman Ranch Rd	Ayers St	S Staples St	1,795	1.02	1.06	\$175,110
Yes*	1905	IH 37	Rand Morgan Rd / FM 2292	N Padre Island Dr / SH 358	1,736	1.01	1.02	\$294,439
Yes*	1923	Agnes St / SH 44	FM 3386	Padre Island Dr / SH 358	1,467	1.00	1.01	\$300,674
Yes*	1958	IH 37	US 77	Rand Morgan Rd / FM 2292	1,031	1.00	1.01	\$325,257
Yes**	2015	IH 69E / US 77	IH 37	SH 44	395	1.00	1.01	\$123,363

*Indicates that TxDOT Congested Roadway is Fully on the Corpus Christi MPO CMP Network

**Indicates that TxDOT Congested Roadway is Partially on the Corpus Christi MPO CMP Network.

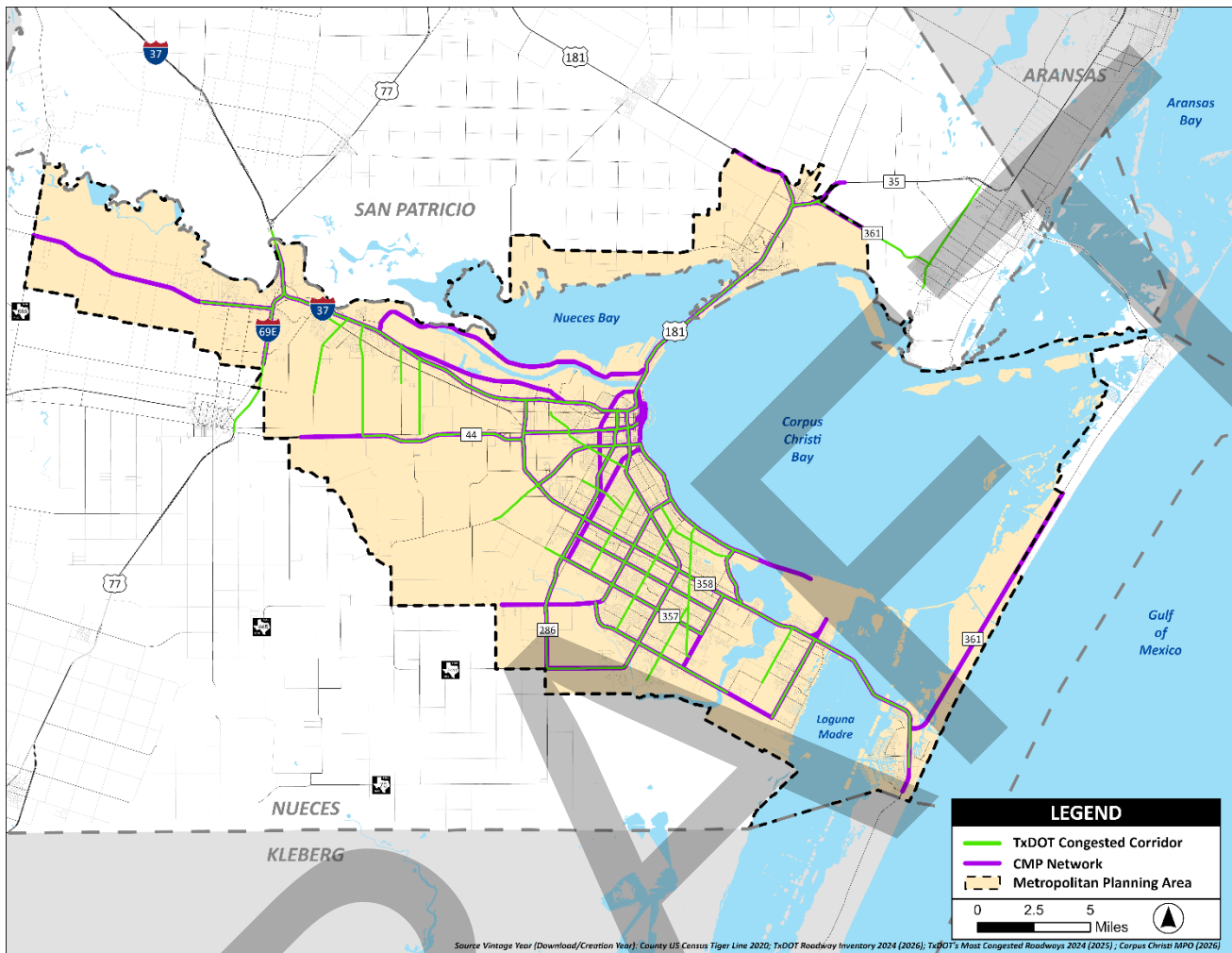
Exhibit 5-22. Map of TxDOT Congested Corridors within the Corpus Christi MPO

Exhibit 5-23 provides further detail on the Travel Time Index (TTI), which is also referred to as the Travel Congestion Index (TCI), of corridors in the Corpus Christi MPO area in 2023. Travel Time Index is the ratio of the peak period travel time as compared to the free-flow travel time. This measure is computed for the AM peak period (6:00 a.m. to 9:00 a.m.) and PM peak period (4:00 p.m. to 7:00 p.m.) on weekdays. A value of 1.5 for a corridor is considered “congested” and indicates that the average peak travel time is 50% longer than off-peak travel times. Only a small segment of Weber Road between south Padre Island Drive and McArdule Road meets this criteria for congestion. A corridor with a TTI between 1.3 and 1.49 is categorized as “Approaching Congestion” and should be flagged for operational improvements. This category includes portions of Weber Road, Staples Street, Saratoga Boulevard, Rodd Field Road, and Waldron Road. A TTI between 1.0 and 1.29 is labeled as having “No Congestion” and applies to most corridors in the area.

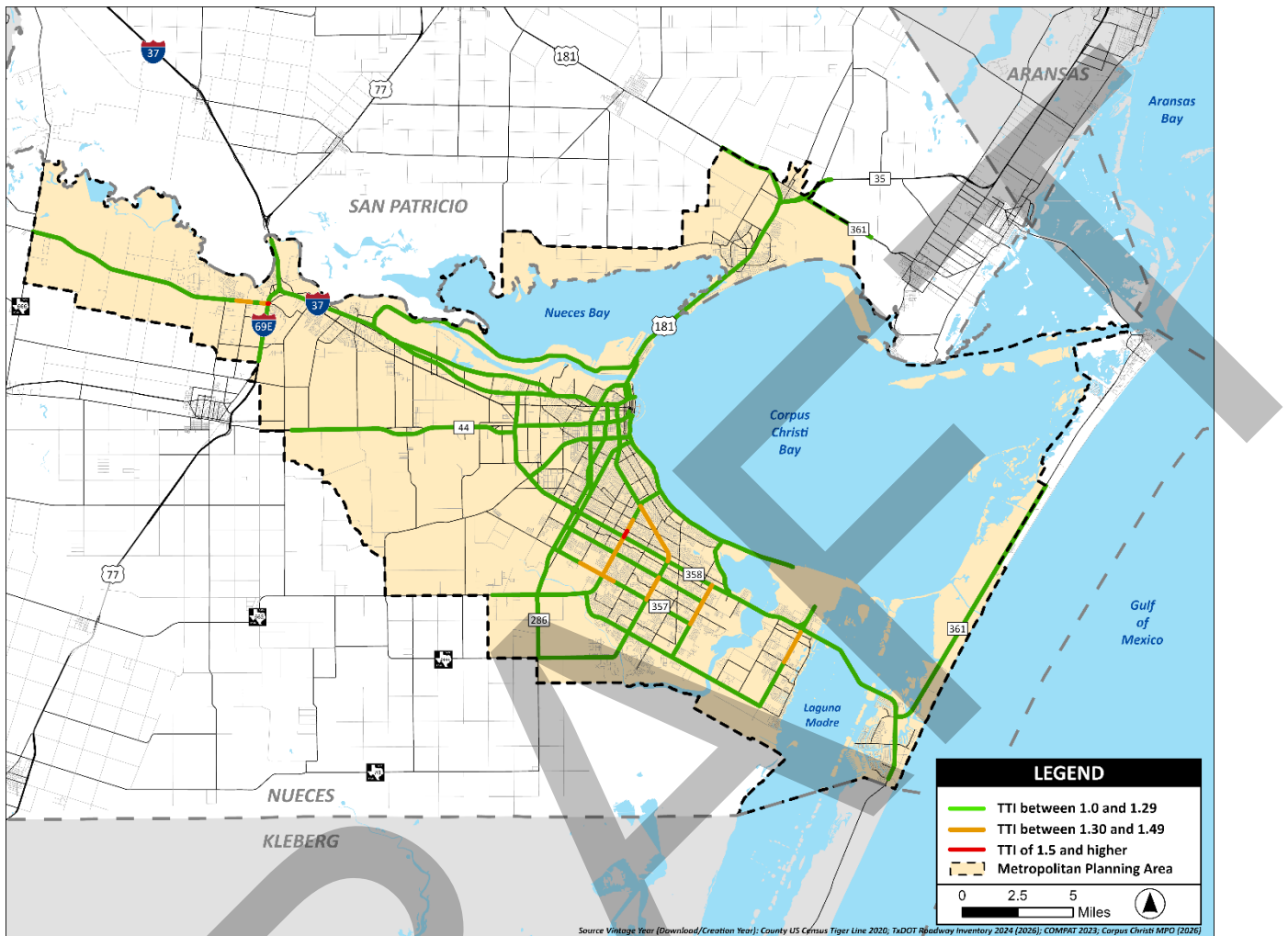
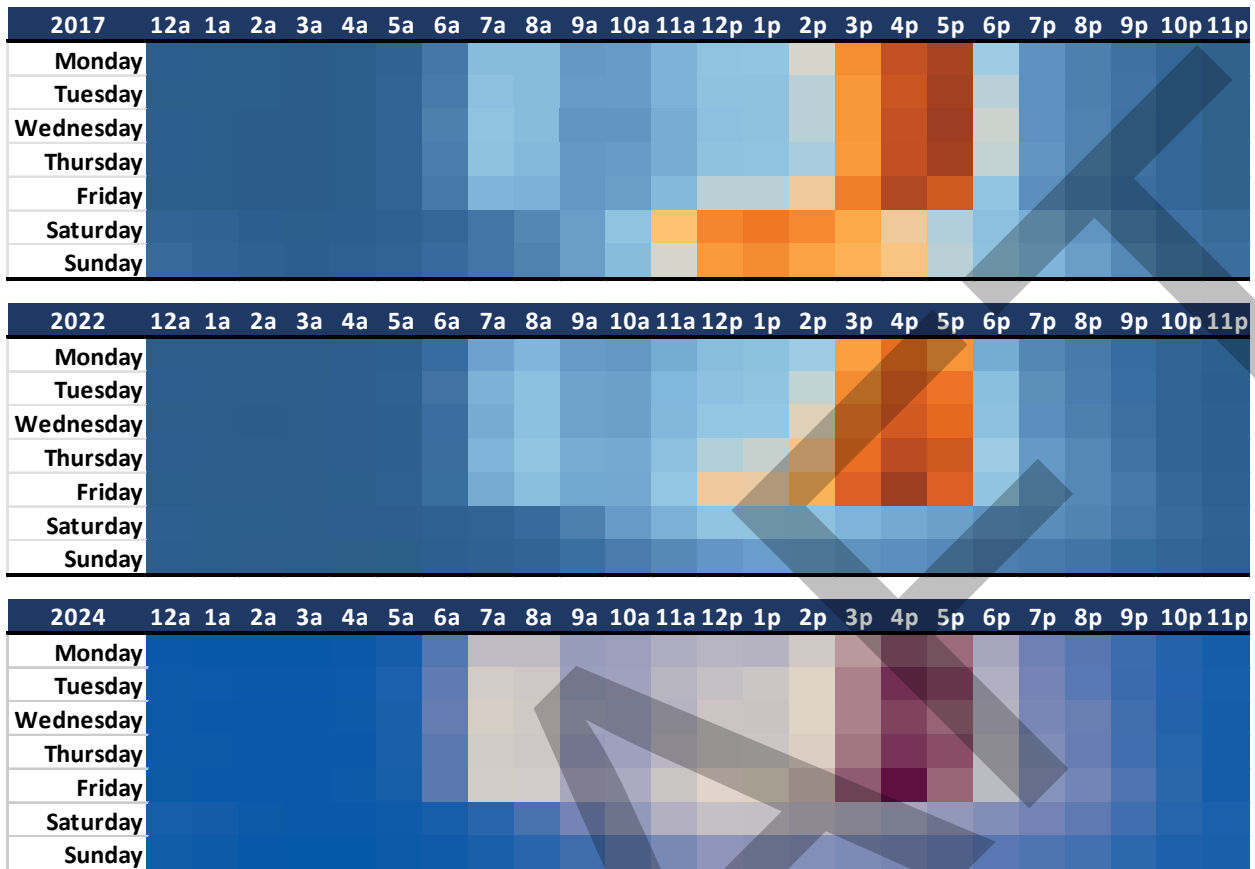
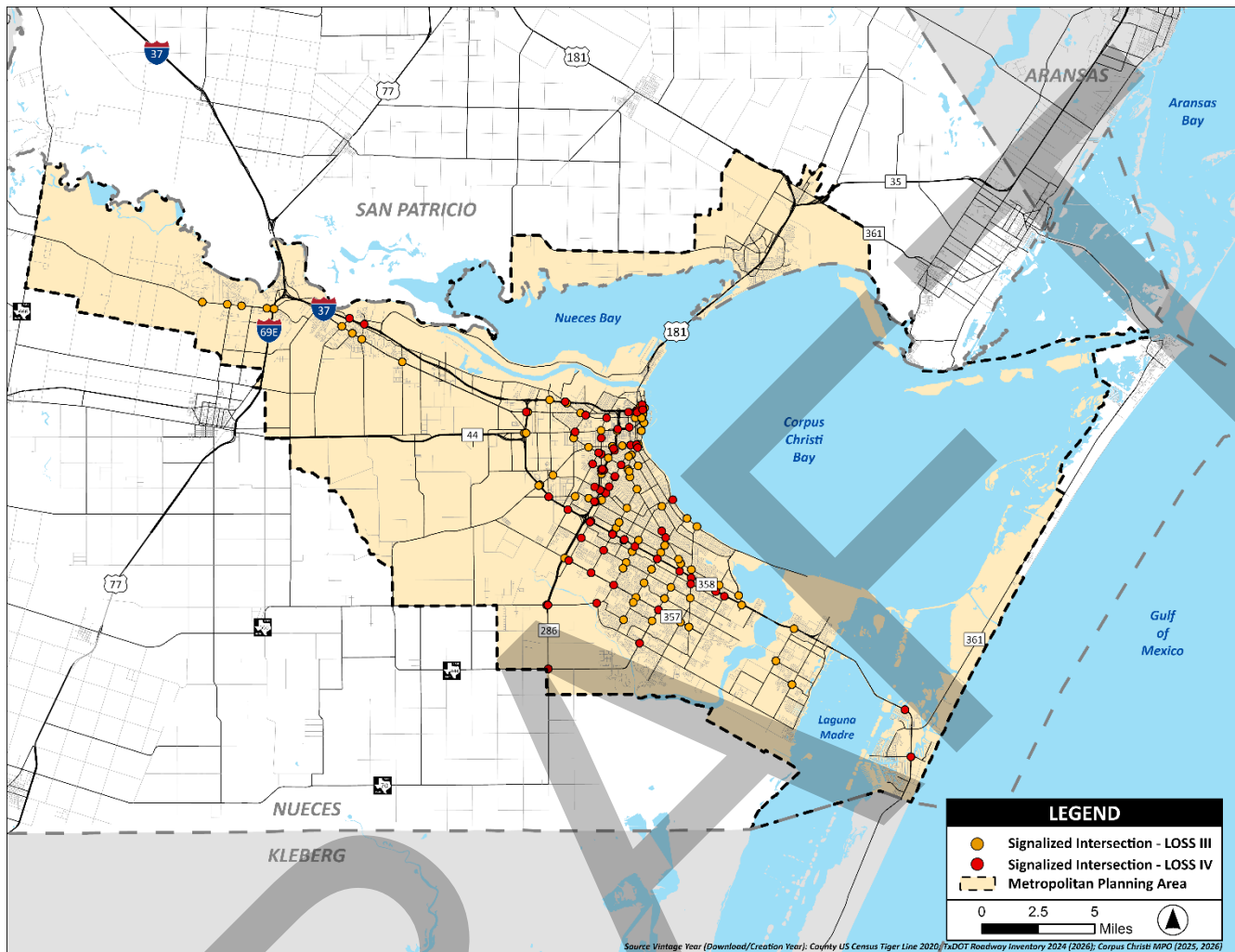
Exhibit 5-23. Map of Regionally Significant Corridors by Travel Time Index (2023)

Exhibit 5-24 shows that 2017, 2022, and 2024 data from the Texas Transportation Institute's Urban Mobility Report reveals the peak hour for congestion in the Corpus Christi MPO Urban Area is both declining in severity and moving earlier into the day. The peak hour now occurs between 4:00 pm and 5:00 pm Monday-Friday. There is no defined peak period or notable recurring congestion on weekends.

Exhibit 5-24. Infographic of When Congestion Occurs in the Corpus Christi Urban Area



Moreover, over 50 percent of total delay and most of the system's unreliability result from non-recurring congestion caused by traffic incidents, adverse weather, special events, and work zones. The crash rate in the Corpus Christi MPO area is consistently around 25 percent higher than the overall crash rate in the State of Texas. Crashes are the single largest cause of non-recurring congestion in the Corpus Christi MPO region. Exhibit 5-25 maps the locations of signalized intersections with Level of Safety Service (LOSS) III and IV that contribute to the non-recurring congestion. LOSS III and IV indicate moderate to high and high potential, respectively, for crash reductions.

Exhibit 5-25. Map of Non-Recurring Congestion Locations with LOSS III & IV

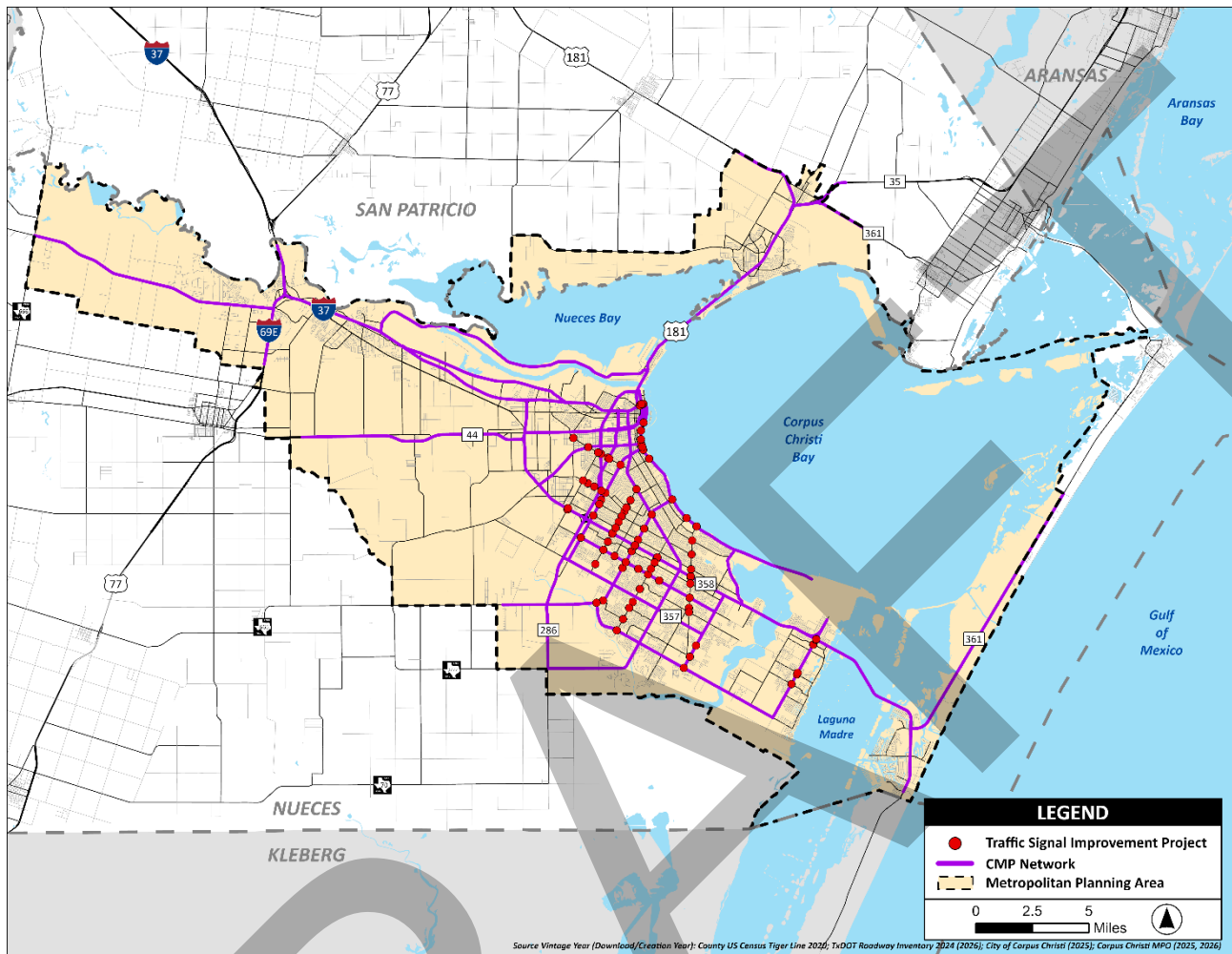
The increase in home delivery of goods, in place of shopping trips to a store, has increased the amount of delay per truck in the Corpus Christi Region, to its highest levels recorded. This is primarily due to the time of day that the trucks are traveling. With the increase in home delivery more truck trips occur during congested times. Total regional Vehicle Miles of Travel has been essentially stable since 2016.

The corridors identified with the greatest congestion include:

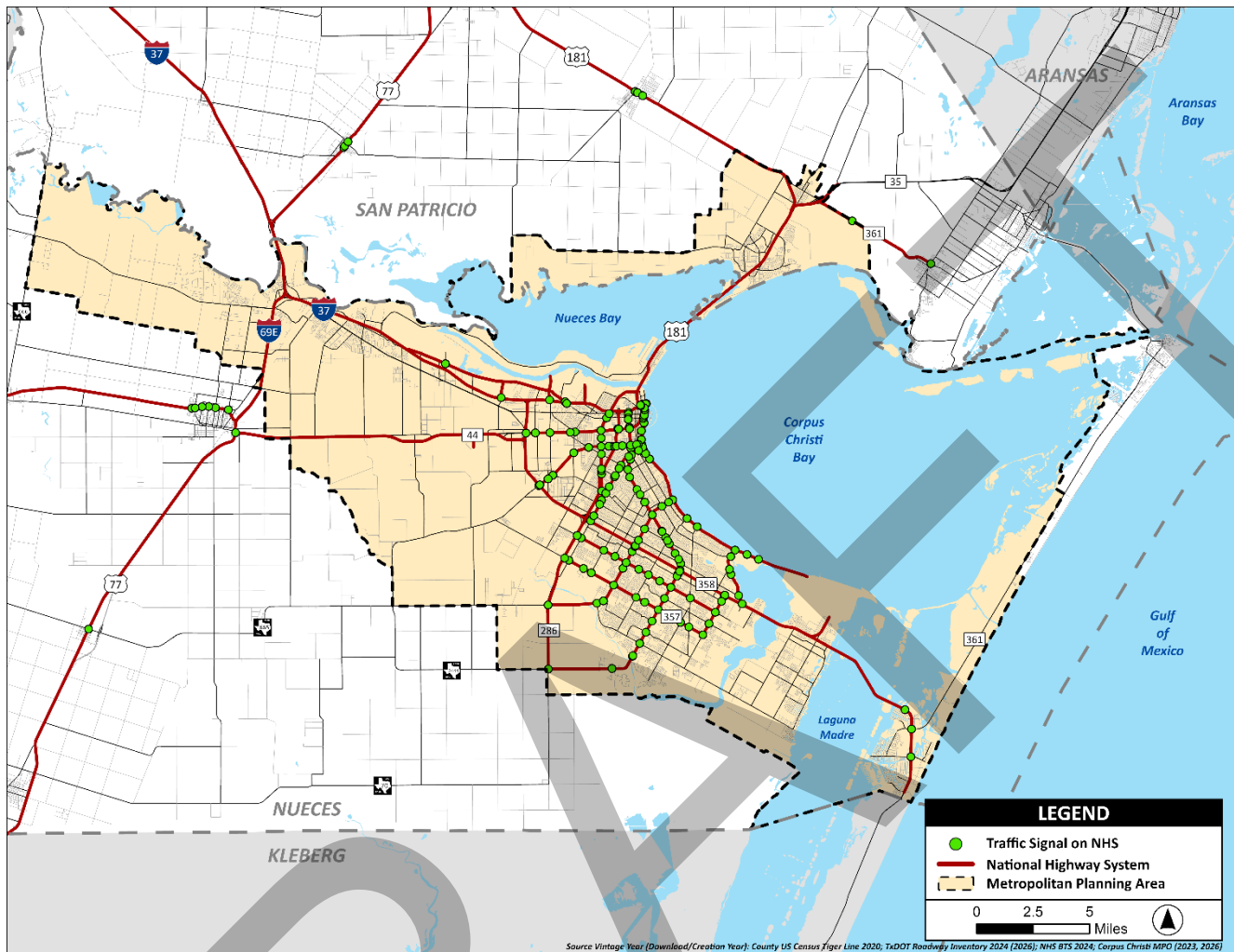
- Weber Road, between McArdle and SPID
- Kostoryz Road between Holly Road and Brawner Parkway
- Airline Road between Rodd Field Road and Ocean Drive
- Saratoga Boulevard from Greenwood Drive, east under the Crosstown Expressway, through the Kostoryz, Weber, Everhart, Staples, Cimarron, and Airline intersections, and then north on Rodd Field Road to SPID

Exhibit 5-26 shows Weber Road, Kostoryz Road, Airline Road, and Saratoga Boulevard corridors are all identified as City of Corpus Christi Traffic Signal Improvement Projects in years 2026 and 2027.

Exhibit 5-26. Map of City of Corpus Christi 2026 and 2027 Traffic Signal Improvement Projects



In addition, Weber Road and Saratoga Boulevard are included in the national plan for deploying traffic signal V2X connectivity (Exhibit 5-27) on the National Highway System by 2034. V2X is often referred to as ‘connected vehicle technology’ and includes the ability of vehicles to exchange messages wirelessly and very quickly with other vehicles, roadside infrastructure, and other travelers. This technology is considered a significant opportunity to add efficiency, prevent crashes, and save lives.

Exhibit 5-27. Map of Traffic Signals on the National Highway System for V2X Deployment

A full detailed analysis of existing congestion conditions can be found in Appendix E: 2025 Congestion Management Process, including Regionally Significant Corridor Profiles with maps and charts of the most current available COMPAT data for the following performance measures: Travel Time Index, Planning Time Index, Speed, Truck Speed, AADT, Hours of Delay, Congested Costs, and Vehicle Miles of Travel.

TRANSPORTATION SYSTEM EFFICIENCY

System reliability reflects the degree to which the transportation network delivers consistent, predictable travel times for all users — commuters, freight shippers, transit riders, and pedestrians alike. Reliability is a function of both physical infrastructure capacity and operational management, and is shaped by the region's demographics, land use patterns, and travel demand characteristics. This section addresses travel time reliability on the highway network, the regional demographics and commute patterns that drive demand, and the travel demand model baseline used to forecast future conditions.

TRAVEL TIME RELIABILITY

Federal transportation law requires monitoring of travel time reliability on the National Highway System as a key indicator of system performance for both passenger travel and freight movement. Two reliability dimensions are relevant to the Corpus Christi MPO: the consistency of travel times on the NHS for all users, expressed as the share of person-miles traveled on segments where travel times are reliable; and the reliability of truck travel times on the Interstate System, which reflects freight movement efficiency.

Based on 2026 NPMRDS (National Performance Management Research Data Set) data, 99% of person-miles traveled on the NHS within the MPO area occurred on segments where travel times were reliable. Truck travel

time reliability on the Interstate System within the MPO area was 1.26, reflecting the efficiency of freight movement on I-37 and I-69E. These metrics inform the MPO's understanding of where unreliable travel times are most impacting commuters, businesses, and freight shippers in the region. Corridors with poor reliability — not just high average congestion — are priority candidates for TSMO investments such as signal coordination, incident management, and active traffic management.

TRANSIT SYSTEM

Transit accessibility

Transit accessibility is a critical component of an equitable and efficient multimodal transportation system. Within the Corpus Christi MPO planning area, accessibility is evaluated in terms of compliance with federal requirements, as well as the ability of the transit network to connect residents to key destinations such as employment centers, educational institutions, healthcare services, and other essential needs.

Transit accessibility within the Corpus Christi MPO region is evaluated based on how effectively the system connects residents to key destinations that support daily life and economic opportunity. Fixed-route and paratransit services provided by the CCRTA play a critical role in linking populations—particularly transit-dependent groups such as low-income households, older adults, and individuals with disabilities—to major employment centers, educational institutions, healthcare providers, and essential services. Key employment destinations include downtown Corpus Christi, industrial areas, and major commercial corridors that serve as significant job hubs within the region. Access to education is supported through transit connections to institutions such as Del Mar College and Texas A&M University–Corpus Christi, which are vital for workforce development and upward mobility. Transit services also provide critical access to healthcare facilities, including hospitals, clinics, and specialized care centers, as well as essential services such as grocery stores, government offices, and social service providers.

CCRTA provides public transportation to Corpus Christi in Nueces County, and the City of Gregory in San Patricio County. CCRTA is the only fixed-route transit service provider in the 11-County area. CCRTA's contractor, MV Transportation, operates several low-ridership routes that do not require a large bus or a driver with a CDL, including the route that serves Texas A&M University Corpus Christi (Route 93). In addition, the City of Port Aransas operates Route 94 and the one flex route in the system, called Flexi-B. MV Transportation also manages and operates CCRTA's ADA paratransit service, called the B-Line. CCRTA has partnerships with Del Mar College and Texas A&M–Corpus Christi. Both contribute financially to CCRTA in exchange for students, faculty, and staff riding fare-free.

Despite these connections, accessibility challenges remain. Gaps in transit service are more pronounced in low-density or rapidly developing areas where fixed-route coverage is limited or not yet established. Additionally, factors such as longer travel times, indirect routing, and limited-service frequency can reduce the overall convenience and reliability of transit for daily trips. These conditions may create barriers for individuals who rely on transit as their primary mode of transportation, highlighting the need for continued improvements to service coverage, frequency, and connectivity.

CCRTA System Ridership

Typically, CCRTA operates 36 fixed routes, as shown in Exhibit 5-28. CCRTA's service standards classify fixed routes in the following typologies:

- **Primary Transit Network (PTN):** Frequent routes serve one or more CCRTA transfer stations and operate along primary arterial streets with high ridership demand.
- **Standard Routes:** Services operating in high to medium ridership demand areas and connect various areas with CCRTA transfer stations.
- **Connector Routes:** Services connecting outlying portions of service area with urban area at major CCRTA transfer stations. Connector routes may operate as demand response in outlying areas but have fixed stops within the urban area.
- **Local Circulators:** Services operating within lower population and employment density areas with medium to low ridership demand.

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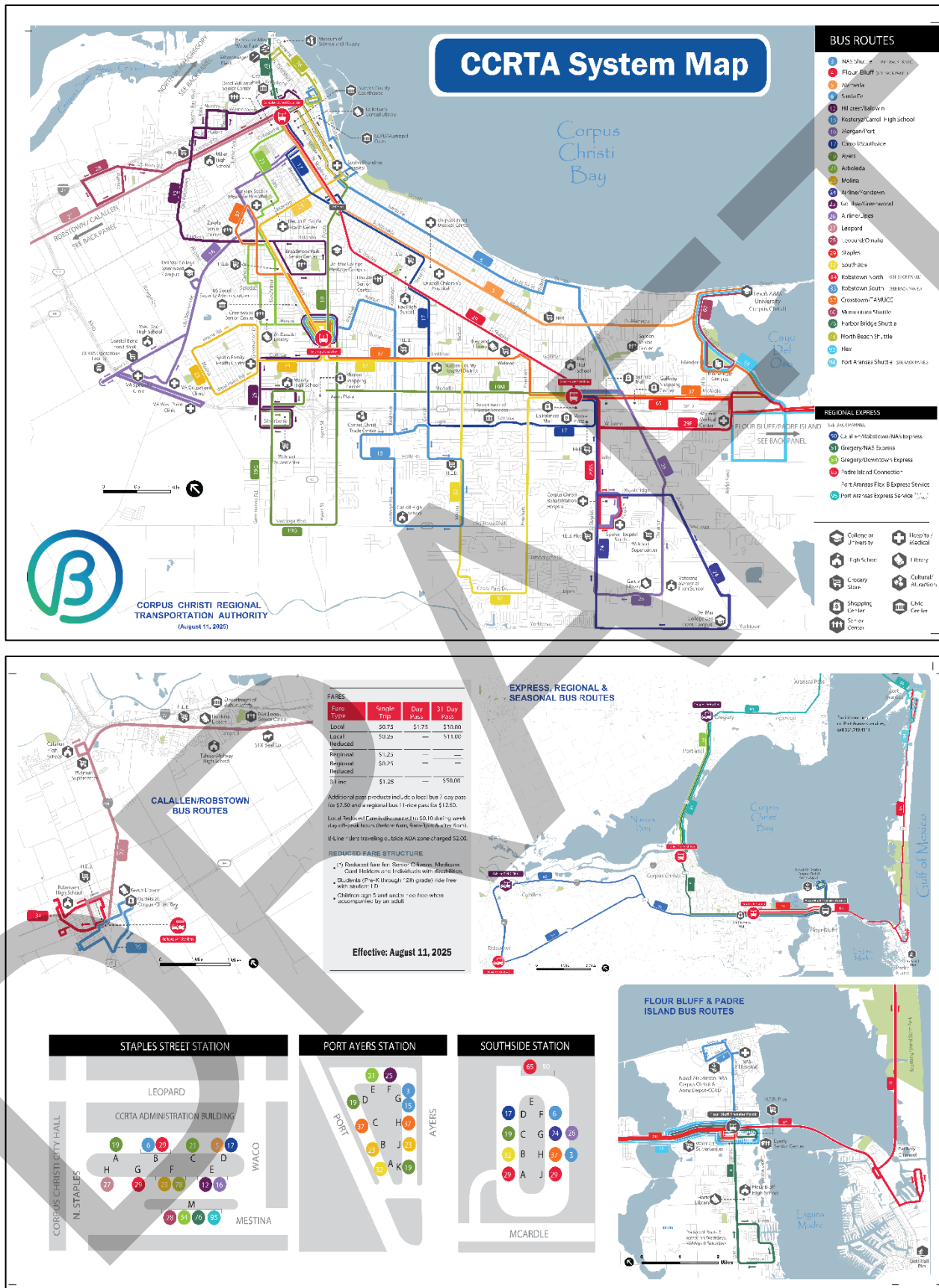
- Flex Routes: Services operate along a defined route path with designated stops. Upon customer request, vehicles deviate to pick up or drop off passengers at stops within a defined geographic service area.
- Demand Response Service: On-demand service transporting individuals which requires advanced scheduling by the customer, including services provided by the CCRTA or contracted service providers.
- Commuter Routes: Services, including Express, operate primarily during peak hours along highways or other major corridors with a limited number of stops.
- Downtown Routes: Services provide transportation to downtown areas from transfer stations. Services are geared toward providing workers or visitors with access to employment and tourism attractions.
- Shuttle Services: Shuttle service is a higher frequency, short service offered for specific trip attractors such as a university where parking is limited or difficult.

Additional services provided by CCRTA include:

- B-Line: Paratransit service offered within $\frac{3}{4}$ mile of fixed routes to eligible riders, with the option for travel outside the $\frac{3}{4}$ mile boundary for a surcharge. Passengers can schedule a ride up to 3 days in advance, but must call one day in advance, at a minimum, to guarantee a ride.
- Flexi-B: Route that connects Corpus Christi to Port Aransas with several scheduled stops, as well as the option to deviate and serve additional points of interest. Passengers must call a day in advance to schedule their trip.
- Kleberg County Paisano Transit: offers services that range from taking people to buy groceries or driving them to area cities, such as Corpus Christi, for medical purposes. This public transportation is available to Kleberg and Kenedy counties' residents.
- R.E.A.L. Transportation Services: The Rural Economic Assistance League (REAL) operates general public transportation to residents of Aransas, Bee, Brooks, Duval, Jim Hogg, Jim Wells, Live Oak, Refugio and San Patricio counties. This demand response system is provided for any trip purpose but requires reservations in advance.
- Vanpool Services: CCRTA operates a fleet of vans to transport groups of people between common pickup locations, such as transit stations and workplaces, at a reduced cost. A vanpool matching service is available by phone.

The CCRTA fleet includes 122 revenue vehicles, 88 of which are allocated to RTA operated fixed route services. MV Transportation, the agency's contracted paratransit operator, is assigned 34 vehicles for demand-response, paratransit, and some fixed route service. Port Aransas express and shuttle routes are assigned four vehicles.

Exhibit 5-28. Map of CCRTA Transit Route System



Route Ridership varies significantly due to differences in headway, service span, and route length. Most of these are transfer centers, transfer points, or key destinations such as TAMU-CC, Walmart, HEB, or higher-density housing locations. Total system ridership is lower on weekend days. Saturday total ridership is 55% of weekday ridership, and Sunday total ridership is 35% of weekday ridership. Routes 19, 23, 27, and 29 have the greatest total ridership across every day of the week. Route 29 is the highest ridership route in the CCRTA system. These routes run every 20 to 30 minutes on weekdays and Saturdays, with Routes 23 and 27 dropping to every 60 minutes on Sundays.

For calendar year 2025, the CCRTA provided the following trips on their various services. The fixed-route bus service is the primary service provided.

Exhibit 5-29. Table of 2025 CCRTA Annual Ridership

Year	Rural Service	Vanpool	Flexi-B (Contract Demand)	B-Line	Fixed-Route Bus	System Overall
2025	1,155	109,562	4,673	199,078	3,523,352	3,837,820

CCRTA B-Line Paratransit

CCRTA's Americans with Disabilities Act (ADA) paratransit service is known as the B-Line. The transit agency contracts with MV Transportation for management and operation of a fleet of 53 vehicles. The ADA requires that a transit provider that operates fixed routes also provide complementary paratransit for people with disabilities who, because of their disabilities, cannot use or access the fixed routes. Agencies are required, at a minimum, to provide paratransit service to eligible riders where and when the fixed routes are operated within a ¾-mile radius. The B-Line service includes the option for travel outside the ¾ mile boundary for a surcharge. Riders must first apply for eligibility to use the service. Once the rider is approved as eligible, the rider may call to book a trip 1–3 days in advance; same-day requests are also accommodated, but on a space available basis only. B-Line service is available Monday through Friday from 7:00 a.m.–5:00 p.m., Saturday from 8:00 a.m.–5:00 p.m. The fare for B-Line is \$1.75 within the ADA Service Area, with a \$2.00 surcharge for trips that begin or end beyond the ¾-mile ADA Service Area around fixed-route corridors. In 2025, 46,934 passenger trips were served on the B-Line.

CCRTA Passenger Facilities

Bus Stops

Existing bus stops range in amenities depending on ridership, available right-of-way, and adjacent land use and infrastructure. All bus stops are marked by a pole with signage displaying routes served and CCRTA branding. CCRTA installs shelters at bus stops with at least 30 average daily boardings.

Shelters may also be installed at bus stops that have 10 or fewer average daily riders if they are at a frequent transfer point, are served by routes with higher wait times, or are located within ¼ mile of major employment centers, grocery stores, schools, apartments, social services offices, medical facilities, or senior centers.

Benches without shelters may be installed at lower ridership stops. A bus stop location with a minimum of 10 average daily boardings with adequate right-of-way warrants an advertising bench. Stop locations with 5-10 boardings warrant a standard bench. Stop locations below 5 daily boardings warrant small benches or similar products.

Transfer Stations

CCRTA offers four transfer stations in Corpus Christi and Robstown. Each transfer station provides covered waiting areas and seating for customers. Transfer stations vary in terms of age, accessibility, capacity and usage.

Staples Street Station

Staples Street Station is the busiest transfer point for CCRTA routes, averaging 1,157 weekday boardings. Staples Street Station is located in Downtown Corpus Christi within one block of the intersection of Leopard

and Staples. Staples Street Station is an off-street facility located less than one block from the Corpus Christi City Hall and Nueces County Courthouse. This location also houses the Greyhound Bus Station.

Southside Station

Southside Station is the second busiest transfer station in terms of bus activity and third highest in terms of ridership (456 average weekday boardings) after Staples Street and Port Ayers Station. Southside Station is an off-street facility conveniently located across the street from La Palmera Mall, the largest retail destination in the Coastal Bend. Southside Station is approximately 6-7 miles from Staples Street Station, or about 30 minutes on Route 29.

Port Ayers Station

Port Ayers Station is the second highest ridership stop in the CCRTA system, averaging 562 weekday boardings. The station was reconstructed in 2024 with enhanced safety features, modern technology, efficient lighting and equipment, improved customer amenities and an ADA universal design concept.



Yorktown Transfer Station

The Yorktown Transfer point is served by Route 24 (Airline/Yorktown Connector), which links Yorktown at Del Mar Oso Creek Campus stop directly to the Southside Station and Port Ayers Transfer Station.



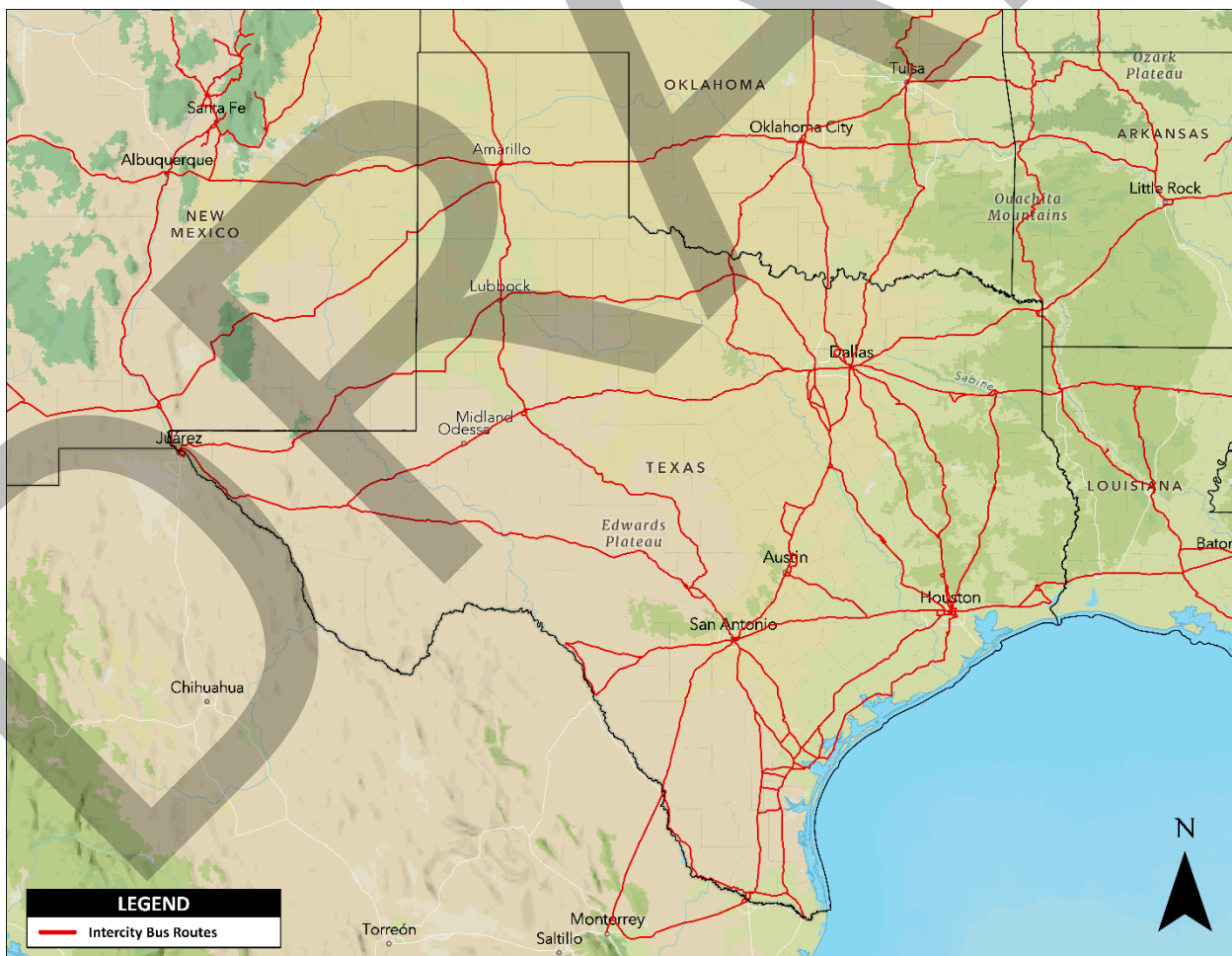
Intercity Bus Carriers

The following eight specific intercity/international bus carriers operate services with stops and/or passing through the Coastal Bend region:

- Greyhound
- Valley Transit Company
- Americanos
- El Expreso Bus Company
- Tornado Bus Company
- Grupo Senda
- Omnibus de Mexico
- Megabus

Greyhound and its partners (such as Valley Transit and Americanos) provide the most intercity bus service to the region with 16 stations in the region. Greyhound has three routes traveling through the region: 490, 494, and 499.

Connecting the CCRTA system to other cities and regions is important for those residents that do not have a personal vehicle to use and need the mobility options. Additional connections are provided by the intercity bus service (Greyhound) to other Texas cities as well as their bus systems and certain locations, and rail service through AMTRAK. Although additional efforts are required for those transportation users, the system is connected so that citizens can take advantage of services and activities throughout Texas and the United States.

Exhibit 5-30. Map of Intercity Bus Routes

ADA Compliance

Transit services provided by the CCRTA are designed to meet the requirements of the Americans with Disabilities Act (ADA). This includes the provision of complementary paratransit services for individuals who are unable to use fixed-route transit due to disabilities.

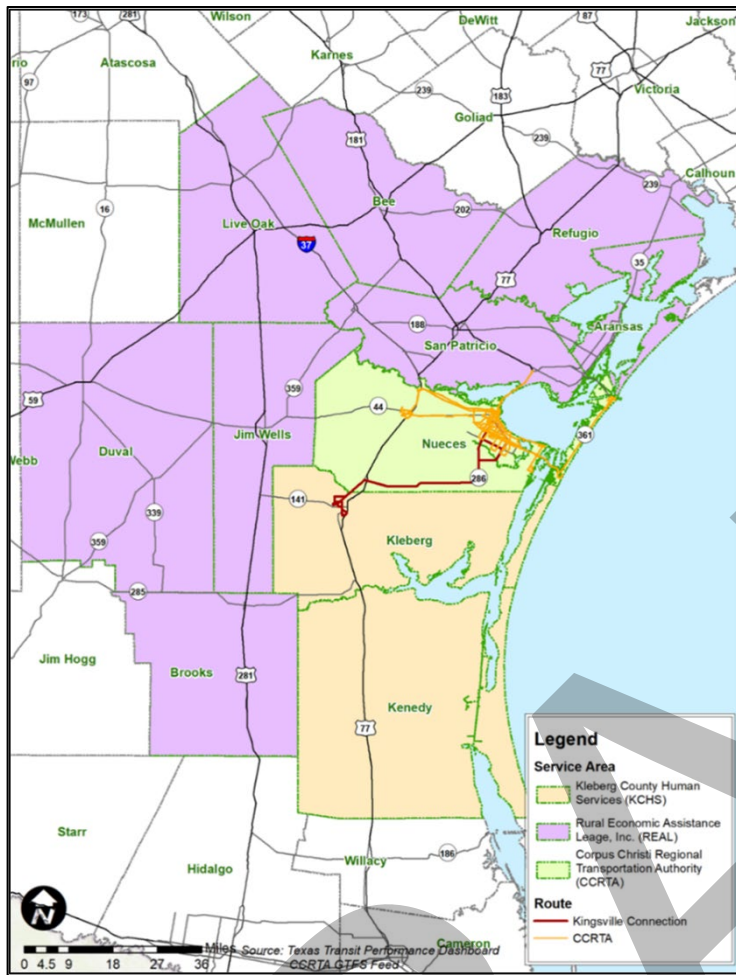
ADA-related considerations include:

- Accessible Vehicles: CCRTA's fleet is equipped with wheelchair lifts or ramps, priority seating, and audio/visual stop announcements.
- Paratransit Services: Origin-to-destination service is provided within federally required service areas, generally within $\frac{3}{4}$ mile of fixed routes.
- Bus Stop Accessibility: Ongoing efforts are made to improve accessibility at transit stops, including the installation of sidewalks, curb ramps, and ADA-compliant boarding areas.
- Compliance Monitoring: CCRTA regularly evaluates its services, policies, and infrastructure to ensure continued compliance with ADA standards.

Despite these efforts, challenges remain in areas where incomplete sidewalk networks or lack of curb ramps limit safe and accessible connections to transit stops.

Coordinated Transportation

Human Service Agency (HSA) transportation services are a critical resource for seniors, persons with disabilities, individuals with low income, and veterans, filling gaps that are unserved or underserved by public transportation services or that require special assistance not typically provided by public transportation services. CCRTA, REAL Transit, and Kleberg County Human Services (KCHS) offer options for anyone traveling within the 11-County Coastal Bend Region. These public transit services include local fixed-route bus service and complementary ADA paratransit service for CCRTA, and general public dial-a-ride (demand-responsive transportation) for REAL and KCHS. CCRTA and KCHS also provide flex-route service, and CCRTA also provides a vanpool program. HSA transportation programs in Corpus Christi MPO Area are provided by the Area Agency on Aging (AAA) of the Coastal Bend, Nueces County Senior Community Services, and the Coastal Bend Center for Independent Living (CBCIL). There are several transportation providers that coordinate or purchase transportation from other providers. For example, CCRTA coordinates with REAL, Paisano Express, and CBCIL. The most recent Coordinated Plan was adopted in 2022 and is available as Appendix S.

Exhibit 5-31. Map of 11-County Coastal Bend Regional Service Areas***Coastal Bend Center for Independent Living (CBCIL)***

CBCIL provides services such as assistance with housing, employment, consumer rights, peer support, and transportation to individuals with disabilities. The Mobility Options Program is an on-demand transportation service available to seniors 65 years and older and individuals with disabilities. Eligible riders must register with CBCIL first before requesting a ride. Trip costs vary and are dependent on individual circumstances, with an emphasis on affordability for the customer. All trips must be scheduled 48 hours in advance. The service is available throughout the 11-county Coastal Bend Region. CBCIL utilizes Section 5310 funding from TxDOT for rural areas and Section 5310 funding from CCRTA to serve the urban areas. CBCIL contracts with several transportation providers, such as Feonix Mobility Rising, American Cab, and Medivan. CBCIL also utilizes funding from the Workforce Development Rehab Program (WDRP). In situations where Section 5310 funding is exhausted, funding from the WDRP is used to subsidize trips.

Transit Need Index

The Transit Need Index (TNI) analysis, extracted from the 2022 Regional Coordination Plan for the Coastal Bend, is used to map out the areas of need based on demographics that traditionally indicate the need for transportation services. This analysis combines five key demographics to display a transit needs map for the region. All data for the TNI are from the U.S. Census Bureau's American Community Survey (ACS) 2015-2019 ACS 5-Year Estimates. In effect, the TNI identifies areas where transit need is more pronounced. The five key demographic characteristics used to create the TNI include the following, all weighed equally:

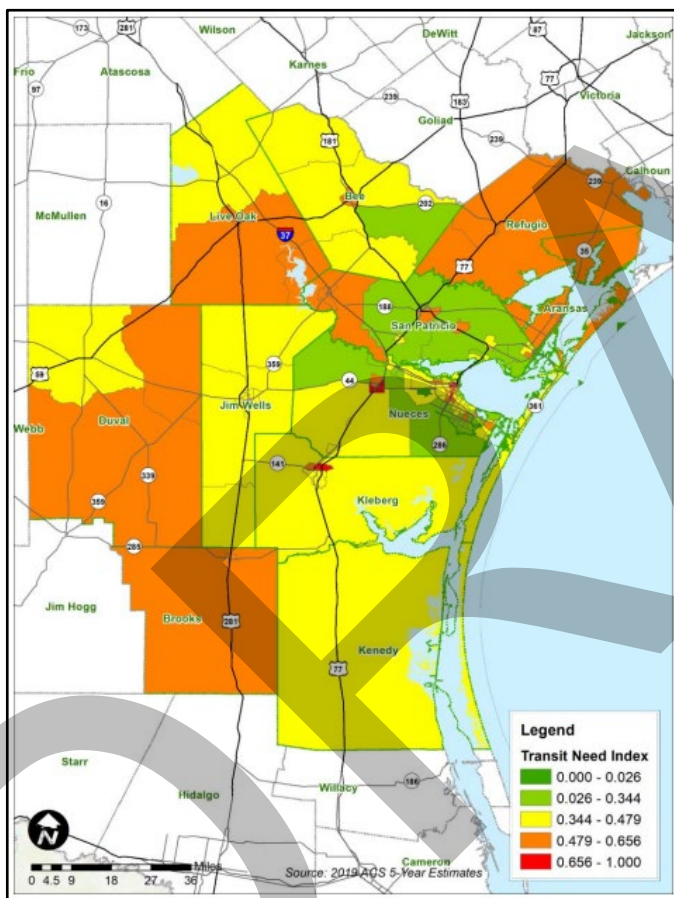
- **Senior Population:** Defined as people aged 65 and older, seniors have a higher need for public transportation due to an increasing inability to operate an automobile without the assistance of others.

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- **People with a Disability:** The non-institutionalized population with a disability have a higher need for public transportation as a result of increased numbers of individuals who do not drive or own a motor vehicle. In addition, people with a disability tend to need trips more frequently for healthcare purposes and overall have lower household incomes.
- **Population below Poverty Level:** Individuals below the poverty level have a higher need for public transportation due to not having the financial means of owning and maintaining a vehicle.
- **No Vehicle Available:** Households (also known as occupied housing units) with no vehicle available have a higher need for public transportation because residents do not have a vehicle available for means of transportation. As a result, public transportation becomes a more likely option.
- **Veteran Population:** Veterans are part of TxDOT's priority population demographic and are included in this TNI.

Exhibit 5-32 shows that the highest need for transit is located in urban area census tracts within Corpus Christi, Robstown, and Kingsville showing the highest proportion of transit need. The maps also show a medium to high level of transit need in the rural counties outside of Nueces, San Patricio, and Aransas.

Exhibit 5-32. Map of Transit Needs Index



ACTIVE TRANSPORTATION NETWORK COMPLETENESS

Federal transportation programs increasingly stress the importance of nonmotorized transportation. A more thorough, detailed discussion of transportation funding programs is included in Chapter 6: Financial Plan. Roadways are often designed using a preset list of cross-sections for each functional classification. These cross sections focus primarily on the mobility of motorized vehicles instead of the mobility of people, regardless of their mode choice. As regions grow and existing rights-of-way become more constrained, creating multimodal, user-based designs that accommodate a broader set of transportation system users is a priority of the Corpus Christi MPO. The Active Transportation Plan was adopted in December 2024. The complete plan is provided as part of Appendix F.

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The completeness and connectivity of the bicycle and pedestrian network affects transportation system performance. The Corpus Christi MPO area's existing bicycle infrastructure consists of a combination of shared-use paths, on-street bike lanes, buffered bike lanes, and signed routes totaling approximately 117 miles. However, the network is characterized by significant gaps and discontinuities, particularly at arterial crossings, limiting cycling as a practical transportation mode for most residents.

Pedestrian infrastructure completeness similarly varies across the planning area. While the urban core and newer subdivisions generally have sidewalk coverage, many older neighborhoods, commercial corridors, and collector roadways lack continuous sidewalk facilities. The absence of sidewalks and safe crossings on arterials that serve as CCRTA bus stop access routes is a recurring public engagement finding and a documented barrier to transit access. Completing the pedestrian and bicycle network — particularly in areas of concentrated transit use and disadvantaged area populations — supports mode shift, reduces vehicle demand on congested corridors, and improves overall system efficiency.

Exhibit 5-33 and Exhibit 5-34 illustrate the existing bicycle and sidewalk inventories within the Corpus Christi MPO.

Exhibit 5-33. Map of Existing Bicycle Network Inventory

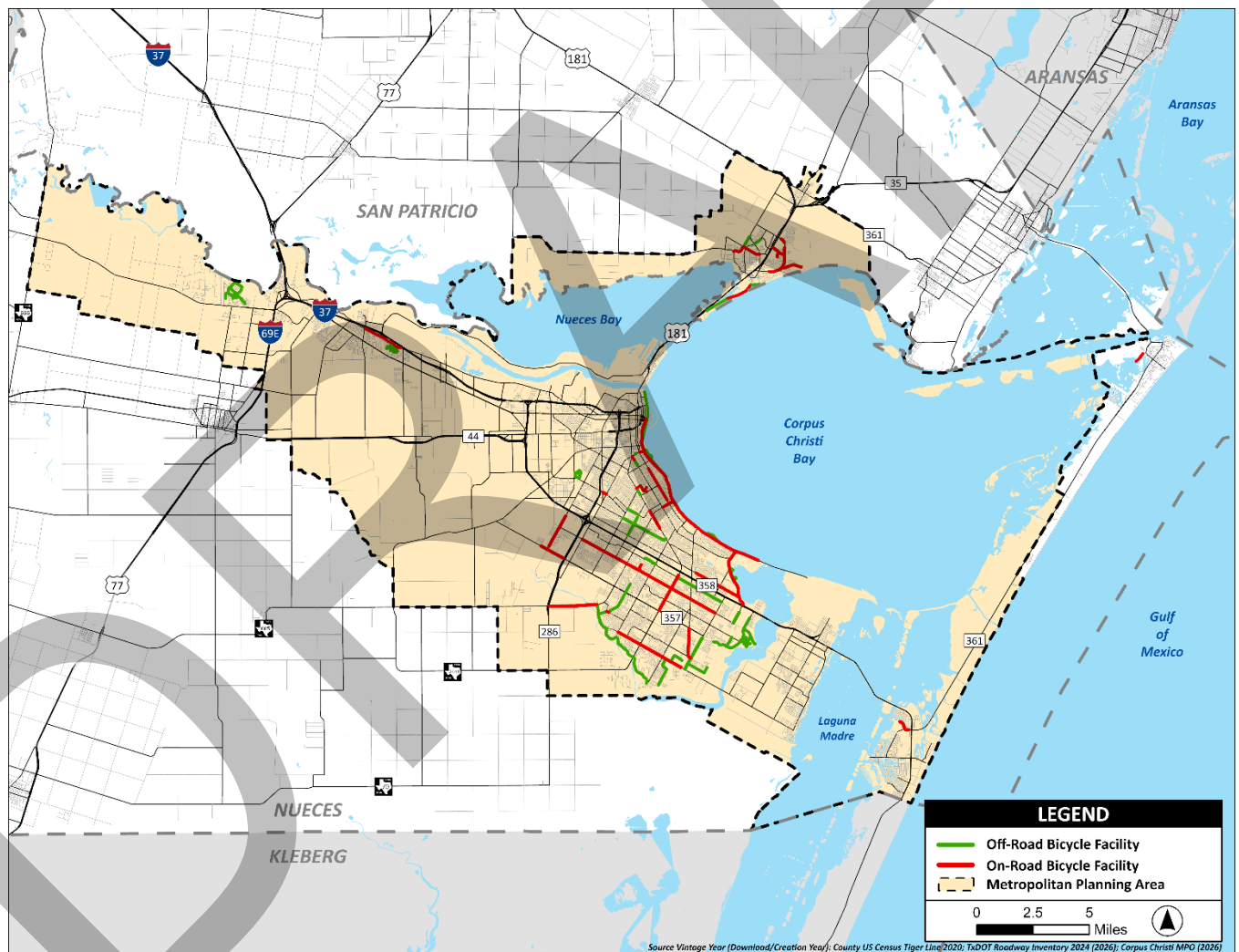
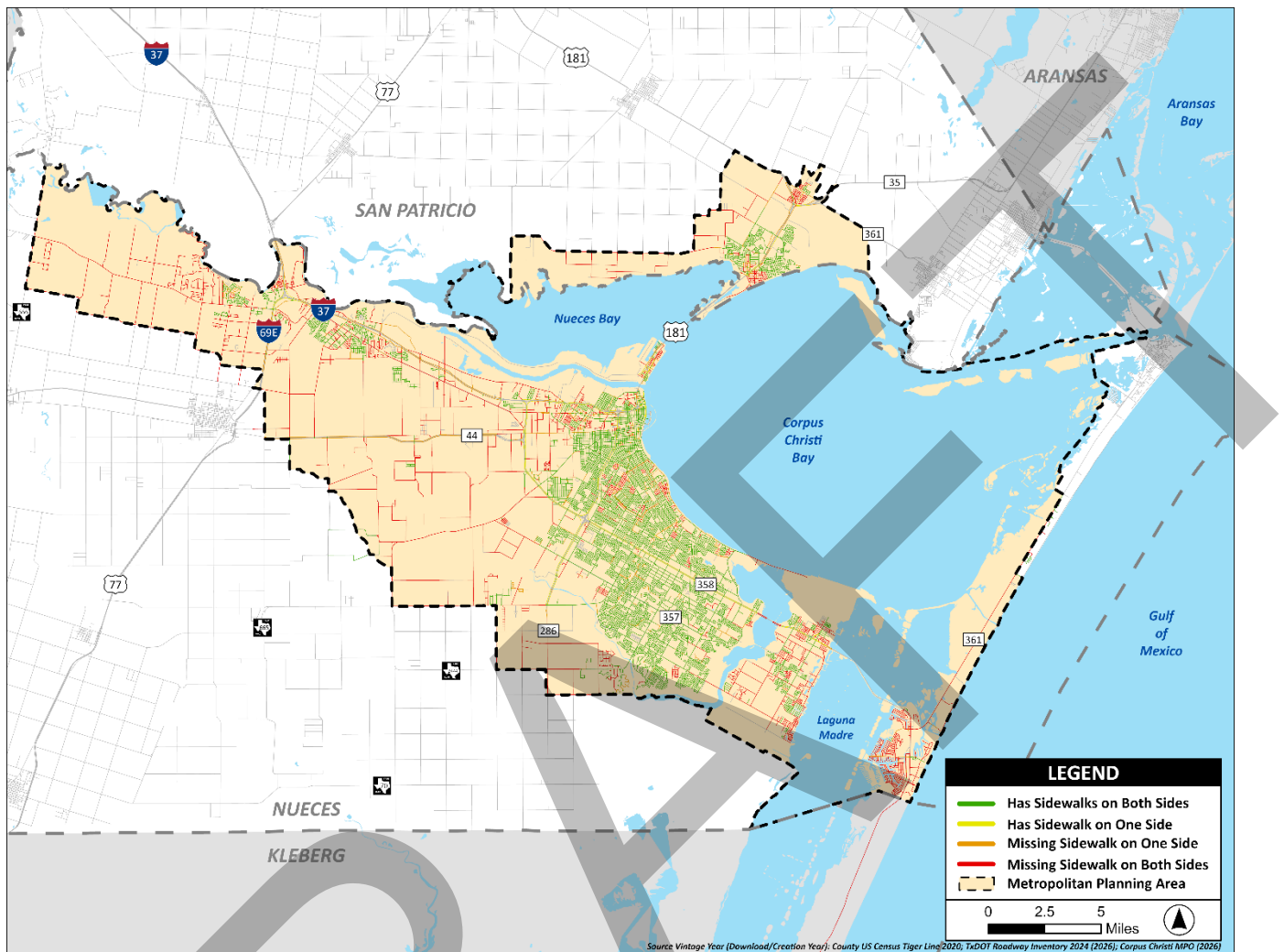


Exhibit 5-34. Map of Existing Sidewalk Network Inventory

FREIGHT MOVEMENT AND ECONOMIC VITALITY

Freight movement and economic vitality are among the most distinctive planning priorities of the Corpus Christi MPO, reflecting the region's extraordinary position in the national and global energy supply chain. The Port of Corpus Christi's status as the nation's leading crude oil export hub elevates freight planning to a strategic national interest. This section addresses the region's role in supporting economic vitality through the first national planning factor — global competitiveness, productivity, and efficiency — and the sixth planning factor — integration and connectivity across modes for both people and freight. It covers Port operations, the highway freight network, rail infrastructure, aviation, pipeline, and military access.

The Corpus Christi MPO region serves as an important link in the regional, statewide, and national freight system. At the local level, intermodal planning activities and ongoing improvements that address freight and other needs help to maintain the region's economy and competitiveness.

HIGHWAY FREIGHT NETWORK AND TRUCK ROUTES

The MPO planning area contains facilities designated as part of the national and state freight highway network, reflecting the region's critical freight role. The National Highway Freight Network (NHFN) — including the Primary Highway Freight System (PHFS) — encompasses I-37, I-69E, and US 181 within the MPO area. The Texas Highway Freight Network (THFN) adds additional US and State Highways serving industrial and port access functions. In addition, Strategic Highway Network (STRAHNET) designations reflect the Department of

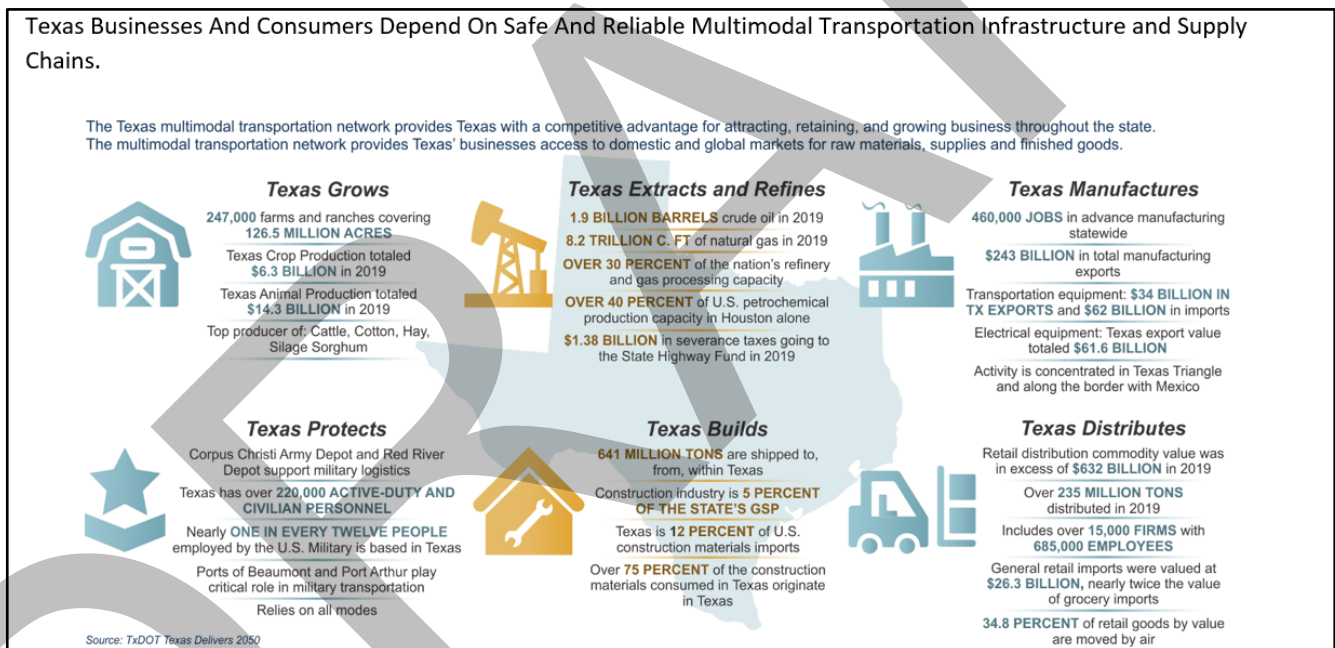
Defense's requirement for reliable highway access to NAS Corpus Christi, with STRAHNET connectors to installation gates eligible for enhanced federal funding.

Heavy truck movements support port operations, petrochemical logistics, agricultural transport, and general commercial freight throughout the region. Designated truck routes within the City of Corpus Christi are established to channel truck traffic onto roads with appropriate structural capacity and to minimize conflicts with residential communities. The region's intermodal freight infrastructure includes Port marine terminals, rail-truck transfer facility, and Corpus Christi International Airport cargo operations. Truck-to-rail and truck-to-ship intermodal connections are critical to the efficiency of the region's energy and agricultural export supply chains.

Freight Movement

Movement of goods in the Corpus Christi MPO region relies on highways and roads for long-distance transport as well as for urban goods delivery (i.e. transport from warehouses or intermodal freight terminals to final destinations). Trucks are used on all state routes in the Corpus Christi region. They play a role not only in the distribution of local freight and deliveries, but also as an integral part of the intermodal logistics for the region and the state as a whole. Trucking logistic centers (where intermodal transfer occurs) are centered on all the major freight generators in the region including manufacturing, warehousing, distribution facilities, and railyards.

Exhibit 5-35. Infographic of Texas Freight Movement



The national, state, and local transportation network depends on railroads and trucking as the most efficient modes of transportation for the movement of freight and bulk cargo. The IIJA/BIL made a number of changes to improve the condition and performance of the national freight network and support investment in freight-related surface transportation projects. Specifically, it required the Secretary of Transportation to encourage each state to develop a comprehensive State Freight Plan and establish a State Freight Advisory Committee (SFAC) for surface transportation projects.

National and State Priority Highway Freight Network

The federal Fixing America's Surface Transportation (FAST) Act established a new National Highway Freight Network (NHFN) as a way to "strategically direct federal resources and policies toward improved performance of highway portions" of the freight system. There are four components of the NHFN.

1. Primary Highway Freight System (PHFS): This is a network of the most critical highways including the interstate system.

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2. Interstates are not considered part of the Primary Highway Freight System.
3. Critical Urban Freight Corridors
4. Critical Rural Freight Corridors

The Texas Highway Freight Network Map is provided below as Exhibit 5-36. The TPFN will provide a vehicle for the National Freight Policy, Plan and Network to incorporate the needs of the Texas based TPFN. The projected Freight tonnage for the year 2050 is illustrated in Exhibit 5-37.

Exhibit 5-36. Map of Texas Highway Freight Network in the Corpus Christi MPO Area

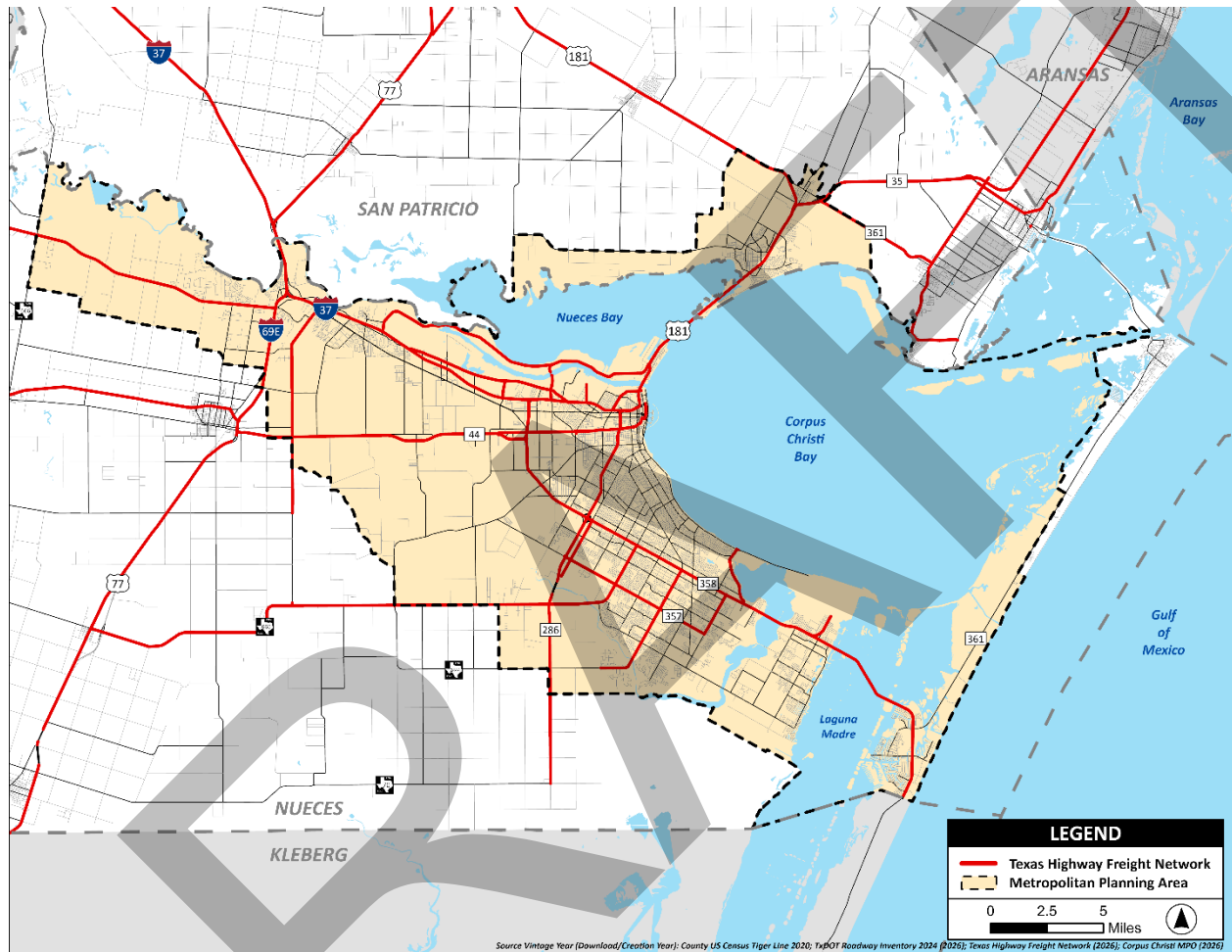
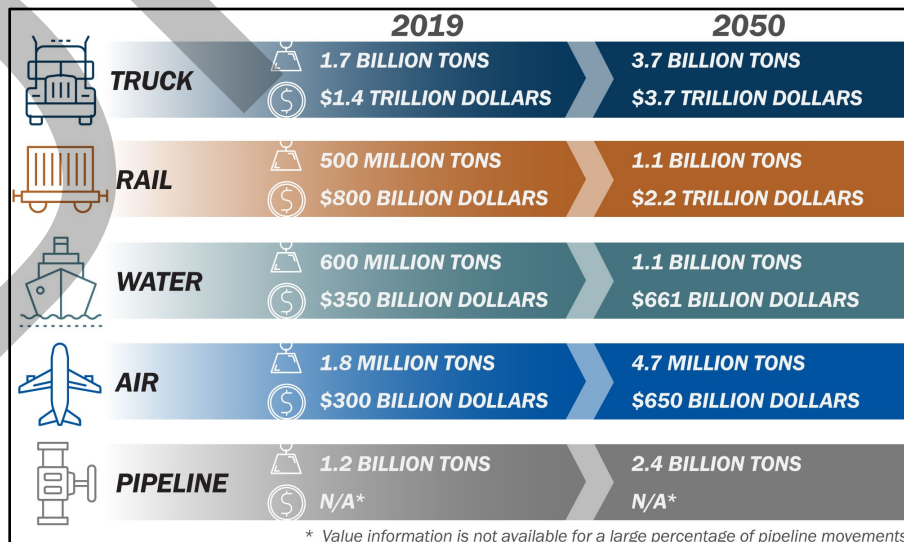


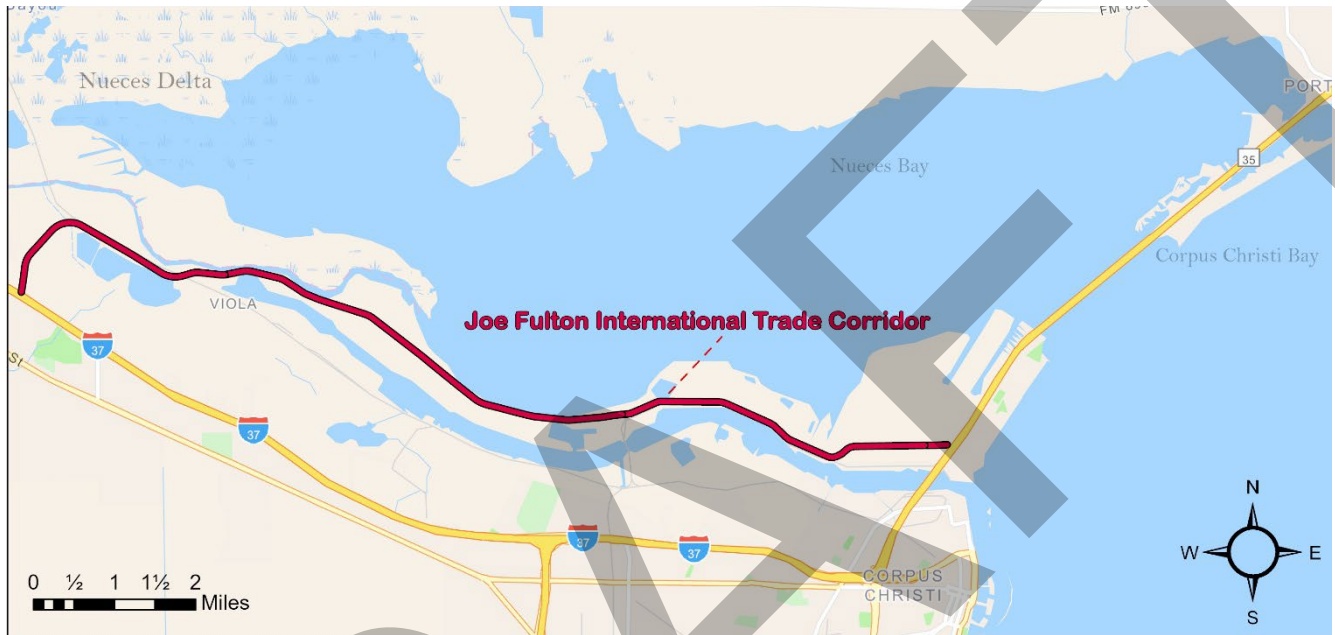
Exhibit 5-37. Infographic of Freight Tonnage and Value, 2019 and 2050



Joe Fulton International Trade Corridor

One of the unique freight delivery projects is the Joe Fulton International Trade Corridor, opened in 2011. Exhibit 5-38 illustrates the components of this remarkable project. The system continues to provide enhanced freight transportation services for the region, state, country, and international destinations.

Exhibit 5-38. Map of the Joe Fulton International Trade Corridor



Local Goods Delivery

The rise of e-commerce has significantly increased local goods delivery in the Corpus Christi Metropolitan Planning Organization region. The region is currently served by major carriers Amazon, FedEx, UPS, and USPS. The existing delivery system functions well, but there are challenges related to infrastructure limitations and increasing delivery demands. Several Metropolitan areas in Texas are exploring new ways to meet these challenges using delivery robots that are airborne or that operate along sidewalks or bicycle side paths. Similar implementation in the Corpus Christi region requires additional investments.

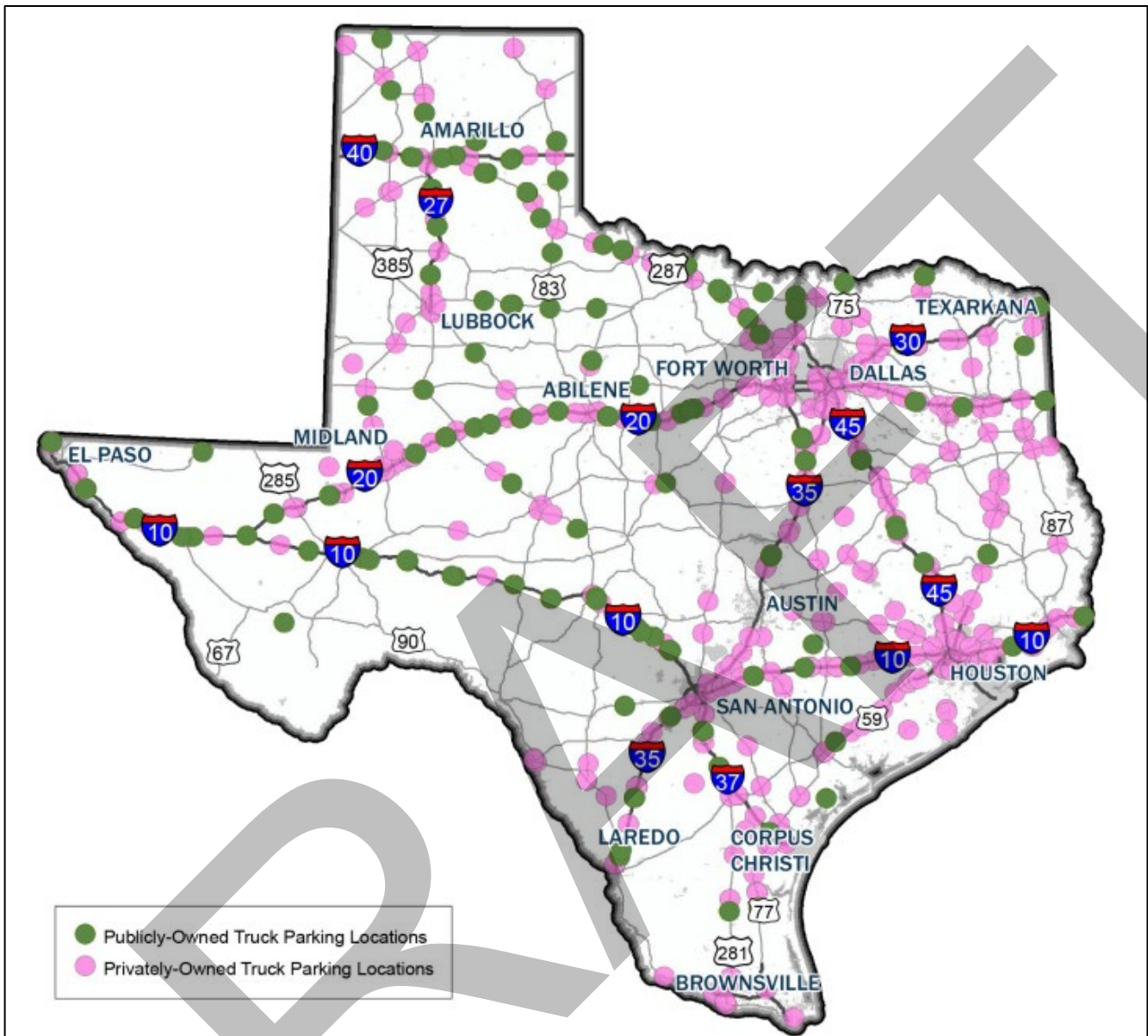
Amazon: As a major e-commerce player, Amazon operates a complex network of delivery vehicles, including its own fleet and contracted drivers. Its focus on speed and efficiency presents unique challenges for urban planning.

FedEx and UPS: These carriers handle a wide range of packages, from small parcels to large freight. Their extensive networks and established infrastructure are vital to the region's logistics.

USPS: The USPS provides essential mail delivery services, including e-commerce packages. Its network of carriers and delivery routes is deeply integrated into the community.

Since the completion of the Statewide Truck Parking Study in 2020, TxDOT has established a truck parking implementation program for ongoing development of capacity, technology, and programmatic truck parking solutions. The TxDOT Maintenance Division manages a truck parking capacity expansion program that invests \$30 million per year in additional safety rest area capacity. Exhibit 5-39 identifies the locations of public and privately-owned truck parking locations.

Exhibit 5-39. Map of Truck Parking Supply in Texas



PORT OF CORPUS CHRISTI AUTHORITY (PCCA)

The Port of Corpus Christi is the leading port in the United States by total tonnage for crude oil exports and ranks among the nation's top ports for total waterborne commerce. The Port's operations are a defining characteristic of the regional economy and generate substantial land-side transportation demand, including heavy truck volumes on port access roads and industrial rail movements. Key port facilities include the La Quinta Terminal, the Bulk Material Handling Facility, the Rincon Industrial Area, and the Inner Harbor shipping channel.

The Port's Corpus Christi Ship Channel Improvement Project — deepening the channel to 54' and widening to 530' — increased vessel capacity and is expected to increase land-side freight demand on the regional network. Land-side port access is primarily via IH 37, US 181, the Joe Fulton International Trade Corridor, and Class I railroads. Maintaining and improving the capacity and condition of these access corridors is a top freight planning priority for the 2050 MTP.

In the last several years and projected into the future decade, the volume of commodities accommodated by the Port of Corpus Christi Authority (PCCA) continues to grow. The PCCA has invested in capital projects and

operational improvements to accommodate future growth. Some of these projects are roadway and intersection improvements serving the PCCA's operations. The overview of the Port area is illustrated in the following Exhibits 5-40, 5-41 and 5-42. These and other PCCA projects are presented in Exhibit 5-43.

The PCCA developed a Strategic Plan 2029 to guide their future developments, and the Plan is guided by the following Strategic Goals:

- Foster Strategic Growth
- Be a Good Business and Community Partner
- Provide Facilities and Services to Meet Customer Needs
- Be an Environmental Leader
- Fund Our Vision
- Cultivate the Workforce and Tools of the Future

Exhibit 5-40. Infographic of Port of Corpus Christi Authority Projects Overview



Exhibit 5-41. Infographic of Port of Corpus Christi Authority Ship Channel Improvement Projects Timeline

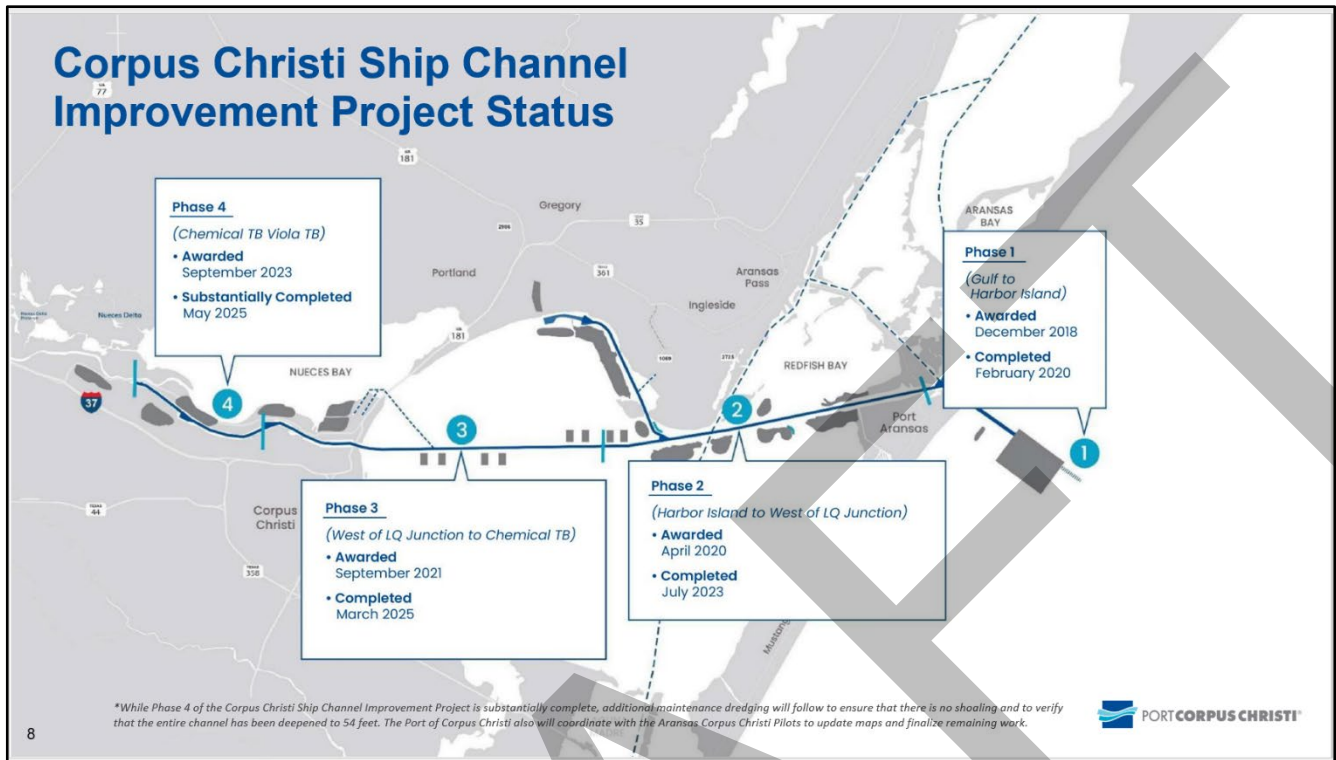
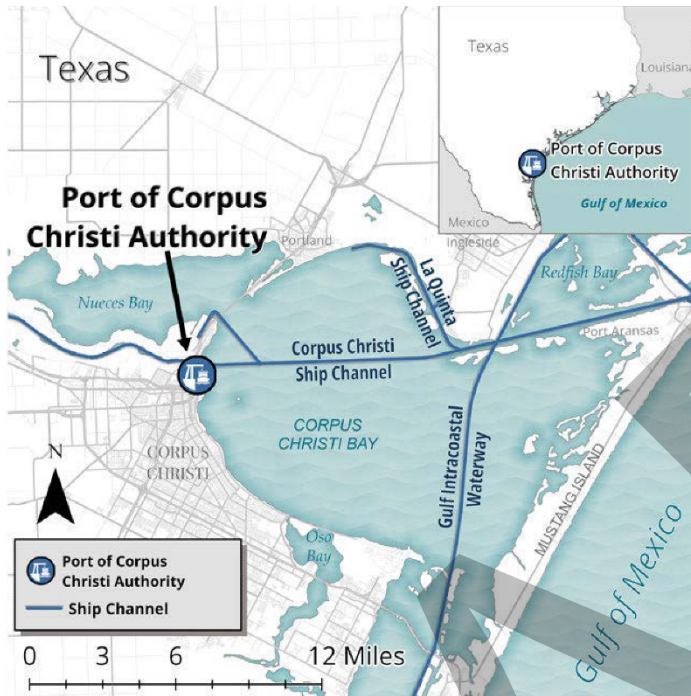


Exhibit 5-42. Infographic of Port of Corpus Christi Authority Trading Partners Overview

TxDOT Maritime Division

Port Profiles

**PORT FACILITIES****DOCKS & WHARVES**

- 13 liquid docks
- 3 dry bulk docks
- 5 multi-purpose cargo docks
- General purpose high-speed bagging facility

STORAGE & LAND

- Over 700 acres available for lease or development
- Leases available at 40-acre Rincon Industrial Park
- 340,000 sf of covered storage
- 140+ acres of open storage

**SHIP CHANNELS**

Ship Channel Name: Corpus Christi Ship Channel

Current Depth: 47-54 ft

Authorized Depth: 54 ft

**INTERMODALITY****ROAD**

- Highway connections to US 181/ SH 35, I-37, SH 361, and I-69
- Access to Joe Fulton International Trade Corridor (JFC) from inner harbor

RAIL

- Port-owned Corpus Christi Rail Terminal switching railroad with connections to BNSF, Canadian Pacific Kansas City (CPKC), and Union Pacific

BARGE

- 13-mile sailing distance to GIWW (M-10, M-69)

AIR

- Commercial service to Corpus Christi International Airport

PIPELINE

- Connections available

CARGO CONNECTIONS**Top Trading Partners****EXPORTS**

- Netherlands \$13.7 Billion
- South Korea \$9.0 Billion
- Singapore \$5.7 Billion

IMPORTS

- Mexico \$1.1 Billion
- Colombia \$990 Million
- Singapore \$519 Million

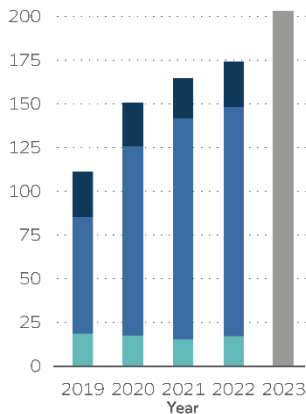
Data from USA Trade for 2023

Top Commodities**EXPORTS**

- Petroleum
- Fertilizers & Chemicals
- Agriculture & Food
- Manufactured Goods
- Crude Materials

IMPORTS

- Petroleum
- Crude Materials
- Fertilizers & Chemicals
- Manufactured Goods
- Equipment & Machinery

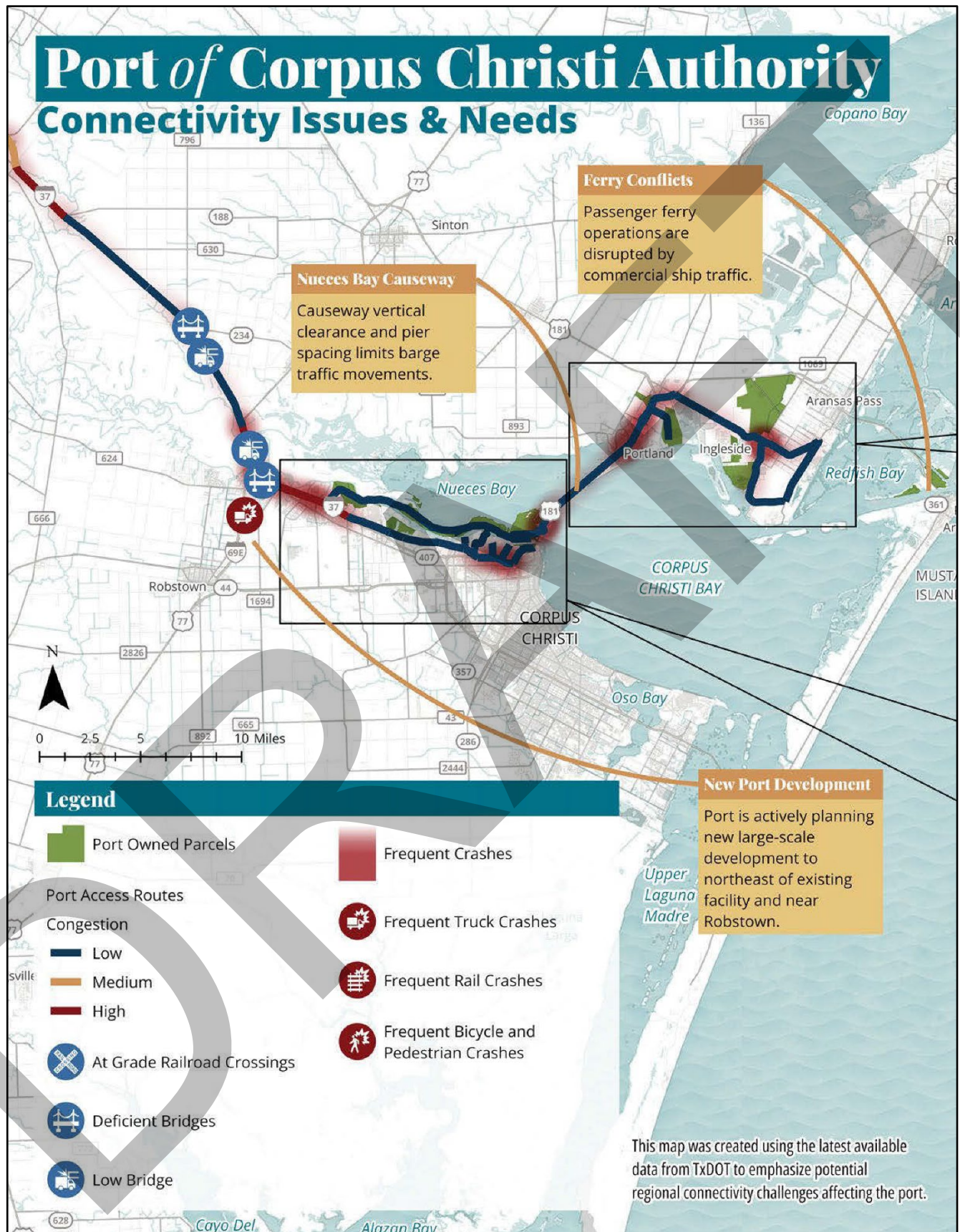
Tonnage

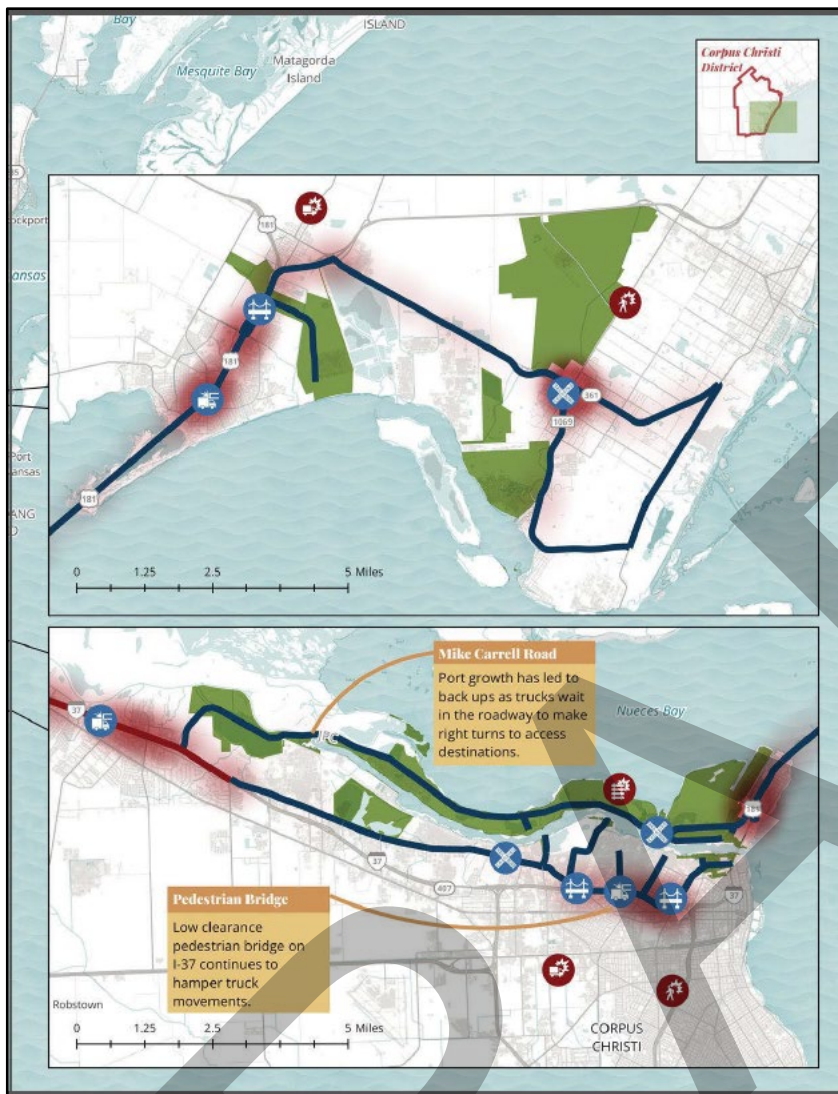
2023 tonnage data provided by PCCA; 2019-2022 tonnage data from USACE Waterborne Commerce Statistics Center, 2024

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Exhibit 5-43. Map of PCCA Issues and Needs





MARINE FREIGHT SYSTEM

The marine freight system in the Corpus Christi region consists of the Gulf of America and the Intercoastal Waterway. These waterways are strategic freight corridors. The marine system consists of waterways, ports, and intermodal landside connections that allow the road and rail systems to move freight to and from the water. The waterway portion of the marine system will be discussed first followed by marine ports. Other non-marine ports will be discussed as well given their importance to regional economic development.

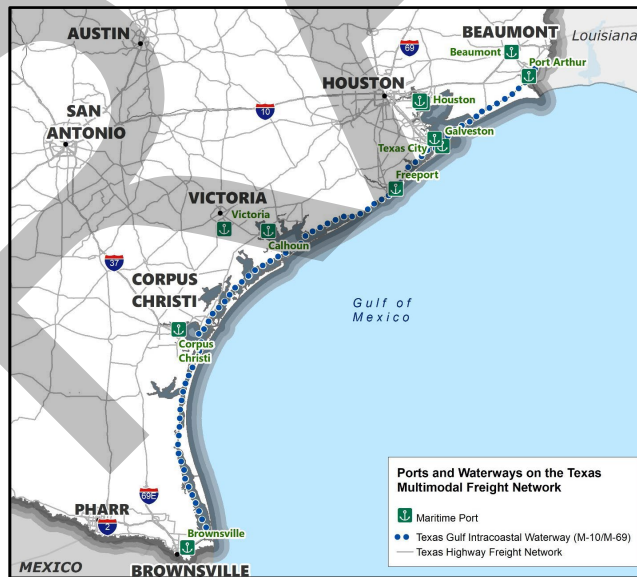
Among the 10 ports on the Texas Multimodal Freight Network (TMFN), seven ports rank in the top 50 in the United States in terms of total tonnage. As shown in Exhibit 5-44, the Port Corpus Christi handled the second highest volume of all Texas ports and fourth highest of all U.S. ports with over 111 million tons in 2019.

Exhibit 5-44. Table of 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	2,682,649
Total	627,869,823	N/A	444,863,981	183,005,842

Gulf Intracoastal Waterway (GIWW)

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 America. The primary shallow draft waterway in Texas is the Gulf Intracoastal Waterway (GIWW) which runs the length of the Gulf of America 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-69.21 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 5-45 displays the Ports and Waterways on the Texas Multimodal Freight Network.

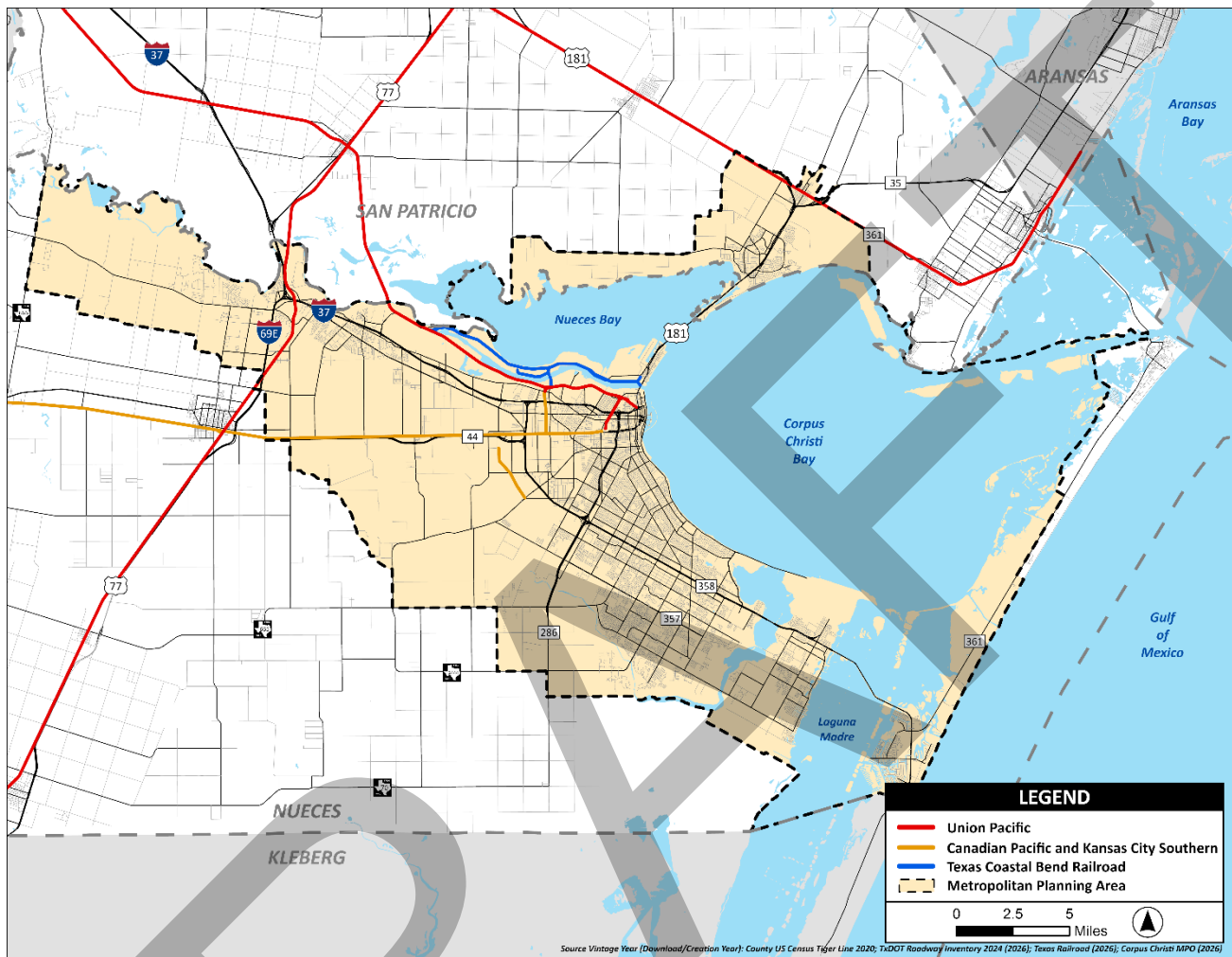
Exhibit 5-45. Map of Ports and Waterways on the Texas Multimodal Freight Network**RAIL NETWORK**

The Corpus Christi MPO area is served by Class I and regional freight railroads that play a critical role in moving bulk commodities, petrochemicals, and agricultural products to and from the Port. Exhibit 5-46 shows that Union Pacific Railroad (UP) and Kansas City Southern Railroad operate lines within or connecting to the MPO area. Additionally, the Corpus Christi Terminal Railroad operates within the Port of Corpus Christi. Rail provides

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a high-capacity, low-emissions alternative to highway freight movement for bulk commodity shipments and is a key element of the region's intermodal freight system.

Exhibit 5-46. Maps of Railroad System in the Corpus Christi MPO Region



As displayed in Exhibit 5-47, rail transported 486 million tons worth \$850 billion across Texas in 2019. Rail transport in the state 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 5-47. Table of Top 5 Texas Tonnage and Value Forecast by Commodity, 2019

Top 5 Rail Flows, 2019			
Tonnage (in thousands)		Value (in millions)	
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

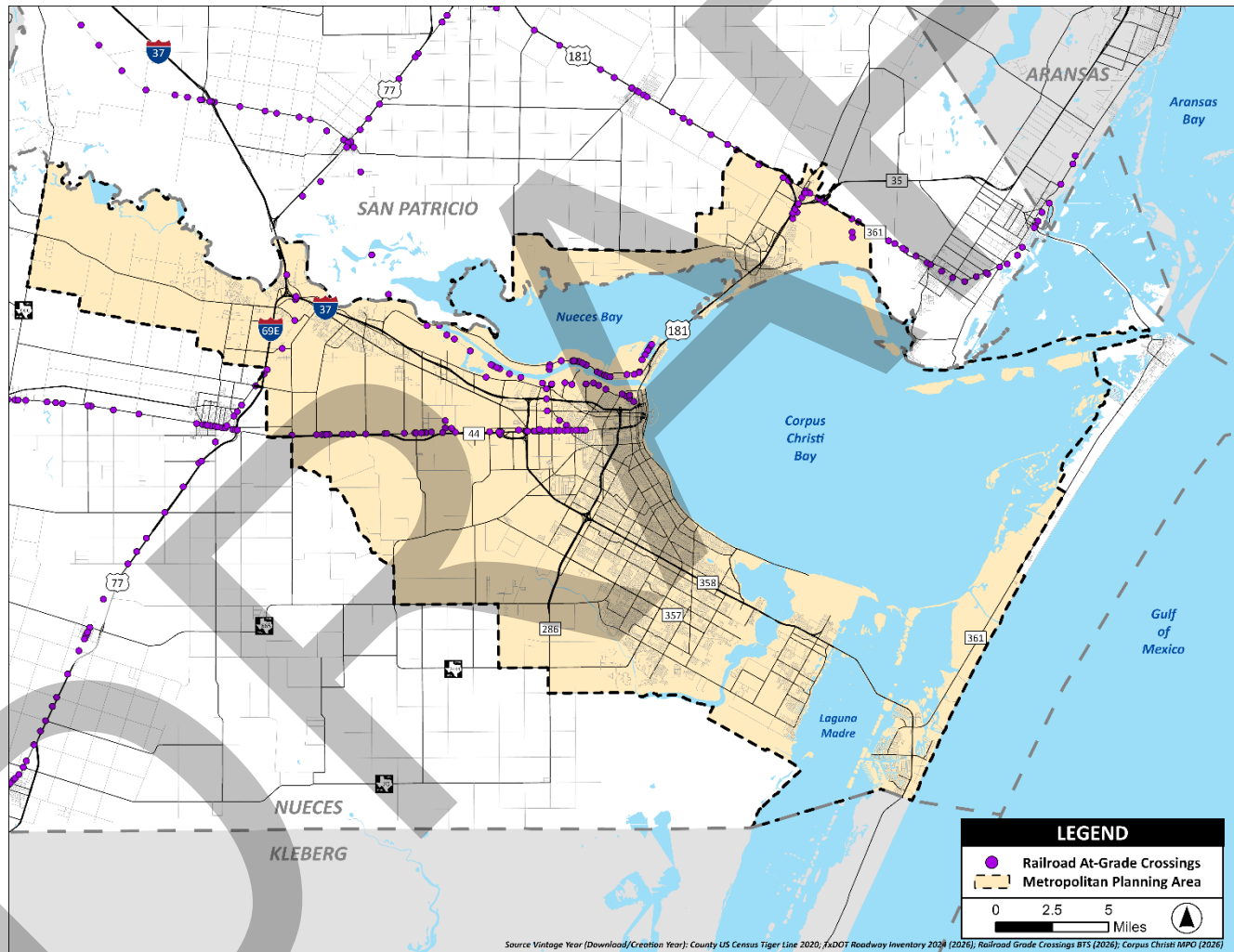
Source: Transearch with Waybill 2019-2050,

At-Grade Rail Crossings

At-grade rail crossings represent both a safety and a mobility concern on the regional network. Within the MPO area, there are approximately 150 at-grade crossings on roadways, as shown in Exhibit 5-37. TxDOT manages the Rail-Highway Grade Crossing Improvement Program to fund safety enhancements at high-risk crossings. Closure or grade separation at strategic locations can reduce delays and improve safety on key freight and commuter corridors simultaneously.

In 2025 Senate Bill 1555 (89th Texas State Legislature) established the Texas Off-System Rail Grade Separation State Fund Program, authorized under Transportation Code § 471.010. This program provides financial assistance to eligible governmental entities in Texas for rail grade separation projects that improve public safety, support economic development, and reduce traffic congestion. The Legislature allocated \$250 million through a supplemental budget appropriation.

Exhibit 5-48. Map of Railroad At-Grade Crossings



AVIATION AND AIR CARGO

Corpus Christi International Airport (CCIA) provides scheduled passenger service to Dallas, Houston & Denver, serviced by American Airlines, Southwest Airlines, United Airlines and Frontier Airlines. While air cargo plays a more limited role in the regional freight mix compared to highway, marine, and rail modes, the airport's cargo facilities support time-sensitive industrial and energy sector shipments.

Corpus Christi International Airport (CCIA)

The CCIA is owned and operated by the City of Corpus Christi with a stated mission "To serve our community by supporting economic growth as we connect business and leisure travelers to the world." As one of the primary airports in South Texas, CCIA connects travelers to and from the City of Corpus Christi with various domestic and international destinations. It provides essential air transportation services for the region, serving both leisure and business travelers. The airport plays a significant role in the region's economy by facilitating business and tourism. CCIA directly contributes to the local community by generating employment opportunities and supporting businesses operating within the airport's vicinity. It also serves as a transportation lifeline during times of emergencies or natural disasters, facilitating relief efforts and evacuations. It is a gateway for travelers coming to explore the Gulf Coast beaches, engage in recreational activities, or conduct business in the area.

A full-service commercial airport, CCIA is served by American Airlines, Southwest Airlines, United Airlines, and Frontier Airlines. Exhibit 5-49 reports the annual number of travelers that utilized CCIA in 2025 by airline.

Exhibit 5-49. Table of Passenger Enplanement/Deplanement by Airline, 2025

AIRLINE	PASSENGER (2025)	
	ENPLANED	DEPLANED
AMERICAN AIRLINES	154,695	153,518
SOUTHWEST	106,370	102,196
UNITED AIRLINES	114,657	114,887
SUN COUNTRY	4,184	4,160
FRONTIER	2,196	2,124
TOTAL	382,102	376,885
	758,987	

CCIA plays a crucial role in supporting industry, including the oil and gas sector, by facilitating business travel and cargo shipments related to energy exploration and production. The presence of military installations, including Naval Air Station Corpus Christi and Naval Air Station Kingsville, adds to the airport's significance. CCIA accommodates military flights and personnel movements, contributing to its overall activity and importance. CCIA is also home to two national Fixed Based Operators, Atlantic Aviation and Sterling Aviation, who provide services to both the commercial airlines and the general aviation community on airport property. In 2025, air carriers operating out of CCIA moved 1,115,332 Lbs. of air cargo in 2025, as shown in Exhibit 5-50.

Exhibit 5-50. Table of Air Cargo, 2025

AIRLINE	FREIGHT (LBS) (2025)	
	LOADED	OFFLOADED
AMERICAN AIRLINES	1,583	6,246
SOUTHWEST	43,129	111,632
UNITED AIRLINES	930	887
AMERIFLIGHT	218,842	-
MARTINAIRE	-	-
SUN COUNTRY	-	732,100
FRONTIER	-	-
TOTAL	264,484	850,865
	1,115,349	

2050 METROPOLITAN TRANSPORTATION PLAN

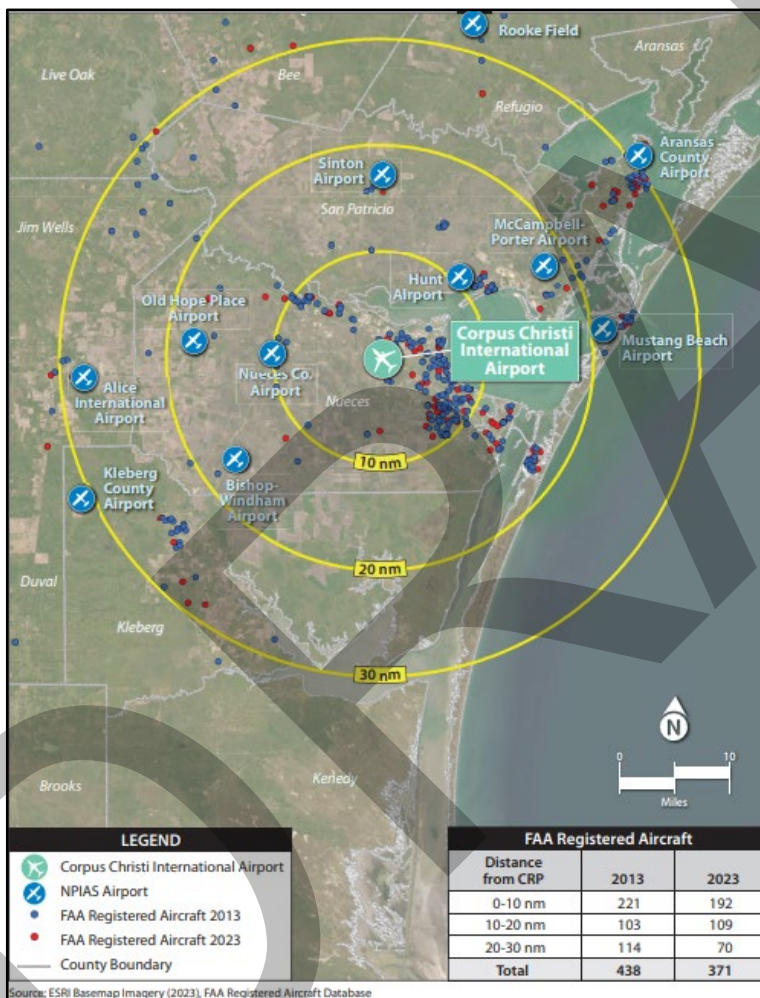
Exhibit 5-51 provides more detailed information on aircraft operations out of CCIA and trends over the past three years.

Exhibit 5-51. Table of Aircraft Operations, 2023-2025

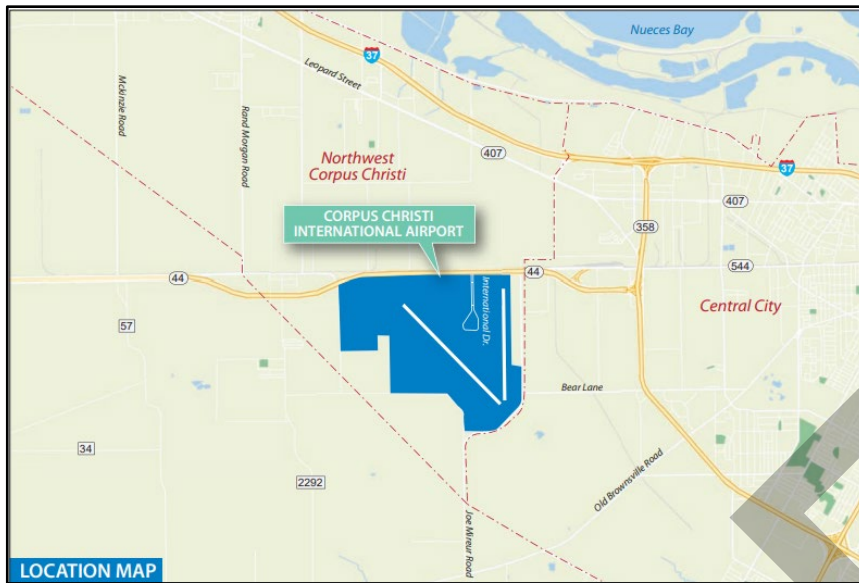
AIRCRAFT OPERATIONS	2025	2024	2023	% CHANGE 2025 to 2024	% CHANGE 2024 to 2023	2025	2024	2023	% CHANGE 2025 to 2024	% CHANGE 2024 to 2023
AIR TAXI	1,673	1,663	1,634	1%	2%	19,957	19,336	18,662	3%	7%
GENERAL AVIATION	1,746	1,562	1,296	12%	35%	24,435	21,242	16,327	15%	50%
TOTAL MILITARY	2,239	3,020	4,028	-26%	-44%	40,645	47,327	53,831	-14%	-24%
TOTALS	5,658	6,245	6,958	-9%	-19%	85,037	87,935	88,820	-3%	-4%

Overall, the Corpus Christi International Airport serves as a vital transportation hub for the region, connecting it to the broader air travel network while also playing a crucial role in supporting the local economy and community. Exhibit 5-52 displays the CCIA service area.

Exhibit 5-52. Map of General Aviation Service Area



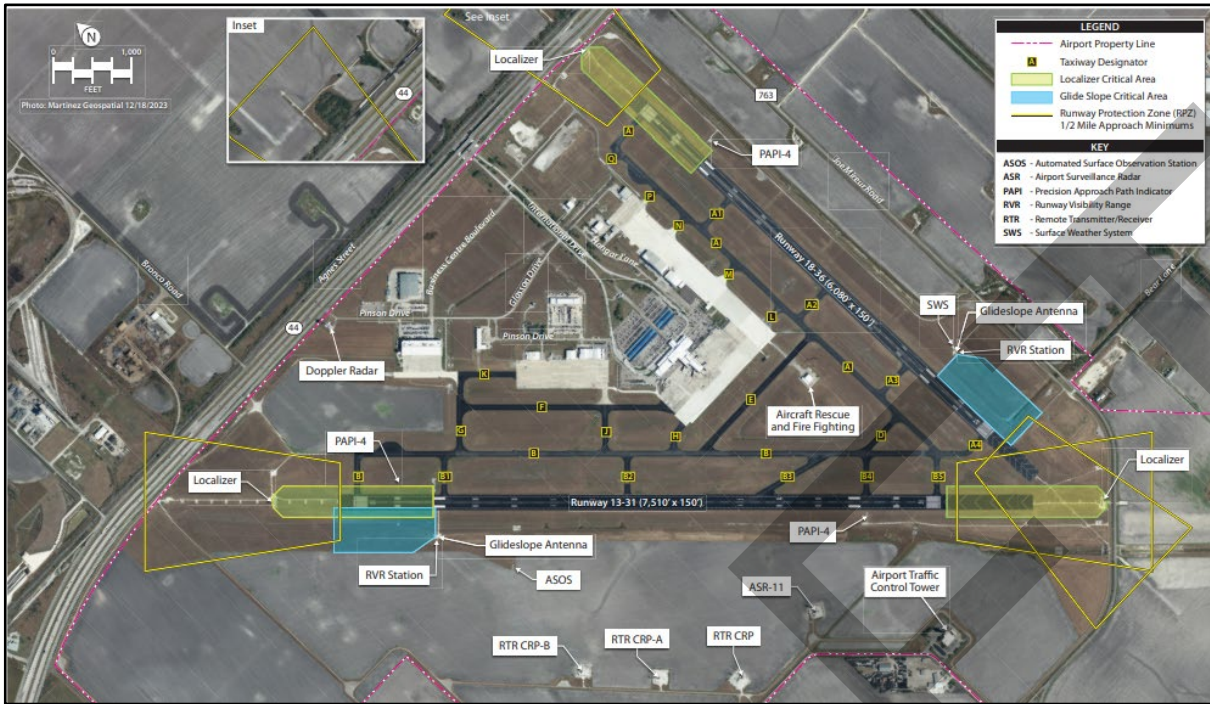
As shown in Exhibit 5-53, the airport is supported by a network of highways and roads, providing convenient access for travelers from both urban and rural areas within the region. Immediate access to the airport is via International Drive which connects directly to State Highway 44, an east/west corridor aligned north of the airport.

Exhibit 5-53. Map of Corpus Christi International Airport

Capital improvements for Corpus Christi International Airport (CCIA) are developed in accordance with the Airport Master Plan and the Federal Aviation Administration (FAA) grant funding process. The Master Plan establishes a program for improvement of existing facilities and the development of additional facilities over a twenty (20) year period. Exhibits 5-54 and 5-55 detail existing landside and airside facilities, respectively. The City of Corpus Christi adopted Capital Improvement program allocates nearly \$6 million in landside improvements, \$4.3 million in building improvements, and \$600 thousand in airside improvements for Fiscal Year 2026. These investments include over \$5 million for a full depth reconstruction of International Drive.

Exhibit 5-54. Map of CCIA Existing Landside Facilities**Exhibit 5-55. Map of CCIA Existing Airside Facilities**

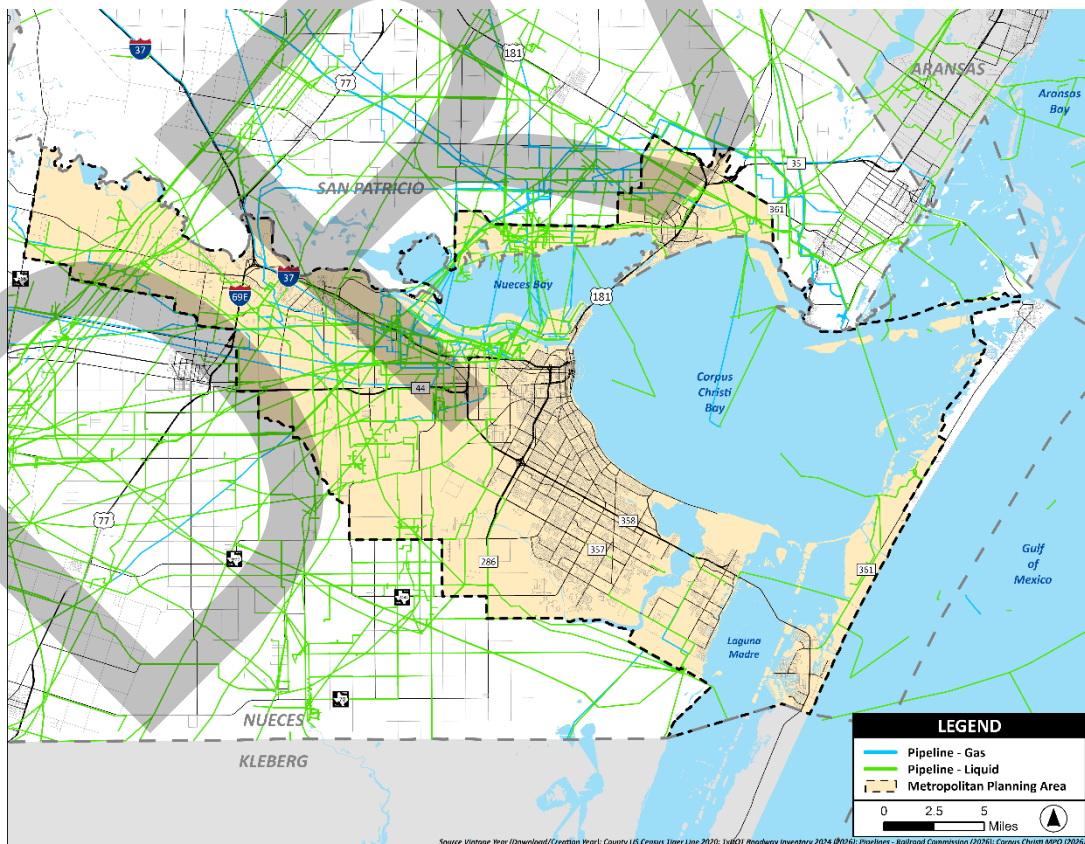
2050 METROPOLITAN TRANSPORTATION PLAN



PIPELINE

Pipeline infrastructure, while not directly managed by the MPO, is a critical component of the region's energy freight network. The Corpus Christi area is a major hub for crude oil, natural gas, and refined products pipelines connecting Permian Basin and Eagle Ford Shale production to Gulf Coast export terminals. Coordination between land-use planning, transportation infrastructure siting, and pipeline right-of-way management is an ongoing consideration in regional development and transportation planning.

Exhibit 5-56. Map of Regional Pipeline Facilities



ENVIRONMENTAL SUSTAINABILITY

The Environmental Sustainability goal addresses the fifth national planning factor: protecting and enhancing the environment, promoting energy conservation, improving the quality of life, and promoting consistency between transportation improvements and state and local planned growth and economic development patterns. For the Corpus Christi MPO, environmental sustainability planning is inseparable from coastal resilience — the region's Gulf Coast location creates both acute risks from storm surge and chronic risks from sea-level rise that directly threaten transportation infrastructure.

RESILIENCE AND SECURITY

The Corpus Christi MPO region faces a unique and acute combination of natural hazards — a dry southern Texas climate, location in 'hurricane alley' along the Gulf Coast, sea-level rise, coastal erosion, and land subsidence — that collectively pose significant and ongoing risks to the transportation system. The ability to sustain or quickly restore transportation operations in the face of these hazards can save lives and protect costly infrastructure investments. Hurricane Harvey starkly illustrated this reality in 2017: the storm destroyed or severely damaged 80 percent of homes and buildings in Rockport, Fulton, Bayside, Aransas Pass, and Port Aransas, demonstrating the scale of disruption that a direct or near-direct hit on the Corpus Christi metropolitan area could cause to the regional network.

In response to these conditions, the Corpus Christi MPO initiated development of a regional Resiliency Improvement Plan, contracting with the High Street Consulting Group to complete an analysis. The analysis identifies and prioritizes an initial set of transportation assets based on available data related to hazard vulnerability and asset criticality. This work is designed to position the MPO and its partner agencies to pursue federal PROTECT grant funding — a program established under the IIJA that provides both formula and competitive funding to states and communities for resilience planning and infrastructure improvements.

Resiliency is the ability of communities to rebound, adapt, and thrive amidst the challenges brought on by natural disasters and other hardships. The Corpus Christi MPO needs, in partnership with state, federal, and local agencies, to utilize the Statewide resiliency framework to assist in making long-term transportation investments that are more resilient to natural disasters.

Hazard Context

The resiliency analysis identified the following natural hazards as relevant to the Corpus Christi MPO region, consistent with findings from the literature review of 36 state, regional, and national resiliency plans and studies:

- **Flooding** — the most frequently cited hazard across all reviewed resources. This includes coastal flooding and storm surge (the abnormal rise of water generated by tropical storm events), riverine flooding (rivers and creeks overflowing their banks), and flooding of low-lying roadways and drainage infrastructure. FEMA National Flood Hazard Layer data shows substantial portions of the MPO planning area — particularly Padre Island, Flour Bluff, the downtown waterfront, and North Beach — within Special Flood Hazard Areas or coastal high-hazard areas with wave action.
- **Sea-Level Rise** — NOAA tide gauge data at Corpus Christi Bay records approximately 5.48 mm per year of relative sea-level rise, reflecting both global rise and local land subsidence. Under intermediate and high scenarios, low-lying coastal roadways on Padre Island and in the Flour Bluff lowlands face increasing chronic inundation risks within the MTP planning horizon.
- **Coastal Erosion** — the loss of land, marshes, wetlands, and beaches driven by wind, waves, tides, storm surges, and subsidence. Erosion threatens the physical stability of coastal transportation infrastructure and reduces the natural buffers that protect inland facilities from storm surge.
- **Extreme Heat and Heat Waves** — combinations of high temperatures and humidity that persist over two or more days. Extreme heat accelerates pavement deterioration, stresses bridge expansion joints, and increases maintenance costs across the system.
- **Strong Wind and Hurricanes** — the region's position on the Texas coast makes wind damage a persistent design and operational concern. Hurricane-force winds can compromise bridges, overhead

signing, signal infrastructure, and ITS equipment, while also generating the storm surge that threatens low-lying network elements.

- **Land Subsidence** — loss of surface elevation due to removal of subsurface support, including sinkhole formation. Subsidence can compromise roadway grades, drainage patterns, and structural foundations for bridges and facilities.
- **Drought and Expansive Soils** — prolonged precipitation deficits and soils that swell or shrink with moisture changes can compromise roadway and bridge foundations over time, a relevant consideration for the region's inland corridors.
- **Wildfire** — while lower-probability in the coastal urban area, wildfire risk exists in the vegetated periphery of the MPO planning boundary and is included in the full hazard inventory.

Transportation Asset Vulnerability

The analysis inventoried eleven categories of transportation assets for inclusion in the regional resiliency framework, based on their frequency of consideration in peer resiliency plans and availability of location and criticality data. The assets prioritized for the initial analysis are:

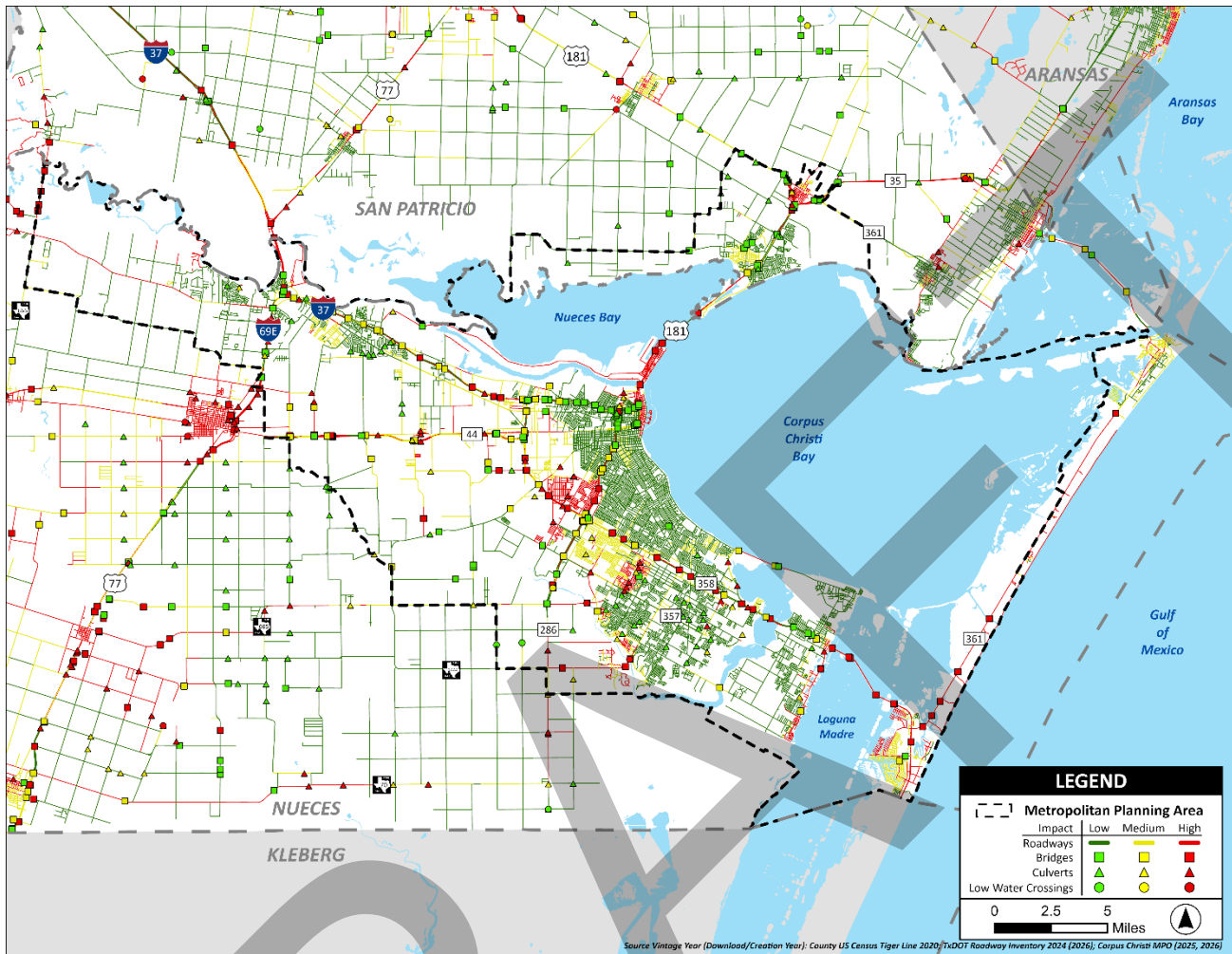
- **Roadways** — the most broadly referenced asset class across all reviewed resiliency resources. Roadways connect to all other asset types, serve multiple modes (passenger vehicles, freight, emergency response, transit, pedestrians, and bicyclists), and include designated hurricane evacuation routes. The CC MPO region's evacuation route network — including major evacuation routes, potential contraflow segments, and evacuation lanes — is a primary resiliency concern and a key criterion in asset prioritization.
- **Bridges** — referenced in five of the eight resiliency resources in the literature review, with robust location and condition data available through TxDOT and the National Bridge Inventory (NBI). Bridges are critical chokepoints: disruption of a single crossing can force significantly longer detour routes for both commuters and emergency responders. The NBI detour length field provides a data-driven proxy for the consequence of individual bridge closures.
- **Large Culverts** — drainage structures with spans greater than 20 feet that are included in the NBI. Culverts are vulnerable to scouring and overtopping during flood events and represent a frequently overlooked element of the road network's flood resilience.
- **Low Water Crossings** — low-elevation roadway sections designed to be submerged under high-flow conditions. These crossings are inherently flood-vulnerable and can become impassable during storm events, severing local access in rural and semi-rural areas of the MPO planning boundary.
- **Seaports** — the Port of Corpus Christi's marine terminals, shipping channel, and land-side access infrastructure represent a unique and nationally significant asset concentration. Port disruption during or after a storm event has regional and national economic consequences.
- **Railways** — freight rail lines serving the Port and the petrochemical corridor, whose disruption can affect both regional freight mobility and emergency logistics.
- **Airports** — Corpus Christi International Airport (CRP) and regional general aviation facilities, which serve critical roles in emergency response, medical evacuation, and post-disaster recovery operations.
- **Transit Facilities** — CCRTA's fixed-route network and demand-response services, which have a formal emergency preparedness policy and provide evacuation services for multiple cities and unincorporated areas in Nueces County under the direction of the Nueces County Emergency Management Offices.
- **Oil and Gas Pipelines** — the extensive pipeline network connecting Permian Basin and Eagle Ford Shale production to Gulf Coast export terminals through the Corpus Christi area. Damage to pipeline infrastructure during storm events can have cascading effects on regional and national energy supply.
- **ITS and Ancillary Assets** — traffic signals, CCTV cameras, dynamic message signs, and communications networks. ITS infrastructure is critical for real-time traffic management during evacuation events but is also particularly vulnerable to wind and flooding damage.

Criticality Framework

The resiliency analysis employs a criticality framework — consistent with FHWA's Vulnerability and Adaptation Framework and the USDOT Gulf Coast Study — to prioritize transportation assets based on the potential consequence of their failure or disruption. Criticality is assessed across three categories:

- **Socio-Economic Criteria** — the Social Vulnerability Index (SVI) from FEMA's National Risk Index is used to score each asset based on the vulnerability of the surrounding community. Assets serving communities with higher social vulnerability are prioritized, as those communities may experience disproportionate negative impacts from infrastructure disruption and have less capacity to recover.
- **Use and Operational Criteria** — Average Annual Daily Traffic (AADT) is used to prioritize roadways, bridges, and low water crossings based on their daily utilization. Detour length — the distance a user would need to travel around a closed bridge — provides a secondary operational criterion that captures the network-level consequence of individual bridge failures.
- **Health and Safety Criteria** — assets located on designated hurricane evacuation routes receive elevated priority, as their continuity is critical to life-safety operations during storm events. Additionally, assets within 0.1 miles of critical facilities — police stations, fire stations, emergency medical facilities, and schools — are prioritized based on their importance for emergency access.

The criticality scores were combined with hazard exposure data to produce an overall asset vulnerability and priority ranking. The Corpus Christi MPO are able to modify individual criterion weights based on local knowledge and stakeholder input, ensuring that the framework reflects regional priorities. Findings will directly inform the MPO's pursuit of IJA PROTECT formula and discretionary grant funding for resilience improvements. Exhibit 5-57 displays the critical and exposed infrastructure; i.e. Roadways, Bridges, Culverts, and Low Water Crossings.

Exhibit 5-57. Map of Critical and Exposed Infrastructure

Regional Resiliency Planning Context

The Corpus Christi MPO's resiliency work is situated within a broader regional and statewide planning context. The Nueces County Hazard Mitigation Action Plan (2023 HMAP Draft), sponsored by the Coastal Bend Council of Governments, identifies hazards and vulnerabilities across county jurisdictions and provides a community-level foundation for infrastructure mitigation planning. The Nueces Regional Flood Plan — one of 15 regional flood plans overseen by the Texas Water Development Board — evaluates current and future flood risk and identifies the most vulnerable communities and critical facilities, including roadways, bridges, culverts, and low water crossings.

At the state level, the TxDOT Statewide Resiliency Plan (initiated December 2022) is designed to satisfy Texas's IIJA PROTECT requirements and provide a resource for state and local agencies pursuing further resilience funding. The Texas Coastal Resiliency Master Plan (TCRMP 2023), produced by the Texas General Land Office, ranks coastal protection and restoration projects across five hazards — including riverine and coastal flooding — across 48 coastal subregions, with Region 3 covering the Corpus Christi area. The City of Corpus Christi Emergency Operations Center (EOC) coordinates local, regional, state, and national emergency response and is a key institutional partner for transportation network resiliency operations during and after hazard events.

Together, these resources — and the Corpus Christi MPO's own resiliency analysis — establish the factual and analytical foundation for resiliency investments in the 2050 MTP. The environmentally sensitive areas of the Corpus Christi Bay system, Nueces Bay, Oso Bay, Baffin Bay, and the Laguna Madre also intersect with resiliency planning, as these aquatic ecosystems provide natural buffers against storm surge and coastal flooding. Preserving these natural systems, coordinating with resource agencies (USACE, USFWS, TPWD, TCEQ)

through the Planning and Environmental Linkages process, and designing transportation infrastructure to minimize impacts on coastal wetlands are integral components of the region's long-term resilience strategy.

REDUCED PROJECT DELIVERY DELAYS

Efficient system management and operation — the seventh national planning goal — encompasses not only the operational performance of the transportation network but also the efficiency with which transportation projects are developed and delivered. Project delivery delays increase costs, delay benefits to users, and reduce the overall productivity of federal transportation investment. This section addresses the planning and environmental linkages (PEL) process, addressing the importance of early coordination, proactive planning, and removing institutional and procedural barriers to timely project implementation.

PLANNING AND ENVIRONMENTAL LINKAGES (PEL)

The Planning and Environmental Linkages (PEL) approach integrates environmental considerations into the transportation planning process early, enabling planners and project sponsors to identify environmental constraints, resource agency concerns, and community sensitivities before projects reach the NEPA project development phase. By resolving potential environmental issues at the planning level, PEL reduces the likelihood of costly delays, redesigns, and litigation during project delivery.

For the Corpus Christi MPO, the region's coastal geography and sensitive ecosystems make early environmental coordination especially important. Resource agencies — including the U.S. Army Corps of Engineers, USFWS, TPWD, TCEQ, and the Texas SHPO — have jurisdiction over a range of transportation project activities in the planning area. The MPO coordinates with these agencies through the 2050 MTP development process, consistent with FHWA and FTA PEL guidance, to ensure that environmental considerations inform corridor and investment decisions before project-level environmental review is initiated.

SYSTEM PERFORMANCE SUMMARY

The existing conditions analysis across all seven goals identifies the following priority gaps and deficiencies that the 2050 MTP's needs assessment and investment strategy are designed to address:

Safety: The regional crash rate exceeds the statewide average, with a concentrated High-Injury Network on urban arterials. Non-motorized safety improvements are needed on key pedestrian and bicycle corridors, particularly in disadvantaged communities where pedestrian exposure is highest.

Infrastructure Condition: Baseline pavement condition data indicate significant funding needs in the region, while bridge infrastructure condition metrics reveal only one facility in poor condition. Coastal climate conditions accelerate deterioration and require increasing maintenance investments.

Congestion Reduction: Several key corridors experience peak-period congestion that reduces mobility for commuters and freight carriers, primarily attributable to traffic signal coordination deficiencies. No-recurring congestions, caused by traffic crash incidents, represent the largest source of total delay.

System Reliability: 99% of person-miles traveled on the NHS within the MPO area occurred on segments where travel times were reliable. Missing connections in the pedestrian and bicycle networks are critical to improving overall transportation system reliability, especially given the importance of these system to the accessibility of the regional transit network.

Freight Movement and Economic Vitality: Port access road capacity and condition require sustained investment to support growing export volumes with local, state, and national economic impacts. At-grade rail crossings on key corridors present safety and delay risks to the freight network.

Environmental Sustainability: The region faces a unique combination of natural hazards — storm surge, coastal flooding, sea-level rise, coastal erosion, extreme heat, and high winds — that directly threaten

transportation infrastructure. The Corpus Christi MPO's Resiliency Improvement Plan has built the asset vulnerability and criticality framework needed to prioritize resilience investments.

Reduced Project Delivery Delays: Early environmental coordination through the PEL process is essential to reducing project delivery timelines for major capital investments in a coastal, resource-rich environment.

BRIDGE TO GOALS AND PERFORMANCE MEASURES

The system conditions documented in this chapter directly inform the 2050 MTP's Goals, Objectives, and Performance Measures (Chapter 3). Each of the seven Federal Planning Goals addressed here maps to one or more of the Corpus Christi MPO's 2050 MTP goals. The needs assessment that follows in Chapter 7 identifies the gap between current conditions and the region's 2050 vision to develop the fiscally constrained project list and financial plan that are the core federal deliverables of the metropolitan transportation planning process under 23 CFR Part 450.