



# Appendix A

## Studies Done to Date

---

Webb County-City of Laredo Regional Mobility Authority  
March 2020

Prepared by:  
HNTB Corporation

-- page intentionally left blank --

## Table of Contents

<b>Laredo Metropolitan Transportation Plan (2015-2040)</b> .....	<b>1</b>
Document Reviewed.....	1
Document Summary/Issues Identified .....	1
Related Documents.....	2
Programmed/Planned Projects.....	3
<b>Long-Range Strategies to Improve Traffic Conditions on FM 1472 (Mines Road) ..</b>	<b>3</b>
Document Reviewed.....	3
Document Summary/Issues Identified .....	3
Related Documents.....	4
Programmed/Planned Projects.....	4
<b>VIVA Laredo – City of Laredo Comprehensive Plan (2017) .....</b>	<b>4</b>
Document Reviewed.....	4
Document Summary/Issues Identified .....	4
Related Documents.....	5
Programmed/Planned Projects.....	5
<b>Other Related Studies</b> .....	<b>5</b>
<b>Summary of Findings from Study Review .....</b>	<b>6</b>

## Introduction

This appendix serves as a review of studies with information that is relevant in and around the *North Laredo-Webb County Transportation Planning Study* area that have been completed to date. These studies offer insight specific to mobility improvements that have previously been discussed, are being developed or are under construction, planned for the future, and issues related to transportation in the study area. The sequence of studies includes the *Laredo Metropolitan Transportation Plan, Long-Range Strategies to Improve Traffic Conditions on FM 1472 (Mines Road)*, the *City of Laredo Comprehensive Plan*, and other related studies. Each study, except those discussed under “other related studies,” is given a high-level summary that includes the following:

Document Reviewed – basic information about who commissioned the reviewed document, where it can be found online and when it was completed or adopted.

Document Summary/Issues Identified – key points about what can generally be found within the document related to regional mobility and issues related to transportation in the study area.

Related Documents – other key documents, most of which are not included within this review, that may include further information that would be relevant to the discussion.

Programmed/Planned Projects – a list of projects or project-related information that can be found within the document. There are often several more projects than what is listed for each document, though this review provides a summary of key mobility improvements within the study area.

Other related studies (see **Other Related Studies** section at the end of this Appendix) are given a high-level summary of the specific content that relates to the study area.

## Laredo Metropolitan Transportation Plan (2015-2040)

### **Document Reviewed**

PDF available through Laredo Metropolitan Planning Organization (MPO) website:  
<http://www.laredompo.org/>

It should be noted that prior to completing the *North Laredo-Webb County Transportation Planning Study*, the 2045 Metropolitan Transportation Plan (MTP) was completed. However, the 2040 MTP was the latest available upon completing this Appendix and served as a critical starting point for this and other studies discussed herein.

### **Document Summary/Issues Identified**

- Completed in 2015, this plan includes 38 projects in the fiscally constrained plan. The projects are grouped into two categories that include Federally funded roadway and bicycle/pedestrian projects (35) and Category 5339 transit projects (3). The majority of the projects included in the plan are located in the central part of Laredo.
- Details for 41 unfunded projects that are not in the fiscally constrained plan, are included in the MTP.
- According to the plan, the population within the Webb County boundary is expected to grow from 257,590 in 2010 to about 418,600 people by the year 2040 (>60%).

## Appendix A: Studies Done to Date

- The plan includes a section on border crossing issues. Issues identified at the World Trade Bridge in the southern part of the study area are inadequate capacity, mixing of commercial traffic types, and the lack of an adequate amount of inspection booths. Issues identified at the Laredo-Columbia Solidarity Bridge are Port-of-Entry configuration, internal circulation, outdated facility layouts, safety issues with FM 255 and FM 1472 (Mines Road) turning movements, and queues at the inspection facility.
- The plan includes a summary of the industrial facilities and commercial vehicle traffic along FM 1472 (Mines Road). Most of the industrial clusters in the Laredo-Webb County region are primarily situated in the study area or in proximity to the study area along FM 1472 (Mines Road) just north of IH-69W, along IH-35 north of IH-69W, and along IH-69W between IH-35 and FM 1472 (Mines Road). The plan states the importance of the continued regulation of the location and operations of these facilities in order to separate commercial traffic from non-commercial traffic.
- The future growth patterns section of the plan includes a significant number of building permits and final and preliminary plans that were submitted to the city for the southern part of the study area.
- The plan promotes investment in a multimodal transportation system that includes transit centers, additional bike paths, and strategic additions to the roadway system.
- The plan shows the 100-Year Floodplain locations in the southern and northwestern parts of the study area. This is a potential barrier to development that could make it both riskier and more expensive to build transportation infrastructure in parts of the study area.

### **Related Documents**

- The following statewide plans were pertinent to the development of the plan:
  - Strategic Plan (2013-2017)
  - Texas Strategic Highway Safety Plan (2013)
  - Report on Texas Bridges (2012)
  - Unified Transportation Program (2014-2023)
- The following other related plans and studies were pertinent to the development of the plan:
  - Border Crossing Travel Time Study (2008)
  - Laredo District Border Master Plan (2012)
  - Bus Rapid Transit Feasibility Study (2011)
  - City of Laredo Downtown Signalization Report (2008)
  - Comprehensive Plan of Laredo (Amended in 2011)
  - Congestion Management Process (2014)
  - Del Mar Corridor Study (2011)
  - El Lift Assessment Technical Report (2013)
  - Historic Urban Design Guidelines (1997)
  - Laredo Downtown Master Plan (2011)
  - Laredo International Airport Master Plan Study Update (2014)
  - Laredo Metropolitan Transportation Plan (2010-2035)
  - Laredo Traffic Calming and Access Management Workshop Report (2008)
  - Long Range Thoroughfare Plan (2013)
  - McPherson Road Mobility and Capacity Study (2010)
  - Public Participation Plan
  - South Texas Planning Region Public Transportation Coordination Plan (2006)
  - Texas Urban Mobility Plan

### **Programmed/Planned Projects**

- The fiscally constrained plan incorporates six Federally funded roadway, bicycle and pedestrian projects, and no transit projects in the study area. The six Federally funded projects include the following:
  - Improve traffic signal, interconnect signals, and install overhead guide signs at the intersection of FM 1472 and IH-69W
  - Install a raised median on FM 1472 from Killam Industrial Blvd to Pellegrino
  - Construct ramp from Loop 20 Westbound to IH-35 Northbound
  - Construction of an interchange facility over IH-35
  - Construct ramps from IH-35 southbound to Loop 20 eastbound, and from Loop 20 westbound to IH-35 southbound
  - Construct ramp from IH-69W Eastbound to IH 35 Southbound
  
- The plan incorporates five unfunded projects that are located in the study area that includes the following:
  - Construct new roadway with 2 lanes (Green Ranch Parkway) from FM 1472 to IH-35
  - Widen FM 1472 (Mines Road) from 4 lanes to 6 lanes (SH 255 to Killam Industrial Boulevard)
  - Add 1 lane in each direction to IH-69W from World Trade Center Bridge to IH-35
  - Replace the Las Tiendas Road bridge at Tejones Creek to Isabel Creeks and Palito Blanco Arroyo
  - Widen IH-35 from 4 lanes to 6 lanes from 0.5 miles North of Uniroyal Drive to 0.5 miles north of US 83

## **Long-Range Strategies to Improve Traffic Conditions on FM 1472 (Mines Road)**

### **Document Reviewed**

PDF available through the City of Laredo website:

<http://www.ci.laredo.tx.us/Planning/MPO/files/STUDIESPUBLICATIONS/FM1472-LongRangeStrategyAnalysis.pdf>

### **Document Summary/Issues Identified**

- The document was completed in 2016 by the Texas A&M Transportation Institute (TTI) and summarizes an analysis of long-term improvements to the transportation system within the area bound by FM 1472, IH-35, and SH 255.
- The study limits for the short-term and medium-term analysis are located in the study area. The study area for the long-term analysis overlap with the study area for this study, except for a small part to the south of IH-69W.
- The travel demand model for the study area expects that much of FM 1472 would be oversaturated in 2040, resulting in the need to upgrade capacity and/or provide alternative routing options.
- The development of a highway from the manufacturing hub in Monterrey, which will connect with the Laredo-Colombia Solidarity Bridge, could result in the possibility that some warehouses might be located further north on FM 1472 towards the northern end of the Laredo City boundary than what is currently the practice.
- The potential long-term strategies include new and expanded roadways and new and expanded interchanges along and in proximity to Mines Road, that are summarized in the

Programmed/Planned Projects section, and traffic management strategies. The recommended traffic management strategies include Intelligent Transportation System (ITS) Technologies, Connected Vehicle Technologies, and Driveway Access Management.

### **Related Documents**

- City of Laredo Future Thoroughfare Plan, updated in 2016
  - This plan, provides a basis for establishing a hierarchical street network that is based on current and future land use patterns and represents how roads in Laredo would be integrated with the regional network.
- Laredo Metropolitan Transportation Plan, completed in 2015 (See Section 2)

### **Programmed/Planned Projects**

- While this document does not identify specific programmed or planned projects it does include the following potential long-range strategies for the study area:
  - New/expanded roadway segments at Sara Road, Killam Industrial Boulevard, River Bank Drive, AF Muller Boulevard, Vallecillo Road, United Avenue, FM 1472 North of Loop 20/IH 69W and South of Las Tiendas Road, FM 1472 North of Las Tiendas Road, FM 1472 South of Loop 20/IH 69W, and IH 35.
  - New/expanded interchanges at Loop 20/IH 69W, United Avenue, Killam Industrial Boulevard, Vallecillo Road, Verde Road, Carriers Drive, Uniroyal Drive, and Hachar Parkway.

## **VIVA Laredo – City of Laredo Comprehensive Plan (2017)**

### **Document Reviewed**

PDF available through City of Laredo website:

<http://www.cityoflaredo.com/Planning/comprehensive-plan.html>

### **Document Summary/Issues Identified**

- Completed in September 2017, the plan provides the basis for public policy in Laredo regarding the physical and economic development.
- The plan includes a section on international bridges. Issues identified at the World Trade Bridge in the southern part of the study area has inadequate capacity. Potential future upgrades include expanding the World Trade Bridge by doubling the lanes from eight to sixteen and additional exit booths and weigh-in-motion ability.
- The segment of FM 1472 from Muller Memorial Boulevard to Interamerica Boulevard in the southern part of the study area is the second most congested roadway in the Laredo MPO region.
- The recommended Future Land Use Map that has been mapped along recommended new thoroughfares in the Major Thoroughfare Plan, that was updated in 2016, includes land use designations for the entire study area. The map organizes development base on place types organized by intensity and include walkable, mixed-use place types at different scales.
- Laredo has the least number of workers who commute by bicycle (0.1%) or by walking (1.5%) in the country, while it is one of the poorest cities. This indicates that the transportation system requires people to drive or take transit rather than more inexpensive modes of travel like walking and biking. The plan includes strategies to expand walkability and manage congestion and a Bike Master Plan in the Mobility chapter.

- The plan shows the 100-Year Floodplain in the southern and northwestern portions of the study area. This is a potential barrier to development that could make it both riskier and more expensive to build transportation infrastructure in parts of the study area. However, the plan states that these areas also provide an opportunity to create a network of parks and trails that connect throughout the city.

### **Related Documents**

- City of Laredo Future Thoroughfare Plan, updated in 2016
  - This plan, provides a basis for establishing a hierarchical street network that is based on current and future land use patterns and represents how roads in Laredo would be integrated with the regional network.

### **Programmed/Planned Projects**

While this document does not identify specific programmed or planned projects, it does include an implementation matrix with goals and policies that provides the basis for the development of the North Laredo Mobility Study.

### **Other Related Studies**

In addition to the studies described above, there are three related studies that address issues in or in proximity to the study area.

- Prepared in 2018, the *Laredo Trade Numbers* publication reports trade numbers for Laredo with the world. The plan specifies that Laredo seeks to invest approximately \$10.3 million at the World Trade Bridge to relocate the Free and Secure Trade (FAST) lanes from their current location to an all-new site on the north side of the federal compound.

Another complimentary project includes the expansion of the current 8 lane bridge span to 16 lanes, enlarging the import lot intake from 2 lanes to 8 lanes, adding a “fast lane” down the middle of the City of Laredo Toll Collections Facilities and US Customs inspections import lot, adding weight-in-motion scales to the existing 5 exit lanes and the new “fast lane”, and adding booths for inbound cargo vehicles coming from Mexico into the US through the “fast lane”.

PDF available through City of Laredo website:

[http://www.cityoflaredo.com/bridgesys/Laredo\\_Trade\\_Numbers/2018\\_laredo\\_trade\\_numbers.pdf](http://www.cityoflaredo.com/bridgesys/Laredo_Trade_Numbers/2018_laredo_trade_numbers.pdf)

- Completed in 2016, the *EI Metro Transit Development Plan* focused of future transit needs and a transit plan for the City of Laredo. The Plan identified IH-69W, on the southern end of the study, and IH-35, on the eastern end of the study area, as major traffic generators. In addition, the Plan identified the southwestern portion of the study area as a growth area. The plan also discusses the recommendation for a North Transit Center to help streamline service in North Laredo including route 17 that provides access to the study area.

PDF available through the Laredo MPO website:

<http://www.laredompo.org/files/STUDIESPUBLICATIONS/EIMetroTransitPlan/EIMetroTransitDevelopmentPlan.pdf>

- The Texas A&M Transportation Institute (TTI) published a study in March 2016, entitled *Characterizing Drayage Activities and Emissions in the Laredo-Nuevo Laredo Airshed*, which examined drayage truck operations and emissions in the Laredo-Nuevo Laredo Airshed. The border crossing process involving a drayage operation generally starts with a Mexican domiciled long-haul truck that drops its cargo at a warehouse or truck on the Mexican side of the border. A drayage truck picks up the cargo and delivers them to a warehouse or yard in the commercial zone in the United States, which is then picked up by a U.S. long-haul truck. The drayage vehicle will then return to Mexico, either empty or with new cargo. For every cross-border trip that occurs, between one and two non-cross border trips take place – either due to drivers commuting to work or to consolidate loads to ensure that trucks crossing the border are fully loaded. Most drayage operations occur during the weekdays. During their trips, drayage vehicles often spend much time idling due to long wait times at the border. According to the study, vehicles are either idling or creep idling 63 percent of the time they spend crossing the border.

According to the report, the Laredo port of entry (POE), which is home to the World Trade Bridge and the Columbia Solidarity Bridge, was identified as the busiest land POE along the U.S.-Mexico border, and the number of truck crossings at this location continues to grow due to increased trade between the United States and Mexico. The World Trade Bridge is more commonly used for drayage truck operations than the Columbia Solidarity Bridge and is the busiest commercial POE on the border. According to a study referenced in the ITT report, 77 percent of trucks use the World Trade Bridge while 23 percent of trucks use the Columbia Solidarity Bridge. This is likely due to the proximity of the World Trade Bridge to industrial areas compared to the Columbia Solidarity Bridge. U.S. facilities serviced by drayage trucks are close to the World Trade Bridge POE and to urban Laredo. Over 3,500 acres within 13 industrial areas in Laredo are potential origins and destinations for drayage truck trips, and the total Vehicle Miles Traveled (VMT) of Laredo drayage trucks is estimated to be 28.6 million miles. The volume of trucks, in addition to long wait times during the crossing process, has resulted in congestion at the Laredo border. Further, congestion at the border and approaching roadways is expected to increase.

## Summary of Findings from Study Review

In reviewing the studies completed to date that are summarized above, the following issues related to transportation in the study area are identified based on how often they are discussed throughout:

- Severe traffic congestion on FM 1472 (Mines Road)
- Inadequate capacity on the World Trade Bridge
- Mixing of commercial and non-commercial traffic, due to industrial clusters and residential areas in proximity of each other
- High population and employment growth in the southern part of the study area
- Lack of multimodal transportation options
- 100-Year Floodplain in the southern and northwestern parts of the study area could make it both riskier and more expensive to build transportation infrastructure

-- page intentionally left blank --