Chapter 2
Existing Conditions

This chapter examines the existing physical features and transportation system in the Laredo area. Having an understanding of the existing conditions in the region is an important first step in developing the transportation plan and in making recommendations regarding future improvements. The existing street network and traffic patterns will serve as the basis for the future street network and in identifying future transportation conditions and needs. Additionally, existing environmental and physical features of the community may impact transportation improvements and should be recognized and considered in the development of the plan. Unless otherwise noted, data in this chapter are from 2004.

GEOGRAPHY

Laredo is the largest city in Webb County and is located on the north bank of the Rio Grande River across from Nuevo Laredo, Mexico. Laredo's total land area has grown from 33.5 square miles in 1990 to approximately 81 square miles in 2003, an increase of 142 percent. The Port of Laredo is the largest inland port on the US Mexico border. Laredo is the only city that operates international bridges between two Mexican States. Currently the city maintains three border crossings with the Mexican State of Tamaulipas at Nuevo Laredo and one with the Mexican State of Nuevo Leon at Columbia.

World Trade Bridge

LAND USE

Evaluating existing and future land use patterns and trends is important as development patterns will influence transportation needs and improvements in the region. **Figure 2-1** displays the existing land use in the Laredo study area. The Laredo Metropolitan area has experienced rapid growth and development over the past decade. As shown, the majority of development has occurred inside Loop 20, with some additional development occurring along major transportation corridors including I-35, US 59, SH 359, US 83 and FM 1472. Of the developed acreage, residential accounts for the largest use, 27 percent, followed by right-of-way, 22 percent, and industrial, 18 percent. Residential, industrial and commercial development is expected to continue to occur in the region particularly to the east along U.S 59, SH 359, south along the U.S 83 corridor, northwest along FM 1472 and north along I-35.

ENVIRONMENTAL FEATURES

Protecting natural features and minimizing impacts of transportation programs on the natural environment are an important consideration in transportation planning. In developing transportation programs and policies every effort should be made to ensure their compatibility with the region's environmental goals. The following section examines existing environmental features and constraints in the Laredo study area. Environmental features that may be impacted by transportation programs include endangered species habitat, wetlands, public parks, national grasslands or wildlife management areas and historic structures.

Figure 2-1a Existing Land Use, Study Area

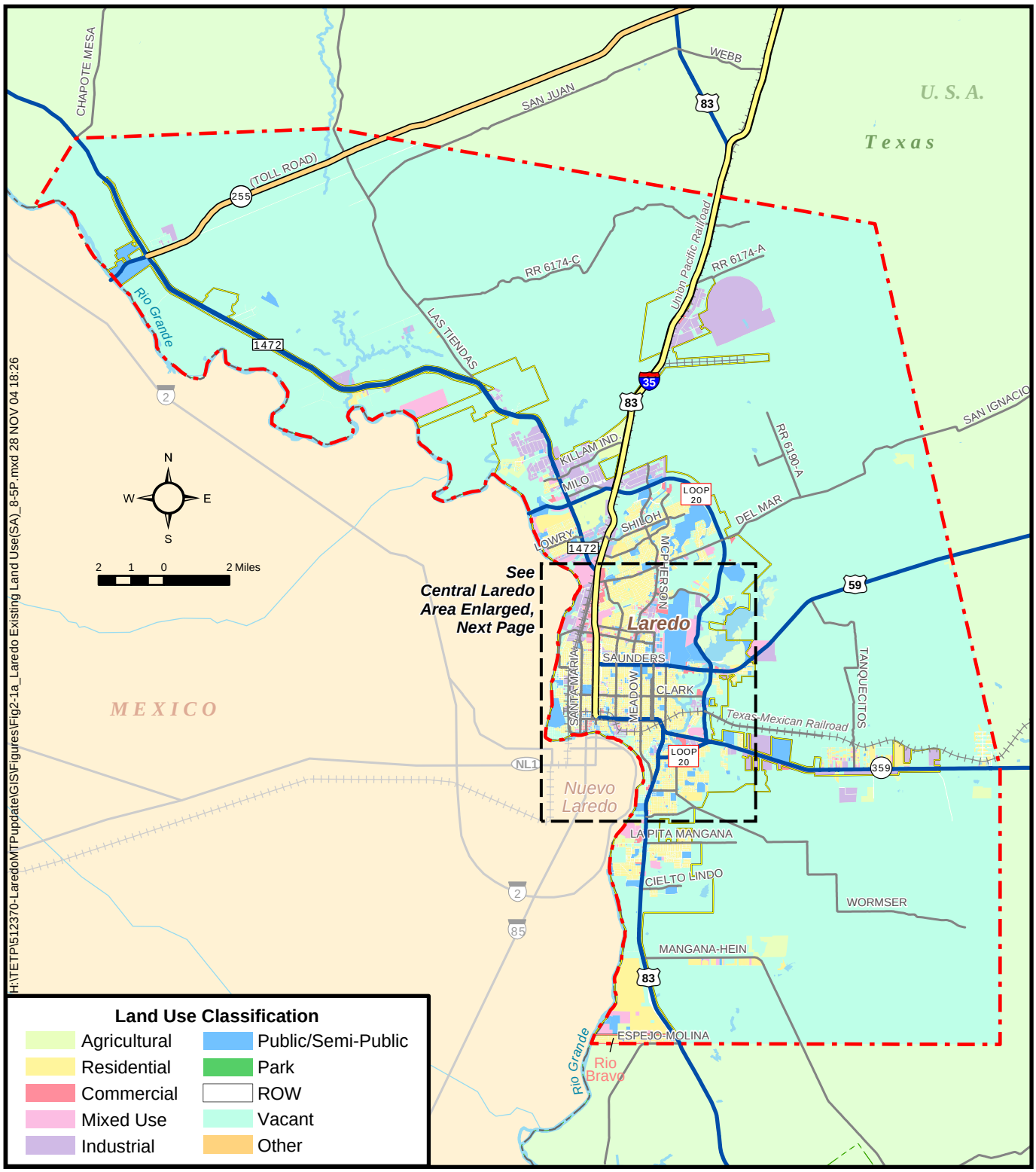
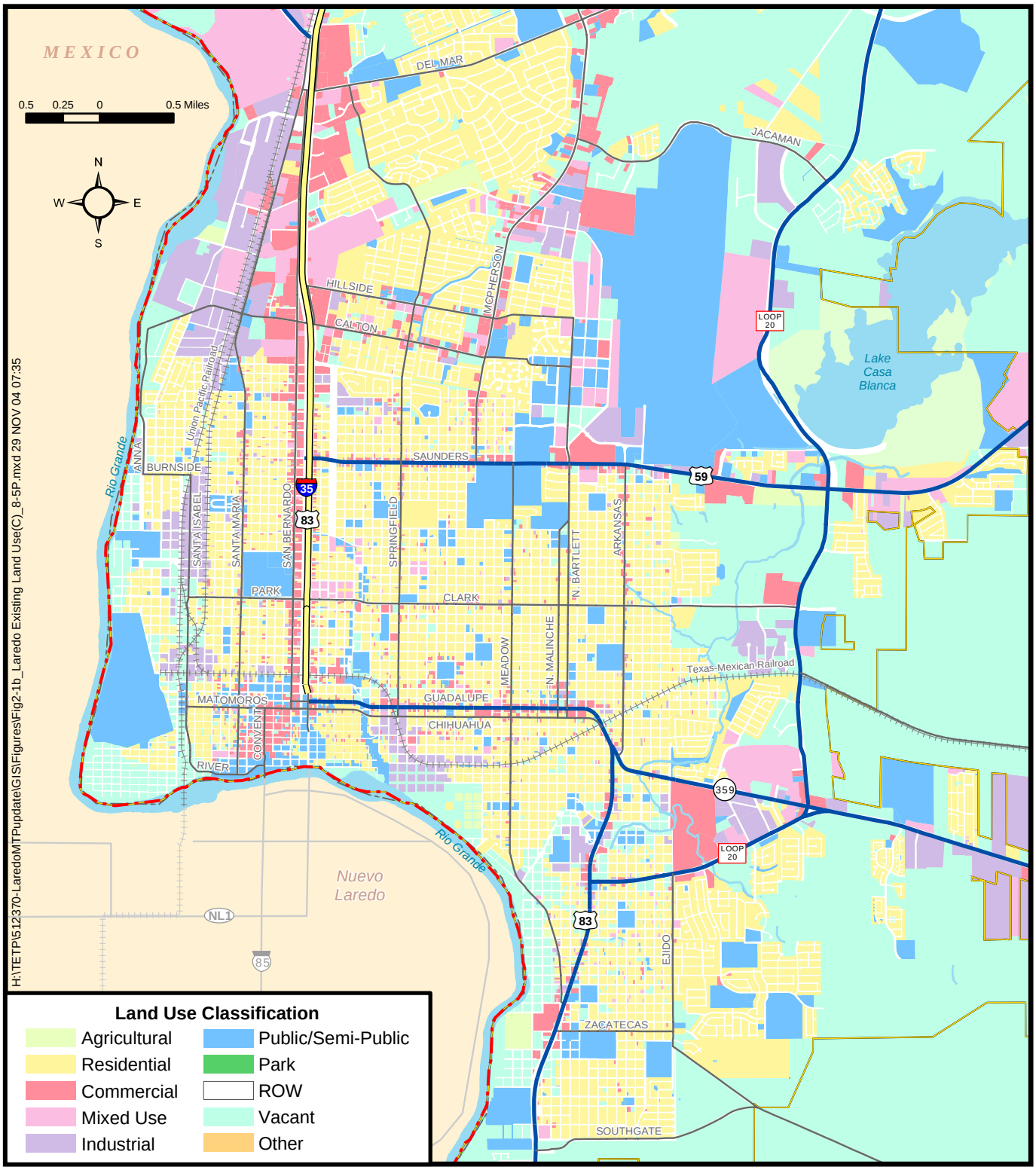


Figure 2-1b Existing Land Use, Central Laredo



HISTORICAL LANDMARKS AND SITES

Throughout the Laredo area, numerous landmarks and sites have been designated as historically significant at either the local, state or national level. Some of these sites may be protected under Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended in 1976, 1980, 1992, and 2000) which requires federal agencies, prior to implementing an undertaking, take into account the effects of the undertaking on historic properties and afford various interested persons, groups, or agencies an opportunity to comment on the undertaking.

The Federal Highway Administration (FHWA) delegates responsibility for the Section 106 process of highway projects to TxDOT. If a property/site has been determined to be eligible for addition to the National Register of Historic Places (NRHP), the regulatory procedures implementing Section 4(f) to the DOT Act are applied accordingly. A Section 4(f) evaluation is prepared and coordinated with the FHWA and the Department of the Interior (DOI). If the site is determined to be valuable or important only for the data that may be recovered from the site, rather than its importance in place, Section 4(f) does not apply.

Figure 2-2 identifies historic districts and landmarks within the study area. As shown there are three districts within the study area that are on the National Register of Historic Places, including Fort McIntosh Historic District, Villa San Augustin de Laredo Historic District, and Barrio Azteca Historic District. Additionally, the City of Laredo has also designated three districts and several landmarks as historic. Landmarks considered historic include the following:

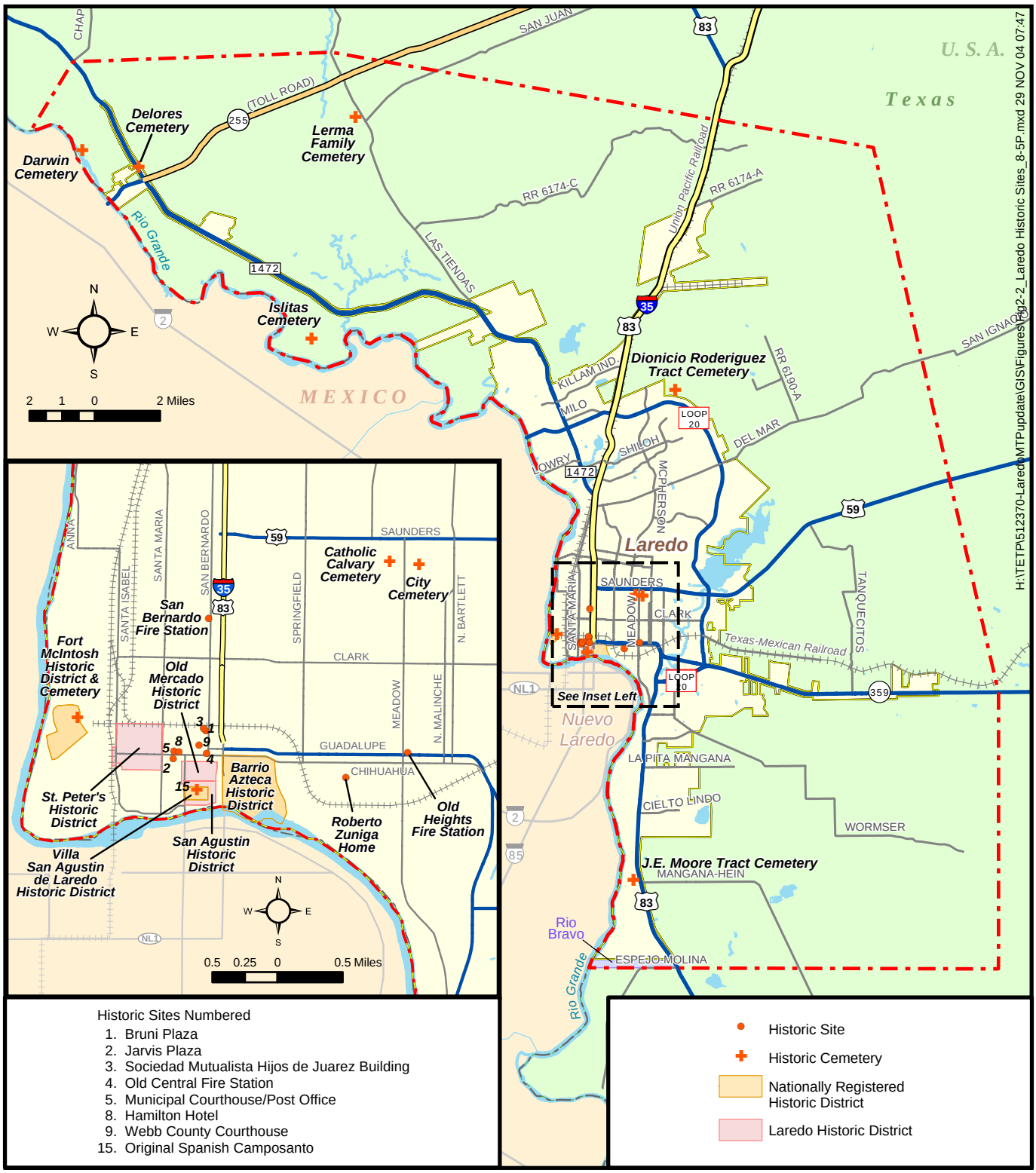
- Bruni Plaza;
- Jarvas Plaza;
- Sociedad Mutualista Hijos de Juraez Building;
- Old Central Fire Station;
- Municipal Courthouse/Post Office;
- Hamilton Hotel;
- Webb County Courthouse; and,
- Original Spanish Camposanto.

Soils and Farmlands

The purpose of the Farmland Protection Policy Act of the Agricultural and Food Act of 1981 is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of prime, unique, and other farmlands of statewide or local importance to non-agricultural uses. Federal agencies are directed to take into account the adverse effects of federal action on farmlands, to consider appropriate alternative actions that mitigate adverse effects, and to assure that such federal actions are compatible with those state, local, and private programs designed to protect farmlands.

According to the Soils Survey of Webb County, Texas prime farmland soils, defined by the U.S. Department of Agriculture, are those that are best suited for producing food, feed, forage, fiber, and oil seed crops. Prime farmland soils produce the highest yields with minimal inputs of energy and economic resources, and farming these soils results in the least damage to the environment.

Figure 2-2 Historic Sites



There is no prime farmland in Webb County without irrigation, including non-irrigated pastureland and cropland. However, in those areas where there is water available for irrigation the agricultural potential becomes prevalent. The majority of the prime farmland (when irrigated) is located along the eastern perimeter extending toward the Rio Grande River in the northern and southern portions of the city.

Floodplains

The area surrounding the City of Laredo has creeks that form the local drainage basin for the Rio Grande River. Past this drainage basin there is a broad drainage basin from the Nueces River. As shown in **Figure 2-3** there are several areas within the study area that are subject to the 100 and 500 year floods. The majority of flood prone areas occur along the Rio Grande River and along creeks within the region including San Idelfonso Creek, Cuervo Creek, Becerra Creek, Sombreitillo Creek, Chacon Creek, Zacate Creek and Santa Isabel Creek. These areas are subjected to flash flooding and should be allowed to function unhindered by structures in the stream channels or floodway.

Wetlands

Wetlands are areas that are inundated by surface or ground water frequently enough to support vegetation or aquatic life that requires saturated or seasonally wet soil conditions. The U.S Army Corps of Engineers performs field investigations to identify "jurisdictional" wetlands – those considered a part of the "waters of the United States". Permits are required for activities impacting federally identified wetlands under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. The extent of floodplain areas identified by the Federal Emergency Management agency is indicative of where wetlands are more likely to be found, although all of the floodplain areas are not necessarily considered to be jurisdictional wetlands.

In 1979, a comprehensive classification system of wetlands and deepwater habitats was developed for the U.S. Fish and Wildlife Service (Cowardin et al. 1979). Under this system, Laredo's wetlands are categorized as inland (also known as non-tidal, freshwater). The wetlands common to the Laredo metropolitan area are riparian wetlands commonly found in the semiarid west. The following is a brief description of the two classes of wetlands under the Cowardian system found in the study area.

Palustrine (predominant class in study area) - All nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such tidal wetlands where ocean-derived salinities are below 0.5 parts per thousand. This category also includes wetlands lacking such vegetation but with all of the following characteristics: (1) area less than 8 hectares; (2) lacking an active wave-formed or bedrock boundary; (3) water depth in the deepest part of the basin less than two meters at low water; and (4) ocean-derived salinities less than 0.5 parts per thousand.

Riverine - All wetlands and deepwater habitats contained within a channel except those wetlands (1) dominated by trees, shrubs, persistent emergents, emergent mosses or lichens; and (2) which have habitats with ocean-derived salinities in excess of 0.5 parts per thousand.

Figure 2-3a Development Constraints, Study Area

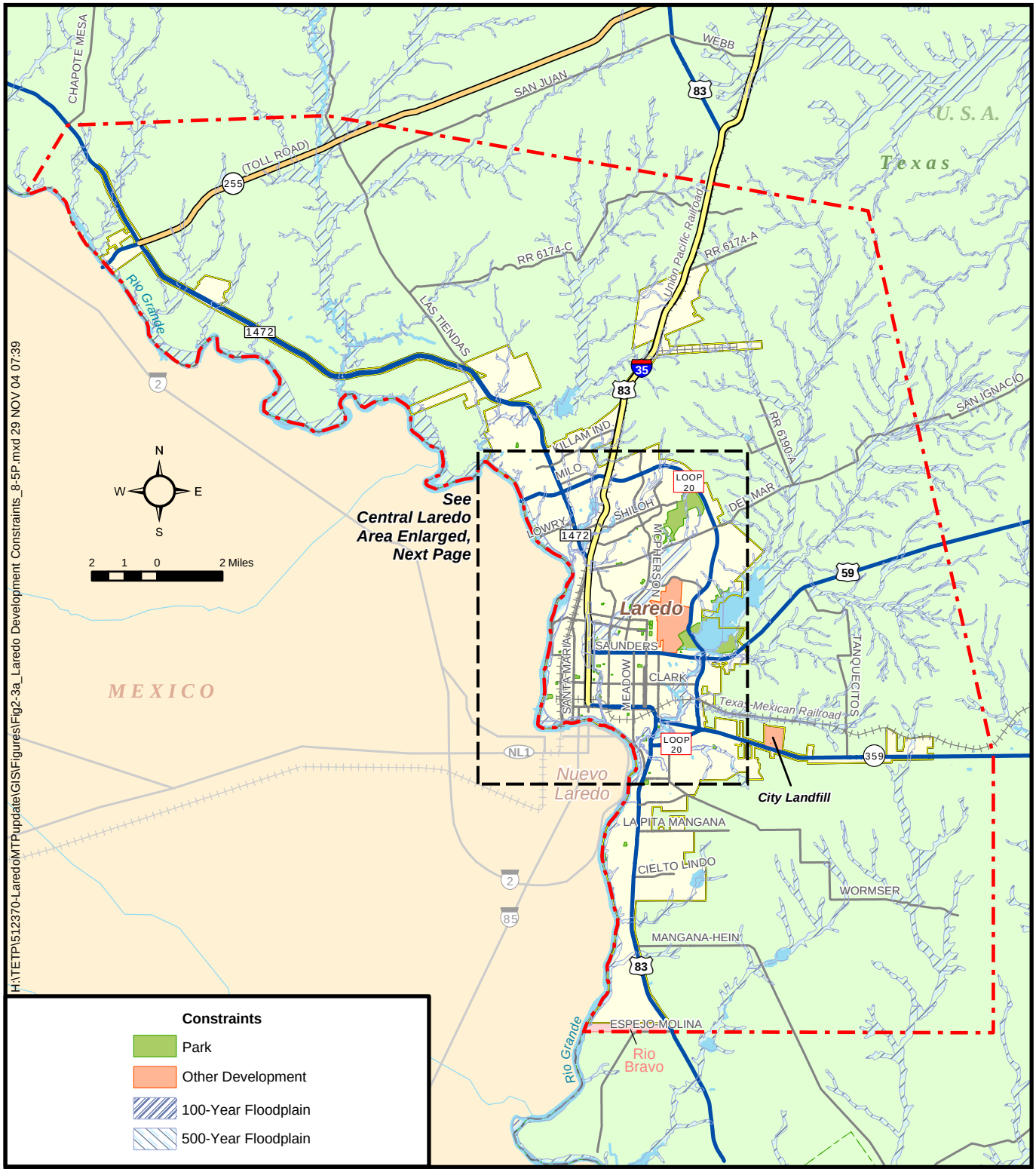
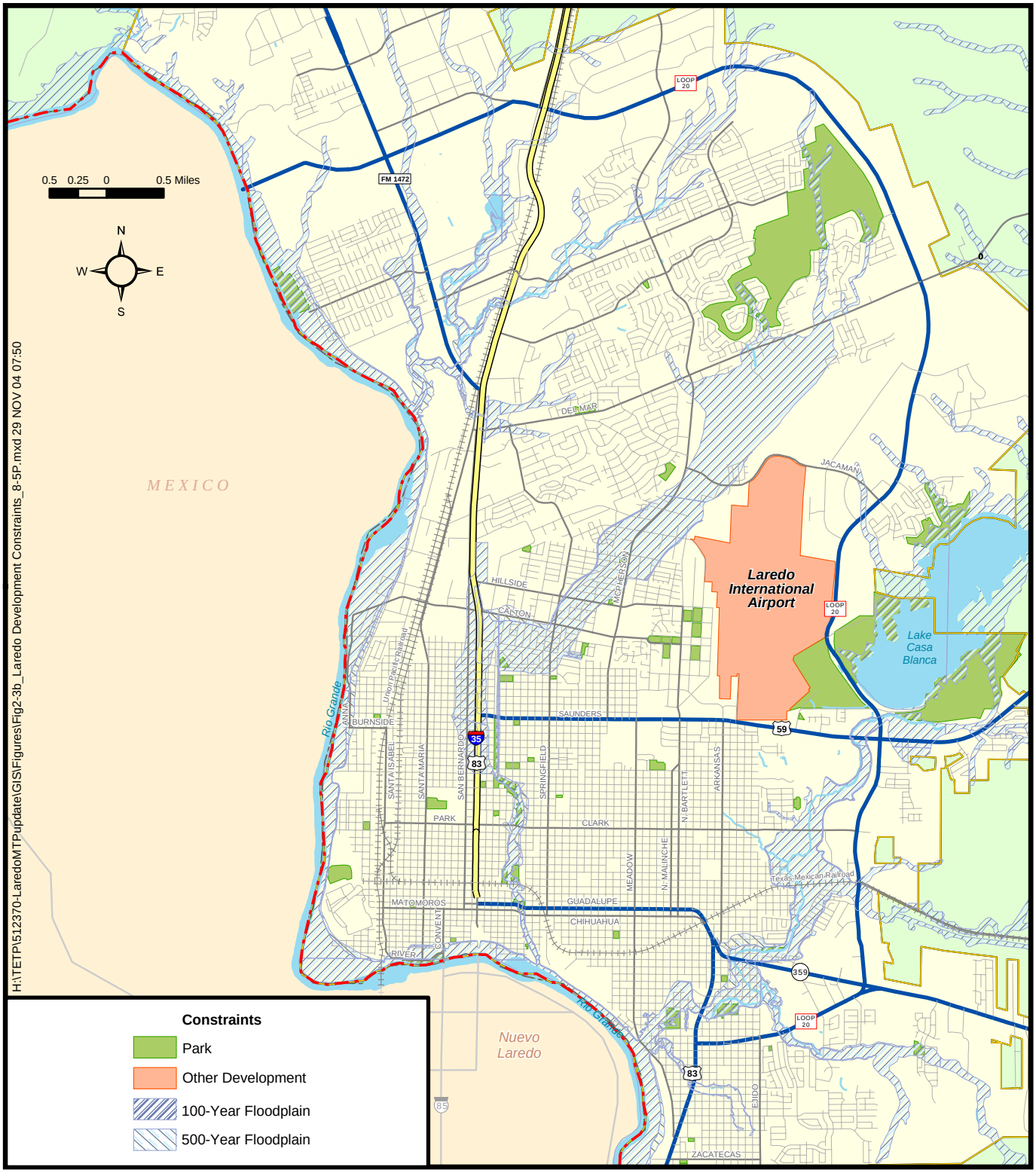


Figure 2-3b Development Constraints, Central Laredo



Parks and Recreation

The U.S. Department of Transportation Act of 1966, Section 4(f), requires that no publicly-owned land from a public park or recreation area, or land from a significant historic site be used for federal-aid highways unless there is no feasible or prudent alternative. The Land and Water Conservation Fund Act of 1970, Section 6(f), requires land conversion approval by park authorities where these funds were used in purchase or development of parklands or facilities.

The City of Laredo has numerous recreational facilities and the majority of these are located within the central part of the city. The City of Laredo currently oversees 554 acres of parkland including 8 recreational facilities, 61 parks and open space areas owned by the City and five parks that were jointly developed with the local independent school districts. The nearby Lake Casa Blanca State Park provides a swimming pool, golf course, picnic areas, and boating facilities. Parks and recreation facilities are identified in **Table 2-1** and displayed on Figure 2-3.

Table 2-1
Parks and Recreation Facilities
Laredo Metropolitan Transportation Plan Update

Parks	
Al King Little League park	Las Palmas Park Trail
Aldo Tantagelo Walkway	Los Dos Laredos Park
Azteca Park	Lyon Street Skate Park
Base Community Complex	Market Street Complex
Benavides Park	Noon Lions Park
Bruni Plaza	Northeast Hillside Park
Canizales Park	Ochoa Sanchez Park
Chaparral Park	Santa Fe Park
Cirlcle Drive Park	Santa Rita Park
Civic Center Pool	Scott Street park
Community Baseball Fields	Seven Flags Park
Cruz Little League Field	San Augustin Plaza
Del Mar Community Park	St. Peter's Plaza
Dryden Park	Taylor Street Park
East Central Park	Three Points Park and Pool
Garcia-Vela Park	Toddler Park
Jarvis Plaza	Villa del Sol Park
La Ladrillera Park	Zacate Creek Park
Las Brisas Park	Zacate Linear Park
Facilities	**Joint Use Facilities**
Canizales Boxing Gym	Albert Ochoa Park
Cigarroa Recreation Center	East Martin Baseball Field
Civic Center	Father Mc Naboe Park
D.D. Hachar Recreation Center	Freddy Benavides Complex
Farias Recreation Center	Veteran's Field/West Martin
Tarver Recreation Center	
La Ladrillera Recreation Center	
NE Hillside Recreation Center	

Air Quality

Over the past several decades, air quality has become increasingly a national concern. With the passing of the Clean Air Act of 1970 and the Clean Air Act Amendments of 1977 and 1990 (CAAA), individual states have become responsible for adhering to pollution limits set forth by the Environmental Protection Agency (EPA) and preparing State Implementation Plans which outline regulations and policies to reduce pollution levels in the region. Transportation facilities are a major source of pollution levels and thus serve as an impediment to maintaining clean air goals. These regulations set forth by federal and state agencies to improve and/or maintain air quality standards affect transportation programs and policies in the region.

The Clean Air Act requires EPA to set National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. The EPA has set NAAQS for the following six principal pollutants which are called "criteria" pollutants:

- carbon monoxide;
- nitrogen oxides;
- ozone;
- particulate matter;
- sulfur dioxides; and,
- lead.

The EPA classifies a county's or metropolitan area's ambient air quality with respect to conformity to the NAAQS. The classifications are as follows:

- Attainment - Met or better than NAAQS;
- Nonattainment - Did not meet NAAQS; and,
- Unclassifiable - Cannot be classified.

In Texas, air quality is monitored by the Texas Commission on Environmental Quality. The commission measures both particulate matter and ozone. Currently, the Laredo metropolitan area is classified as being within the "attainment" criteria. However, it will be crucial to monitor closely the increasing truck and automobile traffic projected for the study area to be able to verify and maintain this status.

Although Laredo is classified as being within attainment, airborne particulate matter is becoming a concern within the Laredo metropolitan study area. The high particulate readings are caused by the dry climate, frequent winds, and unpaved streets.

As mentioned previously, the attainment status is directly related to the area's current and projected truck traffic. In addition to the emissions generated by automobiles and trucks, diesel trucks (which are the predominate type of trucks) generate particulates. The amount of particulate is dependent on the number, relative speed, fuel quality, and engine maintenance of the trucks. Traffic congestion that results in lower speeds and idling for long periods of time also increases the emission levels.

Environmental Mitigation

Under SAFETEA-LU MPOs are now required to consider potential environmental mitigation activities and potential areas in which to carry out these activities. The first step in undertaking this activity is the identification of environmentally sensitive areas. The discussion and maps above can now be supplemented by a process approved by the Environmental Protection Agency (EPA) known as GISST (Geographic Information System Screening Tool). This tool that combines environmental resource data with analytical capabilities ("natural weighting") was designed in response to the particular requirements of federal transportation legislation. Using various criteria vetted by the Environmental Protection Agency an area can be analyzed and areas of high and low environmental sensitivity identified. The outcome is a map as shown in Appendix C. The Laredo MPO will take into account local environmental considerations during all planning processes.

Major Area Roadways

The Laredo MPO region is served by an interstate and several state roadways that provide the basic framework of transportation facilities for the area. The Texas Department of Transportation (TxDOT) maintains the state roadways for the Laredo MPO area, while the City of Laredo and Webb County maintain all local roadways that are not part of the state system. Study area roadways range from six-lane interstate and arterial roads to two-lane local streets. **Figure 2-4** presents the existing travel lanes for the Laredo MTP roadway network.

Interstate Highways

Serving as the only interstate facility in the region, IH 35 provides north-south access for persons traveling from San Antonio to the City of Laredo and the international border crossing for Mexico. IH 35 is considered a major international trade corridor that extends from Duluth, Minnesota to Laredo where it terminates at the Juarez-Lincoln International Bridge, Texas-Mexico border. The Juarez-Lincoln International Bridge is for non-commercial traffic only. Vehicle access across the bridge is provided and vehicles can enter the City of Nuevo Laredo and continue on into the interior of Mexico. Average daily traffic along IH 35 ranges from 13,700 vpd at the northern edge of planning boundary to 97,000 vehicles per day (vpd) in the central part of the City.

IH 35 is a four to six-lane controlled-access facility with a varying posted speed limit of 60 to 65 mph within the MTP boundary. The interstate has a mix of concrete and asphalt surfaces with both inside and/or outside shoulders. Along the northern edge of the study boundary the mainlanes are separated by a wide grass median. Within the City the mainlanes are separated by a concrete barrier. Frontage road sections along IH 35 extend from the northern study limits to U.S 83 / Matamoros Boulevard. Between the northern study limit and Loop 20 the frontage roads are primarily two-way with one travel lane in each direction. Between Loop 20 and Matamoros Boulevard the frontage roads are primarily one-way with 2 or 3 travel lanes.

I-35

U.S. Highways

The Laredo MTP study area contains two U.S. Highway facilities (US 59 and US 83) that provide service from other Texas regions to this area. US 59 begins in Laredo at the interchange with IH 35 and travels east to Victoria and Houston, while US 83 provides north-south access from Brownsville, through Laredo, and north to Abilene and west Texas.

US 59 consists of a four-lane principal arterial with a center turn lane (Saunders Street) within the urban area and a two-lane roadway in rural areas. The urban arterial section has an asphalt surface with a continuous left turn lane (CLT) , while the rural section has an asphalt surface with a CLT and shoulders. US 59 has a posted speeds ranging from 35 to 65 mph within the study area, and carries an average daily traffic between 3,200 and 25,000 vpd.

US 83 is a four-lane expressway (Zapata Highway) from Palo Blanco to the southern study limits. Within this study section US 83 is an asphalt roadway that has inside and outside shoulders and the posted speed limits ranges from 55 to 65 mph. Between Market Street and Palo Blanco US 83 is a 4-lane asphalt covered arterial roadway with a continuous center turn lane. The posted speed limit in this section is 35 mph. Between Market and the IH 35, US 83 splits into 2 one-way pairs (Chihuahua – eastbound and Guadalupe – westbound). Both streets are 2 lanes asphalt roadways with limited on-street parking. The posted speed limit within this section is 30 mph. From IH 35, US 83 extends north following the IH 35 alignment for about 14 miles. US 83 carries average daily traffic volume of 13,600 to 35,000 vpd.

US 83

State Highways

The Laredo MTP study area currently contains one State Highway and one State Loop roadways. Loop 20 is the primary bypass loop around the City of Laredo that begins at the intersection with US 83 South and travels north and west to its terminus at the World Trade Bridge west of Mines Road. SH 359 originates near the intersection of US 83 (Zapata Highway) and Arkansas Avenue, and travels eastward to the town of Alice and south Texas.

State Loop 20 (Bob Bullock Loop) extends from US Highway 83 to the Texas-Mexico border crossing where there is a large intermodal inspection station and border crossing. Between US 83 and Sinatra Parkway Loop 20 is a 4-lane asphalt and concrete roadway with a continuous center turn lane. Within this area there are outside shoulders that are used as right turn lanes and the posted speed limit varies from 40 to 50 mph.

Loop 20

Figure 2-4a Existing Roadway Travel Lanes, Study Area

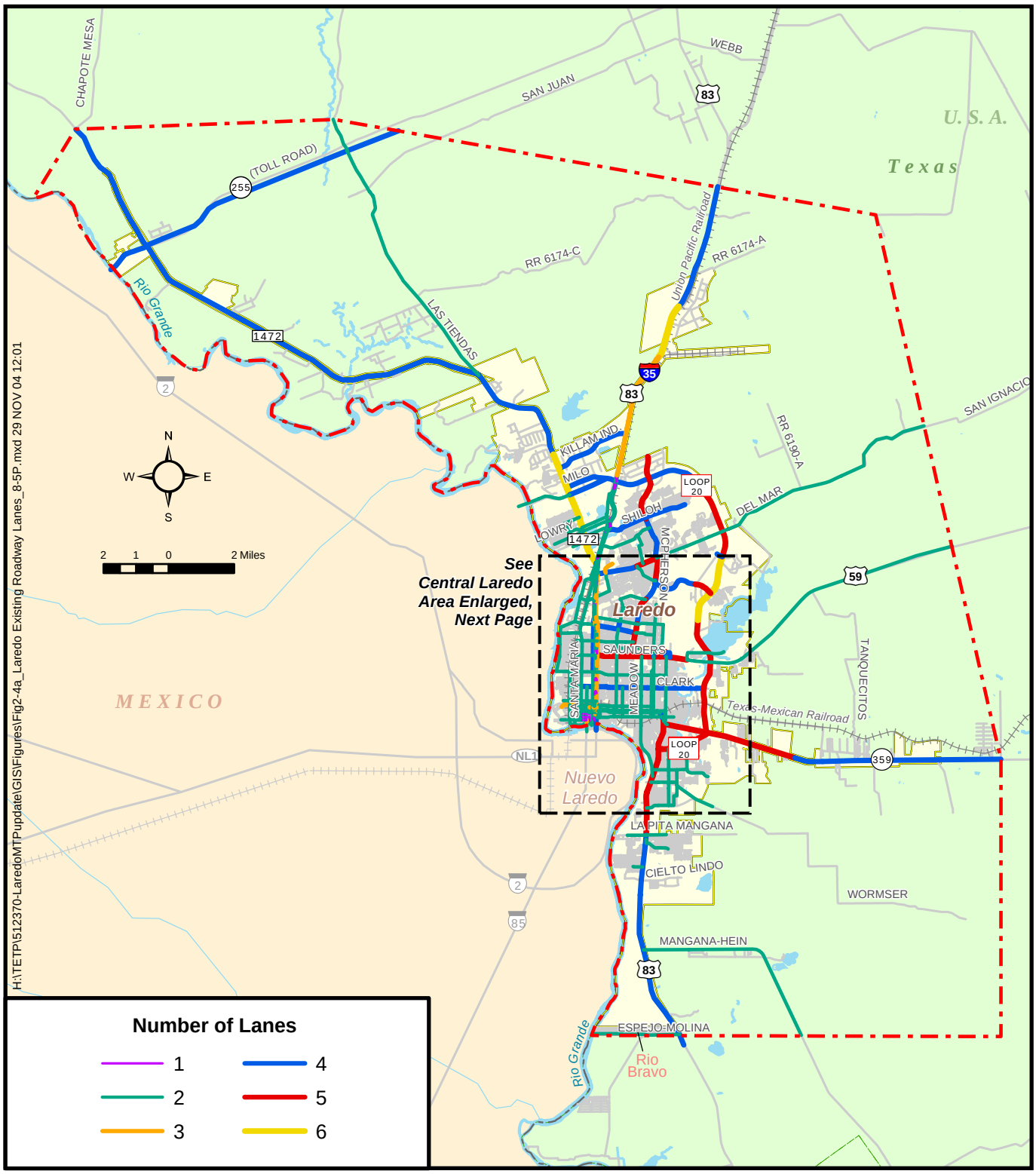
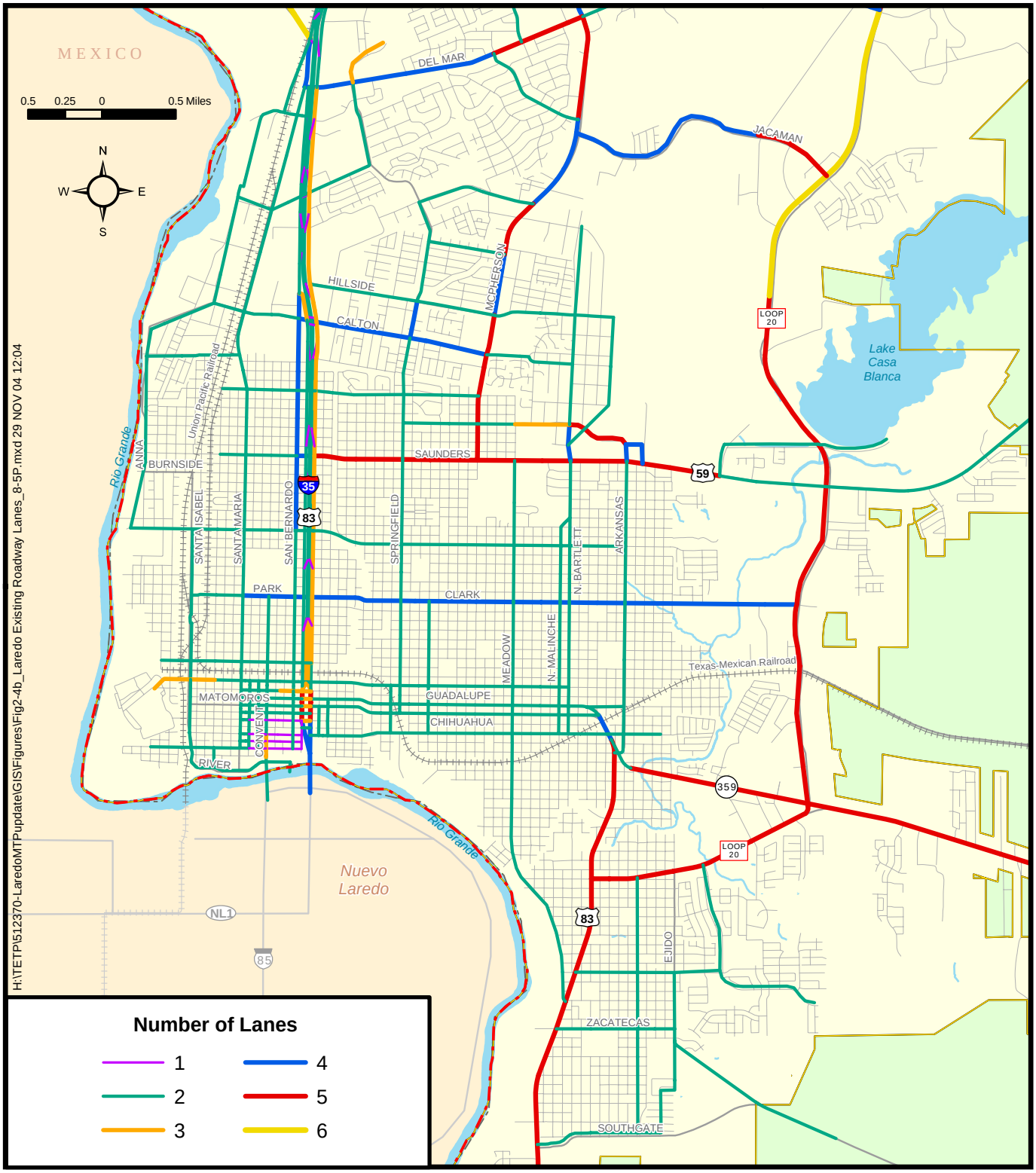


Figure 2-4b Existing Roadway Travel Lanes, Central Laredo



Between Sinatra Parkway and Del Mar, Loop 20 is a 6-lane concrete and asphalt facility with a concrete median separating the travel directions. There is a newly constructed jogging/bicycle path constructed along the eastern side of Loop 20. The posted speed limit is 50 mph. North of Del Mar and continuing west of the IH 35 interchange, Loop 20 is undergoing major construction. New overpasses are being constructed as well as travel lanes and jogging/bicycle lanes. During field review, this section had been narrowed to two lanes (1 each direction). Loop 20 continues under IH 35 and continues as a freeway section to the Texas-Mexico border, where there is a truck only border crossing.

SH 359 consists of a four-lane roadway with a posted speed of 55 mph and an ADT between 8,300 and 13,800 vpd. The roadway section along SH 359 is asphalt with a CLT and shoulders. The Laredo MTP region also has the Camino Colombia Toll Road that connects IH 35 (south of Encinal) to the Colombia-Solidarity International Bridge. The Toll Road, which was recently purchased by the State of Texas, now has a new designation, SH 255, and is in operation. FM 255 was recently designated as part of SH 255 and also serves the Laredo area connecting FM 1472 to the Colombia Bridge.

Farm-to-Market Roads

The Laredo MTP region has three Farm-to-Market (FM) roads providing connections between the major highway facilities and urban and rural residential areas, including FM 1472, and FM 3368. FM 1472 begins with the interchange with IH 35 north of downtown Laredo and travels northwest to the Colombia-Solidarity International Bridge and the western regions of Webb County.

FM 1472

The urban section of FM 1472 (Mines Road) is classified as a six-lane divided primary arterial with a posted speed of 45 mph and an ADT of about 40,000 vpd. Mines Road is asphalt with a CLT and sidewalks. The rural section of FM 1472 is a four-lane roadway with a posted speed of 65 mph and an ADT of about 7,000 vpd. This section has an ashphalt surface with shoulders and an open space median. FM 3368 (Las Tiendas Road) also serves the Laredo area.

Local Roads / Streets

Many City of Laredo streets and Webb County roads consist of two-lane collectors and local access roads / streets with a speed limit of 30 mph. However, the City of Laredo has several arterials connecting the interstate and state roadways to commercial and residential areas. The four-lane arterials include McPherson Road (from Saunders Street to Loop 20), Del Mar Boulevard (from IH 35 to the eastern portion of Webb County), and Clark Boulevard in downtown Laredo (connecting IH 35 and Santa Maria Avenue to Loop 20 south of US 59). Two-lane arterials include Arkansas Avenue (between SH 359 and US 59) and Santa Maria Avenue (from downtown Laredo to the FM 1472 interchange with IH 35).

EXISTING FUNCTIONAL CLASSIFICATION

Functional classifications of transportation facilities are designed to describe the hierarchical arrangement and interaction between various roadways. These classifications may change over time, as the function of roadways changes to serve different land uses or other transportation facilities. As an area becomes more developed, roads that have previously been classified in one category may be reclassified to a higher category.

As previously mentioned, US 59 is located along the potential route of Interstate 69 and may eventually be upgraded to an interstate-type facility with intermodal improvements for enhanced truck access between the Mexican border and other U.S. destinations. **Figure 2-5** shows the current functional classifications for the area roadways within the Laredo MTP boundary, and these classifications are described in the following categories:

Freeways/Expressways

Classified as interstate highways, freeways or expressways, these facilities provide for the rapid and efficient movement of large volumes of goods and traffic between regions and across the metropolitan area. Direct access to abutting property is not an intended function of these facilities. Design characteristics support the function of traffic movement by providing multiple travel lanes, a high degree of access control, and few or no intersections at grade.

Tollways

These facilities generally serve the same purpose as a freeway or expressway classification with access control and goods and traffic movement between major roadways. However, access control and traffic flow is managed through the use of toll booths (and other possible toll collection methods) located along the main lanes and access ramps of the tollway.

Arterial Streets

Arterials primarily provide for traffic movement with a secondary function being the provision of direct access to abutting property. Major arterials typically serve as connections between major traffic generators and land use concentrations, and facilitate large volumes of through traffic traveling across the community. Minor arterials typically serve as connections between local/collector streets and major arterials, and facilitate the movement of large traffic volumes over shorter distances within the community. Because direct access to abutting property is a secondary function of arterial streets, access should be carefully managed to avoid adverse impacts on movement function intended for these facilities.

Collector Streets

Collector streets provide for a balance of the traffic movement and property access functions. Traffic movement is often internal to local areas and connects residential neighborhoods, parks, churches, etc., with the arterial street system. As compared to arterial streets, collector streets accommodate smaller traffic volumes over shorter distances.

Local Streets

Local streets function to provide access to abutting property and to collect and distribute traffic between parcels of land and collector or arterial streets.

Figure 2-5a Existing Roadway Functional Classifications, Study Area

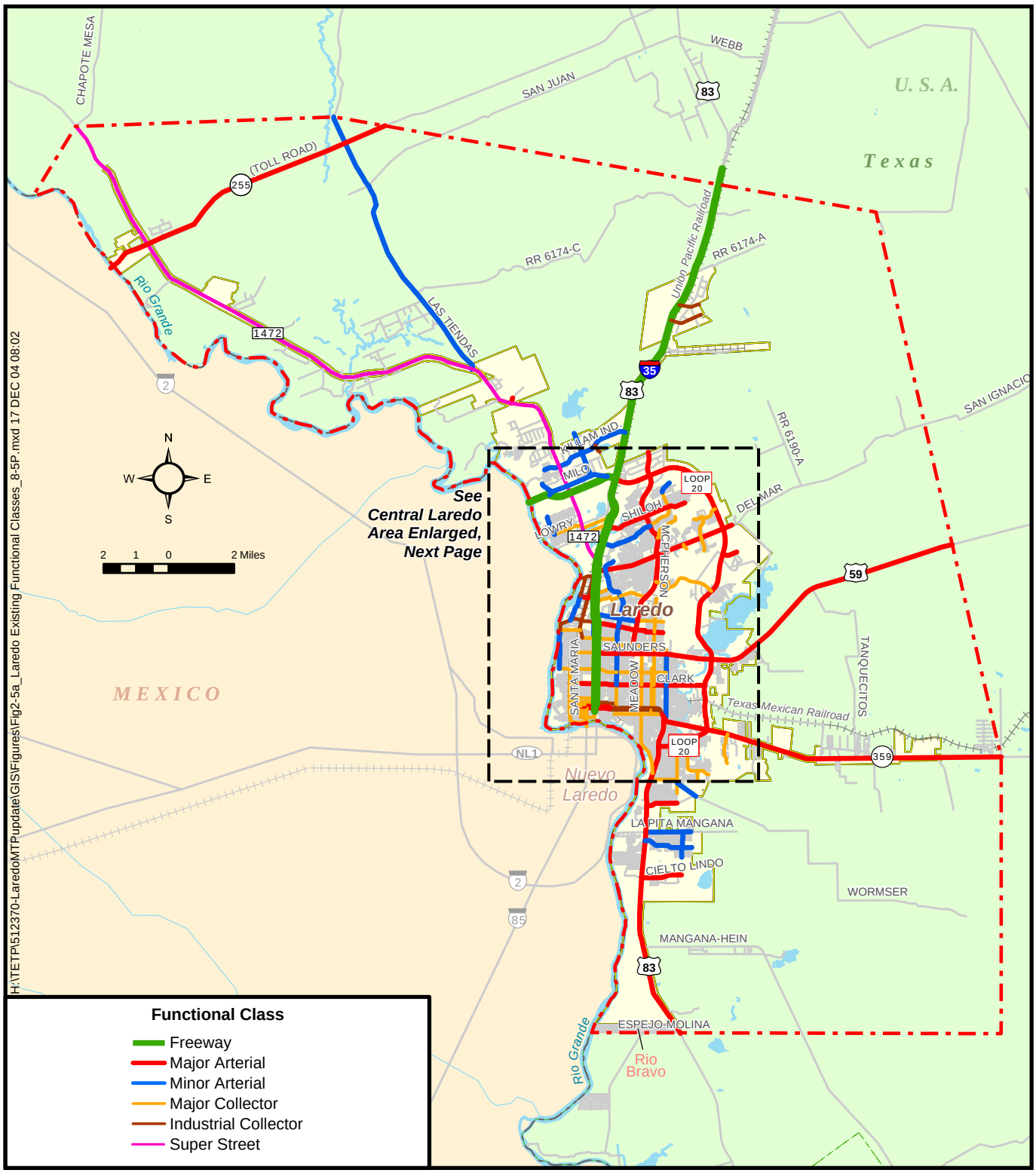
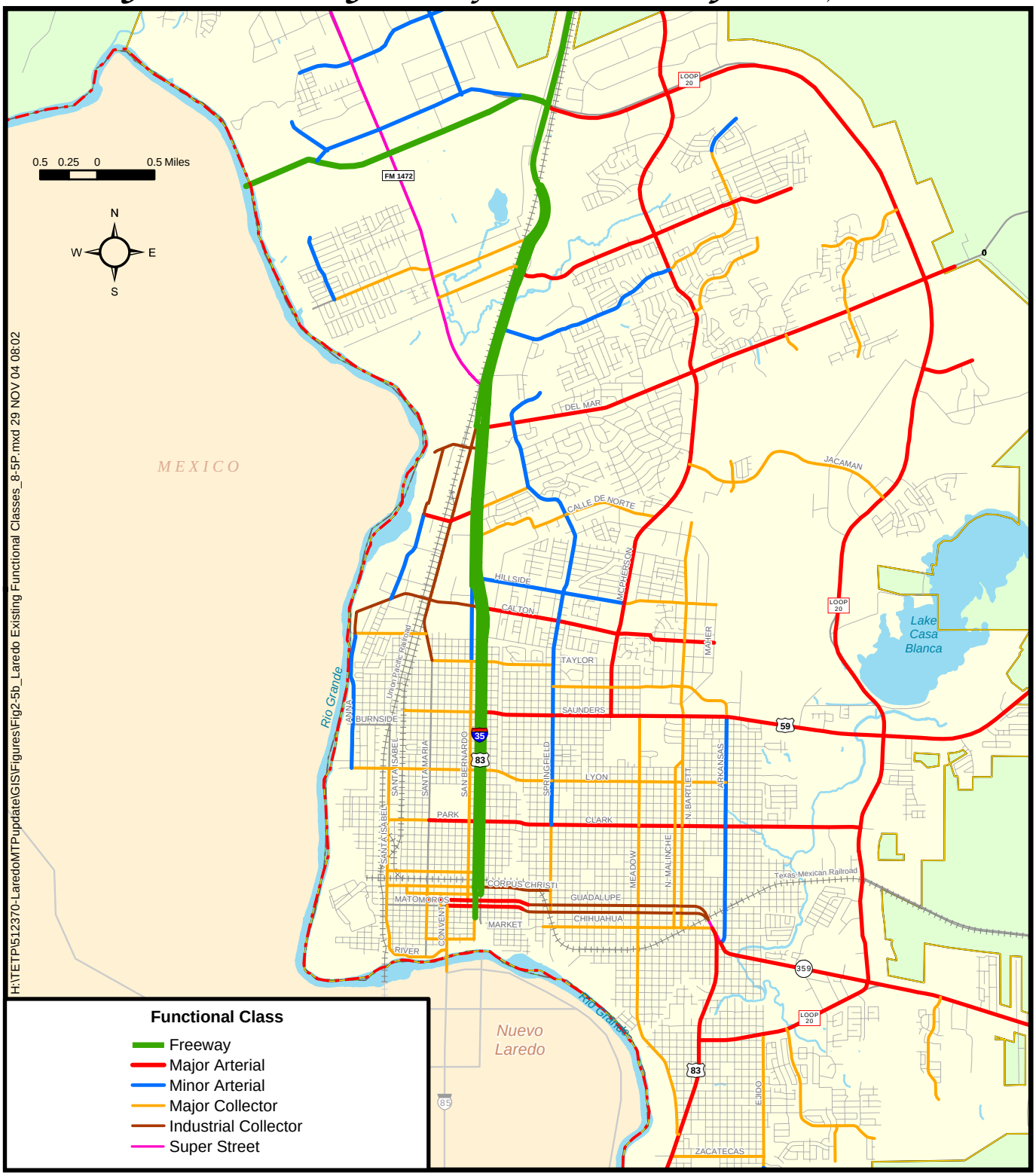


Figure 2-5b Existing Roadway Functional Classifications, Central Laredo



EXISTING TRAFFIC CONTROL

Facilitation of traffic flow on the roadway network is provided through the application of traffic control devices such as traffic signals, traffic signs, and pavement markings. Of these, traffic signals have the greatest impact on the traffic flow and roadway capacity. Within the Laredo MTP region, there are approximately 233 signalized intersections operated by pre-timed or traffic-actuated controller equipment. Plus, signal coordination has been established along the major thoroughfares. Under an interagency agreement, traffic signals installed by the TxDOT district office are maintained by the City of Laredo's Traffic Safety Department.

DAILY TRAFFIC VOLUMES

Average daily traffic volumes for the Laredo MTP region were provided by the Texas Department of Transportation. Existing daily traffic volumes along major roadway facilities range from 97,000 vpd on IH 35 north of the US 59 interchange to 350 vpd on FM 1472 at the northern limits of the study area boundary. The most heavily traveled roadway segments are those approaching or within the City of Laredo. **Figure 2-6** shows the 2003 ADT on major roadways throughout the study area. Traffic volumes along major roadways are discussed below:

- I-35 – I-35 is one of the most heavily traveled roadways in the study area. Average daily traffic along I-35 ranges from 97,000 vpd in the central part of the City to 13,700 vpd at the northern edge of the planning area boundary;
- U.S. 59 – Average daily traffic volumes along US 59 range from 25,000 vpd, east of I-35 to 3,200 vpd at the eastern edge of the study area;
- FM 1472 / Mines Road – Average daily traffic volumes along FM 1472 range from 40,000 vpd north of Lowry to 350 vpd north of the Camino Columbia Toll Road;
- Loop 20 – Average daily traffic volumes along Loop 20 range from 30,000 vpd along the southern portion of the Loop to 7,200 vpd north of Del Mar; and,
- US 83 – Average daily traffic volumes along U.S 83 south of downtown range from 13,600 vpd near the southern edge of the planning area to 35,000 vpd south of downtown.

Figure 2-6 Existing Daily Traffic Volumes

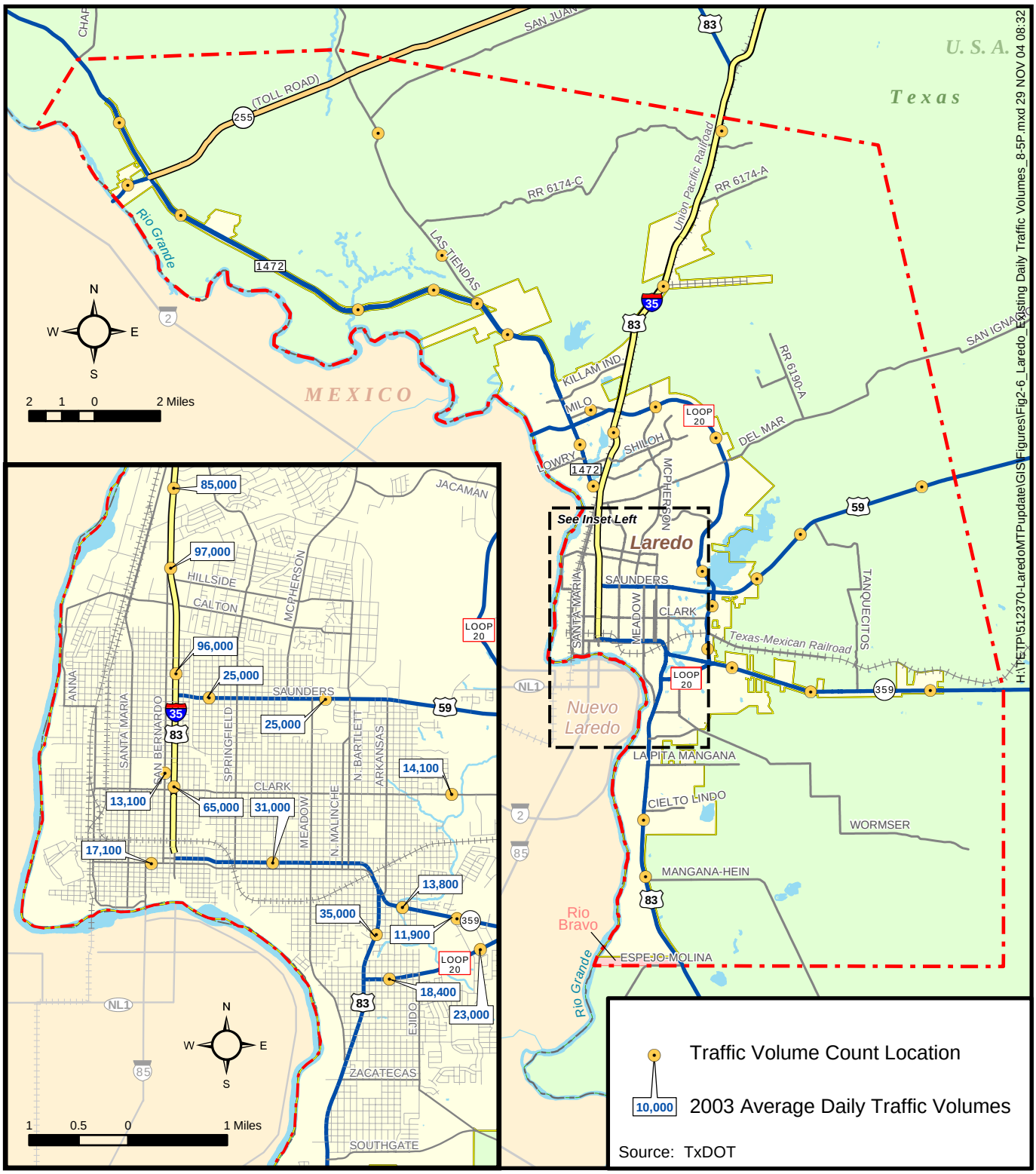


Table 2-2 identifies historical traffic volumes for the Years 1993 and 2002 along selected segments of major roadways in the Laredo area. As shown, the Laredo region has experienced significant growth in traffic along its roadways over the past nine years. Growth in traffic has ranged from an annual increase of 3.1 percent on I-35 to 13.4 percent along FM 1472.

Table 2-2
Historic Traffic Volumes
Laredo Metropolitan Transportation Plan Update

Map_ID	Roadway	Location	Rural or Urban	1993	2002	Annual % Increase
41	I-35	North of Killam Industrial Road	U	9,930	19,960	8.1%
40	I-35	North of Shiloh	U	15,520	23,140	4.5%
37	I-35	North of Saunders	U	47,960	63,330	3.1%
11	US 59	West of N. Bartlett	U	11,000	28,000	10.9%
9	US 59	West of Tanquecitos Road	R	2,900	3,700	2.7%
15	US 83	North of Southgate Road	U	16,000	29,000	6.8%
13	US 83	West of Meadow Street	U	21,000	35,000	5.8%
17	US 83	At Southern Laredo City Limits	R	8,100	12,100	4.6%
26	State Loop 20	South of SH 359	U	6,100	17,000	12.1%
46	SH 359	West of Tanquecitos Road	R	5,600	11,000	7.8%
7	SH 359	West of State Loop 20	U	6,600	11,000	5.8%
34	FM 1472	North of Lowry	U	12,300	38,000	13.4%
33	FM 1472	South of FM 3338	U	4,000	9,400	10.0%
30	FM 1472	South of Thiesel Road	U	2,700	6,100	9.5%

TRAFFIC OPERATIONS

Utilizing the traffic count data and design capacities based on the roadway functional classes, existing traffic operations can be evaluated by conducting a traffic volume to capacity ratio analysis. Roadway capacity is defined as the maximum number of vehicles that can be accommodated on a roadway facility during a particular time period under prevailing roadway, traffic, and control conditions. An important result of this type of capacity analysis is the determination of the roadway level-of-service (LOS).

Level-of-Service is a measure of operating conditions at a location and is directly related to the volume-to-capacity ratio along roadways, as shown in **Table 2-3**. LOS is given a letter designation ranging from A to F (free flow to heavily congested), with LOS D considered in most urban areas as the limit of acceptable operation. For example, LOS can be related to the grading scale of a report card: A – Excellent, B – Good, C – Average, D – Acceptable, E – Needs improvement, and F – Failing. Utilizing procedures identified in the 2000 Highway Capacity Manual and the available traffic data identified previously, level-of-service was determined for principal roadways within the study area.

Table 2-3
Level-of-Service Definitions for Principal Roadways
Laredo Metropolitan Transportation Plan Update

Level-of-Service (LOS)	Maximum Volume-to-Capacity Ratio (v/c)			Description
	Two-Lane Roadways	Multi-Lane Arterials	Freeways	
A	0.10	0.35	0.35	Very low vehicle delays, traffic signal progression extremely favorable, free flow, most vehicles arrive during given signal phase
B	0.25	0.50	0.50	Good signal progression, more vehicles stop and experience higher delays than for LOS A.
C	0.40	0.65	0.70	Stable flow, fair signal progression, significant number of vehicles stop at signals.
D	0.60	0.80	0.85	Congestion noticeable, longer delays and unfavorable signal progression, many vehicles stop at signals.
E	1.00	1.00	1.00	Limit of acceptable delay, unstable flow, poor signal progression, traffic near roadway capacity, frequent cycle failures.
F	> 1.00	> 1.00	> 1.00	Unacceptable delay, extremely unstable flow, and congestion, traffic exceeds roadway capacity, stop-n-go conditions.

Source: Adapted from Highway Capacity Manual, Transportation Research Board, 2000

Figure 2-7 displays existing LOS in the study area. As shown many of roadways outside the central part of the city have an LOS of A to C, meaning they are operating below capacity, resulting in acceptable traffic operations. However, segments of many of the area's roadways, in particular within the central part of the City, have an LOS of D, E, or F, meaning that they are near or exceeding capacity. The majority of congestion problems are occurring along roadways in the central part of Laredo and/or along roadways approaching the City. Segments of roadways within the City experiencing congestion problems include segments of US 83, I-35, and SH 359.

Figure 2-7a Existing Roadway Level of Service (LOS), Study Area

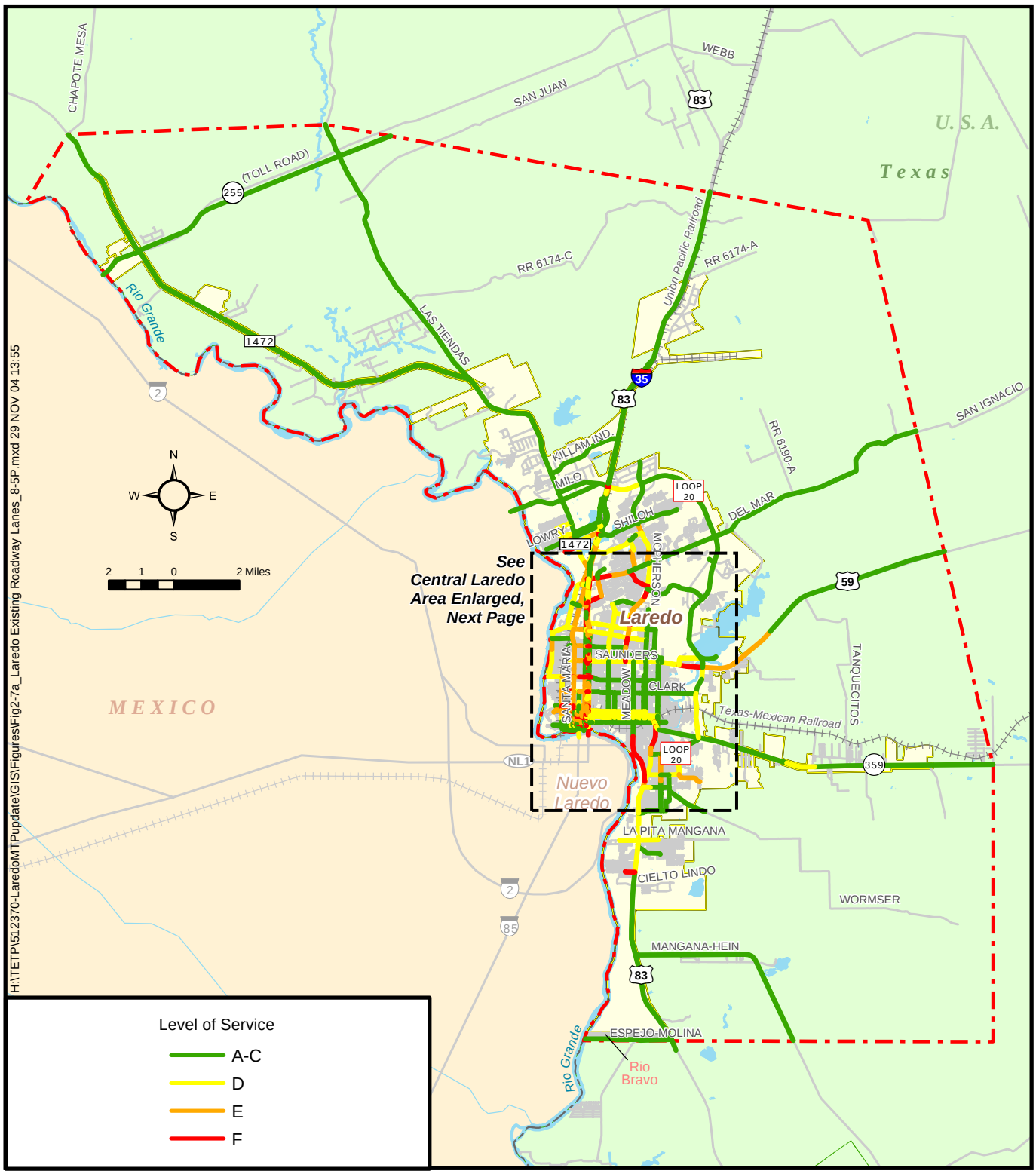
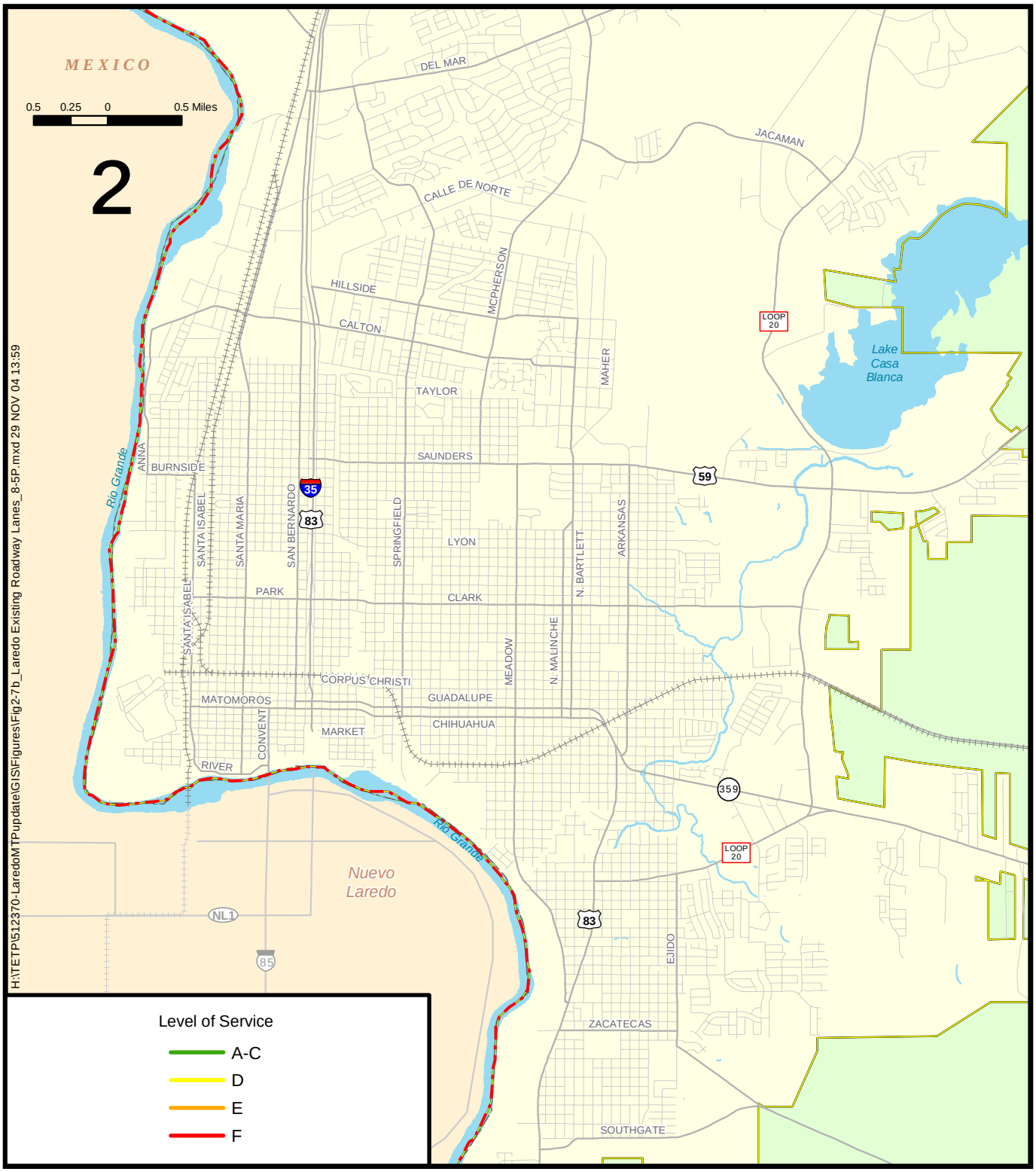


Figure 2-7b Existing Roadway Level of Service (LOS), Central Laredo



SPECIAL TRAFFIC GENERATORS

The analysis of traffic operations also requires the determination of major activity centers, like large industrial companies with numerous employees and major retail facilities that attract many shopping trips. The location and character of these activity centers (or major traffic generators) have an influence on the regional traffic volumes and flow patterns. For the Laredo MTP study area, the traffic generators can be classified into the following categories: industrial facilities, commercial / retail, civic-related facilities, colleges and universities, medical facilities, transportation-related services, and sport and recreational facilities. **Table 2-4** and **Figure 2-8** show the descriptions and locations of individual traffic generators discussed in the following sections.

Laredo Community College

Industrial Facilities

The Laredo region contains several clusters of industrial parks and a few major distribution centers along the outskirts of the City of Laredo. Seven industrial locations are classified as foreign trade zones: the Laredo International Airport, the Texas-Mexican Railroad, Killam Industrial Park, International Commerce Center, La Barranca Ranch Development, Unitec Industrial Park, and Embarcadero Industrial Park.

Many industries are located along the FM 1472 corridor north of Loop 20, the Loop 20 corridor from FM 1472 to IH 35, and in the region surrounding the SH 359 and Loop 20 intersection. Plus, several industrial parks have access to the Union Pacific and Texas-Mexican Railroads. The U.P. Terminal and the nearby Port of Laredo are located near the IH 35 and Loop 20 interchange, which provides easy access to truck traffic entering and leaving the Laredo region.

Commercial / Retail

Retail establishments within the City of Laredo include two shopping malls, several plazas, and various retail centers throughout the city. Mall del Norte is located on IH 35 north of Hillside Road, while the El Portal is located on Santa Maria Avenue in downtown Laredo. The downtown area also has several plazas. Other retail corridors include IH 35 corridor north of Saunders Street and Loop 20 from the airport to SH 359.

Figure 2-8a Special Traffic Generators, Study Area

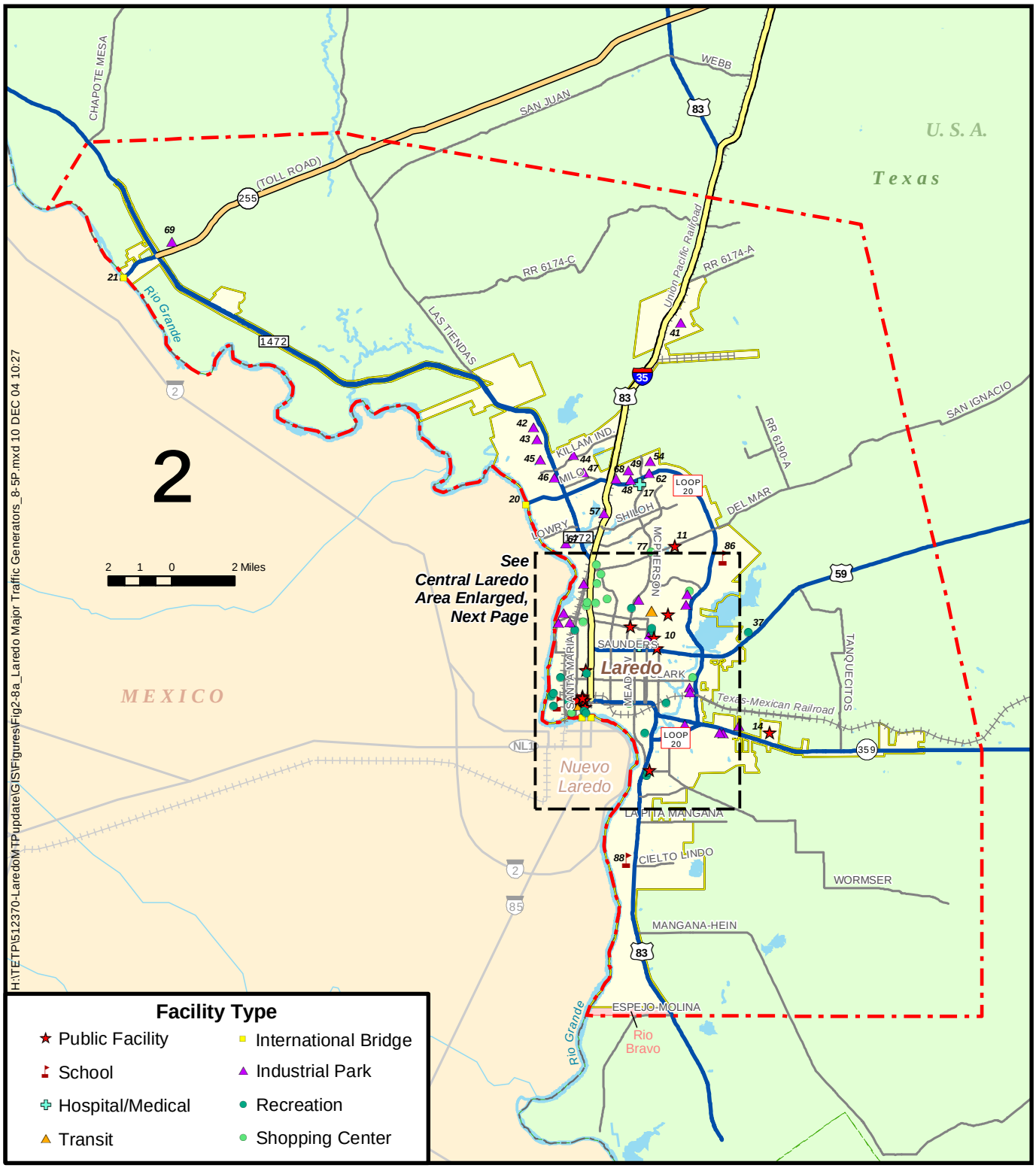


Figure 2-8b Special Traffic Generators, Central Laredo

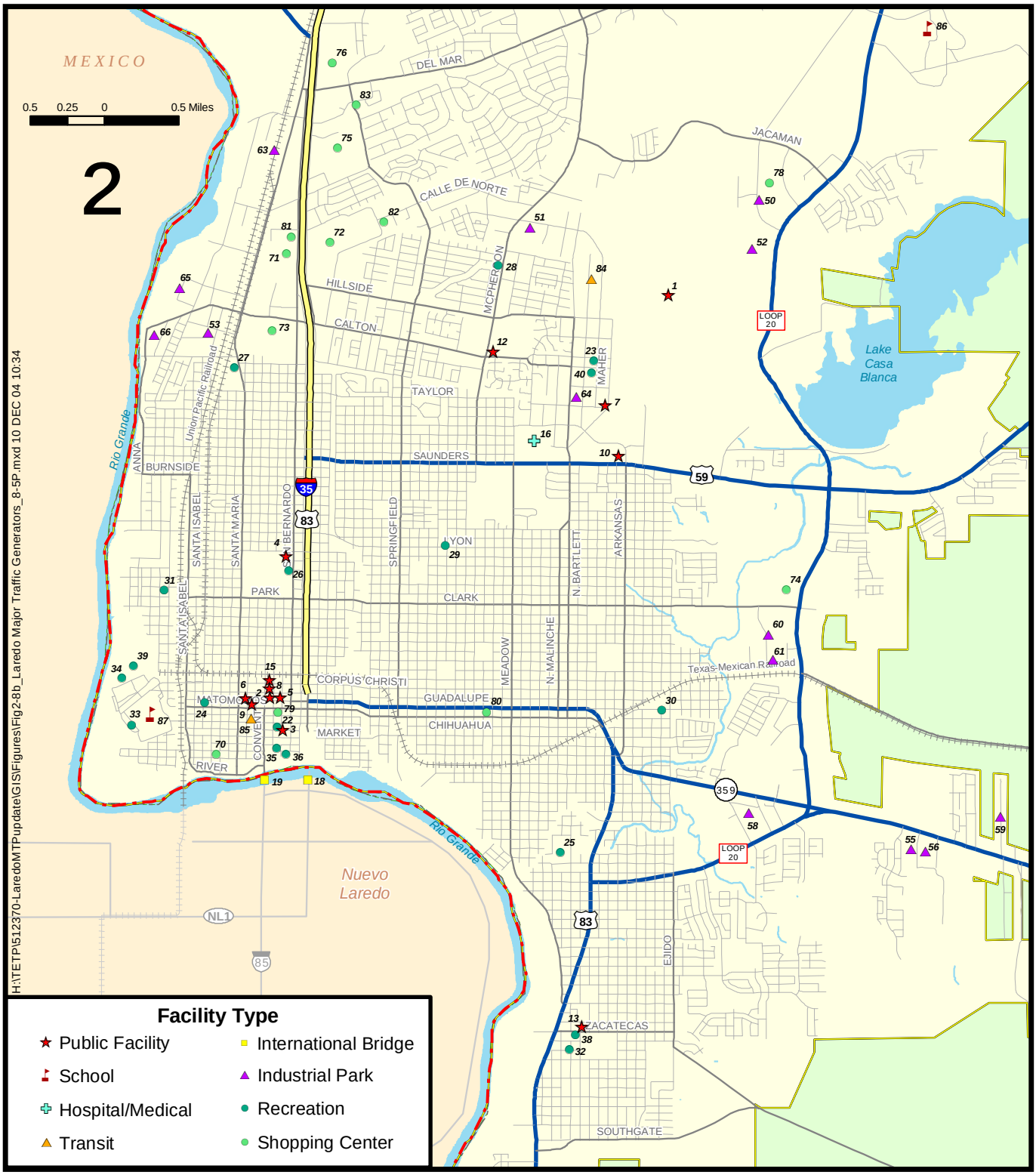


Table 2-4
Traffic Generators
Laredo Metropolitan Transportation Plan Update

Public Facility			
	Map ID		Map ID
Laredo International Airport	1	Federal Court/Post Office	9
City Hall	2	Post Office	10
Convention & Visitors Bureau	3	Del Mar Branch Post Office	11
Laredo Civic Center	4	Laredo Public Library	12
Webb County Courthouse	5	Public Library	13
Federal Courthouse	6	City of Laredo Landfill	14
Municipal Courthouse	7	Webb County Administrative Building	15
Webb County Justice Center	8		
Hospital/Medical			
Laredo Medical Center	16	Doctors Hospital of Laredo	17
International Bridge			
Juarez-Lincoln International Bridge	18	World Trade Bridge	20
Gateway to the Americas/Bridge	19	Colombia-Solidarity Bridge	21
Recreation			
Center for the Arts	22	Freddy Benavides Sport Complex	32
Laredo Little Theatre	23	Laredo Children's Museum	33
Laredo Theatre Arts Bldg.	24	Lamar Bruni Vergara Science Center	34
Benavides Park	25	Republic of the Rio Grande Museum	35
Civic Center Pool Complex	26	Washington's Birthday Celebration Museum	36
Farias Recreation Center	27	Webb County LIFE Downs Racetrack	37
Northeast Hillside Recreation Center	28	Cigarroa Recreation Center	38
Tarver Recreation Center	29	Ft. McIntosh Sports & Recreation Center	39
D.D. Hachar Recreation Center	30	Lite-Up Laredo Pool & Pavilion	40
La Ladrillera Recreation Center	31		
Industrial Parks			
Unitec Industrial Park	41	Southern Development Industrial Park 2	56
Pan American Industrial Park	42	Tejas Industrial Park	57
International Trade Center Industrial Pa	43	South Laredo Industrial Park	58
Killam Industrial Park	44	South Texas Oil and Gas Industrial Park	59
Inter-American Distribution Park	45	Ponderosa Industrial Park	60
Pellegrino Industrial Park	46	Tex-Mex Industrial Park	61
El Portal Industrial Park	47	Port of Laredo Industrial Park	62
Union Pacific Main Terminal	48	Del Mar Industrial Park	63
Milo Distribution Center	49	International Airport Industrial Park	64
Jacaman Ranch Industrial Park	50	Octavio Salinas Industrial Park	65
McPherson Acres Industrial Park	51	Paso del Norte Industrial Park	66
Diamond Industrial Park	52	R.M.R & T.W.S. Industrial Park	67
Modern Industrial Park	53	Cross Roads Industrial Park	68
San Isidro East Point Center	54	International Commerce Center	69
Southern Development Industrial Park 1	55		

Table 2-4 Continued
Traffic Generators
Laredo Metropolitan Transportation Plan Update

Shopping Center			
El Portal Centre	70	Shopping Center	77
Shopping Center	71	Laredo Entertainment Center	78
Mall Del Norte	72	H.E.B. Food Store	79
Sam's Warehouse	73	H.E.B. Food Store	80
Wal-Mart Super Center	74	Plaza de Laredo	81
Shopping Center	75	Fountain Creek	82
North Creek Plaza	76	Del Mar Shopping Plaza	83
Transportation			
El Metro Park & Ride Lot	84	El Metro Transit Center	85
Schools			
Texas A&M International University	86	Laredo Community College – south campus	88
Laredo Community College	87		

Civic Facilities

Civic and governmental facilities within the study area include City Hall, Municipal Court, Webb County Courthouse, Webb County Administrative Building, Webb County Justice Center and the Federal Courthouse. Also, the Laredo Civic Center is located along Park Avenue north of downtown, while the Laredo Entertainment Center is located on Loop 20 near Jacaman Road. The Civic Center has an approximate capacity of 2,000 persons and will most likely generate trips due to conventions and other special events.

Webb County Courthouse

Colleges and Universities

The City of Laredo has one university and two secondary college campuses. Located on Loop 20 south of Del Mar Boulevard, Texas A&M International University offers four-year collegiate programs in fields such as business administration, education, and science and technology. The university has a student population of 4,100 students and total employment of 1,031 faculty and staff.

The Laredo Community College has an existing campus located in the downtown area and a south campus on US 83 about two miles south of Loop 20. The community college mainly offers two-year programs in preparatory education, engineering, and various other fields. The main downtown campus currently has 7,352 enrolled students and about 580 faculty and staff.

Texas A&M International University

Medical Facilities

The City of Laredo has one regional medical facility, the Laredo Medical Center located on Saunders. The other major medical center in Laredo is the Doctors Hospital facility located at McPherson Road and Loop 20.

Other Regional Facilities

Other traffic generators within the Laredo MTP study area include the Laredo International Airport, El Metro Park & Ride, and the LIFE Downs Racetrack. The International Airport is located on Loop 20 about ½-mile north of US 59, and provides both freight and commuter service throughout the U.S. and internationally.

Medical Center

Located on Hillside Road west of the international airport is the El Metro Park & Ride, which provides service to the El Metro transit system. The Laredo Entertainment Center, located on Sinatra Drive, has an approximate capacity of 9,000 persons. Last, the LIFE Downs Racetrack is located on US 59 east of Casa Blanca Lake.

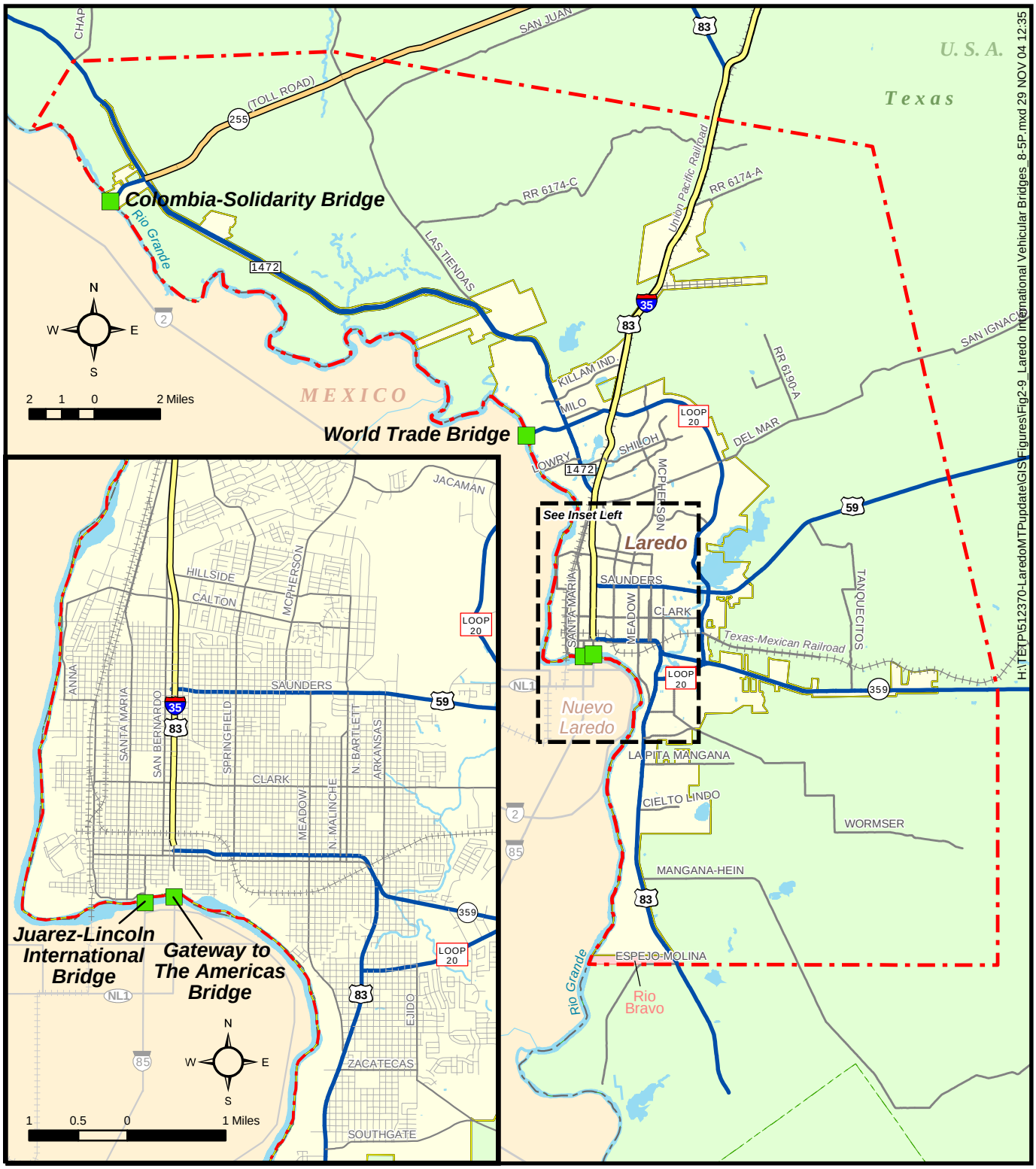
INTERNATIONAL BRIDGES

A major function of the Port of Laredo is the international bridge crossings between Laredo, Texas and Nuevo Laredo, Mexico, and the related commerce and travel aspects with the bridge crossings. The Juarez-Lincoln International Bridge and the Gateway to the Americas Bridge are two bridge crossings near the terminus of IH 35 that provide passenger transport between the United States and Mexico. **Figure 2-9** shows that both bridges are located in downtown Laredo, and on Convent and San Dario Avenues that in return provide access to IH 35 and US 83.

Laredo Entertainment Center

The Colombia-Solidarity Bridge handles commercial and non-commercial crossings and is the border crossing facility designated for transporting hazardous cargo between the two nations. It is located at the end of the Colombia Toll Road northwest of Laredo. The fourth bridge is the World Trade Bridge that was recently constructed in April 2000 near the terminus of Loop 20 west of Mines Road. The World Trade Bridge is the first bridge ever dedicated solely to commercial transport between the U.S. and Mexico, and has helped to relieve years of truck congestion along IH 35 in Laredo.

Figure 2-9 International Vehicular Bridges

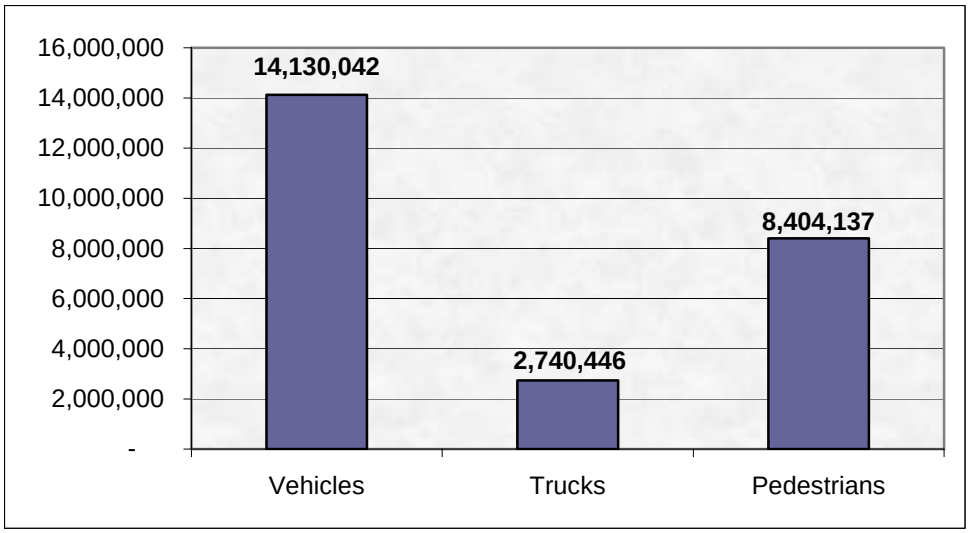


All four international bridges were constructed and are currently operated by the City of Laredo in conjunction with the U.S. Customs Office and other federal agencies. The revenue acquired from the usage fees help in return to finance the maintenance and operational costs associated with the bridges and local roadways that provide access to the bridges. In fact, the Port of Laredo engrossed about twice the amount of U.S. – Mexico trade dollars in year 2000 ($84.2 billion) than did their nearest competitor, El Paso ($39.9 billion). Plus, 2.9 million trucks crossed through the Port of Laredo in year 2000 versus 1.3 million trucks in 1993, and more than 9,000 commercial crossings were recorded on a daily basis for the two commercial bridges (Colombia-Solidarity and the World Trade Bridge).

Gateway to the Americas Bridge

The Texas Center for Border and Economic and Enterprise Development compiles border crossing data provided by the U.S. Customs Service (north bound data) and U.S. bridge operators (south bound data). As shown in **Figure 2-10**, there were over 25 million north and south bound border crossings in the Year 2003. Vehicles crossing comprised the largest percentage, 56 percent, with over 14 million crossings. Truck traffic, which consists of loaded and unloaded commercial vehicles, comprised 11 percent of total traffic with 2.7 million crossings. Pedestrian traffic accounted for 33 percent of total border crossings.

Figure 2-10
Border Traffic, 2003
Laredo Metropolitan Transportation Plan Update



Source: Texas Center for Border Economic and Enterprise Development

Table 2-5 displays border traffic data for the years 1998 and 2003. As shown, over the past five years overall border traffic has increased by 2 percent. This increase in border traffic is primarily attributed to pedestrian traffic, which increased by 17 percent over the past five years. As shown, during this same period vehicle and truck traffic declined by 3.8 percent and 3.7 percent respectively. The decline in truck traffic is attributed to a decline in southbound traffic or exports.

Table 2-5
Border Traffic, 1998-2003
Laredo Metropolitan Transportation Plan Update

	1998	2003
Vehicles	**14,691,542**	**14,130,042**
North	7,642,793	7,104,801
South	7,048,749	7,024,241
Trucks	**2,846,079**	**2,740,446**
North	1,352,198	1,354,229
South	1,493,881	1,386,217
Pedestrians	**7,171,360**	**8,404,137**
North	3,149,623	4,466,739
South	4,021,737	4,037,398
Total	***24,768,981***	***25,274,625***

Source: Texas Center for Border Economic and Enterprise Development

Economic data for total imports and exports in Laredo, as shown in **Table 2-6** below, was collected from the Texas Center for Border Economic and Enterprise Development. The data shows that from 1994 to 2003, imports have risen from $10.1 billion to $47.6 billion, which is an average growth rate of 18.8 percent per year. Exports increased from $19.4 billion in 1994 to $32.5 billion in 2003, which is an average growth rate of 5.9 percent per year.

Table 2-6
Imports and Exports in Laredo, TX.
Laredo Metropolitan Transportation Plan Update

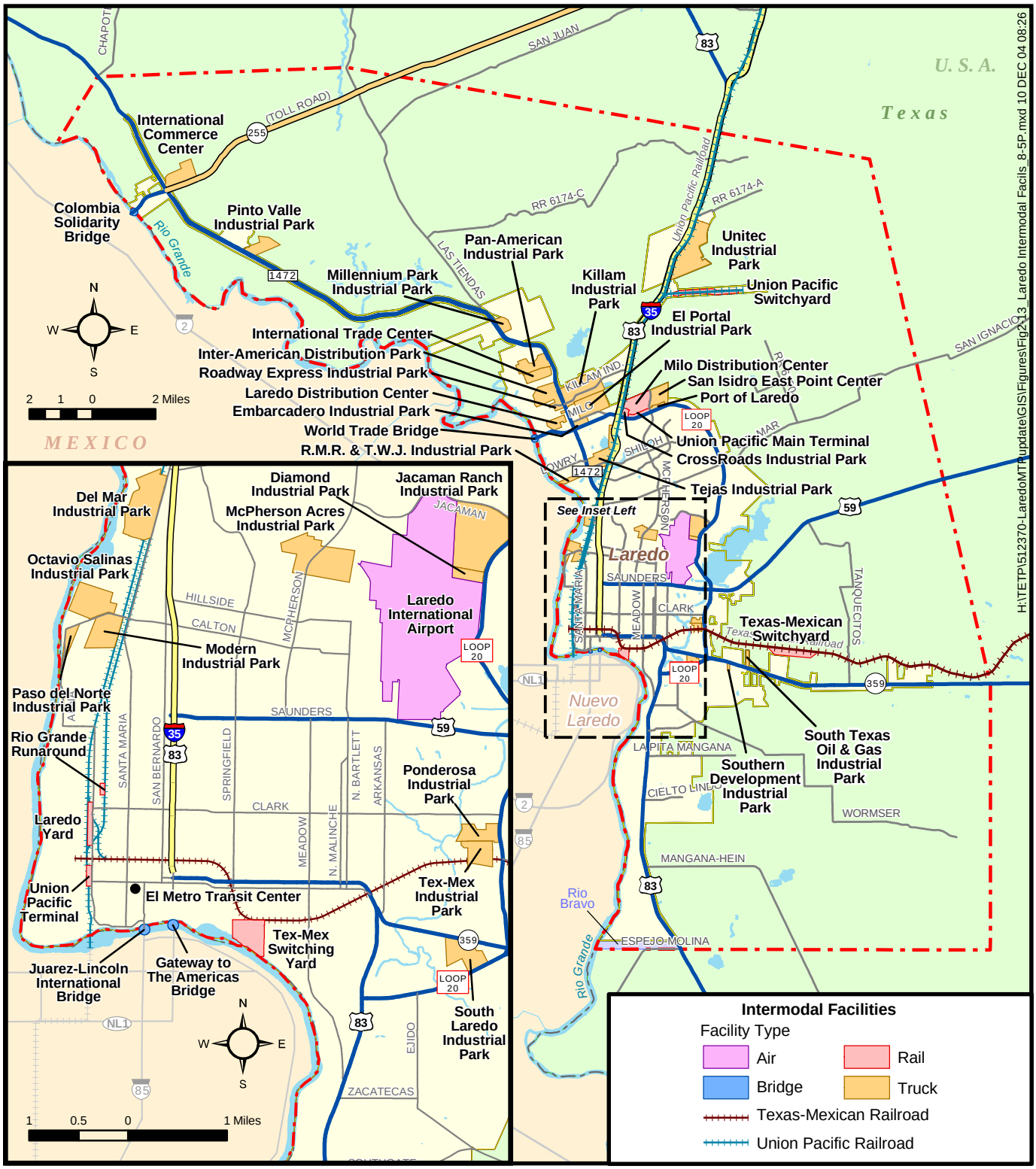
Year	1994	2003
Exports	$19,389,787,952	$32,469,438,916
Imports	$10,055,444,119	$47,556,772,992

INTERMODAL FACILITIES

Since the passage of the North American Free Trade Agreement (NAFTA) in 1993, the development of intermodal facilities has received increased consideration. The transportation demands created by the implementation of NAFTA have placed the Laredo region in the position of meeting present and future transportation demands through a coordinated and intermodal transportation plan.

The Laredo Metropolitan area is well served by numerous intermodal facilities, including an airport, railroads, and trucking facilities which cover every aspect of today's transportation needs. Existing intermodal facilities (shown in **Figure 2-11**) include the Laredo International Airport, Transit Center, Nuevo Laredo airport, Union Pacific Railway, Texas-Mexican Railway and the Port of Laredo; which are discussed in detail in the following sections.

Figure 2-11 Intermodal Facilities



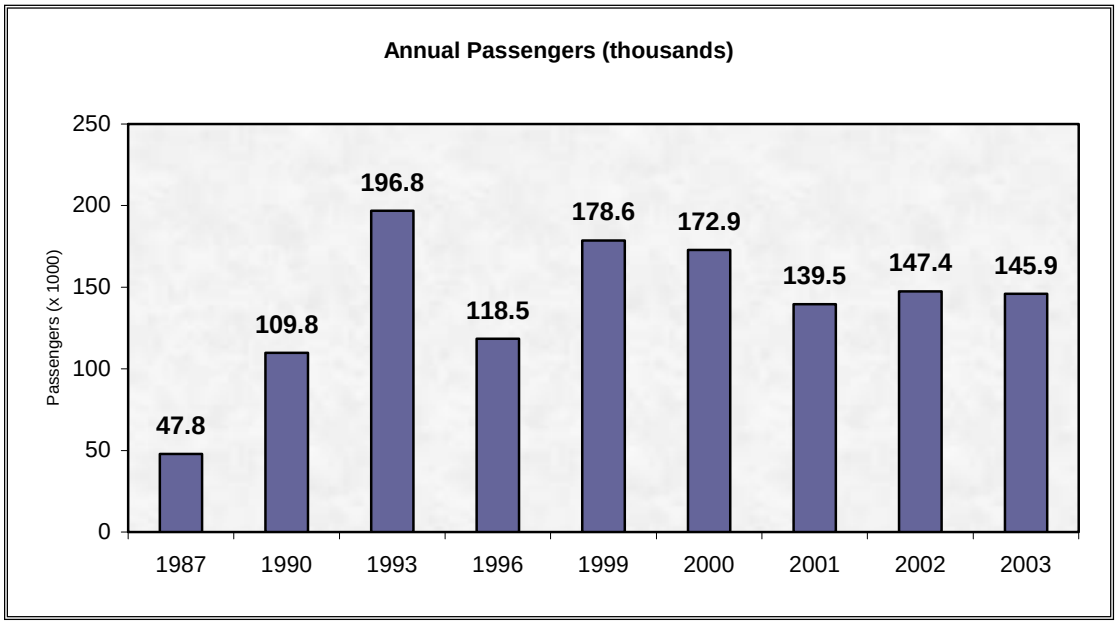
Airports

The Laredo International Airport (LRD) is owned and operated by the City of Laredo, and provides daily air service to and from Houston, Dallas / Fort Worth, and Mexico City. LRD serves the air transport needs of the Laredo MTP region and south Texas, including commercial air carrier, air taxi and commuter airline service for domestic and international passengers and cargo, as well as the general and military aviation needs of Laredo and the surrounding area. LRD is also classified as a Foreign Trade Zone, which is where commercial merchandise receives the same Customs treatment it would if it were outside the commerce of the United States without being subject to Customs duties and other taxes. The LRD Foreign Trade Zone is utilized for aeronautical and industrial purposes.

The Laredo International Airport is located in the eastern part of Laredo, on a portion of the 1,400 acre former Laredo Air Force Base that was deactivated by the U.S. Department of Defense in 1973. LRD currently has 16 scheduled flights during weekdays and 10 flights on the weekends. The airport itself is bounded in the south by U.S. 59 and the east by Casa Blanca Lake State Park. The main access road to the airport is from Loop 20 on the east side, while the west side of the airport has a secondary freight access from Hillside Road and Maher Avenue.

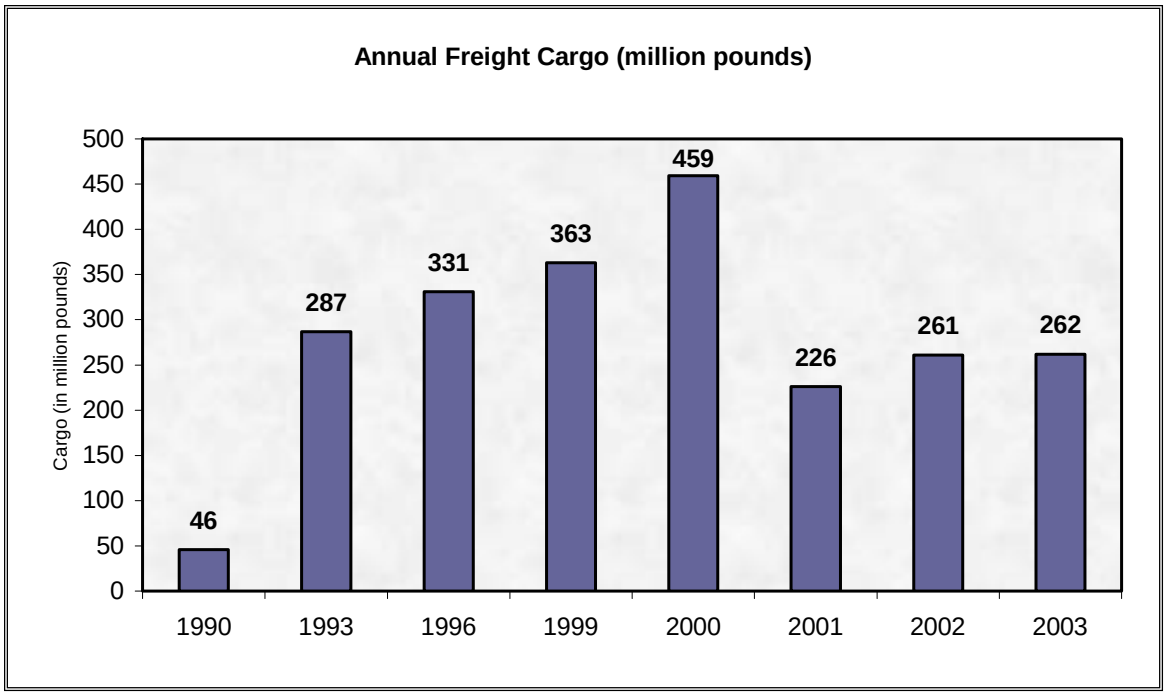
As shown in **Figure 2-12**, annual passengers have increased by 205 percent from 47,800 passengers in 1987 to 145,900 passengers in the Year 2003. Air Cargo has also increased over the past decade from 46 million pounds in 1990 to 262 million pounds in 2003, an increase of 469 percent. LRD is still considered a major port for Latin American air cargo; being ranked 8th in the nation by Air Cargo World in 1993. **Figure 2-13** displays cargo traffic handled by the airport for the last decade.

Figure 2-12
Annual Passengers
Laredo Metropolitan Transportation Plan Update



Laredo Development Foundation

Figure 2-13
Annual Freight Cargo
Laredo Metropolitan Transportation Plan Update



Laredo Development Foundation

The Laredo International Airport includes the following physical constructs for the commercial aviation, general aviation, and air cargo freight operations. The primary runway (designated as RW 17R-35R) is 7,800 feet long and 150 feet wide; while the secondary parallel runway (designated as RW 17L-35R) is 8,200 feet long and 150 feet wide. This runway was rebuilt to support the heaviest aircraft currently flying. The crosswind runway (designated as RW 14-32) is 5,900 feet long and 150 feet wide. Taxiways connect the runways to the apron and terminal areas located on the west side of the airfield. LRD is equipped with runway and taxiway lighting systems, an instrument landing system (ILS) for the primary runway, and an air traffic control tower and other navigational aids for operation under both visual flight rule (VFR) and instrument flight rule (IFR) conditions.

In 1998, LRD completed a $31 million, 78,000 square foot passenger terminal facility. The terminal provides space for six airlines, five car rental agencies, a duty-free store and government inspection facilities. The terminal has jet-boarding bridges on currently-operating gates, and is expandable to 20 gates for accommodating future demand. In addition, LRD has two fixed-base operators that provide general aviation services, and dedicated air freight facilities in excess of 340,000 square feet.

Railroads

The railroad network in Laredo is part of an international network, which extends into Mexico and serves the rail cargo needs of the area on both sides of the US/Mexico border. Freight rail service is provided by privately owned US carriers: the Union Pacific Railway (UP) and Texas-

Mexican Railway Company (Tex-Mex). Together, these railway companies account for all rail traffic through Laredo and utilize the only international rail bridge between Laredo and Nuevo Laredo. Tex-Mex Railways owns the international rail bridge and has an agreement with Union Pacific that allows UP to use the bridge, the Tex-Mex mainline, and the storage tracks located at the north end of the bridge.

The Union Pacific rail line travels in a north – south direction through Laredo along IH 35 and Santa Maria Road. The UP Railroad continues north to San Antonio and provides service throughout the United States. UP Railway operates an average of 16 trains per day in the Laredo area, and its main rail yard is located near the IH 35 and Loop 20 interchange. UP also maintains a terminal and yard at Lafayette Street north of the International Railroad Bridge.

The Texas-Mexican rail line begins with Mexico's rail line that crosses over the international bridge from Nuevo Laredo. The Tex-Mex line then travels eastward from the UP downtown terminal to the industrial parks along SH 359, and onward to serve the area east of Laredo to as far as Corpus Christi, Texas. Tex-Mex Railway operates an average of eight trains per day, and has a rail yard located on SH 359. In addition to carrying freight, the Tex-Mex Railway also serves passenger traffic between Nuevo Laredo and the interior of Mexico.

As shown in **Table 2-7**, cargo transport by rail has been increasing in the last few years; with the City of Laredo reporting a total of about 394,200 loaded rail car crossings in year 2003. The northbound loaded rail cars (imports to US) have increased annually by an average of 13.5 percent between 1998 and 2003. Southbound loaded rail cars (exports from the US) have increased annually for the same period by an average of approximately 8.2 percent.

Table 2-7
Loaded Rail Cars Exports and Imports
Laredo Metropolitan Transportation Plan Update

Travel Direction	1998	1999	2000	2001	2002	2003
Southbound (exports)	148,009	167,871	184,498	182,226	190,974	219,362
Percent Change		13%	10%	-1%	5%	15%
Northbound (imports)	92,829	115,771	151,110	168,376	174,762	174,837
Percent Change		25%	31%	11%	4%	0%

Source: Laredo Development Foundation

Given the increase of rail traffic in Laredo, traffic movement and safety considerations are important concerns due to the point of conflict between trains and roadway vehicles. Vehicles are delayed as trains travel from one location to another and block roadways. The UP Railroad has about 53 crossings in Laredo, which includes 49 at-grade crossings and four grade-separated crossings. Additionally there are 3 proposed crossings along this rail alignment, two at the intersection Calton Road and one at the intersection of FM 1472. The Tex-Mex Railroad has a total of 33 crossings in Laredo (including 32 at-grade crossings and one grade separated crossing). **Figure 2-14** shows all existing at-grade rail crossings and grade-separated crossings; along with proposed grade separations.

Other rail interests in the area include the Webb County Rural Rail Transportation District (RRTD) which was established by Webb County. Rural Rail Transportation Districts are special government entities or subdivisions of the State of Texas that have the power to purchase, operate and/or build new railroad and intermodal facilities. RRTDs have the power of eminent domain and can be used to construct new rail lines or acquire and rehabilitate existing rail lines. Additionally they can be used to develop rail served industrial parks, intermodal facilities and transload facilities.

Trucks

Almost all major freight truck carriers serve the industrial community in the Laredo area, and have intermodal connections to the Union Pacific Railway via the Port of Laredo, a transloading trucking facility owned by U.P. Also, Laredo is the only border city served by freight carriers licensed by the Interstate Commerce Commission (ICC) to provide international service between the City of Laredo and Nuevo Laredo. There are about 515 freight forwarders, 210 trucking companies, and 105 licensed U.S. Customs brokers operating within the Laredo area.

As shown in Table 2-5, southbound trucks (exports to Mexico) decreased by seven percent between 1998 and 2003. This decrease in traffic is primarily attributed to the events of September 11th. Northbound trucks (imports from Mexico) remained relatively constant during that same time frame.

As shown in **Figure 2-15**, truck traffic is significant in the Laredo area. As indicated, I-35 has the highest volumes of truck traffic in the region, with volumes ranging from over 63,000 trucks per day north of Saunders Street to 14,000 trucks per day at the northern limits of the study area. The percentage of truck traffic along major roadways in the region including I-35, US 59, US 83, SH 359, FM 1472 and Saunders Street exceed 15 percent and along several segments exceed 25 percent.

In order to concentrate commercial traffic to certain corridors within the area, the City of Laredo designated specific roadways as truck routes, as shown in **Figure 2-16.** These routes include all freeways and most primary arterials, like IH 35, Loop 20, US 83, US 59, SH 359, and FM 1472; as well as local roads like Calton Road and Santa Isabel Avenue that provide access to intermodal facilities. By separating commercial vehicles away from non-commercial vehicles, the movement of freight transportation is improved throughout the area, along with better access to the industrial parks and terminals and the international bridge crossings.

Figure 2-14a Railroad Crossings, Study Area

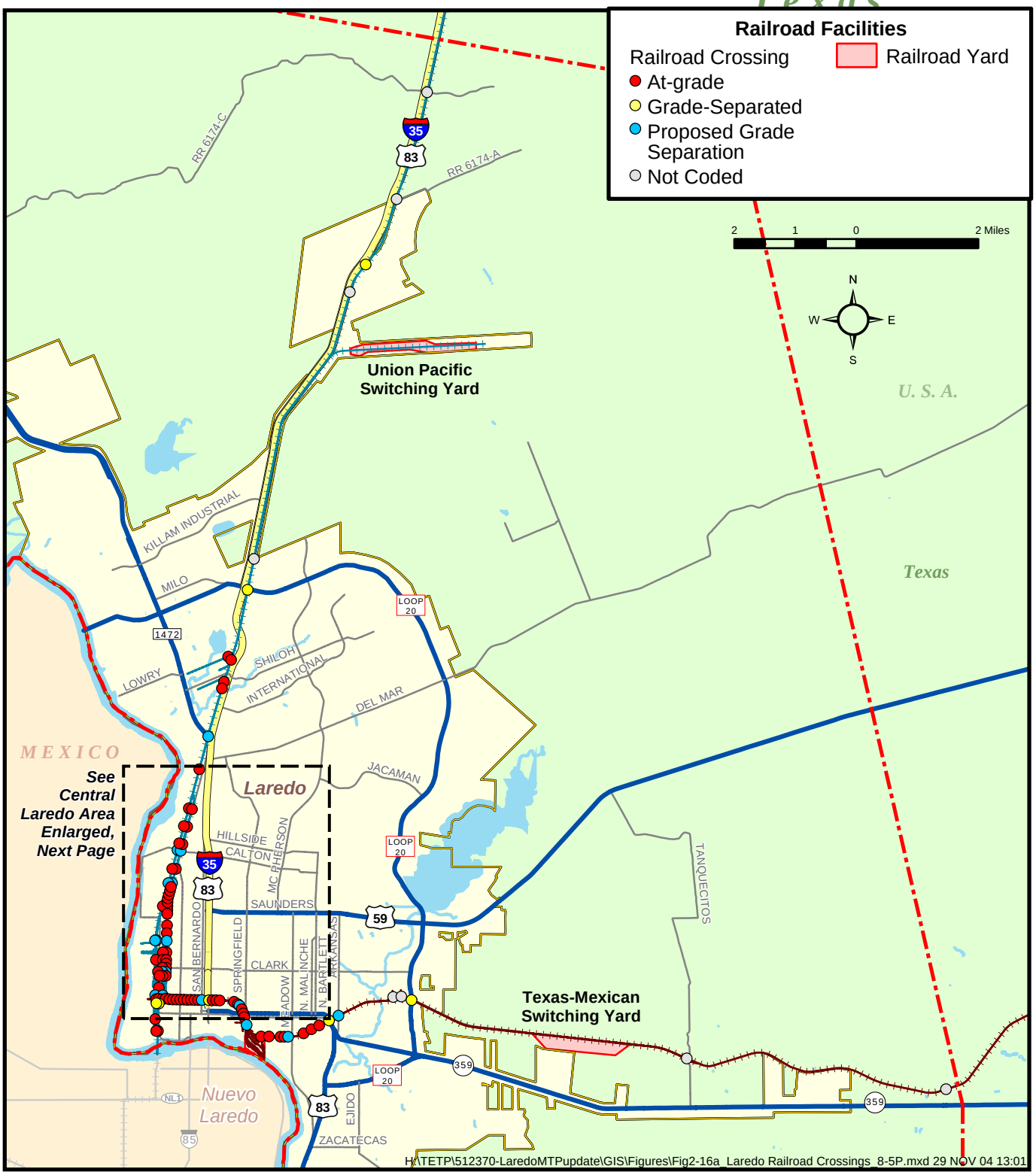


Figure 2-14b Railroad Crossings, Central Laredo

PUBLIC TRANSPORTATION

The El Metro transit system operates 18 fixed bus routes and recorded an annual ridership of 4.8 million passengers in 2001. **Figure 2-17** shows that these bus routes are predominantly radial, connecting downtown Laredo with neighborhoods and major traffic generators. This radial structure is designed to serve the needs of the transit-dependent community of Laredo's compact central area.

Currently, El Metro has a total fleet size of 60 vehicles, which includes over 40 fixed-route buses, two trolleys, and 18 El Lift paratransit vans. The fixed-route service has an average frequency of about 30 minutes between vehicles, and a regular fare of $1 / patron (with reduced fares for children, senior citizens, and disabled riders). Also, El Metro provides transit service seven days a week and on several busy transit corridors, such as San Bernardo, Santa Maria, and Del Mar Boulevard.

As for transit operations, El Metro Transit reported about 2.1 million revenue miles in FY 2002. Average weekday passenger ridership for El Metro fixed route service is 15,400 patrons, and the combined fixed-route and paratransit services recorded an average of about 32 weekday passengers per revenue hour.

Also in 1997, El Metro opened a new Multimodal Transportation Terminal in Downtown Laredo adjacent to Jarvis Plaza and serving as the central transfer point for El Metro's downtown bus activity. In addition to serving as El Metro's bus terminal and administrative offices, this new multi-level facility also features an inter-city bus terminal, passenger waiting areas, and public parking. The El Metro Terminal currently receives about 327,000 transfers from urban transit and inter-city bus services, like Greyhound and Valley Transit. Also, El Metro provides bus service to the Park and Ride lot located at the airport on Hillside Road.

BICYCLE AND PEDESTRIAN FACILITIES

Bicycle and pedestrian systems facilitate the use of alternative modes of transportation such as cycling or walking. These facilities can also serve to reduce congestion and pollution. Bicycle and pedestrian facilities should be coordinated with the local transit system to provide access to transit stops and bolster transit ridership. To ensure that these forms of transportation are possible, the City of Laredo has adopted sidewalk standards that call for the provision of sidewalks in most developments within the city limits. Bicycle facilities and pedestrian attraction centers are shown in **Figure 2-18.**

Bicycle System

The State currently has a bicycle lane along Spur 400 (Clark Boulevard). Additionally there is a newly constructed jogging/bicycle path constructed along the eastern side of Loop 20. Safety is the main priority in developing the bicycle transportation system. Congested areas and truck routes need to be avoided when developing bicycle corridors. This is accomplished by providing bike lanes that are separated by striping on the right shoulder of roadways, and/or constructing off-street trails within exclusive right-of-way for use by bicycles, joggers and pedestrians. Figure 2-18 identifies proposed bike routes in the Laredo area. These bikeways were developed with respect to traveler safety and useful origins and destinations.

Figure 2-15 Existing Daily Truck Traffic Volumes

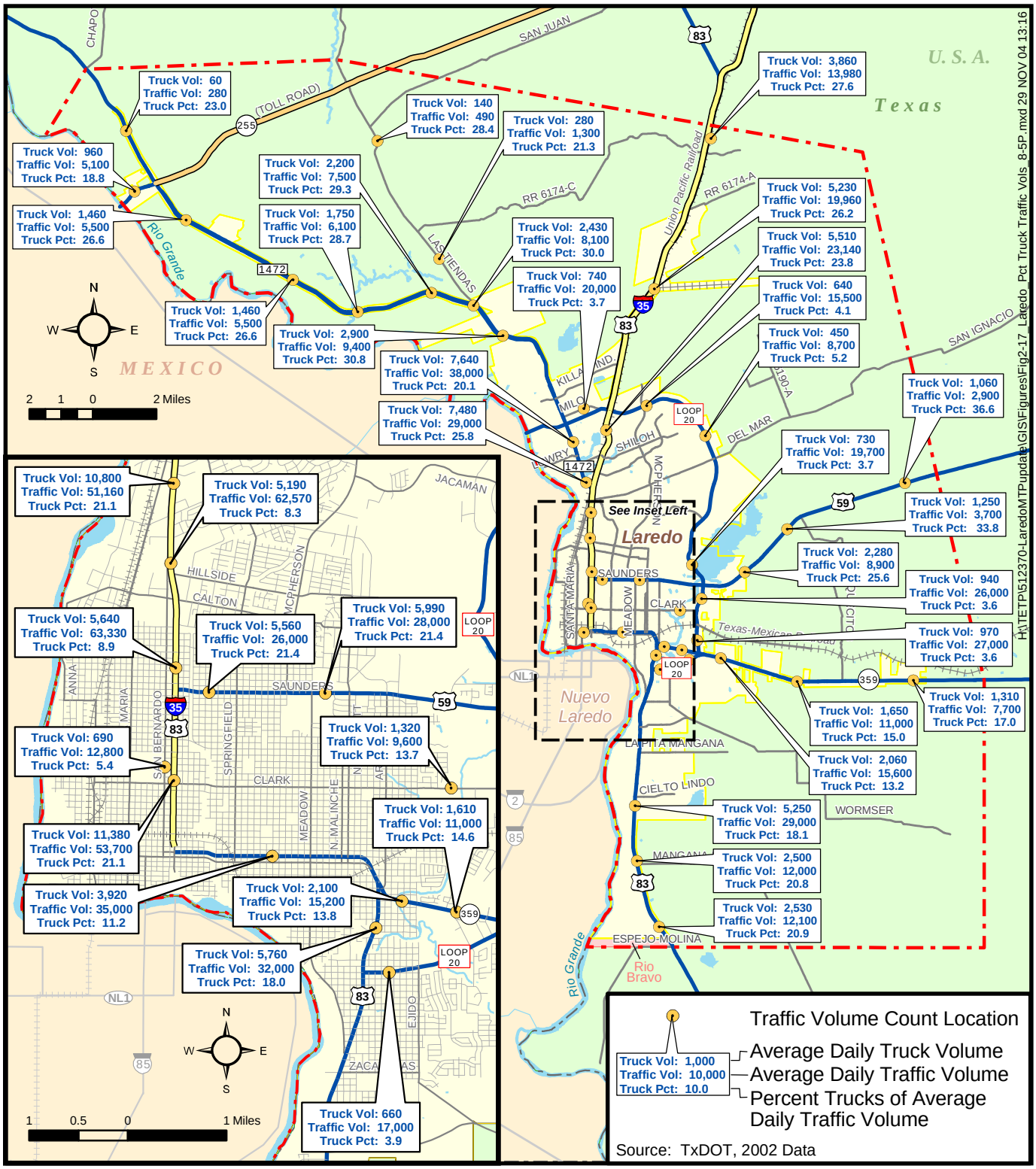


Figure 2-16 Designated Truck Routes

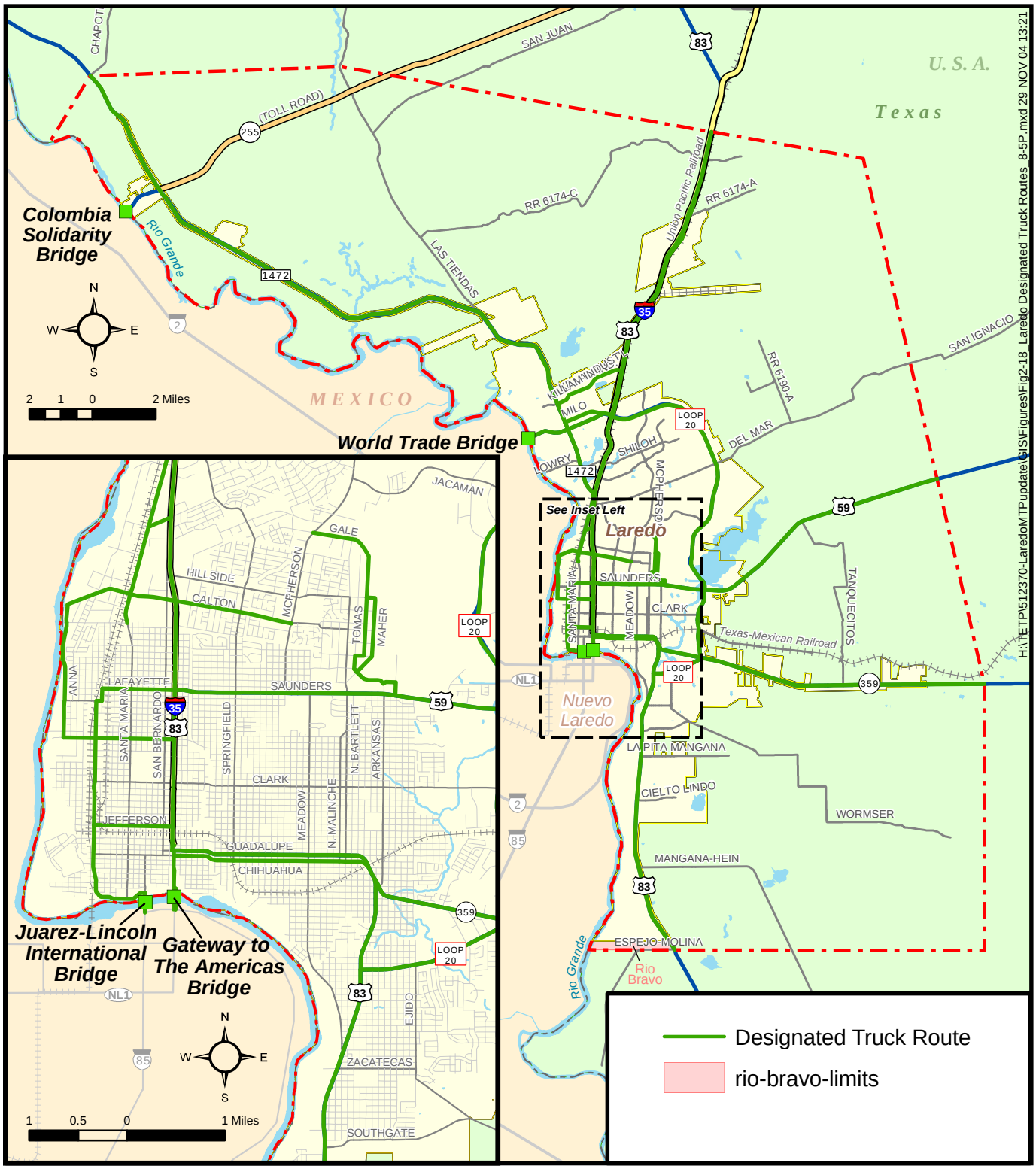
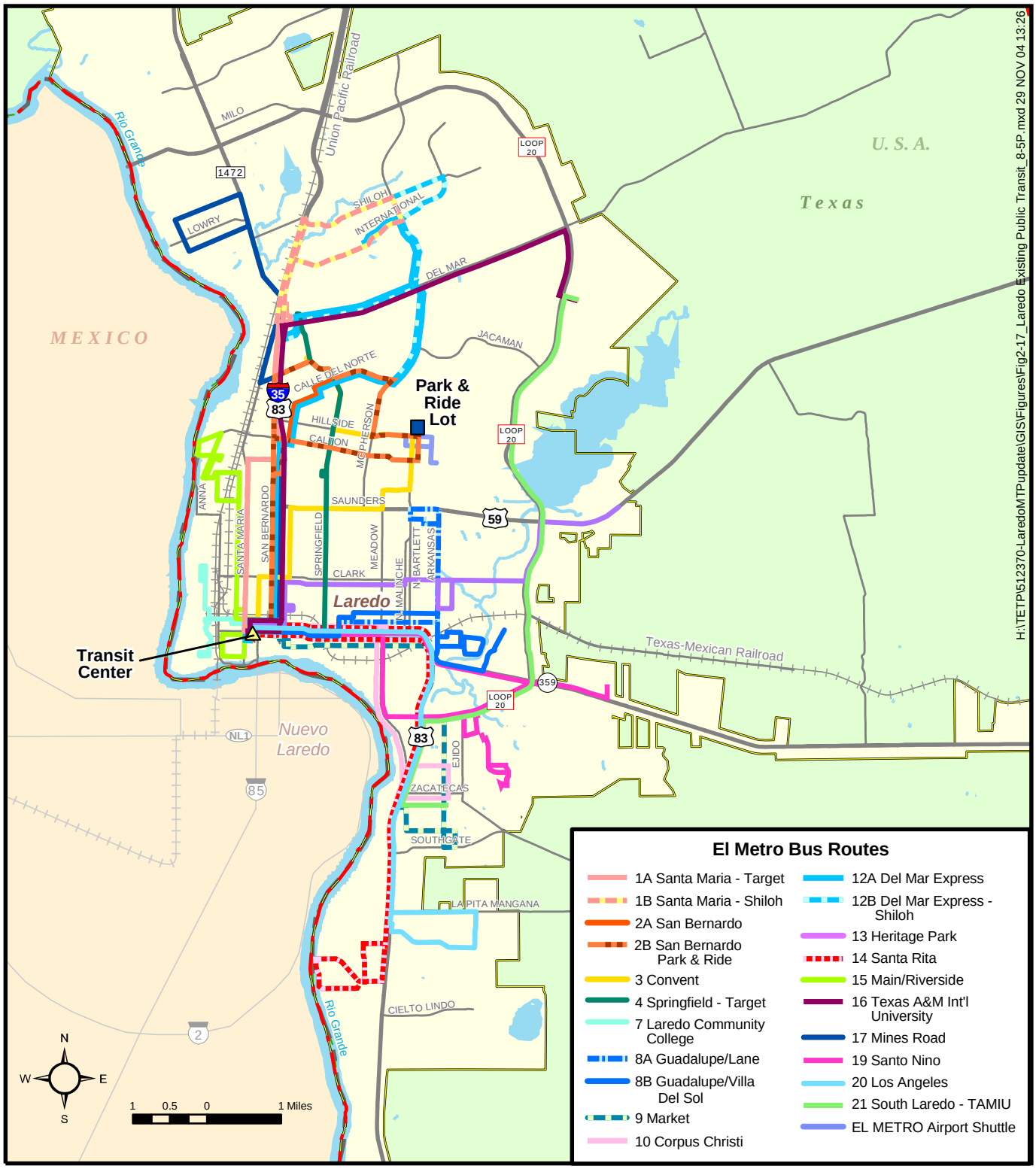


Figure 2-17 Existing Public Transit



Pedestrian System

Previous studies conducted for the City of Laredo identify the main pedestrian attractions as schools, grocery stores, and shopping centers. In Laredo, the intersections of Park and Santa Maria, Tacuba and Old Santa Maria, and Garcia and Davis were identified as the intersections having the largest concentrations of pedestrian activity. All three intersections are located adjacent to school buildings and as a result, are used extensively by people on foot. Figure 2-18 shows the primary pedestrian attraction centers.

In January 2004, over 350,000 northbound pedestrians crossed the Gateway to the Americas Bridge between downtown Laredo and Nuevo Laredo. Once they enter Laredo, these pedestrians are typically destined for Jarvis Plaza, HEB and other retail centers, or the Los Dos Laredos Park. The multimodal transit center south of Jarvis Plaza provides transit access throughout the city, while the retail centers and Los Dos Laredos Park serve shopping and recreational demands, respectively.

SAFETY

Safety of the transportation system is an important issue for the Laredo region. A safe transportation network is essential to the community's economic vitality and quality of life. Transportation safety concerns primarily focus on accidents that occur on the roadway system involving motorists, pedestrians and bicyclists.

Traffic accident records are maintained by the different law enforcement agencies in the Laredo Metropolitan area. Recorded accident information is sent to the Department of Public Safety in Austin, where information is centralized. This information is available to transportation agencies to evaluate the safety of the area roadway system operations and to help develop strategies that will enhance public safety. The most recent accident data available for the Laredo Metropolitan area is for the Year 2001, as shown in **Tables 2-8** and **2-9**.

During the year 2001 there were 1,099 accidents reported, half of which involved possible injury. Non-Injury accounted for 316 of the accidents or 29 percent followed by non-incapacitating injury, 16 percent, incapacitating injury, 4 percent, and fatal injury, 2 percent.

Table 2-8
Study Area Traffic Accidents, 2001
Laredo Metropolitan Transportation Plan Update

Quarter	Non-Injury	Possible Injury	Non-Incapacitating Injury	Incapacitating Injury	Fatal Injury	Total
Jan-Mar 2001	80	139	41	7	7	274
Apr-Jun 2001	87	148	43	16	4	298
Jul-Sep 2001	74	127	37	13	6	257
Oct-Dec 2001	75	133	50	8	4	270
Total	316	547	171	44	21	1099
Pct of Total	28.75%	49.77%	15.56%	4.00%	1.91%	100

Source: TxDOT

Figure 2-18a Bicycle Facilities and Pedestrian Attractions, Study Area

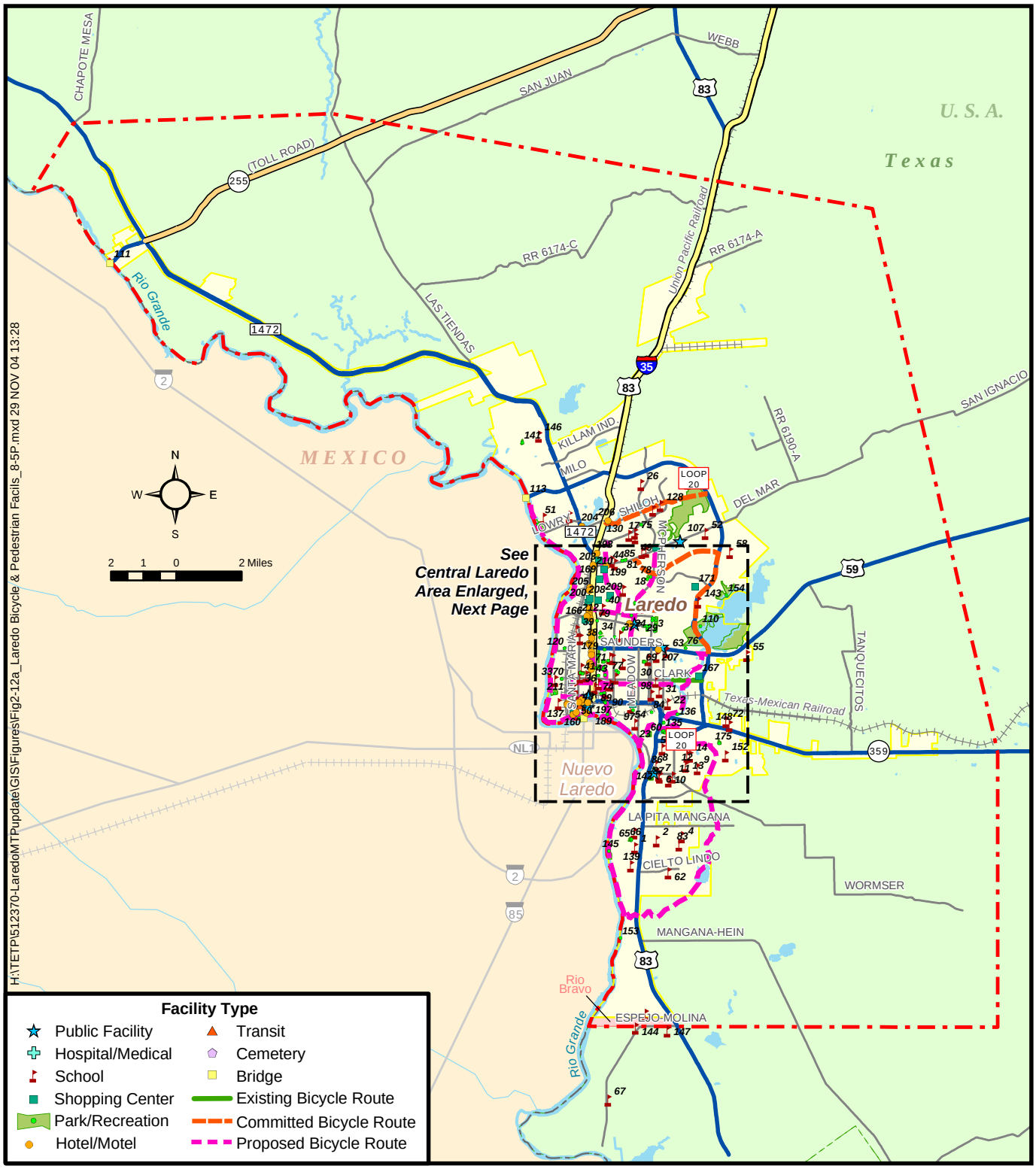


Figure 2-18b Bicycle Facilities And Pedestrian Attractions, Central Laredo

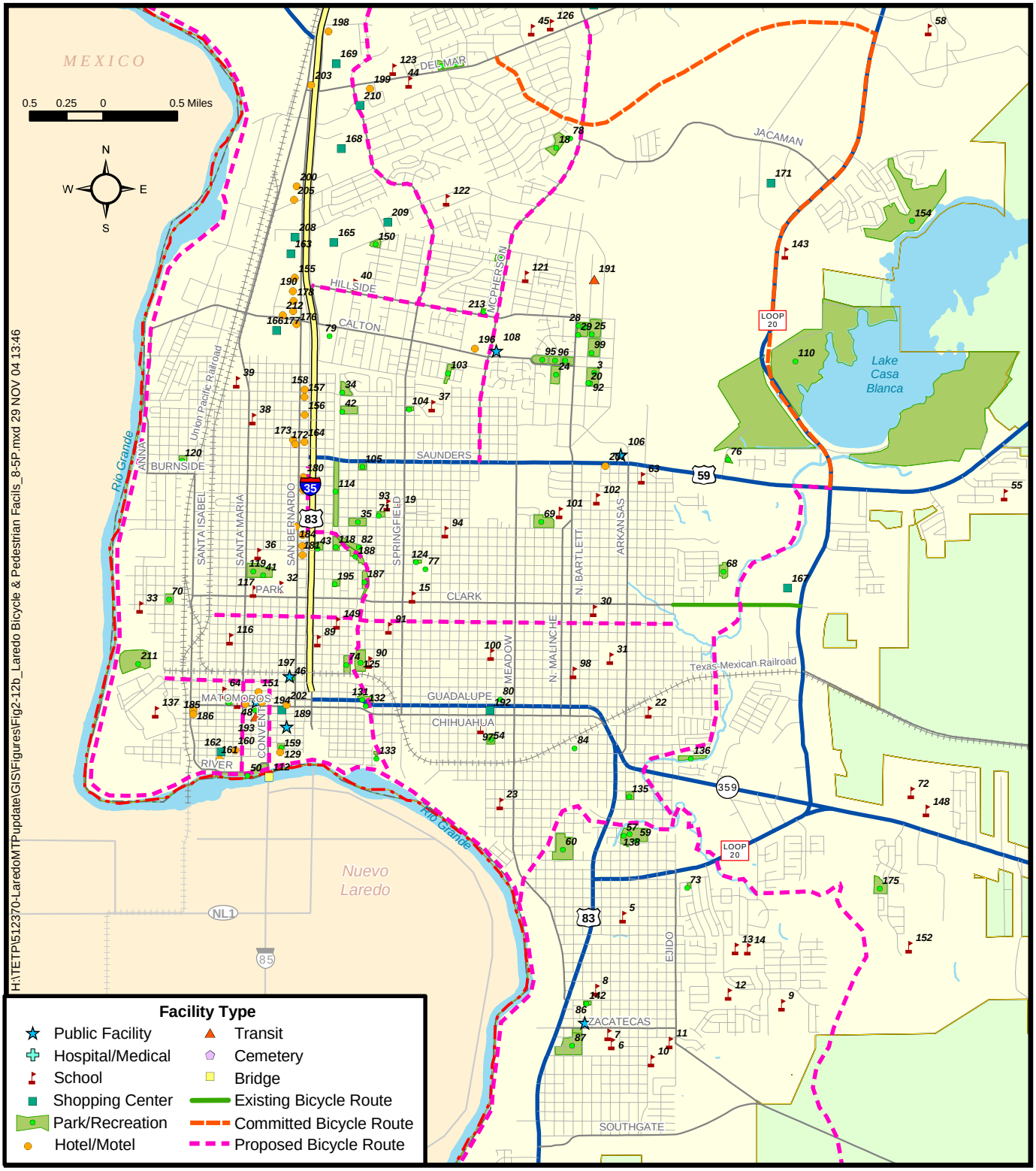


Table 2-9 shows the number of accidents during 2001 that involved pedestrians and bicyclists. As shown, 27 accidents, 2.5 percent, involved pedestrians while 4 accidents involved collisions with bicyclists.

Table 2-9
Study Area Traffic Accidents Involving Non-Autos, 2001
Laredo Metropolitan Transportation Plan Update

Quarter	With Pedestrians	With Bicyclists	Total
Jan-Mar 2001	8	2	10
Apr-Jun 2001	5	1	6
Jul-Sep 2001	5	0	5
Oct-Dec 2001	9	1	10
Total	27	4	31
Percent of Total Accidents	2.5	0.4	2.8

Source: TxDOT

The Laredo Urban Transportation Study is in the process of developing a safety strategy for the study area. The following steps have been taken towards that goal. The Technical Committee has been directed to form a Safety Subcommittee. The MPO has begun an analysis of hazardous material routes through the study area. All these data will be used to create a safety strategy specific to the unique qualities of Laredo that conforms to the state Strategic Highway Safety Plan.

SECURITY

The City of Laredo has an Emergency Management Plan that was updated in July 2007. This plan has been developed, updated and implemented by Deputy Fire Chief / Emergency Management Coordinator Steve E. Landin in coordination with various City of Laredo Department Directors. The plan utilizes operations and responses from many local, state and federal agencies. It addresses the blueprint to emergency responses related to natural disasters, terrorist threats, and other emergencies including threats to the areas bridges, utilities, health and transit system. While details cannot be presented here, this plan does address, in the event of an emergency, the security of all Laredoans.