



# I-35/I-69W International Freight Gateway

<b>Project Name: I-35/I-69W International Freight Gateway</b>	
Was a FASTLANE application for this project submitted previously?	No
Previously Incurred Project Cost	\$0
Future Eligible Project Cost	\$160,000,000
Total Project Cost	\$160,000,000
FASTLANE Request	\$96,000,000
Total Federal Funding (including FASTLANE)	\$121,600,000
Are matching funds restricted to a specific project component? If so, which one?	Yes EB and WB mainlanes overpass at I-35
Is the project or a portion of the project currently located on National Highway Freight Network?	Yes
Is the project or a portion of the project located on the National Highway System?	Yes
<ul style="list-style-type: none"> <li>Does the project add capacity to the Interstate system?</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Is the project in a national scenic area?</li> </ul>	No
Do the project components include a railway-highway grade crossing or grade separation project? If so, please include the grade crossing ID	Yes N/A (new crossing)
Do the project components include an intermodal or freight rail project, or freight project within the boundaries of a public or private freight rail, water (including ports), or intermodal facility?	No
If answered yes to either of the two component questions above, how much of requested FASTLANE funds will be spent on each of these projects components?	\$23,710,000
State(s) in which project is located.	Texas
Small or large project	Large
Urbanized Area in which project is located, if applicable.	Laredo
Population of Urbanized Area.	269,721
Is the project currently programmed in the: (please specify in which plans the project is currently programmed)	
<ul style="list-style-type: none"> <li>TIP</li> </ul>	No (US 59 only)
<ul style="list-style-type: none"> <li>STIP</li> </ul>	No
<ul style="list-style-type: none"> <li>MPO Long Range Transportation Plan</li> </ul>	Yes
<ul style="list-style-type: none"> <li>State Long Range Transportation Plan</li> </ul>	Yes
<ul style="list-style-type: none"> <li>State Freight Plan</li> </ul>	Yes

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## Summary of Changes

TxDOT previously submitted a “Laredo Bundle” FASTLANE application as part of the FY2016 program. In hopes of obtaining funding for these critical international trade gateway improvements, the City of Laredo and Webb County, in partnership with the Texas Department of Transportation (TxDOT), is submitting a new application for the Laredo Bundle with a more comprehensive project scope. **Rather than highlighting the many changes made to the previous application submittal, the project has been redefined to maximize benefits to the region and nation and submitted anew.**

## Project Description

The **Port of Laredo** is the busiest inland port along the U.S./Mexico border, facilitating over **\$198 billion in imports and exports** in 2015. As a “gateway” to the U.S. and a dominant Port of Entry (POE) along the U.S./Mexican border, smart investments in transportation infrastructure are important in meeting current and future challenges of moving people and goods in the region, the nation, and enhancing economic competitiveness of the U.S. The roadways and commercial/industrial areas that connect and serve Laredo’s four POEs act as **the backbone of commerce for the region and the nation**, particularly as it relates to North American Free Trade Agreement (NAFTA) traffic. Growth in trade and related services, coupled with significant economic and population growth on both sides of the border, has increased border traffic on Laredo’s four international bridges and the existing railroad bridge over the Río Grande River. Given the continued growth of commercial and non-commercial traffic, infrastructure improvements are needed to meet increasing demand; expedite system linkages for the efficient and safe movement of people and goods, border crossings and industries; improve mobility and ladders of opportunity for accessing jobs, education, and training opportunities; enhance safety; and provide infrastructure to support projected growth in cross-border trade, freight volumes, population and employment. Since the connecting corridors greatly impact and are major contributors to the regional, state, and national economies, it is important they provide adequate circulation and connectivity between the national transportation system and the critical trade gateways in the Laredo region.

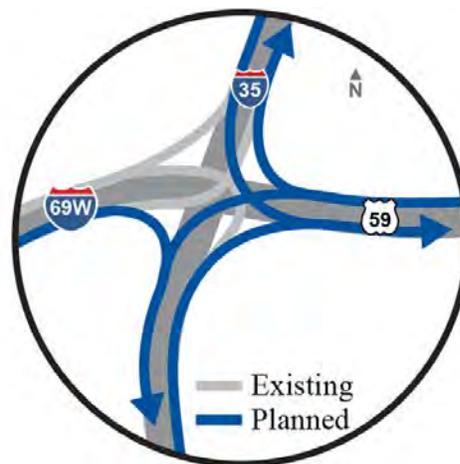
To address the growing challenge of efficiently moving people and goods and facilitating international trade, the City of Laredo and Webb County, in partnership with the Texas Department of Transportation (TxDOT), is submitting the “**I-35/I-69W International Freight Gateway**” project (**Laredo Bundle**) for consideration in the FY2017 FASTLANE grant program. The I-35/U.S. 59 interchange is at the **hub of trade entering Laredo’s cross-border system** via I-35, U.S. 83 and U.S. 59/I-69W corridors, connecting to Laredo’s busiest commercial port of entry, the World Trade Bridge. This bundle includes **two critical projects** that have been identified as current and future segments of the National Highway System (NHS) and National Highway Freight Network (NHFN):



- 1. U.S. 59/I-69W mainlanes overpass over I-35 and the Union Pacific Railroad (UPRR) track.** An overpass would extend the U.S. 59 (future I-69W) mainlanes over the I-35 mainlanes from just west of I-35 to near McPherson Road. The mainlanes would be constructed between the existing U.S. 59/I-69W frontage roads, which would not require right-of-way acquisition or any major impacts to utilities frontage roads. Final design has been completed for this project, and FASTLANE

funding could assist in expediting this project’s construction. The project would also add a 1.8-mile segment of additional 12-foot mainlane in each direction and widen to 10-foot inside/outside shoulders.

**2. Five direct connectors to complete the U.S. 59/I-69W interchange with I-35 (“Milo” interchange).** This project will construct the final five (of eight) direct connectors between U.S. 59 and I-35 in north Laredo. Each connector will span approximately 3,000 feet and require a bridge to span over the existing I-35 and U.S. 59 mainlanes and/or frontage roads. Preliminary design has been completed for this project, and the interchange was environmentally cleared in an Environmental Assessment by the FHWA in the 1990s. Any additional phase to be implemented would be environmentally cleared as a standalone Categorical Exclusion (CE).



This **FASTLANE grant request is for \$96 million**, and those funds will be put towards the project’s construction costs totaling \$160 million. The projects of the Laredo Bundle are in different stages of development, but all are scheduled to begin construction prior to September 30, 2020 and **cannot be completed without Federal funds**.

When completed, the Laredo Bundle would provide for an upgraded, controlled access facility that will move traffic to/from through this portion of Laredo with an improved level of service (LOS) through currently-congested sections of roadway. It is estimated that the Laredo bundle yields a return of \$3.80 for every \$1 invested. **The Laredo Bundle has been identified by TxDOT, the City of Laredo, Webb County and the Webb County-City of Laredo Regional Mobility Authority (WCCL RMA) as a priority project for this community.**

### *Eligibility*

TxDOT previously submitted a “Laredo Bundle” FASTLANE application as part of the FY2016 program. In hopes of obtaining funding for these critical international trade gateway improvements, the City of Laredo, in partnership with TxDOT, is submitting a new application for the Laredo Bundle with a more comprehensive project scope. **Rather than highlighting the many changes made to the previous application submittal, the project has been redefined to maximize benefits to the region and nation and submitted anew.** The scope of the project has been updated in response to feedback received on the previous *Small Project* application, and additional components have been incorporated to meet the *Large Project* criteria. See *Section VI. Large/Small Project Requirements* for a summary of this submittal’s eligibility requirements.

## Funds and Usage

The funding package for the two Laredo projects is a combination of Federal dollars in the form of Coordinated Border Infrastructure (CBI) program funds and FASTLANE grant dollars as well as local and regional funds and the 20 percent CBI state match. Table 1 details the project costs and funding by source. Because the individual project components have independent utility, the bundle as a whole is scalable. The City of Laredo and TxDOT are willing to discuss accepting a smaller grant award should it be necessary. However constructing the bundle as a whole will result in maximum benefits for the region.

*Table 1: Project Cost and Funding by Source*

Sources	Funding Amount	% Cost	U.S. 59 OVERPASS/ I-69W Add'l MLS	I-35/U.S. 59 DCS
FASTLANE Grant	\$96,000,000	60%	\$13,000,000	\$83,000,000
CBI (Federal)	\$25,600,000	16%	\$25,600,000	\$0
CBI (State)	\$6,400,000	4%	\$6,400,000	\$0
City of Laredo	\$32,000,000	20%	\$0	\$32,000,000
<b>Total Project Cost</b>	<b>\$160,000,000</b>	<b>100%</b>	<b>\$45,000,000</b>	<b>\$115,000,000</b>

Notes:

1. Maximize FASTLANE share (60%).
2. 40% match to FASTLANE = \$64M, covered from CBI (Federal and state) and City of Laredo.
3. Use of Federal funds (76% = \$121.6M) between FASTLANE and CBI (Federal).
4. All costs are solely construction costs.

Funds from this FASTLANE grant are necessary to complete the proposed projects expeditiously, eliminate delays in the project delivery process and reduce project costs due to escalation. **The construction of the Laredo Bundle is crucial to provide valuable benefits to the region of reduced traffic congestion; minimized accident counts through improved traffic safety; improved shipping times resulting in decreased pollution from queued motor vehicles and savings to shippers; and increased job growth.**

## National and Regional Significance

The Port of Laredo is a strategic international trade gateway and is the busiest inland port in the United States. **Over 43 percent of the \$457 billion annual U.S./Mexico trade** crosses the border in Laredo translating to \$198 billion. International trade and freight transportation are the backbone of Laredo's continued employment and population growth and economic development. This provides significant Ladders of Opportunity for the local and regional population. The Laredo Bundle will benefit not only the Laredo region, but also provide national benefits as the international freight passing through Laredo reaches all corners of

the U.S. (Figure 1). The economic benefits from increasing the mobility of goods and people within the region and enhancing connectivity to the international border would further increase the global economic competitiveness of the U.S.

*Figure 1: Sample of 2,000 Trucks Seven Days After Crossing Laredo POE*



Source: American Transportation Research Institute.

U.S. 59 within the Laredo Bundle project limits is part of the future I-69W corridor by TxDOT and the Federal Highway Administration (FHWA). This official I-69W designation recognizes it as a corridor of local, regional, state, and national significance. Within the City of Laredo, U.S. 59/I-69W (known locally as Loop 20) serves as the main travel corridor around northeastern Laredo, and is designated as one of Laredo's key truck routes. Because this corridor is part of the future I-69W system, Federal law mandates that it must be upgraded to interstate standards. The deadline for this upgrade is 2035. Given the positive impact that the Laredo Bundle would have for this major truck route, the City and TxDOT are looking to expedite the project due to anticipated increase in future truck volumes. Portions of these interstate upgrades have been completed (grade separation at McPherson Road) or are currently under construction (grade separation at International Boulevard) near the Laredo Bundle limits.

## *International Freight Gateway Users*

Three main groups of users have been identified as beneficiaries of the Laredo Bundle:

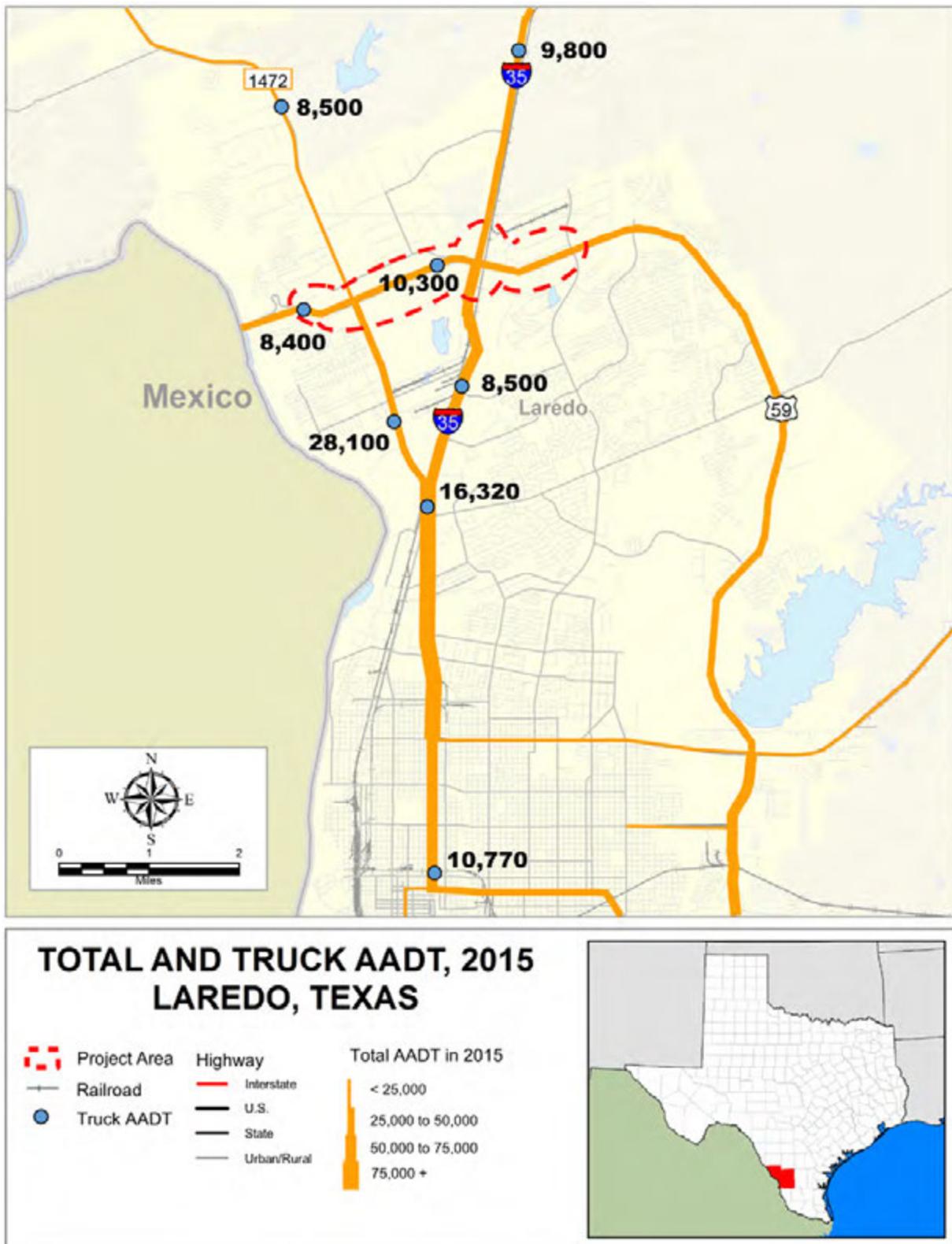
- **Commercial traffic:** This group includes trucks coming from or going to the World Trade Bridge (13,000 total trucks crossing daily [northbound plus southbound]) and any additional freight movements to and from the commercial and industrial areas in the city to conduct drayage activities. Studies have determined that for every cross border trip observed in Laredo, between one and two non-cross border trips take place related to the drayage industry.
- **Non-commercial traffic:** This group includes local Laredo commuters as well as international commuters that cross at the Gateway to the Americas and at the Juarez-Lincoln Bridge, providing a total of 26,000 daily non-commercial vehicles crossings (northbound plus southbound). Both POEs are located approximately eight miles south of the proposed project. Connections to these crossings provide ladders of opportunity to access employment and major educational institutions, such as Texas A&M International University and Laredo Community College.
- **Local Transportation/Trade Industry Employment Base:** This group of users includes the local Laredo community working at the transportation/trade industry, including customs brokers and affiliated businesses (e.g., drayage trucking business such as warehouse operations, logistics personnel, U.S. long-haul freight providers, etc.).

As shown in Figure 2, truck traffic at the project area, which are the first user group, represents between 15 and 25 percent of total traffic. The remaining 75 percent of the traffic accounts for light vehicles for the second and third user groups. All users will benefit from the Laredo Bundle project improvements.

## *Transportation Challenges and Solutions*

In 2015, more than 1.8 million trucks crossed into the U.S. from Mexico through Laredo ports of entry, representing 36.4 percent of all trucks crossing from Mexico into the U.S. Truck traffic crossing at the World Trade Bridge represents 82 percent of all Laredo northbound crossings. The World Trade Bridge is nearing capacity and the designated truck routes connecting to this crossing are over-capacity. Both I-69W/US 59 and I-35 currently carry approximately 40,000 vehicles per day within the project area (20 percent trucks on average), and traffic volumes are projected to double by 2040. The existing US59/I-69W frontage road intersections with I-35 currently operate at an average Level of Service (LOS) D and the McPherson/US 59 intersection operates at a LOS E/F. By 2040, conditions degrade further to a LOS F at all intersections in the project area. FM 1472, providing access to the industrial areas north and south of the World Trade Bridge and carrying 60 percent trucks, currently operates at a LOS E/F.

Figure 2: Total and Truck AADT Within Project Area, 2015



Source: Modified from original 2015 Laredo District Traffic Map by TxDOT. Truck volumes obtained from % of trucks from TxDOT Report: *International Trade as it relates to the Roadway Infrastructure at the Laredo Districts POE* and TxDOT Transportation Planning and Programming Division 2012 Laredo Truck volumes.

Over 90 percent of the truck traffic at the World Trade Bridge consists of “drayage,” short distance shipments between warehouses in Laredo and Nuevo Laredo. Typically, long distance trucks in either Mexico or the U.S. unload their cargos at a warehouse where it is transferred to a short haul truck for the trip across the border. Other shipments move directly from a factory near the border in Mexico to a warehouse across the border in Texas or from a warehouse in Texas to a factory in Mexico. These short haul trucks usually make up to three trips a day across the border.

### *Relevant Data: Existing and Future Conditions*

In total, the Port of Laredo handles more than 15,800 daily commercial truck crossings (northbound plus southbound) with that number projected to double by 2040. At the same time, both the population and employment in the Laredo region are projected to increase by more than 70 percent, growing to a population of more than 465,000 by 2040.<sup>1</sup> Projected volumes of freight and passenger movements will require additional infrastructure improvements and better connectivity between the national transportation system corridors and the critical international trade gateways to reduce logistics costs of goods and services for U.S. consumers. Facilitating quick, affordable, efficient and safe movement of people and goods, the Laredo region is expected to attract more freight-dependent industries and benefit from additional cross-border trade.

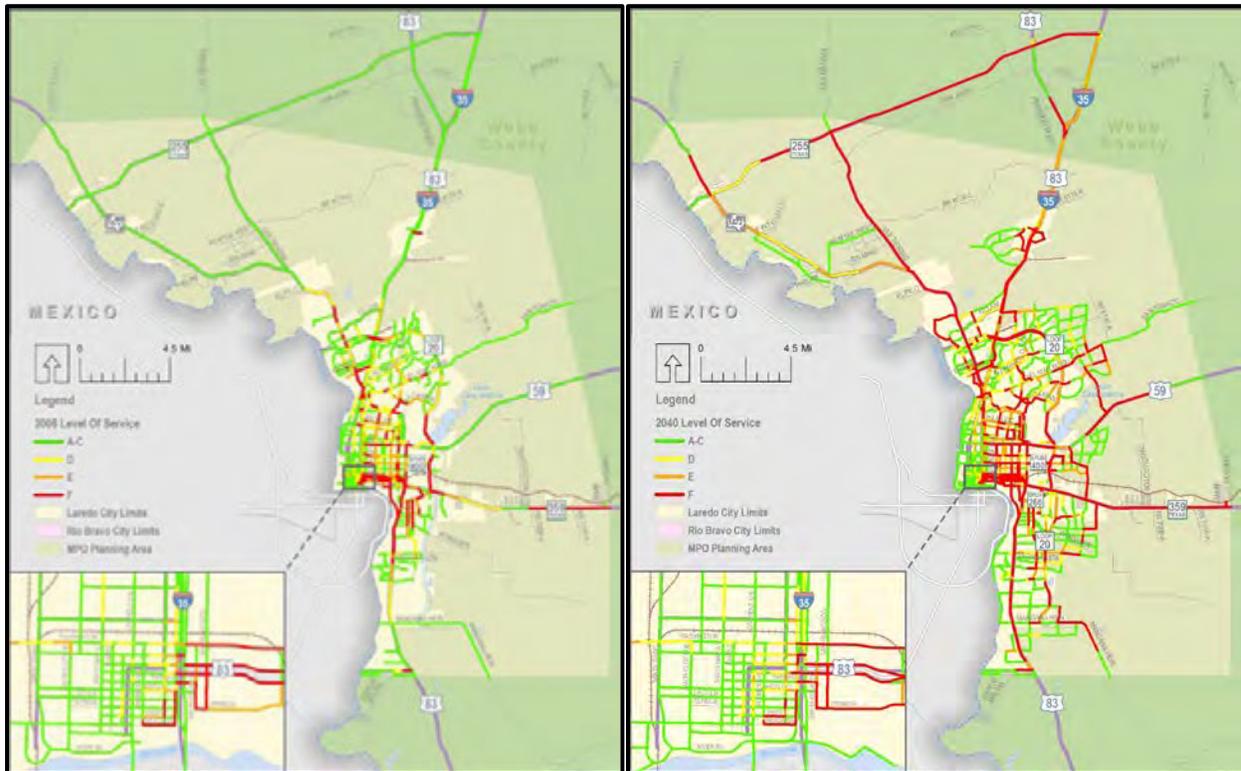
The Laredo Bundle is consistent and complementary to other planned projects at the World Trade Bridge. A proposed bypass lane (FAST lane) that will allow pre-screened or empty trucks to enter the United States without going through the main Customs and Border Protection (CBP) plaza will increase bridge throughput by more than 25 percent. In addition, a future expansion of the World Trade Bridge from 8 to 16 lanes, a concept in initial stages of discussion, could theoretically double the bridge throughput, substantially increasing the flow of heavy trucks into the already congested roadway network in the vicinity of the bridge.<sup>2</sup> Studies performed by the Laredo Metropolitan Planning Organization (MPO) show that by 2040, without additional capacity expansion on these roadways, congestion is anticipated to reach unacceptable levels on many roadway segments in the Laredo MPO region (Figure 3).

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<sup>1</sup> Texas Water Development Board, 2016 (Webb County population projections) and the Laredo Metropolitan Planning Organization (employment projections).

<sup>2</sup> Currently, there is no estimation on the date when this expansion will be done.

Figure 3: Regional Level of Service, 2008 versus 2040



## Project Location

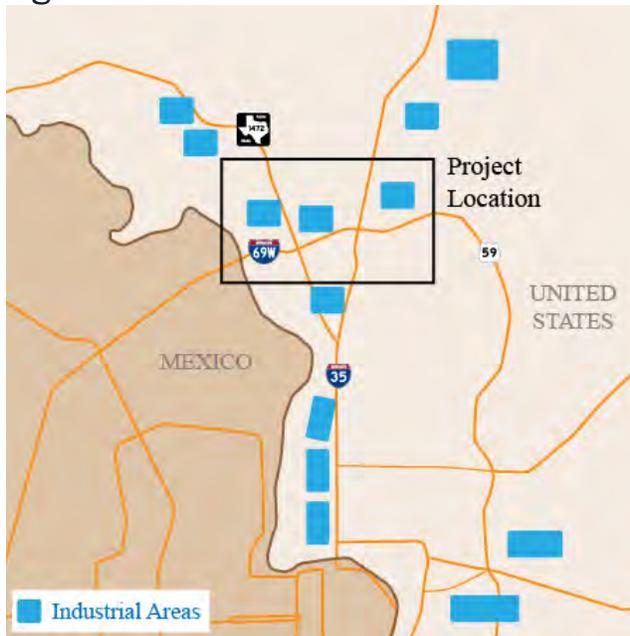
Laredo, the county seat of Webb County, Texas, is located on the north bank of the Río Grande River in South Texas, across from Nuevo Laredo, Tamaulipas, Mexico. The Laredo Urbanized Area (ID 47854) has a population of almost 270,000 (2016). As shown in Figure 4, the Laredo Bundle proposed projects are located near the World Trade Bridge, a critical international border crossing located approximately 2.75 miles to the west of I-35 and the U.S. 59/I-69W interchange. U.S. 59/I-69W serves as the access to and from the World Trade Bridge and other major freight corridors in the region. The Juarez-Lincoln International Bridge, which is the fourth busiest port of entry for non-commercial vehicles at the U.S./Mexico border, is located approximately eight miles to the south.

In addition, industrial facilities in the region are the nerve centers for cross-border freight traffic in the Laredo region. These facilities serve as the origins and destinations of the majority of commercial traffic, and the Laredo Bundle project is located within a 10-mile radius of these facilities (Figure 5). Laredo's location at the border of the U.S. and Mexico on the southern end of I-35 close to the manufacturers in northern Mexico highlights its vital role in trade between the two nations.

Figure 4: Project Location Map and Proposed Improvements



Figure 5: Location of Laredo's Industrial Areas



Source: Harrison et al. (2009). The Impacts of Port, Rail, and Border Drayage Activity in Texas.

The Laredo Bundle’s projects would fully integrate with each other, thus improving connectivity between the trade gateways and transportation corridors. The project will also integrate with the McPherson Road interchange that opened to traffic in 2014 and with the International Boulevard interchange project that is currently under contract. The major destination points for trucks crossing at the World Trade International Bridge are within 4 miles from this POE. I-69W connects the POE with truck routes FM 1472, I-35 and U.S. 59 which provide direct access to destination points within Laredo.

## Project Parties

The City of Laredo, Webb County, WCLL RMA, and TxDOT have formed a strong partnership to address challenges of moving people and goods, and to facilitate cross-border trade. This grant application is being submitted by the City of Laredo, who is leading these projects as part of the I-35 Statewide Corridor Implementation Plan. The Laredo District of TxDOT would be responsible for the development and implementation of the projects. Webb County, WCCL RMA, and the Laredo MPO fully support the project.

## Sources and Uses of all Project Funding

Figure 6 shows multiple revenue sources and uses of project funds, including the utilization of a \$96 million FASTLANE award. Roadway and bridge components of the project represent 40 and 45 percent of the total cost, respectively. Grade separations are also part of the project bundle, accounting for the remaining 15 percent of the total project cost. However, FASTLANE funds will not be used to fund the grade separation components of the project (Table 2).

Figure 6: Overall Project Sources and Uses



*Table 2: Overall Project Sources and Uses*

Component	Uses		Sources
	U.S. 59 ML over UPRR/ I-69W Add'l MLs	I-35/I-69W/U.S. 59 Direct Connectors	FASTLANE Funds Applied to Component?
Roadway	\$23,430,000	\$41,120,000	Yes
Bridge	\$6,860,000	\$64,880,000	Yes
Grade Separations	\$14,710,000	\$9,000,000	No
Total	\$45,000,000	\$115,000,000	

### *Viability and Completeness of the Project's Financing*

The funding package for the two Laredo projects is a mix of Federal, state, regional and local dollars. The funding is comprised of CBI program funds and FASTLANE grant dollars, as well as a financial commitment from the City of Laredo. The financial plan assumes an overall 80 percent Federal participation rate and a 60 percent FASTLANE award share of future eligible costs of the project costs.

### *Stable and Reliable Fund Commitments*

The \$32 million of Coordinated Border Infrastructure (CBI) funding through FHWA is being provided through TxDOT with an 80 percent Federal/20 percent state split. The City of Laredo's City Council passed a resolution in 2016 to provide \$32 million of the matching funds (see Technical Appendix). The City's funds generally come from tax revenue, fees/collections, and other sources.

### *Contingency Reserves*

The City of Laredo currently has a fund balance exceeding \$44 million. The City has the capacity to utilize or leverage said funding towards the issuance of bonds/debt service in the future if the project were to exceed the anticipated budget.

### *Financial Condition of the Project Sponsor*

The City of Laredo is rated by Moody's and Standard and Poor's (August, 2016) and has received a strong credit rating from both agencies.

### *Ability to Manage Grants*

The City of Laredo has successfully managed multiple CBI grants (including roadway projects) over the past few years with similar Federal requirements as the FASTLANE grant. These include similar projects such as construction of U.S. 59 (future I-69W) mainlanes over McPherson Road and construction along Loop 20 from Business 59 to SH 359.

### *Future Eligible Costs*

The future eligible cost of this project, \$160 million, is comprised solely of construction costs.

### *Availability and Commitment of Funds*

As shown in Table 1, the City of Laredo is requesting \$96 million in FASTLANE funds to construct the Laredo Bundle. This amount will be matched with \$64 million in committed funds for a total project cost and funding of \$160 million.

### *Federal Funds Already Provided*

The construction of the U.S. 59/I-69W overpass at I-35 has been identified by TxDOT, the City of Laredo, Webb County and the WC-CL RMA as a priority project for the region. This component is identified in TxDOT's Unified Transportation Plan (UTP) and Statewide Transportation Improvement Program (STIP) as well as the Laredo MPO's TIP and Metropolitan Transportation Plan (MTP). The I-69W additional mainlanes are not identified in the UTP. This segment of I-69W is part of the future I-69 corridor by the Texas Transportation Commission, TxDOT and FHWA, and because of that, Federal law requires that this roadway must be upgraded to interstate standards by 2035. The Federal funds identified are \$37,000,000 in FASTLANE grant funds and \$9,000,000 in CBI Federal funds.

The five direct connectors at the Milo interchange are not identified in the UTP. Three of them (WB-NB, SB-EB, and WB-SB) are identified in the Laredo MPO's 2010-2035 MTP as projects needed for congestion relief, economic development, and improved safety. The Federal funds identified are \$69,000,000 in FASTLANE grant funds and \$23,000,000 in CBI Federal funds.

## **Merit Criteria**

### *Economic Outcomes*

Impediments to trade with Mexico have direct and indirect impacts on jobs, not only in border regions, but also other parts of Texas, the U.S. and North America. The current configuration of U.S. 59/I-69W in the study area, with its discontinuous mainlanes, at-grade intersections and rail crossing, and only three of eight direct connectors with I-35 open to traffic, is becoming an increasingly strained bottleneck for the movement of people and goods in the region as well as cross-border movements at the World Trade Bridge. The Laredo Bundle improvements would increase the efficiency and reliability of truck and passenger vehicle movements in the study area, and the economic benefits from increasing throughput of goods and people in and out of the region and the international border crossing would enhance the region's and the nation's competitiveness. By 2040, trade values of all outbound, inbound, or internal freight movement will more than double in the Laredo region. The economic benefits from additional trade and the movement of people in

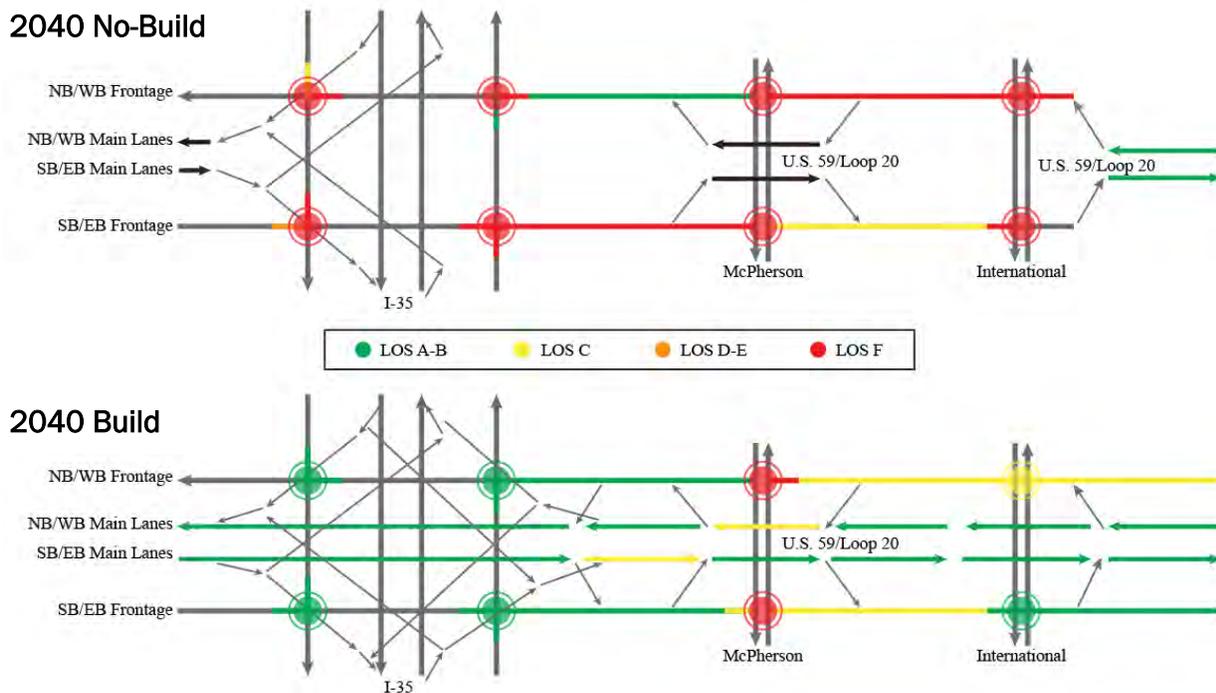
the region and the international border crossing would enhance the global economic competitiveness of the region, state and U.S.

From a regional perspective, the Laredo economy relies heavily on the international movement of freight due to its geographic location and job specialization characteristics. NAFTA has created a strong demand for trucking, warehousing, and support service industries in the region; and employment in Trade, Transportation and Utilities has accounted for approximately 33 percent of the jobs in Webb County since 2000.

### Mobility Outcomes

As shown in Figure 7, the Laredo Bundle is expected to improve highway and intersection level of service and reduce congestion while increasing throughput in the corridor. Without the improvements, intersection delay in all directions at the U.S. 59/I-69W interchange with I-35 as well as adjacent intersections will reach LOS F, further exacerbating what is already a critical bottleneck for accessing the World Trade Bridge. As proposed in the Laredo Bundle, adjusting the number of travel lanes, the type of traffic control at intersections, the number of access points, and speed limits all affect roadway capacity and congestion. The new U.S. 59/I-69W mainlanes allow for additional throughput and mobility through the corridor, while the I-35 direct connectors significantly reduce intersection delay. Most intersections see dramatic LOS improvements (Figure 7) and the U.S. 59/I-69W mainlanes allow for the uncongested flow of trucks and passenger vehicles.

Figure 7: Level of Service Comparison, 2040 No-Build versus Build



## Safety Outcomes

Another key objective of the Laredo Bundle is to improve safety throughout the project limits, especially by creating direct connections at the Milo Interchange as well as a continued through movement on U.S. 59/I-69W, decreasing movements at signalized intersections. The bundle would also remove an at-grade railroad crossing, improving safety and vehicular mobility at that location. The average number of incidents (crashes) for the project vicinity based on 2010 – 2012 data was 48.5 crashes/year. Table 3 identifies the top intersections in Laredo with crash occurrences, including fatal crash locations, between the years 2010 and 2012. Intersection numbers 5, 6, and 15 from Table 3 are within the project limits. Adding the U.S. 59/I-69W mainlanes overpass and direct connectors with I-35 will allow a large volume of vehicles to bypass these intersection safety hotspots.

Table 3: Top 20 Crash Locations in Laredo, 2010-2012

Intersection	Number of Crashes
1. McPherson Rd and Del Mar Blvd	268
2. Loop 20 (Bob Bullock Loop) and SH 359	222
3. IH 35 and US 83 (Matamoros St)	212
4. IH 35 and Calton Rd	165
5. IH 35 and Loop 20 (Bob Bullock Loop)	159
6. FM 1472 and Loop 20 (Bob Bullock)	129
7. US 83 (Zapata) and Loop 20 (Bob Bullock)	126
8. IH 35 and Mann Rd	114
9. Loop 20 (Bob Bullock Loop) and Spur 400 (Clark Blvd)	109
10. IH 35 and Victoria St	108
11. IH 35 and US 59 (Lafayette St)	105
12. McPherson Rd and Calton Rd	103
13. IH 35 and US 83 (Houston St)	102
14. McPherson Rd and Jacaman Rd	97
15. McPherson Rd and Loop 20 (Bob Bullock Loop)	95
16. McPherson Rd and Shiloh Dr	93
17. Loop 20 (Bob Bullock Loop) and US 59 (Saunders St)	90
18. US 59 and N Bartlett Ave	75
19. McPherson Rd and Hillside Rd	70
20. Mines Rd and Bristol Rd	68

Source: TxDOT, Traffic Operations Division

The Laredo Bundle will address safety concerns caused by an increase in traffic and an increase in crash rates in the region. Some of the most significant growth in daily traffic volumes between the years 2002 and 2015 occurred along U.S. 59 and I-35 (Table 4), which highlights the growing importance of the roadway and the growing freight volumes and population and development pressure in this part of the region.<sup>3</sup>

<sup>3</sup> Laredo Metropolitan Transportation Plan 2015-2040, Laredo Metropolitan Planning Organization

*Table 4: High-Traffic Volume Growth Locations Close to the Project Area (ADT 2002 to 2015)*

Roadway	Location	2002	2015	Absolute Growth	Percent Growth
U.S. 59	Between I-35 and McPherson Ave (east of Milo Interchange)	15,500	44,647	29,147	188%
U.S. 59	Between Del Mar Blvd and U.S. 59 (4.6 miles east from Milo Interchange)	19,900	35,874	15,974	80%
I-35	Between FM 1472 and U.S. 59 (south of Milo Interchange)	48,000	57,474	9,474	20%
I-35	Between Carlton Rd and Mann Rd (3.6 miles south of Milo Interchange)	104,000	117,864	13,864	13%
U.S. 59	Between McPherson Ave and Del Mar Blvd (1 mile east of Milo Interchange)	8,700	29,266	20,566	236%

Source Created using data from 2012 and 2015 Laredo District Traffic Map by TxDOT.

### *Community and Environmental Outcomes*

The key goal of this project is to improve quality of life and Ladders of Opportunity for the Laredo community by improving safety and enhancing personal mobility and accessibility to employment, education, and training opportunities. Another positive outcome of the project is providing more efficient connections that will minimize conflicts between truck traffic and non-commercial traffic. In addition, the project will provide improved and more efficient access for emergency vehicles and national security vehicles to the Laredo road network. The Laredo region is currently in attainment for air quality standards; however, there are growing concerns of potential air quality impacts due to the high levels of idling of commercial and non-commercial vehicles waiting to cross the international border in both directions.<sup>4</sup> In addition, after northbound vehicles clear the border inspection facilities, especially at the World Trade Bridge, they still experience bottlenecks and continued idling as they enter the regional roadway network.

A study done by Texas A&M Transportation Institute determined that every cross-border trip in the Laredo region resulted in one and two non-cross-border trips.<sup>5</sup> Although non-cross-border trips are shorter, they are an important component of the drayage industry. **The study also showed that the slow speeds associated with border crossings at the World Trade**

<sup>4</sup> Birt, A., Farzaneh, R., Johnson, J., Gu, C., Overmyer, S., Zietsman, J. (2016). Drayage Activities and Emissions in the Laredo-Nuevo Laredo Airshed. Texas A&M Transportation Institute.

<sup>5</sup> Ibid.

Bridge, in combination with lower speeds within urban area, led to high emission concentrations in this area. Specifically, particulate matter (PM) pollutants have been shown to cause localized health problems in this area.

## **Large/Small Project Requirements**

### **1. Does the project generate national or regional economic, mobility, safety benefits?**

Based on the convergence of three major freight corridors at the project location (i.e., I-35/I-69W/Ports-to-Plains) as it approaches the busiest inland POE in the U.S. that supports millions of jobs in Laredo, Texas and the U.S., this project would clearly generate local, regional, national and international benefits by enhancing the movement of goods to the Laredo POE. Over 22 percent of the state economy and approximately 465,000 jobs in Texas are dependent on U.S.-Mexico trade.

This project would also provide safety benefits by enhancing commercial traffic flows into and through this portion of Laredo which contains the World Trade International Bridge POE and the drayage/customs brokers facilities that serve international trade crossing at Laredo. These safety benefits would result from the removal of traffic signals at the I-35/I-69W/U.S. 59 Loop interchange, which are the primary causative reason for accidents in this portion of Laredo.

### **2. Is the project cost effective?**

Yes, these project upgrades would be highly cost effective to implement as the World Trade Bridge is a vital international freight crossing between U.S. and Mexico. This POE handles up to 14,000 truck crossings per day totalling over 1.8 million per year; is the busiest inland POE in the U.S. This international crossing handles more trucks than any other of the U.S./Mexico/Canadian crossings (approximately 17.8 percent in 2015). The trade value of the international cargoes crossing at this POE, and carried on these connecting roadways, was valued at approximately \$280 billion and 7 percent of the U.S. international trade in 2014.

### **3. Does the project contribute to one or more of the Goals listed under 23 USC 150?**

- **Safety.** Current analysis indicates that the majority of all accidents are located at the signalized intersections in this portion of the US 59/I-69W Loop. This project would enhance safety by eliminating the need for traffic to stop at the existing signalized intersections along this portion of the Loop.
- **Congestion Reduction.** Current analysis indicates that congestion on this portion of the U.S. 59/I-69W Loop is associated with the existing signalized intersections along this portion of the Loop. This project would eliminate the need for all traffic to use these signalized intersections.

- **System Reliability/Freight Movement and Economic Vitality.** The proposed upgrades enhance the reliability of these roadways by eliminating the need for all traffic to utilize the signalized intersections. Freight movement and economic vitality would be enhanced by this proposed work, including by the addition of a I-69W Loop mainlane for eastbound traffic leaving the World Trade International Bridge that would be utilizing the pre-certified/pre-inspected FASTLANE being proposed by the City of Laredo at the World Trade Bridge.
- **Environmental Sustainability.** This project would enhance the performance of this intertwined transportation and international bridge system without contributing to any substantial environmental impacts; by moving traffic more efficiently, the project would contribute to improved air quality by reducing emissions by cars and heavy trucks at the existing signalized intersections.
- **Reduced Project Delivery Delays.** This grant funding would allow the City to accelerate the construction of the project sooner than the current longer-term phased approach. This in turn, will reduce project inflationary costs that would be incurred without this grant funding. It would also promote jobs as well as the local, state, national and international economies by expediting the movement of people and international trade goods.

**4. Is the project based on the results of preliminary engineering?**

Yes – this project is located at the I-35/US 59 Loop (formerly Loop 20) interchange that has seen an ongoing implementation since the construction of the Loop and the World Trade Bridge in the late 1990s. This interchange has had an approved schematic since this time and continues to be used as the basis of the engineering in each of the construction phases.

**5. With respect to non-federal financial commitments, does the project have one or more stable and dependable funding or financing sources to construct, maintain, and operate the project? Are contingency amounts available to cover unanticipated cost increases?**

The City currently has a fund balance exceeding \$44 million. We have the capacity to utilize or leverage said funding towards the issuance of bonds/debt service in the future if the project were to exceed the anticipated budget.

**6. Is it the case that the project cannot be easily and efficiently completed without other federal funding or financial assistance available to the project sponsor?**

This project would need to compete for traditional and available state funding with other much needed projects in Laredo with the actual implementation of this project's work completed in piecemeal fashion over time.

**7. Is the project reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project?**

Yes – the final plans, specifications and estimates (PS&E) and funding for the US 59 Loop mainlanes over I-35/UP Railroad would be ready to go to construction bid letting in March

2017. The PS&E development for the rest of the project phases included in the application are either currently under development by TxDOT (i.e. the remaining five US 59 Loop/I-35 interchange direct connectors) or would begin in 2017 (i.e. the additional eastbound mainlane between the World Trade Bridge and I-35 interchange). It is anticipated that these phases would begin construction within 18-months of the obligation of the funds as no additional right-of-way would be required and the appropriate environmental clearances and PS&E packages would be completed within this timeframe.

## **Cost Effectiveness**

A Benefit-Cost Analysis (BCA) was conducted to assess the impacts of the Laredo Bundle project. The BCA was prepared using the California Life-Cycle Benefit/Cost Analysis Model (Cal-B/C).<sup>6</sup> The model incorporates project costs by category and benefits related to travel time, vehicle operation, accidents, and emissions.<sup>7</sup> Separate BCAs were conducted for each component of the Laredo Bundle, including the U.S. 59/I-69W overpass and additional mainlanes over I-35 and the five missing direct connectors linking U.S. 59/I-69W to I-35.

Some default parameters within Cal-B/C were updated to reflect project-specific conditions. Federal guidance was used for value of time savings, values of avoided emissions and crashes, and fuel cost forecasts. Additionally, state- and county- specific information was used, including crash data from TxDOT. Current and future traffic volumes were derived from previous analyses of the I-69W/Loop 20 and I-35 interchange.<sup>8</sup>

Preliminary BCA results for the Laredo Bundle are included below. Figure 8 shows the sources of costs and benefits for the project. Tables 5 and 6 provide a more detailed breakdown of costs and benefits for each project component. The Technical Appendix provides more detail on the methodology and results of the BCA, including an assessment of the benefits of each individual direct connector that demonstrates that each element is individually cost effective.

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<sup>6</sup> More information on Cal-B/C is available at [http://www.dot.ca.gov/hq/tpp/offices/eab/LCBC\\_Analysis\\_Model.html](http://www.dot.ca.gov/hq/tpp/offices/eab/LCBC_Analysis_Model.html).

<sup>7</sup> Other project-specific benefits, such as reduced delay for trucks exiting I-69W, could potentially be calculated.

<sup>8</sup> *Follow-Up Analysis of Loop 20 Improvement Schematics* (October 2012) and *IH-35 and Loop 20 Direct Connector Analysis* (October 2016). Texas Transportation Institute.

Figure 8: Sources of Costs and Benefits, Millions of 2016 Dollars

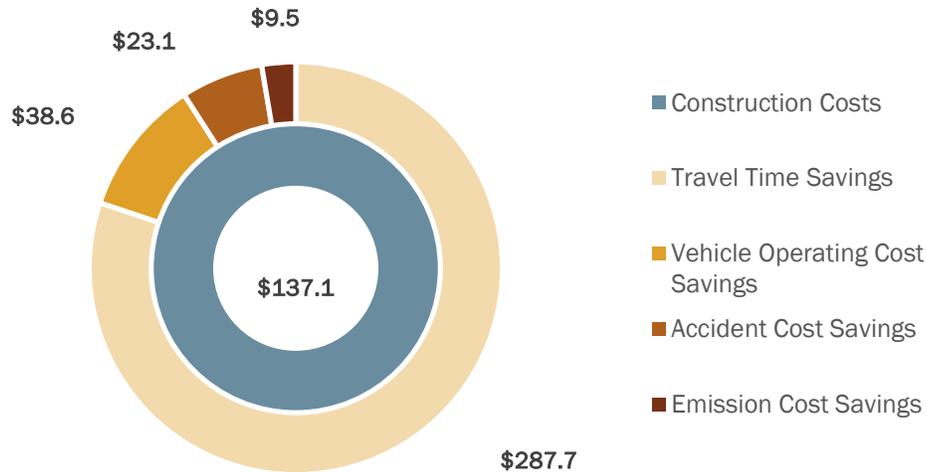


Table 5: Summary Results of Benefit-Cost Analysis

	Overpass	NB-EB	SB-EB	EB-SB	WB-NB	WB-SB	Bundle
Life-Cycle Costs	\$41.5	\$30.7	\$30.7	\$30.7	\$30.7	\$30.7	\$137.1
Life-Cycle Benefits	\$122.1	\$48.0	\$86.6	\$253.5	\$76.1	\$143.1	\$522.7
<b>Net Present Value</b>	<b>\$80.6</b>	<b>\$17.2</b>	<b>\$55.9</b>	<b>\$222.7</b>	<b>\$45.4</b>	<b>\$112.4</b>	<b>\$385.7</b>
Benefit/Cost Ratio	2.9	1.6	2.8	8.2	2.5	4.7	3.8
Rate of ROI	19%	7%	23%	58%	20%	35%	24%
Payback Period	4 years	7 years	4 years	2 years	5 years	3 years	3 years

Note: 2016\$, M. Net present values of benefits and costs were computed with a seven percent discount rate.

Table 6: Itemized Benefits (20 Year Total)

	Overpass	NB-EB	SB-EB	EB-SB	WB-NB	WB-SB	Bundle
Travel Time Savings	\$47.4	\$16.7	\$66.9	\$188.5	\$54.0	\$101.1	\$287.7
Vehicle Operating Cost Savings	\$1.4	-\$1.9	\$6.2	\$21.3	\$8.7	\$11.0	\$38.6
Accident Cost Savings	\$7.9	\$4.2	\$1.5	\$4.7	\$1.5	\$3.5	\$23.1
Emission Cost Savings	\$0.4	-\$0.5	\$1.4	\$6.0	\$1.7	\$3.0	\$9.5
<b>Total</b>	<b>\$57.1</b>	<b>\$18.5</b>	<b>\$76.0</b>	<b>\$220.4</b>	<b>\$65.8</b>	<b>\$118.5</b>	<b>\$359.0</b>
Person-Hours of Time Saved	8.5 M	3.2 M	13.7 M	39.0 M	11.0 M	20.8 M	59.7 M
CO <sub>2</sub> Emissions Saved (tons)	12,921	-19,068	53,911	244,463	63,047	122,652	371,079
CO <sub>2</sub> Emissions Saved	\$0.32	-\$0.44	\$1.14	\$5.29	\$1.34	\$2.64	\$8.04

Note: 2016\$, M. Net present values of benefits and costs were computed with a seven percent discount rate.

## **Project Readiness**

### *Technical Feasibility*

All portions of the Laredo Bundle are anticipated to begin construction within 18 months of notice of award of the FASTLANE grant. The projects within the Laredo Bundle are at different phases of development. Ongoing railroad coordination with UPRR is anticipated to be completed prior to project letting for the direct connectors, and TxDOT has secured railroad approval for the U.S. 59 overpass at UPRR's track.

Project design criteria follows the TxDOT Roadway Design Manual, TxDOT Bridge Design Manual, Texas Manual on Uniform Traffic Control Devices (TMUTCD), and other state- and Federally-approved design standards as applicable.

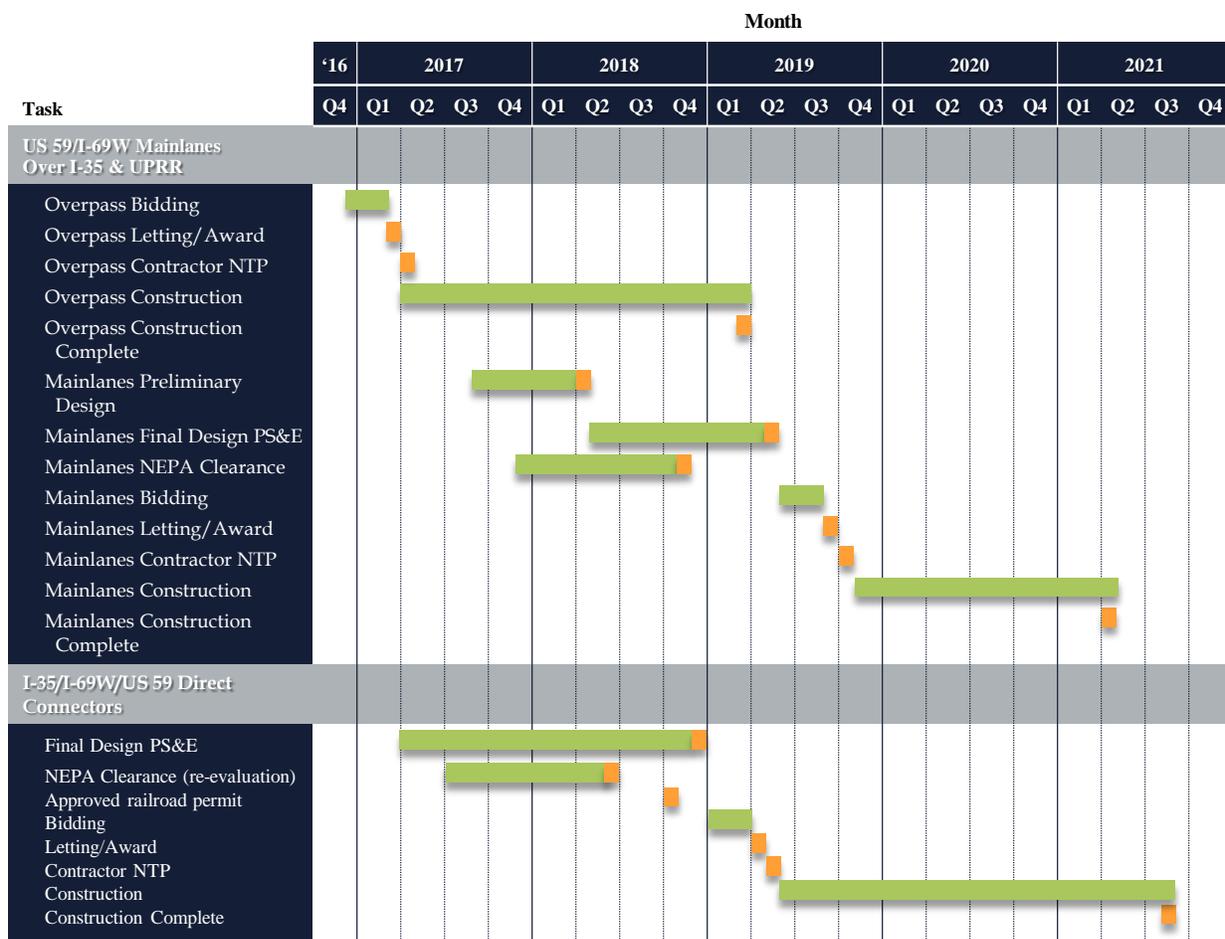
The statement of work for the projects includes:

- Construction of 1.25 miles of U.S. 59 (future I-69) freeway mainlanes with three travel lanes in each direction with shoulders, including an overpass bridge over existing I-35 and the Union Pacific Railroad, and entrance and exit ramps to connect with the existing facility. This would require installation of pavement and associated pavement substructure, earthwork, bridge substructure and superstructure, signage and pavement markings, and landscaping items. Construction of 1.8 miles of two main lanes, one eastbound and one westbound on I-69 W from the entrance of World Trade Bridge to 0.3 miles west of I-35, constructing one additional 12 foot main lane in each direction with 10 foot inside/outside shoulders.
- Construction of five direct connectors at the I-35/U.S. 59 Interchange: westbound U.S. 59 to southbound I-35, westbound U.S. 59 to northbound I-35, eastbound I-69W to southbound I-35, northbound I-35 to eastbound U.S. 59, and southbound I-35 to eastbound U.S. 59. The work includes pavement approaches, earthwork, direct connector bridge substructure and superstructure, and signage and pavement markings.

### *Project Schedule*

A project implementation schedule is provided in Figure 9. The schedule details anticipated timeframes for major milestones such as preliminary and final design, environmental approvals, project award, contract execution, contractor notice to proceed for construction activities, and construction completion. All of the projects within the Laredo Bundle meet all identified schedule requirements for obligation of FASTLANE grant funds.

Figure 9: Proposed Laredo Bundle Schedule by Project Segment



**A. Necessary Activities to Allow Grant Funds to be Obligated**

The projects within the Laredo Bundle are in different stages of development but all are scheduled to begin construction prior to September 30, 2020. Final design and environmental clearance are complete for the U.S. 59 mainlanes over I-35; this phase is ready to begin construction upon receipt of the NSFHP grant. Final design and re-evaluation of the existing environmental document for the I-35/U.S. 59 direct connectors will begin within 2017 with anticipated construction to start in the middle of 2019. Preliminary design, environmental documentation, and final design for the I-69W additional mainlanes are all to be completed within 21 months after notice of a FASTLANE grant award.

**B. Project Construction Timeline**

Upon receipt of a FASTLANE grant and completion of the design and environmental tasks noted above, construction is anticipated to begin for the different phases between April 2017 and October 2019. All phases of project construction are shown to be complete by summer 2021 as noted in Figure 9.

### **C. Property and/or Row Acquisition Timeline**

All phases of the Laredo Bundle will be constructed entirely with existing TxDOT right-of-way; therefore, additional right-of-way acquisition is not required for the Laredo Bundle.

#### *Required Approvals*

##### **A. Information about the National Environmental Policy Act (NEPA) Status**

An Environmental Assessment was completed in the early 1990s by the FHWA in conjunction with TxDOT that covered the construction of the existing I-35 frontage roads and mainlanes; widening of the I-35 mainlanes over the U.S. 59 frontage roads; construction of eight direct connectors between I-35 and U.S. 59; and construction of the U.S. 59 frontage roads and mainlanes. Of the cleared improvements, the U.S. 59 frontage roads, widening of I-35 mainlanes, three of the eight direct connectors, and the McPherson Road overpass were complete. In the early 2000s, FHWA and TxDOT Environmental Affairs Division determined that all remaining work in this area would be required to be re-cleared as stand-alone Categorical Exclusions (CEs). The environmental clearance for the Laredo Bundle followed this requirement and is discussed in the subsequent sections.

**U.S. 59 Loop East and West Mainlanes Over I-35/Union-Pacific Railroad and Eastbound and Westbound mainlane Addition on I-69W.** On April 4, 2016, TxDOT cleared the U.S. 59 mainlanes project as a CE. TxDOT's CE Determination Form, which environmentally clears a document, is included in the Technical Appendix along with the project's Scope Development Tool, which outlines impacts and details for the project. The I-69W Loop project has not yet received environmental clearance, but it is anticipated to be cleared as a CE by November 2018, which would be about one year prior to the anticipated letting date.

**Final Five Direct Connectors on the U.S. 59 Loop/I-35 "Milo" Interchange.** The direct connectors project has not yet received environmental clearance, but it is anticipated to be cleared as a CE by June 2018, which would be nearly one year prior the anticipated letting date.

##### **B. Reviews, Approvals, and Permits by Other Agencies**

**U.S. 59 Loop East and West Mainlanes Over I-35/Union-Pacific Railroad and Eastbound and Westbound Mainlane Addition on I-69W.** Coordination for the U.S. 59 mainlanes CE included the following agencies.

- Texas Commission on Environmental Quality (TCEQ) for the Construction General Permit; and
- City of Laredo for general project coordination and construction notification including Municipal Separate Storm Sewer System (MS4) Permit.

Coordination with the following agencies is anticipated for the environmental review of the I-69W mainlanes:

- TCEQ for the Construction General Permit;
- City of Laredo for general project coordination and construction notification, including MS4 permitting and floodplain administration; and
- Texas Parks and Wildlife Department (TPWD) may require coordination if there are any anticipated impacts to threatened or endangered species and their habitats.

Previous studies in the project location indicate that there would be no significant (or substantial) impacts to either the human or natural environment by this work, including to threatened or endangered species. This work would be environmentally approved as a Categorical Exclusion because all of the work would be contained within the existing right-of-way and the lack of substantial, negative environmental impacts.

**Final Five Direct Connectors on the U.S. 59 Loop/I-35 “Milo” Interchange.** Coordination with the following agencies is anticipated for the environmental review of the direct connectors.

- TCEQ for the Construction General Permit;
- City of Laredo for general project coordination and construction notification including MS4 permitting and floodplain administration; and
- Texas Parks and Wildlife Department (TPWD) may require coordination if there are any anticipated impacts to threatened or endangered species and their habitats.

Previous studies in the project location indicate that there would be no significant (or substantial) impacts to either the human or natural environment by this work, including to threatened or endangered species. This work would be environmentally approved as a Categorical Exclusion because all of the work would be contained within the existing right-of-way and the lack of substantial, negative environmental impacts.

### **C. Environmental Studies and Other Documents**

**U.S. 59 Loop East and West Mainlanes Over I-35/Union-Pacific Railroad and Eastbound and Westbound Mainlane Addition on I-69W.** The environmental review for the U.S. 59 mainlanes project included a determination of impacts to air quality, biological resources, traffic noise, community, and water resources and are discussed in detail below.

- **Air quality.** The project is located in an area in attainment or unclassifiable for all national ambient air quality standards (NAAQS) including ozone and carbon monoxide (MO). In addition, the annual average daily traffic projections do not exceed 140,000 vehicles per day. Therefore, no air quality impacts are anticipated as a result of the project.
- **Biological resources.** An evaluation of the project area found no suitable habitat for Federally listed threatened or endangered species nor was there any critical habitat. The

project is within range of the state-listed horned lizard (*Phrynosoma cornutum*) but best management practices will be implemented to mitigate against potential disturbance.

- **Traffic noise.** The project will not result in increased traffic noise, and noise abatement measures would be implemented during construction.
- **Community.** The project would not result in direct impacts, including access changes, to businesses, residential, or community facilities in the area.
- **Water resources.** There are no creek crossing in the project area, and the project would not result in impacts to floodplains or wetlands.

The I-69W widening is anticipated to result in minor impacts, particularly due to the project being contained within existing TxDOT right-of-way. TxDOT will determine the extent, if any, of potential impacts to the following resources: air quality, biological resources, traffic noise, community, water resources, historic, and archeological.

**Final Five Direct Connectors on the U.S. 59 Loop/I-35 “Milo” Interchange.** The direct connectors project is anticipated to result in minor impacts, particularly due to the project being contained within existing TxDOT right-of-way. TxDOT will determine the extent, if any, of potential impacts to the following resources: air quality, biological resources, traffic noise, community, water resources, historic, and archeological.

#### **D. Discussions with the Federal Highway Administration**

FHWA assigned its responsibility for NEPA and other Federal environmental policy compliance to TxDOT through a Memorandum of Understanding signed on December 14, 2014. This delegation authorized TxDOT to review and approve environmental documents without seeking approval from FHWA. As such, outside of the previously discussed agency review, no discussions with Department of Transportation offices or headquarters are required for the grant application’s projects.

#### **E. Public Engagement**

Public engagement has occurred throughout the development of the entire interchange project, including during the EA. Comments received to date have shown general public support for the project, and local officials strongly support construction of the Laredo Bundle. Due to the minimal impacts associated with the Laredo Bundle, public involvement through public meetings or hearings are not required. Meetings with affected property owners and open houses may occur as environmental review proceeds for the direct connectors and I-69W widening projects.

#### **F. State and Local Approvals and Planning**

The Laredo Bundle is identified as priority project for the region by the City of Laredo, Webb County, Webb County-City of Laredo Regional Mobility Authority, and TxDOT. The Laredo Bundle is included in the Laredo Metropolitan Organization’s (MPO) 2015 – 2040

Metropolitan Transportation Plan (MTP) as funded and illustrative projects. The Bundle is listed in the MTP as a project that will provide congestion relief, economic development, and improved safety. The U.S. 59 mainlanes project is also listed in the Laredo MPO's 2015 – 2018 Transportation Improvement Plan, which was incorporated in the Statewide Transportation Improvement Plan in August 2015.

The Laredo Bundle has wide support from multiple sectors of government including the City of Laredo, Webb County, and Texas legislature. Once clearance is received for all three projects, the Laredo Bundle will satisfy all required state and local approvals to move forward with construction within 18 months of funds obligation.

### *Assessment of Project Risks and Mitigation Strategies*

The Laredo Bundle projects will be implemented within the existing ROW footprints of I-35, U.S. 59, and I-69. Furthermore, the construction of both the U.S. 59 and the I-69 mainlanes are within the corresponding frontage roads, which dramatically minimizes the risk to encounter unforeseen issues that could delay the development and construction of the projects. The complete interchange obtained NEPA clearance through an Environmental Assessment in the early 1990s, thus minimizing the possibility of encountering major issues when pursuing the NEPA clearance documents for the direct connectors through a Categorical Exclusion. No major utility relocations are anticipated for these projects.

Portions of the Laredo Bundle require approval by UPRR for construction over its ROW. The permit for the U.S. 59 mainlanes over the UPRR track has already been granted, and the same process will be utilized for the permit for the direct connectors over UPRR ROW.