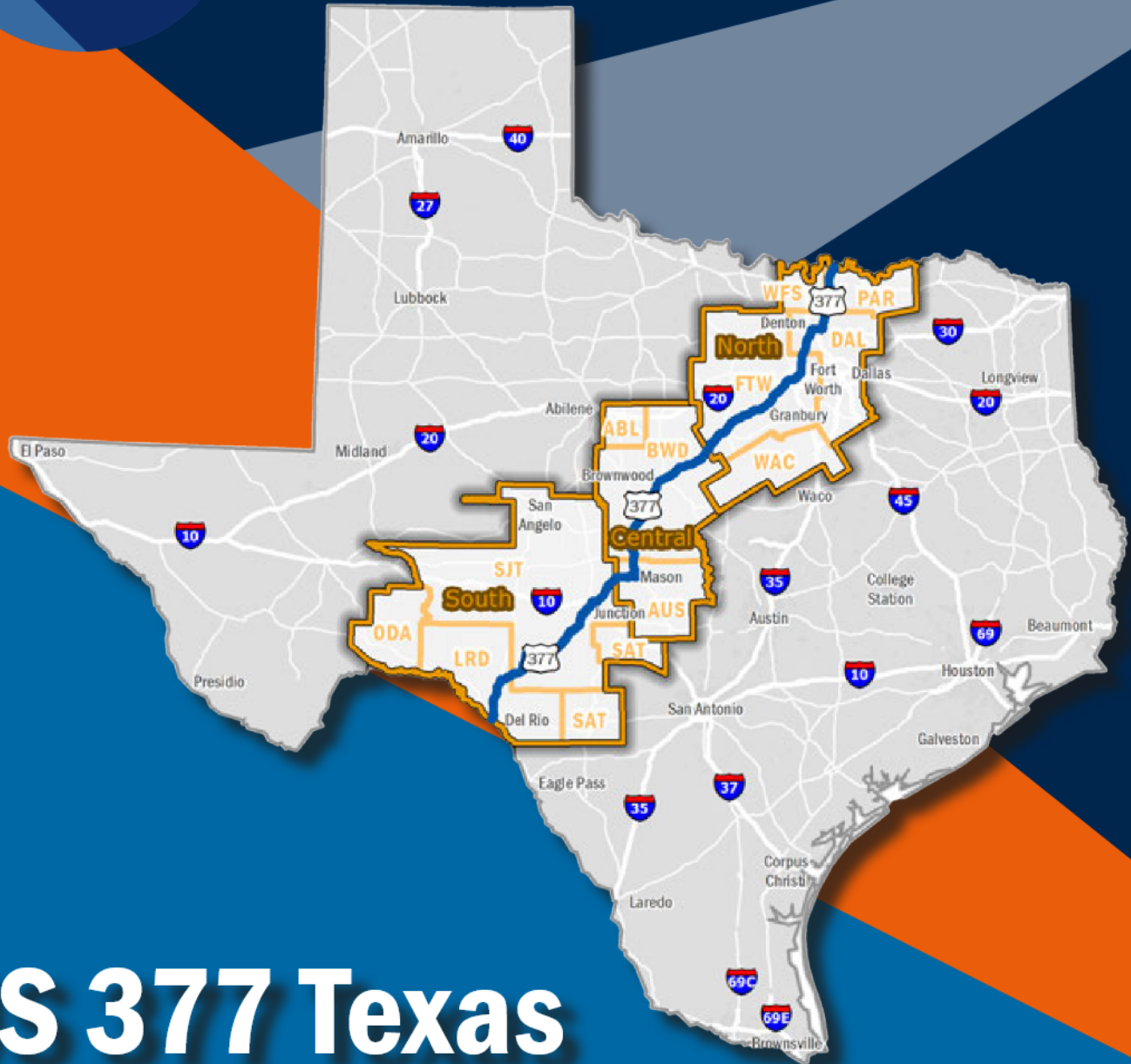




US 377 Texas Corridor Study



Transportation Planning and
Programming Division

JULY 2025

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Acronyms

Acronym	Term
AADT	Annual Average Daily Traffic
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADAS	Advanced Driver Assistance Systems
AFB	Airforce Base
AI	Artificial Intelligence
ASOS	Automated Surface Observing System
ATP	Active Transportation Plan
AV	Autonomous Vehicles
AWOS	Automated Weather Observing System
BEA	Bureau of Economic Analysis
Blvd	Boulevard
BTS	Bureau of Transportation Statistics
BUILD	Better Utilizing Investments to Leverage Development
BUS	Business U.S. Highway
C.R.I.S	Crash Records Information System
CCTV	Closed-circuit television
CMAQ	Congestion Mitigation and Air Quality
CMV	Commercial Motor Vehicle
COG	Council of Governments
CRISI	Consolidated Rail Infrastructure and Safety Improvements
CTR TD	Central Texas Rural Transit District
CV	Connected Vehicles
CVT	Concho Valley Transit District
DART	Dallas Area Rapid Transit
DCTA	Denton County Transportation Authority
DFW	Dallas-Fort Worth
DMS	Dynamic message signs
DOD	Department of Defense
Dr	Drive
DRT	Demand-Response Transportation
DVMT	Daily Vehicle Miles Traveled
EV	Electric Vehicle
FAA	Federal Aviation Administration

Acronym	Term
FHWA	Federal Highway Administration
FIRE	Finance, Insurance, Real Estate, Rental and Leasing
FM	Farm-to-Market
FSP	Federal-State Partnership
FTA	Federal Transit Administration
FY	Fiscal Year
GARVEE	Grant Anticipation Revenue Vehicle
GDP	Gross domestic product
HB	House Bill
HOTRTD	Heart of Texas Rural Transit District
HSIP	Highway Safety Improvement Program
I	Interstate
ICB	Intercity Bus
IIJA	Infrastructure Investments and Jobs Act
INFRA	Infrastructure for Rebuilding America
ISA	Intelligent Speed Assistance
ITS	Intelligent Transportation Systems
ITS	Intelligent Transportation Systems
MHI	Median household income
MPO	Metropolitan Planning Organization
NCTCOG	North Central Texas Council of Governments
NHFP	National Highway Freight Program
NHPP	National Highway Performance Program
NLCD	National Land Cover Database
NWS	National Weather Service
OEM	Original Equipment Manufacturers
OLS	Operation Lone Star
PDO	Property Damage Only
POE	Port of Entry
POV	Privately Owned Vehicle
PTS	Public Transit Services
Rd	Road
RDM	Roadway Design Manual
ROW	Right-of-Way
RTPO	Regional Transportation Planning Organization
SH	State Highway

Acronym	Term
SRC	Southern Rail Commission
St	Street
STBG	Surface Transportation Block Grant
STP	Surface Transportation Program
SUP	Shared Use Path
TAP	Transportation Alternatives Program
TAPS	Texoma Area Paratransit Services
TDM	Transportation Demand Management
TDWR	Terminal Doppler Weather Radar
TIFIA	Transportation Infrastructure Finance and Innovation Act
TMCS	Traffic management centers
TPP	Transportation, Planning, and Programing Division
TRC	Texas Railroad Commission
TRE	Trinity Railway Express
Trunk System	Texas Highway Trunk System
TTS	The Transit System, Inc.
TxDOT	Texas Department of Transportation
U.S.	United States
U.S. Census	U.S. Census Bureau
US	United States Highway
USBRS	U.S. Bicycle Route System
USDA	United States Department of Agriculture
USDOT	US Department of Transportation
USGS	United States Geological Survey
UTC	University Transportation Centers
UTP	Unified Transportation Program
VMT	Vehicle Miles Traveled
WIM	Weigh-in motion
WSR-88D	Weather Surveillance Doppler Radar

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Finally, thanks to the public who took the time to complete over 3,700 online surveys and provide input related to the US 377 corridor to help shape the future of the US 377 corridor.

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1

Introduction



1.1 Study Background

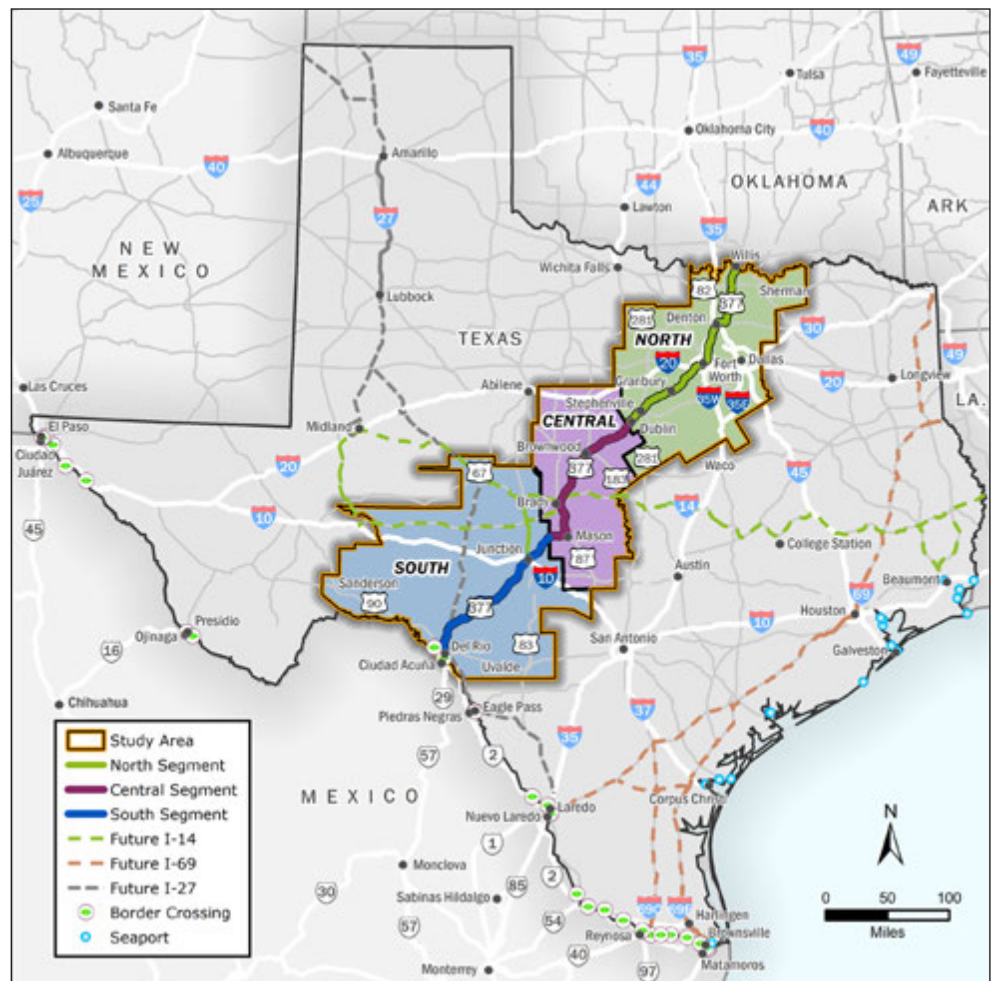
The Texas Department of Transportation (TxDOT) – Transportation Planning and Programming (TPP) Division initiated the United States Highway (US) 377 Texas Corridor Study in 2024 as a long-range, comprehensive review of this regionally and locally significant corridor in Texas. US 377 is a significant corridor in facilitating economic opportunities, freight movement, and regional mobility from the international border at Del Rio to the Texas-Oklahoma state line. As one of Texas' critical highway routes and a key component of the Texas Trunk System and freight network, the US 377 corridor connects smaller communities, rural areas, and important economic and recreational regions within Texas and the U.S.-Mexico border.

The US 377 Texas Corridor Study is a concept-level planning effort that seeks to identify needs, gaps, and potential improvements to support economic growth, accommodate population increases, and manage rising traffic over the next 25 years. Guided through a corridor-wide Steering Committee with input from Segment Working Groups, TxDOT Districts and Divisions, the public, and private sectors, this study envisions a future where the US 377 corridor provides a safe, efficient, and connected multimodal corridor that supports economic growth, international trade, freight and passenger movement, regional mobility, infrastructure maintenance, and integration of advancements in technology to serve future transportation needs.

Spanning 462 miles, the US 377 corridor is an optimal diagonal route that connects the Del Rio Port of Entry (POE) in the south to the Dallas-Fort Worth (DFW) metro area and the Texas-Oklahoma state line in the north (**Figure 1-1**). Texas cities near the US 377 corridor include Del Rio, Junction, Mason, Brady, Brownwood, Dublin, Stephenville, Granbury, Dallas, Fort Worth, Denton, and Sherman. The US 377 corridor is concurrently designated with US 277 north of Del Rio to the south of the Val Verde/Edwards County line; this section is planned as part of the future Interstate (I)-27.

This study envisions a future where the US 377 corridor provides a **safe, efficient, and connected** multimodal corridor that supports **economic growth, international trade, freight and passenger movement, regional mobility, infrastructure maintenance, and integration of advancements in technology** to serve future transportation needs

Figure 1-1. US 377 Corridor Extent



At the southern end of the corridor, US 377 provides an important connection to the Del Rio POE and two border crossings: the Del Rio International Bridge and the Lake Amistad Dam Crossing. The US 377 corridor intersects with I-10 in the south near Junction. The future I-14 will intersect with US 377 near Junction. US 377 also connects several other major interstates and highways, including I-10/US 83 in Junction, I-20/I-820 in Benbrook, I-30/I-35W/US 287 in Fort Worth, I-35E in Denton, and I-40 near Seminole, Oklahoma. US 377 also connects to Mexican Federal Highways 9, 40, and 57 in Mexico, which lead to Del Rio and the critical seaports of Mazatlán and Altamira.

In the north, US 377 continues nearly 150 miles past the study boundary into Oklahoma, including the cities of Madill, Tishomingo, Seminole, Prague, and Stroud, with the northern terminus being at State Highway (SH) 99 north (N)/I-44 exit/Turner Turnpike – Oklahoma City, Tulsa.

As shown in **Figures 1-2** through **1-4**, the US 377 corridor is divided into three segments: south, central, and north, which are described as follows:

- **South:** The South Segment spans approximately 154 miles from the Mexico/City of Del Rio border to the Menard/Mason County line.
- **Central:** The Central Segment spans approximately 132 miles from the Menard/Mason County line to the Comanche/Erath County line.
- **North:** The North Segment spans approximately 176 miles from the Comanche/Erath County line to the Oklahoma state line.

Figure 1-2. US 377 Texas Corridor Study Area – South Segment

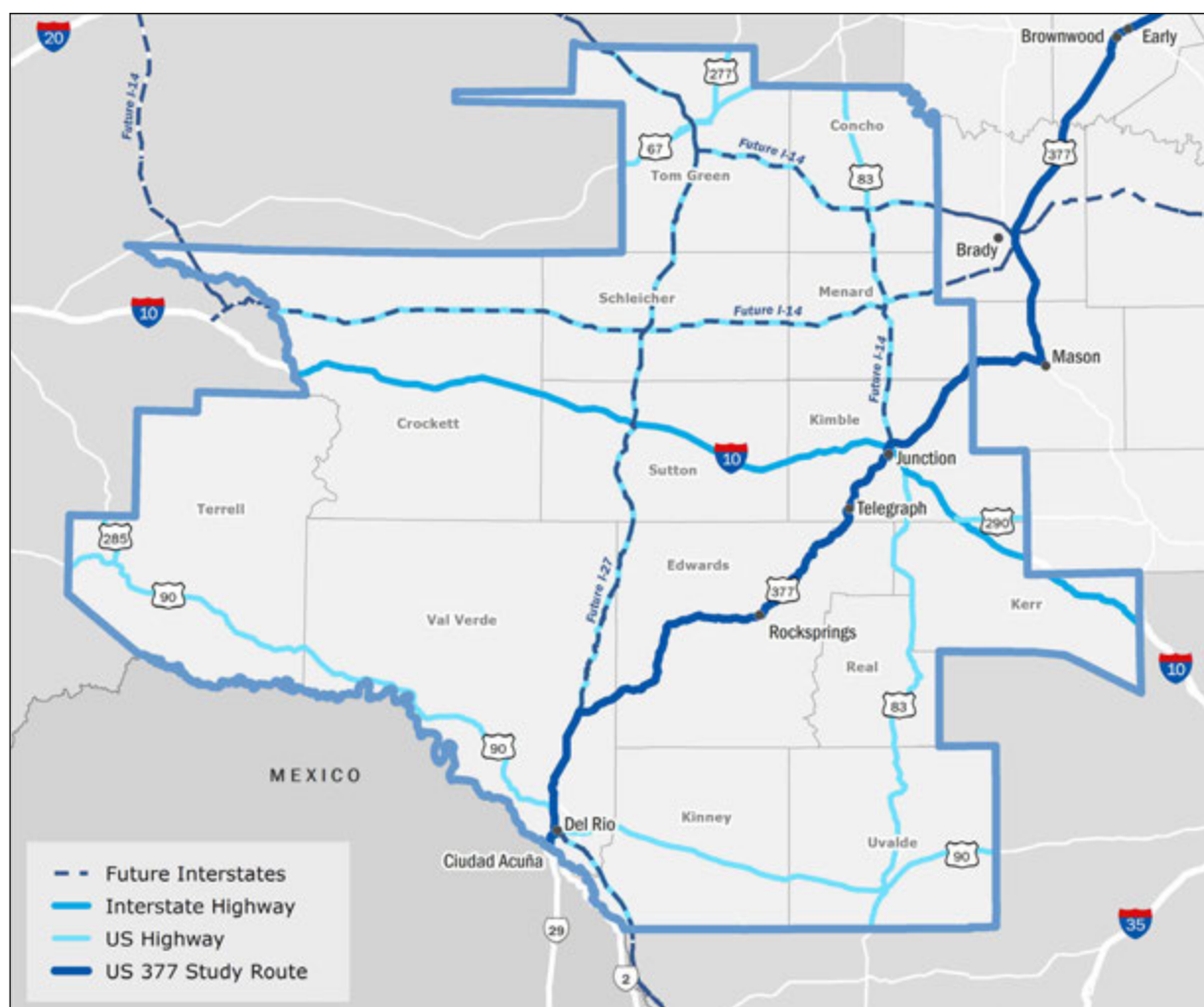


Figure 1-3. US 377 Texas Corridor Study Area – Central Segment

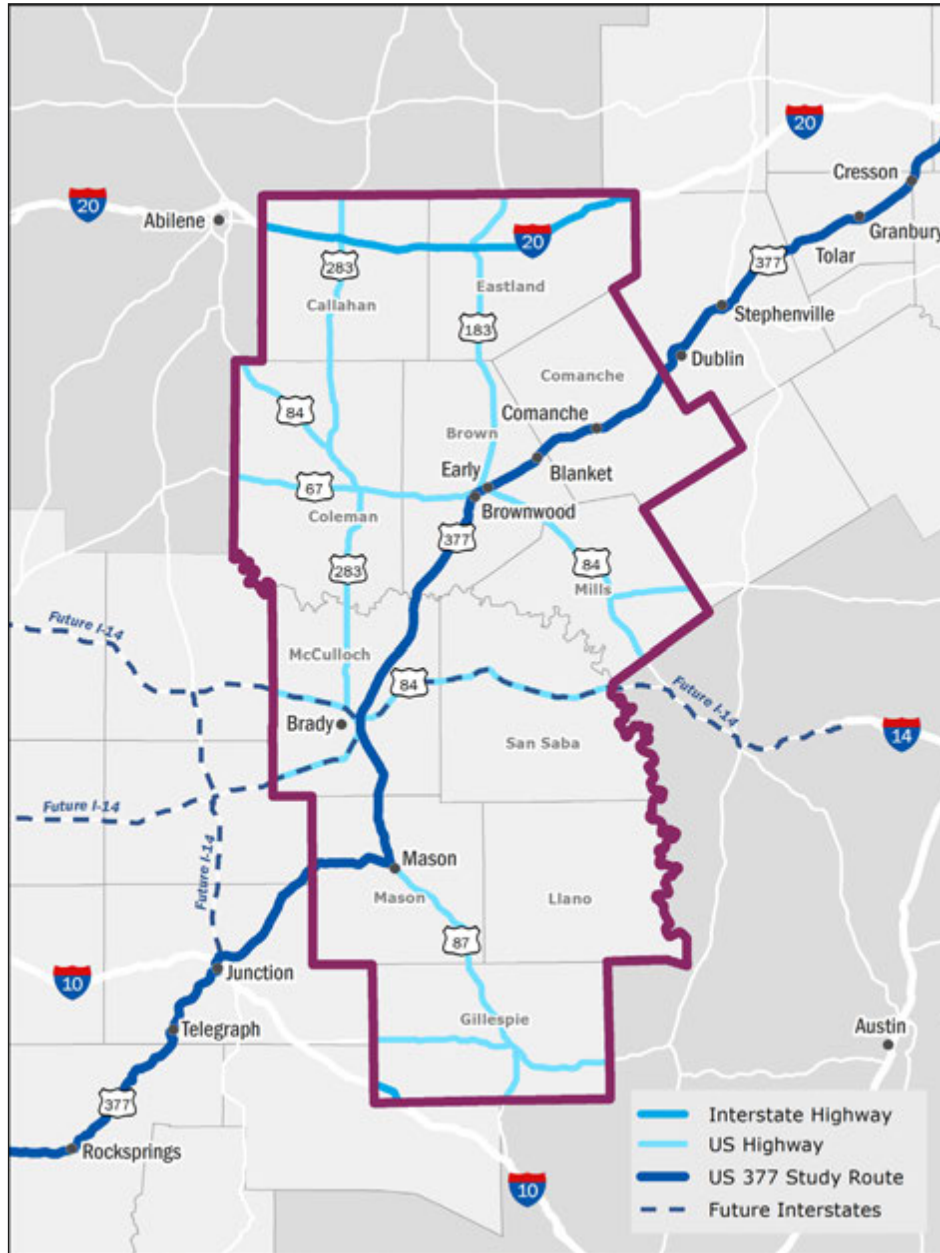
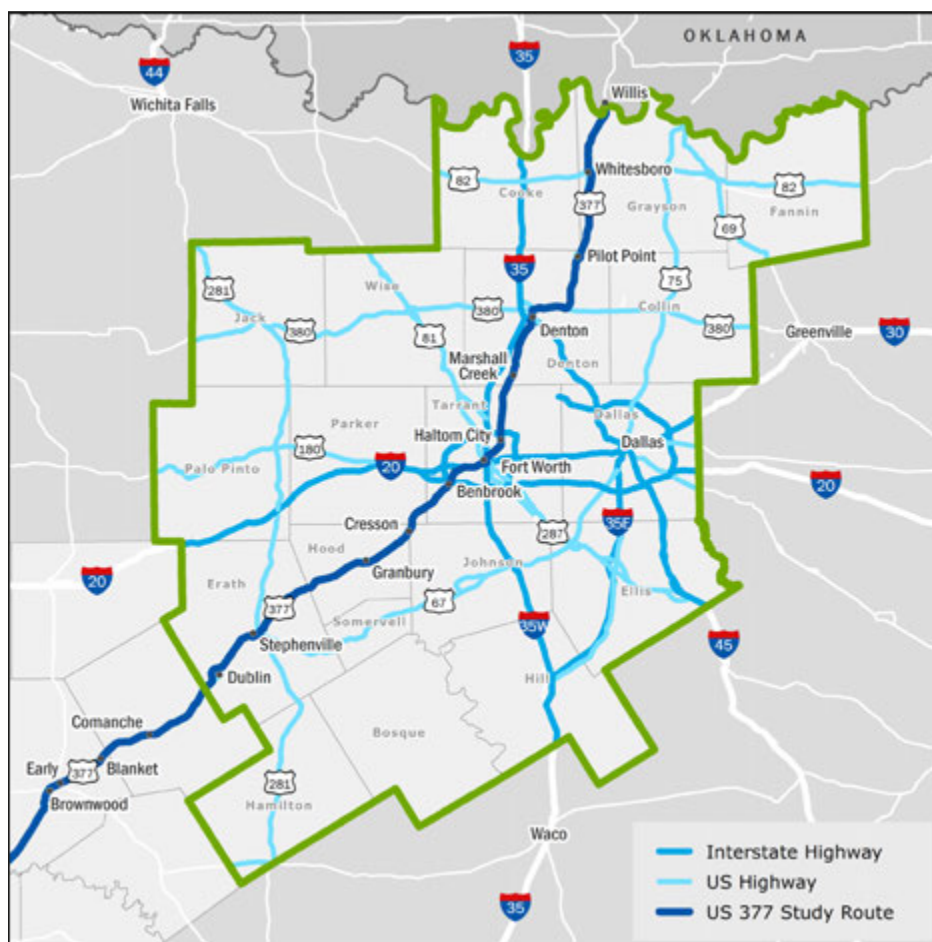


Figure 1-4. US 377 Texas Corridor Study Area – North Segment



The US 377 corridor is of significant regional and local importance:

- The corridor plays a vital role in facilitating the movement of people and goods, serving as one of Texas' critical highway routes that connects the international border at the Del Rio Port of Entry, through DFW (one of the largest metros in the United States (U.S.)) and the Texas-Oklahoma state line¹.
- The importance of the US 377 corridor is highlighted through the nearly nine million Texans within the study area that the corridor served in 2023, which accounted for 28 percent (%) of the state's population².
- The US 377 corridor provides key connections to the entirety of Texas through its role as part of both the Texas Highway Trunk System (Trunk System) and the Texas Highway Freight Network. Approximately 30% of the corridor is part of the Trunk System (138 miles)³.
- The corridor links smaller communities, rural areas, and important economic and recreational regions within Texas and the U.S.-Mexico border⁴.

¹TRANSEARCH (2022). Truck Tonnage Data. Retrieved September 9, 2024

²S&P Global (2024). Demographic Data. Retrieved September 9, 2024

³TxDOT Open Data Portal, 2024

⁴U.S. Bureau of Economic Analysis (2022), Industry Data, Retrieved September 9, 2024

Expected job growth in the study area of **29%** from **4.4 Million** in 2023 to **5.7 Million** by 2050 (S&P Global)

43% growth in freight tonnage moved within the study area from **401 Million** in 2022 to **574 Million** by 2050 (TRANSEARCH)

Study Area's Top 3 Industries in 2022

1. Finance, Insurance, Real Estate, Rental and Leasing (\$163 B)
2. Professional and Business Services (\$64 B)
3. Manufacturing (\$61 B)

(U.S. Bureau of Economic Analysis)

- The US 377 corridor connects 14 Council of Governments (COGs), Metropolitan Planning Organizations (MPOs), and four Regional Transportation Planning Organizations (RTPOs); 32 cities; 44 counties; 1 POE; and two border crossings, making it integral to the state's economic and transportation infrastructure.
- The US 377 corridor still needs to be updated to interstate standards as 84 miles have yet to be upgraded to a four-lane divided interstate.

1.2 Study Approach

The US 377 Texas Corridor Study aligns with the TxDOT Corridor Planning Guidebook (2024) by conducting a regional, concept-level long-range transportation planning effort to enhance safety, support economic growth, accommodate population increases, and manage existing and future traffic on the US 377 corridor over the next 25 years. It establishes a shared vision through stakeholders, communities, and TxDOT collaboration, setting clear goals, and objectives. The study employs a data-driven approach combined with local insights to identify deficiencies, needs, and targeted improvements, ensuring a comprehensive and actionable plan for the districts.

The US 377 Texas Corridor Study considers a wide range of issues, needs, and improvements. The study followed a structured, phased approach to analyzing conditions, engaging stakeholders, and developing prioritized recommendations. **Figure 1-5** illustrates the development timeline for the study, including key milestones and ongoing stakeholder engagement that informed each phase. **Figure 1-6** illustrates key considerations in this study.

Figure 1-5. US 377 Texas Corridor Study Development Approach Timeline

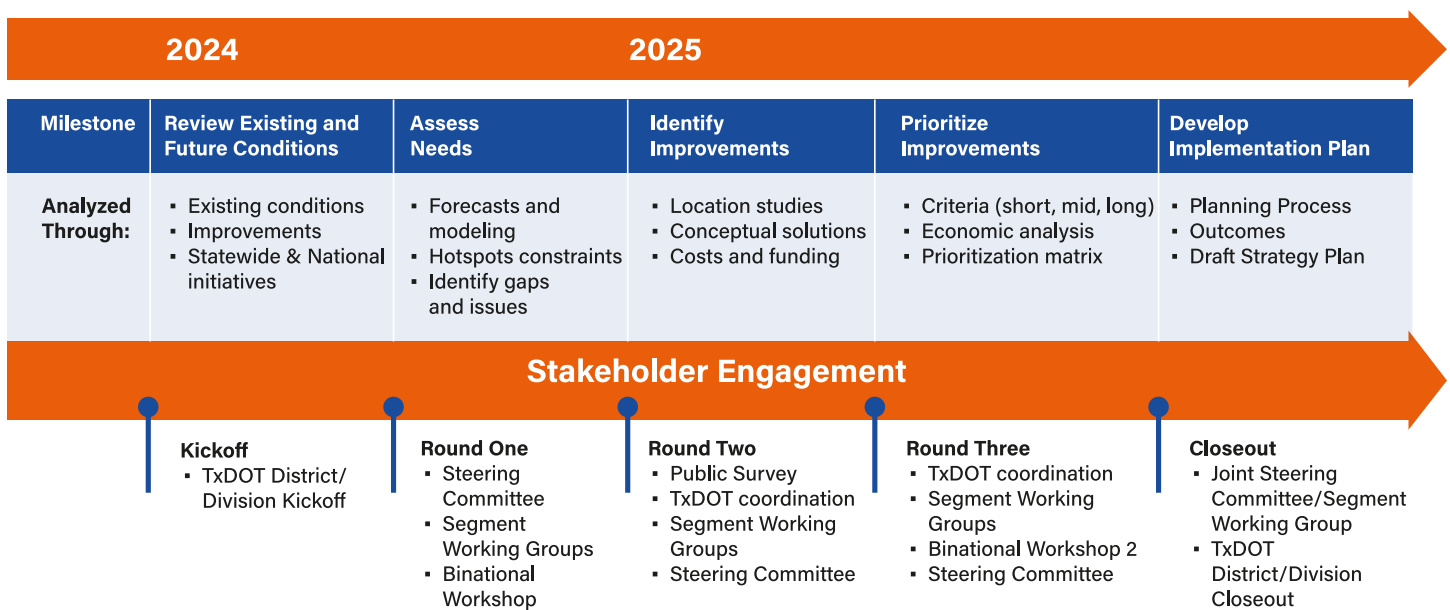


Figure 1-6. Key US 377 Corridor Considerations



The US 377 Texas Corridor Study includes the following chapters:

- **Chapter 1: Introduction** provides an overview of the US 377 corridor, study purpose, approach, and key considerations.
- **Chapter 2: Vision, Goals, and Objectives of the US 377 Texas Corridor Study** summarizes the vision, goals, and objectives of this study. The chapter also summarizes the stakeholder and public engagement approach regarding the expectations of this study.
- **Chapter 3: Significance of the US 377 Corridor** presents the corridor's existing and future land use context, demographics, and economic importance.
- **Chapter 4: Corridor Characteristics** summarizes needs along the US 377 corridor identified through technical analysis, including a review of roadway characteristics, existing and forecasted traffic conditions, transportation accommodations, safety statistics, infrastructure and environmental conditions, resiliency, and Intelligent Transportation Systems (ITS).
- **Chapter 5: Stakeholder Engagement and Public Involvement** summarizes needs identified through public engagement, including public surveys, interviews, and stakeholder meetings.
- **Chapter 6: Study Recommendations and Implementation Plan** discusses proposed improvements for the US 377 corridor, including the evaluation and prioritization processes.
- **Chapter 7: Funding Opportunities** summarizes funding opportunities for improvements along the US 377 corridor.
- **Chapter 8: Emerging Technologies** concludes this report by summarizing the impact of emerging transportation planning technologies along the US 377 corridor.

In addition, supplemental information on the US 377 Texas Corridor study can be found in the following appendices:

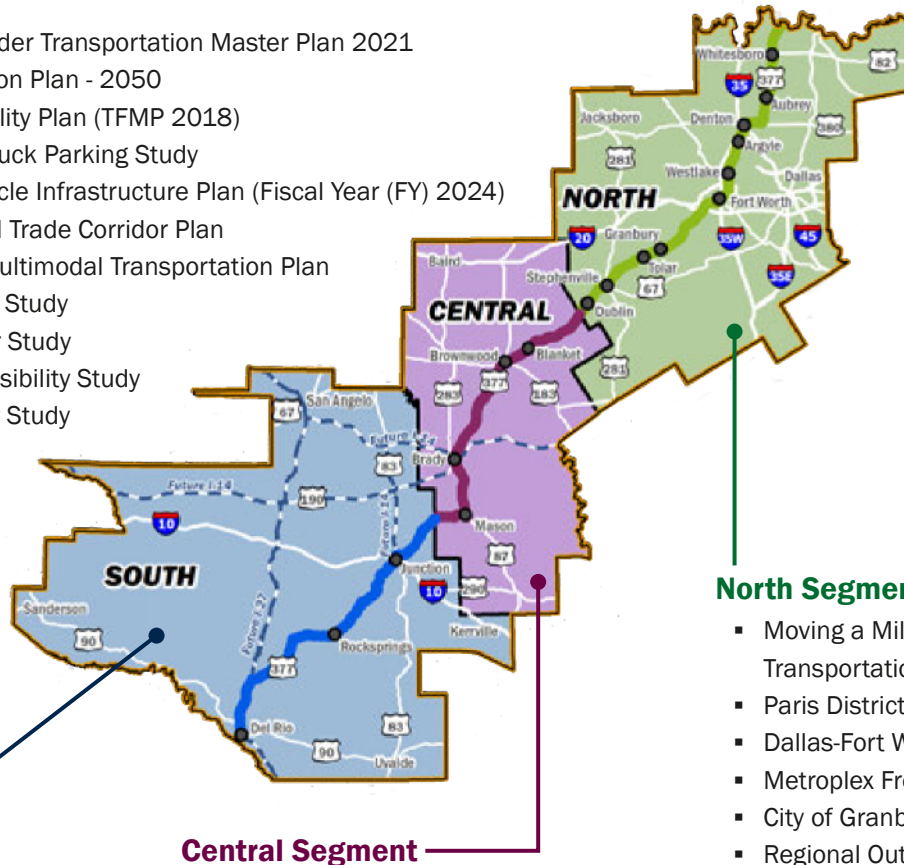
- **Appendix A: Study Improvement Recommendations** details proposed improvements and includes the evaluation results, proposed improvement limits, proposed improvement description, implementation time frame and cost estimates.
- **Appendix B: Summary of Stakeholder Meetings and Presentation** provides summaries of stakeholder meetings and presentations conducted.
- **Appendix C: Summary of Public Survey** provides a detailed summary of the public survey findings.
- **Appendix D: Binational Workshop Summary** provides summaries of binational workshops held.

1.3 Other Relevant Studies and Plans

The final recommendations from this study were informed by ongoing plans, previously completed studies, major investments and district development projects identified along the US 377 corridor. These included 21 plans from COGs, MPOs and RTPOs; and 63 current investments and ongoing district development projects, such as:

Statewide

- Texas - Mexico Border Transportation Master Plan 2021
- Texas Transportation Plan - 2050
- Texas Freight Mobility Plan (TFMP 2018)
- Texas Statewide Truck Parking Study
- Texas Electric Vehicle Infrastructure Plan (Fiscal Year (FY) 2024)
- Texas International Trade Corridor Plan
- Texas Statewide Multimodal Transportation Plan
- Texas Intercity Bus Study
- I-20 Texas Corridor Study
- Ports-to-Plains Feasibility Study
- I-10 Texas Corridor Study
- Future I-14
- US 287 Corridor Feasibility Study



South Segment

- San Angelo District TSMO Plan
- Laredo District TSMO Plan

Central Segment

- Brownwood District TSMO Plan
- US 377/Main Street – Brownwood Study
- US 377 Relief Route Study

North Segment

- Moving a Million: Fort Worth Master Transportation Plan
- Paris District TSMO Plan
- Dallas-Fort Worth District TSMO Plan
- Metroplex Freight Mobility Study
- City of Granbury Comprehensive Plan
- Regional Outer Loop Study - Denton County
- Dallas-Fort Worth Air Quality Improvement Plan

Highlighted plans and studies include the following:

- 1. Future I-14:** Completed in 2024, this plan was developed to upgrade a series of highways designated by Congress to interstate standards. The future I-14 extends from the Permian Basin in the west, to the Louisiana border in the east, to the Port of Beaumont and the Port of Port Arthur in the southeast. The plan summarizes current and projected conditions within the roadway network and outlines recommended near-, mid-, and long-term projects, an implementation plan, and additional planning studies. The plan emphasizes enhancing capacity, safety, and mobility across the network through upgrades to existing highways over these time horizons. Overall, the plan provides individual districts with implementation plans, specific project lengths, and cost estimates to upgrade segments of the roadway network to interstate standards over time. Currently, 949 out of 1,027 miles of the future I-14 does not meet interstate standards, with no consistent signage. There is no dedicated funding to complete upgrades, meaning that each project will need to compete for state funding.

Relevance to US 377: US 377/US 87 overlaps with I-14 in the City of Brady, McCulloch County in Brownwood District, spanning approximately 2.5 miles. The limits extend from the existing intersection of US 377/87 with US 190/Menard Highway in the south to the US 190/Boy St intersection in the north.

2. I-10 Texas Corridor Study: In 2021, TxDOT initiated the I-10 Texas Corridor Study to identify, assess, and prioritize strategies to improve safety, mobility, and connectivity to meet future transportation needs along the corridor over the next 25 years. This long-range corridor study covers the entire stretch of I-10 in Texas, from the New Mexico border in the west to the Louisiana border in the east, spanning approximately 880 miles. The I-10 Texas Corridor Study identified 30 potential gap projects, with a combined estimated construction cost of \$9.3 billion. The proposed gap projects would address current and future needs (over the next 25 years) on I-10 statewide, with notable examples, including: expanding capacity and connectivity in El Paso, providing multimodal connectivity and reducing congestion in central Houston, and providing a minimum of three lanes in each direction on I-10 from Boerne to the Texas-Louisiana state line.

Relevance to US 377: The I-10 corridor intersects with the US 377 corridor at a diamond interchange in the City of Junction, Kimble County, where I-10 runs as an overpass above US 377. At this interchange, US 377 is a five-lane section with a Two-Way Left Turn Lane (TWLTL). While the I-10 Texas Corridor Study does not specifically mention improvements at this interchange or nearby locations, the broader improvements outlined in the plan apply to the US 377 corridor's study area, such as the I-10 and the US 377 interchange. The US 377 corridor is not included in the plan's proposed gap projects.

3. Future I-27: Building upon the Ports-to-Plains Corridor Interstate Feasibility Study (2020), the purpose of the 2024 plan aims to advance I-27 to an interstate facility by prioritizing projects and establishing a project timeline for TxDOT. The study identified key needs such as safety concerns, restricted freight movement, addressing bridge deficiencies, inadequate truck parking, and limited connectivity to multimodal facilities. A series of near-, mid-, and long-term projects were identified based on key needs. Notable projects include improving safety features, such as increasing vertical clearances, adding medians, and enhancing controlled access; strengthening connectivity to key trade and freight facilities through multimodal integration; and using strategic planning to address environmental constraints and community impacts.

Relevance to US 377: I-27 overlaps with the US 377 corridor for approximately 21 miles, from the intersection near US 90 and US 377 north of Del Rio to the intersection of US 277 and US 377 in Val Verde County. The portion where I-27 intersects with US 377 is currently a 2-lane roadway, though it is proposed to be upgraded beyond this. Trucks comprised 18.5% of average daily traffic throughout the overlapping segment of US 377, which is lower than the rates of 20.5% and 26.7% on other segments of I-27. There is a minor crash hotspot identified near the City of Del Rio. While the implementation plan does not specifically mention improvements directly on US 377, any planned upgrades that intersect or connect with the broader future I-27 could have indirect effects on connectivity and operational safety for US 377. Proposed upgrades on the overlapping segment between the US 377 corridor and the future I-27 include reconstruction of existing roadway to freeway standards.

4. I-20 Texas Corridor Study: In 2023, TxDOT undertook the long-range I-20 Texas Corridor Study to evaluate and prioritize strategies aimed at enhancing safety, mobility, and connectivity along I-20. The key interstate stretches approximately 636 miles from the I-10 interchange in Reeves County to the Texas-Louisiana border in Harrison County. The I-20 corridor serves as a critical east-west route for people and goods, intersecting with other major corridors and facilitating economic activity throughout the state. The corridor is segmented into four geographic subareas—West (Odessa and Abilene/Brownwood), Central, and East—to enable targeted technical analysis, stakeholder outreach, and implementation strategies. Key issues highlighted within the I-20 corridor include safety concerns (notably crash frequency and bridge strikes), significant congestion in urbanized areas like the DFW Metroplex, inadequate truck parking availability, and the need for improved multimodal connectivity. The I-20 Texas Corridor Study recommends a total of 290 projects that would address current and future needs (over the next 25 years), including the addition of main lanes, frontage road enhancements, ramp reconfigurations, and interchange improvements.

Relevance to US 377: While the study did not specifically focus on US 377, the scope of improvements and recommendations extends to critical interchanges and feeder routes, indirectly influencing overall corridor connectivity. The I-20 corridor intersects the US 377 corridor only at a partial clover interchange in Southwest Fort Worth, in Tarrant County, where US 377 passes over I-20. The interchange of US 377 and I-20 was included in the list of improvements, with recommendations for operational improvements at this interchange. The interchange of US 377 and I-20 was included in the list of improvements, with recommendations for operational improvements at this interchange.

5. Texas House Bill (HB) 4422 Study: Completed in 2024, this study examined public safety, border security, and transportation infrastructure from Texas–Mexico border crossings onto the state highway system to ensure safe, efficient, and streamlined Commercial Motor Vehicle (CMV) connectivity that amplifies Operation Lone Star (OLS) efforts. It produced 32 policies, 24 programs, and 638 project recommendations across transportation efficiency, safety and security, and border technology, with a total funding need of \$29.4 billion. Proposed improvements include new CMV routes, enhanced interstate access, expanded inspection facilities, increased staffing, and deployment of advanced technologies to better manage growing trade volumes, protect border communities, and support economic growth between Texas and Mexico.

Relevance to US 377: US 377 was identified as one of the leading CMV routes serving the Del Rio-Ciudad Acuña International Bridge crossing in the Del Rio region.

1.4 Current Investments and Ongoing District Development Projects

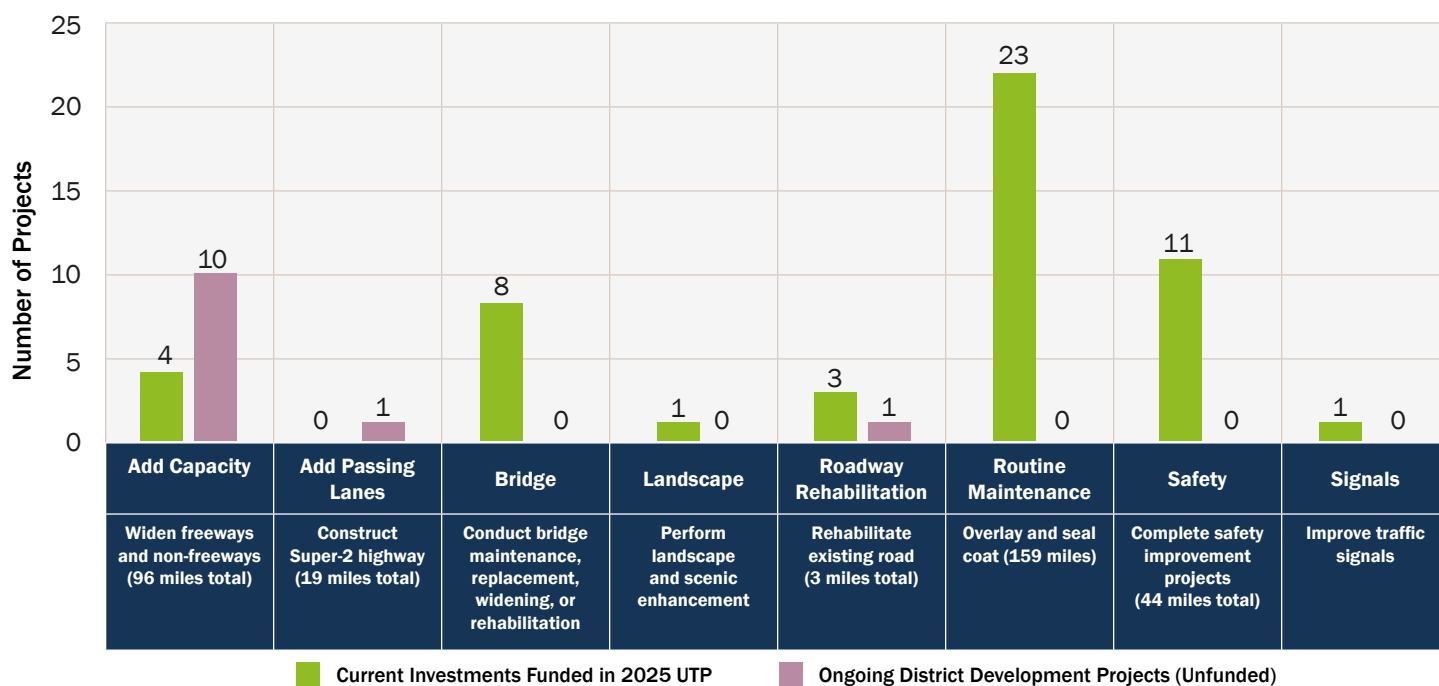
TxDOT districts are currently working to address several deficiencies along the US 377 corridor, including traffic, safety, and maintenance issues. Across the US 377 corridor, 51 projects are currently funded through the 2025 Unified Transportation Program (UTP), and 12 are undergoing district development. These improvements include the addition of 96 miles of capacity, the construction of 19 miles of passing lanes (Super-2), 11 safety improvement projects, and 8 bridge maintenance or upgrade projects. **Table 1-1** highlights these improvements, and **Figure 1-7** shows their funding status.

The current investments and ongoing district development projects were obtained from TxDOT CONNECT (March 2025). There are no ITS projects along the US 377 corridor. There is one project labeled as a traffic signal project as listed in **Table 1-1**. However, some projects categorized as safety projects also include improvements to traffic signals.

Table 1-1. Summary of Current Investments and Ongoing District Development Projects by Type of Improvement

Improvement Type	Definition	Number of Projects or Mileage
Add Capacity	Widen freeways and non-freeways	14 projects 96 miles
Add Passing Lanes	Construct Super-2 highway	1 project 19 miles
Roadway Rehabilitation	Rehabilitation of existing road	4 projects 3 miles
Bridge	Bridge maintenance, replacement, widening or rehabilitation	8 projects
Safety	Safety improvement projects	11 projects 44 miles
Signals	Improve traffic signals	1 project
Routine Maintenance	Overlay and seal coat	23 projects 159 miles
Landscape	Landscape and scenic enhancement	1 project

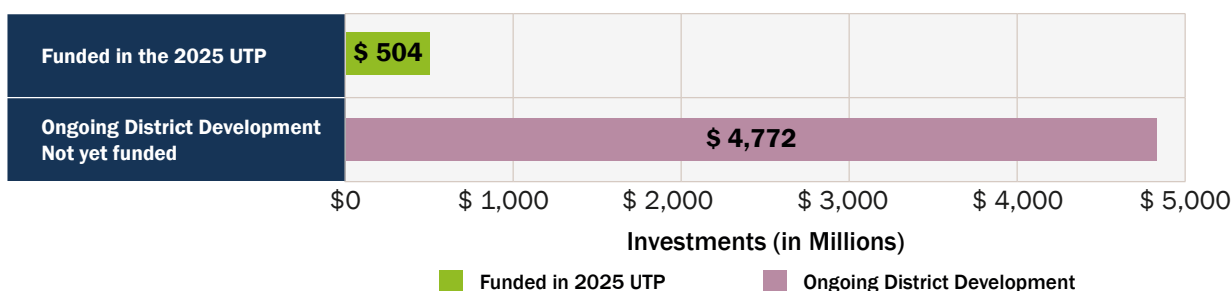
Figure 1-7. Types of Current Investments and Ongoing District Development Projects (Number of Projects) by Funding Status



Types of Active Projects (Number of Projects) by Funding Status	Add Capacity	Add Passing Lanes	Bridge	Landscape	Roadway Rehabilitation	Routine Maintenance	Safety	Signals
Current Investments Funded in 2025 UTP	4	0	8	1	3	23	11	1
Ongoing District Development Projects (Unfunded)	10	1	0	0	1	0	0	0

Approximately \$504 million has been committed over the next 10 years in the 2025 UTP, and a \$4.8 billion investment is needed to fully fund projects currently under district development (**Figures 1-8 and 1-9**). Of the \$504 million allocated in the 2025 UTP, \$19.2 million (9 projects) are in the construction phase. Approximately \$3.3 billion of the ongoing district development projects (69%) represent widening projects along I-35W and I-30 in Fort Worth. Only certain portions of these widening projects overlap with the US 377 corridor.

Figure 1-8. Current Investments (2025 UTP) and Ongoing District Development Projects Funding Status (in millions of dollars)



Due to the high needs around the DFW Metroplex, the North Segment of the US 377 corridor study area has the most 2025 UTP projects and projects under district development (with project investments totaling \$410 million and \$4.2 billion, respectively).

Figure 1-10 highlights several of the described current investments and ongoing district development projects to improve mobility and safety along the US 377 corridor by segment. These include a Super-2 improvement, widening projects, and safety improvements. The improvements proposed in the implementation plan for this US 377 Texas Corridor Study will build upon and add to the already existing projects highlighted in this section.

Figure 1-9. Current Investments (2025 UTP) and Ongoing District Development Projects Funding Status by Segment (in millions of dollars)

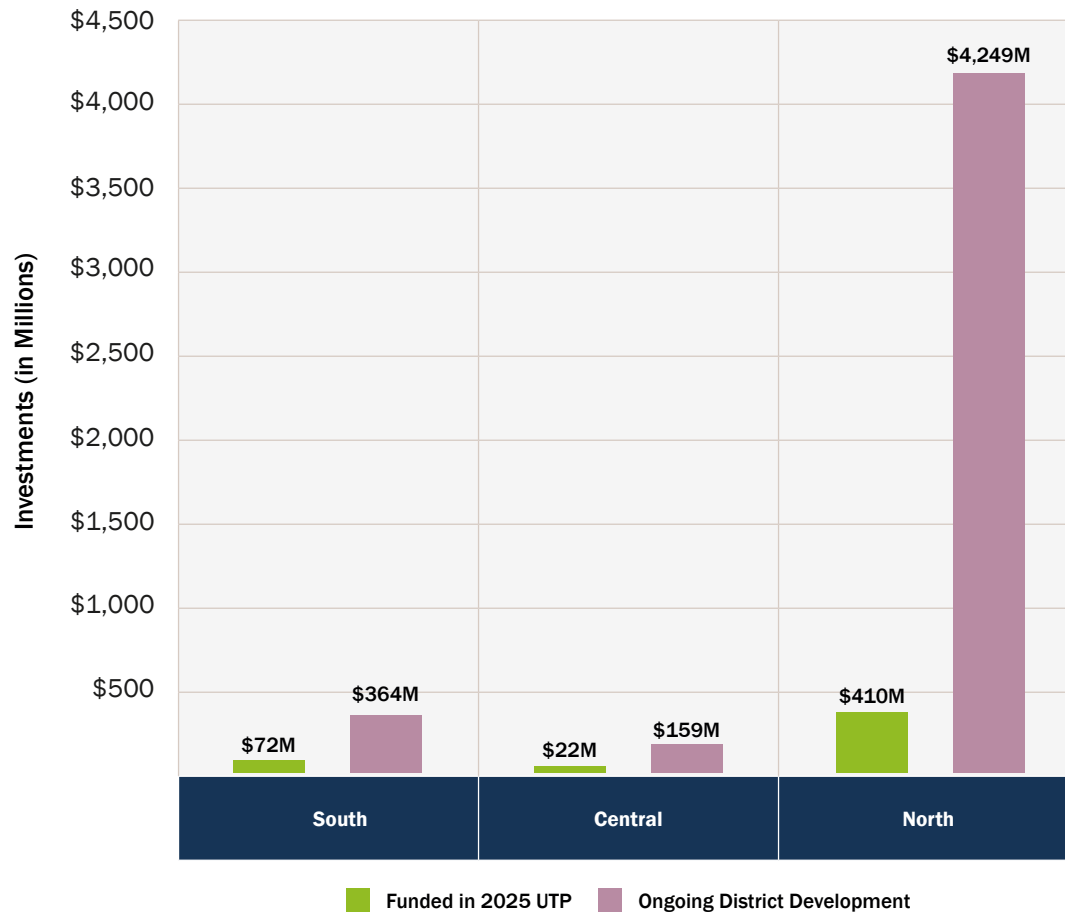
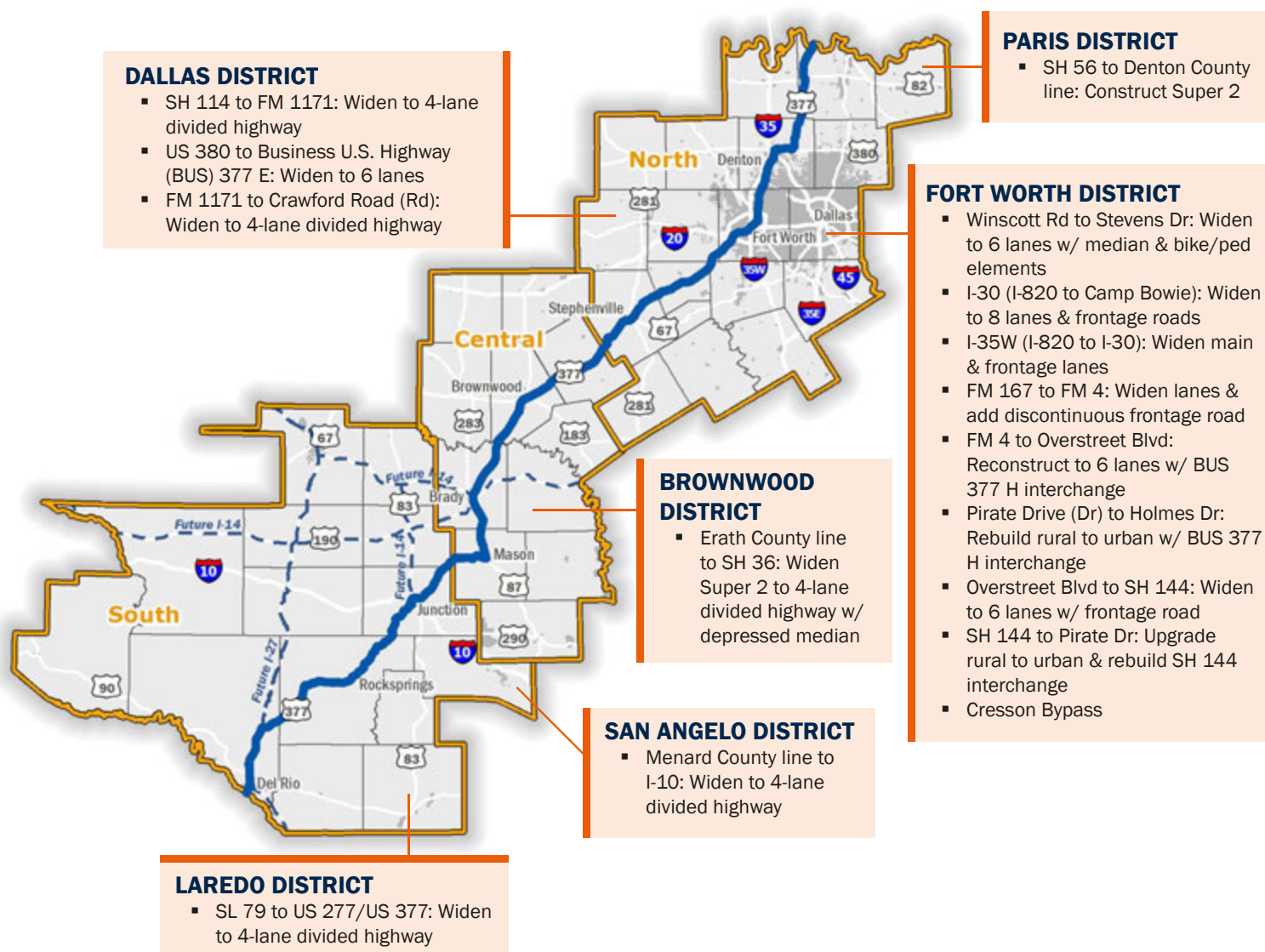


Figure 1-10. 2025 UTP and Ongoing District Development Project Highlights



2 Vision, Goals, and Objectives



2.1 Establishing the Study's Vision, Goals, and Objectives

Developing the vision, goals, and objectives of the US 377 Texas Corridor Study started with TxDOT's Transportation and Programming Division (TPP) Corridor Planning Branch defining the study's purpose. The study purpose statement served as a starting point for a visioning exercise among the US 377 corridor's diverse stakeholders, where groups were asked to consider the study's purpose alongside their own experiences to shape and refine the vision, goals, and objectives of this effort.

Study Purpose: Identify multimodal transportation needs and prioritize improvements to enhance safety, mobility, connectivity, and system continuity along the US 377 corridor and to support economic opportunity in the region.

Data was collected to determine the US 377 corridor's study area conditions. The information examined included:

- **Segment Context and Socioeconomic Profile:** Demographics, economic impact, industry composition, and infrastructure connectivity.
- **Segment Conditions:** Traffic conditions, safety data, roadway/bridge conditions, and existing multimodal facilities.

Stakeholder feedback and data analysis identified several key needs and challenges for the US 377 corridor study area. These included safety concerns, funding issues, trade and freight challenges, capacity and infrastructure limitations, a lack of alternative routes, and overall mobility constraints. Key considerations emerging from this input include:



2.1.1 Study Vision

The US 377 Texas Corridor Study provides a shared vision for incorporating local and statewide stakeholder input to establish goals and objectives for the US 377 corridor. To achieve this, various stakeholder engagement activities were conducted, involving a range of key partners and stakeholders. The study team incorporated feedback received during the engagement process, presenting a draft vision statement to stakeholders. The vision statement serves as the overarching, long-term aspiration for the study and reflects the overarching vision of the US 377 corridor stakeholders. The final vision statement reads as follows:

Study Vision: Provide a safe, efficient, and connected multimodal corridor that supports economic growth, international trade, freight and passenger movement, regional mobility, infrastructure maintenance, and integration of advancements in technology to serve future transportation needs.

2.1.2 Study Goals

The US 377 Texas Corridor Study's key considerations (mentioned in **Chapter 1**) broadly align with TxDOT's 2025-2029 Strategic Plan goals.⁵ The strategic plan's priorities are central to identifying improvements and recommendations for the future of the US 377 corridor throughout Texas. Through discussions with stakeholders, five goals were developed:

1. Improve Safety
2. Support Economic Growth, Freight, and International Trade
3. Reduce Congestion and Improve Mobility
4. Enhance Corridor Connectivity
5. Invest in Asset Preservation

2.1.3 Study Objectives

The strategic plan's priorities are central to identifying improvements and recommendations for the future of the US 377 corridor throughout Texas. Through discussions with stakeholders, the following objectives for each of the five goals were developed (**Figure 2-1**):

Figure 2-1. US Texas Corridor Study Goals and Objectives



Improve Safety to reduce crashes, improve multimodal safety, prioritize infrastructure improvements, and mitigate safety risks at railroad crossings and flood-prone areas.



Support Economic Growth, Freight, and International Trade by identifying and investing in critical projects to strengthen the corridor's vital role in facilitating goods, services, and international commerce.



Reduce Congestion and Improve Mobility by improving multimodal options, implementing roadway improvements, and increasing efficiency of freight movement.



Enhance Corridor Connectivity by enhancing rail and freight connection, providing alternative routes, and identifying and improving pedestrian and bike infrastructure gaps.



Invest in Asset Preservation by modernization aging infrastructure to maximize its lifespan and streamline maintenance activities to local, regional, and state partners.

2.2 Stakeholder Engagement and Public Involvement Approach

The US 377 Texas Corridor Study was shaped by a structured and inclusive stakeholder engagement strategy. At the core of this approach was the establishment of a Steering Committee and three Segment Working Groups (South, Central, and North), which served as the primary forums for input, collaboration, and guidance throughout the study. These groups brought together a diverse mix of stakeholders to ensure regional perspectives, technical knowledge, and strategic priorities were incorporated into every phase of the study process.

⁵TxDOT (2024). Fiscal Year (FY) 2025-2029 Strategic Plan. Retrieve April 14, 2025, from <https://www.txdot.gov/content/dam/docs/str/fy25-29-txdot-strategic-plan.pdf>

The Steering Committee, composed of representatives from across the entire corridor, provided high-level oversight and strategic direction. Meanwhile, the three Segment Working Groups focused on the unique needs, challenges, and opportunities within each segment of the corridor. Collectively, these bodies reviewed study findings, discussed technical analyses, and provided recommendations on proposed improvements, both segment-specific and corridor-wide. The US 377 corridor's stakeholder groups were formally convened in September 2024 and continued to meet regularly throughout the study.

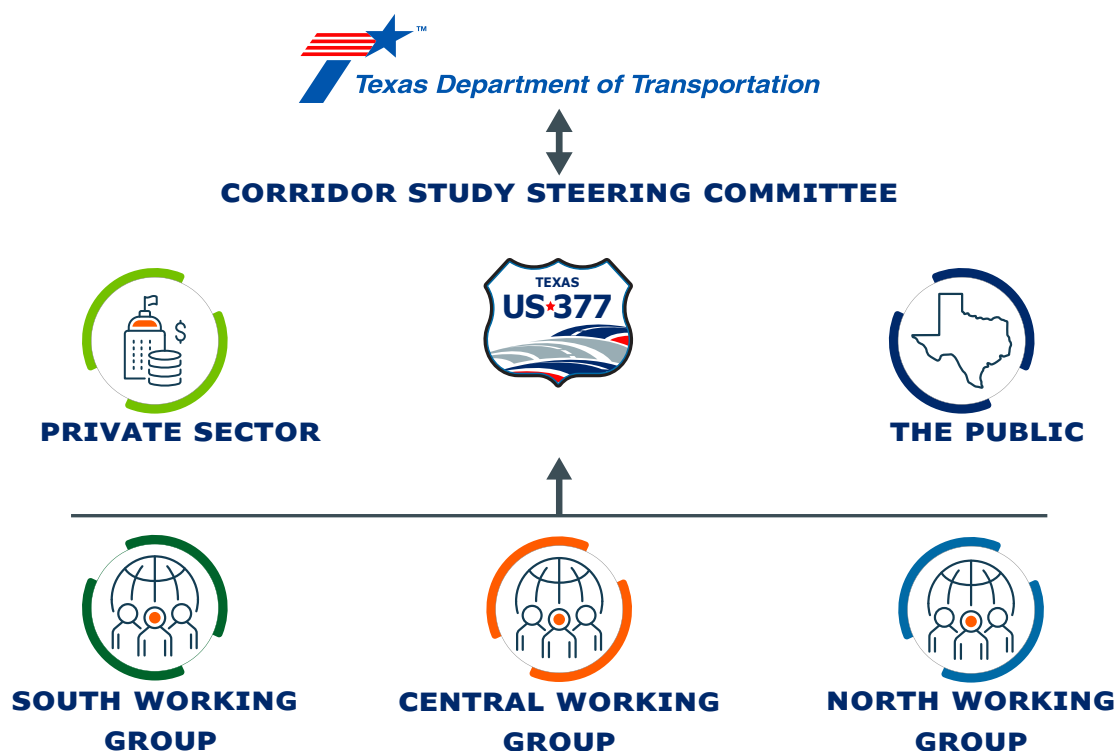
In addition to these core groups, targeted engagement was conducted with other key partners and agencies to ensure a comprehensive understanding of the corridor's needs.

These included:

- **Binational Workshops:** Gathered input from stakeholders of the US 377 corridor's users near the Texas-Mexico border.
- **TxDOT District Meetings:** Representatives from the seven TxDOT Districts within the study area (Laredo, San Angelo, Austin, Brownwood, Fort Worth, Dallas, and Paris) contributed localized perspectives, aligned recommendations with ongoing and planned projects, and provided a district-level lens to the implementation plan, which the TxDOT Districts will use to guide future planning and programming projects to enhance safety, mobility, and connectivity along US 377.
- **TxDOT Division Meetings:** Included subject matter experts from various TxDOT Divisions such as Aviation, Bridge, Communications and Public Affairs, Design, Government Affairs, Public Transportation, Rail, Strategic Initiatives and Innovation, and Traffic Safety. These experts ensured statewide policy alignment and technical input.

Public involvement for a state-wide level study of this scale was primarily conducted through a public survey and targeted outreach to stakeholders. These efforts provided opportunities for public input on the corridor needs and priorities, complementing the focused work of the Steering Committee and Segment Working Groups. **Figure 2-2** provides an overview of these key stakeholder groups.

Figure 2-2. Organization of Stakeholder and Public Engagement Groups



3

Significance of the US 377 Corridor

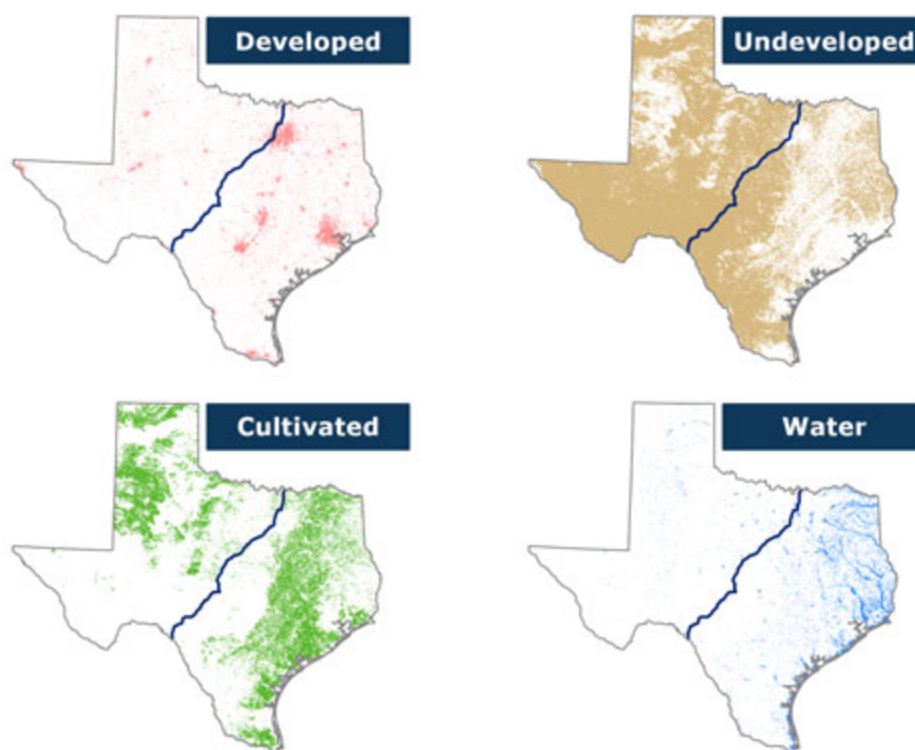


Chapter 3 provides an overview of land use, demographics, and economic characteristics to inform long-range transportation planning along the US 377 corridor, in alignment with **TxDOT's Corridor Planning Guidebook (2024)**. The socioeconomic analysis provides context for the study area by describing population size, employment, age, sex, commuting characteristics, households, income, means of transportation, historical trends, and land use characteristics. This data-driven assessment informs strategies to address needs and support effective long-range transportation planning.

3.1 Land Use Characteristics

The US 377 corridor transects several ecological regions. The corridor saddles the Chihuahuan Desert and Southern Plains ecoregions through Del Rio, spans the Edwards Plateau north through Junction and Brownwood, then follows the less arable Cross Timbers ecoregion north through the extent of the US 377 corridor. The Texas Highway Commission first authorized the highway through Denton and to Fort Worth in 1930, and over decades extended the highway both to the north and south. In 1951, the southern terminus was established in Del Rio. In 1968, a US 377 extension north to Madill, Oklahoma was approved. Twenty years later, the final extension and northern terminus were designated in Stroud, Oklahoma. Over the decades, the route has evolved to meet growing transportation and development needs.

Figure 3-1. Texas Land Use Cover and the US 377 Corridor



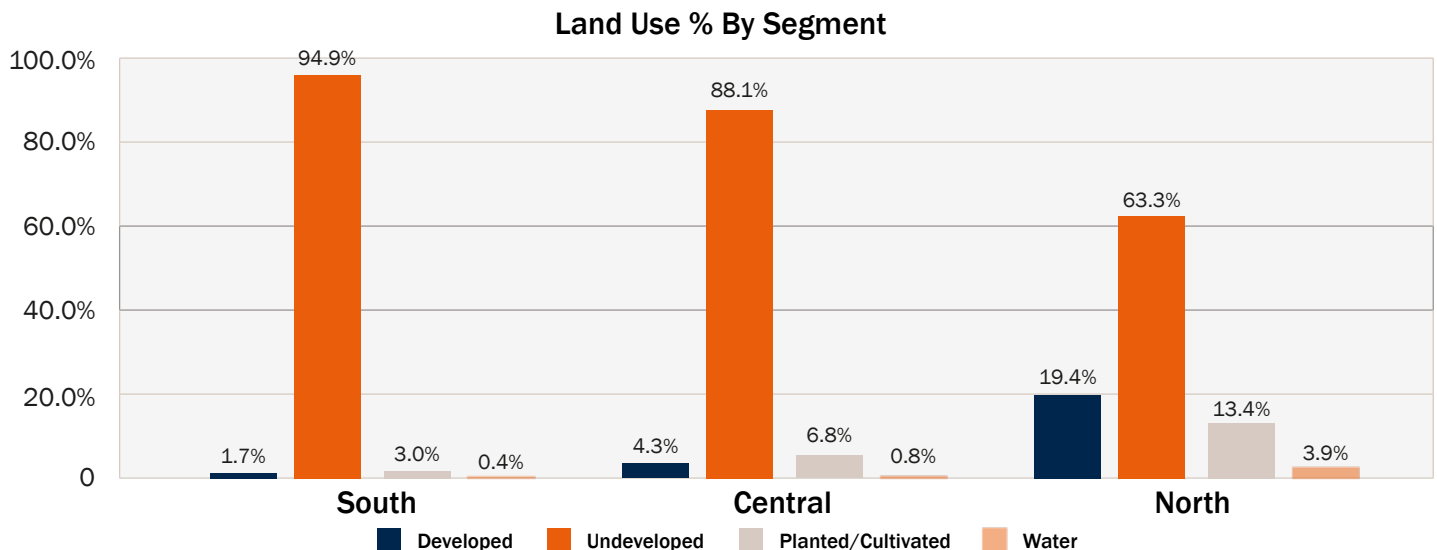
Source: U.S. Geological Survey (USGS), 2024, Annual NLCD Collection 1 Science Products: U.S. Geological Survey data release, <https://doi.org/10.5066/P94UXNTS>

The study area spans nearly 50,000 square miles and includes a range of built and natural environments. According to the U.S. Geological Survey (USGS) National Land Cover Database (NLCD), 65% of the study area is undeveloped scrubland, forest, or grassland. While this land is not subject to intense management, it is often utilized for oil and gas extraction, wind and solar energy generation, and other uses. Approximately 23% of the land in the study area is used to grow crops or pastureland; approximately 7% of the land is developed; and the remaining 5% is open water or wetlands. The statewide land cover distribution is shown in **Figure 3-1**.

Land use in the study area is primarily undeveloped (65%), followed by agriculture/ pastureland (23%), developed (7%), and open water/wetlands (5%) (USGS)

In the South Segment, almost 95% of the area is classified as undeveloped, mostly arid scrub and shrub environments (**Figure 3-2**). The Central Segment is also largely undeveloped (88%), and 7% of the land constitutes crops or pastureland. The North Segment of the US 377 corridor study area has the largest variety of land types. Almost 20% of the land in the North Segment is developed, since it includes the Dallas-Fort Worth metroplex. Another 13% is planted or cultivated, and 4% is water, the largest water and wetlands share of any segment in the US 377 corridor study area. Undeveloped land remains the largest category even in the most populated area of US 377, with 63% classified as undeveloped in the North Segment.

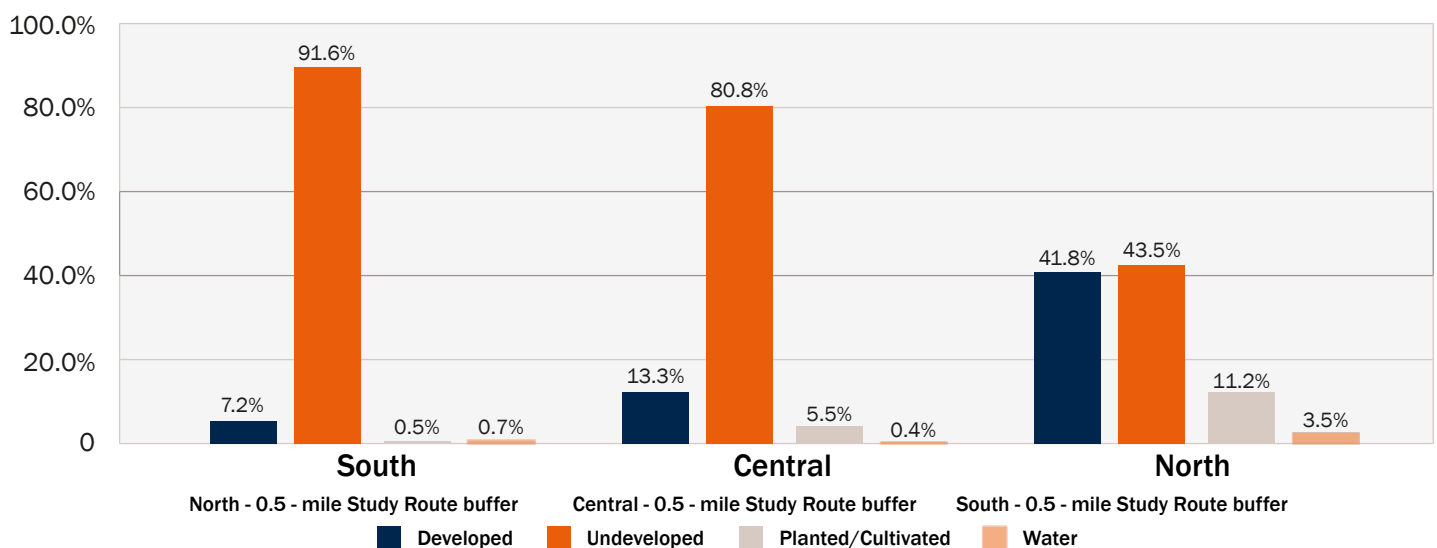
Figure 3-2. Study Area Land Use Characteristics (%) by Segment



Source: U.S. Geological Survey (USGS), 2024, Annual NLCD Collection 1 Science Products: U.S. Geological Survey data release, <https://doi.org/10.5066/P94UXNTS>

Within a 0.5-mile buffer of the corridor, 92% of the South Segment is mostly undeveloped (**Figure 3-3**). The Central Segment is classified as 81% undeveloped and 5.5% crop and pastureland cover. As previously stated, the North Segment has the largest percentage of water cover. Compared to the contrasts between undeveloped and developed land cover in the other segments, the North Segment is more balanced, though the undeveloped land area is still the highest land use at almost 44%. Crop and pastureland in the North Segment account for a higher land use share (11%) compared to this category in the other segments.

Figure 3-3. 0.5-Mile Corridor Land Use Characteristics (%) by Segment

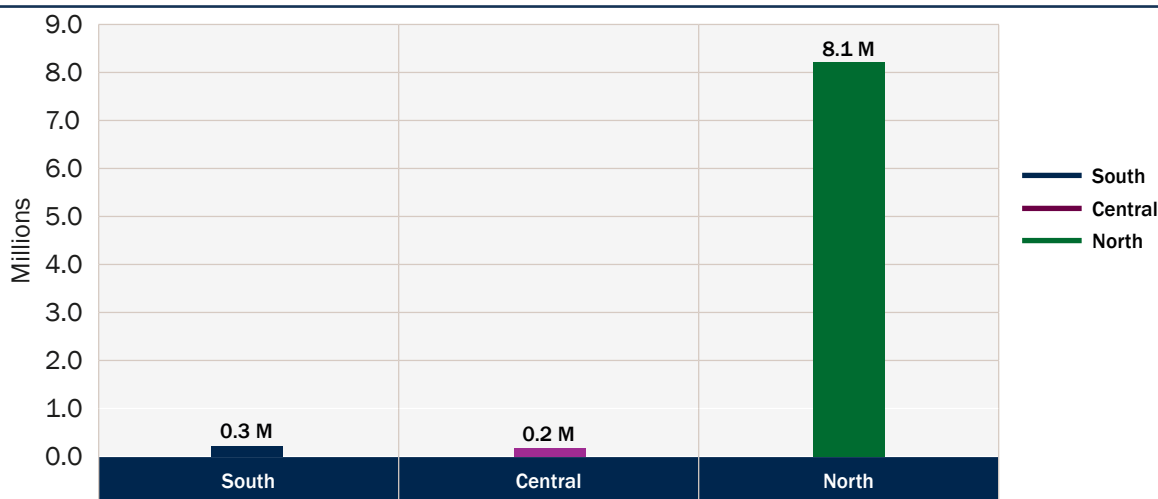


Source: U.S. Geological Survey (USGS), 2024, Annual NLCD Collection 1 Science Products: U.S. Geological Survey data release, <https://doi.org/10.5066/P94UXNTS>

3.2 Demographics

An estimated 8.6 million people, or 28% of the population of Texas, live in the US 377 corridor study area. Most of the corridor's population is concentrated in the North Segment, which accounts for 8.1 million or 26.6% of the state's population (**Figure 3-4**). The Central Segment represents 2% of the study area's total population, accounting for 0.2 million people and 0.6% of the population of Texas. The South Segment represents 3.2% of the total population of the study area, accounting for fewer than 1 million people and 0.9% of the population of Texas.

Figure 3-4. US 377 Corridor Population by Segment, 2023 (in millions)

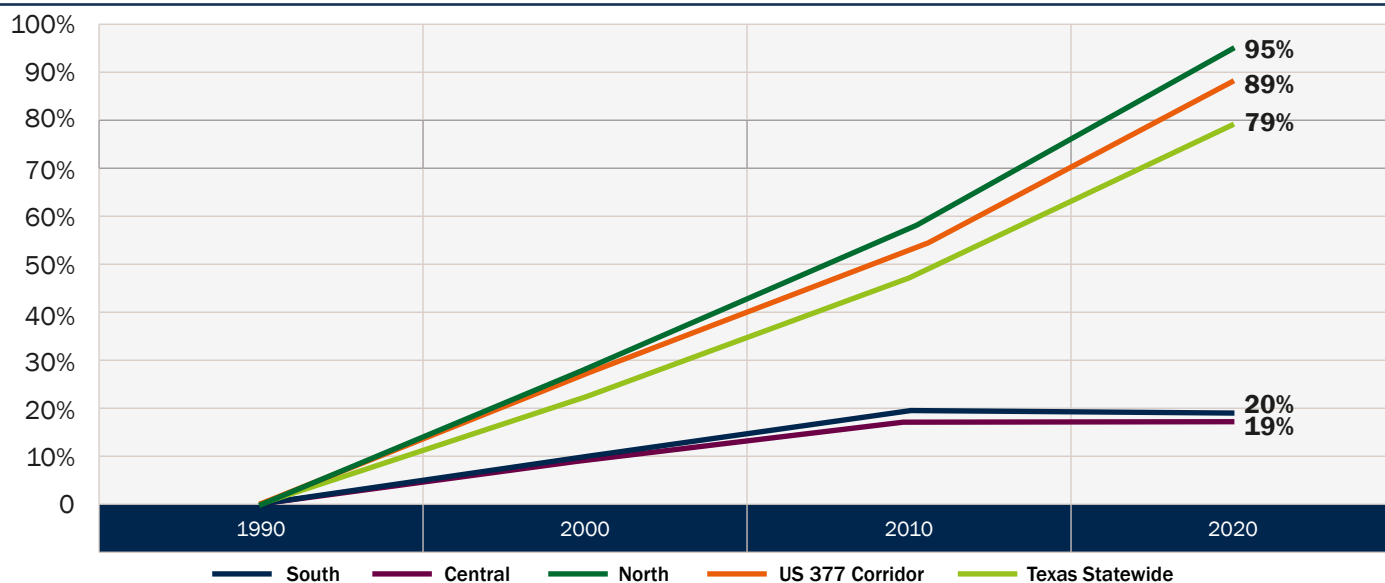


Source: S&P Global, 2024 (formerly IHS Markit)

Significant shifts have occurred in population along the US 377 corridor over the past 30 years. Since 1990, the US 377 corridor has grown by roughly 89%, from 4.5 to 8.6 million (**Figure 3-5**), which is higher than the 79% statewide growth for the same period. The North Segment experienced the highest percentage growth in population at 95% (adding close to 4 million people). The lowest percentage growth between 1990 and 2023 was observed in the Central Segment, where the population grew by 19% (adding approximately 17,000 people).

Expected population growth of **29%** within the study area from **8.6 Million** in 2023 to **11 Million** by 2050 (S&P Global)

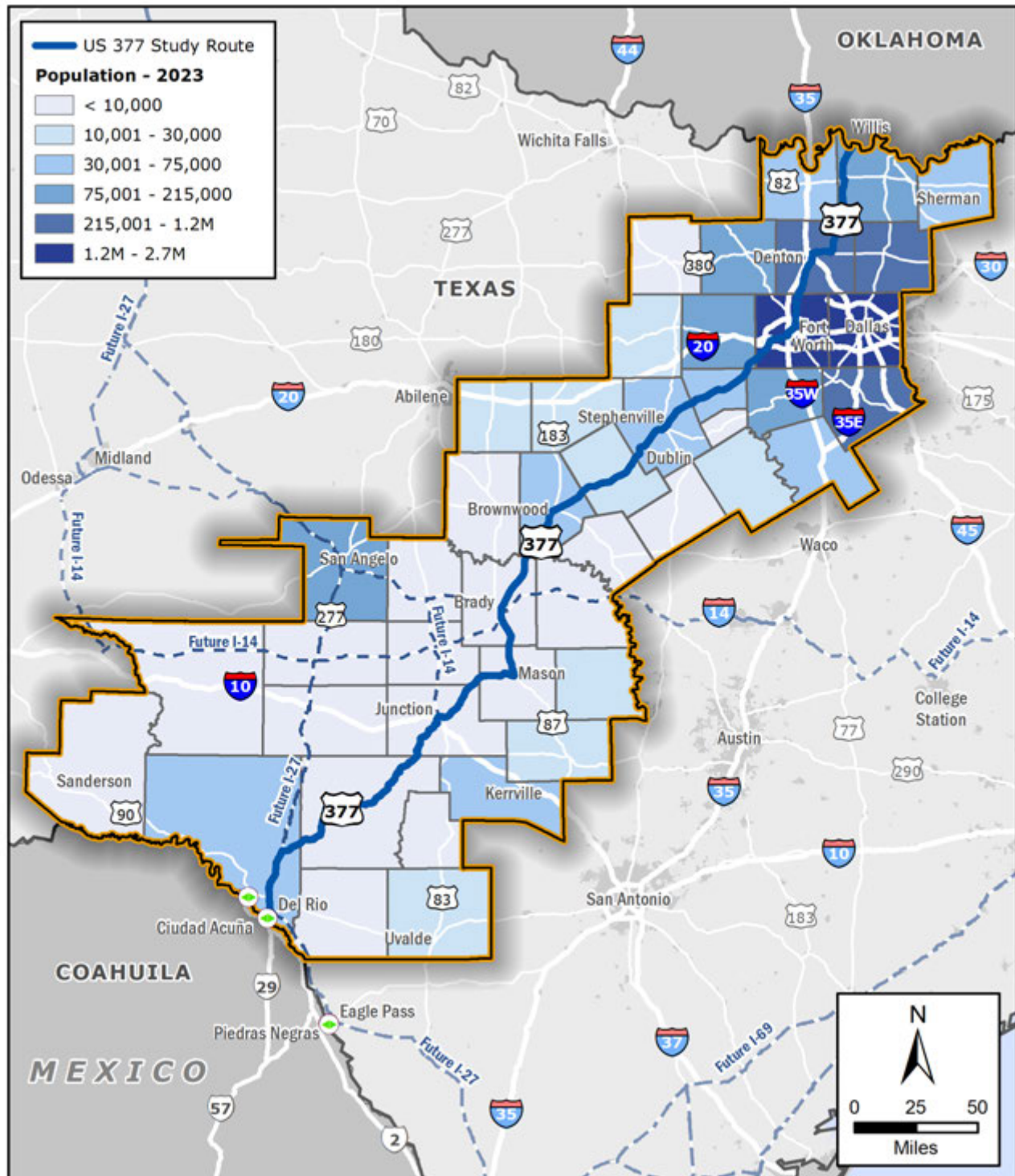
Figure 3-5. Historical Population Growth in the US 377 Corridor Study Area (percent change since 1990)



Source: S&P Global, 2024 (formerly IHS Markit)

As **Figure 3-6** illustrates, population patterns vary county by county across the US 377 corridor significantly. The Central Segment of the US 377 corridor has a lower population than the North and South Segments, with most of the population concentrated around Brownwood.

Figure 3-6. US 377 Corridor Population by County (2023)



Source: S&P Global, 2024 (formerly IHS Markit)

Recent growth has been concentrated in the North Segment of the US 377 corridor, with the top 10 counties by growth since 1990 all being located in the DFW metroplex (**Table 3-1**). Tarrant, Collin, Dallas, and Denton Counties recorded the most change in population from 1990 to 2023, with growth greater than 700,000 people each. Collin and Denton Counties grew by more than 200% over the 30 years.

Table 3-1. Top 10 Fastest-growing Counties in the US 377 Corridor Study Area (1990 through 2023)

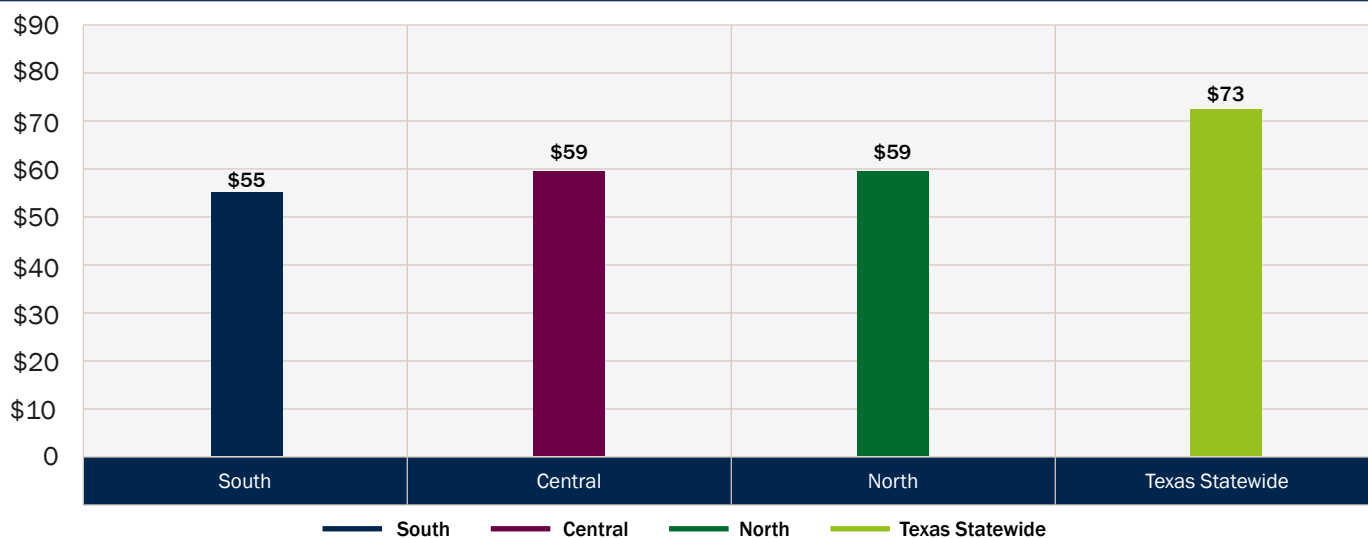
Segment	County	1990	2023	Population Change (1990 to 2023)	% Growth (1990 to 2023)
North	Collin	267,755	1,198,484	930,729	348%
North	Denton	277,368	1,010,480	733,112	264%
North	Parker	65,485	173,893	108,407	166%
North	Ellis	85,695	223,443	137,748	161%
North	Hood	29,033	67,930	38,897	134%
North	Wise	34,872	78,276	43,405	124%
North	Johnson	97,562	203,372	105,810	108%
North	Tarrant	1,180,902	2,187,963	1,007,061	85%
North	Grayson	95,342	147,313	51,971	55%
North	Dallas	1,869,826	2,613,932	744,106	40%

Source: S&P Global, 2024 (formerly IHS Markit)

Household incomes vary widely along the US 377 corridor. In 2022, the North Segment's median income was \$77,000, higher than the statewide median household income (MHI) of \$73,000 (**Figure 3-7**). Rapid growth in the North Segment's economy in recent decades has driven higher wages compared to the rest of the state. The South and Central Segments have lower median incomes, with each near the \$60,000 range in 2022.

In 2022, the **North Segment's median income was \$77,000**, (higher than the statewide median), while the **South and Central Segments had MHIs of approximately \$60,000** (U.S. Census)

Figure 3-7. Average Median Household Income by Segment, 2022 (thousands of dollars)



Source: U.S. Census Bureau (U.S. Census), American Community Survey (ACS) 5-year Estimates, 2022

In 2022, 10 counties along the US 377 corridor had a MHI greater than the statewide average. Counties in the North Segment recorded the highest household median incomes (**Table 3-2**). Collin, Denton, and Parker Counties have the highest MHIs of \$113,255, \$104,180, and \$95,721 in 2022, respectively. One county in the Central Segment, Mason County, was also included in the top 10 counties with the highest MHI in 2022, with the rest of the top 10 counties comprised from the North Segment.

Table 3-2. Top 10 Counties with Highest MHI (2022)

County	Segment	2022 MHI (in 2022 dollars)
Collin	North	\$113,255
Denton	North	\$104,180
Parker	North	\$95,721
Ellis	North	\$93,248
Somervell	North	\$87,899
Wise	North	\$85,385
Hood	North	\$80,013
Tarrant	North	\$78,872
Mason	Central	\$77,583
Johnson	North	\$77,058

Source: U.S. Census, ACS 5-year Estimates, 2022

Estimated household income ranges are shown for all counties along the US 377 corridor (**Figure 3-8**).

3.3 Economic Importance

As shown in **Table 3-3**, gross domestic product (GDP) in counties along the US 377 corridor study area accounted for \$645.7 billion in 2023, representing 31.8% of Texas' GDP of \$2.0 trillion. When accounting for inflation, GDP along the US 377 corridor grew by 98% compared to the statewide growth of 105% from 2000 to 2023. The North Segment experienced the most growth in the US 377 corridor, growing by 99%, driven mainly by finance, investment, real estate (FIRE) and professional services. Driven by international trade and government activity, the South Segment follows closely, with a 75% change in GDP from 2000 to 2023, including inflation. The Central Segment experienced growth of 61% in GDP from 2000 to 2023, when accounting for inflation. The following sections examine a breakdown of GDP for a selected number of industries.

GDP in the study area accounted for **\$645.7 billion** in 2023, representing **31.8%** of Texas' GDP. (S&P Global)

Table 3-3. US 377 Corridor Study Area Real GDP (2000 through 2023)

GDP* (in billions of dollars)	2000	2005	2010	2015	2023	% Change (2000 to 2023)
South	\$7.5 B**	\$10.5 B	\$11.1 B	\$12.2 B	\$13.2 B	75%
Central	\$3.8 B	\$4.9 B	\$5.1 B	\$5.6 B	\$6.2 B	61%
North	\$314.9 B	\$351.5 B	\$389.8 B	\$466.0 B	\$626.3 B	99%
Texas	\$989.9 B	\$1,143.4 B	\$1,323.1 B	\$1,634.1 B	\$2,032.9 B	105%

*In year 2023 dollars

** Billion

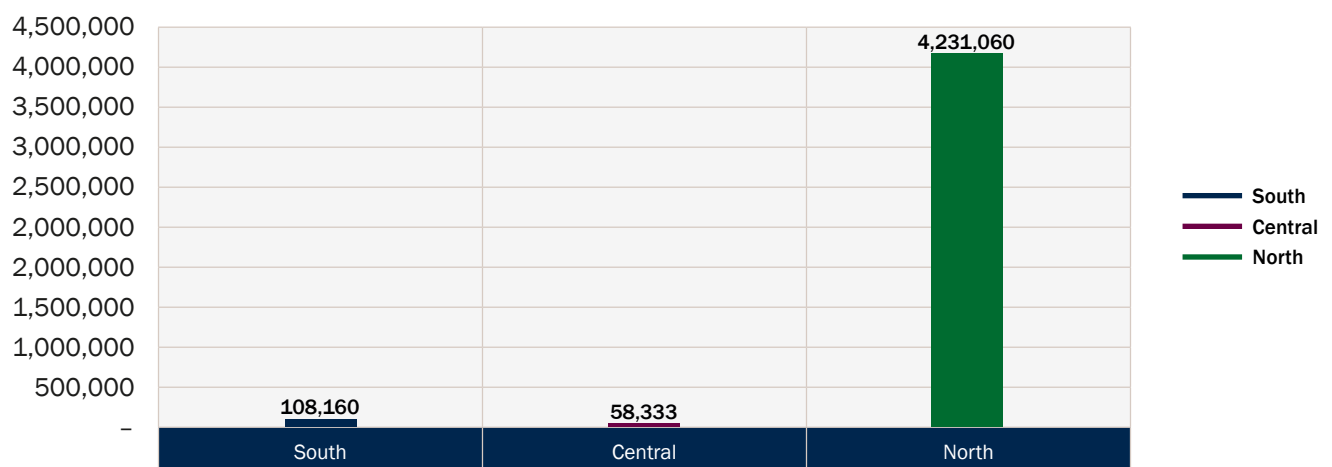
Source: S&P Global, 2024 (formerly IHS Markit)

3.3.1 Employment

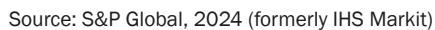
In 2023, more than 4 million employees worked within the study area. The US 377 corridor study area accounts for one in three jobs statewide, or 31.6% of the state's 13.9 million jobs. Similar to population, employment along the US 377 corridor is concentrated in the North Segment, with 96% of the US 377 corridor employment in that area. The other Segments each have less than 200,000 total jobs (**Figure 3-9**).

The employment within the study area is expected to growth by **29%** from **8.6 Million** in 2023 to **11 Million** by 2050 (S&P Global)

Figure 3-9. Total Employment by Segment (2023)

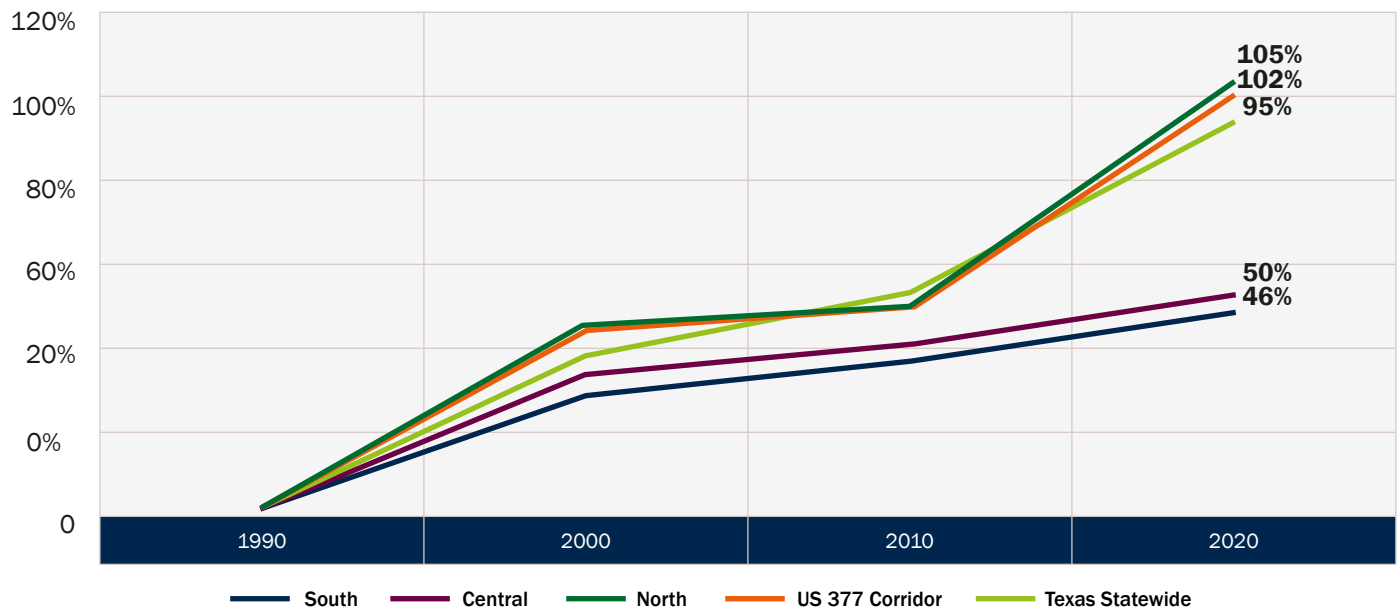


Source: S&P Global, 2024 (formerly IHS Markit)



Employment along the US 377 corridor has increased rapidly over the past 30 years, in line with the rest of the state. Since 1990, employment along the corridor has grown by 102% (**Figure 3-11**). This growth has been concentrated in the North Segment. The North Segment has experienced 105% employment growth since 1990, while the Central and South Segments have seen 50% and 46% employment growth, respectively.

Figure 3-11. Historical Employment Growth by Segment (percent change since 1990)



Source: S&P Global, 2024 (formerly IHS Markit)

3.3.2 Trends by Industry

The US 377 corridor study area supports several major industries, including the oil and gas sector throughout the corridor, freight, agriculture, government, and others. Most of the freight moved throughout Texas is carried by trucks. According to The Economic Role of Freight in Texas study, in 2018, more than 3.3 billion tons of freight worth \$3 trillion (160 tons per resident and 5,500 tons per business) moved within Texas. International cross border trade had an economic impact of \$32.9 billion in the study area, mainly concentrated in the DFW metroplex and Val Verde County, at the Del Rio POE.

Del Rio POE accounts for over 62% of exports for aircraft, spacecraft and other related parts in the greater Laredo region. Other top trade commodities processed at Del Rio POE are lower in value than the greater Laredo region's other POE, but a niche within exports of high value goods suggests potential for focused industry positioning in cross border trade for the city of Del Rio (**Table 3-4**).

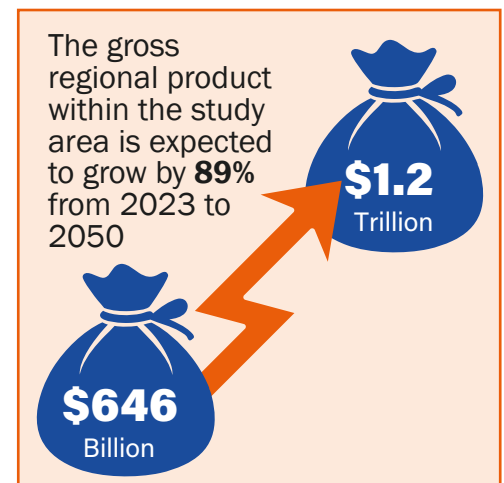


Figure 3-12 shows that most freight tonnage along the US 377 corridor either originates or is destined for the DFW metroplex due to the city's population, economic activity, and connectivity with multiple highways, such as I-35, I-30, and I-45. In the South segment, the effects of international trade are observed in counties with higher freight tonnage. The following sections provide additional information on the various industries and their impact on employment and GDP within the study area.

Table 3-4. Del Rio Port of Entry Top 10 Imports and Exports, 2024

U.S. Imports	U.S. Exports
Computer-Related Machinery and Parts (\$859M)	Aircraft; Spacecraft and Parts (\$464M)
Furniture; Lamps and Prefabricated Buildings (\$646M)	Electrical Machinery; Equipment and Parts (\$448M)
Electrical Machinery; Equipment and Parts (\$580M)	Computer-Related Machinery and Parts (\$270M)
Vehicles Other than Railway (\$547M)	Plastics and Articlesb (\$268M)
Plastics and Articles (\$166M)	Articles of Iron and Steel (\$91M)
Special Classification Provisions (\$119M)	Copper and Articles (\$87M)
Miscellaneous Manufactured Articles (\$61M)	Vehicles Other than Railway (\$80M)
Aluminum and Articles (\$52M)	Ceramic Products (\$51M)
Articles of Iron and Steel (\$52M)	Iron and Steel (\$41M)
Measuring and Testing Instruments (\$52M)	Rubber and Articles (\$40M)

Source: TransBorder Freight Data, Bureau of Transportation Statistics, 2024

Freight intensive industries, which rely on the safe and efficient movement of goods, significantly influence location decisions. The study area contains over 250,000 freight-intensive jobs, with the highest concentrations found in Dallas, Tarrant, Denton, Collin, and Ellis Counties.

The US 377 corridor supports a diverse range of industries, with the most prominent being FIRE, which accounts for \$163 billion or 22.8% of the region's GDP. This is followed by Professional Services at \$64 billion (9.0%) and Manufacturing at \$61 billion (8.6%). While many counties along the corridor are rural and contribute minimally to the regional total, the economic impact is largely driven by the DFW Metroplex. In the South Segment, mining, natural gas, and government are the dominant industries, while the Central Segment features a mix of agriculture, manufacturing, utilities, and FIRE. The North Segment is led by FIRE and Professional Services. The top industry in each county of the study area is shown in **Figure 3-13**.

The study area contains **over 250,000 freight-intensive jobs**, with the highest concentrations found in the DFW counties (TRANSEARCH)

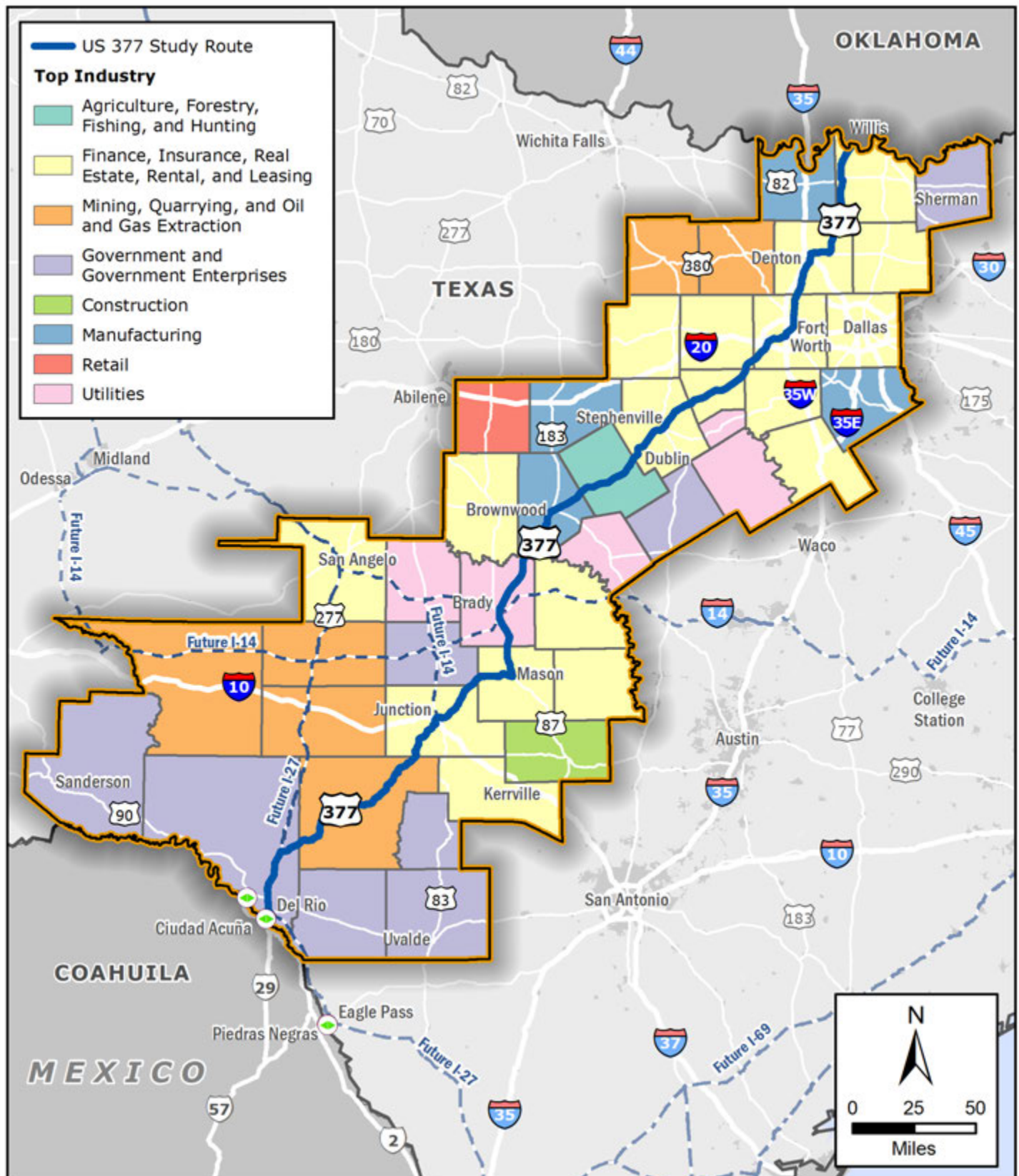
Study Area's Top 5 Counties for Manufacturing

1. Dallas
2. Tarrant
3. Collin
4. Denton
5. Ellis

(U.S. Bureau of Economic Analysis)



Figure 3-13. Top Industry in Each County of Study Area (2022)



Source: U.S. Bureau of Economic Analysis (BEA), 2022

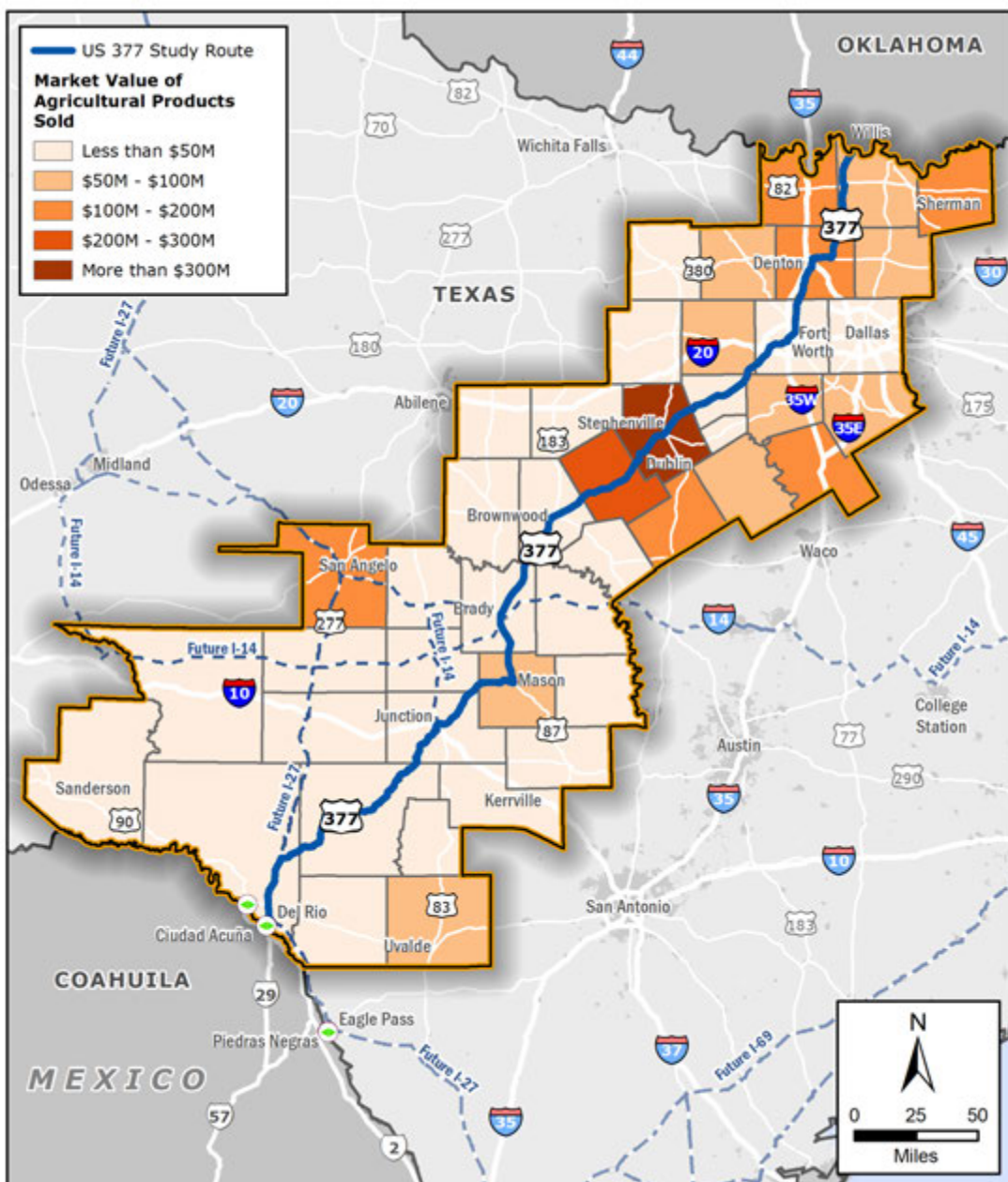
The US 377 corridor plays a key role in supporting Texas's agricultural economy, providing critical access to major producers of cattle, dairy, and other agricultural goods. This includes both farming and livestock production across approximately 2.8 million acres of farmland within the study area. Agricultural output varies by location (**Figure 3-14**), with the highest-producing counties being Erath, Comanche, Denton, Hill, and Cooke—many of which are in or near the North Segment. The rural areas in the northwest portion of the corridor are especially active in agricultural production. Top products differ across the corridor, with cattle and dairy most prominent in the North, row crops and hay production more common in the Central Segment, and smaller-scale diversified farming in the South. US 377 serves as a vital transportation link for these operations, enabling the movement of agricultural goods and resources across Texas.

Study Area's Top 5 Counties for Agricultural Production

1. Erath
2. Comanche
3. Denton
4. Hill
5. Cooke

Texas Railroad Commission

Figure 3-14. Agricultural Production (2022)



Source: United States Department of Agriculture (USDA) National Agricultural Statistics Service, 2022

Oil and natural gas production remain important energy-related activities within the US 377 corridor, particularly in the North Segment and the western counties of the study area. In 2023, counties along the corridor produced approximately 941 million MCF (thousand cubic feet) of natural gas, with the highest concentrations in Tarrant, Wise, Denton, Johnson, and Crockett Counties (**Figure 3-15**). Natural gas production is especially prominent in the North Segment, supporting both local economic activity and statewide energy distribution networks.

Study Area's Top 5 Counties for Natural Gas Production

1. Tarrant
2. Wise
3. Denton
4. Johnson
5. Crockett

Texas Railroad Commission

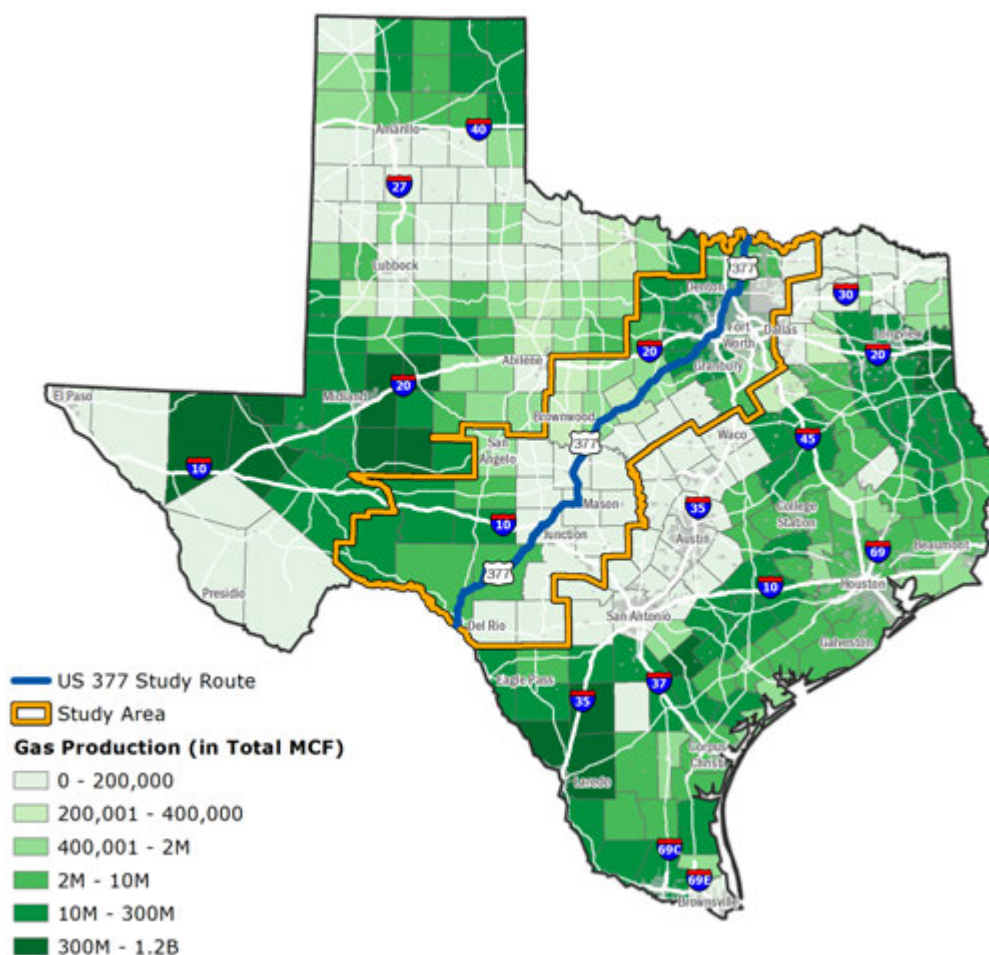
Oil production, while more limited in total output compared to natural gas, is concentrated in the western counties of the study area, particularly between Brownwood, San Angelo, and Brady in the South and Central Segments. Leading oil-producing counties along the corridor include Crockett, Grayson, Cooke, Jack, and Wise (**Figure 3-16**). Although statewide oil production has surged over 300% since 2000 - driven largely by the Permian Basin in West Texas - oil production within the US 377 corridor has declined over the same period. This local decline has been influenced by labor shortages, supply chain disruptions, and broader market volatility, including an 8% drop in statewide production during the COVID-19 pandemic. Despite these challenges, the corridor continues to serve as a vital link for energy transport and workforce access supporting the oil and gas sector.

Study Area's Top 5 Counties for Oil Production

1. Crockett
2. Grayson
3. Cooke
4. Jack
5. Wise

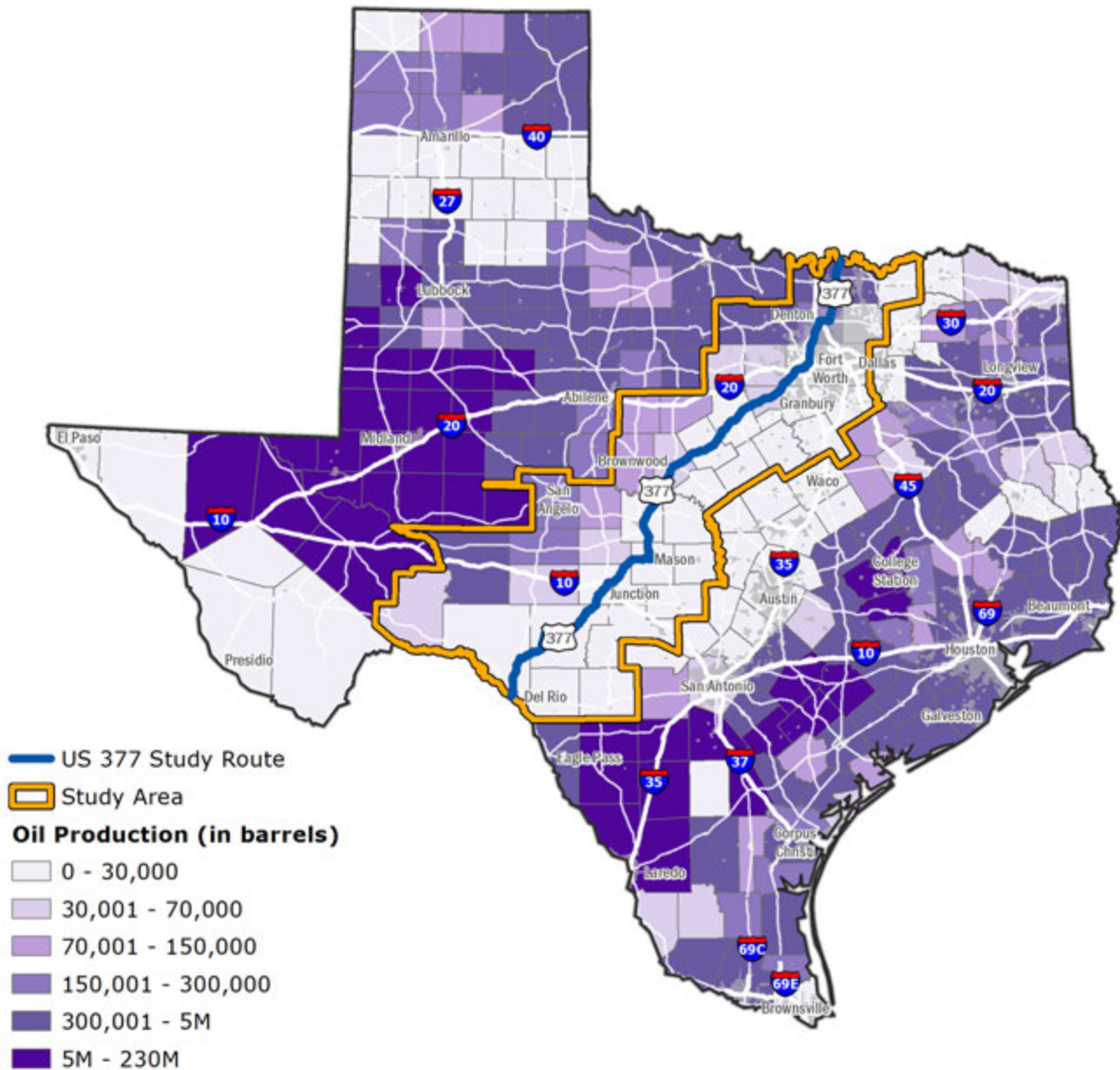
Texas Railroad Commission

Figure 3-15. Texas Statewide Natural Gas Production (2023)



Source: Texas Railroad Commission (TRC), Oil, and Gas Production Data Query, 2023
 Note: Statewide data for oil does not include condensate

Figure 3-16. Texas Statewide Oil Production (2023)



Source: Texas Railroad Commission (TRC), Oil, and Gas Production Data Query, 2023
 Note: Statewide data for oil do not include condensate

3.3.3 Alternative Energy Generation

Wind and solar energy are growing in energy generation within the state of Texas, including along the US 377 corridor (**Figure 3-17**). From 2010 to 2023, solar energy generation increased from 16,000 to 56,000,000 megawatt hours. During that time, solar energy has increased from less than 1% to over 5% of total energy production in Texas. Several large solar farms are in operation in the US 377 corridor study area, like the Concho Valley and Rambler solar farms in San Angelo and the CoServ solar farm in Denton.

There are **2,070** Wind Turbines in the study area (USDA Energy Information Administration)

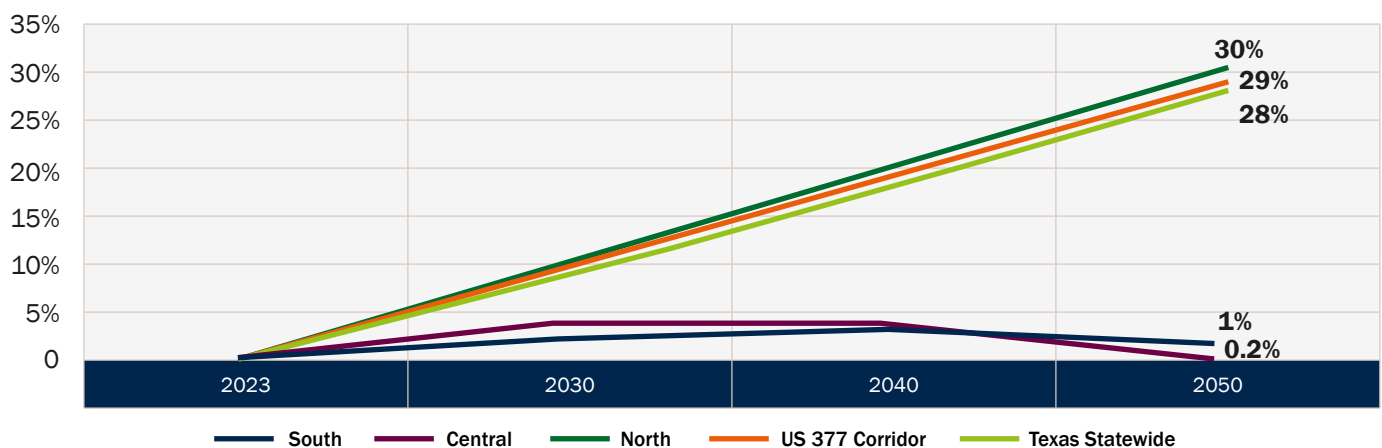
Wind energy will continue to be a growing source of power in Texas. In 2023, Texas accounted for 28% of all wind energy produced in the U.S. In 2023, wind energy contributed 22% of all energy production in Texas. Wind generation has increased from 52 million to just under 240 million megawatt hours annually from 2010 to 2023, a 357% increase.

The US 377 corridor study area is projected to grow by 28% from **8.6 million** people in 2023 to **11 million** people in 2050 (S&P Global)

3.3.4 Future US 377 Demographic and Economic Conditions

According to S&P Global, the US 377 corridor study area is projected to grow from 8.6 million people in 2023 to 11 million people in 2050. The US 377 corridor's 29% growth is similar to the 28% statewide growth projected over the same period. South, Central and North Segments will experience varying growth rates between 2023 and 2050 (Figure 3-18). The growth rate for the North Segment is projected to be 30% from 2023 through 2050, followed by the South Segment with a projected growth rate of 1%. The Central Segment is projected to grow by 0.2% from 2023 to 2050.

Figure 3-18. Project Population Growth by Segment (2023 through 2050)



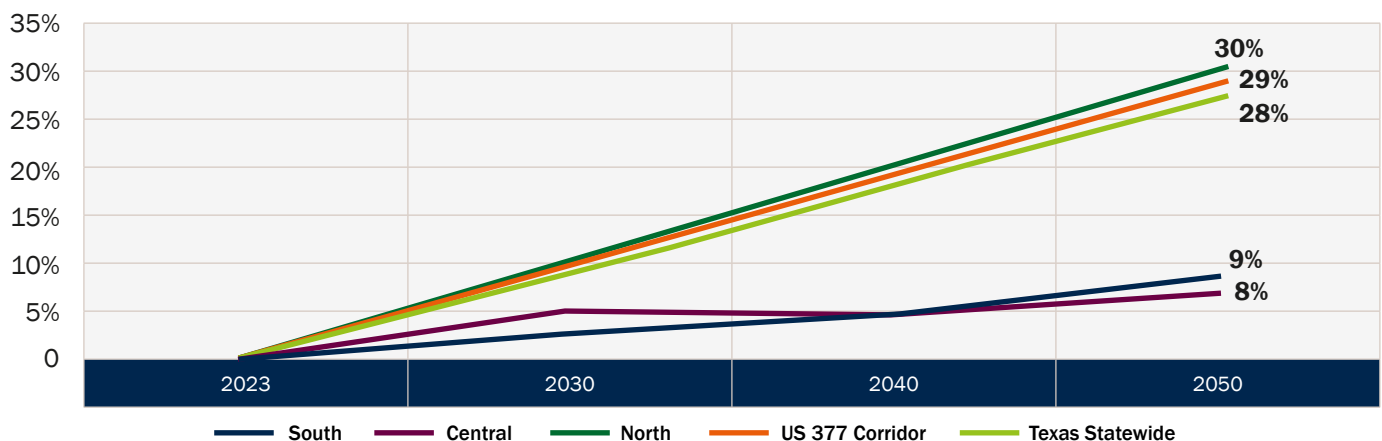
Source: S&P Global, 2024 (formerly IHS Markit)

3.3.5 Employment and Economic Output Projections

Across the US 377 corridor, employment is projected to grow by 29% between 2023 and 2050, which is similar to projected statewide growth (28%). The North Segment is projected to experience the highest growth at 30%, higher than the state of Texas. The Central and South Segments are forecasted to grow at a rate of 8% and 9%, respectively (Figure 3-19).

Across the US 377 corridor, employment is projected to grow by **29%** between 2023 and 2050 (S&P Global)

Figure 3-19. Employment Projections for the US 377 Corridor (2023 through 2050)

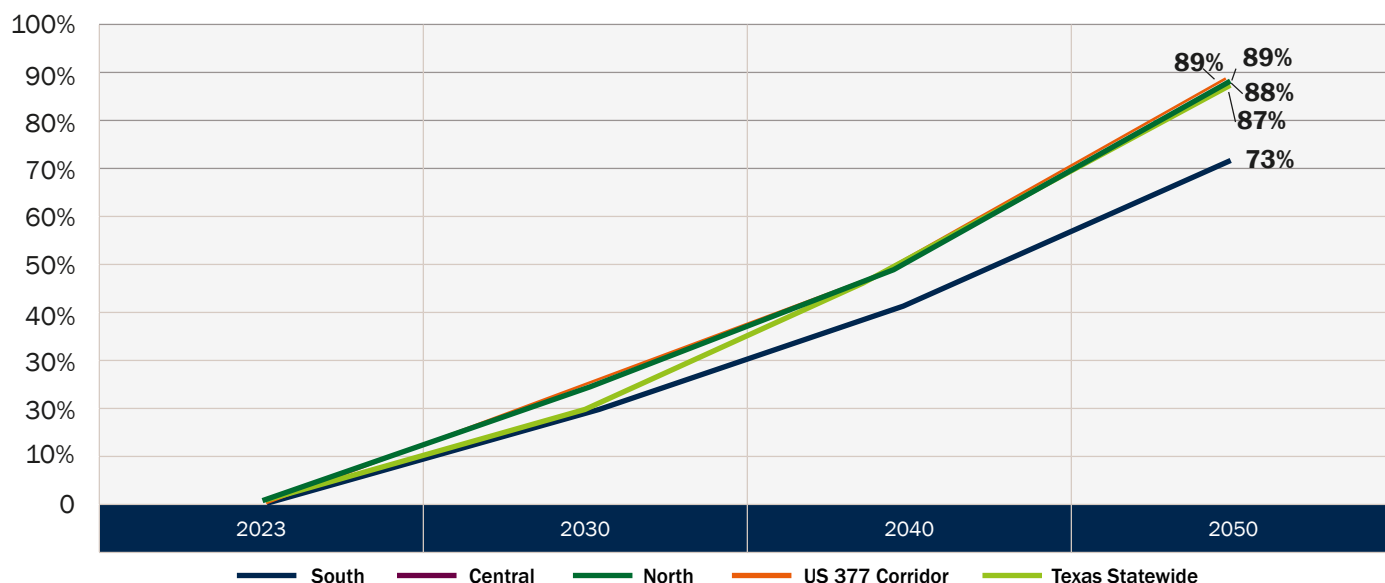


Source: S&P Global, 2024 (formerly IHS Markit)

The gross regional product within the study area is expected to grow by **89%** from **\$646 billion** in 2023 to **\$1.2 trillion** by 2050 (S&P Global)

Based on the estimated GDP for 2023 and 2050 from S&P Global, the North Segment is projected to experience the highest growth rate at 89%, followed closely by the Central Segment at 88% (**Figure 3-20**). The South Segment's GDP is forecasted to grow at a rate of 73%. Estimates from S&P Global indicate that gross regional product within the study area is expected to grow by 89% from \$646 billion in 2023 to \$1.2 trillion by 2050.

Figure 3-20. GDP Projections for the US 377 Corridor (2023 through 2050)



Source: S&P Global, 2024 (formerly IHS Markit)

4

Corridor Characteristics



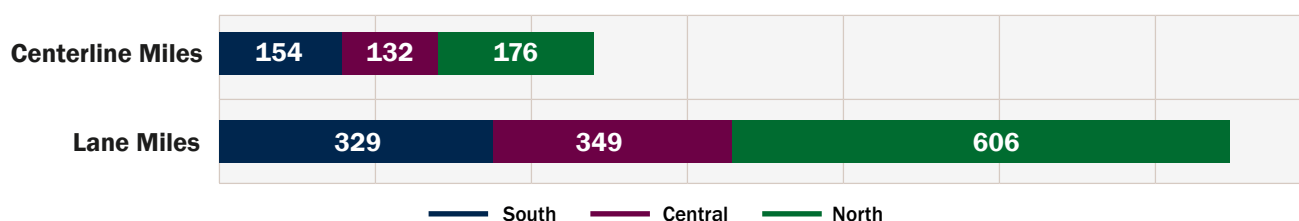
Chapter 4 presents the analyses conducted to evaluate existing and future conditions along the US 377 corridor. The analyses identify critical needs that informed development of the proposed recommendations for enhancing safety and mobility along the corridor. This chapter examines the US 377 corridor’s characteristics and infrastructure, covering roadway conditions, traffic, pedestrian and bicycle facilities, public transit, airports, intermodal facilities, safety, pavement, bridges, environmental factors, resiliency, and ITS.

4.1 Existing Characteristics

4.1.1 Roadway Characteristics

Spanning 1,284 lane miles, the corridor is predominantly a 2-lane highway in rural areas (70%), with 3 or more lanes in urban areas comprising the remaining 30%. **Figure 4-1** provides a summary of the total lane miles and length of the corridor by segment.

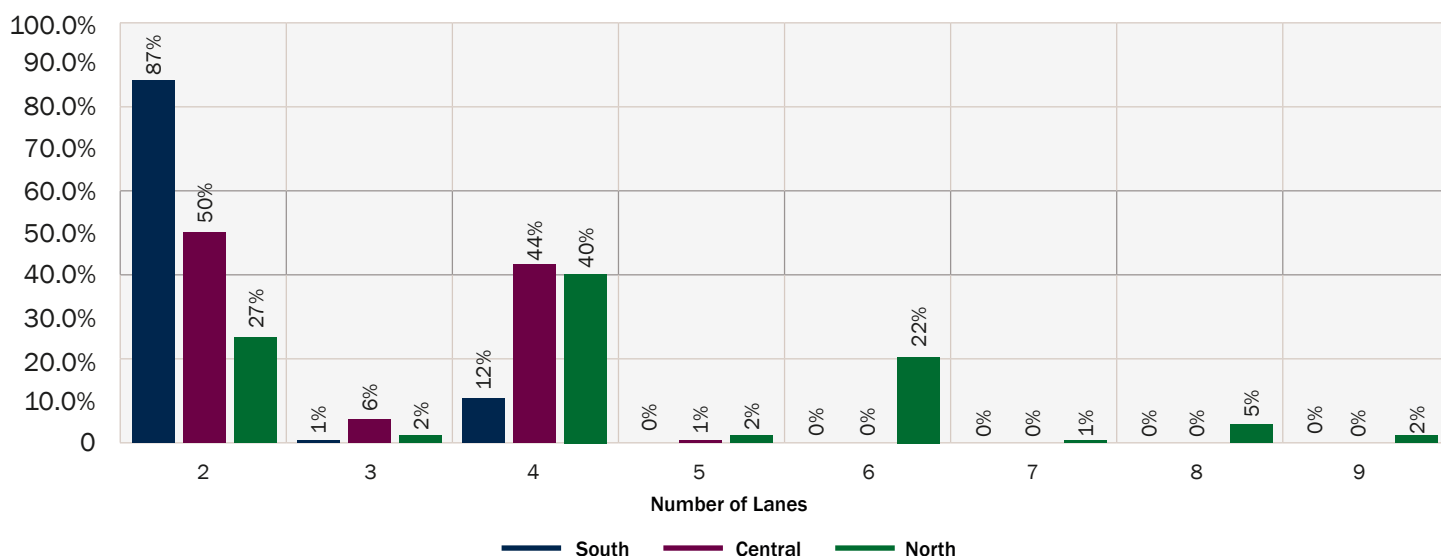
Figure 4-1. Corridor Centerline and Lane Miles by Segment



Source: Texas Roadway Inventory, 2022

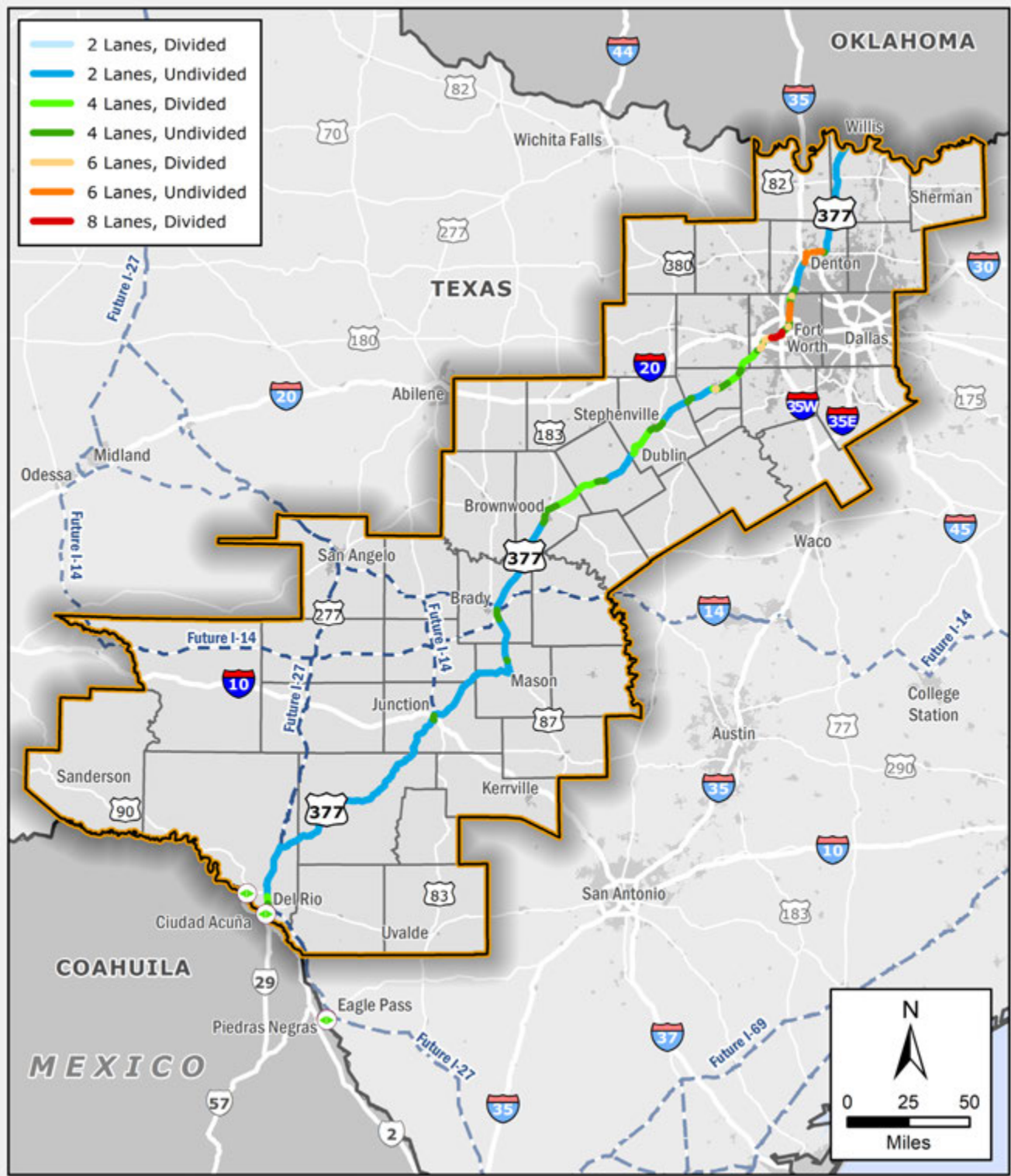
Figure 4-2 illustrates the percentage of the corridor that has a certain number of lanes. **Figure 4-3** illustrates the center miles travel lanes along the US 377 corridor. Approximately 70% of the US 377 corridor consists of two-lane undivided (83% of the US 377 corridor is undivided). Approximately 98% of the US 377 corridor does not have frontage roads. The remaining 2% of the corridor (11 miles) includes frontage roads on both sides in Brownwood, Comanche, and Fort Worth. The two most common road sections along the US 377 corridor are two-lane undivided and four lane divided as shown in **Figure 4-4** and **Figure 4-5**.

Figure 4-2. Percent of the Corridor by Number of Lanes



Source: Texas Roadway Inventory, 2022

Figure 4-3. US 377 Corridor Number of Travel Lanes



Several portions of the US 377 corridor overlap with the Texas Trunk System. **Figure 4-6** shows the portion of the Texas Trunk System on the US 377 corridor from Del Rio to US 277/US 377 intersection (and future I-27) and Brownwood to South of Fort Worth. The Texas Trunk System also provides a connection to the future I-27 at the US 277/US 377 intersection. Approximately 30% (138 miles) of the corridor is part of the Texas Trunk System. Of these 138 miles, 84 miles do not meet TxDOT's standard of a 4-lane divided highway. These segments were considered in identifying proposed improvements along the US 377 corridor.

Figure 4-4. Existing Two-Lane Undivided Highway Typical Section



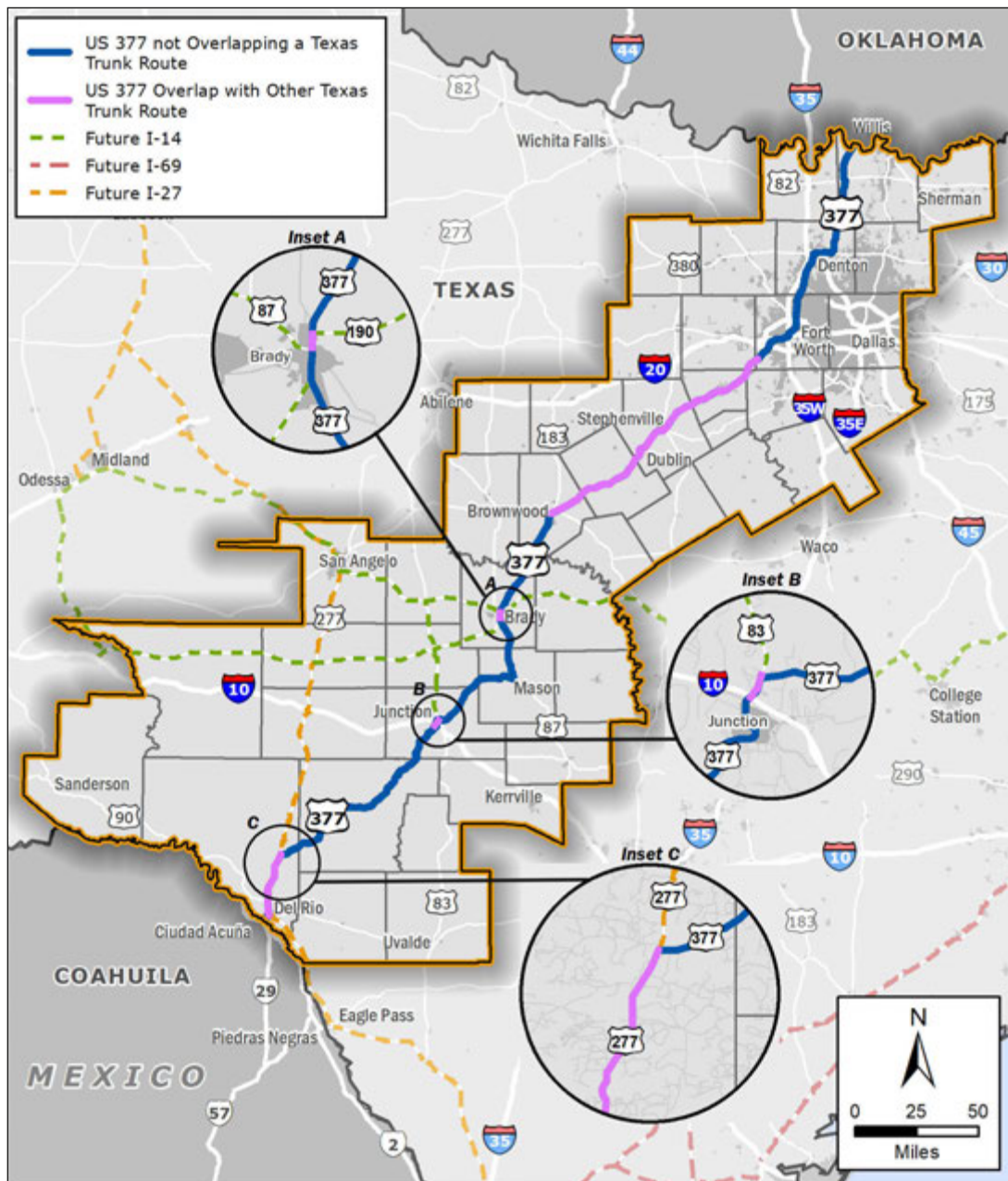
Figure 4-5. Existing Four-Lane Divided Highway Typical Section



Texas Trunk System

The Texas Highway Trunk System consists of vibrant highways connecting cities, ports, and state entry points. These routes must feature at least four-lane divided facilities to ensure safe and efficient long-distance travel. **While not entirely part of this system, the US 377 corridor shares similar characteristics, including undivided roadway sections and its role in linking diverse regions.**

Figure 4-6. US 377 Overlap with the Texas Trunk Route System



4.1.2 Pavement Condition

The existing US 377 corridor is a mixture of rural, suburban, and urban highways and is currently comprised of three separate functional classes: principal arterials, minor arterials, and major collectors. The US 377 corridor has three separate roadway types: a two-way divided boulevard/highway, a two-way divided expressway with partial access control, and a two-way undivided roadway.

The existing pavement conditions along the entire US 377 corridor have been identified using the Pavement Management Information System (PMIS) data provided by TxDOT. Existing pavement conditions are visually evaluated, and a distress score from fiscal year (FY) 2023 TxDOT *PMIS Rater's Manual* for categorization.

4.1.3 Bridge Condition

Existing routes along the US 377 corridor include both bridges and bridge-class culverts over streams. Based on Bridge Inventory, Inspection, and Appraisal Program (BRISNAP) and TxDOT's Coding Guide, June 2020, bridge structural evaluation conditions are categorized into three groups: Good Condition (7–9); Fair Condition (4–6); and Poor Condition (0–3).

Tables 4-1 and **4-2** summarize the condition of existing bridge structures and bridge class culverts along the US 377 corridor. **Figure 4-8** shows bridge conditions.

Table 4-1. Bridge Structure Conditions

Existing Structure Condition	Ratings	Number of Structures along US 377 Corridor	Description
Good	7 to 9	93 (70%)	Minor to no maintenance required
Fair	4 to 6	33 (25%)	Some repairs are required
Poor	0 to 3	0	Priority of corrective plan or replacement is required
No Data Available	N/A	6 (5%)	N/A

Source: TxDOT's Open Portal/BRISNAP

Table 4-2. Bridge Class Culvert Conditions

Existing Culvert Condition	Ratings	Number of Culverts along US 377 Corridor	Description
Good	7 to 9	62 (60%)	Minor to no maintenance required
Fair	4 to 6	42 (40%)	Some repairs are required
Poor	0 to 3	0	Priority of corrective plan or replacement is required

Source: TxDOT's Open Portal/BRISNAP

All existing bridge and bridge class structures along the US 377 corridor should be evaluated individually during the next phase (preliminary engineering) to ensure full compliance with safety and performance standards.

Designed to allow water to flow over the roadway during periods of heavy rain, low-water crossings are located along the US 377 corridor with most of the crossings located between Del Rio and Mason. Although low-water crossings can close roads in rainy events, they still permit vehicle passage during normal conditions. These crossings are common in rural areas where building a full bridge might not be viable due to cost or environmental impact but require ongoing evaluation to ensure safety and reliability.



There are 142 grade separated structure crossings over the existing routes of the US 377 Corridor based on the TxDOT Bridge Inventory. GIS Data available as of May 24, 2024. Grade separated structures are comprised of roadway crossings, railroad crossings, and pedestrian bridge crossings.

Based on the TxDOT's Roadway Design Manual, a minimum of 18.5 feet (ft) of vertical clearance is required for new or reconstruction projects. According to the TxDOT Bridge Inventory GIS Data, only 45% (66 of 142 structures along US 377) meet the minimum 18.5 ft vertical clearance requirement along the US 377 corridor. **Table 4-3** shows the vertical clearance summary for bridges with varying clearance ranges.

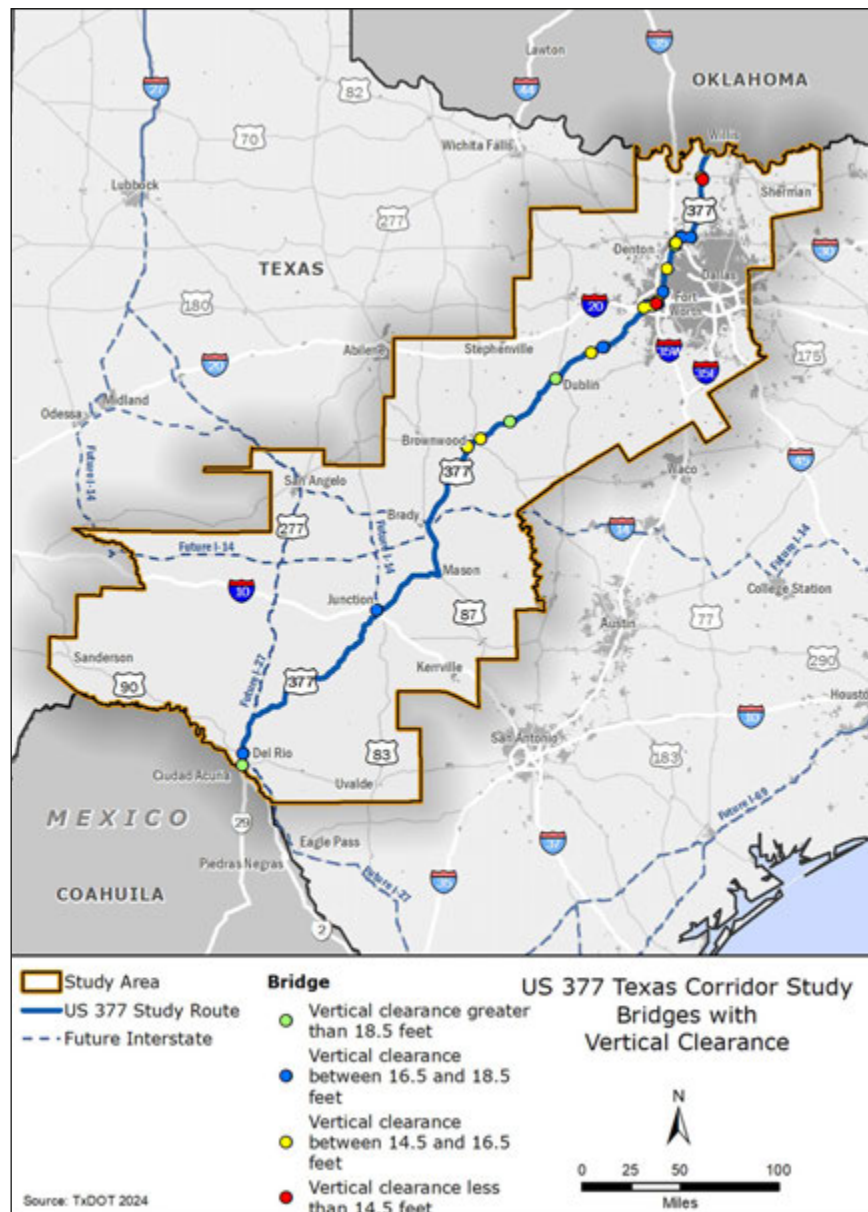
Table 4-3. Bridge Vertical Clearance Summary

Vertical Clearance Range	Number of Structures
14.5 ft or less	3 (2%)
14.5 ft to 16.5 ft	25 (18%)
16.5 ft to 18.5 ft	48 (34%)
18.5 ft or greater	66 (45%)

Source: TxDOT Open Portal, 2024

Existing grade separated structures with vertical clearances of less than 18.5 ft should be considered for posting appropriate warning signage. All new grade separations will be designed to meet the current vertical clearance requirements. **Figure 4-9** shows the bridges with vertical clearances.

Figure 4-9. Bridges with Vertical Clearances



4.1.5 Pedestrian and Bicycle Facilities

The US 377 corridor provides pedestrian and bicycle facilities by way of sidewalks, shared use paths (SUPs), and bike accessible, or bikeable shoulders. The US 377 corridor intersects and overlaps several regional bicycle trail networks and passes through several locally adopted Active Transportation Plans (ATPs).

The latest edition of TxDOT's Roadway Design Manual (RDM) incorporated state-of-the-practice guidance and elevated the importance of the planning and design of bicycle and pedestrian facilities. The bicycle guidance is heavily influenced by the Federal Highway Administration (FHWA) Bikeway Selection Guide.

There are limited facilities that meet the RDM's recommendations for cyclists along the US 377 corridor statewide, and these facilities largely consist of bikeable shoulders (as defined in the RDM). SUPs are present in two urban segments and are summarized in **Table 4-4**. **Figure 4-10** illustrates the extent of bikeable shoulders in rural areas of the corridor.

Table 4-4. Existing Bicycle Facilities

Facility	Length
South Segment	
SUP from 17 th Street (St.) to East Cantu Road (Rd.) in Del Rio	0.25 mile
Bikeable shoulder	101 miles
Central Segment	
Bikeable shoulder	119 miles
North Segment	
SUP from Colorado Boulevard (Blvd.) to Denton Katy Trail in Denton	0.15 mile*
SUP from Duchess Drive (Dr.) to South of McKinney St. in Denton	0.20 mile*
SUP from N. Mayhill Rd. to Greenbelt Trail in Denton	2.4 miles
Bikeable shoulder**	82 miles

* Segment is along Loop 288 in the portion to be redesignated as US 377.

** This segment generally has bikeable shoulders, though the addition of turn lanes in areas has reduced the shoulder below an adequate width to be considered bikeable.

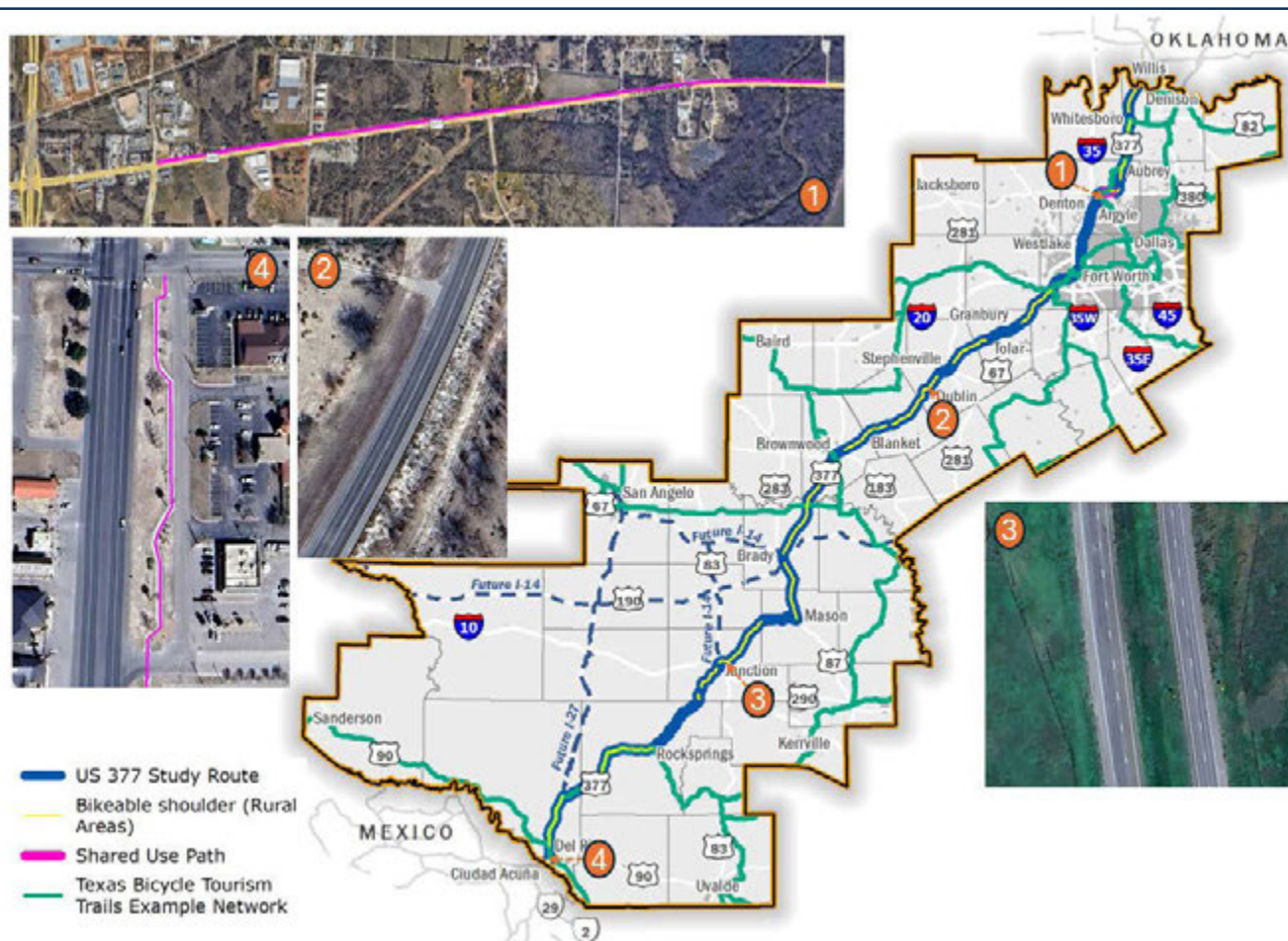
There are some pedestrian facilities in the non-rural portions of the US 377 corridor, largely consisting of intermittent and discontinuous sidewalks. **Table 4-5** summarizes the nature of existing pedestrian facilities along the US 377 corridor.

Table 4-5. Existing Pedestrian Facilities

City	Type
South Segment	
Brady	Continuous sidewalk from US 190 south of town to US 190 north of town
Del Rio	Discontinuous sidewalk from US 90 (Gibbs St.) to Braddie Dr.
Junction	Intermittent segments of sidewalk
Central Segment	
Brownwood and Early	Discontinuous sidewalk from Lipscomb St. in Brownwood to Meadow Glen Dr. in Early
Comanche	Continuous sidewalk on at least one side from 10th St. to Sand St.
North Segment	
Benbrook	Continuous sidewalk from Winscott Rd. to I-20
Denton	Mostly continuous sidewalk from Farm-to-Market (FM) 1830 to I-35E, discontinuous sidewalk along frontage roads in concurrent segment with I-35E between US 377 and Loop 288*, continuous on at least one side along concurrent segment with Loop 288 and US 380 (from I-35E to US 380/US 377 split)*
Fort Worth, Haltom City, Watauga, Keller, Roanoke	Discontinuous sidewalk from I-20 in Benbrook/Fort Worth to State Highway (SH) 114 in Roanoke

* Segment is along portion to be redesignated as US 377.

Figure 4-10. Bicycle Facilities in the US 377 Corridor Study Area



Source: TxDOT Open Data Portal, 2024

Several major statewide and regional bicycle networks intersect the US 377 corridor, many of which have connections that are incomplete and have planned projects that are not yet funded (Table 4-6).

Table 4-6. Statewide and Regional Bicycle Networks

Reach	Plan	Corridor Location
National	U.S. Bicycle Route System (USBRS)	Near Del Rio
Statewide	TxDOT Bicycle Tourism Trails Example Network	Del Rio to Rocksprings, Brownwood, Mercury, Benbrook, Whitesboro to Pilot Point, and Denton
Regional	TxDOT Laredo District Bicycle Plan	Near Del Rio
Regional	NCTCOG's Regional Veloweb	Granbury to Tarrant County line, Benbrook, between Argyle and Denton, and Denton from Loop 288 to Elm Fork.

In addition to these regional plans, NCTCOG has adopted the local plans of eight cities and counties in their region with implications for the US 377 corridor; Granbury, Benbrook, Fort Worth, Watauga, Keller, Flower Mound, Denton, and Grayson County. The cities of Del Rio and Stephenville also have adopted Comprehensive Plans with recommendations for bicycle and pedestrian accommodations.

4.1.6 Public Transportation

Options for public transportation along the US 377 corridor include local bus services, long-distance passenger rail, commuter rail, intercity bus services (ICBs), and a combination of services offered through local Transportation Demand Management (TDM) and Demand-Response Transportation (DRT) programs. Over 15 transit service providers operate in the US 377 corridor study area. For example, the Trinity Metro and Dallas Area Rapid Transit (DART) express routes travel along the US 377 corridor main highway lanes. Bus routes and stops in the US 377 corridor study area are shown in **Table 4-7**.

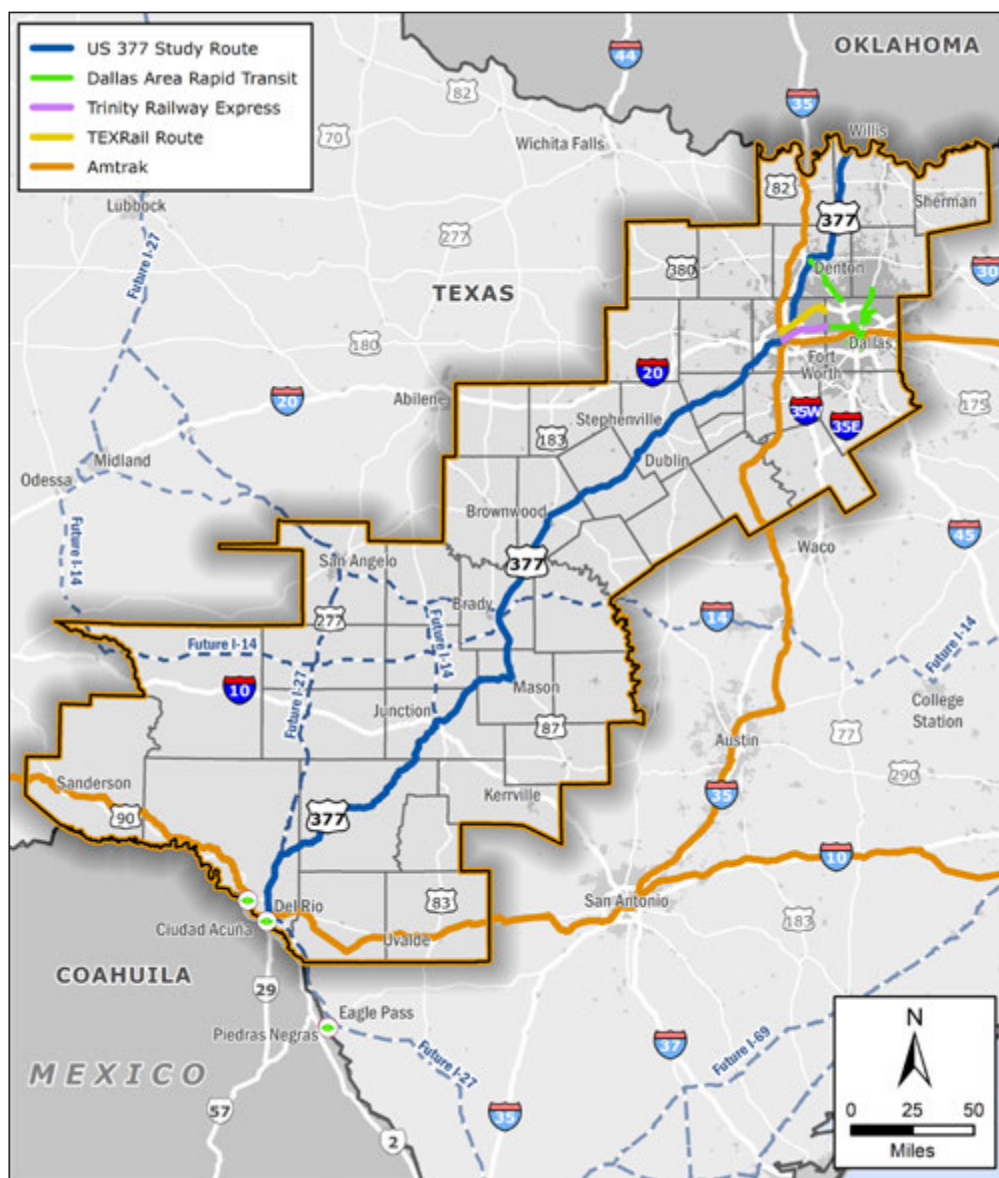
Table 4-7. Bus Routes and Stops in the US 377 Corridor Study Area

Service Provider	Service Type	Route/Stops
South Segment		
City of Del Rio Transportation Department	DRT, Fixed-route bus	26 bus stops. Service includes: Val Verde County, San Angelo, Eagle Pass, Uvalde, City of Del Rio
Concho Valley Transit District (CVT)	DRT, TDM	Routes: 1,2,3,4,5,6, Goodfellow Airforce Base (AFB) Express, Seven, Twenty Ram Tram Blue, Ram Tram Gold. Service includes: Concho, Crockett, Kimble, Mason, McCulloch, Menard, Schleicher, Sutton, Tom Green Counties; San Angelo
Central Segment		
Central Texas Rural Transit District (CTRTD)	DRT	Service includes: Taylor, Brown, Callahan, Coleman, Comanche, Eastland, Erath, Nolan, Runnels, Shackelford, and Stephens Counties
CVT	DRT, TDM	Mason to San Angelo; Brady to San Angelo
North Segment		
City of Granbury	Granbury Trolley and bus line to DFW airport	Downtown Granbury, DFW Airport
CTRTD	DRT	Service includes: Brownwood and Stephenville
DART	Fixed-route bus, Commuter rail, Light Rail, Streetcar	Multiple
Denton County Transportation Authority (DCTA)	A-train, Connect Bus, University Routes, Regional Routes, Access Paratransit	Multiple
Heart of Texas Rural Transit District (HOTRTD)	DRT	Service includes: Erath County
Public Transit Services (PTS)	DRT	Service includes: Palo Pinto and Parker Counties
Texoma Area Paratransit System (TAPS)	DRT	Service includes: Grayson County and Gainesville
The Transit System, Inc. (TTS)	DRT	Service includes: Hood County
Trinity Metro	Fixed-route bus, Light Rail, DRT	Routes: 2, 6, 5, 89, 54, 11, 61X, 65X, 63X. Service includes: Tarrant County

The US 377 corridor study area has several passenger rail systems, mainly concentrated in the DFW region (**Figure 4-11**):

- **DART Rail System:** Serving 65 stations and four lines, covering 93 miles. DCTA is shown as part of DART on the map.
- **Trinity Railway Express (TRE):** Serves as a commuter rail service between Dallas and Fort Worth.
- **TEXRail Route:** Operated by Trinity Metro, this 27-mile commuter rail line in Tarrant County connects downtown Fort Worth with DFW Airport.
- **Amtrak:** Three intercity passenger rail services cross or are near the US 377 corridor: Texas Eagle, Sunset Limited, and Heartland Flyer.

Figure 4-11. US 377 Corridor Passenger Rail



Limited at San Antonio for continued service to Los Angeles. The *Sunset Limited* travels triweekly between Los Angeles and New Orleans. Amtrak stations in the US 377 corridor study area are in Del Rio and Fort Worth.

The study area has daily Amtrak service to Del Rio and Fort Worth. Amtrak daily ridership (boardings and disembarking) in the study area between 2017 and 2019 is shown in **Table 4-8**.

Table 4-8. Amtrak Ridership in the US 377 Corridor Study Area between 2020 and 2022

Station	2020	2021	2022
Del Rio	883	1,751	2,372
Fort Worth	64,787	59,571	96,359

Source: Rail Passengers Association. Ridership Statistics, 2020 through 2022

Amtrak and the Southern Rail Commission (SRC) successfully applied in 2023 for a share of the federal funds to study the potential of a new service between New York City, Atlanta and Dallas-Fort Worth by extending a section of the Amtrak Crescent across Mississippi and Louisiana to Texas. This service would improve and expand passenger rail service, particularly along the I-20 corridor. As the I-20 corridor intersects the US 377 corridor at a partial clover interchange in Southwest Fort Worth, in Tarrant County, where US 377 passes over I-20, this study could yield beneficial intercity passenger rail improvements for the US 377 corridor.

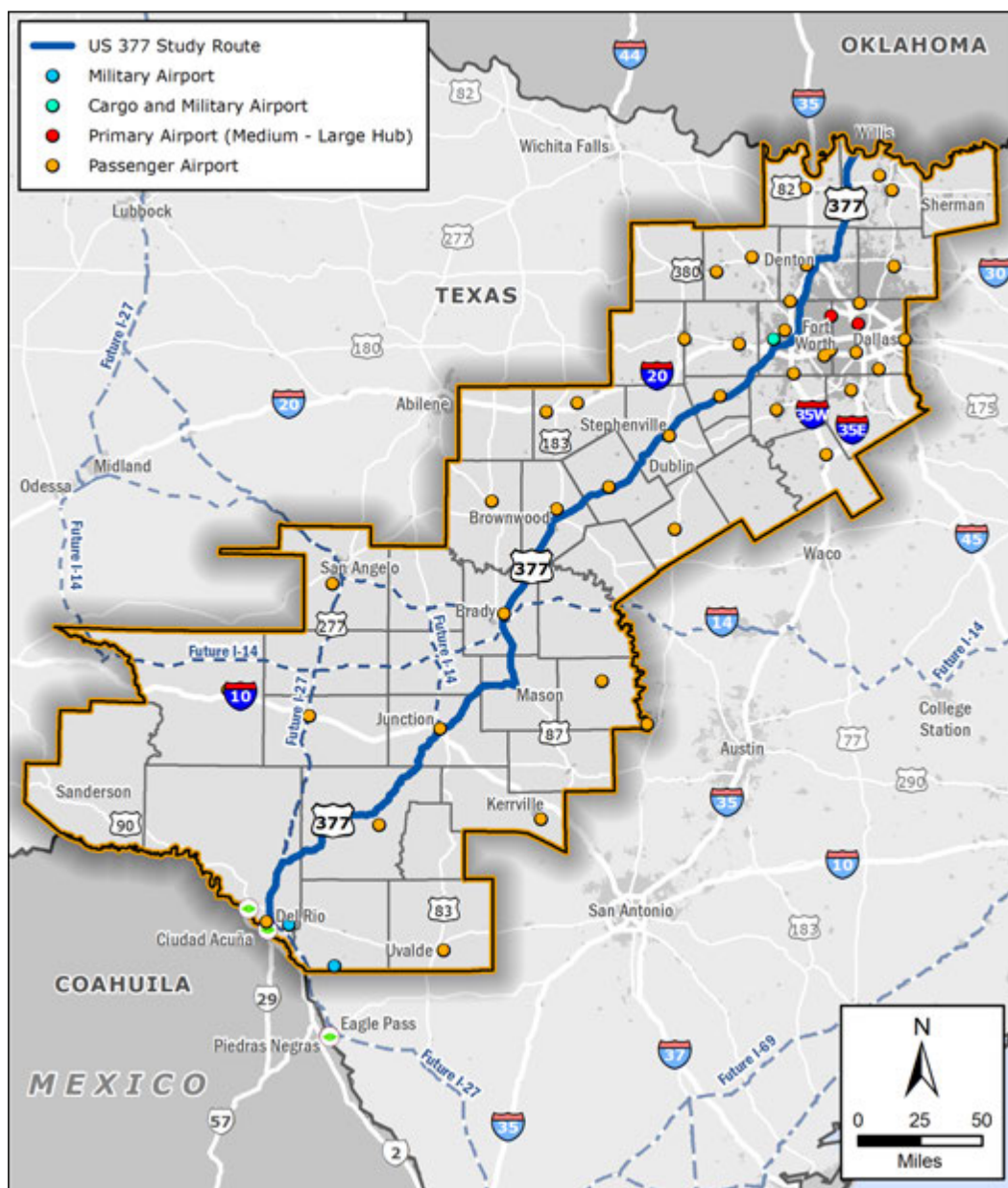
Along the US 377 corridor, ICB services are available from three providers: FlixBus (who acquired Greyhound and Megabus), and All Aboard America! and Trailways. Based on a review of operator web pages, the average cost of a roundtrip ticket between cities in Texas is approximately \$60.⁶ There are four Greyhound bus stations in proximity to the US 377 corridor in Texas. The stations are a mix of station types, including stops within transit centers, partner stations at businesses, such as convenience stores, and curbside stops marked by signposts. Services are available throughout the US 377 corridor between Del Rio and Fort Worth, with stops in Del Rio, Junction, Brady, and Fort Worth.

TDM is typically implemented by public- and private-sector employers and nonprofit organizations through coordinated programs, such as commute solutions, trip reduction, or emissions reduction programs. Strategies include programs that promote, coordinate, and reward employers and employees that rideshare (such as carpool and vanpool), ride transit, bicycle, walk, telecommute, or implement flexible work-hour scheduling.

The DFW metroplex was one of the first regions in Texas along the US 377 corridor to implement formal vanpool programs. Currently, the North Central Texas Regional Vanpool Program is the only one on the US 377 corridor, operated by two transit agencies: Trinity Metro, and DCTA. Trinity Metro provides services to Dallas, Ellis, Erath, Hood, Johnson, Navarro, Palo Pinto, Parker, Somervell, Tarrant, and Wise Counties. Trinity Metro's on-demand service provides rides within select Tarrant County communities. The DCTA service area encompasses Collin, Denton, Hunt, Kaufman, Rockwall, and Wise Counties. Riders can also book UberX shared rides.

⁶Busbud, 2025. Retrieved from <https://www.busbud.com/en/bus-dallas/c/9vg4mp>.

Figure 4-12. Major and Small Airports



Source: Federal Aviation Administration (FAA), 2024

4.1.7 Airports and Intermodal Facilities

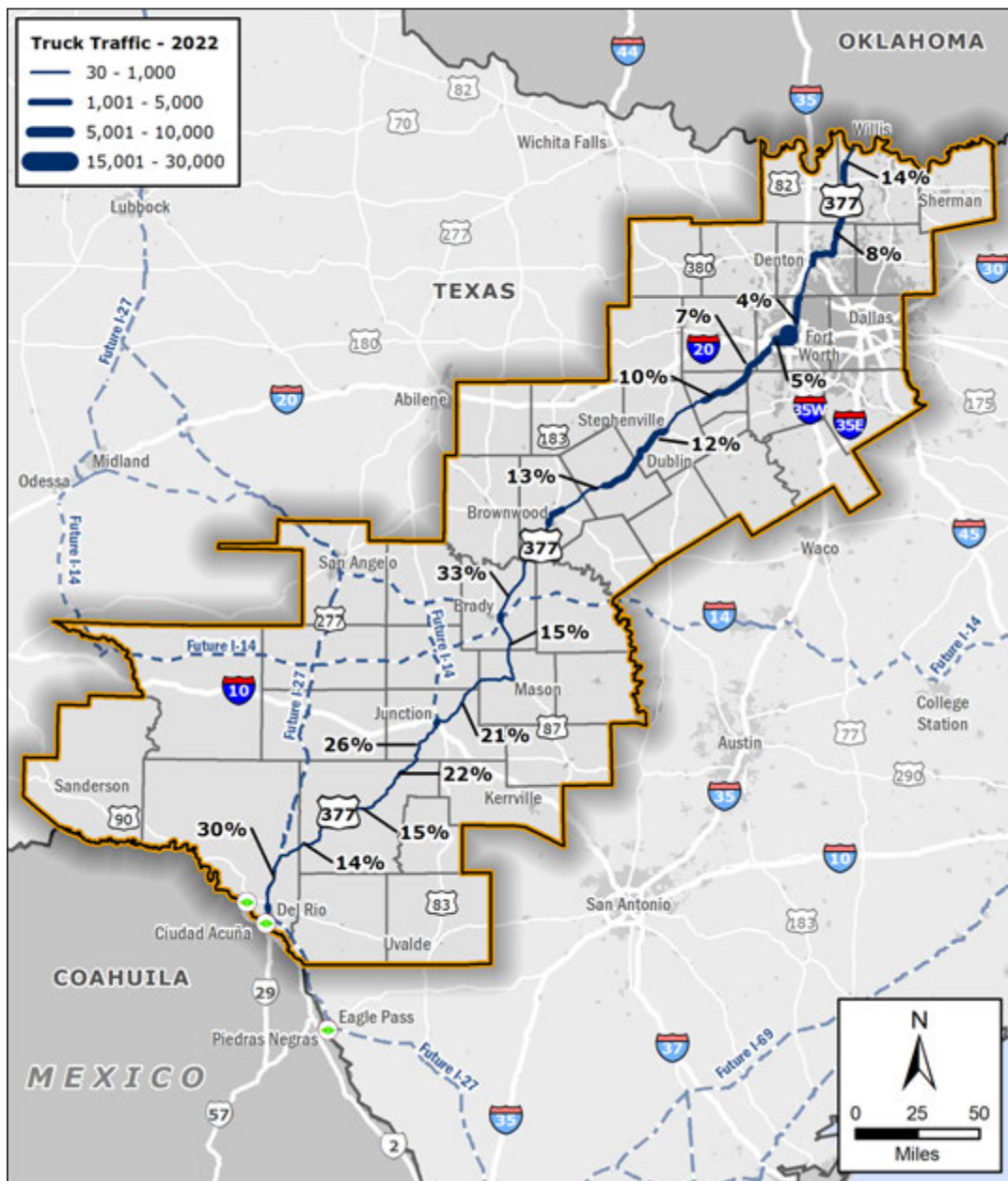
The US 377 corridor serves 45 airports in the region, including five regional airports and 10 airports within two miles of the corridor (Figure 4-12). DFW International Airport is the largest flight hub on the US 377 corridor and serves as the primary international airport in the DFW metroplex. The DFW International Airport ranks second in the country in number of passenger boardings and Dallas Love Field ranks 32. The second largest flight hub is Dallas Love Field Airport (east of DFW International Airport), followed by San Angelo Regional Airport/Mathis Field (west of the US 377 corridor in the city of San Angelo). There are two military airports east of Del Rio and one cargo and military airport in Tarrant County.⁷

⁷USDOT, BTS, Office of Airline Information (Air Carriers Statistics - Form 41 Traffic), T-100 Market (All Carriers), retrieved from <http://transtats.bts.gov/> as of Apr. 21, 2025.

Truck traffic, measured in AADT, varies along the US 377 corridor, as shown in **Figure 4-15**. From the south end near the Mexico border to Brownwood, excluding the portions that pass through the towns of Del Rio, Junction, and Brady, truck 2022 AADT ranges from 40 to 600, with the highest truck percentages relative to total traffic: 26% between Rocksprings and Junction, 30% north of Del Rio, and 33% south of Brownwood. Within Del Rio, Junction and Brady, truck 2022 AADT ranges from 700 to 1,700.

Between Brownwood and Fort Worth, truck 2022 AADT increases between 700 to 2,800, with the highest volumes observed in and around Brownwood and Comanche, with truck percentages of 3% to 25%, and the lower percentages found in Stephenville and Granbury. In Fort Worth and through Denton, truck 2022 AADT varies from 300 (east of I-35W and south of I-30) to 20,200 (overlapping I-35W), with percentages of 2% to 13%. North of Denton, truck 2022 AADT ranges between 700 and 1,700, with percentages of 7% to 18%.

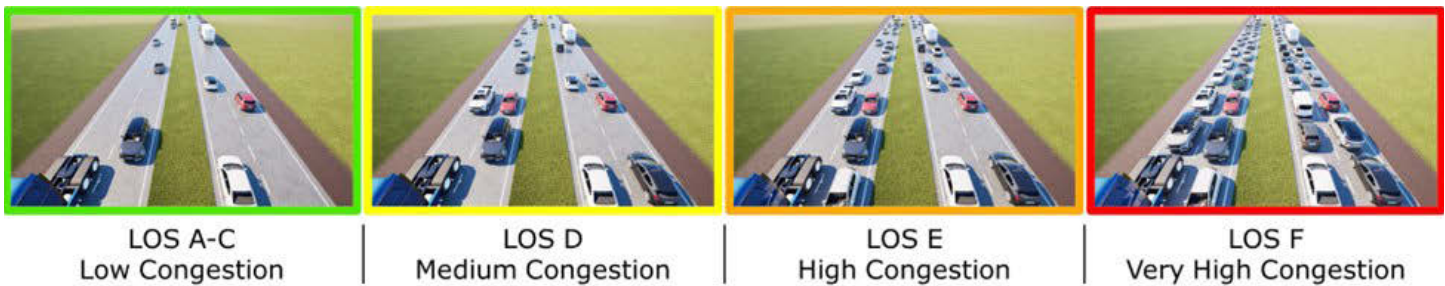
Figure 4-15. 2022 Truck AADT (Including Share of Truck AADT)



Source: TxDOT Roadway Inventory Database, 2022

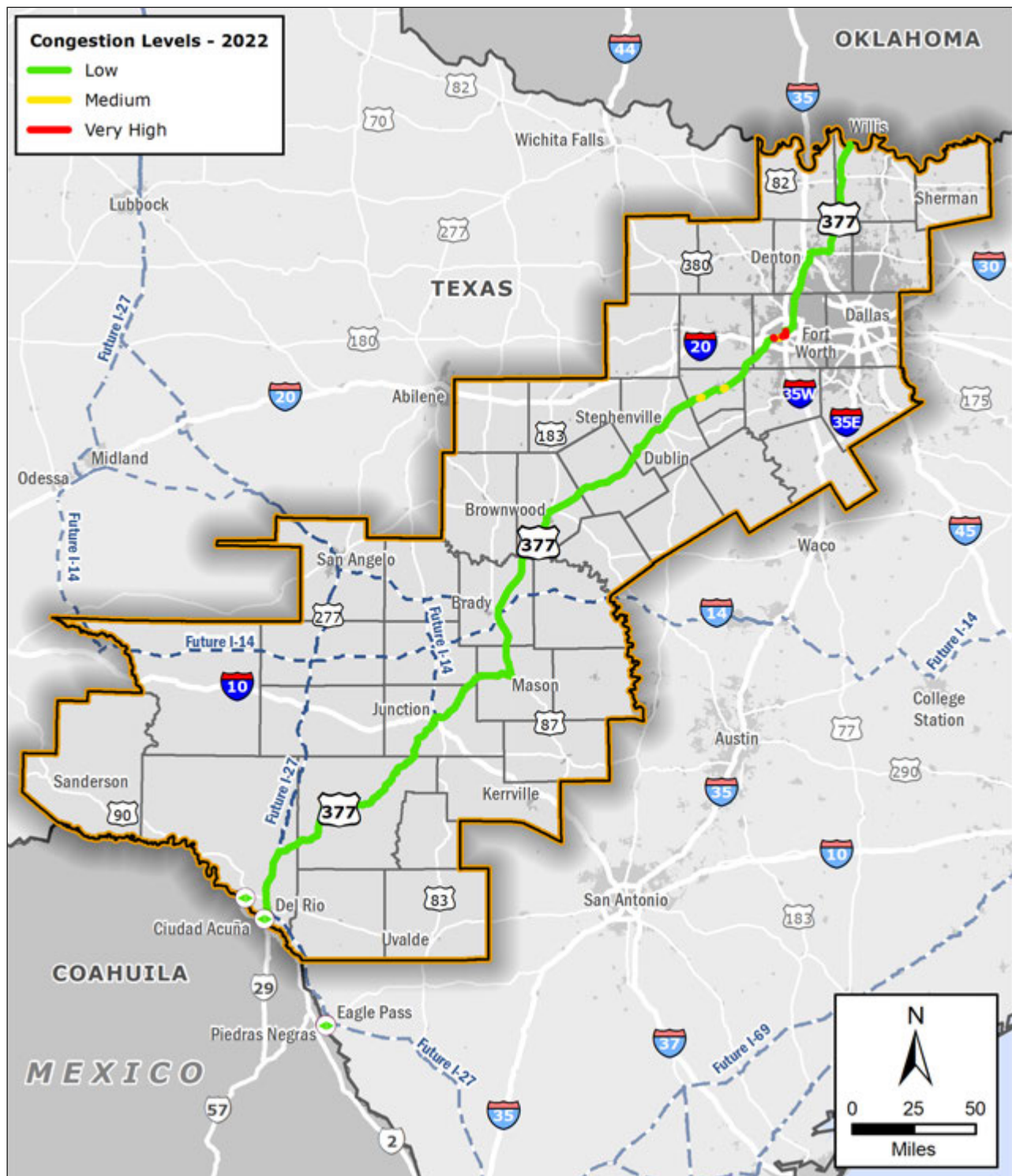
A common measure of roadway operations is the level of service (LOS), which measures the quality of traffic movement along a facility, ranging from LOS A (free flow) to F (standstill). Higher traffic volumes typically reduce LOS, increasing congestion. As shown in **Figure 4-17**, LOS A through C is considered a low congestion level, LOS D is considered medium congestion, E as high congestion, and F as very high congestion. LOS was calculated at the daily level using traffic volumes, area type (urban vs rural), functional class, speed limit, truck percentage and the number of lanes provided from the Roadway Inventory database and applying the FHWA's *Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System*.

Figure 4-17. Congestion Level



In existing conditions (2022) only the North Segment experiences medium to very high congestion along the US 377 corridor (**Figure 4-18**). Medium levels of congestion are observed within Tolar and Granbury. Along I-30 in Fort Worth, congestion varies between low, medium and high. High congestion is observed along sections of I-35W that are dual designated as US 377.

Figure 4-18. US 377 Corridor Daily Congestion Level in 2022

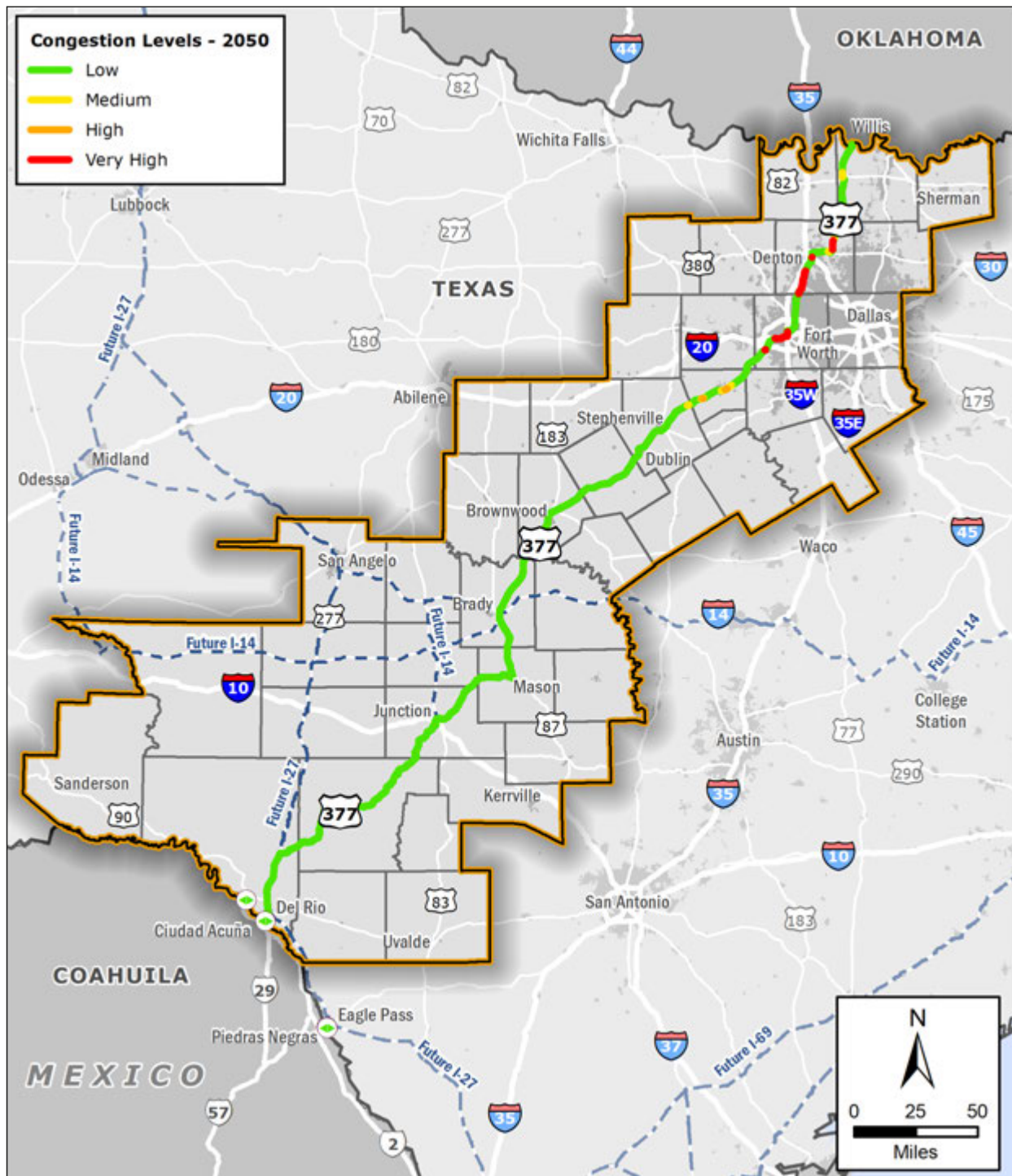


Source: TxDOT Roadway Inventory Database, 2022 and Highway Capacity Manual

Without improvements, LOS along the US 377 corridor is projected to decline by 2050, driven by continued population and economic growth in the North Segment. As shown in **Figure 4-19**, forecasted LOS deterioration extends both north and south of Fort Worth. In 2050, high congestion is expected in Tolar and Granbury, where traffic volumes are projected to increase from 11,000 to 14,000 AADT in Tolar and from 50,000 to 66,000 AADT in Granbury. Moderate congestion is also anticipated south of this area in Bluff Dale.

The South and Central Segments are expected to remain uncongested through 2050, as they continue to see relatively low daily traffic volumes. In contrast, within Fort Worth, more segments of I-30 (which are dual designated as US 377) are expected to experience very high congestion, with traffic volumes increasing from 118,000-170,000 AADT in 2022 to 171,000-241,000 AADT in 2050. The I-35W segment will also remain heavily congested. North of Fort Worth, very high congestion is forecasted between Roanoke and Argyle as volumes rise from 17,000 to 24,000 AADT by 2050, while Aubrey and Pilot Point are also expected to experience congestion due to rapid growth.

Figure 4-19. US 377 Corridor Daily Congestion Level in 2050 (Projected)



Source: TxDOT Roadway Inventory Database, 2022 and Highway Capacity Manual

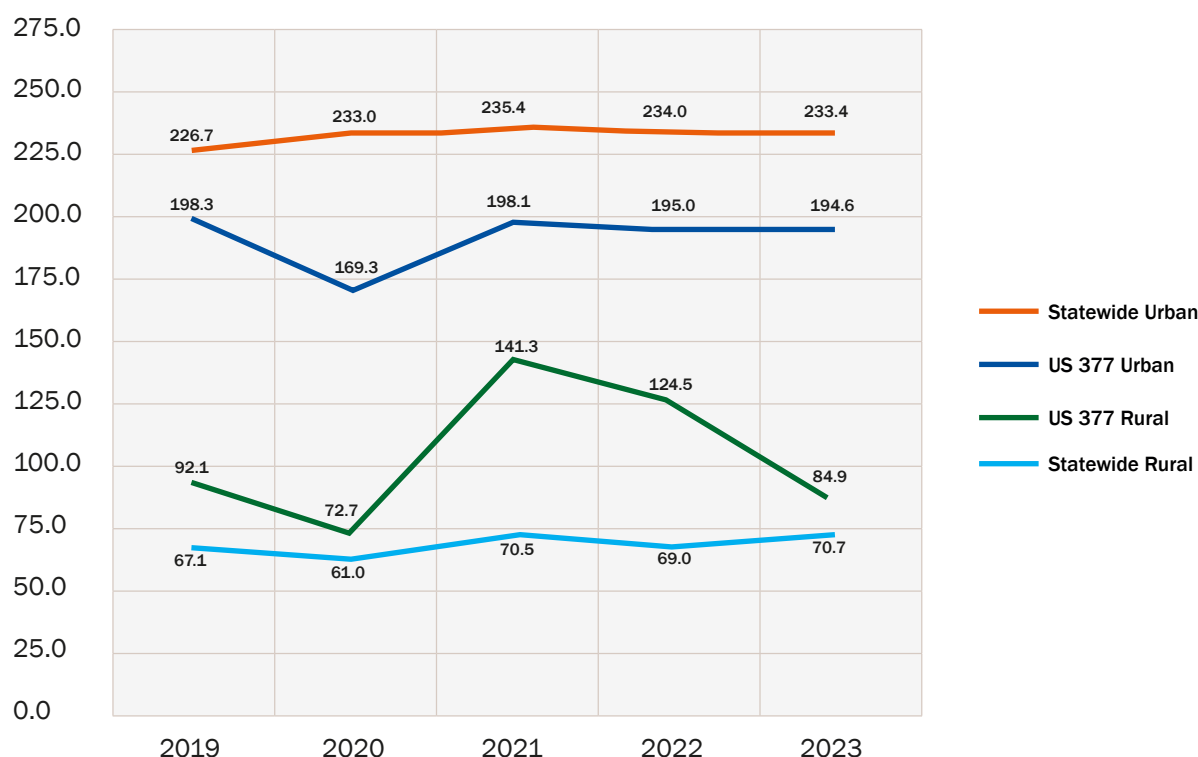
4.3 Safety Analysis

The traffic safety analysis was informed by land use (rural/urban), facility type, roadway geometry, and crash statistics. To identify critical safety issues and needed improvements, a detailed analysis of the US 377 corridor's safety performance was conducted using historical crash data extracted from TxDOT's Crash Records Information System (C.R.I.S.). This section reports major findings from the analysis, including specific locations of certain types of crashes and areas along the US 377 corridor with a high concentration of crashes.

4.3.1 Corridor-wide Crash Analysis

Performance measures based on 2019-2023 crash data show the US 377 corridor has consistently higher urban and rural crash rates than average U.S. highways in Texas. Further, decreased travel during the COVID-19 pandemic resulted in a 14.7% decrease in the 2020 statewide urban crash rate (rates increased by 17.0% in 2021). In comparison, the US 377 corridor urban crash rate shows a 2.8% increase from 2019 to 2020 and another 1% increase from 2020 to 2021 (**Figure 4-20**). The US 377 corridor rural crash rate shows a decline in 2020, in-line with the statewide rural crash rate. However, in 2021, the rural crash rate for the corridor increased by 94.2% compared to the statewide rural crash rate, which increased by only 15.4%. Since 2021, rural crash rates for the US 377 corridor have been decreasing.

Figure 4-20. Crash Rates for US 377 Corridor Compared to Statewide Average Crash Rates by Year

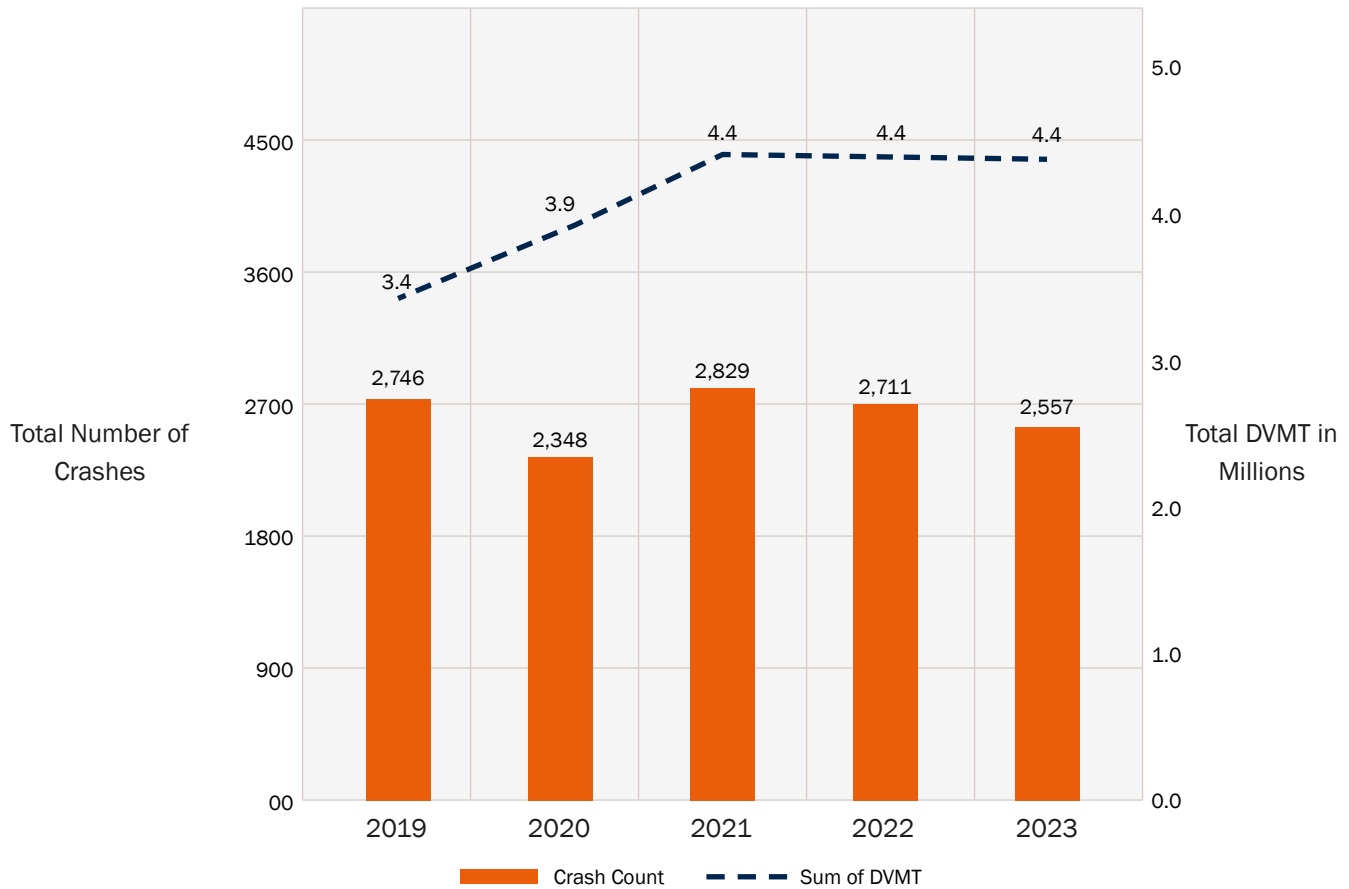


Source: TxDOT. Crash Records Information System, 2019 through 2023

Figure 4-21 depicts the number of crashes recorded along the US 377 corridor for each year from 2019 to 2023. The total number of crashes decreased in 2023 compared to the number of crashes in 2019, with the highest number of annual crashes (2,829) occurring in 2021. Daily vehicle miles traveled (DVMT) grew consistently from 2019 to 2021, with no significant change from 2021 to 2023.

A total of 2,348 crashes were recorded along the US 377 corridor in 2020, which represents a 14.5% decrease from 2019 and is likely related to decreased travel activities along the US 377 corridor due to the impacts of the COVID-19 pandemic.

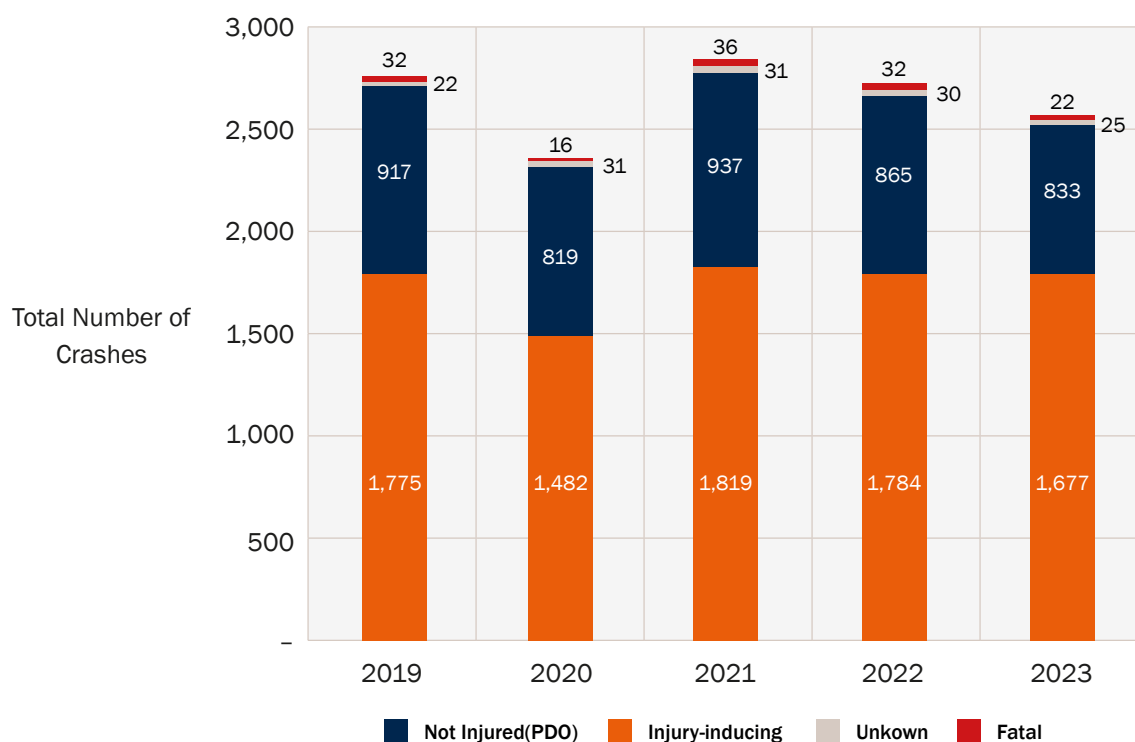
Figure 4-21. Total crashes along US 377 and DVMT by Year



Source: TxDOT. Crash Records Information System, 2019 through 2023

Figure 4-22 shows the number of crashes by crash severity from 2019 through 2023. Approximately 65% of crashes along the US 377 corridor between 2019 and 2023 were classified as not injured or property damage only (PDO) crashes. Injury-inducing crashes accounted for 33% of all crashes and include possible injury (17%), suspected minor injury (13%), and suspected serious injury (3%). A total of 138 fatal crashes (or 1% of all crashes) were recorded along the US 377 corridor between 2019 and 2023. The highest number of fatal crashes (36) were recorded along the US 377 corridor in 2021, representing an increase of 125% despite an increase of just 20.5% in total crashes along the US 377 corridor for the same year.

Figure 4-22. Crash Severity by Year

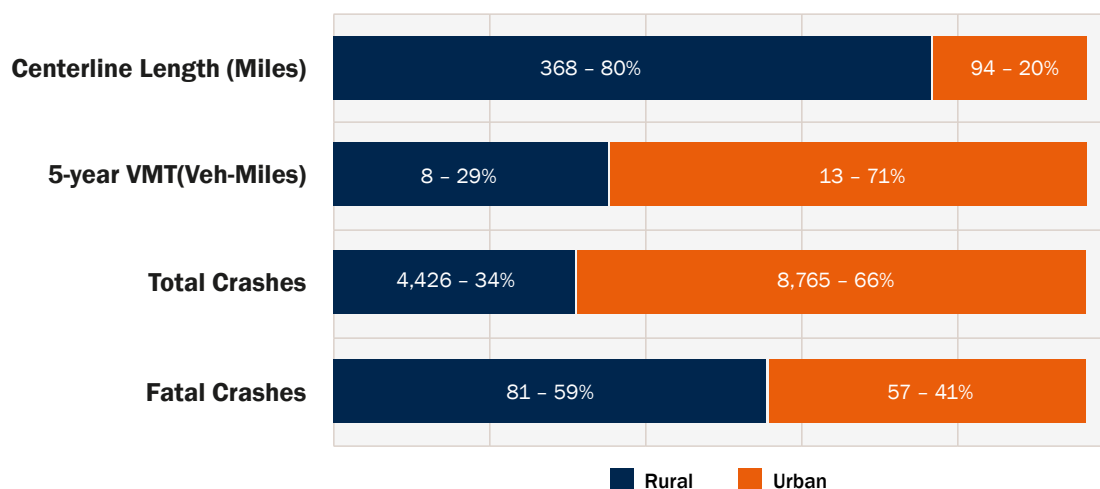


Source: TxDOT. Crash Records Information System, 2019 through 2023

Figure 4-23 shows a heatmap of fatal crash distribution along the US 377 corridor, which reveals a very high concentration of fatal crashes in the Fort Worth area. Other urbanized areas with a high concentration of fatal crashes include Stephenville, Denton, and Granbury.

The rural areas along the US 377 corridor account for 80% of the entire US 377 corridor length or approximately 368 miles, and 29% of total DVMT or approximately 8 million DVMT between 2019 and 2023. **Figure 4-24** illustrates the proportions between rural and urban for multiple crash categories in comparison to the sum of DVMT over the 5-year period. Using the total DVMT as basis of comparison, urban areas account for 66% of total crashes while taking up 71% of total DVMT, which indicates a lower crash rate in urban areas compared to rural areas. When looking at fatal crashes, rural areas experience 59% of fatal crashes, indicating a higher fatality rate than urban areas.

Figure 4-24. Comparison of Urban and Rural Crashes (2019 through 2023)

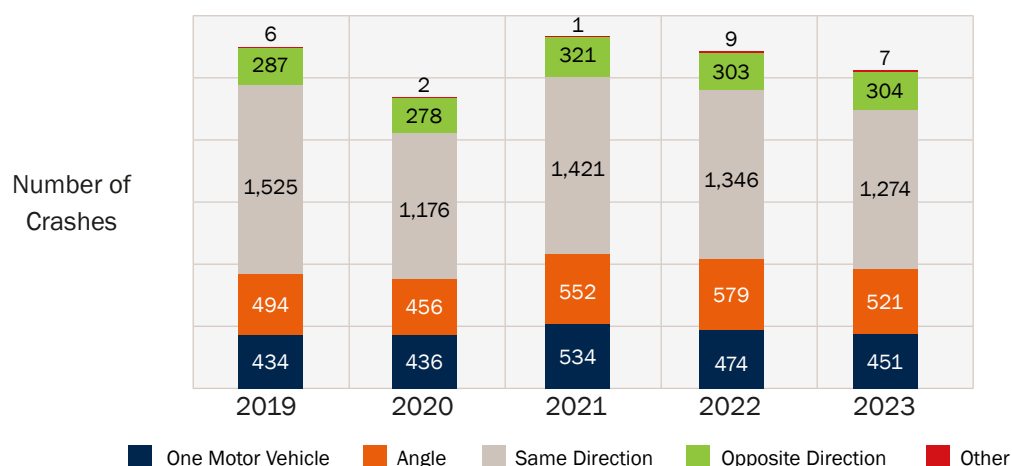


Source: TxDOT. Crash Records Information System, 2019 through 2023

Figure 4-25 depicts areas along the US 377 corridor with a high concentration of bridge strikes. In total, 39 crashes occurred along the US 377 corridor between 2019 and 2023 that can be classified as bridge strikes. Twenty-nine of these crashes resulted from a vehicle hitting the side of a bridge. There were six crashes resulting from hitting the top of the underpass or tunnel, and the remaining four were from hitting a pier or support at an underpass, tunnel, or overhead sign bridge. The Fort Worth area has the highest concentration of bridge strikes when compared to the rest of the US 377 corridor. Segments near Granbury, Brownwood, and Denton also show relatively high concentrations of bridge strikes.

When considering the manner of collision from 2019 to 2023, crashes between vehicles traveling in the same direction accounted for 6,742 or 51% of all crashes along the corridor between 2019 and 2023 (**Figure 4-26**). Of these crashes, 37% were between vehicles traveling in the same direction – one straight/one stopped, 34% rear-end, and 18% were sideswipe. The remaining 11% corresponds to various other categories. Angle crashes are the second most frequent manner of collision with 2,602 crashes (20% of total crashes) between 2019 and 2023.

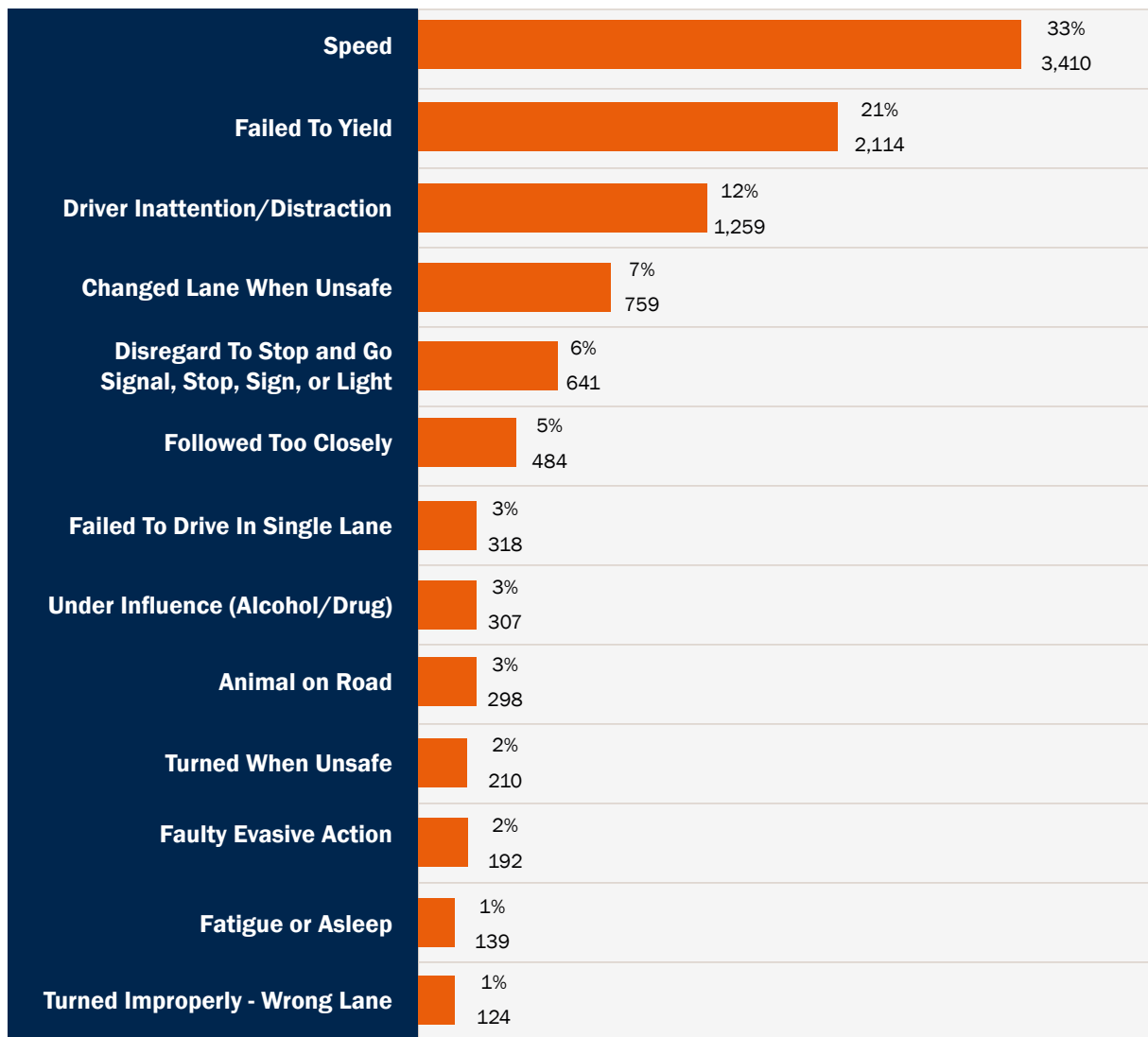
Figure 4-26. Total Crashes by Manner of Collision (2019 to 2023)



Source: TxDOT. Crash Records Information System, 2019 through 2023

The main contributing factors to crashes on the US 377 corridor are driver behavior, external events, or roadway infrastructure characteristics, with a single crash typically having multiple contributing factors. **Figure 4-27** lists the top contributing factors for crashes along the US 377 corridor for 2019 through 2023 that contributed to 1% or more of total crashes, most of which represent faulty driver behaviors. Speed is the most common contributing factor, which accounted for 33% of the crashes recorded. Other significant contributing factors include failure to yield and driver inattention or distraction in vehicles, which were present in 21% and 12% of crashes, respectively.

Figure 4-27. Main Contributing Factors and Corresponding Percentages in Total Crashes (2019 to 2023)

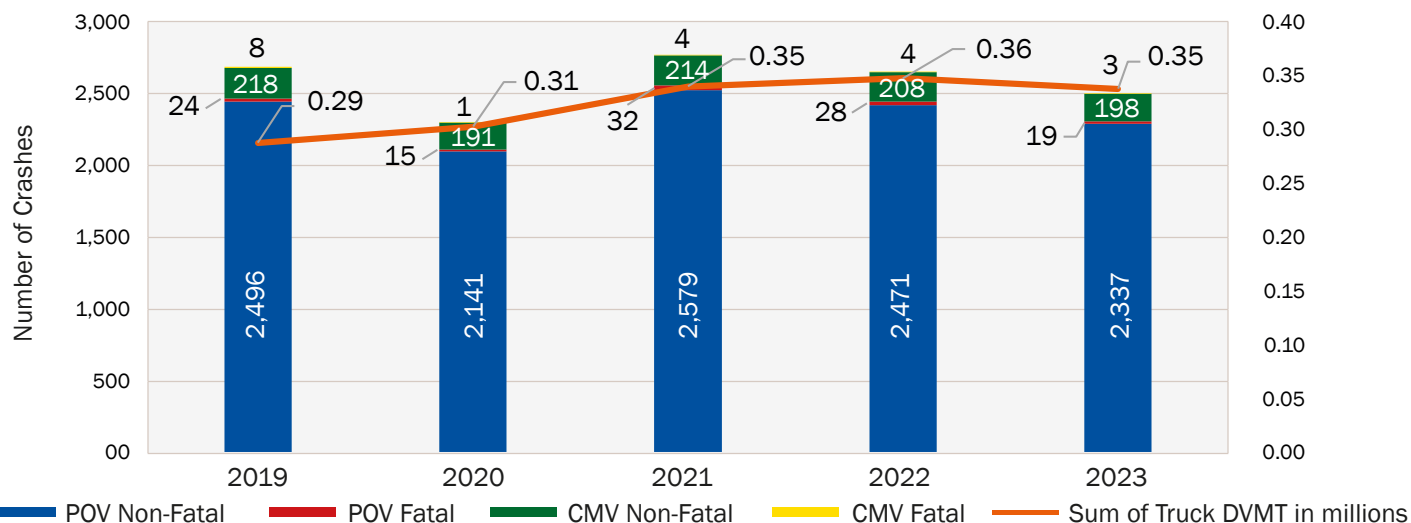


Source: TxDOT. Crash Records Information System, 2019 through 2023

4.3.2 Commercial Motor Vehicle-involved Crash Analysis

Figure 4-28 depicts the changes in numbers of privately owned vehicles (POVs) and CMVs fatal and non-fatal crashes from 2019 to 2023. On average from 2019 to 2023, POV crashes accounted for 92% of total crashes and 86% of fatal crashes, while CMV crashes accounted for 8% of total crashes and 14% of fatal crashes. This means that crashes involving CMVs have a higher fatality rate than those of POV crashes. In 2020, POV crashes decreased by 14% to 2,156 and CMV crashes decreased by 15% to 192. In terms of fatal crashes, POVs accounted for 94% of the crashes in 2020 and CMVs for 6% of fatal crashes, which was lower compared to pre-COVID.

Figure 4-28. Privately Owned Vehicle and Commercial Motor Vehicle Crashes by Year (2019 to 2023)

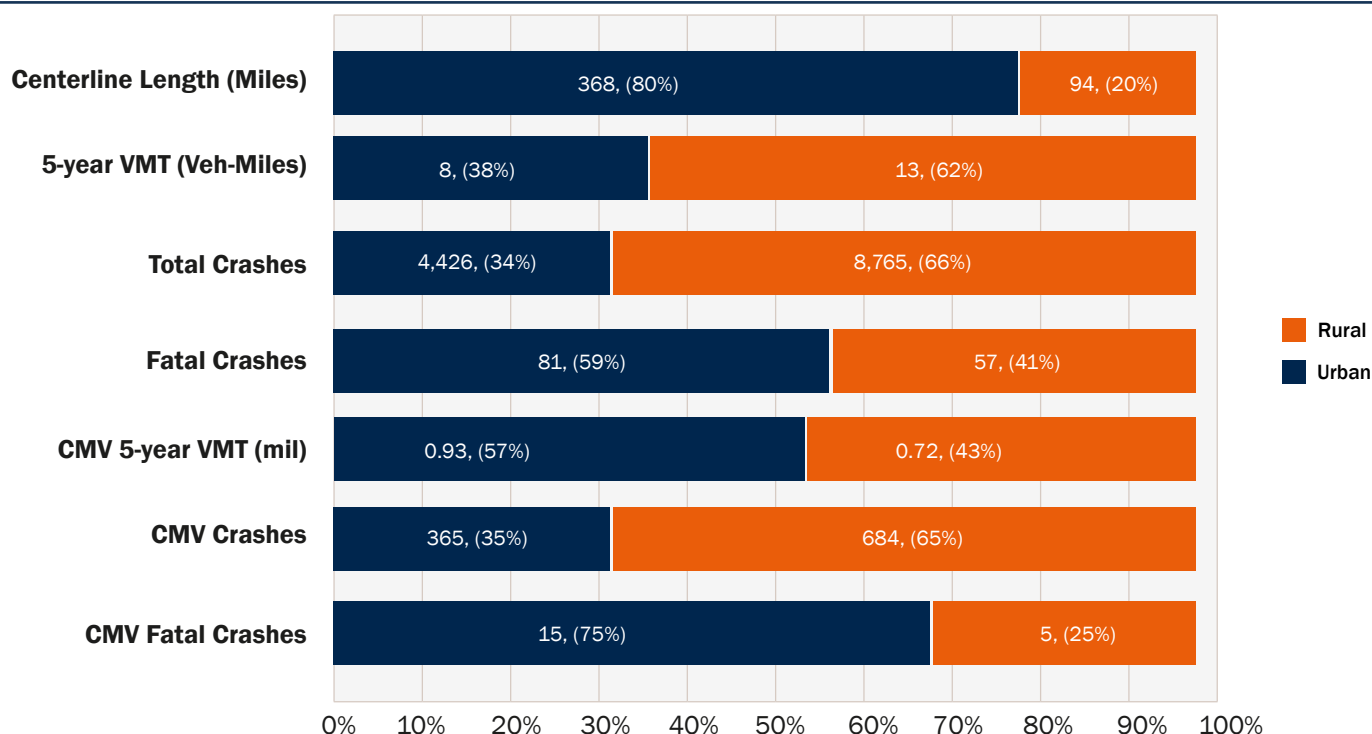


Source: TxDOT. Crash Records Information System, 2019 through 2023

Based on these findings, safety improvements to control the number and severity of CMV crashes are necessary, especially as CMV travel is expected to grow quickly along the US 377 corridor in the near term. Truck DVMT values increased after 2020 and have been consistent until 2023.

Figure 4-29 compares urban and rural CMV involved fatal and nonfatal crashes with DVMT. CMVs travel more frequently on rural roadways compared to urban roadways. Between 2019 and 2023, rural areas experienced 57% of CMV DVMT over the five-year period but only accounted for 365 crashes or approximately 35% of total CMV-involved crashes. However, fatal CMV involved crashes occur more frequently in rural areas, taking up 15 crashes or 75% of total CMV involved fatal crashes.

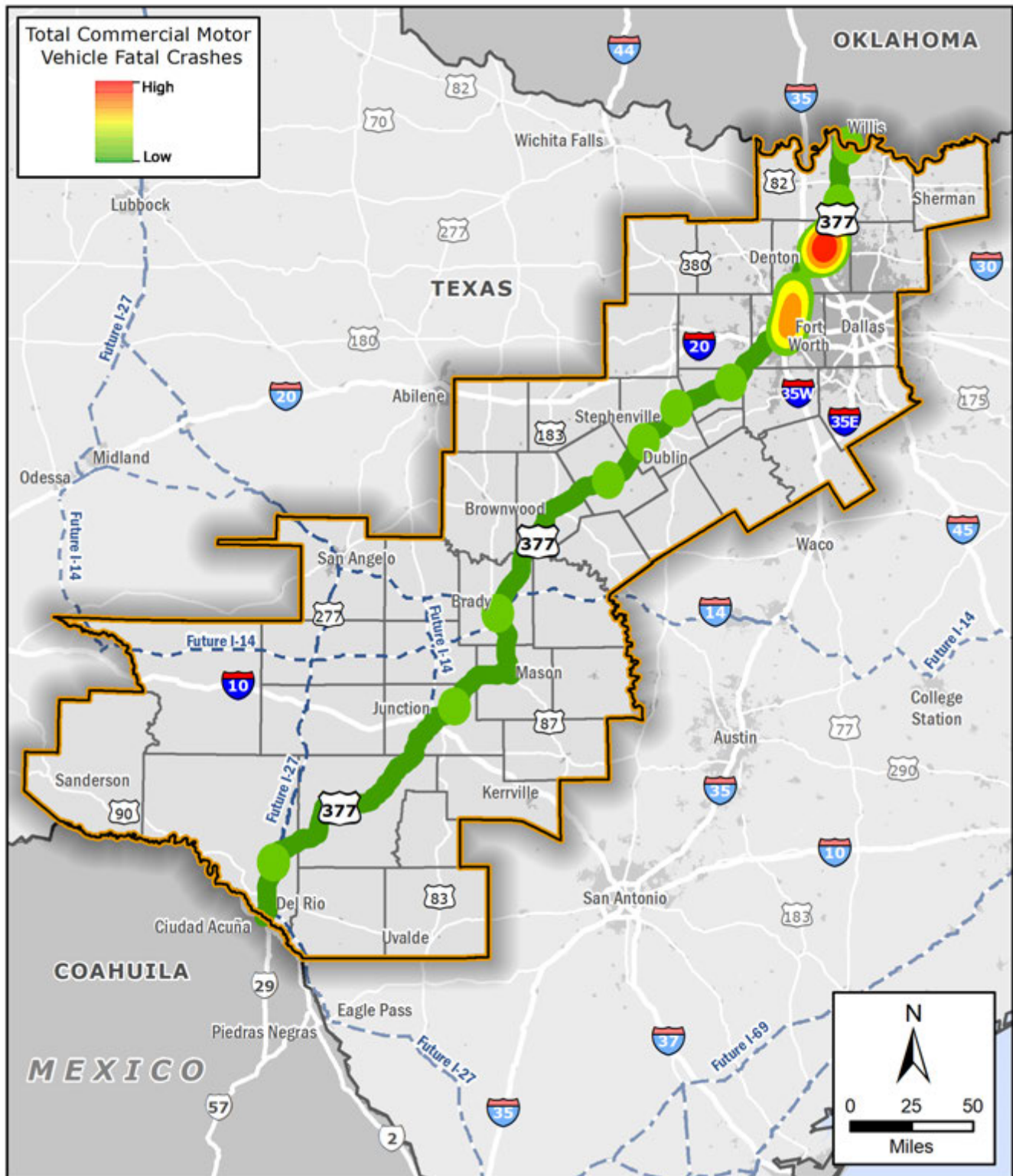
Figure 4-29. Comparison of Urban and Rural Commercial Motor Vehicle-involved Crashes (2019 to 2023)



Source: TxDOT. Crash Records Information System, 2019 through 2023

Figure 4-30 represents the distribution of crashes that involve CMVs. The Denton and Fort Worth urbanized areas exhibit a higher concentration than the rest of the US 377 corridor. Other areas along the corridor have lower CMV fatal crashes.

Figure 4-30. Heatmap of Fatal Crashes Involving Commercial Motor Vehicles (2019 to 2023)

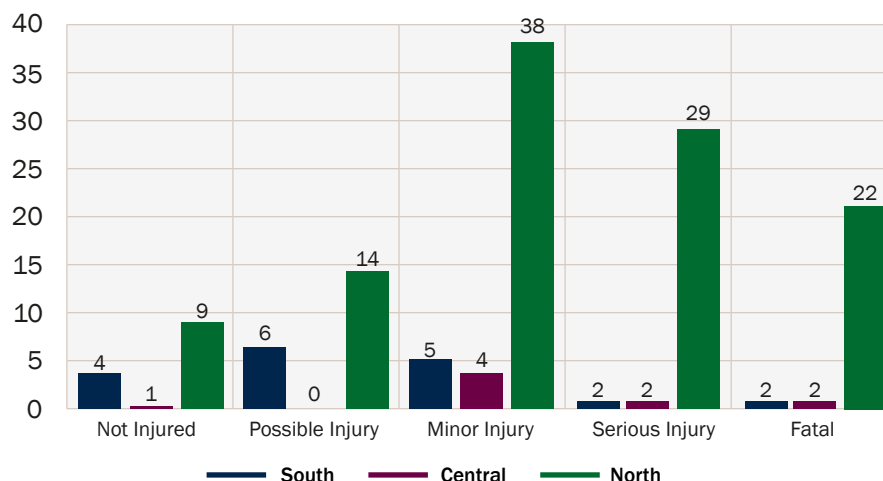


Source: TxDOT. Crash Records Information System, 2019 through 2023

4.3.3 Pedestrian and Bicyclist Safety Analysis

For the 5-year period for which crash data was analyzed (2019 through 2023), 85 pedestrian-involved crashes occurred, 22 of which (26%) were fatal, and 55 bicyclist-involved crashes, 4 of which (7%) were fatal. **Figure 4-31** shows the pedestrian- and bicycle-involved crashes for each year between 2019 and 2023. Most crashes occurred in the North Segment (80%) of the US 377 corridor. The Central Segment had the lowest number of crashes involving pedestrians and/or bicyclists.

Figure 4-31. Pedestrian and Bicyclist-involved Crashes by Injury Type and Segment (2019 to 2023)

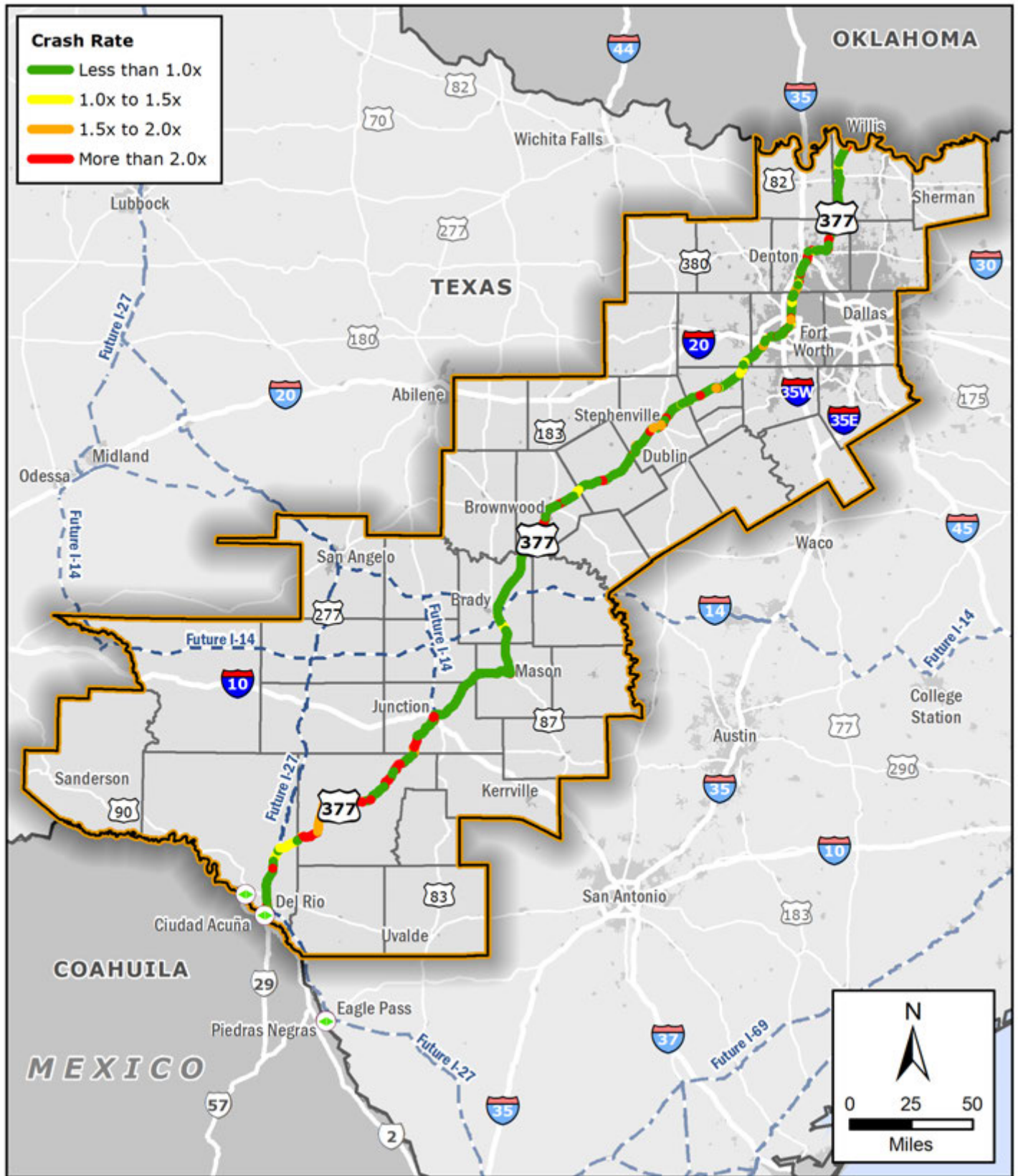


Source: TxDOT. Crash Records Information System, 2019 through 2023

4.3.4 Identifying Potential for Safety Improvements for the US 377 Corridor

Figure 4-32 shows the US 377 corridor crash rates by segment compared to the statewide average crash rate for a similar type of roadway matching number of lanes and land use type. Approximately 66% of the corridor's length has a crash rate lower than the statewide average crash rate. Red sections indicate crash rates higher than two times the statewide average crash rates, making them a priority for safety improvements. Orange sections indicate crash rates 1.5 to 2 times the statewide crash rates for similar roadways and are the next potential locations for safety improvements. Despite fewer crashes in the South Segment compared to the North Segment, some sections in the South Segment have crash rates higher than two times the statewide average, particularly between Del Rio and south of Junction. Other locations that have potential to improve safety include Denton, Stephenville, Brownwood, and Fort Worth.

Figure 4-32. Crash Rates and Potential Locations for Safety Improvements (2019 to 2023)



Source: TxDOT. Crash Records Information System, 2019 through 2023

4.4 Environmental Conditions

Environmental constraints are generally defined as naturally occurring and human-made conditions that could affect future project development and implementation. Based on the specific characteristics of the US 377 corridor, 30 feature characteristics were selected for evaluation within a half-mile buffer along the US 377 corridor, grouped into 8 categories: recreational areas; wind turbines; water resources (floodplains, wetlands, lakes, streams); groundwater wells; oil and gas wells and associated pipelines; hazardous material sites; threatened and endangered species critical habitat; and cultural resource sites. **Figures 4-33** through **4-35** illustrate the half-mile area evaluated in urban and rural locations for each segment and provide examples of the environmental factors considered for evaluation.

Figure 4-33. Rural and Urban Examples of Environmental Constraints in the South Segment

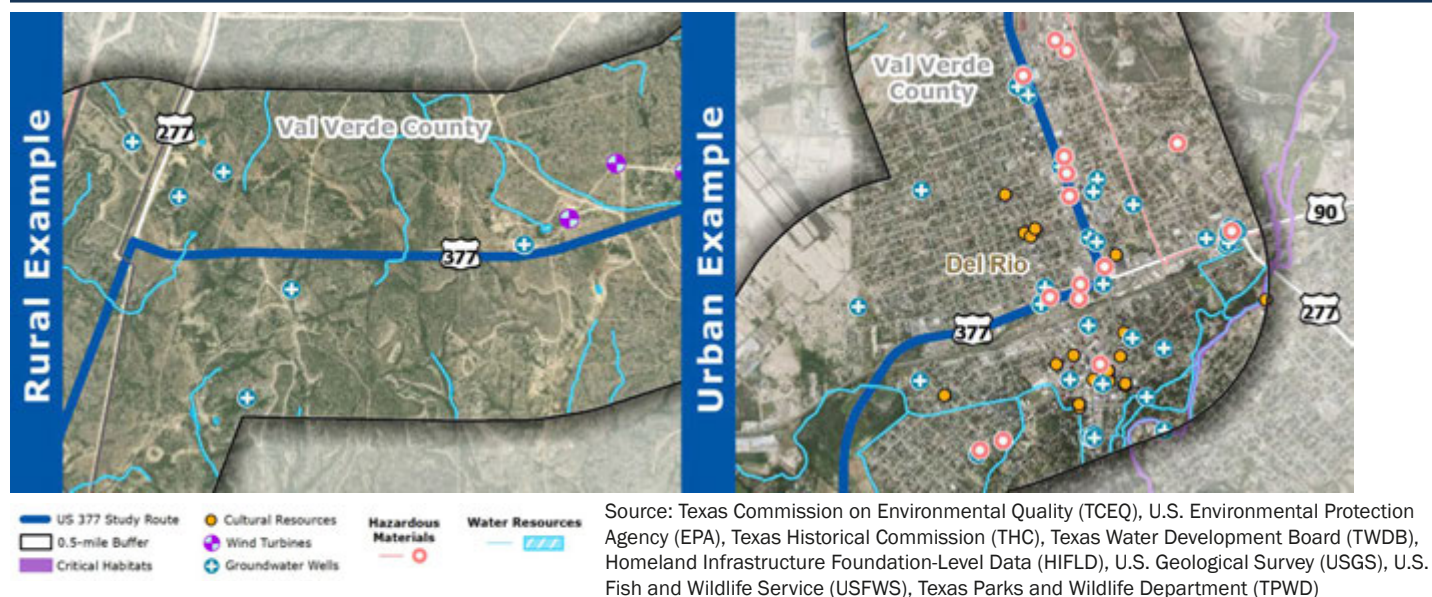


Figure 4-34. Rural and Urban Examples of Environmental Constraints in the Central Segment

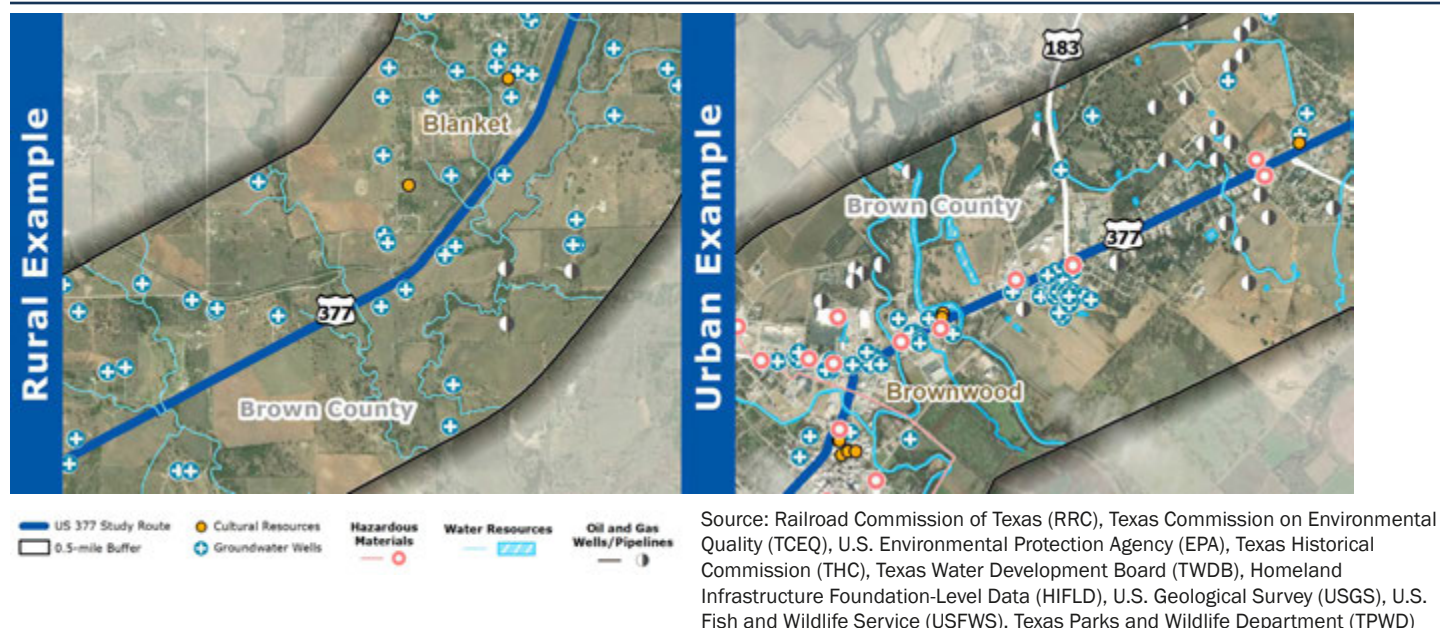
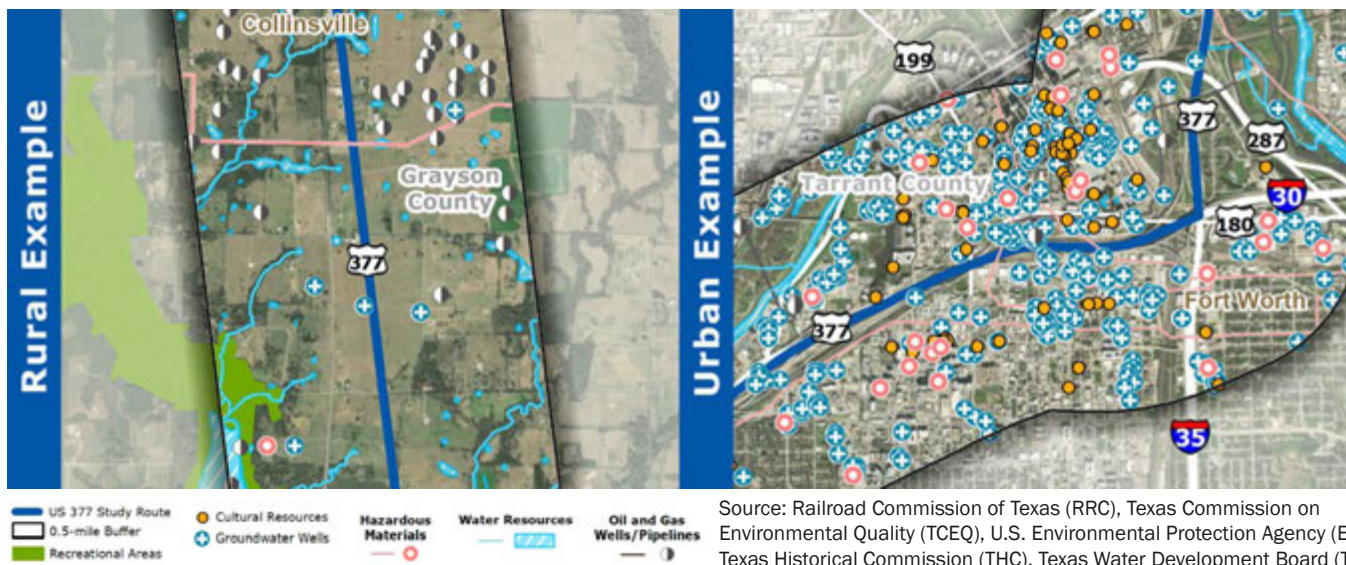


Figure 4 35. Rural and Urban Examples of Environmental Constraints in the North Segment



Source: Railroad Commission of Texas (RRC), Texas Commission on Environmental Quality (TCEQ), U.S. Environmental Protection Agency (EPA), Texas Historical Commission (THC), Texas Water Development Board (TWDB), Homeland Infrastructure Foundation-Level Data (HIFLD), U.S. Geological Survey (USGS), U.S. Fish and Wildlife Service (USFWS), Texas Natural Resources Information System (TNRIS), Texas Parks and Wildlife Department (TPWD)

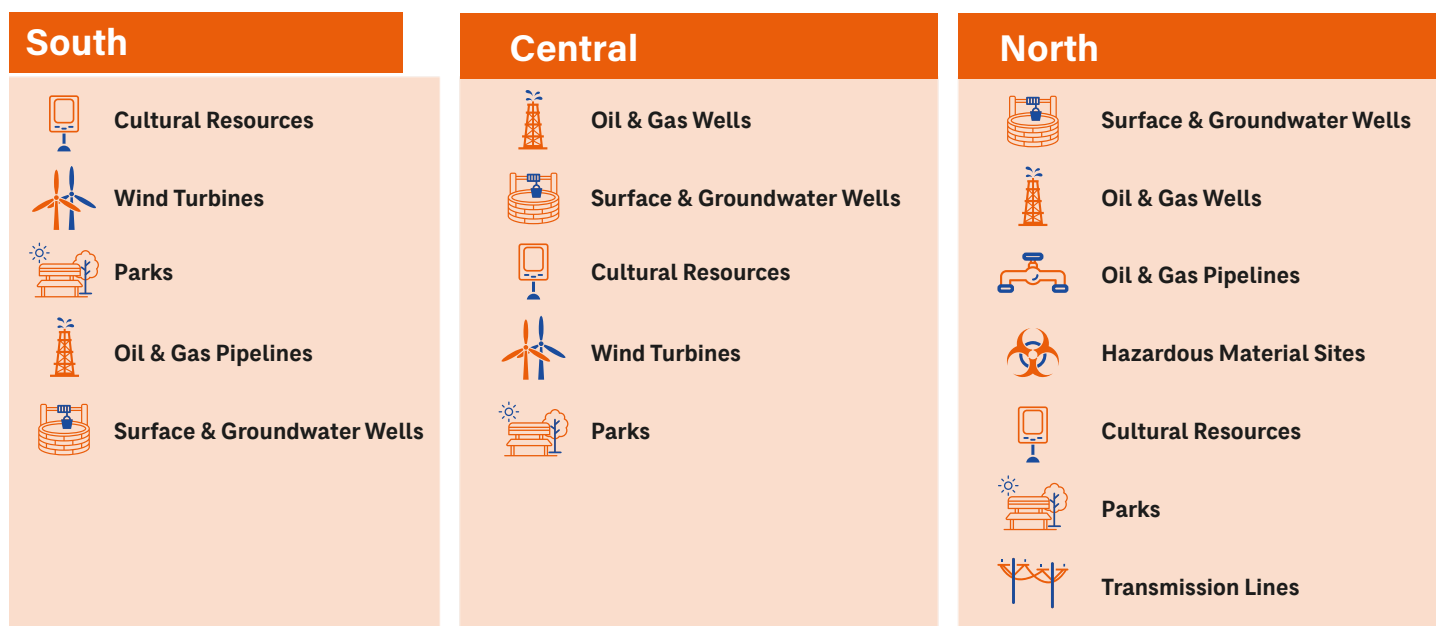
Figure 4-36 illustrates the predominant environmental and socioeconomic features within a half-mile buffer of the US 377 corridor. The 154-mile North Segment of the US 377 corridor has the highest concentration of oil/gas wells and related pipelines within a half-mile buffer, followed by the 132-mile Central Segment, then the 176-mile South Segment.

Wind turbines are present within the half-mile buffer in Val Verde County (South Segment) and Comanche County (Central Segment). The South Segment has 17 turbines within the half-mile buffer, while the Central Segment has 8. Water resources are most prevalent in the North Segment of the study, with the lowest concentration in the Central Segment, and the highest concentration of groundwater wells in the North Segment.

The North Segment has the highest number of hazardous material sites, including 235 petroleum storage tanks, 16 solid waste facilities, and 10 brownfield sites. Petroleum storage tanks also make up the majority of hazardous material sites in the Central and South Segments. Additionally, the Central Segment has 1 solid waste facility and 1 brownfield site, while the South Segment has 3 solid waste facilities.

All US 377 corridor proposed improvements will follow the NEPA process during the schematic design phase, if the proposed improvements are advanced as projects.

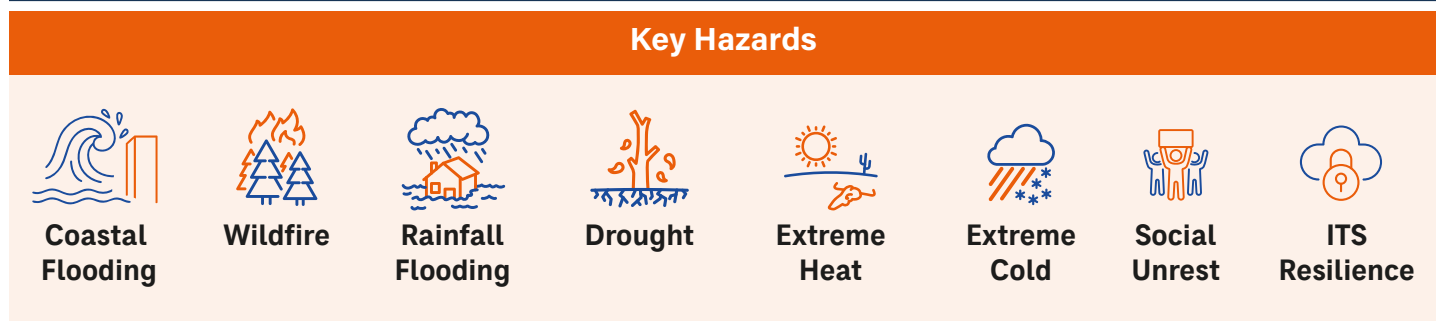
Figure 4-36. Predominant Environmental and Socioeconomic Features within a Half-mile Buffer of the US 377 Corridor



4.5 Resiliency

The FHWA defines “resilience” as the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions. The US 377 corridor serves as a critical transportation route in Texas, linking the Del Rio Port of Entry at the international border to the Texas-Oklahoma state line. Because this corridor is exposed to various natural and human-made hazards that can impact its operations, resilience is a key factor in its planning and management. Currently, TxDOT is developing a Statewide Resiliency Plan, which will help to strengthen the resilience of the state’s multimodal transportation system against a range of potential hazards. **Figure 4-37** outlines key hazards that will be addressed in the plan.

Figure 4-37. Statewide Key Hazards



4.5.1 Natural Hazards

To better understand natural hazard risks in communities across the U.S., the Federal Emergency Management Agency (FEMA) and its partners developed the National Risk Index. This index evaluates 18 types of natural hazards such as floods, droughts, heat waves, hurricanes, ice storms, lightning, and tornadoes, and assigns a relative risk score to each county in the U.S. These scores are based on expected annual loss, social vulnerability, and community resilience. **Figure 4-38** shows the National Risk Index within the US 377 corridor study area. The counties within the US 377 corridor study area are classified between relatively high to very low in the National Risk Index. The South and Central Segment counties are considered to have a very low index. In the North Segment, Tarrant, Dallas, Denton and Collin Counties have a relatively high index, with surrounding counties having either a relatively moderate, low, or very low index.

4.5.2 Human-Made Hazards

Aside from its vulnerabilities to several natural hazards, the US 377 corridor is also vulnerable to several human-made hazards such as bridge strikes and cyber-attack threats to ITS. ITS is defined as an advanced technology aimed at augmenting safety, mobility, and efficiency of a surface transportation system for users⁸.

As previously discussed, and shown in **Figure 4-25**, there are areas along the US 377 corridor with a high concentration of bridge strikes. In total, 39 crashes occurred along the US 377 corridor between 2019 and 2023 that can be classified as bridge strikes. It should be noted that many bridges along the corridor are less than the 16.5 feet vertical clearance. These strikes, combined with natural decay over time, contribute to the degradation of bridges, causing them to be considered structurally deficient or obsolete.

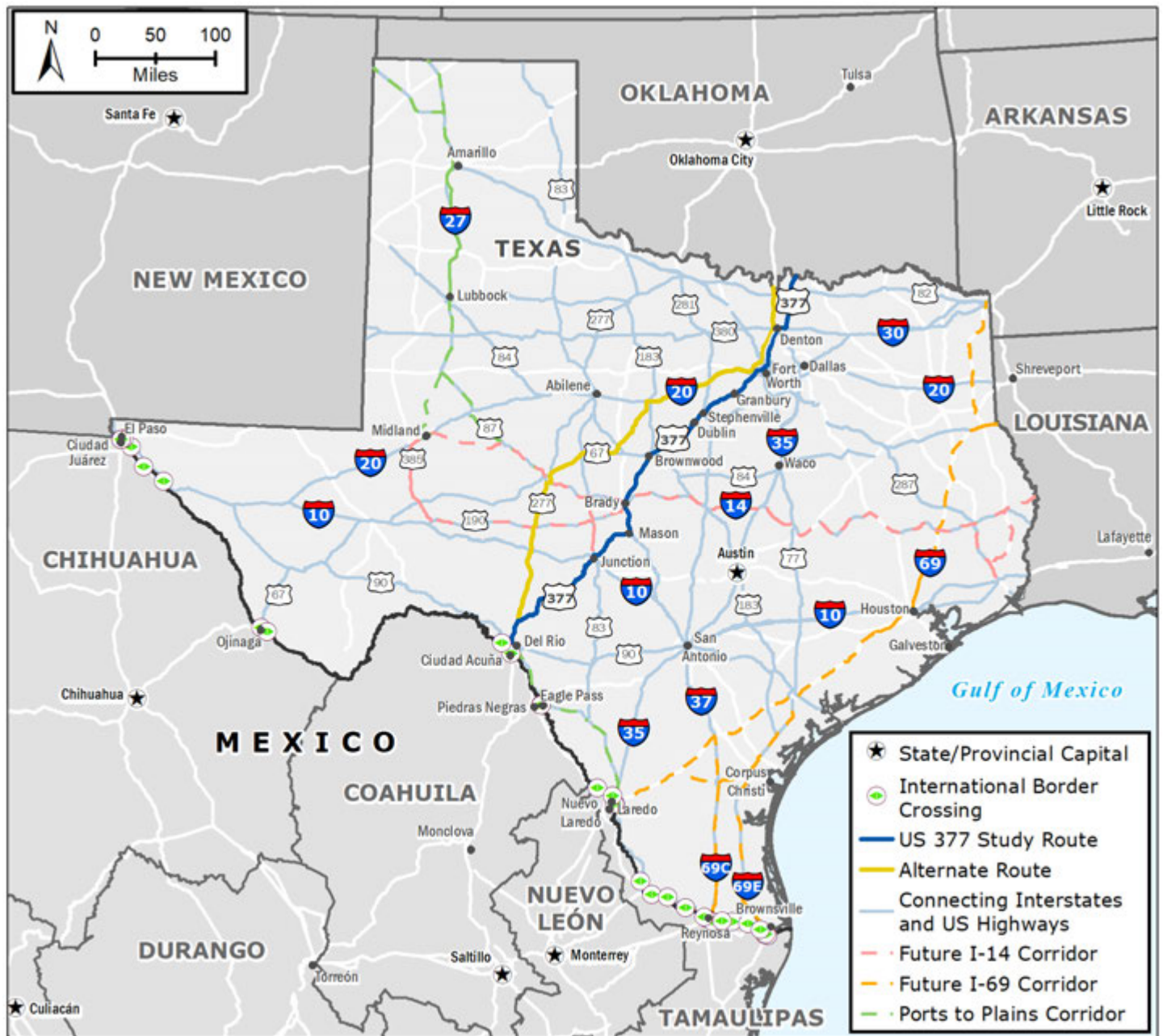
Additionally, as roadway infrastructure becomes more interconnected, cybersecurity is increasingly vital to ensuring the resilience of supply chains. Cyberattacks targeting ITS, such as unauthorized manipulation of dynamic message signs (DMS) or disabling of closed-circuit television (CCTV) cameras during critical periods, can disrupt operations, compromise safety, and reduce the efficiency of the transportation network. ITS along the US 377 corridor is further discussed in Section 4.6.

4.5.3 Alternate Routes

In the event of a disruption along the US 377 corridor, a network of alternate routes and connecting highways offers users viable options for maintaining mobility and reducing delays. These alternate routes play a critical role in ensuring the continuity of travel and freight movement, especially during incidents, maintenance activities, or extreme weather events. **Figure 4-39** illustrates key alternate routes to the US 377 corridor and highlights the major interstates and U.S. highways that provide regional connectivity. The key alternate route consists of US 277 to San Angelo, which is part of the future I-27. Additional alternate routes include US 67, I-20, I-820, and I-35W, which collectively support detour options and strengthen the overall resilience of the transportation network in the region.

⁸FHWA. 2021a. Intelligent Transportation Systems Technologies. <https://highways.dot.gov/research/laboratories/saxton> transportation operations laboratory/ITS-technologies

Figure 4-39. Key Alternate Routes and Connecting Highways



Source: TxDOT Roadway Inventory Database, 2022

4.6 Intelligent Transportation Systems

ITS includes devices which process, share, and communicate information related to solving transportation issues. ITS devices optimize existing data and algorithms to effectively integrate advanced operations into vehicles and infrastructure. There is a wide range of devices which fundamentally serve a purpose in enhancing transportation efficiency, improving road-user experience, and transforming current communication and information processing to facilitate progress. Examples of ITS infrastructure include:

- CCTV cameras
- DMS
- Weigh-in motion (WIM) stations
- Traffic management centers (TMCs)
- Roadway weather information systems
- Surface weather information systems (Automated Surface Observing System [ASOS]/Automated Weather Observing System [AWOS])

Existing ITS infrastructure is located throughout the US 377 corridor. Though there are many ITS devices along the US 377 corridor, CCTV cameras dominate the others and are distinctly concentrated in greater metropolitan areas like Dallas-Fort Worth. The following sections detail the existing ITS devices throughout the US 377 corridor.

4.6.1 Closed-Circuit Television Cameras and Dynamic Message Sign Devices

Based on data from the TxDOT Open Portal, there are 29 existing CCTV cameras within the US 377 corridor⁹. **Figure 4-40** shows that the CCTVs are mainly concentrated in the Fort Worth District. There are no DMS devices installed (not even temporary DMS) along the US 377 corridor. **Table 4-9** provides a summary of the number of CCTV cameras in each district and their concentration by 10-mile segments.

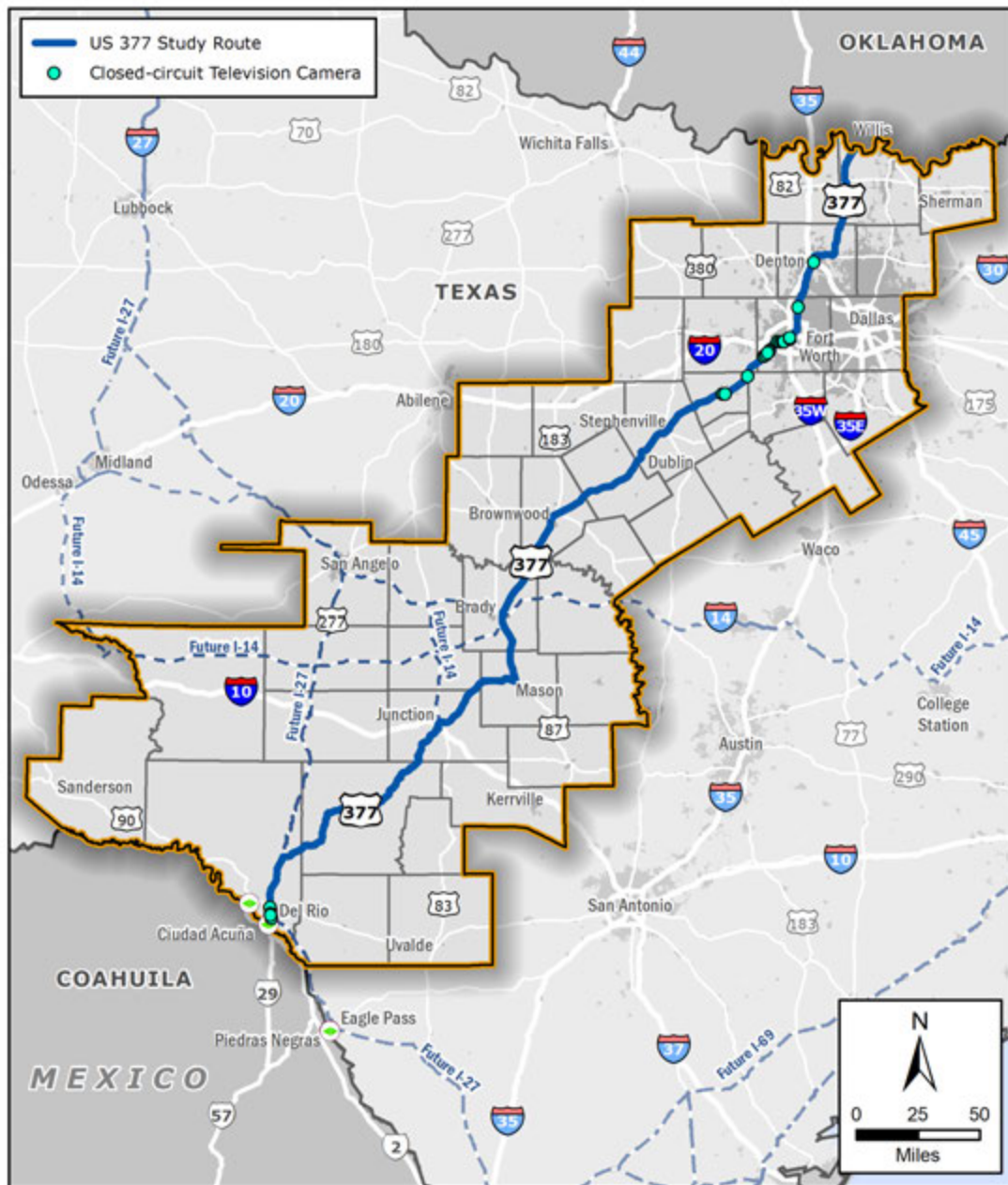
Table 4-9. Closed-circuit Television Cameras by District

Segment	District	CCTV Count	CCTVs per 10 miles
South	Laredo	5	1.3
	San Angelo	-	-
Central	Austin	-	-
	Brownwood	-	-
North	Dallas	1	0.3
	Fort Worth	23	5.8
	Paris	-	-
US 377 Corridor Total		29	7.4

Source: ArcGIS REST Services Directory

⁹TxDOT. 2025. <https://its.txdot.gov/ITS>

Figure 4-40. Existing Closed-circuit Television Cameras along the US 377 Corridor



Source: ArcGIS REST Services Directory

4.6.2 Weigh-in-motion Stations

WIM stations are designated roadway devices used to measure a vehicle while in motion to accurately measure its weight without delay. WIM stations are vital for capturing axle and vehicle weights and serve a purpose in highway planning, pavement and bridge design, freight movement studies, motor vehicle enforcement, and legislative and regulatory studies¹⁰. There are no WIM stations located along the US 377 corridor. The lack of WIM data, especially in sections with high freight volumes, could result in damaged pavement through empirical fatigue and inadequate overhead clearances that require rerouting of trucks and may cause major delays.

4.6.4 Traffic Management Centers

Traffic Management Centers (TMCs) serve as a facility where traffic flow is monitored and analyzed through various ITS devices. TMCs are crucial in functioning as a technical and institutional hub in bringing together various jurisdictions, modal interests, and service providers to focus on the common goal of optimizing the performance of the entire surface transportation system¹². The US 377 corridor has two TMCs—one in the Dallas District and another in the Fort Worth District (**Figure 4-42**). TxDOT operates both TMCs: the Dallas District TMC (DalTrans) and the Fort Worth District TMC.

DalTrans operates differently compared to the Fort Worth District TMC. Although both TMCs have advanced capabilities in implementing real-time congestion and incident management strategies to optimize safety and efficiency on roadways, they each have distinct responsibilities, focus areas, and operational strategies. DalTrans has regional traffic management that supports coordination between TMCs to share information between centers as well as control of traffic management field equipment. The Fort Worth District TMC has barrier system management that remotely monitors and controls barrier systems such as automatic or remotely controlled gates, barriers and other access control systems for transportation facilities and infrastructure under control of center personnel. In addition, the Fort Worth District TMC Barrier System Management provides an interface to other centers to allow monitoring and control of barriers from other centers.

Some TxDOT Districts that do not have a formal TMC (typically in rural parts of the state) have the capability to manage and operate the ITS devices within their specific region to deal with special events or emergencies. This type of approach is very low cost, but it is not real-time and does not have an extensive traffic management response plan.

TxDOT is planning a rural statewide operation center that will greatly improve traffic management and emergency response coordination for towns along the US 377 corridor by integrating systems such as sensors, cameras, and emergency coordination tools.

¹²FHWA. 2017. Chapter 14 – Transportation Management Centers. https://ops.fhwa.dot.gov/freewaymgmt/publications/frwy_mgmt_handbook/chapter14_03.htm

¹³National Centers for Environmental Information, National Oceanic and Atmospheric Administration (NCEI NOAA). Terminal Doppler Weather Radar (TDWR). <https://www.ncei.noaa.gov/products/radar/terminal-doppler-weather-radar>.

4.6.5 Roadway Weather Information System

The US 377 corridor study area has two types of weather radar systems, each with distinct capabilities. One radar system, the Terminal Doppler Weather Radar (TDWR), is managed by the FAA to monitor hazard aviation conditions near airports. These hazardous conditions include wind shear, gust fronts, precipitation, and downbursts. There are two TDWR stations located in the US 377 corridor study area¹⁴.

The second weather radar system, the Weather Surveillance Doppler Radar (WSR-88D) is an advanced operational weather radar. The WSR-88D's resolution is not as fine as the TDWR. WSR-88D devices essentially detect energy generated by radars to monitor various types of weather such as precipitation and wind¹⁵. Currently, data for WSR-88D devices is not available along the US 377 corridor. However, the *I-20 Texas Corridor Study Report* indicates a notable cluster of these devices around the Dallas and Fort Worth Districts.¹⁶

4.6.6 Surface Weather Information Systems (Automated Surface Observing System/ Automated Weather Observing System)

The National Weather Service (NWS), the FAA, and the Department of Defense (DOD) collaborate with the ASOS program in observing network and supports forecast activities, aviation operations, and the needs of the meteorological, hydrological, and climatological research communities¹⁷. The ASOS operates throughout the day on a continual basis, 24 hours a day, collecting essential weather data all year long, and is then achieved in the Global Surface Hourly database. Additionally, the FAA manages AWOS units which predate ASOS and are the oldest of the automated weather stations. As opposed to ASOS, they do not report special observations for rapidly changing weather conditions but rather report at 20-minute intervals¹⁸. **Figure 4-43** shows 13 surface observation stations comprising both ASOS and AWOS devices within the US 377 corridor. Dallas and Fort Worth Districts have the highest cluster of ASOS and AWOS devices¹⁹.

¹⁴National Centers for Environmental Information, National Oceanic and Atmospheric Administration (NCEI NOAA). Terminal Doppler Weather Radar (TDWR). <https://www.ncei.noaa.gov/products/radar/terminal-doppler-weather-radar>.

¹⁵NOAA. 2025. About our WSR 88-D Radar. https://www.weather.gov/iwx/wsr_88d

¹⁶TxDOT. 2023. I-20 Texas Corridor Study Report.

¹⁷NOAA. 2025. Automated Surface Observing System. <https://www.weather.gov/asos/>

¹⁸National Centers for Environmental Information, National Oceanic and Atmospheric Administration (NCEI NOAA). What's an Automated Surface Observing System (ASOS). <https://www.ncei.noaa.gov/news/whats-automated-surface-observing-system-asos>

¹⁹TxDOT. 2023. I-20 Texas Corridor Study Report

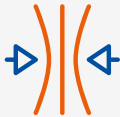
4.7 Summary of Identified Needs

This chapter described the characteristics of the US 377 corridor and identified needs along the US 377 corridor through technical analysis. These included existing and forecasted roadway capacity conditions, safety concerns, multimodal infrastructure, system resilience, pavement conditions, bridge conditions, and vertical clearance concerns. **Table 4-10** summarizes the information regarding needs along the US 377 corridor, gathered through the study team's technical analysis.

Table 4-10. Identified Infrastructure Needs

Infrastructure	Summary of Identified Needs
 Projected Traffic Volumes and LOS	Traffic volumes along the US 377 corridor vary widely, with the highest volumes in Fort Worth where the US 377 corridor overlaps with I-35W and I-30 (2022 AADTs of approximately 189,300 and 169,700). Volumes drop southward, with the Central Segment ranging from 800 to 23,300 and the South Segment from 200 to 29,000 AADT. The lowest truck volumes (40-600 AADT) occur between the border and Brownwood, excluding urban areas, but this stretch has the highest truck percentages (up to 33%). Between Brownwood and Fort Worth, truck volumes increase (700 to 2,800 AADT), and in the Fort Worth-Denton area, they peak at 20,200. North of Denton, volumes range from 700 to 1,700. Currently, only the North Segment experiences medium to very high congestion, especially in Tolar, Granbury, Fort Worth (I-35W/I-30). Without improvements, congestion is expected to worsen by 2050 (LOS E or F), with traffic growing significantly: ▪ Tolar: 11,000 to 14,000 AADT ▪ Granbury: 50,000 to 66,000 AADT ▪ I-30 in Fort Worth: 118,000-170,000 to 171,000 to 241,000 AADT ▪ Roanoke-Argyle: 17,000 to 24,000 AADT Future congestion is also expected in Bluff Dale, Aubrey and Pilot Point due to high growth. In contrast, the South and Central Segments are expected to remain uncongested through 2050 due to low volumes and slower growth.
 Pedestrian and Bicycle Facilities	Pedestrian and bicycle facilities along the US 377 corridor are limited, especially outside of urban areas. Existing infrastructure includes intermittent sidewalks and wide shoulders in rural areas, with some shared used paths in urban segments. The corridor intersects several regional and national bicycle networks, including TxDOT's Bicycle Tourism Trails Example Network and the U.S. Bicycle Route System, but many connections are incomplete or unfunded. At least 12 local, regional, and state ATPs apply to the corridor, with improvements proposed in Del Rio, Benbrook, Granbury, Keller, Watauga, Flower Mound, Denton, and Grayson County. These plans suggest a mix of SUPs, shoulder accommodation, bike lanes, and side paths. Over 100 miles of the US 377 corridor falls within NCTCOG's region, with sections designated for Regional Veloweb, rural accommodations, or local bike connections. Despite some local improvements, most of the US 377 corridor lacks continuous and connected facilities, presenting challenges for safe, low-stress pedestrian and bicycles travel.
 Public Transportation	The US 377 corridor is served by over 15 transit providers, offering a mix of local bus, commuter rail, ICB, DRT, and TDM programs. Urban areas like Fort Worth, Dallas, and Denton have robust systems (e.g., DART, Trinity Metro, DCTA), while smaller towns rely on demand and trolley services. Rail services include Amtrak's Texas Eagle, Sunset Limited, and Heartland Flyer, with stations in Del Rio and Fort Worth. The corridor may benefit from a proposed Amtrak expansion along the I-20 corridor, intersecting the US 377 corridor in Fort Worth. Rail funding opportunities through the Infrastructure Investments and Jobs Act (IIJA), federal-state partnerships (FSPs), and Consolidated Rail Infrastructure and Safety Improvements (CRISI) programs could support future improvements. Intercity bus services (FlixBus, Trailways, All Aboard America!) operate throughout the corridor, with stops in Del Rio, Junction, Brady, and Fort Worth. The DFW region leads in Transportation Demand Management, offering vanpool, carpool, and on demand rideshare programs through Trinity Metro and DCTA. Despite a range of services, gaps remain in rural access and intercity connections, presenting opportunities for coordinated investment.

Infrastructure	Summary of Identified Needs
 Airports and Intermodal Facilities	The US 377 corridor services 45 airports, including five regional airports directly along the route. The largest air hub is DFW International Airport, one of the busiest airports in the U.S., ranking second nationally for passenger boardings. Dallas Love Field ranks 32nd and plays a major role in regional air travel. Additional key airports include San Angelo Regional Airport, two military airports east of Del Rio, and one joint military/cargo airport in western Tarrant County. Ten airports lie within two miles of the US 377 corridor, offering strategic accessibility. The US 377 corridor also includes 503 intermodal facilities, concentrated in the DFW region, supporting multimodal connections between air, rail, pipeline, and truck freight systems. These facilities enhance connectivity and offer opportunities for freight and passenger infrastructure integration.
 Safety	A detailed crash analysis (2019-2023) shows the US 377 corridor consistently experiences higher crash rates, both urban and rural, than the statewide average. Urban areas saw increased crash rates during the pandemic, while rural areas saw a 94% spike in 2021, significantly higher than the statewide rural average increase which was 15%. In total, 138 fatal crashes occurred between 2019 and 2023, with 2021 being the deadliest year with 36 fatal crashes. Fatal crashes are concentrated in Fort Worth, with other high-risk areas in Stephenville, Denton, and Granbury. Rural segments, which are 80% of the corridor's length, experiences 59% of fatal crashes, revealing a disproportionately high fatality rate. Bridge strikes are another concern, with 39 incidents recorded mainly in Fort Worth, Granbury, Brownwood, and Denton. Fifty-one percent of crashes involved vehicles traveling in the same direction, primarily rear-end and sideswipe collisions. Angle crashes made up 20% of incidents. The leading contributing factors are: ▪ Speeding (33%) ▪ Failure to Yield (21%) ▪ Driver distraction/inattention (12%) CMVs accounted for 8% of all crashes, but 14% of fatal crashes, underscoring their higher crash severity. CMV fatal crashes are most common in rural areas, despite more frequent travel in urban zones. Safety improvements targeting CMV operations are needed, especially in anticipation of future truck traffic growth. Pedestrian and bicyclist crashes were significant, with 85 pedestrian-involved crashes (26% fatal) and 55 cyclist-involved crashes (7% fatal), mostly in the North Segment. A corridor-wide comparison with statewide crash rates reveals that 66% of the US 377 corridor have lower-than-average crash rates, but several segments exceed 1.5 to 2 times the statewide average, especially between Del Rio and Junction, and Fort Worth, Denton, Stephenville, and Brownwood. These are priority areas for targeted safety interventions.
 Pavement	The US 377 corridor is a mix of rural, suburban, and urban highways, spanning three functional classes: principal arterials, minor arterials, and major collectors. Most of the corridor (66% or 305 miles) is composed of 2-lane highways, with the rest made up of 3-lane (2.6%), 4-lanes (4.7%), and shorter segments of 5- to 9-lane roadways (3.5%). Roadway types include divided boulevards, expressways with partial access, and undivided highways. Access control is minimal with only 2% of the corridor having partial or full access control, reflecting its predominantly rural character. Shoulder widths vary from 2 to 12 feet. According to TxDOT's PMIS pavement data, 86% of the corridor is in very good to good condition, meaning most sections do not require immediate repairs. The remaining 14% are in fair to very poor condition and will require rehabilitation or reconstruction. These areas will be evaluated further during future design and environmental phases.

Infrastructure	Summary of Identified Needs
 Bridges	The US 377 corridor includes numerous bridges and bridge-class culverts over streams, evaluated through regular TxDOT inspections following the Bridge Inspection Manual and BRINSAP system. Each bridge is assessed by components (deck, substructure, superstructure, scour, clearances), and assigned a structural condition rating: ▪ Good (7-9) ▪ Fair (4-6) ▪ Poor (0-3) All existing bridge and bridge class structures along the proposed US 377 corridor should be evaluated individually during the next phase (preliminary engineering) to ensure full compliance with safety and performance standards. Low-water crossings, common between Del Rio and Mason, serve as cost-effective alternatives to bridges in rural areas but pose risks during heavy rain as they may require temporary closures. Only 45% of the 142 grade-separated structures along the US 377 corridor meet TxDOT's 18.5-foot vertical clearance requirement for new or reconstructed projects, necessitating warning signage for non-compliant structures and compliance for all new grade separations.
 Environmental	Environmental factors along the US 377 corridor may affect future project development and are assessed within a half-mile buffer along the corridor. A total of 30 environmental features were evaluated across eight categories: ▪ Recreational areas ▪ Wind turbines ▪ Water resources (floodplains, wetlands, lakes, streams) ▪ Groundwater wells ▪ Oil and gas infrastructure ▪ Hazardous materials sites ▪ Threatened or endangered species habitats ▪ Cultural resources The North Segment has the highest concentration of oil/gas wells, groundwater wells, water resources, and hazardous material sites. Wind turbines are present in Val Verde County in the South Segment and Comanche County in the Central Segment. The South Segment has 17 turbines; the Central Segment has eight. Water resources are most dense in the North Segment, and least in the Central Segment. All improvements along the US 377 corridor will undergo evaluation through the NEPA process during project development to address and mitigate impacts from these environmental constraints.
 Resiliency	The US 377 corridor is a critical north to south route connecting the Del Rio Port of Entry to the Texas-Oklahoma state line and is exposed to a range of natural and human-made hazards. Resilience is essential to maintaining safe and reliable operations. The FEMA National Risk Index ranks counties along the corridor from very low to relatively high risk, with Tarrant, Denton, Dallas, and Collin Counties in the North Segment facing higher risk. The South and Central Segments are considered to have a very- to relatively low index. Human-made hazards, including bridge strikes and cybersecurity threats, pose operational challenges. From 2019-2023, 39 bridge strikes occurred, mostly in Fort Worth, Granbury, Brownwood, and Denton. Many bridges lack the 16.5-foot vertical clearance required for freeways, increasing vulnerability. As infrastructures become more digitally connected, the threat of cyberattacks to CCTV cameras or DMS signs increases. CCTV cameras are installed mostly in the North and South Segment, with no coverage in the Central Segment. There are no DMS signs currently on the US 377 corridor. In the event of a disruption, a network of alternative routes, including US 277, US 67, I-20, I-820, and I-35W, supports emergency detours and freight rerouting, enhancing corridor resiliency. Future planning under TxDOT's Statewide Resiliency Plan will address these risks more comprehensively.

Infrastructure	Summary of Identified Needs
 ITS	The corridor includes various ITS technologies designed to improve safety, mobility, and operational efficiency. Current ITS infrastructure includes: ▪ CCTV cameras (29 total, mostly in Fort Worth) ▪ TMCs in Dallas and Fort Worth ▪ Permanent count stations (5 active, 3 inactive) ▪ Weather systems (ASOS/AWOS) ▪ No DMS or WMS CCTV cameras are the most widely deployed device but are largely concentrated in metro areas, with minimal coverage in rural segments. No DMS are installed along the corridor, limiting real-time driver alerts. TMCs coordinate regional traffic operations and manage systems like barriers and remote access gates, with distinct capabilities in incident response and traffic coordination. TxDOT's planned rural statewide operation center will enhance traffic management and emergency response for US 377 corridor towns by integrating sensors, cameras, and coordination tools. Weather radar coverage is supported by Terminal Doppler Weather Radar systems near airports. There are two TDWR stations located within the US 377 corridor study area and 13 ASOS/AWOS stations throughout the corridor, especially in the Dallas-Fort Worth area. However, WSR-88D data is not available directly along the corridor. Despite some existing ITS elements, there are major gaps in coverage, especially in the Central Segment, and no current WIM or DMS capabilities, limiting freight data collection and active traffic management in rural and high-growth areas. These are key opportunities for ITS expansion.

5

Stakeholder Engagement and Public Involvement



The stakeholder engagement and public involvement framework introduced in **Chapter 2** played a key role in ensuring continuous stakeholder and public input throughout the development of the US 377 Texas Corridor Study. Designed to be inclusive and iterative, this framework ensured that stakeholders and the public were meaningfully engaged throughout the planning process.

Throughout this process, the corridor’s vision, priorities, goals, and proposed improvements were presented, discussed, and refined through a series of coordinated engagement efforts. These included three rounds of stakeholder meetings and a public survey.

In addition to these stakeholder meetings, the study team conducted targeted outreach through coordinated meetings with TxDOT Districts, which provided localized insights and feedback. Two Binational Workshops were also held to engage stakeholders from both the U.S. and Mexico, particularly around discussions pertaining to cross-border trade, infrastructure, and economic development.

Public involvement was further supported through an online corridor-wide survey. This broad input helped ground technical findings and highlight specific community needs.

This chapter provides a detailed account of each engagement activity—describing roles and outcomes of the stakeholder meetings, summarizing the input gathered from TxDOT and binational stakeholders, and presenting findings from the public survey.

5.1 Corridor Steering Committee



Judge Andy Eads,
Steering Committee
Chair

The US 377 Texas Corridor Study was guided by a Steering Committee, chaired by Denton County Judge Andy Eads. Consisting of 33 members, the Steering Committee brought together key regional leaders, including judges, mayors, city council members, private sector leaders, and representatives from MPOs, COGs, RTPOs, and intermodal facility representatives. Additionally, it included members of special interest and private sector groups such as BikeTexas, the Texas Farm Bureau, Burlington Northern and Santa Fe Railway and TEX-21.

Steering Committee members represented communities across the entire US 377 corridor from Del Rio to Oklahoma. These members were selected for their expertise in transportation, regional planning, and corridor-specific issues. The Steering Committee’s role included reviewing planning data, assessing US 377 corridor needs, discussing scenario planning assumptions, and evaluating recommendations developed by the three Segment Working Groups.

5.2 Segment Working Groups

Segment Working Groups were established to leverage the local expertise, experience, and insights of the US 377 corridor stakeholders at a more regional level. These groups played a critical role in reviewing study information, shaping conceptual plans, and making localized recommendations to support the Steering Committee in making well-informed, corridor-wide decisions.

Each Segment Working Group reviewed planning data, assessed regional needs, explored scenario planning options, and refined proposed improvements specific to their area. The study defined three Segment Working Groups: South, Central, and North (**Figure 5-1**). Membership included county judges, mayors, city managers, chambers of commerce, economic development

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Judge Souli Asa Shanklin, South Working Group Chair

The **South Working Group**, chaired by Edwards County Judge Souli Asa Shanklin, is comprised of 25 members. This segment of the US 377 Texas Corridor Study extends approximately 154 miles, stretching from the Mexico/City of Del Rio border to the Menard/Mason County line. It spans three towns and cities across four counties and includes two TxDOT districts, Laredo and San Angelo. Additionally, this segment served as a vital link to one port of entry and two border crossings south of Del Rio.



Judge Shane Britton, Central Working Group Chair

The **Central Working Group**, chaired by Brown County Judge Shane Britton, is comprised of 17 members. This US 377 Texas Corridor Study segment extends approximately 132 miles from the Menard/Mason County to the Comanche/Erath County line. It spans six towns and cities across four counties and includes two TxDOT districts, Austin and Brownwood.



Mayor Jim Jarratt, North Working Group Chair

The **North Working Group**, chaired by Granbury Mayor Jim Jarratt, is comprised of 44 members. This segment of the US 377 Texas Corridor Study extends approximately 176 miles from the Comanche/Erath County line to the Oklahoma state line. It spans 13 towns and cities across seven counties, and includes three TxDOT districts: Fort Worth, Dallas, and Paris.

5.3 Binational Workshops

Binational Workshops were convened to engage stakeholders from both the U.S. and Mexico in identifying needs and shaping solutions for the US 377 corridor, with a particular emphasis on cross-border trade and infrastructure. These two workshops played a vital role in fostering collaboration across borders, sharing updates on the US 377 Texas Corridor Study, and gathering insights to inform corridor-wide planning and implementation strategies.

Each workshop facilitated dialogue among U.S. and Mexico stakeholders, allowing stakeholders to explore current challenges and future opportunities while ensuring that regional perspectives and binational considerations were fully integrated to help refine recommendations.

Participants included local elected officials, economic development agencies, private-sector leaders, border trade experts, and representatives from governmental entities on both sides of the border. Areas represented included Del Rio, Ciudad Acuña, and other surrounding border regions. The binational nature of these workshops underscored the importance of international collaboration in addressing the unique transportation, economic, and infrastructure needs of this cross-border corridor.

5.4 TxDOT District Participation

TxDOT Districts played a vital role as key collaborators and executors of the US 377 Texas Corridor Study implementation plan. Seven TxDOT Districts—Laredo, San Angelo, Austin, Brownwood, Fort Worth, Dallas, and Paris—worked closely with the study team to share local insights, technical expertise, and strategic guidance throughout the planning process. Their contributions helped ensure the study reflected regional priorities, supported multimodal transportation needs, and aligned with current and planned projects in the communities along the corridor. As the agencies responsible for delivering transportation projects in their areas, these TxDOT Districts will take the lead in carrying out the study's recommended improvements. Their involvement was essential to shaping the study and will continue to be key to turning the study vision into a reality.

5.4.1 Public Involvement

The US 377 Texas Corridor Study engaged the public through an interactive online survey to gather insights on US 377 corridor needs and concerns. Stakeholder group members—with the support of the study team—led outreach efforts to promote the survey to maximize participation. Additionally, Public Information Officers from each TxDOT district within the study area amplified awareness through a media press release and targeted social media campaigns. These efforts ensured broad engagement throughout the survey’s five-week term availability. **Appendix C** provide further details about the public survey.

5.4.2 Stakeholder Engagement Activities

Stakeholder engagement and public involvement activities included multiple meetings, a public survey, Binational Workshops, and an interactive map for collecting feedback. Additional details are provided in Sections 5.4.8 and 5.5.3.

5.4.3 Stakeholder Meetings

Stakeholder meetings were scheduled to align with the planning process to allow the study team to solicit feedback on the US 377 corridor needs, goals, alternatives, and implementation strategies. **Table 5-1** provides the schedule of stakeholder meetings.

Summaries of each meeting and presentation are provided in **Appendix B**. Two of the three rounds of stakeholder meetings were held virtually, with participants (stakeholders and TxDOT district representatives) accessing the meeting via the internet or over the phone using Microsoft Teams. The second round of meetings, which involved reviewing proposed improvement and prioritization, were held in person in January and February of 2025.

Table 5-1. Schedule of Stakeholder Meetings

Group	Date	Time	Format	Member Attendance	Meeting Objectives
Meeting Round #1					
Steering Committee	September 30, 2024	9:00 a.m. to 11:30 a.m.	Virtual	22	Introduce the study schedule, review socio-economic forecast, traffic, and safety conditions; gather feedback on corridor and segment needs and challenges.
Central Working Group	October 11, 2024	9:00 a.m. to 11:30 a.m.	Virtual	4	Introduce the study schedule, review socio-economic forecast, traffic, and safety conditions; gather feedback on corridor needs and challenges specific to the Central Segment.

Group	Date	Time	Format	Member Attendance	Meeting Objectives
Meeting Round #1					
North Working Group	October 25, 2024	9:00 a.m. to 11:30 a.m.	Virtual	17	Introduce the study schedule, review socio-economic forecast, traffic, and safety conditions; gather feedback on corridor needs and challenges specific to the North Segment.
South Working Group	October 29, 2024	1:00 p.m. to 3:30 p.m.	Virtual	10	Introduce the study schedule, review socio-economic forecast, traffic, and safety conditions; gather feedback on corridor needs and challenges specific to the South Segment.
Meeting Round #2					
Central Working Group	January 23, 2025	9:00 a.m. to 11:30 a.m.	Texas 4-H Conference Center Brownwood, TX	7	Review and prioritize recommended improvements for the US 377 Texas Corridor Study specific to the Central Segment.
South Working Group	January 28, 2025	9:00 a.m. to 11:30 a.m.	Edwards County Courthouse Rocksprings, TX	7	Review and prioritize recommended improvements for the US 377 Texas Corridor Study specific to the South Segment.
North Working Group	February 4, 2025	9:00 a.m. to 12:00 p.m.	Lake Granbury Conference Center Granbury, TX	24	Review and prioritize recommended improvements for the US 377 Texas Corridor Study specific to the North Segment.

Group	Date	Time	Format	Member Attendance	Meeting Objectives
Meeting Round #2					
Steering Committee	February 20, 2025	9:00 a.m. to 11:30 a.m.	Virtual	23	Review and prioritize recommended improvements for the US 377 Texas Corridor Study, with a focus on segment-specific and corridor-wide needs.
Meeting Round #3					
South Working Group	March 25, 2025	9:00 a.m. to 11:00 a.m.	Virtual	7	Review the draft study report outline and proposed implementation plan; confirm South Segment priorities and provide final input on corridor-wide strategies.
Central Working Group	March 27, 2025	9:00 a.m. to 11:00 a.m.	Virtual	9	Review the draft study report outline and proposed implementation plan; confirm Central Segment priorities and provide final input on corridor-wide strategies.
North Working Group	April 4, 2025	9:00 a.m. to 11:00 a.m.	Virtual	28	Review the draft study report outline and proposed implementation plan; confirm North Segment priorities and provide final input on corridor-wide strategies.
Steering Committee	May 5, 2025	9:00 a.m. to 11:00 a.m.	Virtual	15	Review the draft study report outline and proposed implementation plan; confirm segment priorities and provide final input on corridor-wide strategies.

Group	Date	Time	Format	Member Attendance	Meeting Objectives
Binational Workshops					
Binational Workshop	September 19, 2024	1:00 p.m. to 3:30 p.m.	Ramada by Wyndham Del Rio, TX	21	Introduce the US 377 Texas Corridor Study and gather input from binational stakeholders on cross-border transportation needs, trade flows, and regional priorities.
Binational Workshop	April 22, 2025	1:00 p.m. to 3:00 p.m.	Val Verde County Library Del Rio, TX	27	Provide study updates and review proposed improvements; gather feedback on binational planned transportation projects and goals.
Closeout					
Combined Steering Committee and North, Central, and South Working Groups	June 5, 2025	9:00 a.m. to 11:00 a.m.	Virtual	16	Review the final report outline and updated implementation plan; gather final input from all members and outline final steps.

5.4.4 First Round of Meetings: Kickoff

The first round of Steering Committee and Segment Working Group kickoff meetings took place in September and October of 2024. These meetings introduced the US 377 Texas Corridor Study, outlining its purpose, key components, process, and stakeholder engagement structure. Participants reviewed the study schedule, key considerations, and expectations for involvement. Discussions also covered the US 377 corridor's socio-economic profile, current and future conditions, and vision for the corridor.

5.4.5 Second Round of Meetings: US 377 Corridor Improvement Identification

The second round of Steering Committee and Segment Working Group meetings took place in January and February of 2025. These in-person meetings provided an update on the progress of the US 377 Texas Corridor Study. The second round of meetings included a summary of stakeholders and public feedback, including the public survey results, an overview of potential solutions to address key study challenges, and a collaborative session to prioritize improvements based on identified needs (**Figure 5-2**). The meetings also outlined the next steps in the study process.

Figure 5-2. Stakeholders at Segment Working Group Meeting #2



5.4.6 Third Round of Meetings – Refinement

The third round of Segment Working Group meetings were held in March and April of 2025. The Steering Committee meeting was held the following May. Segment Working Groups received a study status update, reviewed the proposed improvements identified in the second round of meetings, and provided feedback on the draft US 377 Texas Corridor Study outline. Building on these discussions, the Steering Committee focused on finalizing recommendations and incorporating stakeholder input.

5.4.7 Closeout Meeting – Review

The closeout meeting was held on June 5, 2025, bringing together all Segment Working Groups and the Steering Committee for the first time in a joint virtual meeting. This meeting provided an opportunity to reflect on the work accomplished throughout the study, review the draft US 377 Texas Corridor Study summary, and gather final stakeholder feedback.

5.4.8 Binational Workshop 1

The purpose of Binational Workshop 1 was to gather valuable insights from U.S. and Mexico stakeholders with expertise in the border region, particularly focusing on the Del Rio and Ciudad Acuña border region (**Figures 5-3 and 5-4**). The workshop aimed to facilitate collaboration between a diverse group of participants, including economic and business associations, brokers, export experts, local elected officials, and regional mobility authorities from both sides of the border. For additional details on attendees and topics discussed, refer to **Appendix D**.

Held in Del Rio, the workshop provided an in-person setting for stakeholders to engage with local transportation experts and discuss key challenges, needs, and areas of opportunities related to the US 377 Corridor. The workshop targeted participants from the South Segment of the study, which directly connects to the Mexico border, ensuring relevant stakeholders from the southern counties were actively involved in the discussions.

Binational Workshop 1 provided stakeholders with the opportunity to share perspectives and offer feedback through facilitated discussions and



Figure 5-3. Binational Workshop 1



Figure 5-4. Binational Workshop 1, Breakout Group Discussions

interactive tools. Their role was crucial in addressing cross-border mobility, trade, and transportation concerns by identifying the US 377 corridor needs, contributing improvement strategies, and providing insights on key focus areas related to Mexico.

Key themes and findings from Binational Workshop 1 are included in **Table 5-2**:

Table 5-2. Binational Workshop 1, Key Findings

Key Findings	Summary
 Funding	A consistent theme discussed was the critical need for funding to support the development of transportation routes and infrastructure projects that will bolster economic and trade growth between Mexico and Texas. Specifically, improving the infrastructure to Saltillo and Monterrey, given they are regional hubs for large industries. Additionally, the relationship between Del Rio and la Ciudad Acuña was emphasized, expressing the importance of investment in cross-border infrastructure to amplify local connectivity and facilitate international trade growth on both sides of the border.
 Trade Connectivity	Stakeholders expressed the need for enhanced trade connectivity along US 377 corridor, especially as cross-border commerce and imports/exports between Texas-Mexico continues to grow. Upgrading trade routes and transportation networks would help facilitate faster trade and also ensure US 377 corridor remains competitive as a vital link for international trade.
 International Trade Routes	Stakeholders underscored how crucial international trade routes along US 377 corridor were to support growing commerce between Texas-Mexico.
 Bridge	Stakeholders mentioned the planned second bridge at the Del Rio entry and emphasized its importance. Stakeholders also stressed the need for careful coordination with this ongoing infrastructure project to ensure it's a seamless integration with this vital trade route. One group mentioned the bottleneck at the Ports of Entry and suggested widening the bridge to rectify this issue.
 Safety	Safety was a theme heard throughout the discussions by several stakeholders particularly in relation to growing traffic demands. Many stressed the need for targeted routes safety improvements to accommodate commercial vehicles and passenger traffic. Some discussions occurred related to driver fatigue and the need for closer rest areas for both commercial and passenger vehicles. Others mention the dangers of lanes converting from four to two abruptly. Stakeholders also pointed out the dangers of high traffic occurring in school zones particularly within Acuña to Torreon. Lastly, many discussed the need for a better telecommunication system in case of vehicle breakdowns. Due to lack of rest areas, travelers with vehicle or cargo issues have safety concerns when traveling the corridor for long stretches due to lack of assistance, resources or food/beverage availability.
 Freight	Stakeholders mentioned the importance of aligning the improvements that are happening at a regional level, such as the second bridge, to create seamless network connectivity and specific to the freight system. Increasing freight volumes will drastically impact the corridor access points and the timely movement of goods.
 Nearshoring	Stakeholders emphasized the growing importance of nearshoring—the practice of relocating business operations to nearby countries to improve efficiency and reduce supply chain risks—and its future impact on the US 377 corridor. As companies relocate manufacturing and supply chain operations closer to the U.S. near the Texas-Mexico border, there is an increasing to invest in the infrastructure needed to help support this future shift. The corridor will encounter an increase in commercial traffic volume and improved connectivity will be crucial between Texas-Mexico.
 Rest Areas	Stakeholders highlighted the potential need for additional rest areas along the US 377 corridor, particularly near the South segment of the study near Del Rio from the border region. These rest areas would provide essential services for long-haul drivers, improve safety by reducing driver fatigue, and support the increasing volume of commercial traffic between Texas and Mexico. Expanding rest area infrastructure along this critical trade route was seen as a key improvement to enhance both travel convenience and freight mobility in the region.
 Alternative Routes	The potential need for alternative routes on US 377 corridor approaching Del Rio near the border region was expressed by participants.
 Communication Infrastructure	Various groups discussed the need for upgrading the communication network especially cell phone coverage.

Key Findings	Summary
 Intergovernmental Coordination and Communication	The importance of communication between TxDOT and local and state government was also emphasized. Many stakeholders discussed the need for coordination with Mexico, including sharing information and involving Mexican brokers like the Confederation of Customs Brokers Associations of Mexican Republic (CAAAREM) and companies like Howmet Aerospace (Maquiladoras) and industries such as automotive manufacturing.
 Infrastructure	Infrastructure needs were a major point of discussion amongst stakeholders with several critical recommendations mentioned for upgrades required in the US 377 corridor. Stakeholders noted the need to expand to four lanes as a top priority to improve the flow of commercial vehicles, particularly on the 27-mile stretch where the highway shares designation with US 277. Additionally, the poor conditions of existing highways, such as the deteriorating state of Hwy 2 from Piedras Negras to Laredo, was highlighted as a barrier to efficient trade and mobility. Several noted that the US 377 corridor was too narrow, had low speed limits, lacked rest areas, and had frequent patrolling which impacts freight movement. Additional comments included expanding cellular coverage, broadband access, and emergency communication systems, to help support both commercial and personal transportation needs. Stakeholders noted the importance of integrating GPS routing systems to help support traffic flow.
 Railroad	Stakeholders emphasized the need for improved railroad spur connections and freight trucking routes and that the current rail infrastructure was insufficient to meet the growing demands of cross-border trade. Stakeholders recommended enhancing these connections to allow for faster movement of goods and the ability to reduce congestion in the corridor.
 Urbanization	The breakout sessions highlighted the urbanization of Del Rio and the need for future planning in the surrounding border towns. Expanding transportation networks is crucial for Del Rio and these border towns to support long-term growth. Several stakeholders emphasized the need for zoning and planning within Del Rio to manage this expansion effectively.
 Restrictions	Concerns with federal and state laws between Mexico and the U.S. were discussed concerning USDA restrictions on products such as cattle and pecans. Stakeholders noted the complex regulations which create barriers to trade and the need to harmonize these regulations to reduce trade issues and expand market access.

5.4.9 Binational Workshop 2

Binational Workshop 2 focused on presenting stakeholders with a comprehensive study status update, including a schedule update and an overview of the proposed corridor-wide improvement plan. A particular emphasis was placed on the South Segment improvement plan, given its relevance to both Mexico and Texas cross-border mobility. During the workshop, stakeholders participated in small breakout groups to provide feedback on the South Segment improvements, addressing key themes from Binational Workshop 1, such as safety, international trade routes, funding, connectivity, freight, relief areas, and the need for improved communication technology infrastructure (**Figure 5-5**). These discussions allowed participants to share insights, identify any missed considerations, and ensure that the proposed improvements accurately addressed the needs of the segment.



Figure 5-5. Binational Workshop 2, Breakout Group Discussions

At Binational Workshop 2, stakeholders highlighted several key insights related to Mexico as well as critical needs concerning the US 377 corridor. Key observations from Mexico included:

- Efforts are underway to upgrade certain secondary highways to primary highway status to enhance overall traffic flow.
- The international bridges at Acuña and Piedras Negras are steadily growing and possess the capacity to accommodate traffic diverted from Laredo.
- Rising security concerns between Monterrey and Laredo prompted discussions on mitigation strategies.
- Approximately seven to eight alternative route projects are being advanced from Torreón to address traffic and operational needs.

- Significant investments are being made toward improving Carretera Federal 57D, particularly the section from Allende to Sabinas.
- There are plans to expand the highway from Monclova to Saltillo to four lanes, aimed at improving regional connectivity and reducing congestion.

At Binational Workshop 2, stakeholders identified several critical needs related to the US 377 corridor. Some key themes are listed below in **Table 5-3**.

Table 5-3. Binational Workshop 2, Key Findings

Key Findings	Summary
Connectivity	Stakeholders identified connectivity as a major concern, highlighting limited cell phone and GPS coverage along with insufficient railroad connections as significant barriers to region mobility and access.
Traffic Congestion	Stakeholders highlighted congestion, particularly around Del Rio, as a key issue, emphasizing the need for additional passing lanes to reduce traffic delays and improve traffic flow.
Safety	Truck safety emerged as a recurring concern at Binational Workshop 2. Stakeholders raised road safety issues, including the need for advance warning signs at hazardous low-water crossings, the absence of roadway shoulders, and the need for safety enhancements such as wildlife detection systems and high-friction pavement to help prevent accidents
Rest Areas	Stakeholders noted a lack of amenities, such as rest stops and dedicated truck parking, as significant gaps impacting the safety and efficiency of long-haul freight operations.
Roadway Signage	Stakeholders recommending improved signage, particularly bilingual messages, to enhance compliance and reduce safety risks for all road users.

Both workshops reinforced the importance of binational coordination in addressing infrastructure and safety challenges to enhance transportation efficiency and regional economic growth.

5.5 Public Information and Involvement

One of the study team's and TxDOT's initial tasks was developing the US 377 Texas Corridor Study project webpage and factsheet. These resources outlined the study's objectives and goals while providing summaries for all stakeholder meetings. The project webpage serves as the primary hub for stakeholders and the public, featuring regular updates on meeting summaries and study progress. It was available in English and accessible on both desktop and mobile devices (**Figure 5-6**).

5.5.1 Public Survey

The US 377 Texas Corridor Study offered the public opportunities to provide input, including an online survey available from December 4, 2024, to January 9, 2025 (37 days) and was hosted on the project webpage and made accessible through Social Pinpoint (**Figure 5-7**). Provided in English and accessible via computer, smartphone, tablet, or if requested, a paper copy, the survey informed the public about the US 377 Texas Corridor Study and encouraged participation.

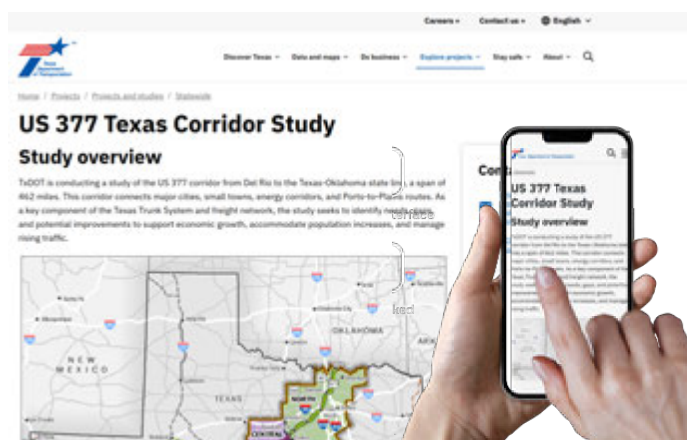
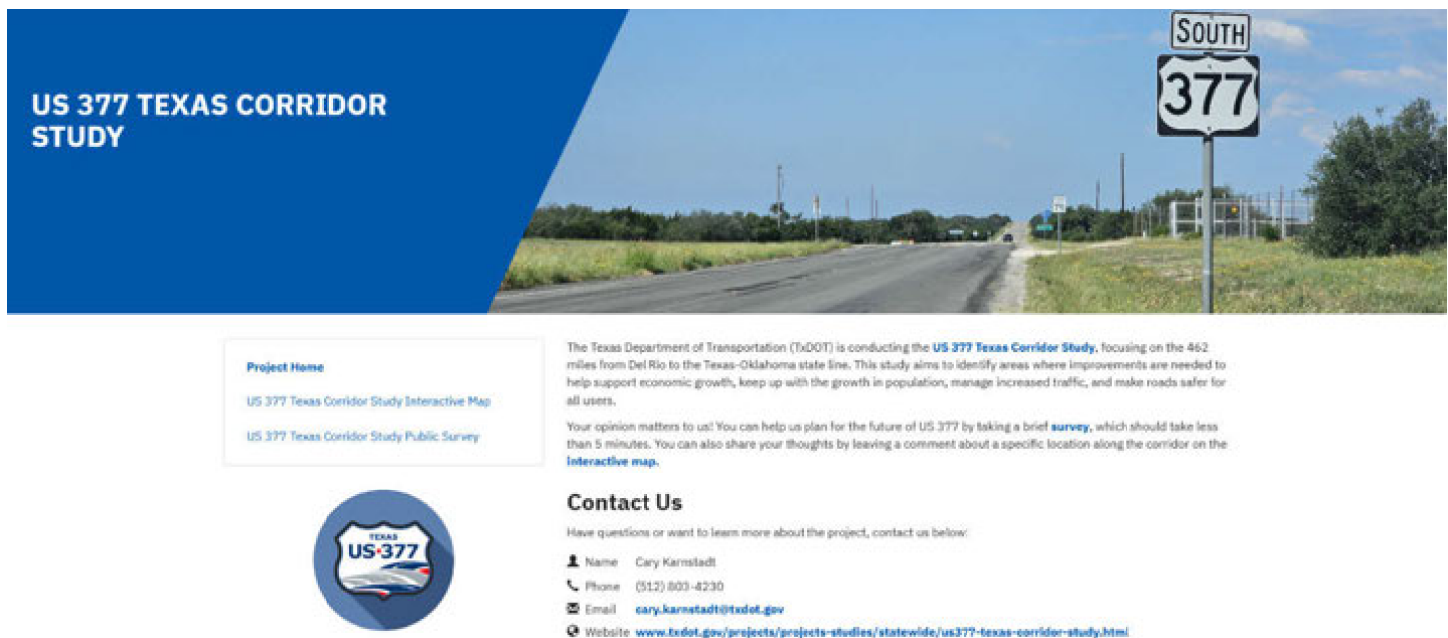


Figure 5-6. Project Webpage on Desktop and Mobile Devices

Figure 5-7. US 377 Texas Corridor Study Social Pinpoint Site



A comprehensive communication plan was developed to raise awareness of the survey and encourage participation. TxDOT promoted the survey through engaging content and graphics distributed by district public information officers across the Austin, Brownwood, Dallas, Fort Worth, Paris, Laredo, and San Angelo Districts (**Figure 5-8**). This included issuing a press release, sharing the survey link with stakeholders, and requesting Segment Working Group and Steering Committee chairs to share it with elected officials, local governments, agencies, and organizations (**Figure 5-9**). Information about the survey was widely shared across social media platforms and picked up by several news outlets along the US 377 corridor.

5.5.2 Survey Results

The public survey garnered 3,270 responses, highlighting the success of the study team's outreach efforts. The survey findings helped the study team prioritize study considerations, understand travel patterns, identify key issues, and assess potential improvements. Additionally, participants could use an interactive map to pinpoint areas of concern and suggest location-specific



Figure 5-8. Social Media Post Advertising the Survey

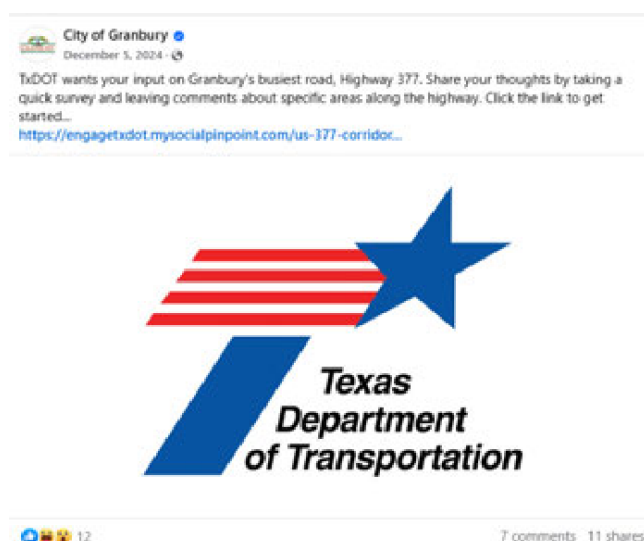


Figure 5-9. Social Media Post by City of Granbury Advertising Survey

enhancements. A detailed summary of the survey findings is provided in **Appendix C**. Additionally, **Figure 5-10** presents an overview of participation trends and key insights.

When asked about current challenges on the US 377 corridor, respondents identified congestion or traffic delays, limited alternate routes, and safety concerns as the top issues. Notably, **Figure 5-11** shows that over 87% of respondents cited congestion or traffic delays as the most significant factor affecting their travel. Additionally, 63% reported experiencing congestion, limited alternate routes and safety concerns daily.

Figure 5-10. Participation Summary

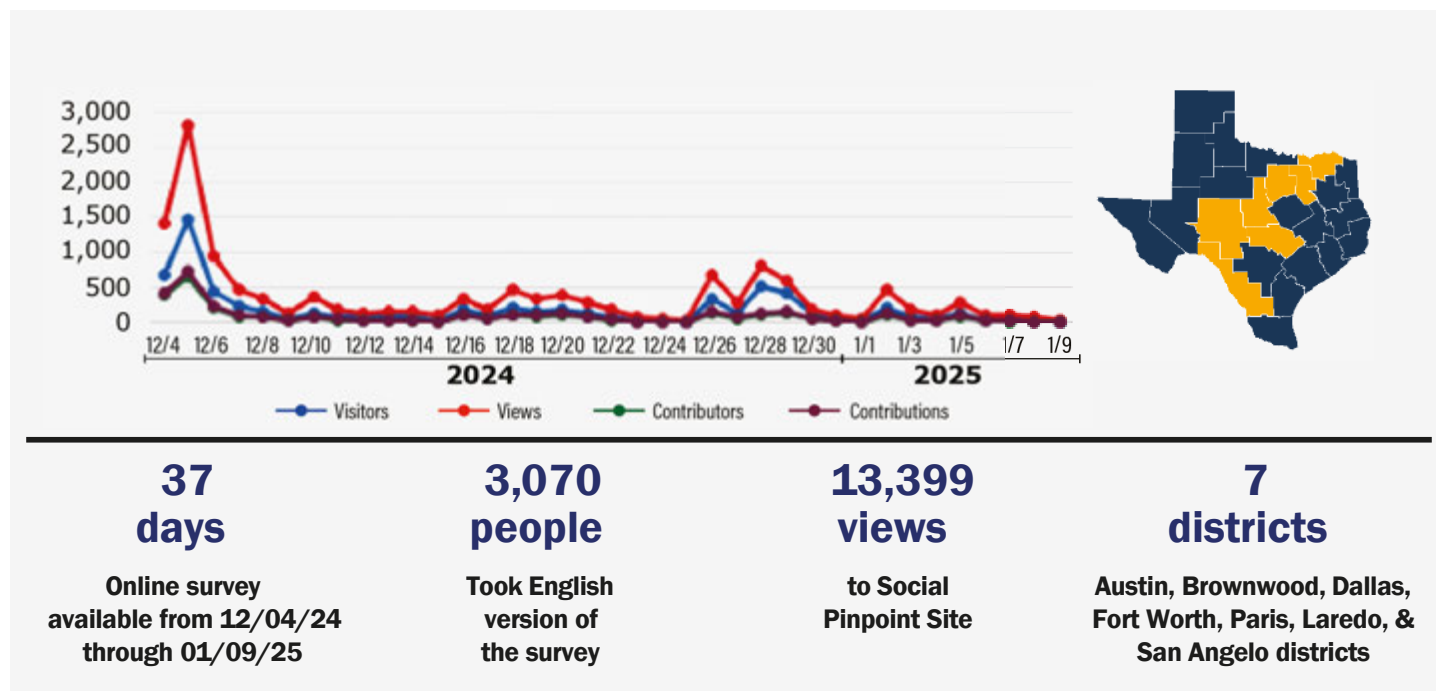
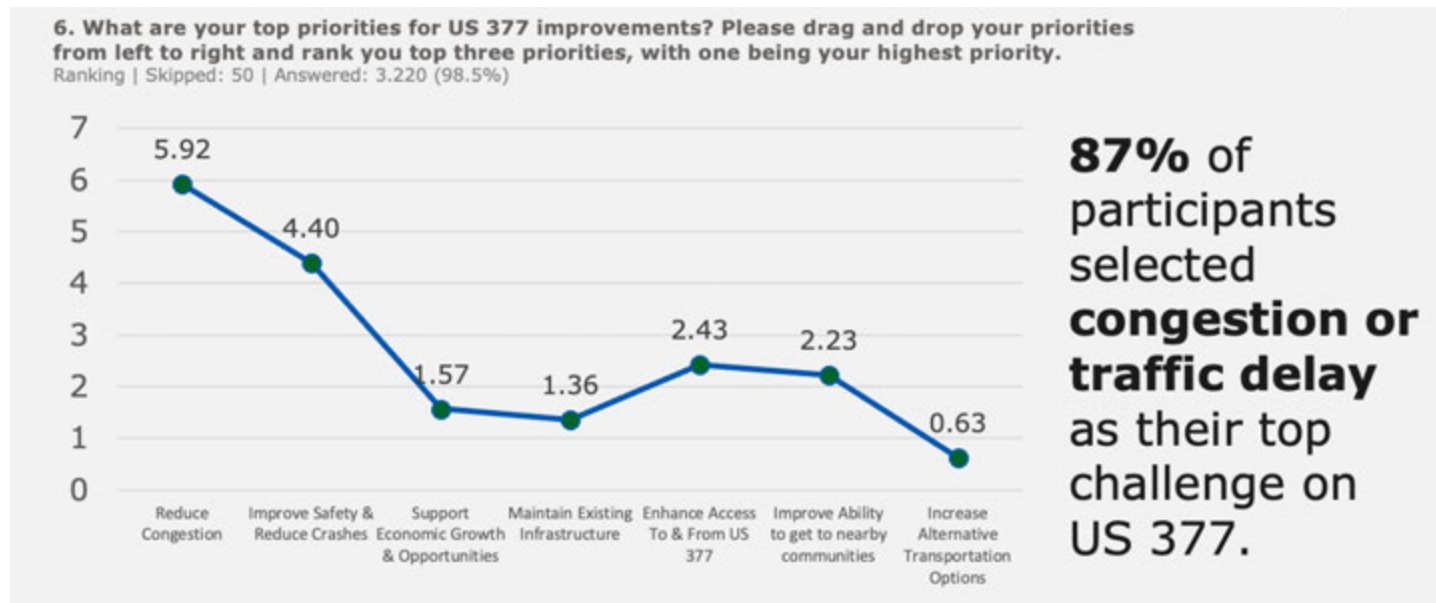


Figure 5-11. What is Important to You (Rank Top Three)



When asked about their top priorities for improvements to the US 377 corridor, 71% of respondents emphasized reducing congestion, with improving safety and reducing crashes ranked as the second-highest priority. Notably, over 87% of respondents favored adding additional lanes as the preferred solution to ease congestion and enhance traffic flow, highlighting the need for increased highway capacity. Additionally, more than half of the respondents supported enhanced traffic safety measures, such as improving lighting for better visibility, the installation of guardrails, and speed limit adjustments to create a safer driving environment.

5.5.3 Interactive Comment Map

The public survey also featured an interactive map, allowing participants to drop a marker along the US 377 corridor based on specific issues and provide detailed comments. Participants could select from various markers, including traffic concerns, safety concerns, connectivity issues, bike and pedestrian issues, maintenance issues, road issues, points of interest or other. In total, approximately 465 markers were placed on the map. The study team conducted a comprehensive review of all 465 map comments to determine whether additional improvements should be considered for inclusion in the US 377 corridor proposed improvements list. Each suggestion was evaluated to assess whether it was already addressed by existing proposed improvements or planned TxDOT initiatives.

For comments identifying new, previously unaddressed improvements, the study team compiled a separate list for further evaluation. Each proposed improvement was assessed for viability, alignment with project goals, and guidance from TxDOT Districts. Based on this analysis, viable improvements were integrated into the US 377 corridor proposed improvements list, ensuring community feedback directly influenced the planning process.

As shown in **Figure 5-12**, 43% of the markers were related to safety, followed by traffic concerns at 36%. **Figure 5-13** also provides a visual representation of all markers placed by participants.

Figure 5-12. Distribution of Geolocated Concerns from Survey Participants

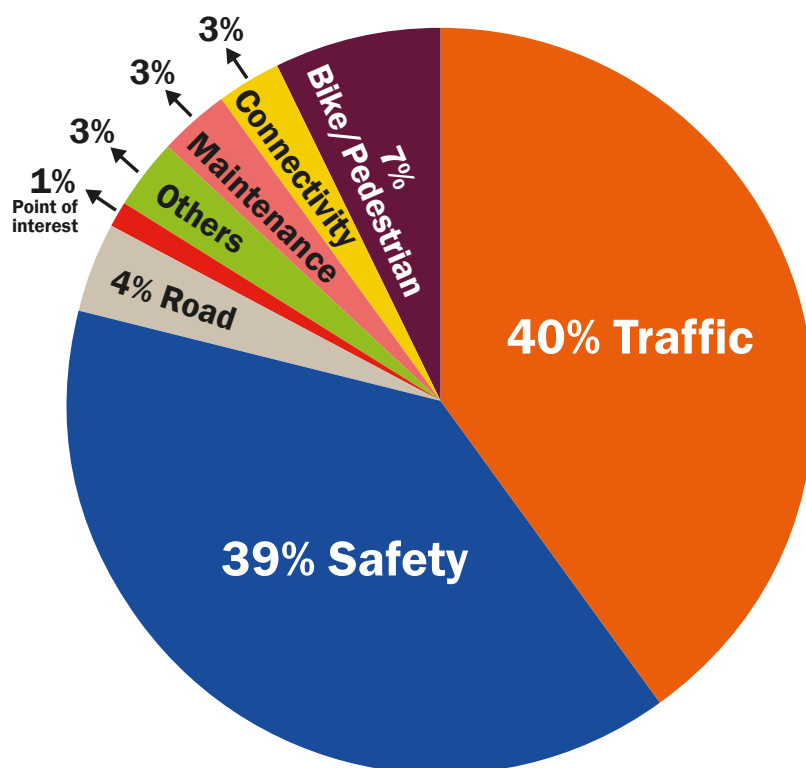
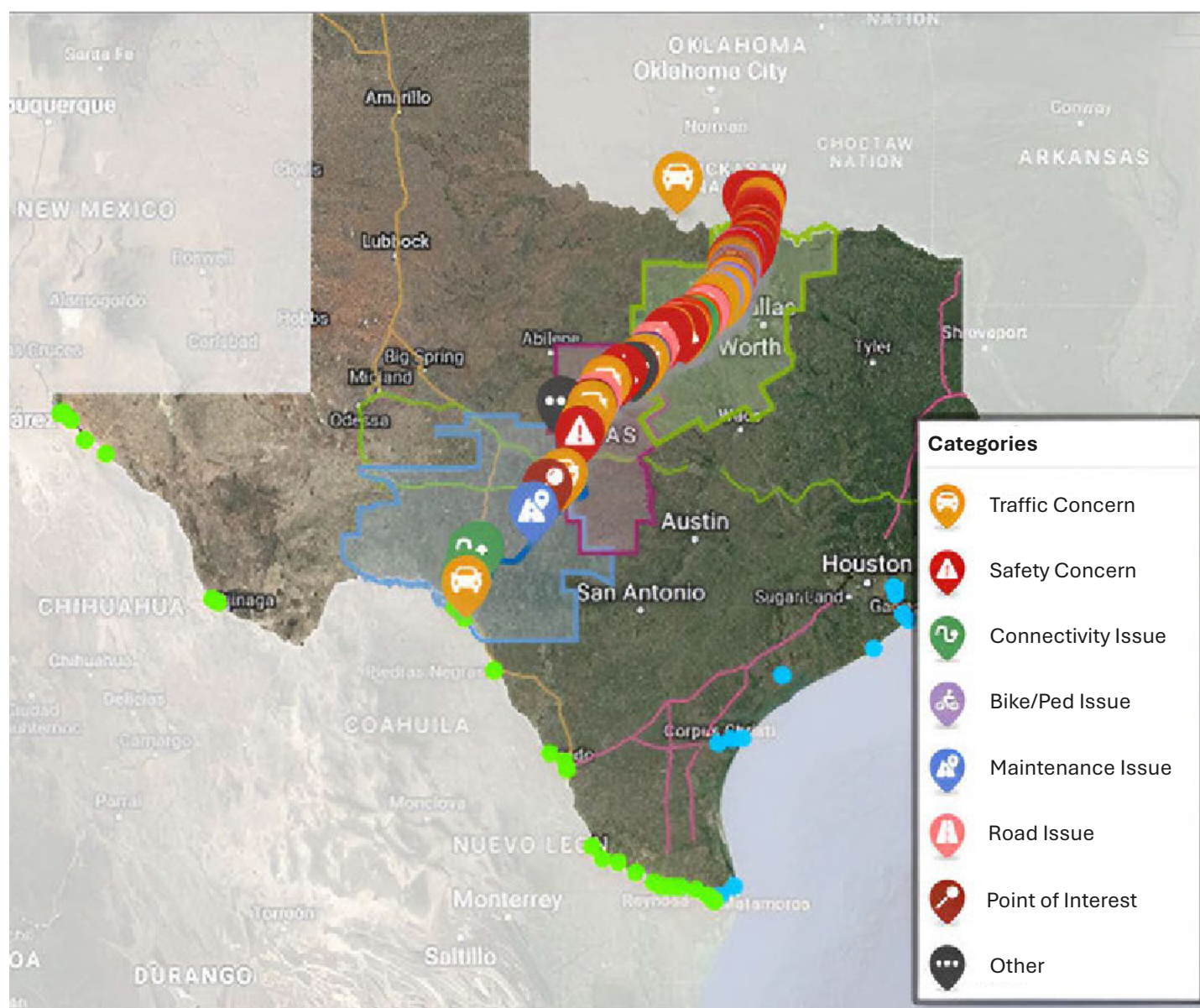


Figure 5-13. Overview of Map Markers



From the information received from the survey, the study team identified several concerns. The top concerns from stakeholders are highlighted in **Figure 5-14**.

Figure 5-14. US 377 Corridor Concerns: Stakeholder Summary

RURAL CONCERNS

- Safety Concerns
 - Speeding
- Connectivity issues
 - Limited cellphone coverage
 - Need upgraded interchange
- Flooding
- Bike/Ped safety concerns
 - No infrastructure in place

**URBAN CONCERNS**

- Congestion
 - Traffic from new developments and growth
- Connectivity
 - Need for alternative routes
- Safety
 - Intersection concerns
 - Speed
- Multimodal
 - Need for bike and pedestrian infrastructures
- Roadway
 - Widening of lanes



Figure 5-15 highlights locations on the US 377 corridor that are also of top concern to stakeholders and the public. Concerns include critical traffic and congestion as well as safety concerns.

Figure 5-15. Stakeholder-and Public-Identified Critical Locations

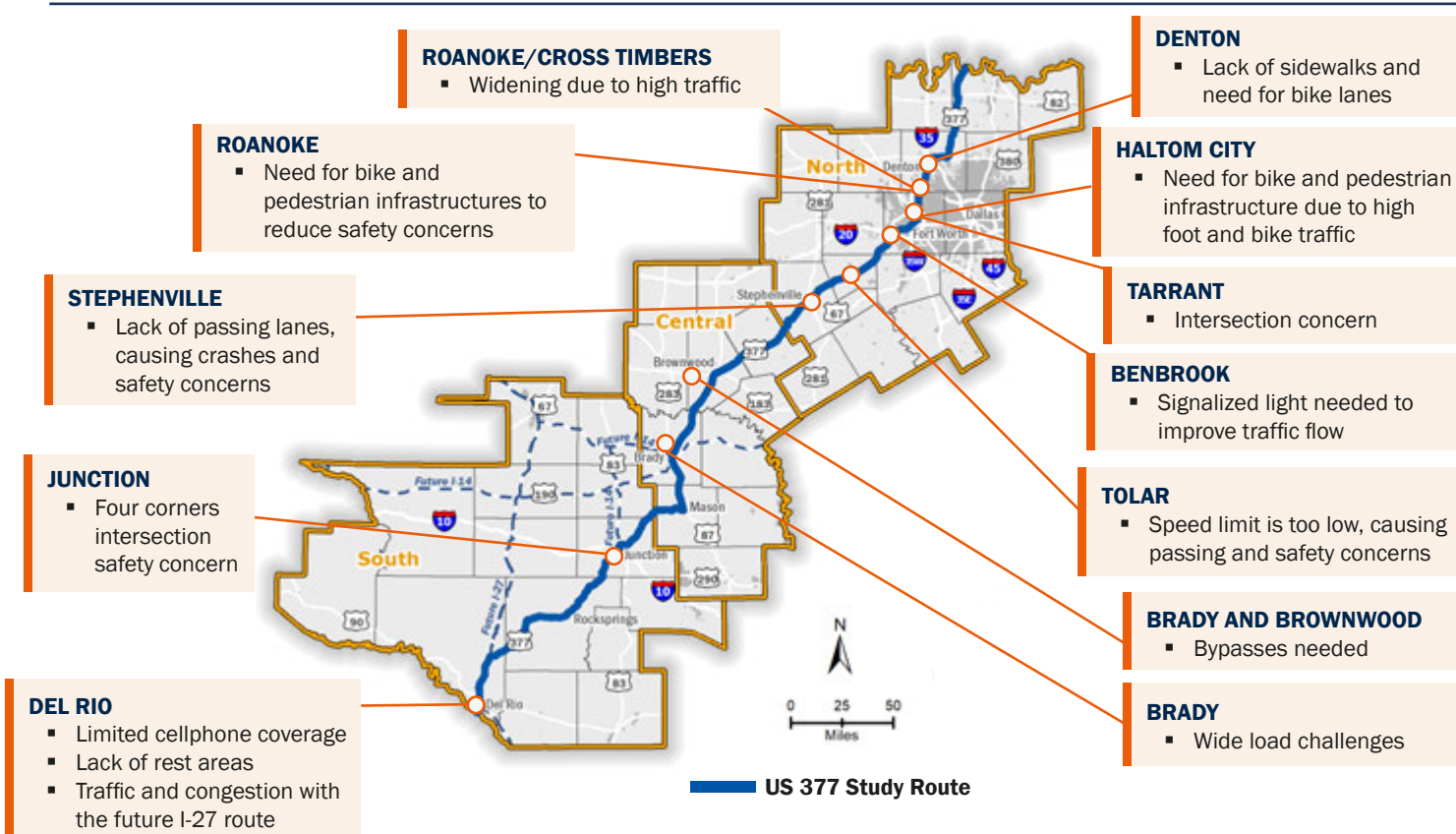
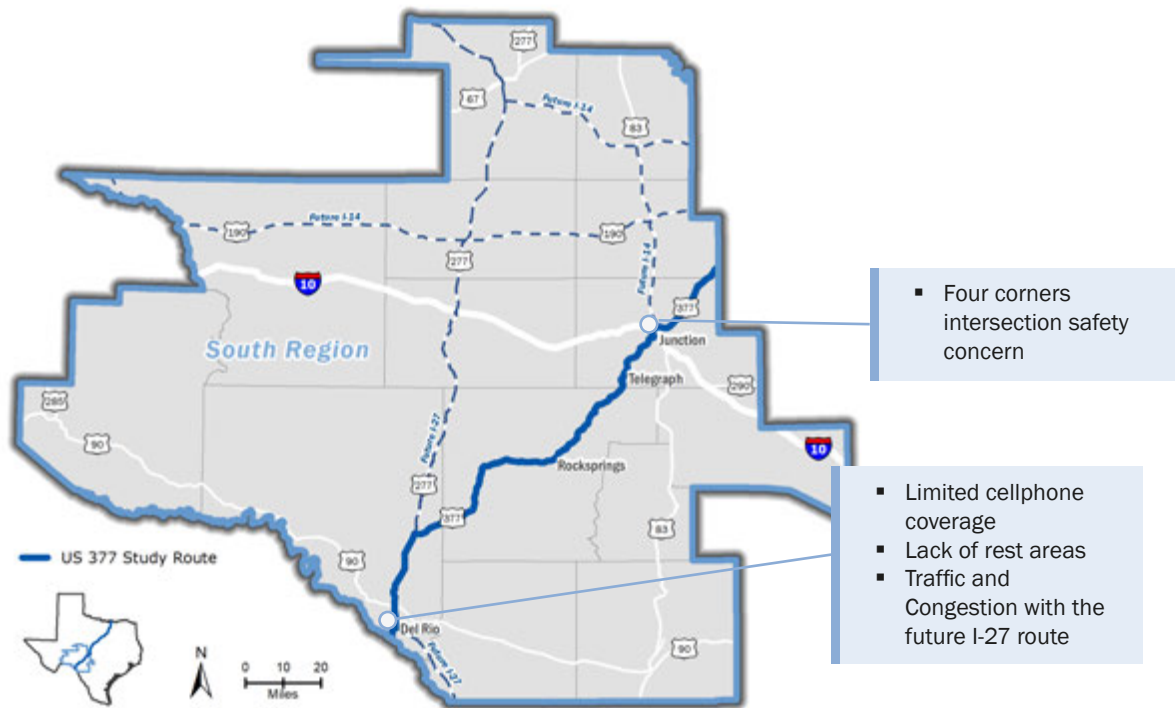


Figure 5-16. Stakeholder-and Public-Identified South Segment Critical Locations

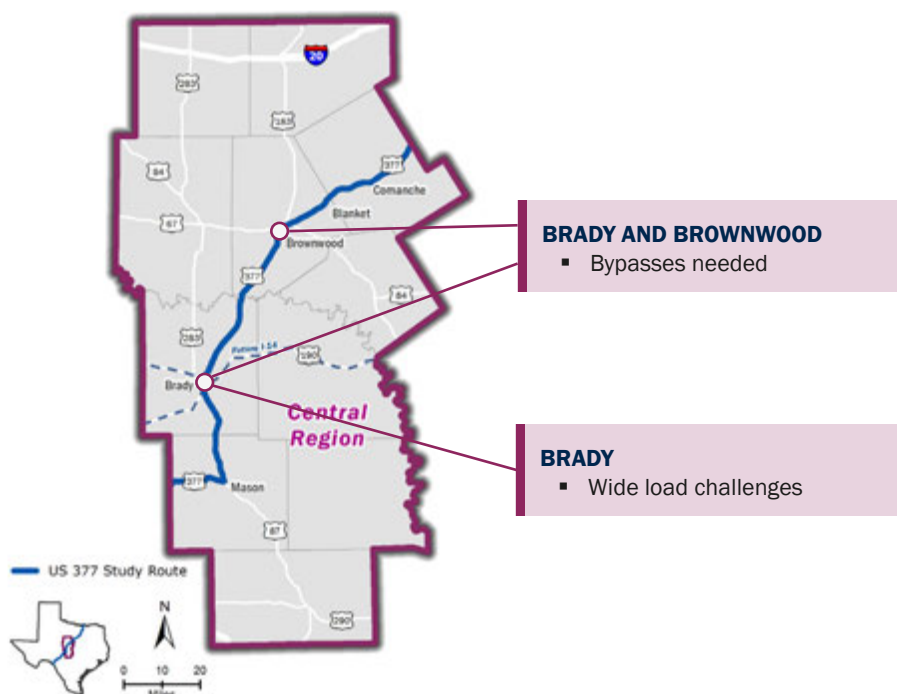


In **Table 5-4**, key concerns raised by both the public and stakeholders in the South Segment included frequent crashes related to high speeds, hazardous roadway designs with steep grades, and need for an upgraded interchange to improve safety and traffic flow near Del Rio. Critical locations in the South Segment are shown in **Figure 5-16**.

Table 5-4. Areas of Concern in the South Segment

Stakeholder Input	Public Input
- Intersection safety concerns - Conductivity issues - Resiliency - Lack of connectivity to other highways - Need for infrastructure upgrade - Hazardous roadway designs	- Need for upgraded interchange - Concerns of traffic with Future Route I-27 - Limited cellphone coverage - Lack of rest or relief areas for freight

Figure 5-17. Stakeholder-and Public-Identified Central Segment Critical Locations



In **Table 5-5**, input from stakeholders and the public from the Central Segment highlighted challenges, including the need for safety improvements such as additional passing areas and traffic congestion caused by limited passing zones. Other concerns included a lack of connectivity to other highways, the need for more turn lanes, roadway leveling at railroad crossings, the need to expand to four lanes, and interest in limited access bypass or loops to reduce city congestion. Critical locations in the Central Segment are shown in **Figure 5-17**.

Table 5-5. Areas of Concern in the Central Segment

Stakeholder Input	Public Input
▪ Traffic safety ▪ Congestion due to lack of passing zones ▪ Challenges with wide loads ▪ Accommodate higher design speeds ▪ Additional areas to safely pass	▪ Need for loops or bypass to reduce congestion ▪ Need to expand to four lanes ▪ Roadway leveling near railroad crossings ▪ Need for more turn lanes ▪ Lack of connectivity to other highways

Figure 5-18. Stakeholder-and Public-Identified North Segment Critical Locations



In **Table 5-6**, stakeholders and the public within the North Segment identified several key concerns, including traffic congestion, safety issues related to speed, lack of bicycle and pedestrian infrastructure, the need for dedicated turn lanes and frontage roads, and improved connectivity through alternative routes. Critical locations in the North Segment are shown in **Figure 5-18**.

Table 5-6. Areas of Concern in the North Segment

Stakeholder Input	Public Input
- Safety - Impacts of increased traffic - Traffic backups and bridge failure between Roanoke and Flower Mound - Safety concerns at intersections - Growth impacting need for expansion - Pedestrian safety in Haltom City due to lack of sidewalks	- High speeds - Congestion (including truck traffic) - Need for added capacity - Lack of bicycle lanes - Lack of dedicated sidewalks for pedestrians - Dedicated turn lanes - Need for alternative routes

Using geographic information systems, the study team developed an interactive comment map that was shared with stakeholders via a dedicated link during the first Segment Working Group and Steering Committee meetings. This platform enabled stakeholders to identify areas of concern or challenges along the US 377 corridor. They were also encouraged to distribute the link with elect officials, local governments, agencies, and organizations to expand community input.

All submitted comments were evaluated to determine whether the concerns were already addressed by existing proposed improvements or planned TxDOT initiatives.

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6

Study Recommendations and Implementation Plan



This chapter presents the corridor-wide programs and location-specific improvement options developed throughout the US 377 Texas Corridor Study. The recommendations and implementation plan stem directly from this study and are distinct from the current investments and ongoing district development projects already proposed along the corridor as presented in **Chapter 1** and shown in **Figure 6-1**. To address the corridor’s extensive length, the study team identified programs that could address corridor needs in a holistic manner. In addition, the team identified individual, location-specific recommendations along the corridor to improve safety and operations based on previous study findings, data-driven technical analysis of existing and future conditions, and input from the public and stakeholders. These improvements were categorized by type, evaluated using defined metrics, and prioritized with further stakeholder input. The implementation plan’s recommended improvements and cost estimates may change based on District priorities, funding, and other factors. Therefore, TxDOT recommends the use of tools and regular check-ins to monitor progress. The following sections outline the implementation plan from both a corridor-wide and location-specific perspective.

Figure 6-1. Improvement Types

Current Investments Funded in the 2025 UTP	Ongoing District Development Projects	US 377 Texas Corridor Study Implementation Plan
- Under preparation for construction by TxDOT and MPOs based on potential future cash flow - Funded	- Currently outside of the UTP 10-year window but being prioritized by the Districts or MPO for continued development - Unfunded	- Serves as a planning guide for the Districts in developing additional future projects on US 377 - Unfunded

6.1 Program Recommendations

The recommendations for the US 377 corridor-wide program are grounded in a comprehensive analysis of current and projected conditions—including traffic patterns, safety concerns, roadway and bridge infrastructure, and existing multimodal facilities—supplemented by extensive stakeholder and public engagement, as well as a thorough review of national, state, regional, and local plans and initiatives. During the process, public input was received through Steering Committee meetings, Segment Working Groups, Binational Workshops, survey responses, and comments, which helped in developing these programs.

Programs are broad comprehensive statements consistent with the US 377 Texas Corridor Study vision and goals, which help in forming targeted action items. Action items are well defined initiatives under each program that support and help to achieve the US 377 Texas Corridor Study goals.

To improve and enhance the US 377 corridor, eight programs and 26 action items are recommended. As shown in **Table 6-1**, all program recommendations and underlying action items align with the US 377 Texas Corridor Study vision and goals.

It is important to recognize that responsibility for implementing corridor-wide program action items varies, and not all programs fall under TxDOT’s direct jurisdiction. Even within TxDOT, specific action items may be overseen by different Divisions or Districts. Consequently, funding for these programs may come from a variety of sources, both internal and external to TxDOT. The comprehensive nature of this plan provides a flexible framework that enables TxDOT to collaborate with other relevant agencies as appropriate. Successful implementation will depend on strong coordination and collaboration among a broad range of stakeholders, including federal, state, regional, and local planning agencies, as well as private sector partners.

Table 6-1. US 377 Corridor Programs and Action Items

Action Items	Description	Related Agency
Program 1: Improve Corridor Safety		
 Action Item 1	Continue incorporating safety into roadway design by adding passing, turning and deceleration lanes, and widening shoulders	TxDOT
 Action Item 2	Evaluate curves, including superelevation, for safety and functionality	TxDOT
 Action Item 3	Address low water crossings by adding a high-water system with flashing lights. This includes the sensors to measure the presence and depth of water and activate the flashers or warning system	TxDOT
 Action Item 4	Consider safety features such as guardrail upgrades and rumble strips	TxDOT
 Action Item 5	Upgrade pavement markings and signage to improve visibility and guidance	TxDOT
 Action Item 6	Conduct wildlife detection studies to examine the presence of local wildlife and alert drivers when potential wildlife hazards may appear on the road through the use of large animal sensors and trigger flashers	TxDOT
Program 2: Enhance Mobility by Incorporating Emerging Technologies and ITS		
 Action Item 1	Pilot smart infrastructure like DMS, license plate readers, and remotely activated spike strips integrated into roadways	TxDOT, Local Jurisdictions
 Action Item 2	Deploy next-generation safety technologies—speed and curve warning systems, plus predictive traffic signals—to help drivers adjust in real time, enhancing safety and traffic flow	TxDOT, Local Jurisdictions
 Action Item 3	Use real-time data tools (Original Equipment Manufacturer (OEM), Trace, StreetLight) to improve incident response and traffic flow	TxDOT
 Action Item 4	Upgrade cellular connectivity in rural areas	TxDOT, Public Private Partnerships
 Action Item 5	Expedite studies for EV charging stations	TxDOT
Program 3: Improve Pedestrian and Bicycle Facilities		
 Action Item 1	Fill in missing sidewalks, curb ramps, and crosswalks to complete pedestrian networks	TxDOT, Local Jurisdictions
 Action Item 2	Add bike lanes/pedestrian refuges in urban areas like Del Rio	TxDOT, Local Jurisdictions

Action Items	Description	Related Agency
 Action Item 3	Upgrade/add pedestrian signage	TxDOT, Local Jurisdictions
Program 4: Enhance Public Transportation to Improve Mobility and Accessibility		
 Action Item 1	Upgrade rural bus stops with shelters, signage, and sidewalk connections	TxDOT, Local and Regional Transit Agencies
 Action Item 2	Improve intercity bus access and ADA (Americans with Disabilities Act) compliance at locations	TxDOT, Local and Regional Transit Agencies
Program 5: Employ Access Management		
 Action Item 1	Apply access management strategies, including raised medians, dedicated turn lanes, and intersection realignments, to reduce conflict points and improve flow	TxDOT, Local Jurisdictions
Program 6: Support Freight Activities Along US 377		
 Action Item 1	Improve bridge clearances and widen roads to better serve freight routes	TxDOT
 Action Item 2	Add truck parking and improve dynamic signage and intersection lighting	TxDOT
 Action Item 3	Reconstruct intersections with higher truck volumes to accommodate wide turns and longer vehicle lengths	TxDOT
 Action Item 4	Widen roadways to four lanes divided to meet the design criteria for the Texas Highway Trunk System	TxDOT
Program 7: International Trade Along US 377		
 Action Item 1	Support growing trade volumes by improving highway links to the Acuña and Piedras Negras border crossings.	TxDOT, U.S. Customs and Border Protection
 Action Item 2	Expand key corridors to reduce congestion shifted from Laredo	TxDOT, U.S. Customs and Border Protection
 Action Item 3	Invest in signage, drainage, and shoulder improvements to increase reliability for commercial vehicles using trade corridors	TxDOT, U.S. Customs and Border Protection
Program 8: Enhance Intermodal Connections		
 Action Item 1	Study and improve connections between highways, rail crossings, and freight routes	TxDOT, Railroad Commission
 Action Item 2	Implement grade separations and signal improvements near rail lines	TxDOT, Railroad Commission

In addition to the eight corridor-wide programs outlined above, it is essential to address specific challenges that threaten the long-term reliability of the US 377 corridor. These include natural and human hazards, including extreme weather events, bridge strikes, and cyber-attack threats to ITS. Regularly assessing the corridor's vulnerability to both natural and human-made hazards, as discussed in **Chapter 4**, is a critical component of this effort. Key actions to support resilience include identifying infrastructure most at risk, ongoing data collection related to resilience, and pursuing new funding opportunities for relevant projects and initiatives. These efforts will enhance the corridor's capacity to anticipate, withstand, and recover from major disruptions.

6.2 Proposed Improvements

The study team developed a list of 149 proposed preliminary improvements along the US 377 corridor that were shaped through the needs identification exercises described in **Chapters 4** and **5**. These proposed improvements were identified from an integrated approach consisting of reviews of previous studies, stakeholder engagement, web-based data collection, TxDOT district coordination, technical analysis by the study team, and site visits. This collaborative and data-driven effort produced a preliminary list of improvements, which were categorized into seven main types:

- 1. Roadway:** Improvements involving changes to the current roadway design, including adding travel, passing and turning lanes and widening shoulders
- 2. Intersection:** Improvements involving the redesign of, or upgrades to, intersections to improve operations
- 3. Multimodal:** Improvements to access and infrastructure for pedestrians, bicyclists, transit, and trucks. Multimodal improvements were further broken into pedestrian/bike, transit, and truck improvements during the analysis
- 4. Bridge:** Improvements involving bridge rehabilitation and reconstruction to meet vertical clearance
- 5. Safety:** Localized improvements to address safety concerns
- 6. ITS:** Improvements involving the implementation of ITS strategies like DMS and license plate readers
- 7. Route Study:** Improvements that propose conducting route studies around cities along the corridor

Some proposed improvements were grouped based on geographic proximity or the potential for concurrent or sequential implementation. Evaluations were then conducted to rank the needs of each improvement.

6.2.1 Evaluation of Proposed Improvements

The proposed improvements were evaluated in terms of 19 different metrics, which were defined to match the following UTP criteria: Safety, Economy and Freight, Congestion, Preservation, and Connectivity.

The description of the metrics and the weights used for evaluation can be found in **Table 6-2**. The metrics and weights shown in **Table 6-2** were used to assign a score of up to 100 to each improved location, reflecting its specific needs. The weight of each category reflects stakeholder input and incorporates unique aspects of the US 377 corridor, such as international trade.

Table 6-2. Metrics Used for Proposed Improvements Evaluation

Category	Weight	Description of Metrics
Safety	30%	Property damage only crashes, crash rate, pedestrian and/or bike crashes, severe injury crashes, fatal crashes
Economy and Freight	22%	Population density, employment density, gross regional product, international trade, commodity flow (freight tonnage), daily truck percentages
Congestion	20%	Existing and future congestion levels
Preservation	15%	Bridges with vertical clearance, bridge conditions, pavement conditions
Connectivity	13%	Encourages connections to other modes, including highways, freight corridors, rail, airports, passenger rail, trails and border crossings

After determining the need for each proposed improvement, the study team developed preliminary cost estimates. These estimates were based on conceptual typical sections, pavement design, 2024 TxDOT average unit bid prices, and district-specific cost data based on TxDOT statewide bid tabs. Unit prices were compared from district to district, and an average unit price was used. The location-specific need scores combined with their cost estimates for each proposed improvement were presented to stakeholders to guide a collaborative prioritization process, ensuring alignment with the corridor's long-range transportation objectives.

6.2.2 Prioritization of Proposed Improvements

The prioritization of the proposed improvements workshops took place over the course of the second round of Segment Working Group meetings, which involved three in-person workshops throughout the winter and spring of 2025. During these meetings, the stakeholders of each Segment Working Group were presented with a comprehensive list of proposed improvements alongside location-specific need evaluations and cost estimates. Leveraging their deep understanding of the US 377 corridor and its surrounding communities, stakeholders assigned prioritization timeframes to each proposed improvement. Both the criticality of need and the readiness of a project for implementation were considered when assigning timeframes, acknowledging that high-priority projects may still require long-term development timelines. The Segment Working Group members classified each of the proposed improvements as Short Term (2026 through 2029), Mid Term (2030 through 2035), or Long Term (2035 and beyond). The Steering Committee and Districts reviewed and refined the prioritizations to address inconsistencies and to reflect ongoing project development. The summaries of each segment's prioritization can be found in **Figures 6-2** and **6-3**. Proposed improvement type counts and costs are also summarized in **Tables 6-3** and **6-4**.

In the South Segment of the US 377 corridor, the most frequent classification for development time was short term, which accounted for 46% of the Segment's proposed improvements, but only 2% of the Segment's estimated cost. In the Central Segment, the most frequent term was the long term, comprising 51% of the proposed improvements and 69% of the estimated cost. In the North Segment, the most frequent classification for development time was short term, accounting for 62% of the segment's proposed improvements but only 4% of the estimated proposed improvement cost across this Segment of the US 377 corridor.

Detailed proposed improvement listings showing the evaluation results, proposed improvement limits, proposed improvement description, implementation time frame, cost estimate, among others are available in **Appendix A - Proposed Improvement Recommendations**.

Figure 6-2. Number of Proposed Improvements by Prioritization Development Time

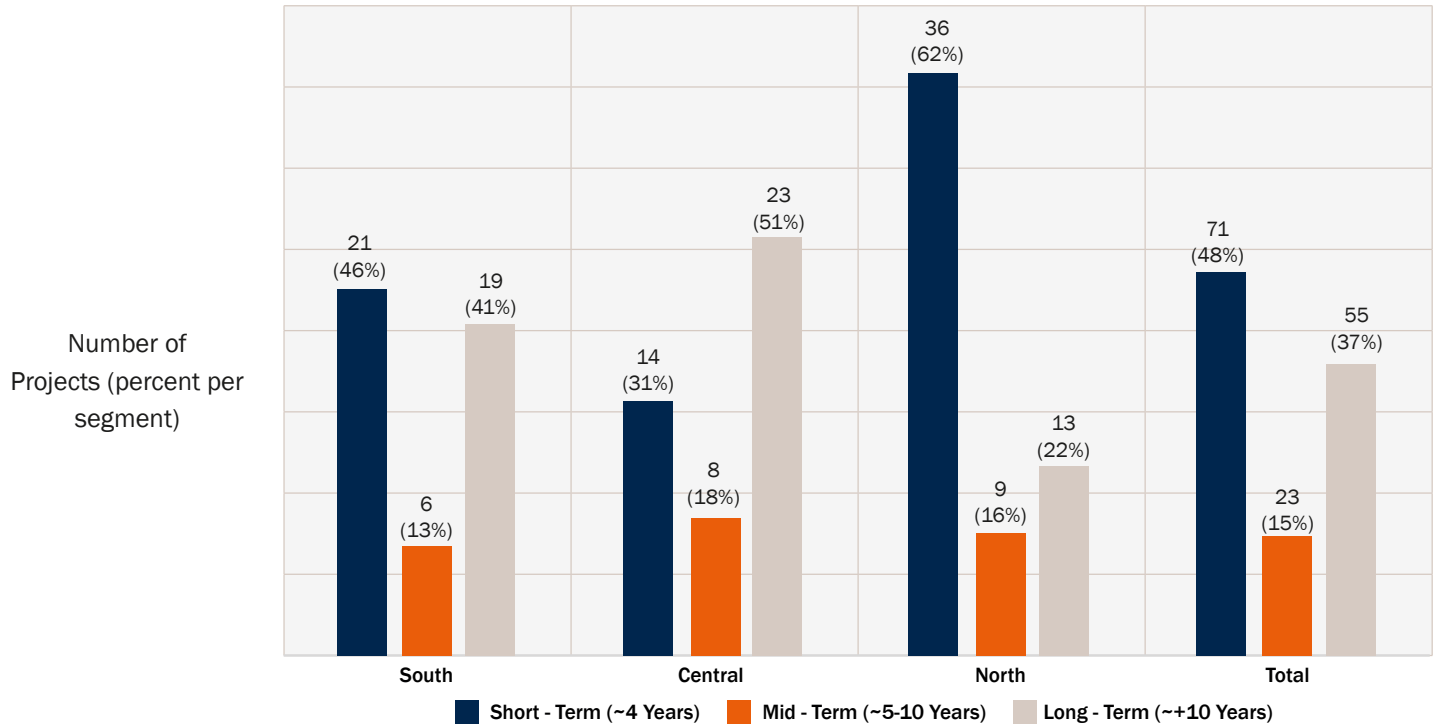


Figure 6-3. Proposed Improvements Cost Estimates by Prioritization Development Time

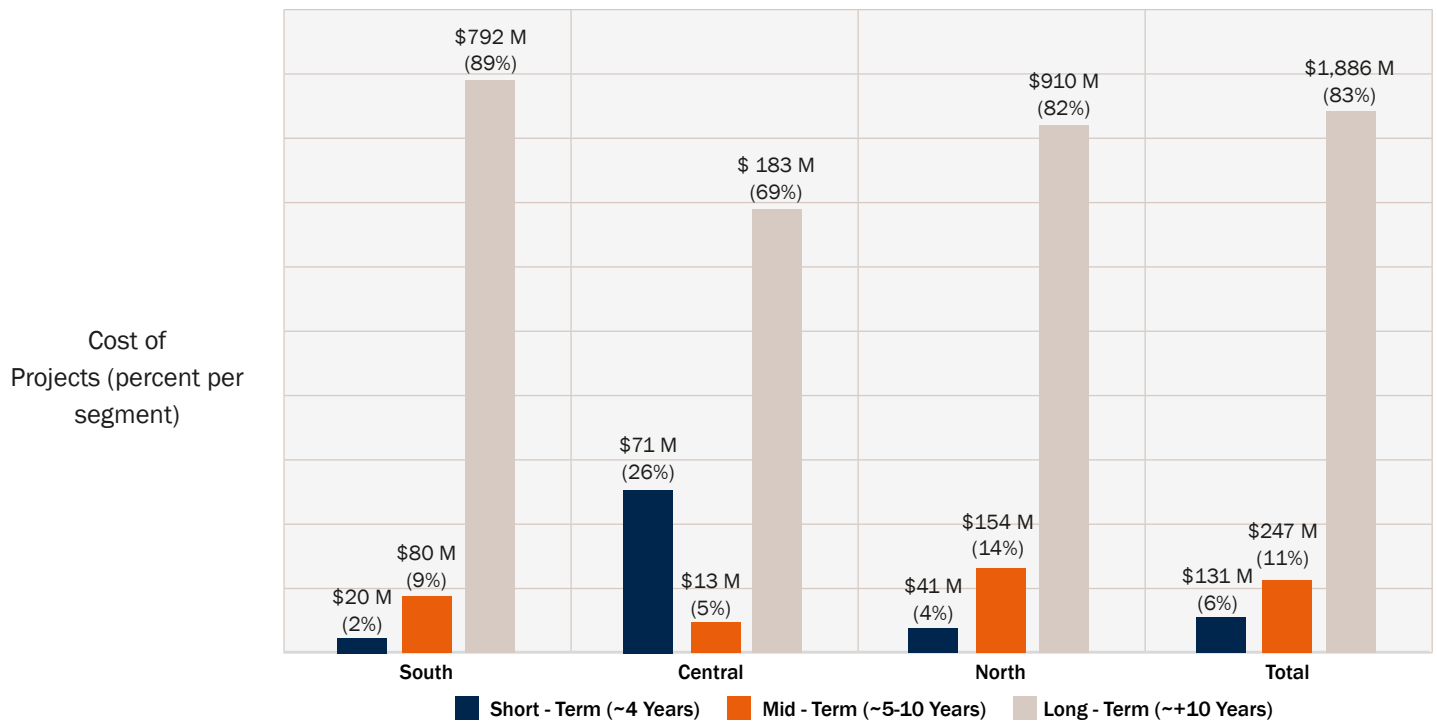


Table 6-3. Count Totals by Proposed Improvement Type and Timeframe

	Short-term (~4 years)	Mid-term (~5-10 years)	Long-term (~+10 years)	Total
Roadway Improvement	0	0	19	19
Intersection Improvement	28	7	8	43
Multimodal Improvement – Pedestrian/Bike	11	4	1	16
Multimodal Improvement – Truck	0	1	2	3
Multimodal Improvement – Transit	2	0	1	3
Bridge Improvement	3	2	3	8
Safety Improvement	13	4	14	31
ITS Improvement	11	5	6	22
Route Study	3	0	1	4
Grand Total	71	23	55	149

Table 6-4. Cost Totals by Proposed Improvement Type and Timeframe (in million dollars)

	Short-term (~4 years)	Mid-term (~5-10 years)	Long-term (~+10 years)	Total
Roadway Improvement	\$0 M	\$0 M	\$1,434 M	\$1,434 M
Intersection Improvement	\$20 M	\$16 M	\$170 M	\$206 M
Multimodal Improvement – Pedestrian/Bike	\$11 M	\$113 M	\$3 M	\$127 M
Multimodal Improvement – Truck	\$0 M	\$32 M	\$69 M	\$101 M
Multimodal Improvement – Transit	\$1 M	\$0 M	\$0 M	\$1 M
Bridge Improvement	\$1 M	\$39 M	\$44 M	\$84 M
Safety Improvement	\$84 M	\$42 M	\$154 M	\$280 M
ITS Improvement	\$10 M	\$5 M	\$9 M	\$24 M
Route Study	\$5 M	\$0 M	\$2 M	\$6 M
Grand Total	\$131 M	\$247 M	\$1,866 M	\$2,264 M

7 Funding Opportunities



TxDOT can leverage federal, state, and other resources to fund improvements that align with its priorities and address the unique needs of the state's transportation system. This chapter reviews potential funding opportunities for improvements along the US 377 corridor. Available funding for the US 377 Texas Corridor Study was drawn from TxDOT's 2025 UTP, with a projected capacity of \$936.8 million for the US 377 corridor from 2025 to 2052, based on long-term planning forecasts. The availability of funding plays a crucial role in implementing improvements identified through the planning studies. Funding for such improvements can be found through various resources within the state. These resources fall under four major groups:

1. The State Highway Fund
2. Federal Fuel Tax
3. Proposition 1 – Oil and Gas Tax Revenue
4. Proposition 7 – General Sales Tax, Motor Vehicle Sales Tax, and Rental Tax

Table 7-1 illustrates all the major funding sources by project type and available uses as enumerated in the *Transportation Funding in Texas* report.

Table 7-1. Funding Sources by Project Type

Funding Sources	Project Type							
	Highways (Non-Tolled)	Highways (Tolled)	Rail (Passenger)	Rail (Freight)	Transit (Public)	Aviation (Public)	Ports (Outside Gates)	Ports (Inside Gates)
Proposition 1 Funds	√							
Proposition 7 Funds	√							
State Highway Fund (Dedicated)	√	√						
Texas Mobility Fund	√		√		√	√	√	
State Highway Fund (Non-Dedicated)	√	√	√	√	√	√	√	
General Revenue	√	√	√	√	√	√	√	√

Source: TxDOT Transportation Funding in Texas, January 2025

Project development activities may be funded through TxDOT's three major stages of project authorization: PLAN Authority, DEVELOP Authority, and CONSTRUCT Authority. PLAN Authority corresponds to project development outside the 10-year UTP and supports TxDOT's long-range transportation planning efforts such as corridor and route studies. Develop Authority can be used to advance corridor projects into preliminary engineering and schematic design within years 5 to 10 of the UTP. This phased approach enables projects to continue progressing even when UTP Category 1 to 12 construction funding is not yet available, helping maintain momentum and ensuring they are prepared for future funding opportunities. Construct Authority is granted for projects within years one to four of the current UTP – the projects in this timeframe are listed in the Statewide Transportation Improvement Program (STIP).

In addition to UTP, alternative funding and financing tools could also support the implementation of the proposed improvements. Districts may leverage other financial tools, including loans, grants, and alternative financing mechanisms to secure funding for transportation projects.

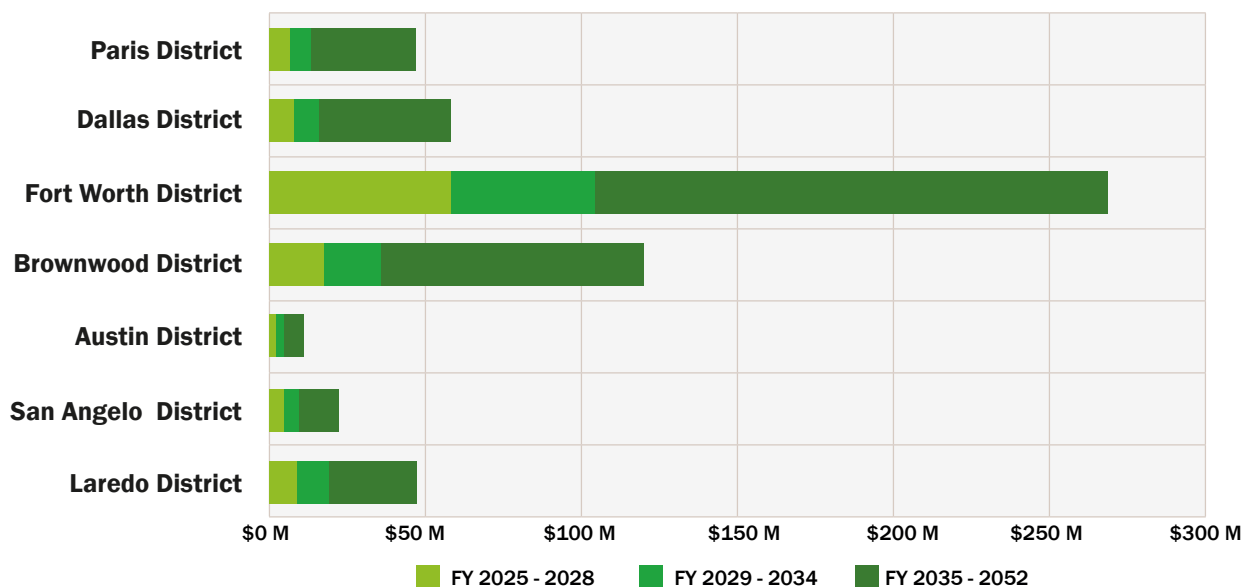
7.1 Funding Options for the US 377 Corridor Improvements

The implementation of corridor plans, including the US 377 corridor, relies on federal and state funding sources, including the UTP. TxDOT's UTP is organized into 12 funding categories, each designed to support specific project types or eligible activities. Some categories fund individual projects directly through project-specific funding, while others are distributed by formula to TxDOT districts or divisions as allocation-based funding. The districts and divisions are then responsible for selecting and programming projects within their areas. The 12 funding categories are:

- Category 1: Preventive Maintenance and Rehabilitation
- Category 2: Metropolitan and Urban Area Corridor Projects
- Category 3: Non-Traditionally Funded Transportation Projects
- Category 4: Statewide Connectivity Corridor Projects
- Category 5: Congestion Mitigation and Air Quality Improvement
- Category 6: Structures Replacement and Rehabilitation (Bridge)
- Category 7: Metropolitan Mobility and Rehabilitation
- Category 8: Safety
- Category 9: Transportation Alternatives Set-Aside Program
- Category 10: Supplemental Transportation Programs
- Category 11: District Discretionary
- Category 12: Strategic Priority

To estimate the potential funding available for the US 377 Texas Corridor Study, TxDOT's 2025 UTP projections for FY 2025 through FY 2034 were extended through FY 2052, with revenue for years 2035 to 2052 increased by 2% annually. Funding allocations for each TxDOT district and local planning agency along the US 377 corridor were determined using UTP estimates, with districtwide or MPO-wide funding distributed based on the DVMT of the US 377 corridor relative to the overall DVMT of the district or MPO. This methodology is an estimate of funding that may be allocated to US 377 but does not represent any actual funding tied to specific improvements along US 377. Based on these allocations, the estimated funding for TxDOT districts and local planning agencies is shown in Figures 7-1 and 7-2. For TxDOT districts, the projected funding is \$565.0 million (UTP categories 1, 3, 4, 10, and 11), while funding for local planning agencies is estimated at \$371.8 million (UTP categories 2, 5, 7, and 9), resulting in a combined total of \$936.8 million, based on the extended forecasts from FY 2025 to FY 2052.

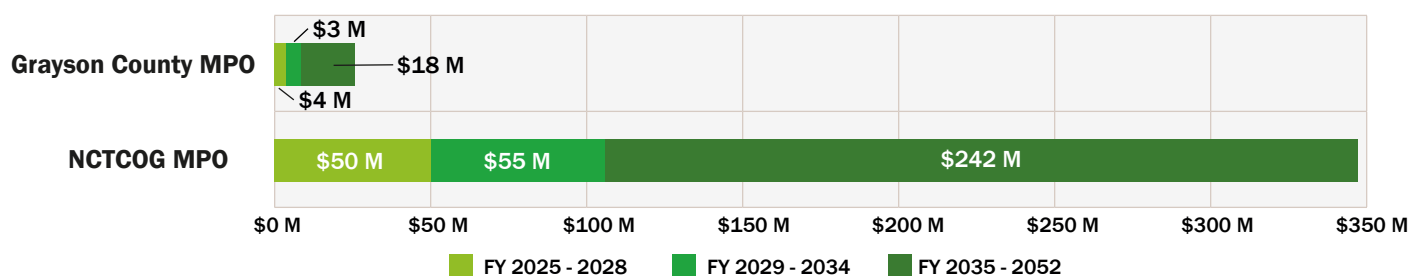
Figure 7-1. UTP Funding Summary for the US 377 Corridor by Districts (in millions of dollars)



US 377 Districts	FY 2025-2028	FY 2029-2034	FY 2035-2052
Paris District	\$7.8 M	\$8.3 M	\$31.3 M
Dallas District	\$10.0 M	\$10.1 M	\$37.3 M
Fort Worth District	\$58.5 M	\$44.7 M	\$166.7 M
Brownwood District	\$18.9 M	\$20.8 M	\$78.5 M
Austin District	\$0.9 M	\$0.9 M	\$3.5 M
San Angelo District	\$3.2 M	\$3.6 M	\$13.3 M
Laredo District	\$7.8 M	\$8.1 M	\$30.6 M

US 377 Districts	FY 2025 – 2028	FY 2029 – 2034	FY 2035 – 2052
Categories 1, 3, 4, 10 and 11	\$107.2 M	\$96.6 M	\$361.2 M

Figure 7-2. UTP Funding Summary for the US 377 Corridor by Local Planning Agencies (in millions of dollars)



US 377 Districts	FY 2025 – 2028	FY 2029 – 2034	FY 2035 – 2052
Categories 2, 5, 7 and 9	\$53.6 M	\$58.8 M	\$259.5 M

Funding from categories 6, 8, and 12 is not included in the estimates above, as these categories are allocated at the statewide level. Category 6, which covers bridge replacement and rehabilitation, is estimated to receive \$14.9 billion between FY 2025 and FY 2052. Category 8, which supports safety projects, is estimated to receive \$11.9 billion during the same period. Category 12, for strategic priority projects, is expected to receive \$58.9 billion between FY 2025 and FY 2052. While these funds are allocated statewide, it is possible that some of this funding could be directed toward improvements on US 377.

The implementation plan serves as a strategic planning tool to guide TxDOT—particularly the seven districts along the US 377 corridor—to plan, design, fund, and construct future improvements. While the proposed improvements in the implementation plan are not yet funded, they are intended to become candidate projects for district consideration. Once identified, these projects would enter TxDOT’s standard project development process, where they would compete for funding through the UTP process.

7.2 Alternative Funding Options for US 377 Corridor Improvements

To supplement UTP funding, districts may also leverage various financial tools to secure and optimize the resources for transportation projects. These tools include loans, grants, and alternative financing mechanisms. State and federal-level programs, such as the Surface Transportation Program (STP), and the Highway Safety Improvement Program (HSIP), offer additional opportunities to support project implementation. TxDOT can also explore a broad range of additional funding sources, including:

- American Rescue Plan Act
- Better Utilizing Investments to Leverage Development (BUILD) Discretionary Grant Program
- Grant Anticipation Revenue Vehicle (GARVEE) bonds
- Infrastructure for Rebuilding America (INFRA) Grants
- Local Capital Programs
- Local registration fees revenue
- Private activity bonds
- State Infrastructure Bank (SIB) loans
- Surface Transportation Block Grant (STBG) Program
- Transportation Infrastructure Finance and Innovation Act (TIFIA)

In addition, certain grant programs may be especially applicable for specific types of projects along the corridor. For example, improvements related to trucking or truck infrastructure may qualify for funding through the National Highway Performance Program (NHPP), the National Highway Freight Program (NHFP) and the Congestion Mitigation and Air Quality (CMAQ) Improvement Program.

Similarly, transit-related recommendations may be eligible for support through TxDOT funding Categories 5 (congestion mitigation and air quality improvement) and 7 (metropolitan mobility and rehabilitation), as well as several grant programs administered by the Federal Transit Administration (FTA).

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8

Emerging Technologies



This chapter concludes the US 377 Texas Corridor Study report by reviewing the impacts of emerging technology. Emerging technologies are expected to enhance efficiency and mobility along the US 377 corridor by 2050. A shift toward optimizing operational throughput rather than expanding the number of roadway lanes exemplifies anticipated trends. Four key advancements will drive transportation progress: data analytics for traffic and emergency response, connected vehicles (CVs), automated driving technologies and electric vehicles (EVs), and alternative-fuel vehicles.

8.1 Technology Impacts on the US 377 Corridor

Emerging technologies are expected to significantly reshape freight and passenger mobility along the US 377 corridor by 2050. Four key emerging technologies have been identified as particularly transformative: ITS analytics for traffic and emergency response, CVs, EVs, and alternative-fuel vehicles.

Technological innovation has continuously reshaped the transportation landscape, from the internal combustion engine and air travel to the development of surfaced roads, transit systems, and modern trucking. A shift toward optimizing traffic flow—through operational enhancements that maximize the traffic throughput rather than additional lanes—exemplifies this change. Advancements in wireless connectivity, autonomous vehicles, and the growing adoption of EVs are accelerating this next phase of innovation in transportation infrastructure.

These technological developments have the potential to significantly reshape how transportation challenges are addressed in the future. Looking ahead, the advancements will continue to enhance system safety, reduce congestion, and improve reliability. The following emerging technologies represent key components of the evolution:

- **Analytics for Traffic and Emergency Response:** ITS and other data sources have significantly expanded in volume and utility. Innovations include dashboard cameras detecting roadside hazards, mobile devices that automatically alert emergency medical services (EMS) during crashes, and vehicle trace data providing precise location information every three seconds. This data can enable real-time detection of hard braking, swerving, or wrong-way driving, supporting diverse applications as the transportation industry advances real-time analytics.
- **Connected Vehicles:** CVs use technology to communicate with other vehicles, infrastructure, and external networks. These systems enable features like intelligent speed assistance (ISA), which changes a car's speed based on digital mapping data, and remote vehicle diagnostics.
- **Automated Driving Systems:** Autonomous Vehicles (AV)s navigate with minimal or no human input, often featuring self-parking, adaptive cruise control, and lane-keeping assistance. These technologies enhance vehicle control, reduce driver workload, and represent incremental steps toward fully autonomous driving.
- **Electric Vehicles and Alternative Fuels:** EVs are powered either partially or entirely by electricity, offering reduced emissions and increased energy efficiency. Alternative-fuel vehicles run on non-traditional fuels such as hydrogen, biofuels, or natural gas.
- **Broadband:** Fiber optics, cellular connectivity, and other broadband technologies enable high-capacity internet and telecommunications, supporting near-instant communication for transportation applications.

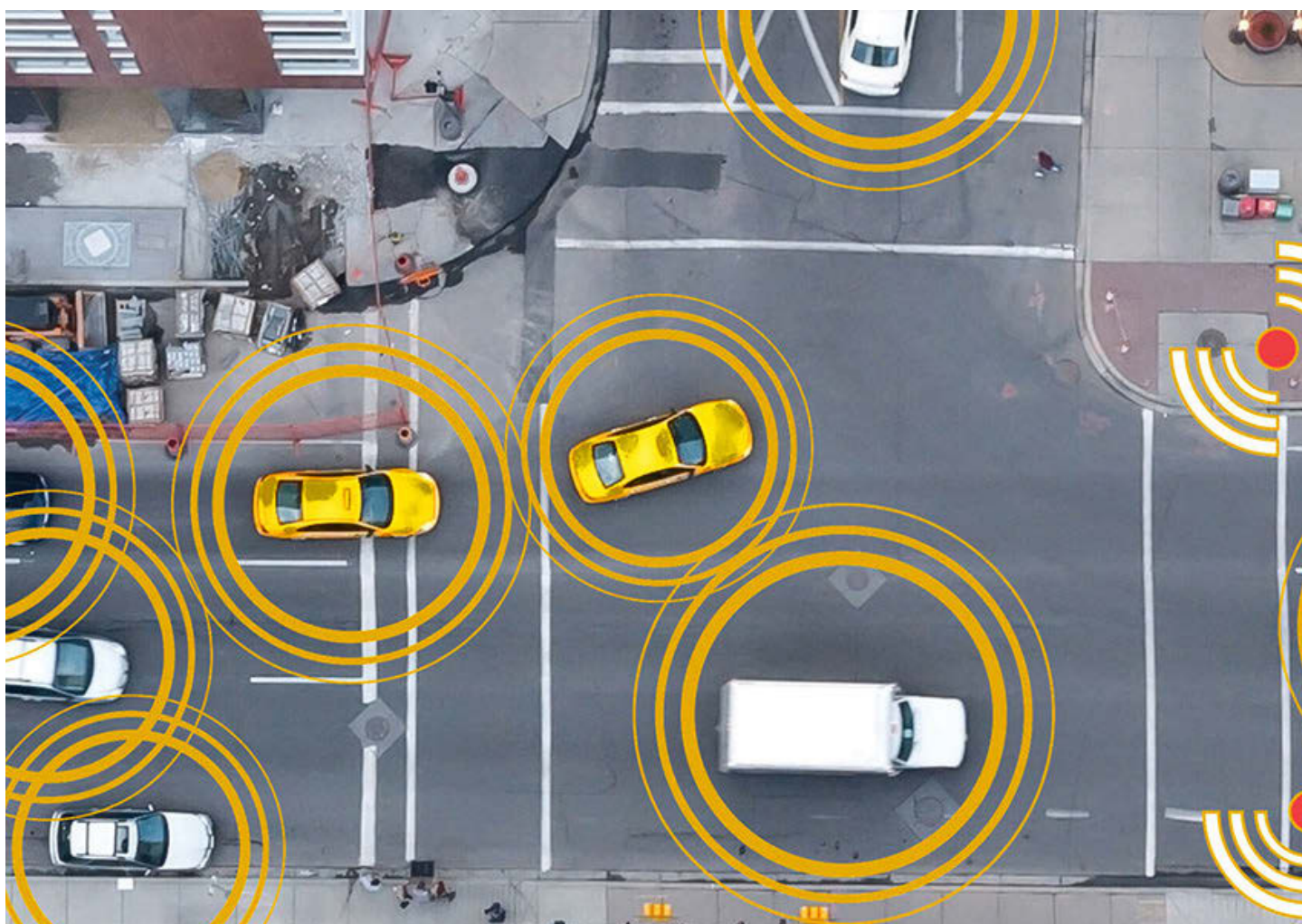
8.1.1 Analytics for Traffic and Emergency Response

Analytics for Traffic and Emergency Response	
Opportunities:	Risks:
▪ Real-time Traveler Information – Crowd sourced travel data from Original Equipment Manufacturers (OEM)s, dashboard cameras, and cellular devices can be used to improve navigation systems and improve congestion management. ▪ Vehicle Trace Data – Highly accurate positional data detects hard braking, swerving, and wrong-way driving, supporting enforcement and planning to prevent incidents. ▪ Crash Detection and Response – Immediate crash alerts (e.g., iPhones detecting a potential crash or vehicle data) enable faster emergency assistance. ▪ Expanded In-vehicle Video Technology – Dashcams and Advanced Driver Assistance Systems (ADAS) cameras detect wildlife, crashes and other hazards, improving road safety and infrastructure monitoring. ▪ Artificial Intelligence (AI)-driven Insights – AI and enhance computer power improve predictive analysis for weather emergencies, crashes, and response planning, with real-time reporting of road conditions and localized issues. ▪ Drone-Assisted Emergency Response – drones collect data, detect crashes, transport medical supplies, and provide real-time emergency response	▪ Data privacy Concerns – Drone and OEM data collection may raise stakeholder concerns about privacy invasion. ▪ Cybersecurity Vulnerabilities – Reliance on new technology may pose a potential risk of hacking or data breaches. ▪ Over-reliance on Automation – Dependence on AI-driven alerts could lead to challenges if systems fail or malfunction. ▪ Integration Complexities – Coordinating new technologies with existing traffic management systems may cause conflicts, requiring better data standardization. ▪ Misuse of Data – Incomplete or inaccurate data could lead to flawed analysis and ineffective responses. ▪ Limited Accessibility in Rural Areas – Advanced systems may face challenges in coverage and effectiveness in remote locations.



8.1.2 Connected Vehicles

Connected Vehicle	
Opportunities:	Risks:
▪ Improved Travel Information – Vehicle connectivity enhances decision-making for passengers and freight operators. ▪ Speed Regulation – ITS that communicate with other vehicles or stationary devices such as ISA or ADAS technology enables CVs to maintain safe speeds autonomously. ▪ Optimized Traffic Distribution – CVs help transportation agencies balance roadway usage and improve traffic flow. ▪ Enhanced Safety – Uniform travel speeds reduce congestion and mitigate accident risks. ▪ Reduced Need for Expansion – Increased efficiency lessens the need for additional infrastructure or improvements that may require Right-of-Way (ROW).	▪ Privacy Concerns – Extensive data collection raises potential risks related to anonymity and personal information security. ▪ Cybersecurity Vulnerabilities – Cybersecurity concerns may also emerge as systems collect vast amounts of data which could be a lucrative source of information for hackers.



8.1.3 Automated Driving Systems

Automated Driving Systems Opportunities and Risks	
Opportunities:	Risks:
▪ Roadway Safety & Efficiency – Automation may reduce common roadway collisions and minimize congestion by ensuring optimized vehicle spacing. ▪ Rural Fatigue – In rural areas, it may prevent crashes from fatigue and enhance mobility to aging populations and those with disabilities. ▪ Reduced Barriers to Car Ownership – Shared automated vehicles have the potential to lower barriers to car ownership, improving mobility access, particularly for individuals with disabilities. ▪ Address Labor Shortages – Automation can mitigate labor shortages in trucking and logistics sectors by supporting industry operations. ▪ Address Truck Parking – Automation could minimize truck parking demand, as vehicles operate continuously.	▪ Safety Issues – During the transition to mixed road environments, automated vehicles may initially cause more traffic incidents due to challenges in how autonomous and traditional vehicles interact. ▪ Potential Congestion – Automation may contribute to an overall increase in VMT due to potentially having zero-occupant trips, which may contribute to congestion.



8.1.4 Electric Vehicles and Alternative Fuels

Electric Vehicles and Alternative Fuels	
Opportunities:	Risks:
▪ Improved Public Health – Reduced carbon emissions from these technologies improve air quality and public health. ▪ Enhanced Security – Diversifying transportation energy sources beyond traditional gasoline and diesel fuels enhances energy security. ▪ Stable Fuel Prices – Due to the diversification of energy sources and reduced demand for fuel, EVs may help stabilize fuel prices for consumers still reliant on gas-powered vehicles. ▪ Improved Quality of Life – Lower emissions and noise reduction from EVs and alternative-fuel vehicles can enhance urban and residential quality of life.	▪ Challenges to Rural Charging – TxDOT's Texas Electric Vehicle Infrastructure Plan highlight difficulties with implementing charging stations at appropriate ranges for drivers particularly in rural areas. ▪ Adapting to Charger Ranges – Drivers may also face initial difficulties adapting to charging ranges, potentially increasing roadside assistance needs. ▪ Costly Implementation – Diversifying energy requires substantial investments in power supply infrastructure, charging stations, and refueling facilities.



8.1.5 Broadband

Broadband	
Opportunities:	Risks:
▪ Enhanced Communications – Fiber optics and broadband connectivity strengthen existing communications systems allowing for efficient communications. ▪ Support for Advanced ITS Networks – Broadband enhances signals, Dynamic Messaging Signs (DMS), and cameras optimizing traffic flow and safety. ▪ Investment in Scalable Technologies – Addressing current gaps fosters long-term infrastructure growth. ▪ Collaboration and Cost-Sharing – Senate Bill 507 facilitates broadband providers' access to highway ROW, encouraging new partnerships and opportunities for broadband expansion.	▪ Coverage Gaps – Broadband deployment may face obstacles such as environmental barriers in certain areas. ▪ Cost and Funding Concerns – Expanding infrastructure may require significant investment and long-term commitment. ▪ Regulatory Hurdles – Coordination across agencies and private partners can be complex and require significant coordination and planning.



8.1.6 Planning for the Future

While each of these technological advancements has the potential to improve system efficiency across Texas, including along the US 377 corridor, they also highlight the importance of comprehensive long-range planning and strong coordination between public agencies and private stakeholders. To ensure these innovations are implemented safely, cost-effectively, and efficiently, proactive strategies are essential. Without such planning, TxDOT and local agencies may face challenges in scaling these technologies, missing key opportunities to enhance mobility and stimulate economic growth. A strategic, forward-thinking approach to technology adoption helps maximize return on investment while avoiding unintended financial or operational setbacks.

TxDOT's Texas Electric Vehicle Infrastructure Plan (November 2024) illustrates how the agency is actively preparing for the future of transportation. Between 2020 and 2022, the number of registered EVs in Texas nearly tripled, according to the Texas EV registration tool. By investing early, while adoption remains relatively low, TxDOT can evaluate the effectiveness of initial infrastructure deployments and make data-informed adjustments before broader EV use places greater strain on the network.

The plan addresses both opportunities and challenges related to EV charging infrastructure, particularly for passenger vehicles (**Figure 8-1**). However, accommodating heavy trucks and trailers will require more robust charging infrastructure and a greater supply of power. Within the US 377 study area, the study team reviewed existing charging station locations and identified some coverage gaps, some exceeding more than 100 miles between stations.

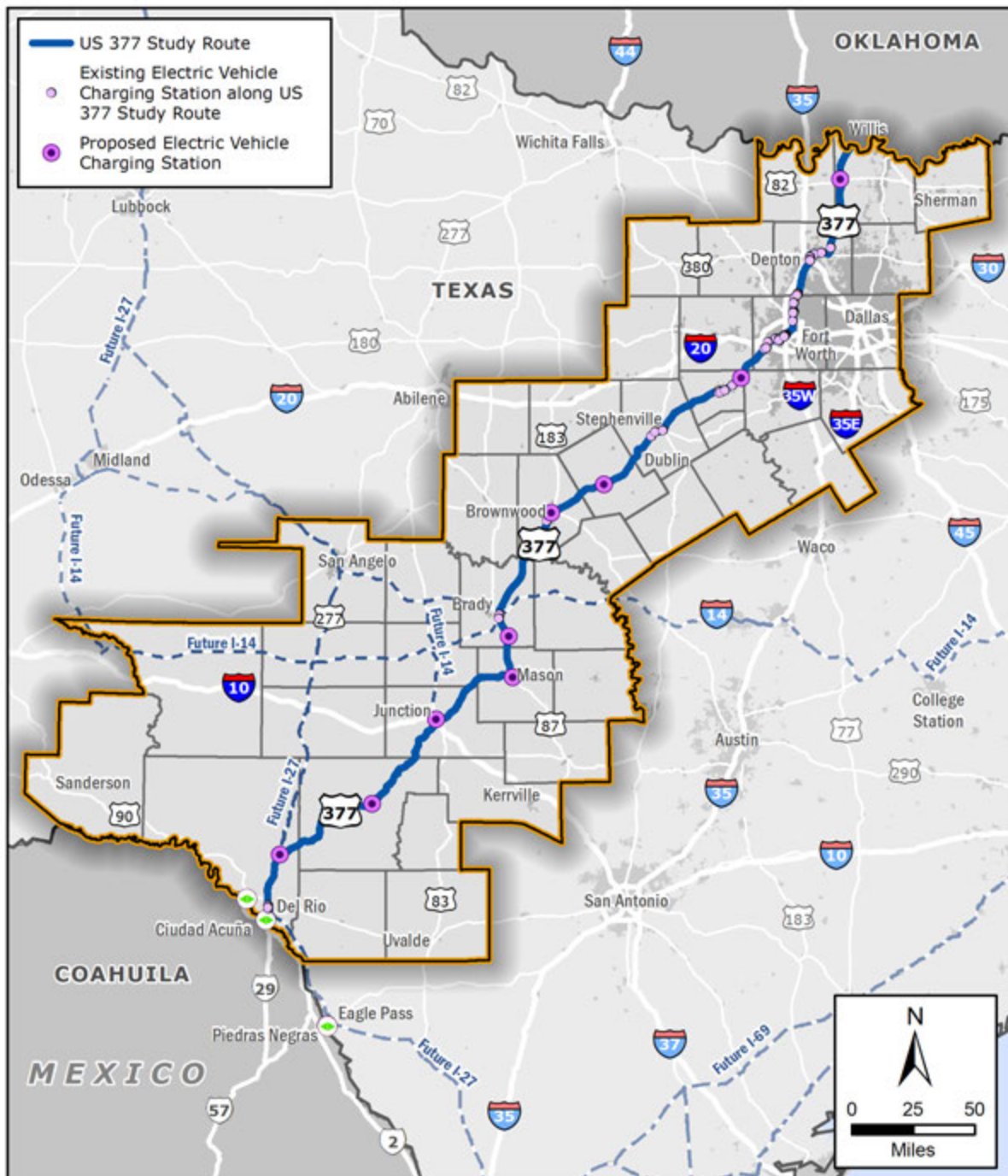
Figure 8-1. Passenger Vehicle Charging



¹⁶<https://ftp.txdot.gov/pub/txdot/get-involved/statewide/EV%20Charging%20Plan/TexasElectricVehicleChargingPlan.pdf>

To align with the EV infrastructure plan’s guidance, which recommends charging stations every 50 miles along Electric Alternative Fuel Corridors and every 70 miles elsewhere, the US 377 corridor proposed further EV charging stations. As such, the study team evaluated proposed EV charging locations and recommended expedited implementation at several key sites, including Rocksprings, Mason, Comanche, and truck parking facilities. Recommended locations include those at the following: the future I-27/US 377 intersection, at I-10/US 377 Near Junction, near the existing rest area, south of Brady, at the intersection of US 183/US 377 near Brownwood, south of Cresson, and at the intersection of US 82/US 377 north of Whitesboro. These, along with current existing charging stations, are illustrated in **Figure 8-2**.

Figure 8-2. Electric Vehicle Charging Locations & Proposed Locations along the US 377 Corridor



Accommodating freight vehicles will require a substantial expansion of charging stations and power supply. Parking shortages for heavy-duty trucks and trailers are already a widespread issue across the U.S. With the rise of battery-electric long-haul trucks, which will require more frequently stops to recharge compared to conventional diesel trucks, these shortages are expected to worsen, further disrupting driving schedules and delivery timelines.

In 2023, TxDOT released the Texas Senate Bill 1308 Study, which examined the potential benefits and impacts of CVs and AVs. The study identified Texas' regulatory landscape as being highly supportive of private industry in advancing and deploying these technologies, with the DFW metroplex being identified as a key hub for CV and AV activity within the state.

TxDOT is well positioned to leverage the technological advancements outlined in this chapter. Its ongoing collaborations with other academic institutions, such as the University Transportation Centers (UTCs), and forward-thinking engagement with private and non-governmental partners place the agency at the forefront of transportation technology planning. Continued deployment, research, and testing efforts lay the foundation for a future-ready, high-performing technology corridor, both within the US 377 study area and throughout Texas.

Appendix A

Study improvement Recommendations



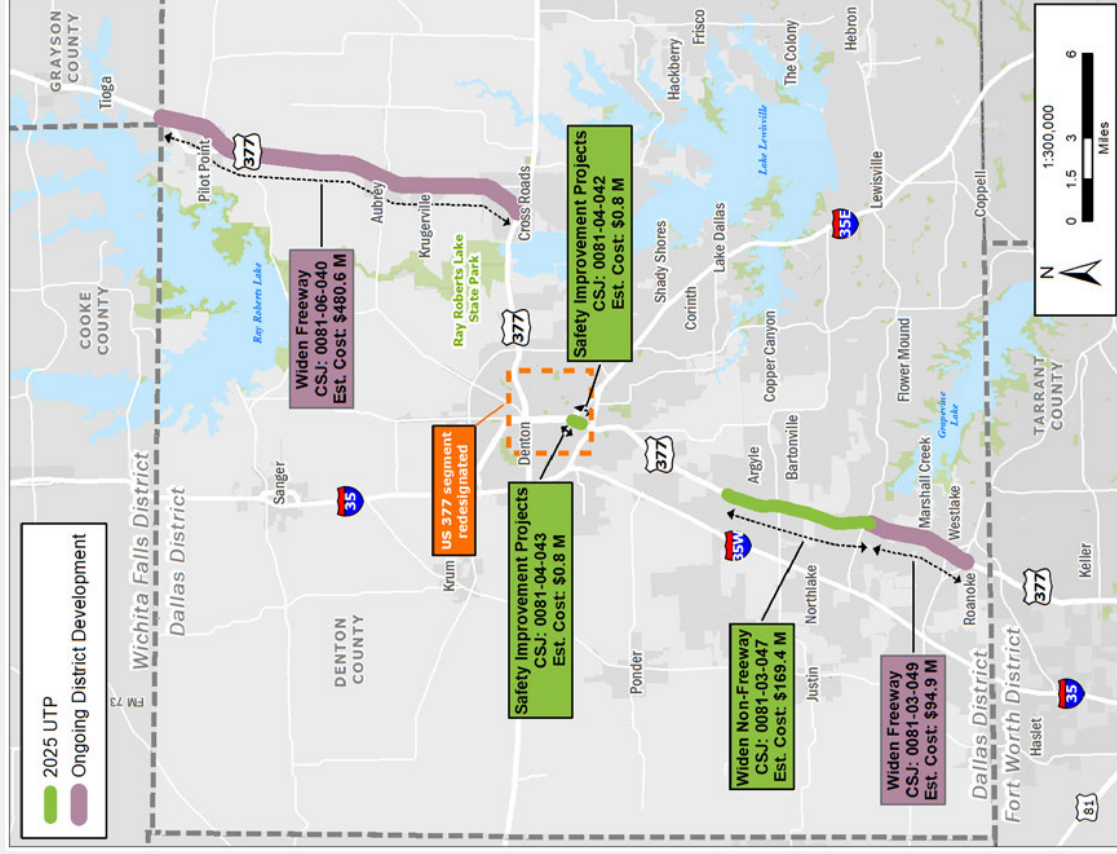


Current Investments and Ongoing District Development Projects Paris District



2025 UTP					
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0081-07-028	Grayson	Safety Improvement Projects	Add LTL	.300 mi S of FM 922 to .3 mi N of McKnight Rd	\$6.6 M
0081-07-031	Grayson	Safety Improvement Projects	Add LTL at FM 121 and Signalize at FM 121 and FM 922	Hinton St to Shawnee Dr	\$4.1 M
0081-07-032	Grayson	Safety Improvement Projects	Safety Lighting	At Emberson Chapel Rd	\$0.05 M

Ongoing Project Development					
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0081-07-025	Grayson	Super-2 Highway	Construct Super 2	SH 56 to Denton County Line	\$12.3 M
TBD	Grayson	Widening to 4 lane divided (Submitted for TPP approval)	Reconstruct and widen 2 lane to divided 4 lane roadway	FM 922 to Denton County Line	TBD

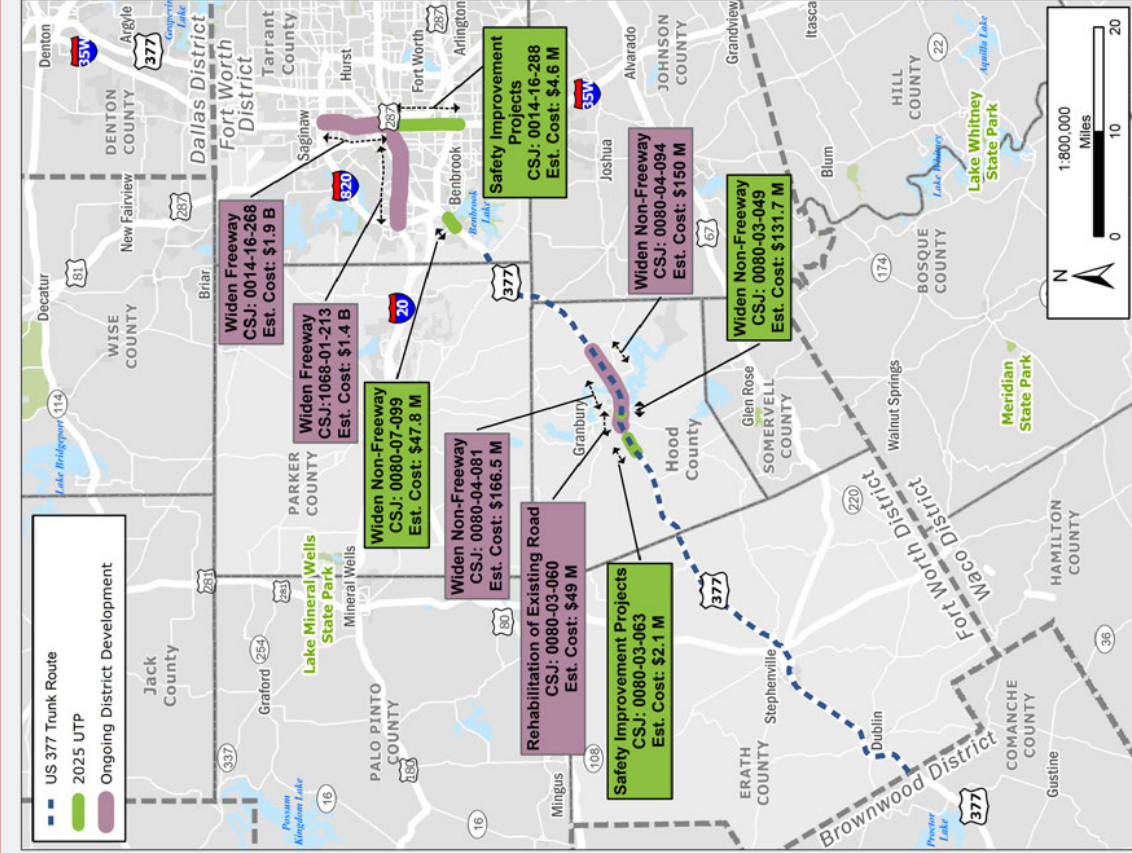


2025 UTP					
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0081-03-047	Denton	Widen Non-Freeway	Reconstruct & widen 2/4 lane roadway to 4 lane divided urban	South of FM 1171 to Crawford Road	\$ 169.4 M
0081-04-042	Denton	Safety Improvement Projects	Rebuild existing traffic signal with ADA compliant curb ramps, intersection safety lighting, permitted protected left turns with flashing yellow arrows, refresh pavement markings and high visibility crosswalks	At Fort Worth Drive to in the City of Denton	\$0.8 M
0081-04-043	Denton	Safety Improvement Projects	Rebuild traffic signal with ADA compliant curb ramps, add pedestrian signal, intersection safety lighting, refresh pavement markings and high visibility crosswalks, install sidewalk	At US 77 in the City of Denton	\$0.8 M

Ongoing Project Development					
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0081-03-049	Denton	Widen Freeway	Reconstruct & widen 2/4 lane roadway to 4 lane divided urban.	SH 114 to South of FM 1171	\$94.9 M
0081-06-040	Denton	Widen Freeway	Reconstruct and widen 2 lane to 6 lane roadway	US 380 to N of BUS 377E	\$480.6 M



Current Investments and Ongoing
District Development Projects
Fort Worth District



2025 UTP

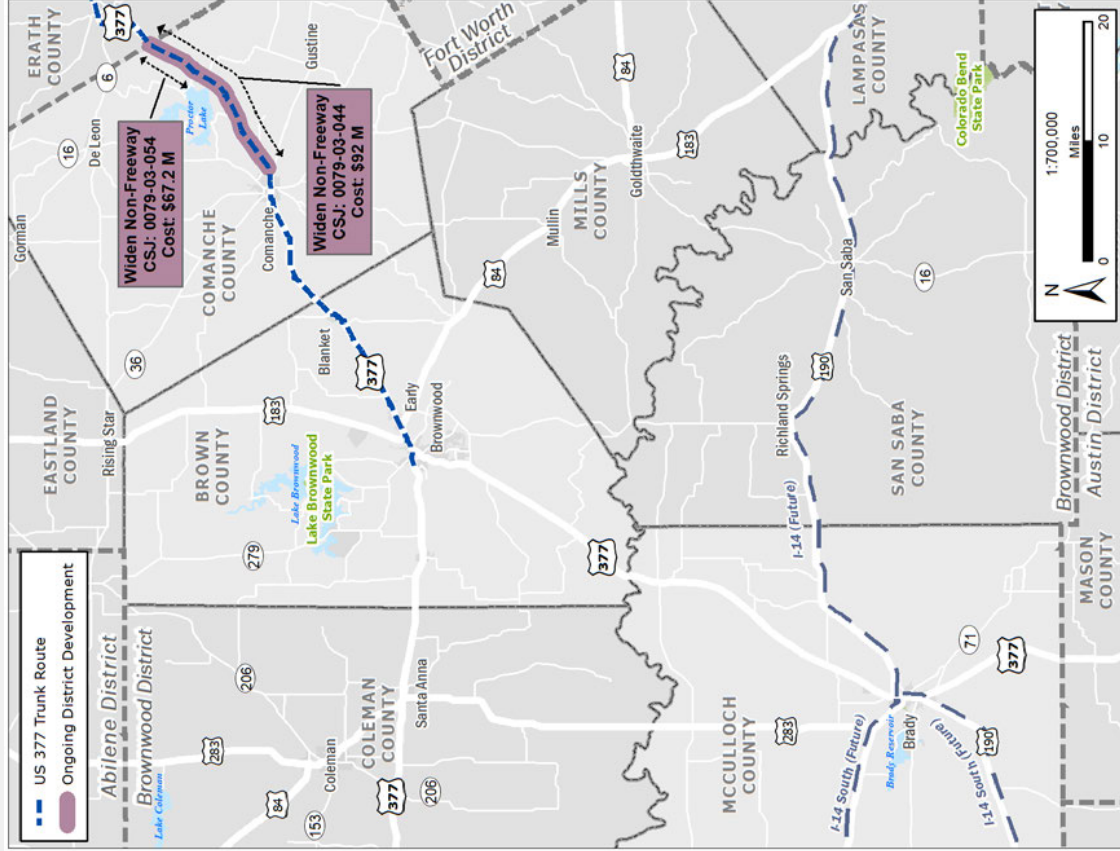
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0014-16-288	Tarrant	Safety Improvement Projects	Adding Pedestrian Deterrent on top of IH 35W Median Barrier	Luella Bridge to 0.2 mi S of Altamesa Bridge	\$4.6 M
0080-03-049	Hood	Widen Non-Freeway	US 377 from Overstreet Blvd to SH 144: widen 4 Ln to 6 Ln divided with 0 to 4 Ln discontinuous frontage roads; and from SH 144 to Pirate Dr: Upgrade from a 4 Ln rural highway to a 4 Ln urban highway; reconstruct SH 144 interchange	Overstreet Blvd to Pirate Dr	\$131.7 M
0080-03-063	Hood	Safety Improvement Projects	Install center left turn and right turn lanes at 3 intersecting local roads (Coke Ct., Meadow Wood Dr., & Knox Rd.)	E of Coke Court to W of Knox Road	\$2.1 M
0080-07-099	Tarrant	Widen Non-Freeway	Reconstruction and widening from 4-lane to a 6-lane roadway with raised median and bike/pedestrian elements	Winscott Rd to S of Stevens Drive	\$47.8 M

Ongoing Project Development

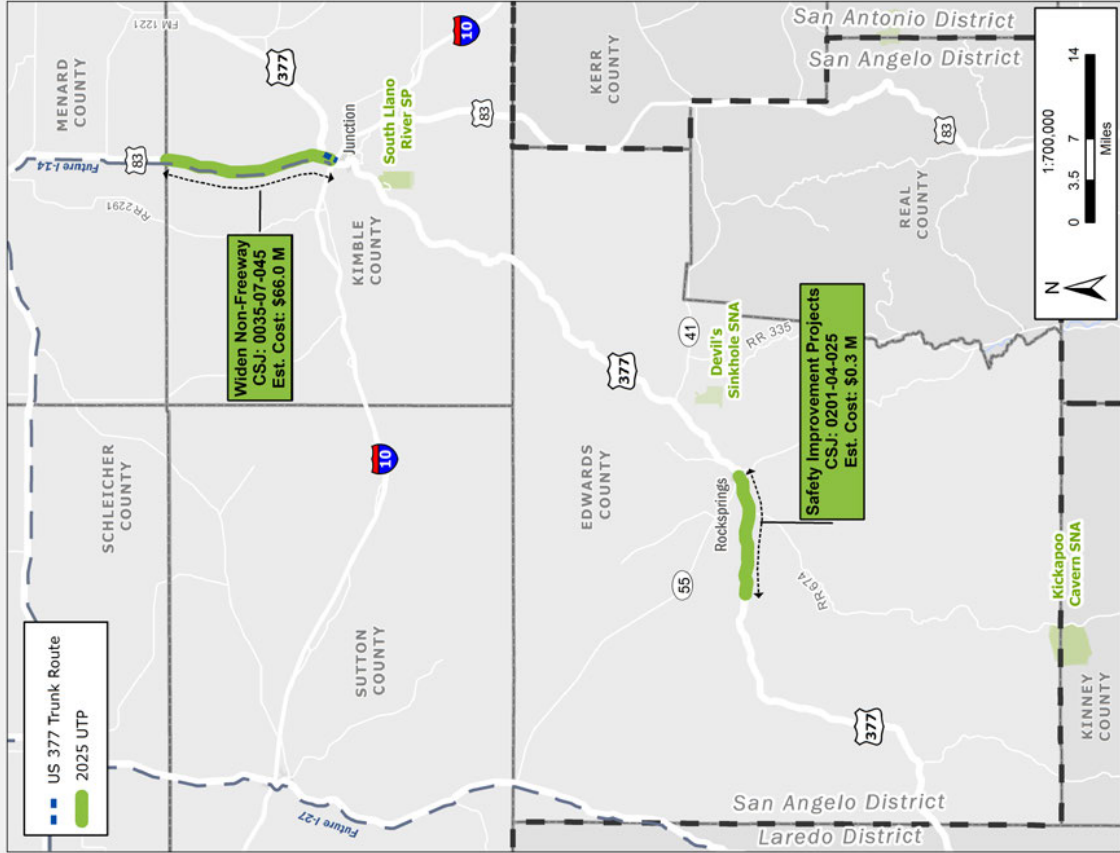
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0080-04-081	Hood	Widen Non-Freeway	Reconstruct and widen 4 lane with continuous center turn lane to 6 lane divided road interchange at BU 377H	FM 4 to Overstreet Boulevard	\$166.5 M
0080-04-094	Hood	Widen Non-Freeway	Reconstruct and widen 4 lane to 6 lane divided with 4 lane transitional section at end; construct 0 to 4 discontinuous frontage road lanes	N of FM 167 (Fall Creek Hwy) to FM 4	\$150 M
0080-03-060	Hood	Rehabilitation of Existing Road	Reconstruct 4 lane rural highway to 4 lane urban highway with interchange at BUS 377H		\$49 M
1068-01-213	Tarrant	Widen Freeway	Widen from 6 to 8 mainlanes and widen frontage road along IH 30 from IH 820 to Camp Bowie Blvd	IH 820 to Camp Bowie Blvd	\$1.4 B
0014-16-268	Tarrant	Widen Freeway	Widen 4 to 8 GP lanes & reconstruct 4/6 DSCNT frontage from IH 820 TO SH 183; widen 6 to 8 GP lanes and widen 4/6 DSCNT TO 4/6 construct frontage lanes from SH 183 TO SH 121; reconstruct 8 to 8 GP lanes & 4 to 4/6 DSCNT frontage lanes from SH 121 TO IH 30	IH 30 to IH 820	\$1.9 B



Current Investments and Ongoing District Development Projects Brownwood District



Ongoing Project Development					
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0079-03-054	Comanche	Widen Non-Freeway	Widen Super-2 roadway to 4 lane divided with depressed median	FM 1476 to Erath County Line	\$67.2 M
0079-03-044	Comanche	Widen Non-Freeway	Widen Super-2 roadway to 4 lane divided with depressed median	.68 mi E of SH 36 to FM 1476	\$92 M



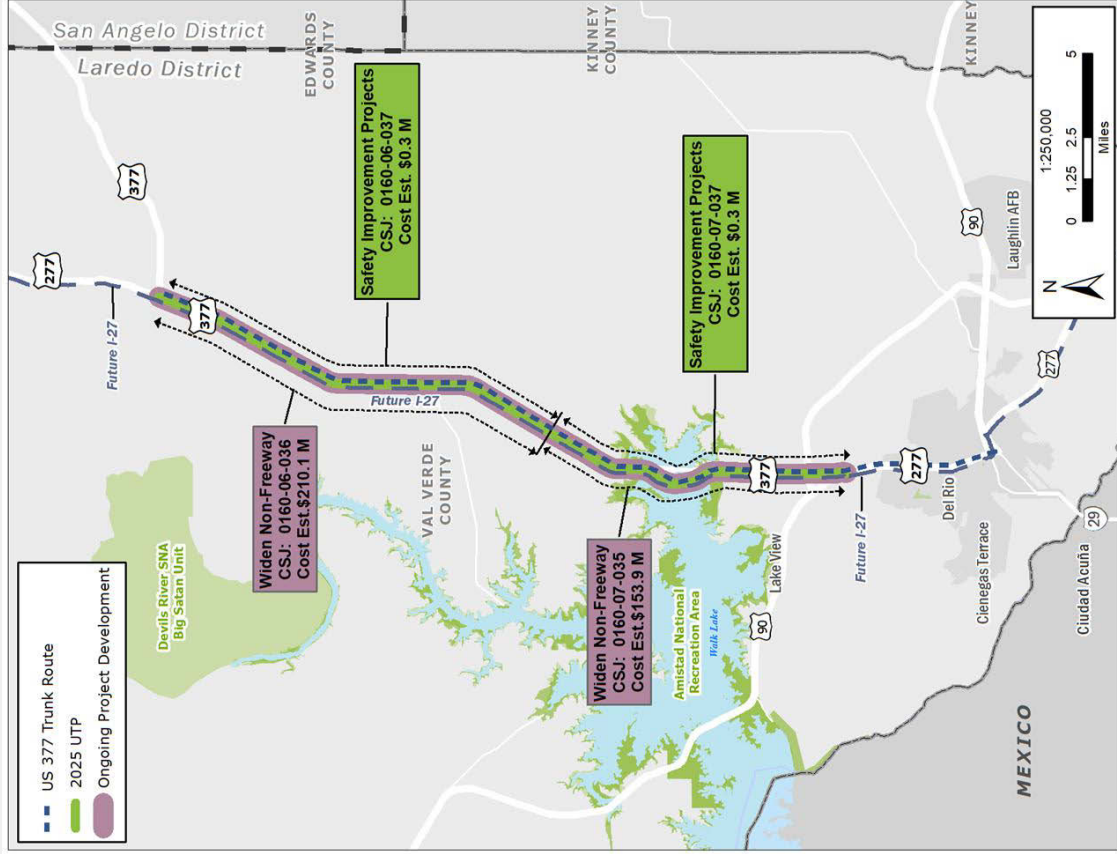
Ongoing Project Development					
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0035-07-045	Kimble	Widen Non-Freeway	Widen to 4 lanes divided	Menard County Line to IH 10	\$66.0 M
0201-04-025	Edwards	Safety Improvement Projects	Safety treat fixed objects	30.3 mi N of Val Verde County Line to SH 55	\$0.3 M



Texas Department of Transportation

Current Investments and Ongoing District Development Projects Laredo District

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2025 UTP					
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0160-06-037	Val Verde	Safety Improvement Projects	Installation of RPM, Centerline Edge Rumble Strips, and up-sizing chevrons	US 377 to 12.724 mi S of US 377	\$0.3 M
0160-07-037	Val Verde	Safety Improvement Projects	Installation of RPM, Centerline Edge Rumble Strips, and up-sizing chevrons	9.306 mi N of US 90 to US 90	\$0.3 M

Ongoing Project Development					
CSJ	County	Project Type	Project Description	Project Limits	Est. Cost
0160-07-035	Val Verde	Widen Non-Freeway	Widen existing roadway to 4-Lane divided (Ports-to-plains)	State Loop 79 (Del Rio) to 9.3 mi N of US 90 S intersection	\$153.9 M
0160-06-036	Val Verde	Widen Non-Freeway	Widen existing roadway to 4-Lane divided (Ports-to-plains)	9.3 mi N of US 90 S intersection to US 377	\$210.1 M

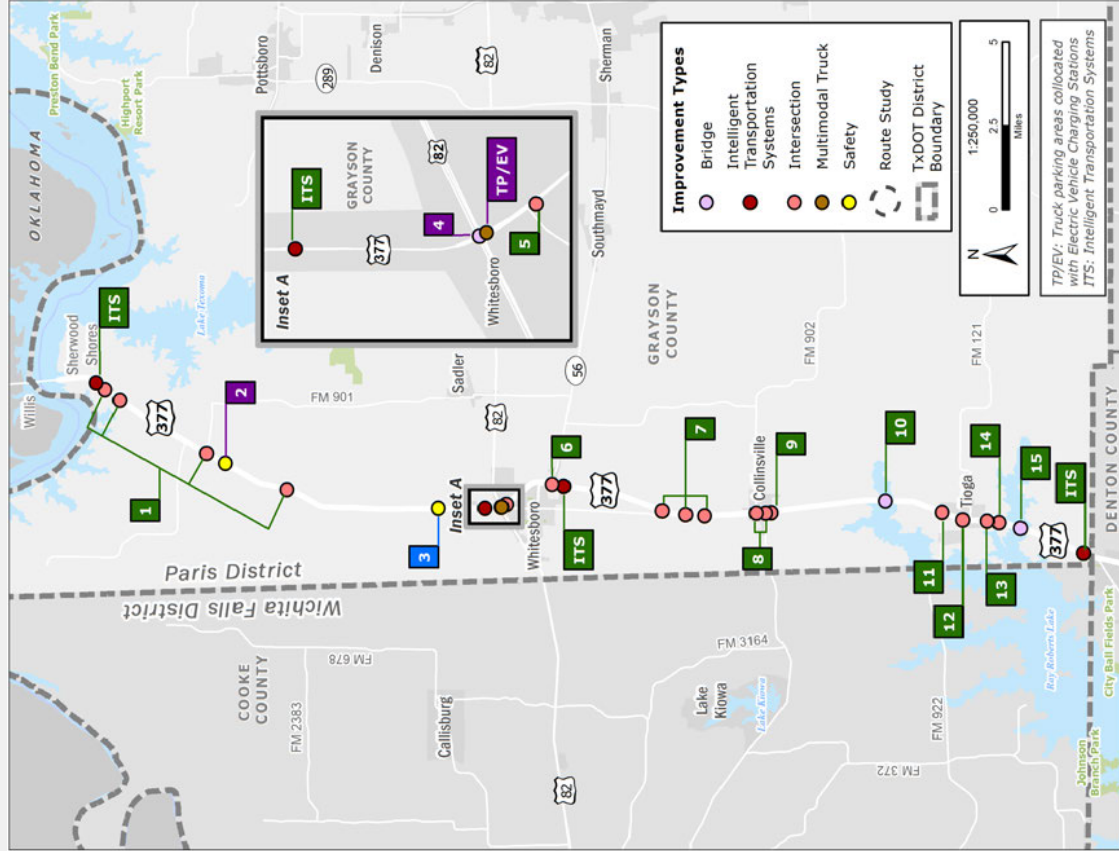


Texas Department of Transportation

US 377 Texas Corridor Study Implementation Plan Paris District



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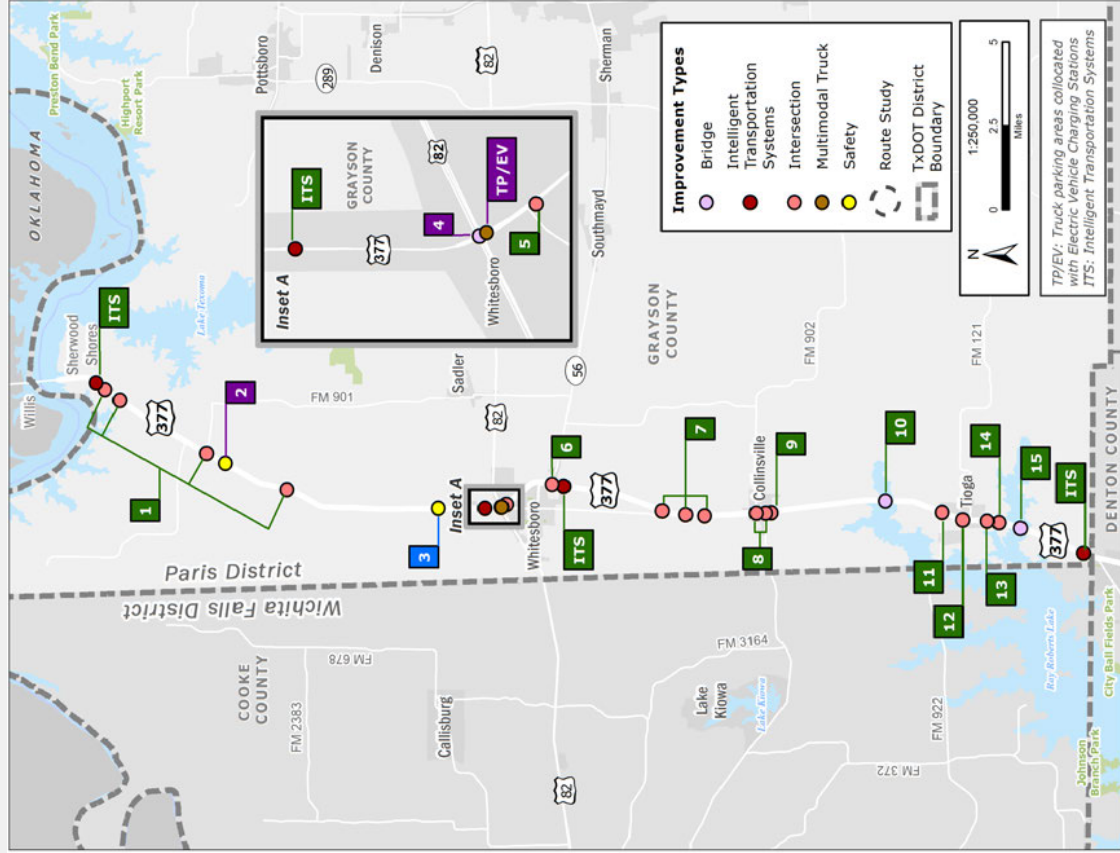


Short Term Proposed Improvements				Est. Construction Cost (2025 \$)
#	County	Location	Description of Work	
1	Grayson	-Entrance to Sandusky RV Resort, S of Sandusky Rd E - FM 901 (Heritage Rd)/US 377, W of Gordonville - Denton Rd/US 377, S of Sherwood Shores - Rose Cir (Briley Rd)/US 377, S of Sherwood Shores	Add turn lanes to enter the Sandusky RV resort Reconfigure intersection geometry Add turn lanes along US 377	\$2.6 M
5	Grayson	BUS 377 (S of US 82)/US 377, N of Whitesboro	Reconfigure the intersection geometry	\$0.1 M
6	Grayson	Locust St/US 377, Whitesboro	Add turn lanes along US 377	\$0.6 M
7	Grayson	- Hollingshead Rd/US 377, N of Collinsville - De Cordova Rd/ US 377, North of Collinsville - BUS 377 (0.53 miles S of Old Center Church Rd)/US 377, N of Collinsville	Add turn lanes for safety Reconfigure intersection geometry to address sightline issues	\$2.0 M
8	Grayson	- W Woodland St/US 377, Collinsville - Locust St/ US 377, Collinsville	Add signals, pedestrian accommodations, and turn lanes	\$5.1 M
9	Grayson	BUS 377 (S Main St)/US 377, Collinsville	Add a northbound right turn lane	\$0.3 M
10	Grayson	Bridge at Lake Ray Roberts, N of Tioga	Install rail to protect bicyclists	\$0.4 M
11	Grayson	US 377 at FM 922	Conduct signal warrant study	\$0.1 M
12	Grayson	BUS 377/Stirrup Rd/US 377, Tioga	Add dedicated turn lanes on US 377 and realign the intersection into a four-leg configuration	\$0.6 M
13	Grayson	BUS 377 (S Donathon St)/US 377, S of Tioga	Add northbound right turn lane	\$0.3 M
14	Grayson	Buck Creek Rd/US 377, S of Tioga	Add turn lanes along US 377	\$0.6 M
15	Grayson	Bridge at Lake Ray Roberts, N of Pilot Point	Install rail to protect bicyclists	\$0.6 M
ITS	Grayson	Systemwide	Deploy next-generation safety technologies— speed, curve warning systems and advanced traffic signals	\$1.8 M (Segment-wide cost)

US 377 Texas Corridor Study Implementation Plan Paris District



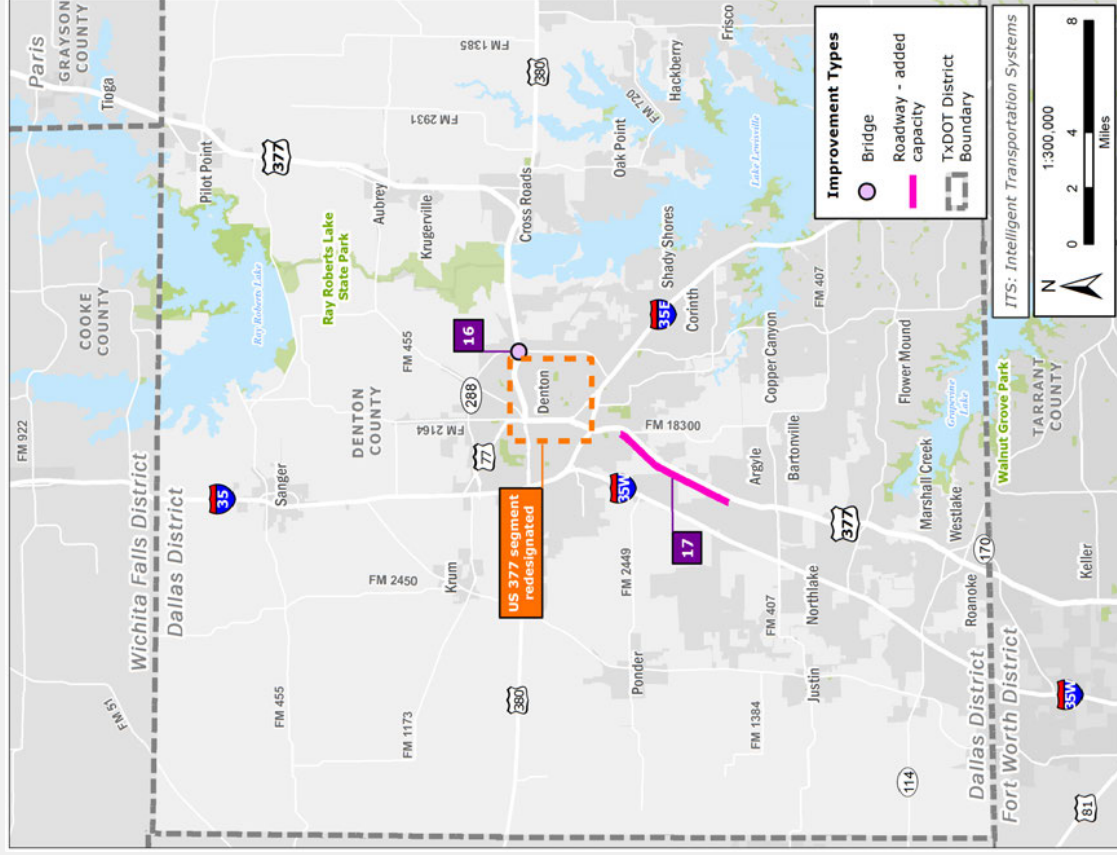
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Mid Term Proposed Improvements				
#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
3	Grayson	Anderson Rd in Whitesboro to Chisum Trail Rd	Widen and add a Two-Way Left-Turn Lane (TWLTL)	\$28.1 M
Long Term Proposed Improvements				
#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
2	Grayson	Chisholm Trail Rd to Hillcrest Cir in Sherwood Shores	Study the feasibility for passing lanes	\$0.3 M
4	Grayson	US 82/US 377, N of Whitesboro	Increase vertical clearance to 18.5' minimum	\$12.5 M
TP / EV	Grayson	Multiple locations in the North Segment: - S of Cresson - US 82/US 377 N of Whitesboro	Truck parking areas	\$36.7 M (Segment-wide cost)



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Long Term Proposed Improvements				
#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
16	Denton	N Loop 288/US 377	Increase vertical clearance to 18.5' minimum	\$ 23.0 M
17	Denton	Crawford Rd/County Club Rd in Argyle to Country Club Rd/James St (2.6 miles S of I-35E)	Widen road from 2 to 4 lanes	\$232.8 M

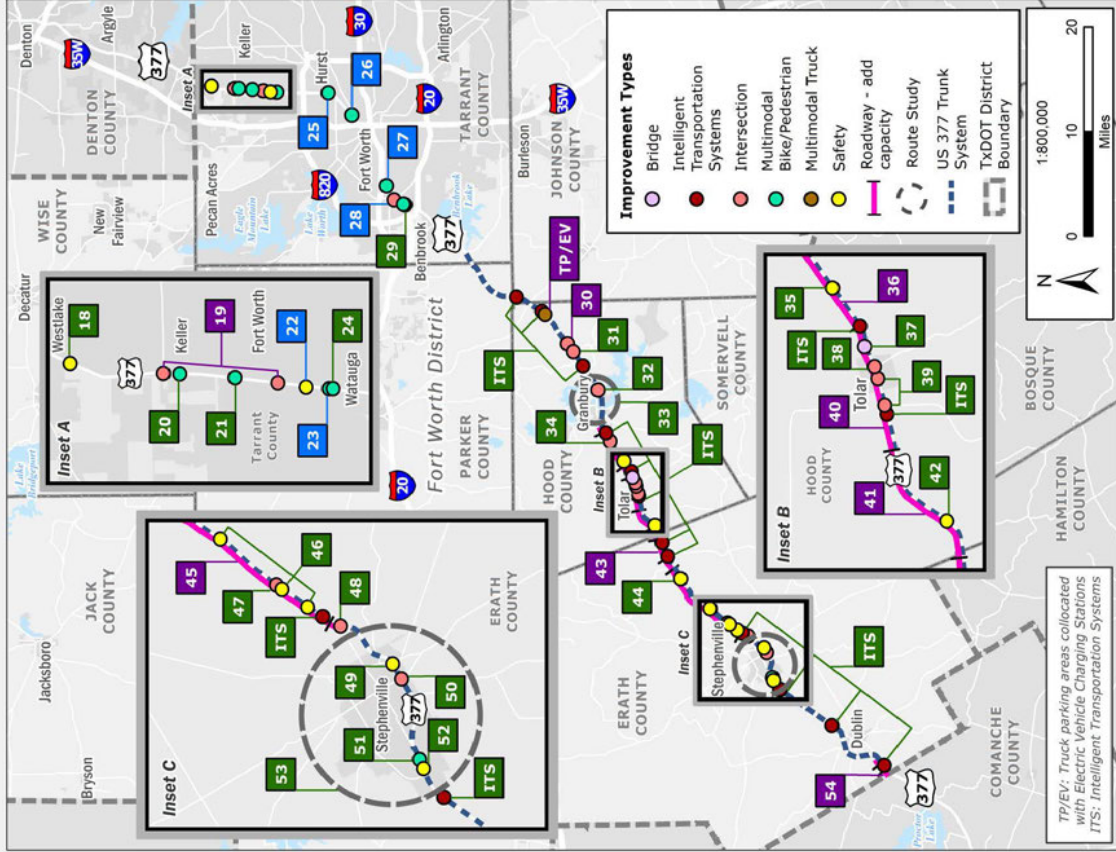


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US 377 Texas Corridor Study Implementation Plan Fort Worth District



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Short Term Proposed Improvements				
#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
18	Tarrant	N of Keller Haslet Rd	Examine area at the cross-culvert that floods regularly	\$0.1 M
20	Tarrant	Apache Trail at US 377, Fort Worth	Create connections between US 377 and the Apache trail	\$0.1 M
21	Tarrant	East side of US 377 from N of Calverley Place to N of Kroger Dr	Fill in gaps in the sidewalks	\$0.7 M
24	Tarrant	Basswood Blvd to S of Starnes Rd, East side of US 377	Fill in gaps in the sidewalks, install curb ramps and crosswalks	\$0.2 M
29	Tarrant	- World Languages Institute access, N of Dahlen St and US 377, Fort Worth - Lyndon Dr/US 377 and Willis Ave/US 377	- Improve crosswalk accessibility - Implement raised median and pedestrian refuges	\$0.11 M
31	Hood	US 377 and Fall Creek Hwy and M Ranch Rd	Add a southbound right turn lane along US 377	\$0.3 M
32	Hood	US 377 at BUS 377 (East Pearl St), Granbury	Modify the northbound merge by converting it into an auxiliary lane that transitions into a turn lane for median U-turns	\$0.01 M
33	Hood	Granbury	Perform a route study around Granbury	\$1.6 M
34	Hood	Meadow Wood Rd	Add turn lanes	\$0.6 M
35	Hood	Riley Ln to S of Knox Rd	Widen shoulders at passing lane to 10' minimum	\$5.0 M
37	Hood	North of Bee Ct, Tolar	Install an over-height vehicle detection system	\$0.1 M
38	Hood	US 377 at SH 56 (Hill City Hwy) in Tolar	Add westbound turn lane	\$0.02 M
39	Hood	- US 377 at FM 2870 in Tolar - US 377 at Tolar Cemetery Rd in Tolar	Conduct signal warrant study	\$0.2 M
42	Hood	South of Campbell Road, between Bluff Dale and Tolar	Widen shoulders at passing lanes to 10' minimum	\$7.2 M
44	Erath	CR 150 to CR 159, S of Bluffdale	Install railroad crossing signage	\$0.1 M
46	Erath	Between Stephenville and Bluff Dale	Widen southbound shoulders at passing lanes to 10' minimum	\$5.0 M
47	Erath	US 377/Pilot Knob Rd	Add turn lanes to address limited sight distance	\$1.2 M

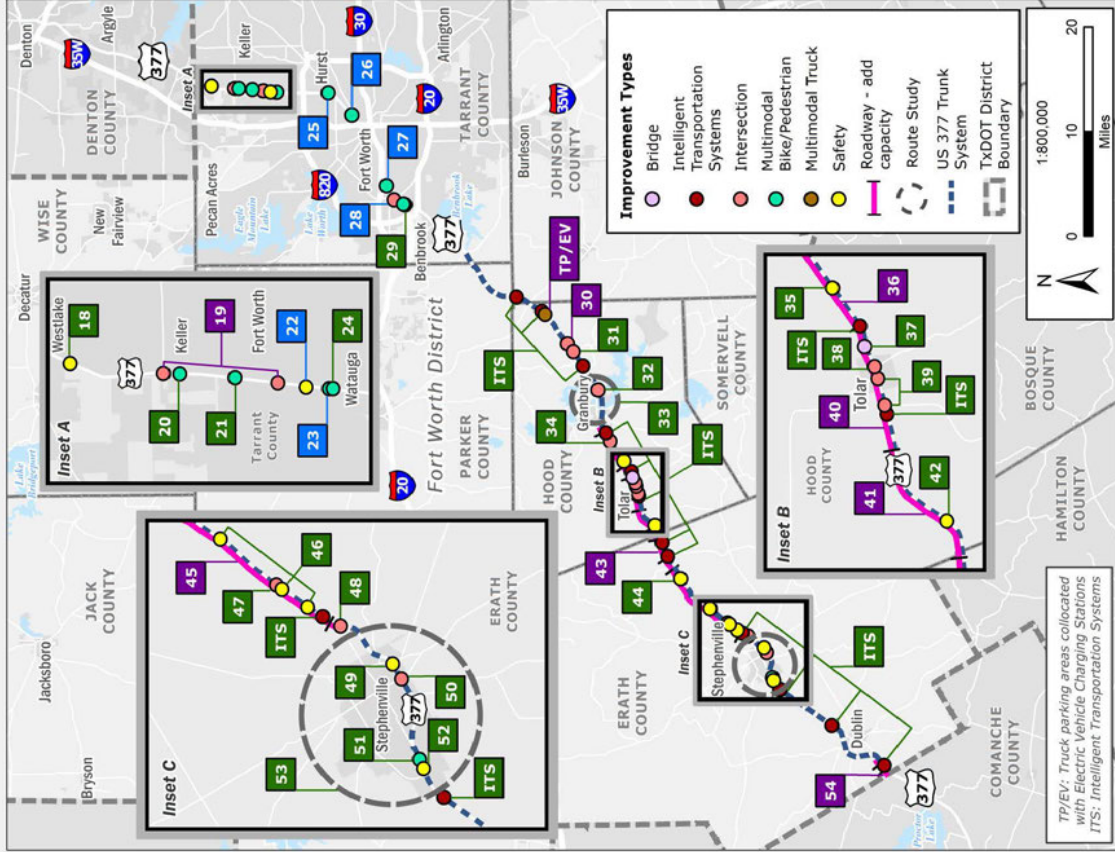


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US 377 Texas Corridor Study Implementation Plan Fort Worth District



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Short Term Proposed Improvements				
#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
48	Erath	BUS 377 /US 377 N of Stephenville	Reconfigure the left turn between US 377 and BUS 377 to enhance the angle and eliminate the separation between eastbound and northbound left movements	\$0.3 M
49	Erath	SH 108 to FM 205, Stephenville	Conduct safety study	\$0.2 M
50	Erath	NB Approach to US 67/ SH 108 Intersection	Widen shoulder at turn lane to 4' minimum	\$0.1 M
51	Erath	Stephenville, from Northwest Loop to BUS 377	Fill in gaps in the sidewalks	\$1.2 M
52	Erath	CR 386 to BUS 377/US 377, Stephenville	Conduct safety study	\$0.2 M
53	Erath	Stephenville	Perform a route study around Stephenville	\$1.6 M
ITS	Johnson, Hood, Erath	Systemwide	Deploy next-generation safety technologies—speed, curve warning systems and advanced traffic signals	\$1.8 M (Segment-wide cost)

Mid Term Proposed Improvements				
#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
22	Tarrant	I-820 to Apache Trail, in Old Town Keller	Install raised median	\$6.4 M
23	Tarrant	SH 183 to SH 170, Haltom City	Fill in gaps in the sidewalks and widen existing sidewalks to develop Shared Use Paths (SUP)	\$19.7 M
25	Tarrant	N Beach St to I-820, Haltom City	Reconstruct to an urban section with pedestrian/bicycles accommodations	\$78.7 M
26	Tarrant	I-35 W to N Beach St, Carter Riverside	Reconstruct and consider modifying to accommodate pedestrian/bicycles	\$11.4 M
27	Tarrant	Lovell Ave to Z Boaz Pl	Improve signage, sidewalks and add audible push buttons at crosswalks	\$3.5 M
28	Tarrant	Benbrook Traffic Cir, Fort Worth	Reconfigure Benbrook traffic circle to a series of smaller roundabouts	\$4.5 M

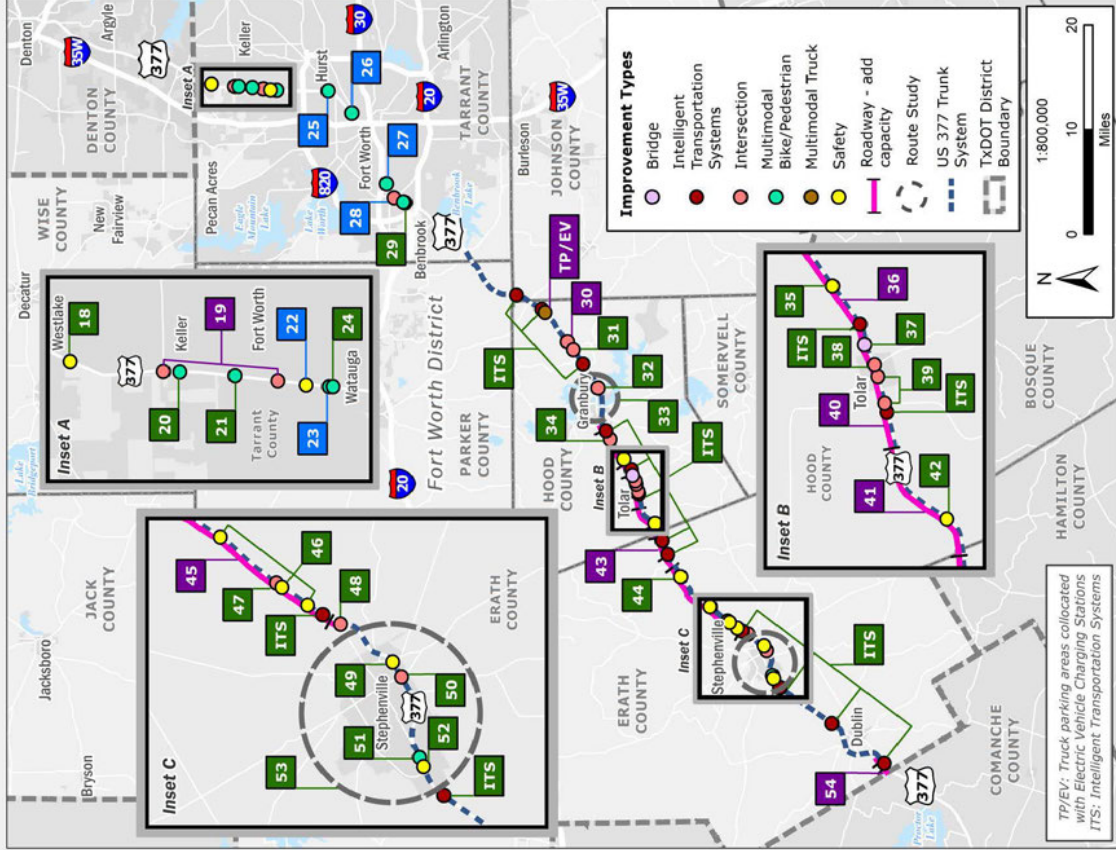


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US 377 Texas Corridor Study Implementation Plan Fort Worth District



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Long Term Proposed Improvements				
#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
19	Tarrant	- US 377 at N Tarrant Pkwy - US 377 at Golden Triangle Blvd/Keller Pkwy	Reconfigure intersection to add grade separation	\$79.3 M
30	Hood	Industrial Ave and US 377, Granbury	Improve intersection, including grade-separated interchange	\$71.1 M
36	Erath	Billings Rd E of Tolar to Holmes Dr W of Granbury	Widen to 4-lane divided section	\$58.4 M
40	Erath	Campbell Rd W of Tolar to Billings Rd E of Tolar	Widen to 4-lane divided section (with alternate route around Tolar)	\$102.8 M
41	Erath	Hood/Erath CL to Campbell Rd W of Tolar	Widen to 4-lane divided section	\$45.8 M
43	Erath	CR 1188 W of Bluff Dale to Erath/Hood CL	Widen to 4-lane divided section	\$94.0 M
45	Erath	BUS 377 in Stephenville to CR 1188 W of Bluff Dale	Widen to 4-lane divided section	\$134.1 M
54	Erath	Comanche/Erath CL to South of S. Patrick St. in Dublin	Widen to 4-lane divided section	\$19.6 M
TP/EV	Hood	Multiple locations in the North Segment: - S of Cresson - US 82/US 377 N of Whitesboro	Truck parking areas	\$36.7 M (Segment-wide cost)

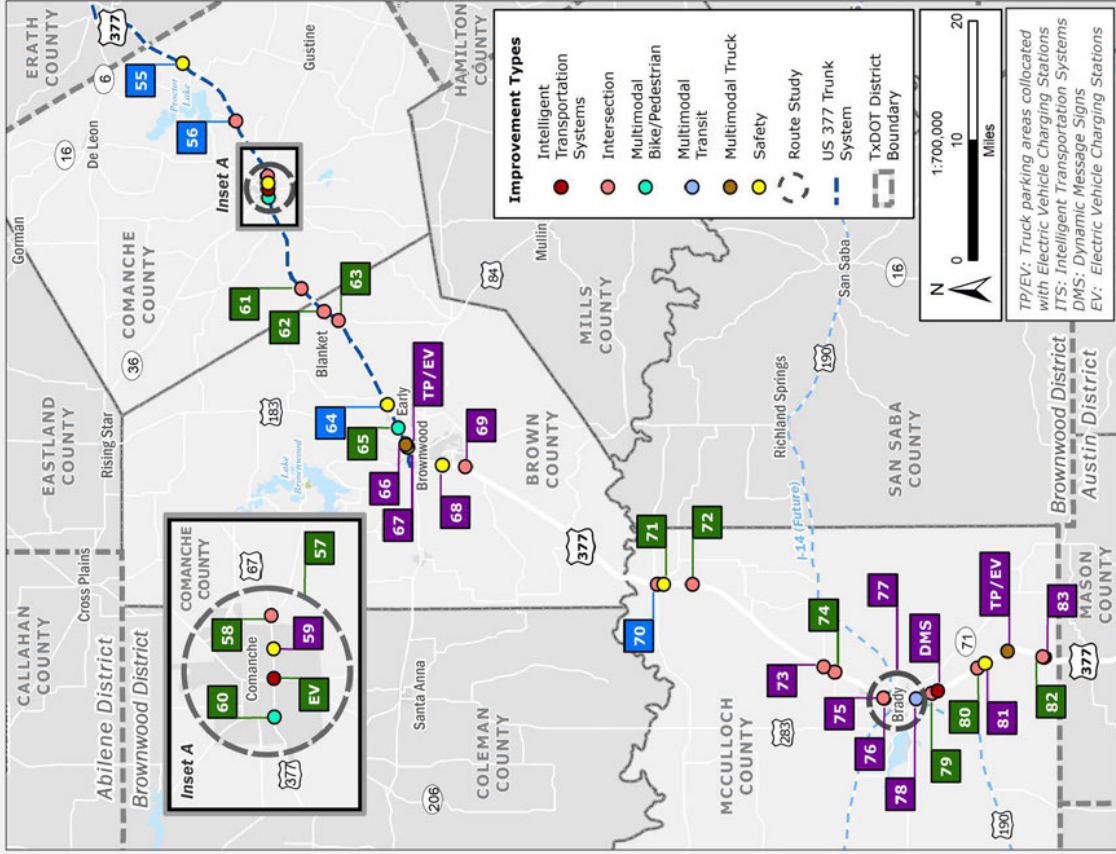


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US 377 Texas Corridor Study Implementation Plan Brownwood District



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Short Term Proposed Improvements

#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
57	Comanche	Comanche	Perform a route study around Comanche	\$1.5 M
58	Comanche	SH 36/US 377, Comanche	Conduct signal warrant study	\$0.1 M
60	Comanche	SH 36/US 377, Comanche	Add signage for pedestrian crossings and ramps	\$0.9 M
61	Brown	CR 147 and US 377	Add turn lanes	\$0.7 M
62	Brown	US 377 and CR 358, Blanket	Relocate the median crossover to align with the cross street	\$0.2 M
63	Brown	Langford Ln/US 377, S of Blanket	Realign Langford Ln approaching US 377	\$0.2 M
65	Brown	US 183/Garmon Dr and US 377, Early	Add sidewalks, pedestrian ramps, and crosswalks	\$0.9 M
71	Brown and McCulloch	Brownwood to Brady	Add passing lanes	\$60.1 M
72	McCulloch	US 377 and CR 454 (Heart of Texas Roadside Park), Bull Branch	Enhance pavement markings, add signage, and extend left turns	\$0.3 M
74	McCulloch	Ranch Rd 1121/US 377, N of Brady	Add turn lanes and improve intersection geometry	\$1.3 M
79	McCulloch	US 87/US 377 and SH 71, S of Brady	Add raised channelizing island	\$0.5 M
80	McCulloch	Entrances to CR 201	Add left turn lane to enter CR 201	\$1.3 M
82	McCulloch	W CR 206/US 377	Add left turn lane	\$0.6 M
EV	Comanche	Mason and Comanche	Expedite studies for EV charging stations	\$1.8 M (Segment-wide cost)

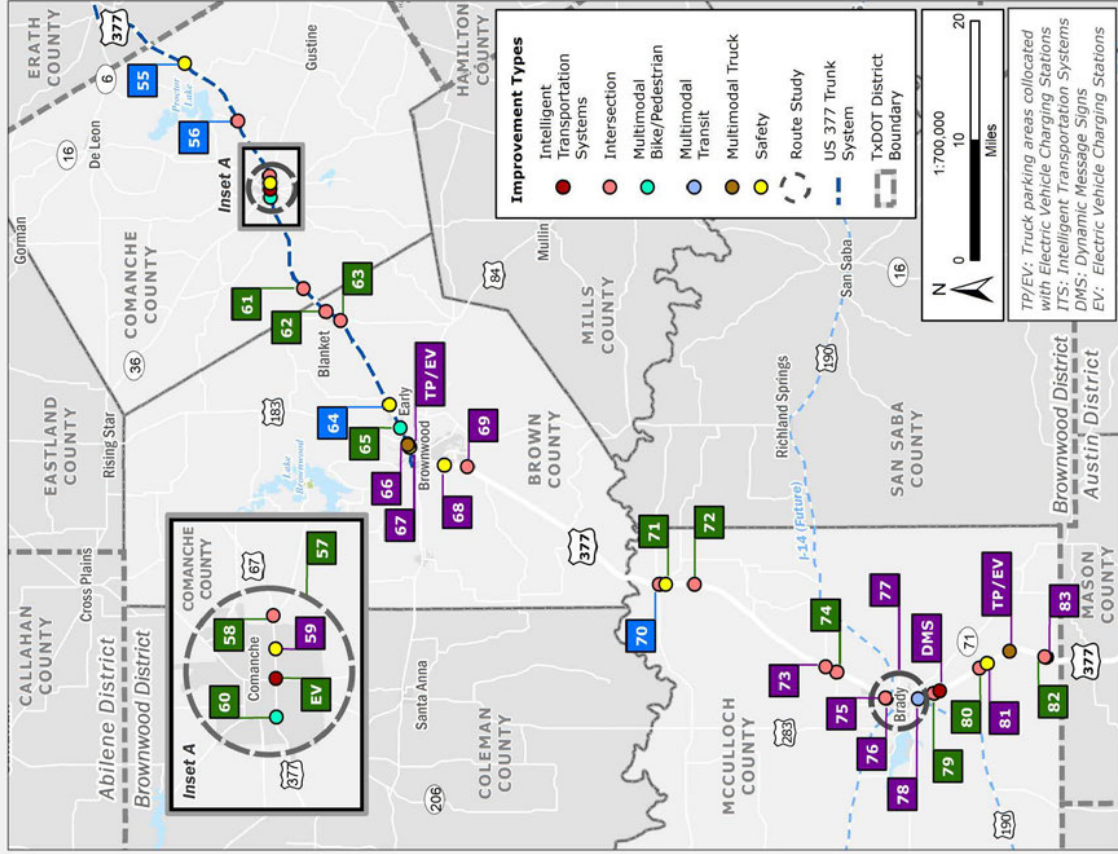


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US 377 Texas Corridor Study Implementation Plan Brownwood District



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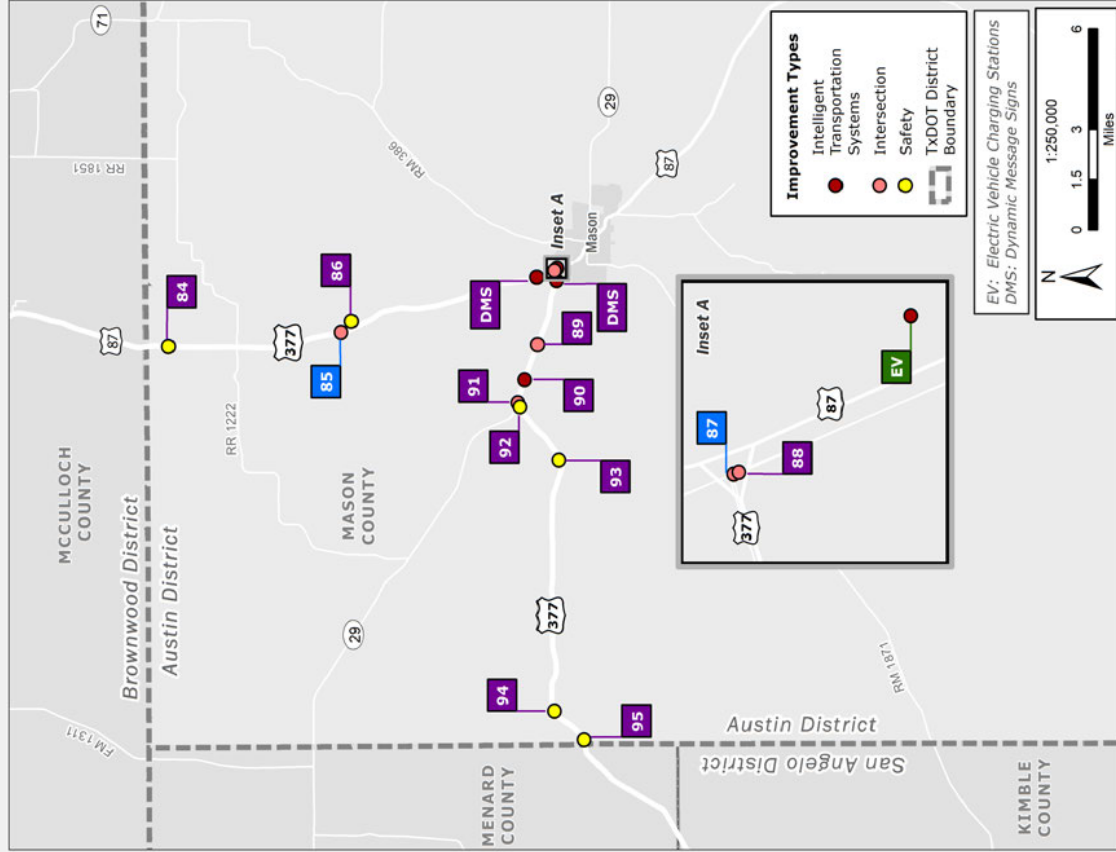


Mid Term Proposed Improvements				
#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
55	Comanche	CR 434 to N of Proctor	Widen shoulders	\$6.3 M
56	Comanche	CR 315/SH 2861, Hasse	Reconfigure the intersection into a standard four-leg intersection	\$2.5 M
64	Brown	Longhorn Dr to CR 346, Early	Add left turn lanes at median crossovers	\$1.3 M
70	McCulloch	FM 765 and US 377	Improve and realign intersection	\$1.0 M
Long Term Proposed Improvements				
#	County	Location	Description of Work	Est. Construction Cost (2025 \$)
59	Comanche	NW SH 36 to 0.6 miles east of SE SH 36, Comanche	Add raised median as needed, sidewalks and intersection improvements	\$58.3 M
66	Brown	Rush St to FM 2525, Brownwood	Perform access management study	\$0.8 M
67	Brown	N of Wesley St to Old May Rd	Perform access management study	\$0.8 M
68	Brown	Bridge over Texas Rock Crusher RR, Brownwood	Study the feasibility of converting the railroad crossing to a grade-separated crossing	\$1.8 M
69	Brown	US 377 and CR 45	Improve intersection geometry, pavement markings, and pedestrian ramps	\$1.2 M
73	McCulloch	FM 1121/US 377, N of Brady	Add raised channelizing island	\$0.5 M
75	McCulloch	South Ave/US 377, Brady	Reconfigure the South Ave intersection to align with US 377	\$0.8 M
76	McCulloch	FM 2996/US 377, Brady	Add a raised channelizing island and a left turn lane along US 377	\$0.9 M
77	McCulloch	Route around Brady	Perform a route study around Brady	\$1.6 M
78	McCulloch	Brady Stripes Gas Station	Enhance Brady Greyhound stop signage, add shelters and lighting, and build sidewalks connecting to existing networks	\$0.3 M
81	McCulloch	SH 71 to McCulloch/Mason CL	Add passing lanes	\$22.0 M
83	McCulloch	W CR 206/Private Rd 647	Improve vertical curvature	\$9.8 M
TP/EV	Brown and McCulloch	Multiple locations in the Central Segment: - Existing rest area, S of Brady - US183/US 377 near Brownwood	Truck parking collocated with EV charging stations	\$32.1 M (Segment-wide cost)
DMS	McCulloch	Multiple locations in the Central Segment: - Leaving Mason towards Junction - Leaving Mason towards Brady - Leaving Brady towards Mason	Install Dynamic Message Signs to warn drivers of hazards before leaving towns	\$1.1 M (Segment-wide cost)

US 377 Texas Corridor Study Implementation Plan Austin District



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Short-Term Proposed Improvements			
#	County	Location	Description
EV	Mason	Mason and Comanche	Expedite studies for EV charging stations
			Est. Construction Cost (2025 \$) \$1.8 M (Segment-wide cost)

Mid Term Proposed Improvements			
#	County	Location	Description
85	Mason	US 87 and Kruse Rd, N of Mason	Add turn lanes
87	Mason	US 87 NB to US 377 WB, Mason	Extend left turn lane
			Est. Construction Cost (2025 \$) \$0.4 M \$0.2 M

Long Term Proposed Improvements			
#	County	Location	Description
84	Mason	US 87 and Katemcy Rd	Improve vertical curvature
86	Mason	McCulloch/Mason CL to Mason	Add passing lanes
88	Mason	US 87 and US 377, Mason	Reconfigure intersection to a turbo T intersection with added lanes/turn lanes
89	Mason	US 377 and Old Junction Rd, Grit	Add left and right turn lanes
90	Mason	SH 29, E of Grit Cemetery	Add high water warning system with sensors and flashing lights at low water crossings
91	Mason	US 377 and SH 29, Grit	Reconfigure to Turbo T intersection with 90-degree angles
92	Mason	Grit School Rd to US 377/SH 29	Add passing lanes
93	Mason	0.93 mi E of Old Junction Rd to 1.63 mi E of Old Junction Rd	Add passing lanes
94	Mason	0.38 mi S of Long Mountain Rd to Paloma Rd	Add passing lanes
95	Mason	Mason/Menard CL to Evans Ln	Add passing lanes
DMS	Mason	Multiple locations in the Central Segment: - Leaving Mason towards Junction - Leaving Brady towards Brady	Install Dynamic Message Signs to warn drivers of hazards before leaving towns
			Est. Construction Cost (2025 \$) \$8.9 M \$19.3 M \$7.9 M \$0.4 M \$0.1 M \$7.7 M \$1.5 M \$2.4 M \$2.0 M \$1.3 M \$1.1 M (Segment-wide cost)

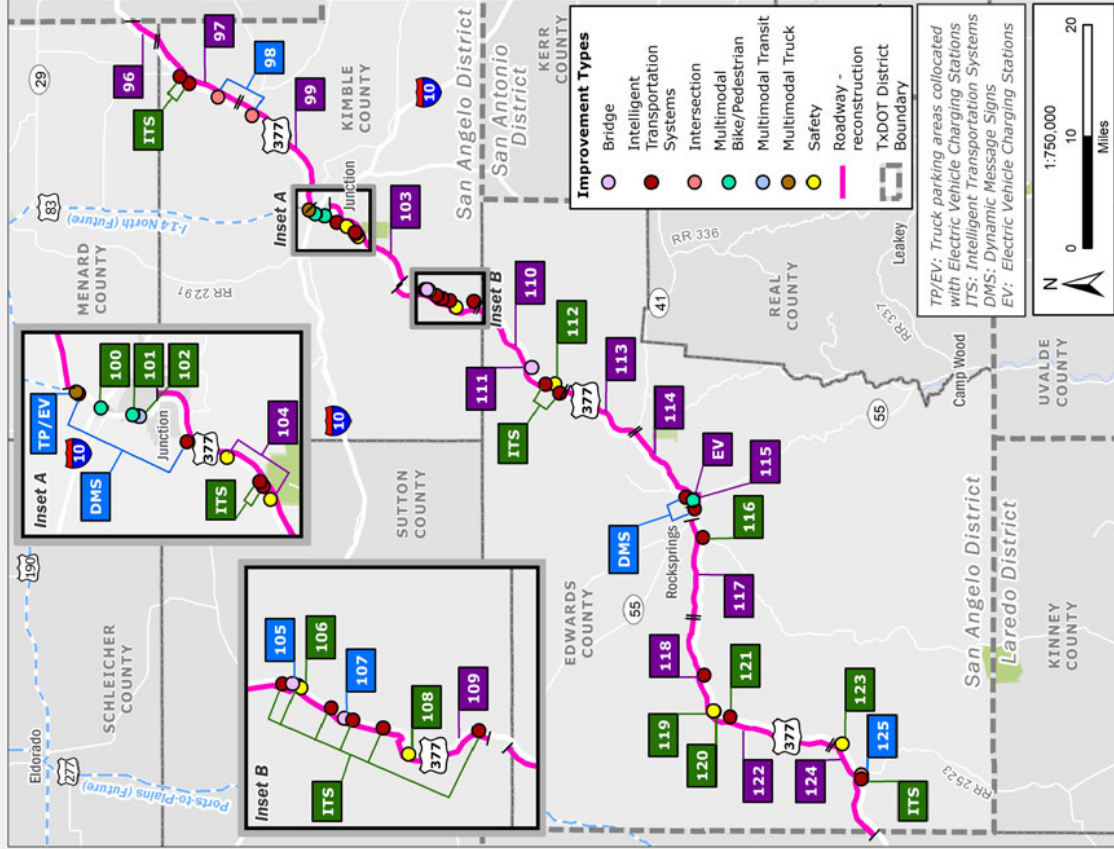


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US 377 Texas Corridor Study Implementation Plan San Angelo District



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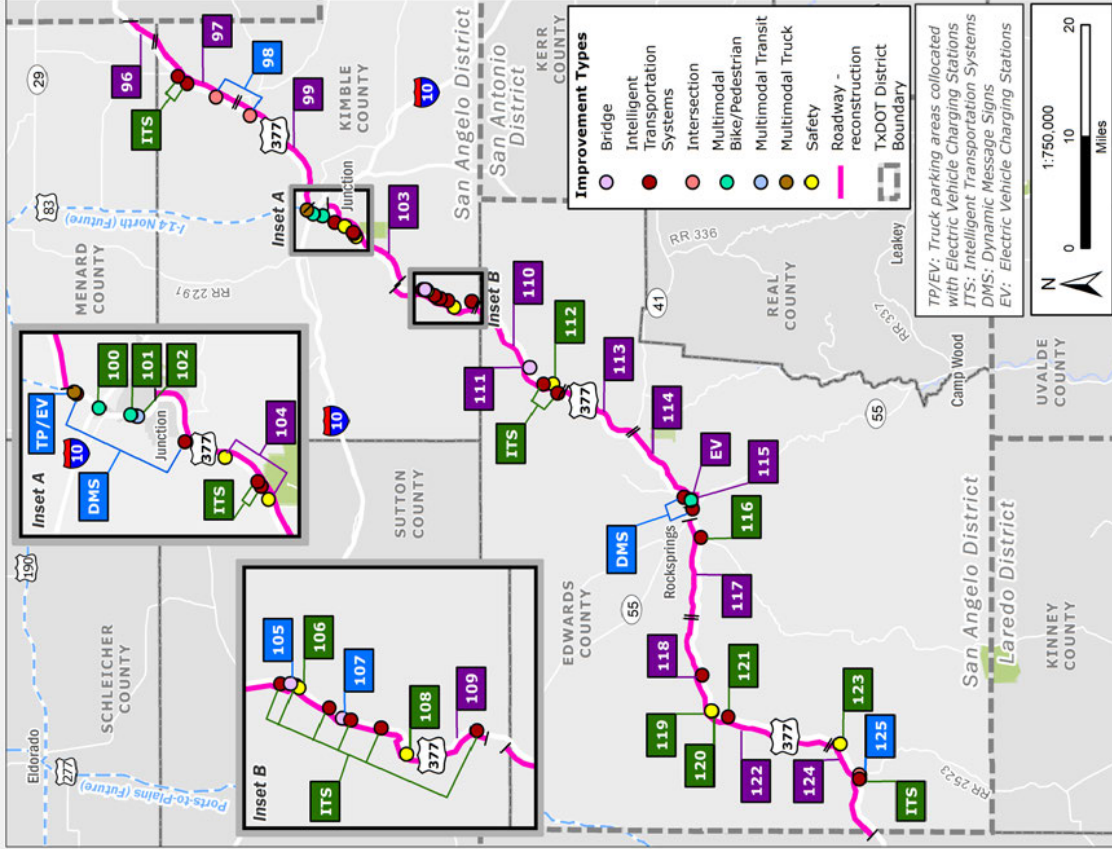
Short-Term Proposed Improvements				
#	County	Location	Description	Est. Construction Cost (2025 \$)
100	Kimble	W Ranch Rd 1674 to Airport Rd	At I-10/Future I-14/US 377, add access management, pedestrian upgrades, deceleration/turning lanes, and enhanced stop signs	\$2.5 M
101	Kimble	N Llano St to W Ranch Rd 1674, Junction	Pedestrian/bicycle improvements	\$3.1 M
102	Kimble	Hickory St and US 377	Install high-visibility signage, shelters, lighting, and ADA-compliant sidewalks at Junction's Greyhound stop, connecting to pedestrian networks	\$0.3 M
106	Kimble	S of Little Paint Trl, N of Telegraph	Add chevrons and increase curve superelevation	\$1.3 M
108	Kimble	N of CR 120	Evaluate curve, improve superelevation	\$1.2 M
112	Edwards	N of FM 140, S of Telegraph	Evaluate curve, improve superelevation	\$1.2 M
116	Edwards	FM 674/ US 377, W of Rocksprings	Improve stop sign and other stop warning system	\$0.1 M
119	Edwards	Old US 377 and US 377, W of Rocksprings	Evaluate curve, improve superelevation	\$1.2 M
120	Edwards	Old US 377 and US 377, W of Rocksprings	Improve stop sign and other stop warning systems	\$0.04 M
121	Edwards	S of FM 450, W of Rocksprings	Install high-water warning systems at low water crossings with flashing lights, sensors, and automated alert activation	\$0.1 M
123	Edwards	E of FM 450/US 377, Carta Valley	Evaluate curve, improve superelevation	\$1.2 M
ITS		Systemwide	Deploy speed and curve warning systems and advanced traffic signals	\$1.8 M (Segment-wide cost)

Mid-Term Proposed Improvements				
#	County	Location	Description	Est. Construction Cost (2025 \$)
98	Kimble	-US 377 and KC 316/FM 3480, S of London -US 377 and Ranch Rd 385, S of London	Add deceleration, turning lanes, and improve stop sign	\$4.5 M
105	Kimble	Fort Canyon, N of Telegraph	Construct new bridge to current standard	\$24 M
107	Kimble	Little Paint Creek Ranch, N of Telegraph	Construct new bridge to current standard	\$15 M

US 377 Texas Corridor Study Implementation Plan San Angelo District



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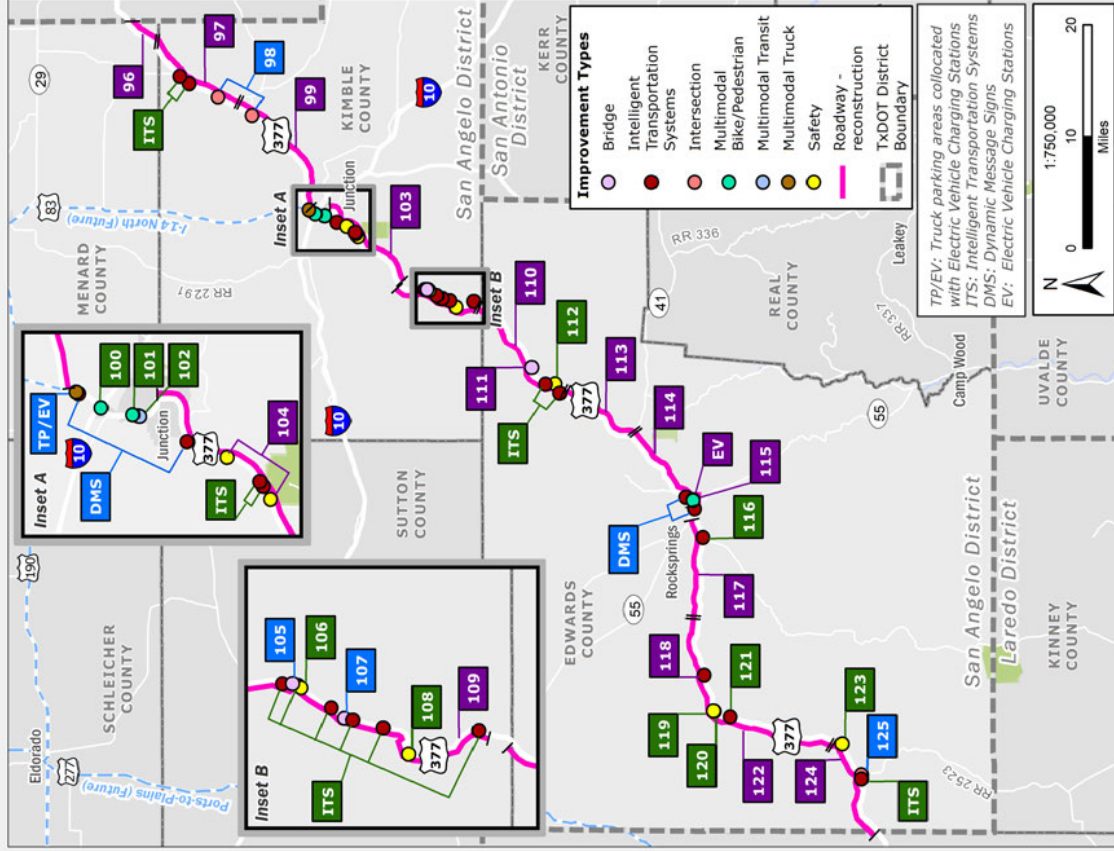
Mid-Term Proposed Improvements				
#	County	Location	Description	Est. Construction Cost (2025 \$)
125	Edwards	RM 2523/US 377, Carta Valley	Upgrade stop signs and add deceleration and turning lanes	\$2.5 M
TP/EV		Multiple Locations in the South Segment: - Future I-27/US 377 - I-10/US 377 Near Junction	Implement truck parking areas with EV charging stations	\$32 M (Segment-wide cost)
DMS		Multiple locations in the South Segment: -Leaving Del Rio towards Rocksprings N of US 90 (Around Kellye Quarry) - Leaving Rocksprings toward Del Rio - Leaving Rocksprings towards Junction - Leaving Junction towards Rocksprings - Leaving Junction towards Mason	Install Dynamic Message Signs to alert drivers of hazards before exiting towns	\$1.8 M (Segment-wide cost)

Long Term Proposed Improvements				
#	County	Location	Description	Est. Construction Cost (2025 \$)
96	Menard	Kimble/Menard Co Line to Menard/Mason Co Line	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$25 M
97	Kimble	0.8 Mi N of FM 3480 to Kimble/Menard Co Line	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$62 M
99	Kimble	Int. of US 83/US 377 to 0.8 Mi N of FM 3480	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$71 M
103	Kimble	8.8 Mi N of Edwards/Kimble Co Line to Junction	Add shoulders, pavement, drainage, guardrail, rumble strip, and Super 2	\$60 M
104	Kimble	-Crisp Hollow, S of Junction -CR 170, 2.0 mi S of Junction	Slope stabilization	\$25.4 M
109	Kimble	Edwards/Kimble Co Line to 8.8 Mi N	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$92 M
110	Edwards	16.5 Miles North of Rocksprings to Edwards/Kimble Co Line	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$68 M
111	Edwards	S of CR 160, Paint Rocksprings	Upgrade bridge to current standards	\$8.8 M

US 377 Texas Corridor Study Implementation Plan San Angelo District



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Long Term Proposed Improvements				
#	County	Location	Description	Est. Construction Cost (2025 \$)
113	Edwards	8.5 Mi N of Rock Springs to 16.5 Mi N of Rocksprings	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$47 M
114	Edwards	From Rocksprings to 8.5 Mi N	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$48 M
115	Edwards	US 377, Rocksprings	Pedestrian infrastructure enhancements	\$3.5 M
117	Edwards	10.3 Mi W of Rocksprings to Rocksprings	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$60 M
118	Edwards	N of US 277/US 377 to Rocksprings	Pilot a wildlife detection study 5 miles south of Rocksprings with sensors and flashing signs to alert drivers of road hazards	\$4.5 M
122	Edwards	9.6 Mi E of Edwards/Val Verde Co Line to 10.3 Mi W of Rocksprings	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$111 M
124	Edwards	From Edwards/Val Verde Co Line to 9.6 Mi E	Add shoulders, pavement, drainage, guardrail, rumble strip, Super 2, and bridge upgrades	\$54 M
EV	Edwards	Rocksprings	Expedite studies for EV charging stations	\$0.6 M

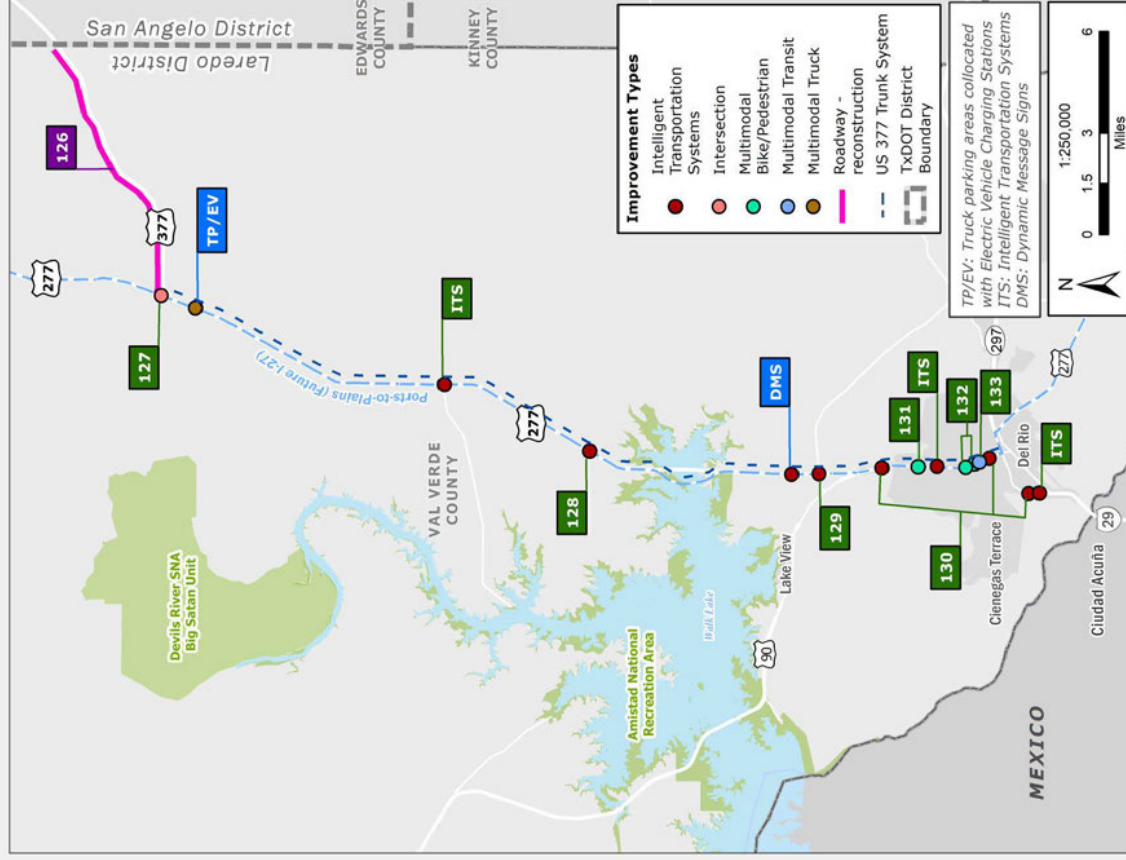


Texas Department of Transportation

US 377 Texas Corridor Study Implementation Plan Laredo District



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Short-Term Proposed Improvements				
#	County	Location	Description	Est. Construction Cost (2025 \$)
127	Val Verde	US 277/US 377	Improve stop signs and turning lanes	\$0.1 M
128	Val Verde	N of 277 North Campground (N of Presa de la Amistad)	Launch a pilot project to install a remotely activated spike strip	\$0.5 M
129	Val Verde	US 90/SH 79 at US 377	Enhance signal and stop sign visibility, improve pavement markings, and add turn lanes	\$2.9 M
130	Val Verde	- N of Farley Ln/US 377 along Spur 239 - Mid Block between E 5th St and E 4th St along US 377/Veterans Blvd - N of Agartita Dr along US 377/Veterans Blvd	Install solar-powered Automated License Plate Recognition (ALPR) systems to support police	\$0.01 M
131	Val Verde	E Gibbs St to US 90/US 377	Assess and install bike lanes with in Del Rio city limits	\$0.8 M
132	Val Verde	On US 377, at E 13th and E 17th in Del Rio	Add crosswalk striping to access existing bus stops	\$0.1 M
133	Val Verde	- E 13th St and US 90 - E 7th St and US 90 - NW 17th St and US 90	Improve existing bus stops to add signage, shelters and lighting	\$0.8 M
ITS	Val Verde	Systemwide	Deploy speed and curve warning systems and advanced traffic signals	\$1.8 M (Segment-wide cost)

Mid-Term Proposed Improvements				
#		Location	Description	Est. Construction Cost (2025 \$)
TP/EV	Val Verde	Multiple Locations in the South Segment: - Future I-277/US 377 - I-10/US 377 Near Junction	Implement truck parking areas with EV charging stations	\$32 M (Segment-wide cost)
DMS	Val Verde	-Leaving Del Rio towards Rocksprings N of US 90 (Around Kellye Quarry) - Leaving Rocksprings toward Del Rio - Leaving Rocksprings towards Junction - Leaving Junction towards Rocksprings - Leaving Junction towards Mason	Install Dynamic Message Signs to alert drivers of hazards before exiting towns	\$1.8 M (Segment-wide cost)

Long-Term Proposed Improvements				
#	County	Location	Description	Est. Construction Cost (2025 \$)
126	Val Verde	8.45 mi N to Val Verde/Edwards CL	Add shoulders, pavement, drainage, guardrail, rumble strip, and Super 2	\$48 M

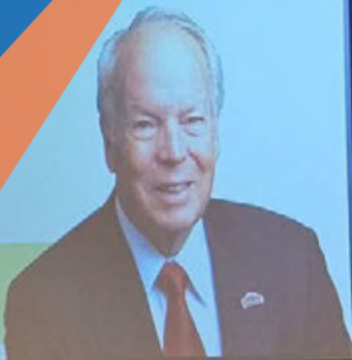
Appendix B

Summary of Stakeholders Meetings and Presentations



CLOSING REMARKS

King County Chair
Mayor Jim Darratt
Mayor of Houston



US 377 Texas Corridor Study

DRAFT Appendix B: Stakeholder Meetings and Presentations

April 2025



1. Stakeholder Meetings

Meeting Round	Group	Date	Time	Format	Member Attendance	Meeting Summary
1	Steering Committee	September 30, 2024	9:00 a.m. to 11:30 a.m.	Virtual	22	Link
	North Working Group	October 25, 2024	9:00 a.m. to 11:30 a.m.	Virtual	17	Link
	Central Working Group	October 11, 2025	9:00 a.m. to 11:30 a.m.	Virtual	4	Link
	South Working Group	October 29, 2024	1:00 p.m. to 3:30 p.m.	Virtual	10	Link
2	Steering Committee	February 20, 2025	9:00 a.m. to 11:30 a.m.	Virtual	23	Link
	North Working Group	February 4, 2025	9:00 a.m. to 12:00 p.m.	Lake Granbury Conference Center Granbury, TX	24	Link
	Central Working Group	January 23, 2025	9:00 a.m. to 11:30 a.m.	Texas 4-H Conference Center Brownwood, TX	7	Link
	South Working Group	January 28, 2025	9:00 a.m. to 11:30 a.m.	Edwardas County Courthouse Rocksprings, TX	7	Link

3	Steering Committee	May 5, 2025	9:00 a.m. to 11:00 a.m.	Virtual	15	Link
	North Working Group	April 4, 2025	9:00 a.m. to 11:00 a.m.	Virtual	28	Link
	Central Working Group	March 27, 2025	9:00 a.m. to 11:00 a.m.	Virtual	9	Link
	South Working Group	March 25, 2025	9:00 a.m. to 11:00 a.m.	Virtual	7	Link
Closeout	Combined Steering Committee and North, Central, and South Working Groups	June 5, 2025	9:00 a.m. to 10:00 a.m.	Virtual	16	Link

2. Steering Committee Members

Judge Andy Eads, Denton County

Judge Brandon Corbin, Menard County

Judge Pat Deen, Parker County

Judge Brandon Huckabee, Erath County

Judge Frank Trull, McCulloch County

Judge Hal A. Rose, Kimble County

Judge Souli Asa Shanklin, Edwards County

Judge Stephanie Davis, Comanche County

Judge Tim O'Hare, Tarrant County

Judge Shane Britton, Brown County

Commissioner Kevin Andrews, Precinct 1 Hood County

Mayor Jim Jarratt, City of Granbury

Mayor Doug Svien, Stephenville

Scott Hall, Tarrant County

Jorge Ramon, City of Del Rio

Ruth Ray, Tarrant County

Jennifer VanderLaan, Johnson County

Clay Barnett, Grayson County Metropolitan Planning Organization

Eric Bridges, Texoma Council of Governments

Kelly Cheek, West Central Council of Governments

Michael Morris, North Central Texas Council of Governments

John Austin Stokes, Concho Valley Council of Governments

David Dean, Dean International Inc.

Lindsay Mullins, BNSF Railway Company

Andrea Ball, Oklahoma Transit Association

Rob Hughes, Texas Agriculture Council

Allen E. Hunter, TX Transit Association

Matt Krause, TEX-21

Peter LeCody, Texas Rail Advocates

Christy Lewis, Texas Agriculture Cooperative Council

Judd Messer, Advanced Power Alliance

Clint Rutledge, Texas Farm Bureau

Robin Stallins, BikeTexas

3. North Working Group Members

Judge Bruce Dawsey, Parker County

Judge Pat Deen, Parker County

Judge Brandon Huckabee, Erath County

Judge Tim O'Hare, Tarrant County

Commissioner Kevin Andrews, Precinct 1 Hood County

Mayor Jim Barnett, City of Sansom Park

Mayor Scooter Gierisch, City of Roanoke

Mayor Jim Jarratt, City of Granbury

Mayor Mattie Parker, City of Fort Worth

Mayor Kelly Thompson, City of Westover Hills

Councilman Dennis Sheridan, Trophy Club

Robert Allen, Fort Worth Economic Development Partnership

Craig Hulse, City of North Richland Hills Economic Development Corporation

Jessica James, Benbrook Economic Development Corporation

Arthur L. Miller, Watauga Economic Development Corporation

Gregory Van Nieuwenhuize, Haltom City

Jeriahme Miller, City of Roanoke

Cody Petree, City of Roanoke

Ruth Ray, Tarrant County

Robert Sturns, Fort Worth Economic Development Department

Shawn Wilkinson, City of Roanoke

Andrea Ball, Oklahoma Transit Association

Clay Barnett, Grayson County Metropolitan Planning Organization

Eric Bridges, Texoma Council of Governments

Aimee Bissett, Denton Chamber of Commerce

Doug Carignan, Flower Mound Chamber of Commerce

Laura Chaney, Oklahoma Department of Transportation

Anthony Echelle, Oklahoma Department of Transportation

Scott Hall, Tarrant County Department of Transportation

Jim Meehan, NET Chamber of Commerce

Michael Morris, North Central Texas Council of Governments

Missy Roberts, Benbrook Chamber of Commerce

Jeff K. Sanford, Stephenville Economic Development Authority

Robin Stallings, BikeTexas

Hilary Stephens, Stephenville Chamber of Commerce

Trent Swearengin, Stephenville Chamber of Commerce

John Traweek, Stephenville Chamber of Commerce

Jennifer VanderLaan, Johnson County

Lindsay Mullins, BNSF Railway Company

Clint Rutledge, Texas Farm Bureau

4. Central Working Group Members

Judge Shane Britton, Brown County

Judge Stephanie Davis, Comanche County

Judge Frank Trull, McCulloch County

Mayor Anthony Groves, City of Brady

Mayor Stephen Hayes, City of Brownwood

Daniel Mendoza, Brady Economic Development Corporation

Dana Sons, City of Brownwood

Ray Tipton, Brownwood Economic Development Corporation

Kelly Cheek, West Central Texas Council of Governments

Otis Felton, Brownwood Chamber of Commerce

Lisa Moreno, Brady/McCulloch County Chamber of Commerce

Robin Stallings, BikeTexas

Cory Hines, Howard Paynes University

Lena Kent, BNSF Railway Company

Terry McIver, Loadcraft Industries

5. South Working Group Members

Judge Brandon Corbin, Menard County

Judge Lewis Owens, Val Verde County

Judge Hal A. Rose, Kimble County

Judge Souli Asa Shanklin, Edwards County

Mayor Alvaro Arreola, City of Del Rio

Shawna Burkhart, City of Del Rio

Michael Garcia, City of Del Rio

Michelle Garcia, Middle Rio Grande Development Council

Eric Martinez, Middle Rio Grande Development Council

Edward Terry, South Llano River State Park

Sarah Hildago-Cook, Southwest Area Regional Transit District

Mark Arrazola, Kimble County Chamber of Commerce

Liliana Flores, U.S. Customs and Border Protection

Julian De Hoyos, U.S. Customs and Border Protection

Blanca Larson, Del Rio Chamber of Commerce

Robin Stallings, BikeTexas

John Austin Stokes, Concho Valley Council of Governments

John N. King, Southwest International Border Broker

Carson Landsgard, HEB

Rick Powers, Texas Sheep and Goat Raisers Association

Gerardo Sanchez, Gerardo Sanchez Customs Broker

John Stricklin, Old Dominion Freight Line

Brenda Torres, Gerardo Sanchez Customs Broker

Appendix C

Summary of Public Survey



...ot.mysocialpinpoint.com



English

US 377 Texas Corridor Study Public Survey

US 377 Texas Corridor Study / US 377 Texas Corridor Study
Public Survey

US 377 Texas Corridor Study

DRAFT Appendix C: Summary of Public Survey

June 2025



The Texas Department of Transportation's (TxDOT) Transportation Planning and Programming Division developed an interactive public survey to gather information from stakeholders and the public as part of the [US 377 Texas Corridor Study](#).

1. Survey Purpose

The survey was developed to gather input from stakeholders and the public on the challenges, needs, and priorities of the US 377 corridor prior to identifying potential improvements.

TxDOT used a survey tool called Social Pinpoint—a comprehensive online engagement platform that serves as a centralized hub for gathering diverse feedback and supporting informed decision-making through real-time data. Participants could access the English-language survey through the project webpage using a computer, smartphone, or tablet. Paper copies were also available upon request. Although the survey is now closed, a link to the [archived version](#) remains available for reference.

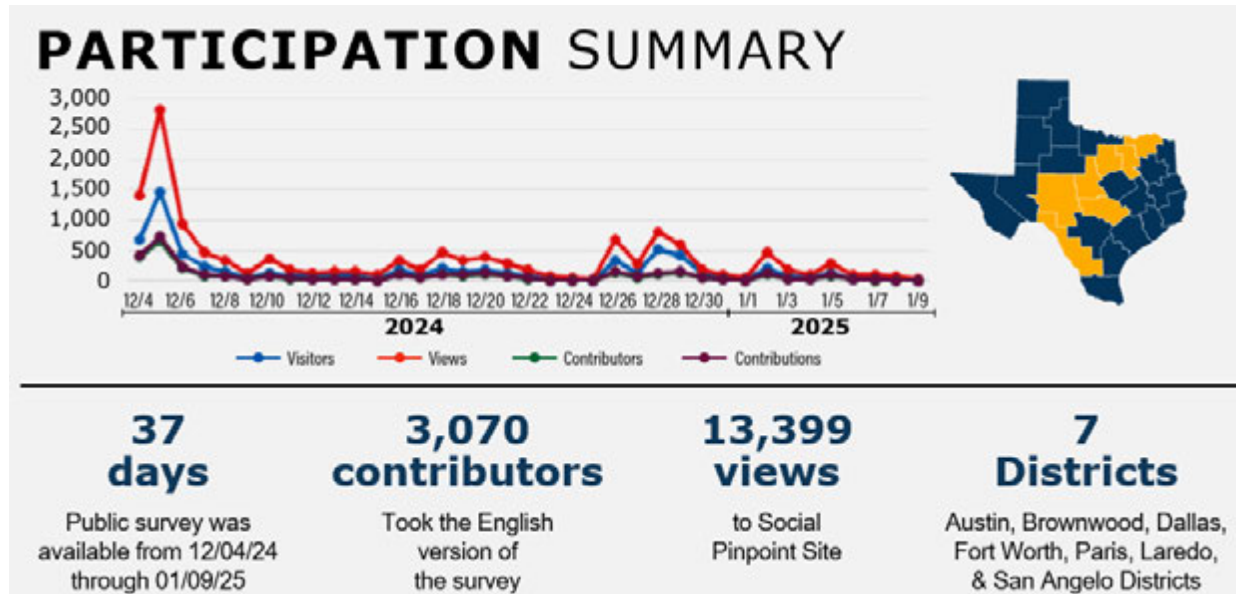
The survey's main landing page provided an overview of the study and directed participants to an eight-question survey. Questions focused on participants' travel habits, current issues experienced along the corridor, the frequency of those issues, and their top priorities for improvements on US 377. Participants were also asked what types of improvements would make travel more convenient and were given an opportunity to share additional thoughts or concerns with the study team.

The main landing page also provided access to the interactive map feature, which allowed users to drop pins at specific locations within the study area. Users could categorize their input based on the following types of issues or points of interest:

- Traffic concern
- Safety concern
- Connectivity issue
- Bike/Pedestrian issue
- Maintenance issue
- Road issue
- Point of interest
- Other

This map-based tool helped the study team better understand the geographic distribution of key concerns along the corridor.

Figure 1. Participation summary



US 377 Texas Corridor Study

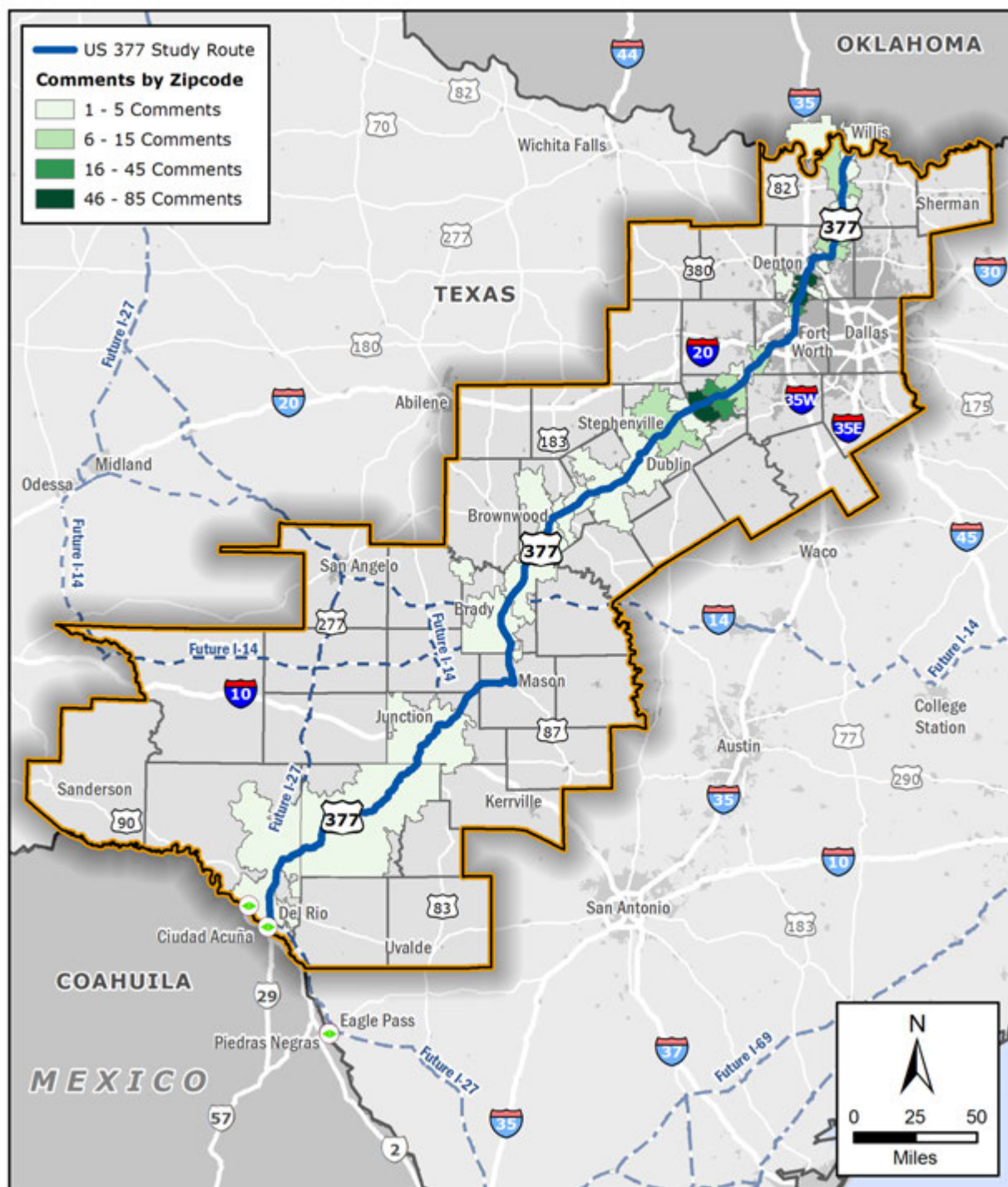
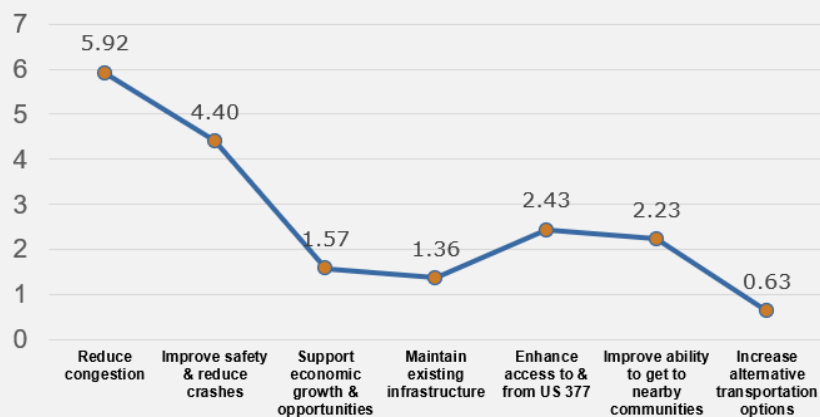


Figure 3. Top priorities for improvements

WHAT IS **IMPORTANT** TO YOU? (RANK TOP 3)

What are your top priorities for US 377 improvements? Please drag and drop your priorities from left to right and rank you top three priorities, with one being your highest priority.

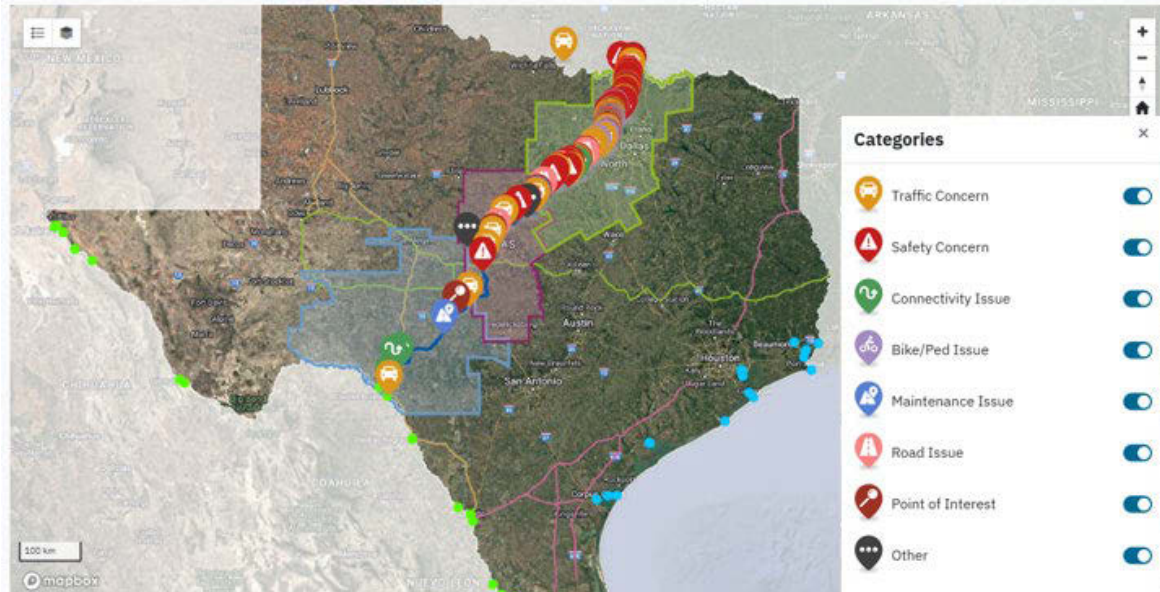


87% of participants selected **congestion or traffic delay** as their top challenge on US 377.

Mark Up The Map

Participants were invited to drop a pin and categorize their concerns or issues related to the corridor. The final map, displaying all submitted markers, is shown below.

Figure 4. Social Pinpoint Interactive Map Markers



367 (79%) of all the pins dropped on the interactive map were related to safety and traffic concerns. The study team analyzed the input received and used it as improvement options are developed. Common themes across the corridor included:

- High traffic and congestion
- Lack of bike or pedestrian infrastructure
- Frontage road issues
- Concerns related to high speeds and driver behavior
- Lack of connectivity to other alternate routes

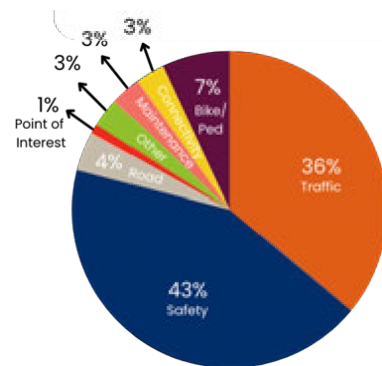
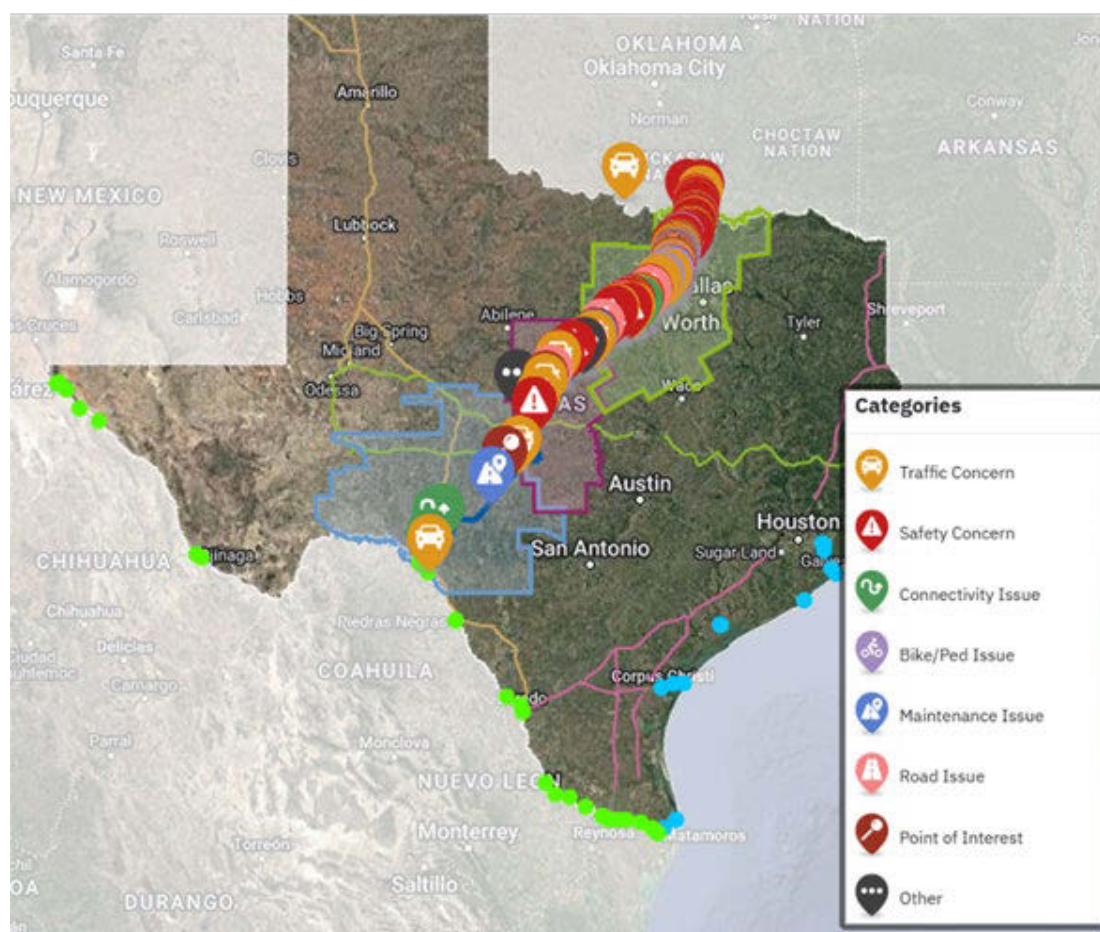


Figure 5. Distribution of Geolocated Concerns from Survey Participants

Figure 6. Map with markers and marker types



2. Survey Results:

Figure 7. Reasons for travel

WHY DO YOU TRAVEL ON US 377?

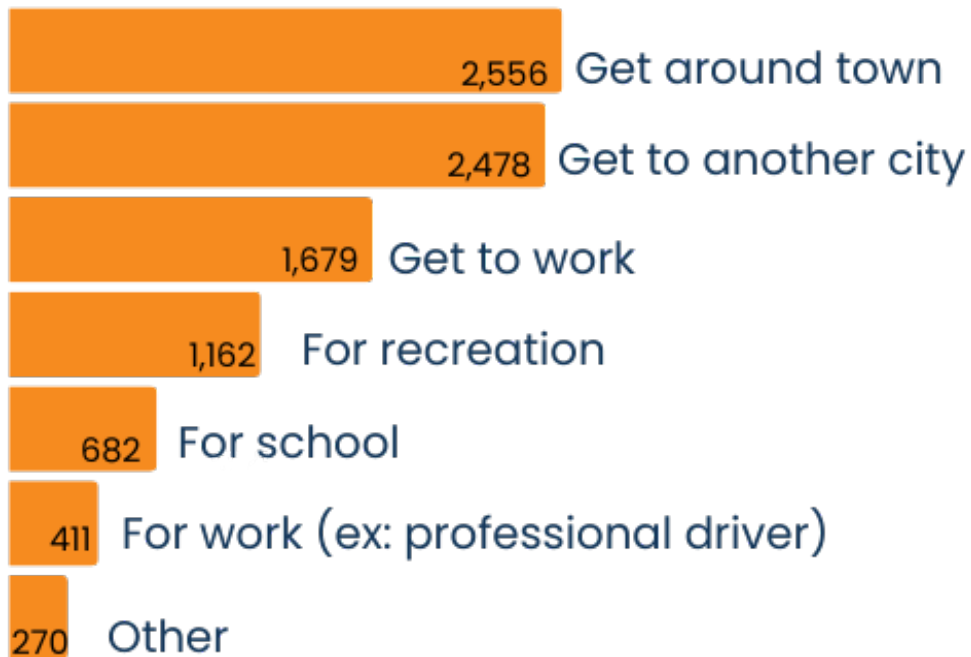


Figure 8. Frequency of travel

HOW OFTEN DO YOU TRAVEL ON US 377?



Figure 9. Alternative routes

WHEN YOU CANNOT USE US 377, WHAT ALTERNATIVE ROUTES DO YOU USE?

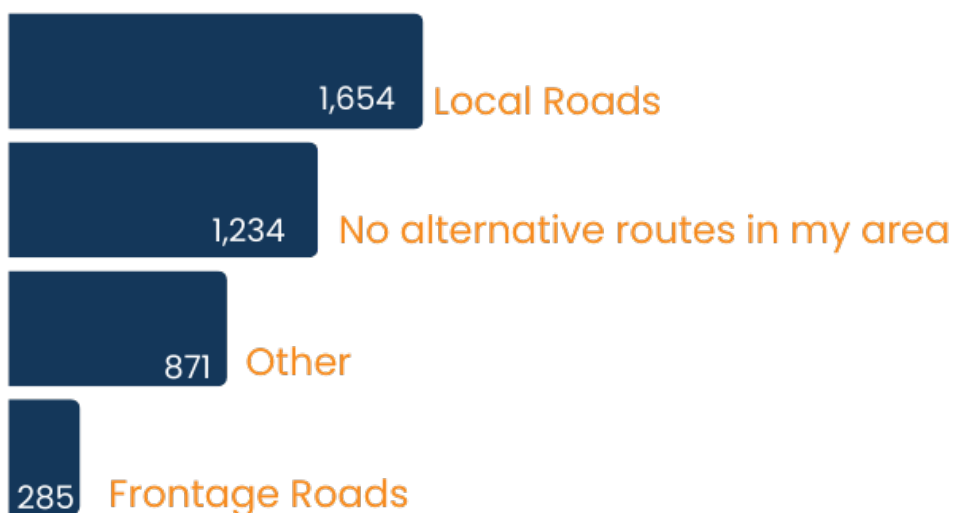


Figure 10. Current issues

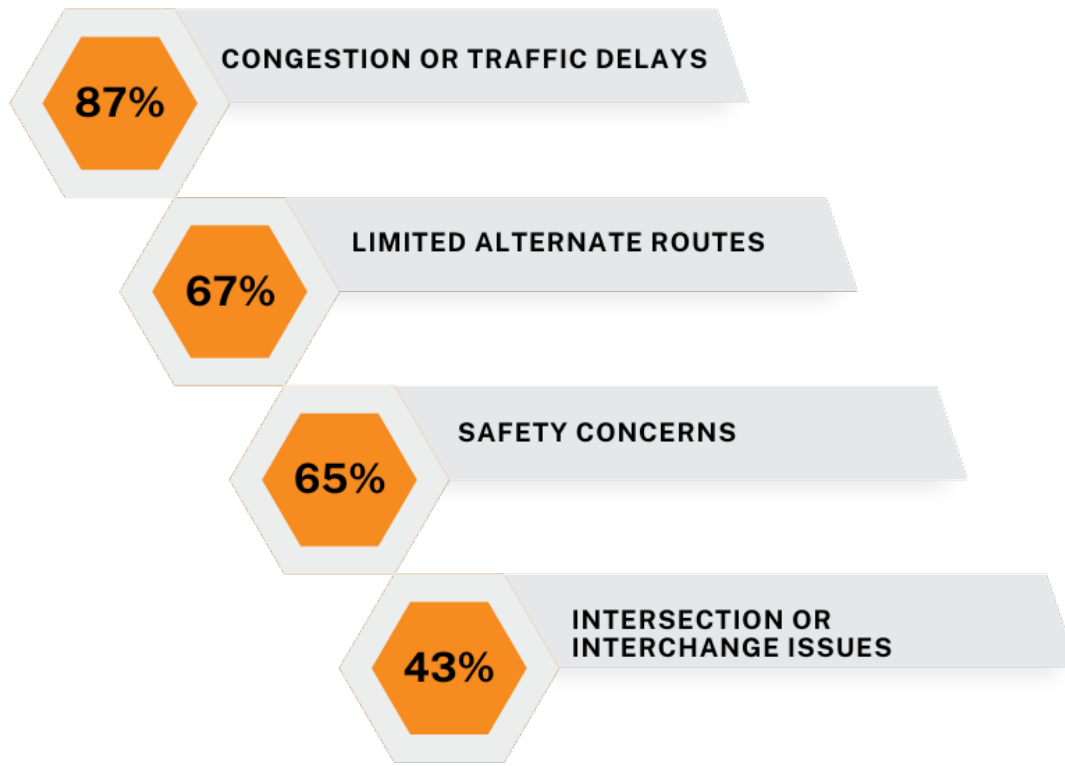
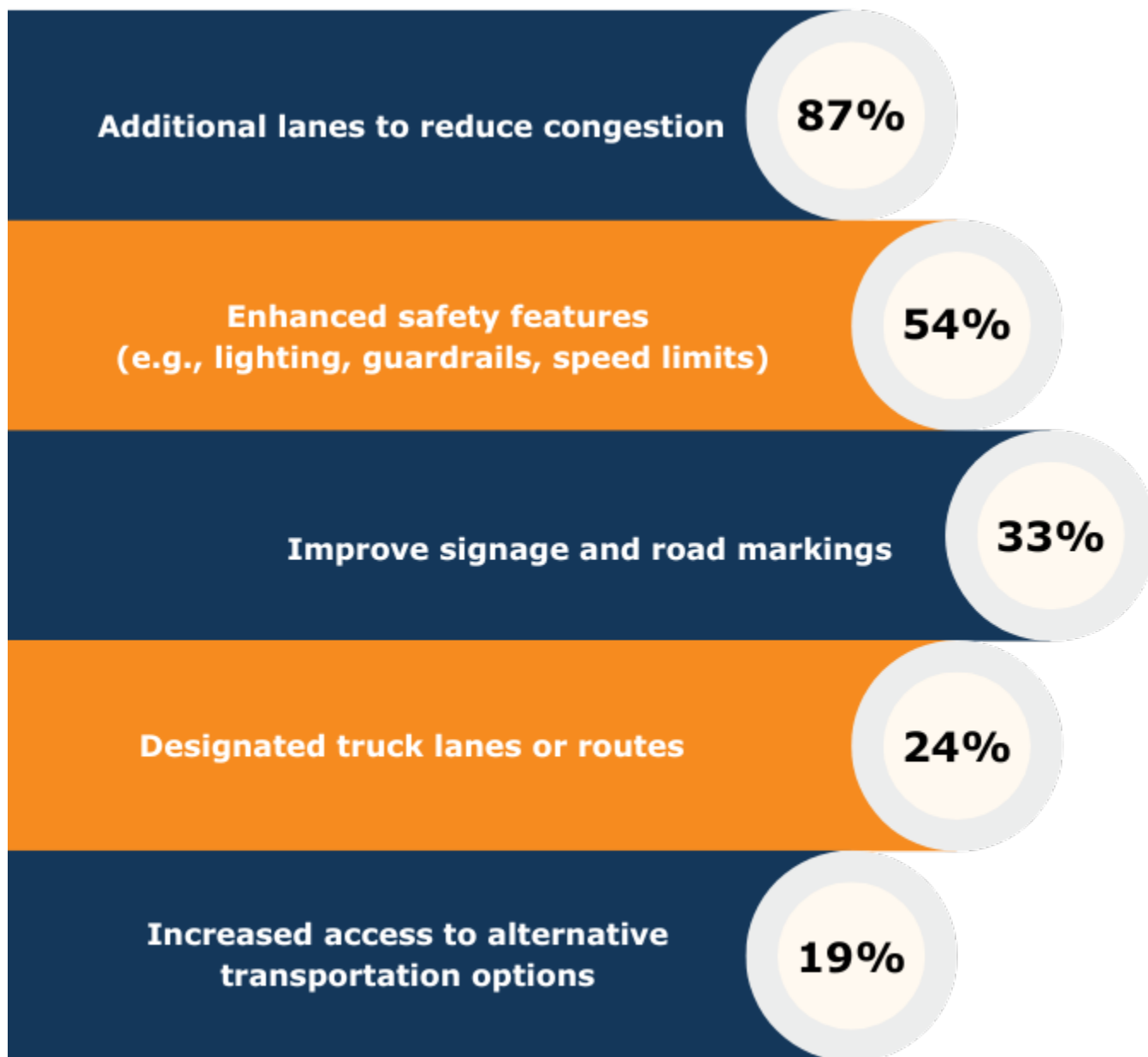


Figure 11. Frequency of issues

HOW OFTEN DO YOU EXPERIENCE THESE ISSUES ON US 377?



Figure 12. Preferred improvements for convenience



Appendix D

Binational Workshop Summary



MEETING ADJOURNED
Thank You



US 377 Texas Corridor Study

DRAFT Appendix D: Binational Workshop Summary

June 2025



1. Purpose of the Binational Workshops

The US 377 Texas Corridor Study is being conducted by the Texas Department of Transportation (TxDOT), in collaboration with the Transportation Planning and Programming (TPP) Division. The goal of the study is to identify transportation needs and prioritize infrastructure improvements that enhance safety, mobility, connectivity, and ultimately support economic growth in the region. The Binational Workshops gathered key stakeholders to discuss the needs and potential improvements along the corridor, especially focusing on cross-border trade and infrastructure between the U.S. and Mexico.

Two Binational Workshops have been organized to engage stakeholders and gather input at key stages of the study:

- **Binational Workshop 1**, held on September 19, 2024, focused on identifying challenges, opportunities, and the primary needs for the corridor.
- **Binational Workshop 2**, held on April 22, 2025, provided a platform for stakeholders to review the proposed improvement plan for the South Segment of the corridor and offer feedback on the proposed recommendations.

Figure 1 displays TxDOT leadership addressing the stakeholders at Binational Workshop 1.

2. Workshop Objectives

The workshop's objectives were to facilitate collaboration between U.S. and Mexican stakeholders, provide updates on the US 377 Texas Corridor Study, and solicit feedback on current challenges and future improvement strategies. This input helped guide the development of an implementation plan for the corridor.

In Binational Workshop 1 the objective was to engage stakeholders from both the U.S. and Mexico to discuss the US 377 corridor's current state, challenges, and opportunities. The goal was to gather input to inform the development of a comprehensive implementation plan for the corridor's future improvements.

For Binational Workshop 2 the objective was to present and review the proposed improvement plan for the South Segment of the US 377 Texas Corridor Study, specifically focusing on proposed upgrades to enhance connectivity,



Figure 1. TxDOT Leadership Presenting to Stakeholders

safety, border trade, efficiency, and communication. Stakeholders were asked for their feedback on the plan and its alignment with regional needs and priorities.

3. Participant Overview

The workshops brought together key stakeholders from both the U.S. and Mexico, including local elected officials, economic development agencies, private business leaders, border trade experts, and governmental representatives from border regions like Del Rio, Ciudad Acuña and surrounding areas. The binational format of the workshop emphasized the importance of cross-border collaboration in addressing the transportation challenges and needs of the corridor.

Figure 2. Stakeholders and TxDOT at Binational Workshop 2



The first Binational Workshop was held on September 19, 2024, in Del Rio, Texas, at the Ramada by Wyndham. Del Rio was selected as the workshop venue due to its strategic

location along the US 377 corridor, which connects Texas to northern Mexico. The city's proximity to the international border made it an ideal location to engage stakeholders from both sides of the border, ensuring that local community leaders, business representatives, and government officials could participate in discussions on improving the corridor's infrastructure and connectivity.

The second Binational Workshop was held on April 22, 2025, and took place in Del Rio, Texas at the Val Verde County Library. This location was chosen for its centrality and accessibility to local stakeholders. The focus of this workshop was to present and review the corridor-wide and South Segment improvement

plan for the US 377 corridor. Participants had the opportunity to provide feedback aimed at enhancing connectivity, safety, and trade efficiency along the southernmost segment of the corridor, which is vital to cross-border traffic.

4. Workshop Format and Agenda: Facilitation Approach

Both workshops were facilitated with an interactive, inclusive approach. Professional translation services were provided to ensure seamless communication between English and Spanish-speaking stakeholders. Breakout sessions allowed smaller groups to explore specific topics in-depth, while large-group discussions ensured that all voices were heard.



Figure 3. Binational Workshop 1



Figure 4. Binational Workshop 2

5. Next Steps and Integration with Implementation Plan

Opportunities and Strategies

Feedback from workshop 1 was incorporated into the proposed implementation plan for the US 377 Texas Corridor, helping to guide the prioritization of infrastructure improvements. The proposed improvement plan for the South Segment was finalized using input from Workshop 2, which focused on reviewing specific recommendations related to lane expansions, safety measures, and border infrastructure.



Figure 5. Binational Workshop 1 Breakout Session



US 377 Texas Corridor Study

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**Transportation Planning and
Programming Division**

JULY 2025