



# Environmental Assessment

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## FM 1110 Widening and Realignment El Paso District

From I-10 to SH 20 (Alameda Avenue)

CSJ Number(s) 1281-01-017 and 1281-02-007

El Paso County, Texas

September 2018

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.

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**ACRONYMS**

Included below is a list of acronyms used throughout this document and their definitions.

|             |  |
|-------------|--|
| AADT        | Average Annual Daily Traffic                   |
| ADA         | Americans with Disabilities Act                |
| ASTM        | American Society for Testing and Materials     |
| BE          | Biological Evaluation                          |
| BHE         | Border Highway East                            |
| BMP         | Best Management Practice                       |
| CAA         | Clean Air Act                                  |
| CAFO        | Confined animal feeding operation              |
| CDC         | Corridor Development Certificate               |
| CEQ         | Council on Environmental Quality               |
| CGP         | Construction General Permit                    |
| CFR         | Code of Federal Regulations                    |
| CMP         | Congestion Management Process                  |
| CO          | Carbon Monoxide                                |
| CSJ         | Control-section-job number                     |
| CWA         | Clean Water Act                                |
| EA          | Environmental Assessment                       |
| EIS         | Environmental Impact Statement                 |
| EJ          | Environmental Justice                          |
| EMST        | Ecological Mapping Systems of Texas            |
| EO          | Executive Order                                |
| EPA         | Environmental Protection Agency                |
| EPCWID No.1 | El Paso County Water Improvement District No.1 |
| EPIC        | Environmental Permits, Issues, and Commitments |
| ESA         | Endangered Species Act                         |
| ETC         | Estimated Time of Completion                   |
| FEMA        | Federal Emergency Management Agency            |
| FHWA        | Federal Highway Administration                 |
| FIRM        | Flood Insurance Rate Map                       |
| FM          | Farm-to-Market                                 |
| FONSI       | Finding of No Significant Impact               |
| FPPA        | Farmland Protection Policy Act                 |
| FWCA        | Fish and Wildlife Coordination Act             |
| GIS         | Geographic Information System                  |
| HEI         | Health Effects Institute                       |
| I           | Interstate Highway                             |
| IBWC        | International Boundary Water Commission        |
| IRIS        | Integrated Risk Information System             |
| ISA         | Initial Site Assessment                        |
| LEP         | Limited English Proficiency                    |
| MBTA        | Migratory Bird Treaty Act                      |
| MOA         | Memorandum of Agreement                        |
| MOU         | Memorandum of Understanding                    |
| mph         | miles per hour                                 |
| MPO         | Metropolitan Planning Organization             |
| MS4         | Municipal Separate Storm Sewer System          |

|        |  |
|--------|--|
| MSAT   | Mobile Source Air Toxics                     |
| MTP    | Metropolitan Transportation Plan             |
| NAAQS  | National Ambient Air Quality Standards       |
| NATA   | National Air Toxics Assessment               |
| NEPA   | National Environmental Policy Act            |
| NOA    | Notice of Availability                       |
| NOI    | Notice of Intent                             |
| NOT    | Notice of Termination                        |
| NFIP   | National Flood Insurance Program             |
| NRCS   | Natural Resource Conservation Service        |
| NRHP   | National Register of Historic Places         |
| NWI    | National Wetland Inventory                   |
| PA     | Programmatic Agreement                       |
| PEL    | Planning and Environmental Linkages          |
| PM     | Particulate matter                           |
| POE    | Port of Entry                                |
| PSL    | Project Specific Locations                   |
| PST    | Petroleum storage tank                       |
| REC    | Recognized environmental concern             |
| ROW    | Right-of-Way                                 |
| RSA    | Resource Study Area                          |
| SGCN   | Species of Greatest Conservation Need        |
| SH     | State Highway                                |
| SHPO   | State Historic Preservation Officer          |
| STIP   | Statewide Transportation Improvement Program |
| SW3P   | Stormwater Pollution Prevention Plan         |
| TCAP   | Texas Conservation Action Plan               |
| TCEQ   | Texas Commission on Environmental Quality    |
| TERP   | Texas Emissions Reduction Plan               |
| THC    | Texas Historical Commission                  |
| TPDES  | Texas Pollutant Discharge Elimination System |
| TPP    | Transportation Planning and Programming      |
| TPWD   | Texas Parks and Wildlife Department          |
| TxDOT  | Texas Department of Transportation           |
| TXNDD  | Texas Natural Diversity Database             |
| TWDB   | Texas Water Development Board                |
| UPRR   | Union Pacific Railroad                       |
| U.S.C. | US Code                                      |
| USACE  | United States Army Corps of Engineers        |
| USDOT  | United States Department of Transportation   |
| USCB   | United States Census Bureau                  |
| USFWS  | United States Fish and Wildlife Service      |
| USGS   | United States Geological Survey              |
| VPD    | Vehicles per Day                             |
| VMT    | Vehicle-Miles Traveled                       |

## 1.0 INTRODUCTION

The Texas Department of Transportation (TxDOT) proposes improvements to Farm-to-Market (FM) 1110 between Interstate Highway 10 (I-10) and State Highway 20 (SH 20) in El Paso County, Texas. FM 1110 is a primary roadway perpendicular to I-10, connecting the Town of Clint and the City of San Elizario to I-10. The current alignment of FM 1110, between I-10 and SH 20 is disjointed. The proposed improvements involve the widening and realignment of FM 1110 to provide direct connection from I-10 to SH 20. The project length is approximately 2.76 miles. The proposed project is needed to improve system linkage and mobility in the Lower Valley of El Paso County. The Lower Valley is located within the southwest portion of El Paso County and includes the communities of Socorro, San Elizario, Town of Clint, Fabens and Tornillo Census Designated Places. The study area for this Environmental Assessment (EA) is included in **Appendix A, Exhibit 1: Project Location Map**.

This EA has been developed to analyze the potential environmental consequences that would result from construction, operation, and maintenance of the proposed project and to determine whether such consequences warrant preparation of an Environmental Impact Statement (EIS). This EA was written in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended; the President's Council on Environmental Quality (CEQ) Regulations 40 Code of Federal Regulations (CFR) Parts 1500 to 1508, Regulations for Implementing NEPA, 1978; and TxDOT's Environmental Review Rules.

The Draft EA was available for public review before and during the Public Hearing for the project held on August 1<sup>st</sup>, 2017. TxDOT considered comments submitted and revised the EA as appropriate. TxDOT determined that the proposed project would not have any significant adverse environmental impacts, and will issue a Finding of No Significant Impact (FONSI), which will be made available for public review.

## 2.0 PROJECT DESCRIPTION

### 2.1 Existing Facility

FM 1110 is currently a two-lane, undivided, rural facility. Between I-10 and FM 76 the existing roadway consists of two 12-foot (ft) lanes with 4-ft outside shoulders with drainage accommodated via roadside ditches within a right-of-way (ROW) width section that ranges between 128 ft and 130 ft. Between SH 20 and FM 76, the existing roadway meanders through the Town of Clint, and consists of two 11-ft lanes with 3-ft outside shoulders within a ROW width that ranges from 40 ft to 60 ft. Sidewalks, flush with the existing roadway pavement and ranging from 5 ft to 6 ft wide, are provided intermittently between FM 76 and SH 20. Refer to **Appendix C: Project Photographs** for photographs of the existing facility. Existing typical sections are depicted in **Appendix B: Typical Sections & Schematic Plans**.

## 2.2 Proposed Facility

The proposed project would consist of widening and realignment of FM 1110 to provide direct connection between I-10 and SH 20 near the Town of Clint and the City of San Elizario. The proposed FM 1110 roadway would be functionally classified as an Urban Minor Arterial (4-lane, divided) with a design speed of 45 miles per hour (mph). The proposed project would include drainage improvements, improvements to the intersections at FM 76 and SH 20, a bridge crossing over the floodplain between Salatral Lateral and FM 76, and an overpass at the Union Pacific Railroad (UPRR) crossing. The proposed improvements would include a signalized intersection and designated left-turn lanes at SH 20 and Denton Road (Rd.) Designated left-turn lanes would be provided at the new intersections of FM 1110 and Coffin Rd. and FM 1110 and Frey Rd. Drainage improvements, including seven retention basins, are proposed for the project. See **Appendix A, Exhibit 1: Project Location Map** for a project location map and **Appendix B: Typical Sections & Schematic Plans** for the project schematic and typical sections.

### *Bicycle and Pedestrian Accommodations*

The U.S. Department of Transportation (USDOT) Policy Statement on Bicycle and Pedestrian Accommodation provides guidance on incorporating pedestrian and bicycling facilities into transportation projects. The policy guidance encourages local planning authorities to implement planning and incorporate design features to facilitate increased pedestrian and bicycling activity. In accordance with this policy, TxDOT proactively plans, designs, and constructs facilities to safely accommodate bicyclists and pedestrians.

The proposed project would include bicycle and pedestrian accommodations in accordance with the USDOT Policy Statement on Bicycle and Pedestrian Accommodation. Six-foot wide sidewalks within 20-ft wide borders would be constructed on each side of FM 1110 between the face of curb and proposed ROW. In addition, 5-ft wide bicycle lanes would be constructed on both sides of the roadway. Sidewalks would be constructed in accordance with the Americans with Disabilities Act (ADA) guidelines.

### *Phasing*

The proposed project would be constructed in phases. Phase I would consist of the widening between I-10 and FM 76 and Phase II would consist of the realignment improvements between FM 76 and SH 20.

### *Planning*

The proposed action is consistent with the *Horizon 2040* Metropolitan Transportation Plan (MTP) amendment approved on April 28, 2017 and included in the 2017-2020 Statewide Transportation Improvement Program (STIP). The current MTP and STIP pages for the proposed project are included in **Appendix E: Supplemental Information**.

### 3.0 PURPOSE AND NEED

#### 3.1 Need

FM 1110 is one of the major thoroughfares in southern El Paso County, which is experiencing rapid growth, including residential and commercial development. The project is needed because a) FM 1110 between I-10 and SH 20 is disjointed with an at-grade crossing with the UPRR, resulting in reduced mobility, insufficient linkage, and travel delays and b) the project is within an area that is experiencing rapid growth, resulting in an anticipated future increase in traffic demand.

#### 3.2 Supporting Facts

##### *Reduced Mobility, Insufficient Linkage, and Travel Delays*

FM 1110 is the primary transportation route through the City of San Elizario and the Town of Clint. Vehicular traffic (including emergency vehicles) traveling along FM 1110 between SH 20 and I-10 encounter a lack of system connectivity and continuity within the study area because the roadway is disjointed as shown in **Figure 1-1**. Drivers traveling northeast on FM 1110 from SH 20, must travel southeast along FM 76 for 1.2 miles to be able to rejoin FM 1110 to access I-10. The section of FM 1110 between SH 20 and FM 76 is the only continuous roadway providing this connectivity between Clint and San Elizario. This section includes an at-grade railroad crossing that causes delays to roadway users and emergency vehicles because of freight crossing and because there are limited options for alternate routes. Per the *El Paso Freight Rail Study, Phase II* (TxDOT, July 2013), 30 trains per day travel through this crossing.

**Figure 1-1: Existing Route Along FM 1110**



Source: Google Maps, 2014.

### Traffic Demand

According to the *Horizon 2040 MTP* forecast data, population in the Metropolitan Planning Organization (MPO) study area is expected to increase to 1,158,195 by 2040, which represents a population growth of approximately 39 percent. The MPO study area covers all of El Paso County in Texas and portions of Doña Ana and Otero Counties in New Mexico. The anticipated population growth of 39 percent within the MPO study area would directly impact the number of households, which is expected to also increase approximately 48 percent by 2040 compared to 2010. Employment growth within the same area is expected to increase from 306,656 in 2010 to 429,455 in 2040. This represents an employment growth of approximately 40 percent. **Table 3-1** lists the *Horizon 2040 MTP* forecast data for population, households, and employment growth for the MPO study area. Per the TxDOT Transportation Planning and Programming (TPP) Division, traffic for the No-Build condition along FM 1110 is projected to increase from 10,400 vehicles per day (vpd) in 2018 to 14,750 vpd in 2038, and to 16,500 vpd in 2048. This represents an increase in traffic of 42 percent by 2038 and 59 percent by 2048.

**Table 3-1: Regional Forecasts for Population, Household and Employment within the MPO Study Area**

| Demographics | 2010    | 2020    | 2030      | 2040      | Percent Change 2010-2040 |
|--------------|---------|---------|-----------|-----------|--------------------------|
| Population   | 832,836 | 951,072 | 1,060,674 | 1,158,195 | 39                       |
| Households   | 270,326 | 314,789 | 358,115   | 399,153   | 48                       |
| Employment   | 306,656 | 340,998 | 382,021   | 429,455   | 40                       |

Source: El Paso MPO *Horizon 2040 MTP*, October 2013.

FM 1110 is located approximately 15 miles from the Tornillo-Guadalupe International Port of Entry (POE) and is approximately half the distance between Tornillo and Loop 375. Population growth in the region and increased trade between the U.S. and Mexico indicates an increased future demand on FM 1110 that is anticipated to exceed the capacity of the current facility. Per the TxDOT TPP Division, heavy truck (heavy duty vehicle) traffic for the No-Build condition on FM 1110 is expected to increase from 451 trucks in 2018 to 643 trucks in 2038, and to 726 trucks in 2048. This represents an increase in truck traffic of 43 percent by 2038 and 61 percent by 2048. This increase may be due to increased trade and the opening of the Tornillo-Guadalupe International POE, which was designed to accommodate commercial traffic.

The purpose of the project is to improve mobility and linkage, reduce travel delays at the UPRR crossing, and meet anticipated traffic demand along FM 1110 for all roadway users.

## 4.0 ALTERNATIVES

In May 2013, TxDOT began the Border Highway East (BHE) Planning and Environmental Linkages (PEL) Study to identify transportation-related problems within the BHE study area, determine possible viable alternatives for a long-term solution, and recommend projects that can be carried forward into a NEPA study. The BHE PEL Study identified improvements to FM 1110 as a recommended project to be carried forward into the NEPA process.

#### 4.1 Build Alternative

The Build Alternative (Alternative D) consists of the recommended preferred alternative identified during the alternative screening process and would consist of widening and realignment of FM 1110 to provide direct connection between I-10 and SH 20. The Build Alternative would improve mobility and linkage, reduce travel delays at the UPRR crossing, and meet anticipated traffic demand along FM 1110. The proposed project would include bicycle and pedestrian accommodations.

##### 4.1.1 Logical Termini and Independent Utility

The proposed project is of independent utility and reasonable expenditure even if no additional transportation improvements in the area are made and there are no restrictions on the consideration of alternatives for other reasonably foreseeable projects including those in the *Horizon 2040 MTP*. The estimated time of completion (ETC) for the proposed project is 2020.

The logical termini for the project is I-10 to the north and SH-20 to the south. I-10 and SH 20 were determined to be the logical termini because the I-10 and SH 20 facilities are considered major traffic generators.

The construction limits account for transitions into the existing roadway along Denton Rd., SH 20, Frey Rd. and FM 76. Limits of construction are shown in **Appendix A, Exhibit 3: Environmental Map** and in **Appendix B: Typical Sections & Schematic Plans**.

##### 4.1.2 Right-of-Way Requirements and Displacements

The total length of the project is approximately 2.76 miles. The proposed project would require approximately 40.02 acres of additional ROW for construction of the new location section and retention basin construction; and 0.53 acres of temporary construction easements, for access improvements. To provide a grade-separated crossing at the UPRR crossing, a license agreement of approximately 0.63 acres would be required. The project would also require license agreements for approximately 1.21 acres from the El Paso County Water Improvement District No. 1 (EPCWID No. 1) because the project would cross the Salatral Lateral, Mesa Drain, and the Clint Lateral. See **Appendix A, Exhibit 3: Environmental Map** and **Appendix B: Typical Sections & Schematic Plans** for specific locations of additional ROW and proposed easements. The proposed project would result in the potential relocation of a residence located at

the intersection of Celum Rd. and FM 76. TxDOT would provide relocation assistance to all displaced persons in accordance with the Uniform Relocation Assistance and Real Properties Acquisitions Policies Act.

#### 4.1.3 Utilities

Several utilities are present within the project limits. Based on the proposed design, utility relocations would be required throughout the corridor; however, these relocations would be handled so that there would be no substantial impacts to residences and businesses. Utility crossings and potential parallel conflicts include water lines, gas service lines, sewer lines, fiber optic and overhead electric. Utility agreements and notice to owners would be required for this project. Conflicting utilities would be either adjusted or relocated prior to the construction of the proposed project using standard TxDOT procedures. Access to private utility services will be maintained as part of the proposed project. Specific adjustments required will be identified during the preparation of the construction plans.

#### 4.1.4 Funding

According to the 2017-2020 STIP, the total authorized funding is \$35,000,000. Federal and local funding (El Paso County) would be utilized for the project. Copies of the STIP pages are available for review in **Appendix E: Supplemental Information**.

The design schematic encompassing the proposed improvements is available in **Appendix B: Typical Sections & Schematic Plans** and for inspection at the TxDOT El Paso District Office, at 13301 Gateway Blvd. West, El Paso, Texas 79928-5410.

### 4.2 No-Build Alternative

The No-Build Alternative involves the construction of other projects currently planned and programmed in the *Horizon 2040 MTP*. The No-Build Alternative consists of leaving FM 1110 as it is today, and making no improvements. The No-Build Alternative would not require additional ROW, temporary construction easements or license agreements. However, under the No-Build Alternative, direct connection issues between I-10 and SH 20 and travel delays at the UPRR at-grade railroad crossing would remain. Mobility and linkage would not be improved and anticipated traffic demand would not be met. The No-Build Alternative would not meet the purpose and need of the project. Therefore, the Build Alternative is the preferred alternative.

### 4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

A total of five preliminary alternatives, including the no-build alternative were evaluated during the FM 1110 alternative analysis screening process and were presented to the public during the public meeting held on September 17, 2015. Excluding the No-Build Alternative, the remaining four preliminary alternatives, Alternatives A, B, C and D consisted of the same typical section and scope (intersection improvements and

pedestrian and bicycle accommodations). The main difference among these preliminary alternatives involved the alignment of the new location section between FM 76 and SH 20 and the project end (terminus). Alternatives A, B, C and D would have a common section between I-10 and FM 76. Alternative A would traverse through the Town of Clint, Alternative B would generally follow the southern boundary of the Town of Clint and connect to Herring Rd. at SH 20, Alternative C was located south of the Town of Clint, and Alternative D was the southernmost alignment connecting to Denton Rd. The preliminary alternatives evaluated are shown in **Appendix A, Exhibit 2: USGS Quadrangle and FEMA Floodplain Map**.

A technical alternative screening methodology was developed to ensure an objective evaluation process for the five preliminary alternatives, including the No-Build Alternative. The alternatives screening process included a detailed evaluation of each preliminary alternative based on criteria within four main categories: engineering, cost feasibility, environmental and public involvement. The result of the alternative screening process was the identification of the reasonable alternative to be carried forward to schematic refinement and the detailed environmental evaluation process. Alternative D was selected as a reasonable alternative and hereafter, referred to as the Build Alternative, based on the results of the comprehensive evaluation and public support. The No-Build Alternative was also carried forward as a reasonable alternative as the basis of comparison for all reasonable alternatives. Alternatives A, B, and C were eliminated from further consideration. Several documents were prepared to document the alternative analysis process which include an Alternative Screening Methodology Report, Alternative Analysis Report, and Evaluation Matrix.

## 5.0 AFFECTED ENVIRONMENT

The proposed project is within a predominately rural area, adjacent to the Town of Clint and the City of Socorro. Most of the land use adjacent to the proposed project consists of agricultural and undeveloped land. Other land uses near the project include small clusters of single-family residences, a new development of single-family residences, businesses (restaurants and gas stations), a fire station, a chemical plant (T&R Chemicals), the UPRR tracks, the U.S. Customs and Border Protection facility, Clint High School, and the EPCWID No. 1 irrigation structures (canals, drains, and ditches). The proposed project also crosses a 100-year floodplain. **Appendix C: Project Photographs** includes representative photographs of the surrounding area. The proposed project would require approximately 40 acres of ROW which would result in these areas to be converted to transportation use. Although some of the ROW land is currently in urban use, other areas are currently used for agricultural purposes, in particular, for the new location portion of the proposed project. The No-Build Alternative would not result in land use changes from the proposed project.

In support of this EA, the following documents/technical reports were prepared and are currently available for review at the TxDOT-EI Paso District:

- Biological Evaluation (BE)
- Community Impacts Assessment Technical Report Form
- Hazardous Materials Initial Site Assessment (ISA)

- Indirect Effects Technical Report
- Report for Historical Studies Survey
- Traffic Noise Technical Report
- Public Meeting Summaries (2015 and 2016)
- Public Hearing Summary (2017)

## 5.1 Issues Excluded from Further Consideration

Based on the documents listed in **Section 5.0**, scoping, and thorough analysis, it was determined that the proposed project would have no impact on the following resources and were therefore excluded from further consideration.

### 5.1.1 Coastal Barrier/Coastal Zone Management

This project is not located within the Texas Coastal Management Plan boundary; therefore, a consistency determination is not required.

### 5.1.2 Edwards Aquifer Act

The proposed project is not located in a county regulated by the Edwards Aquifer Rules.

### 5.1.3 Wild and Scenic Rivers

This project is not located in a county that contains resources regulated under the Wild and Scenic Rivers Act; therefore, coordination with the National Park Service would not be required.

### 5.1.4 Trinity River Corridor Development Certificate

This project would not occur in a county that contains resources regulated by the Trinity River Corridor Development Certificate (CDC). Therefore, coordination with the Trinity River CDC is not required.

### 5.1.5 Section 6(f) / Land and Water Conservation Fund

No impacts to Section 6(f) properties are anticipated because there are no Section 6(f) properties present in the project area.

### 5.1.6 International Boundary and Water Commission

The proposed project would not be located within the floodplain of the Rio Grande. Therefore, coordination with the International Boundary and Water Commission (IBWC) would not be required.

### 5.1.7 Essential Fish Habitat

There are no tidally influenced waters in El Paso County; therefore, there is no requirement to address Essential Fish Habitat.

#### 5.1.8 Rivers and Harbors Act of 1899

Section 10 of the Rivers and Harbors Act of 1899 [33 U.S. Code (U.S.C.) 403] prohibits the unauthorized obstruction or alteration of any navigable water of the U.S. There are no navigable waters of the U.S. in the project area; therefore, there is no requirement to address the Rivers and Harbors Act of 1899.

The following sections describe those issues considered in detail and address impacts associated with the Build Alternative and No-Build Alternative for comparison purposes.

### 5.2 Issues Considered in Detail

#### 5.2.1 Community Impacts

The following sections summarize information that is included in the **Community Impacts Assessment Technical Report Form** completed in October 2016.

The proposed project is located within an area characterized as a scattered rural community. The community impacts assessment study area consists of a rural setting with some scattered areas of residential, industrial and commercial development. The proposed project would result in the relocation of one residence. The potential residential displacement is located at the corner of FM 76 and Celum Rd. It is on the edge of a row of five houses along Celum Rd. that is adjacent to farmland to the south, existing roads to the north and east, and an irrigation structure to the west. Typical of the scattered rural character of the study area, these homes are not part of a subdivision or distinct community. Because of the location and lack of neighborhood distinction of this particular location, the one residential displacement associated with the proposed project would not significantly impact the community.

The proposed project would include bicycle and pedestrian accommodations including bike lanes and sidewalks. There are discontinuous sidewalks along the existing FM 1110 between FM 76 and SH 20; however, the new location section of the proposed project would not impact these existing sidewalks. Sidewalks exist only in front of the water district property and in no other portion of FM 1110 from I-10 to FM 76. This portion of FM 1110 would be positively impacted by the proposed project as a result of the additional bicycle and pedestrian accommodations that would be provided. The proposed project would maintain access to adjacent businesses and none of the existing access to any adjacent areas or private utilities would be eliminated. In addition, the proposed improvements would improve mobility in the area and provide a direct connection from I-10 to SH 20. The existing FM 1110 route extending south from FM 76 would remain in place. The proposed project is not anticipated to adversely impact access or travel patterns for the adjacent community.

The No-Build Alternative would not result in impacts related to the relocation or purchase of additional ROW. However, the No-Build Alternative would not result in positive impacts to communities because it would not improve mobility or linkage, would not reduce the existing travel delays at the UPRR crossing, would not meet the anticipated traffic demand for FM 1110, would not create improved access or mobility, and would not provide any aesthetic improvements. Under the No-Build Alternative, negative effects to communities may result as mobility could decline.

#### 5.2.1.1 Community Cohesion

Community cohesion is a term that refers to an aggregate quality of a residential area. Cohesion is a social attribute that indicates a sense of community, common responsibility, and social interaction within a limited geographic area. It is the degree to which residents have a sense of belonging to their neighborhood or community or a strong attachment to neighbors, groups, and institutions as a continual association over time. The proposed project would not adversely impact community cohesion and is not anticipated to affect, separate or isolate any distinct communities or neighborhoods because the improvements would not create a barrier, would not eliminate access to any particular area, and because no distinct communities or neighborhoods are located adjacent to the project limits.

Under the No-Build Alternative, no improvements would occur; therefore, no impacts to community cohesion are anticipated for areas adjacent to the proposed project.

#### 5.2.1.2 Environmental Justice

Executive Order (EO) 12898 entitled “Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations” requires each Federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” Data from the United States Census Bureau (USCB) *American Community Survey 2010-2014 Five-Year Estimates* and the *2010 Census* were used to determine the EJ populations for the proposed project. The community impacts study area consists of 8 census block groups and 177 census blocks. The low-income populations were determined at the census block group level and the minority populations were determined at the census block level.

Under the Build Alternative, one residential property displacement and traffic noise impact located within a census block with a high minority population which is greater than 50 percent of the total population are anticipated. Because the study area for the proposed project consists of predominantly minority (93.7 percent of the total population), the displacement and noise impact are not considered disproportionately high to minority populations compared to non-minority populations in this study area. In addition, there are no business displacements and no other impacts anticipated that would affect any public services for minority or low-income populations. Based on the

discussion and analysis included in the **Community Impacts Assessment Technical Report Form**, the proposed project would not cause any disproportionately high and adverse impacts on minority or low-income populations in accordance with the provisions of EO 12898 and Federal Highway Administration (FHWA) Order 6640.23.

Under the No-Build Alternative, no impacts to EJ populations are anticipated.

#### 5.2.1.3 Limited English Proficiency

Limited English Proficiency (LEP) persons are defined as individuals who speak English less than “very well.” Executive Order 13166 on LEP calls for all agencies to ensure that their federally conducted programs and activities are meaningfully accessible to LEP individuals. Data from the USCB *American Community Survey 2010-2014 Five-Year Estimates* for the eight census block groups were used to determine the LEP populations for the proposed project. Within the entire study area, the LEP population consisted of approximately 51 percent of the total population. The LEP population consists of approximately 50.9 percent Spanish language speakers and 0.2 percent Asian and Pacific Island language speakers.

LEP persons have and will continue to be given meaningful and sufficient access to information during the NEPA process. Spanish language newspaper notices, bilingual handouts for the public meeting materials and presence of Spanish interpreters at public meetings were available during the public involvement activities. The legal notices also included that requests for interpreters for the public meetings would be accommodated. A public hearing was held on August 1<sup>st</sup>, 2017. During the preparation for the public hearing, reasonable steps were taken to ensure that such persons have meaningful access to the programs, services, and information that TxDOT provides. These reasonable steps included the publication of bilingual announcements in local papers, the availability of Spanish interpreters to be present at the public hearing, and the opportunity to request accommodations (for language or other special communication needs) to be available at the public hearing. Spanish simultaneous interpretation for the presentation was also available at the hearing. These measures were taken to ensure that such persons have meaningful access to the programs, services, and information that TxDOT provides. The proposed project satisfies the requirements of EO 13166. No LEP populations were discriminated against because of the proposed project.

Under the No-Build Alternative, no impacts to LEP individuals are anticipated because no improvements would take place.

#### 5.2.1.4 Public Facilities and Services

Changes in access may alter current traffic patterns or routes to and from public facilities and services; however, access would not be eliminated to any specific area or location. Access to private utility services will be maintained as part of the project. Specific adjustments required will be identified during the preparation of the construction plans. No ROW impacts to public facilities are anticipated from the Build Alternative.

Emergency response times are anticipated to be improved as a result of the improved mobility within and through the proposed project area. Additional information can be found in the **Community Impacts Assessment Technical Report Form** completed in October 2016 and is available for review at the TxDOT El Paso District Office.

Under the No-Build Alternative, current conditions would remain resulting in traffic congestion at certain areas within the project limits. No improvements to the traffic congestion could result in increases in emergency response times over time.

#### 5.2.1.5 Visual/Aesthetic Impacts

Section 136 of the Federal Aid Highway Act of 1970 (Public Law 91-605) requires consideration of aesthetic values in the highway planning process. In order to achieve this goal, aesthetic components would be included in the proposed project.

A portion of the proposed project is a new location section with elevated bridge sections that would alter existing views at these specific areas. The proposed bridge section near the FM 76 and FM 1110 intersection is proposed to span the floodplain behind single-family residences. The bridge would be a maximum of 8 ft above existing ground. In addition, because the proposed project would result in traffic noise impacts, a traffic noise barrier, 8 ft tall, is proposed. Although the barrier and floodplain bridge would block existing views, resulting in moderate visual impacts, the overall benefit from the noise barrier and bridge would outweigh the potential visual impacts for the adjacent residents along Celum Rd. by mitigating for traffic noise impacts and minimizing floodplain impacts.

Another elevated roadway section acts as an overpass over the UPRR and would result in an elevation of 40 ft above the existing ground. Although the elevation would impact adjacent views, no existing structures, businesses or residential developments currently exist near or adjacent to this section; therefore, resulting in minimal visual impacts.

Aesthetic treatments would be applied to help mitigate any adverse visual impacts. The proposed project would apply aesthetic treatments to the proposed structures (bridges and noise barrier), medians and border areas. These elements include the use of local stone materials and colored concrete. It is anticipated that the aesthetic effect would be equal to or improve the existing conditions. Aesthetic improvements would follow current TxDOT aesthetic guidelines. Considering the overall benefits from the proposed bridge structures and noise barrier, it is anticipated that the improvements would outweigh the overall visual impacts resulting from the proposed project.

The No-Build Alternative would not change the existing visual and aesthetic qualities of the project area.

#### 5.2.2 Cultural Resources

The following sections summarize information also included in the **Report for Historical Studies and Archaeological Background Study** which were prepared for the proposed project and are available for review at the TxDOT El Paso District office. Findings from the documents are included in the following sections.

#### 5.2.2.1 Historical Resources

A report for historical studies was prepared for the proposed project to meet the requirements of Section 106 of the National Historic Preservation Act, the Antiquities Code of Texas, and other cultural resource legislation related to environmental clearance as applicable. A total of 17 historic-age resources were identified within the area of potential effect, five of which are contributing resources to the EPCWID No. 1 Historic District listed on the National Register of Historic Places (NRHP). These five resources include the Salatral Lateral Canal, irrigation gate along the Salatral Lateral Canal, irrigation check along the Salatral Lateral Canal, the Mesa Drain and the Clint Lateral Canal. The proposed project is anticipated to have minimal effect on these EPCWID No. 1 components as existing roads already cross these features and historic and current use would not be impacted. Per December 2016 coordination with the State Historic Preservation Officer (SHPO) regarding Section 106, included in **Appendix D: Agency Coordination**, the proposed project would have no adverse effects on the EPCWID No. 1.

Under the No-Build Alternative, the proposed improvements would not occur; therefore, no adverse effects to historical properties are anticipated.

#### 5.2.2.2 Archaeological Resources

The proposed project, including the existing ROW, proposed ROW, and easements, was evaluated by TxDOT archaeologists. As documented in an internal memo (dated July 21, 2016), TxDOT archaeologists determined that the proposed project would have no effect on archaeological resources that would be afforded further consideration under cultural resource laws (**Appendix D: Agency Coordination**). As provided under the First Amended Programmatic Agreement among the FHWA, TxDOT, the Texas SHPO, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU), and internal review under the Memorandum of Understanding (MOU) between the Texas Historical Commission (THC) and TxDOT, consultation with the Texas SHPO is not necessary for this undertaking. The project would not result in impacts to any cemetery. Regarding tribal coordination, TxDOT coordinated the proposed project with representatives of Federally-recognized Tribes with an interest in the project area in June 2016. TxDOT requested comments on historic properties of cultural or religious significance to tribes that may be affected by the proposed project. No comments or questions were received from the tribes. Archeological resources coordination related to the proposed project can be found in **Appendix D: Agency Coordination**.

In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area will cease and TxDOT archeological staff will be contacted to initiate post-review discovery procedures.

Under the No-Build Alternative, the proposed improvements would not occur; therefore, no impacts to archeological resources are anticipated.

### 5.2.3 Section 4(f) Properties

Section 4(f) (49 U.S.C. 303) of the USDOT Act of 1966, as amended, provides for the protection of certain lands affected by transportation projects. Section 4(f) provides that the Secretary of Transportation may not approve any program or project which requires the use of land from a publicly-owned park, recreational area, or wildlife and waterfowl refuge of nation, state, or local significance as determined by the official having jurisdiction thereof or any significant historic site, unless there is no feasible and prudent alternative to the use of such land and the proposed action includes all possible planning to minimize harm.

Three structures of one historic property (EPCWID No.1), the Salatral Lateral Canal, Mesa Drain, and the Clint Lateral Canal, would be crossed by the project. However, the roadway project is not anticipated to affect or diminish the qualities and characteristics that contribute to the historical significance of the property. In accordance with 36 CFR 800 and the 2015 Section 106 Programmatic Agreement, TxDOT Historians requested concurrence from THC that the proposed project would have no adverse effects to the EPCWID No.1. TxDOT communicated to THC that their comments on the Section 106 findings would be integrated into the decision-making process regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. THC concurred with TxDOT's non-archeological Section 106 findings of no adverse effects to the EPCWID No. 1 on December 21, 2016. THC provided no comments on the determination of de minimis impact under Section 4(f) regulations. TxDOT rendered a de minimis determination for the Section 4(f) process pursuant to 23 U.S.C. 327 and the MOU dated December 16, 2014, and executed by TxDOT and FHWA. The letter dated December 2, 2016, notifying THC of TxDOT's intent to render de minimis Section 4(f) finding is included in **Appendix D: Agency Coordination**.

Under the No-Build Alternative, crossings of the EPCWID No. 1 would not occur; therefore, compliance with FHWA de minimis 4(f) guidelines would not be required.

### 5.2.4 Chapter 26 Parks and Wildlife Code

The Parks and Wildlife Code (PWC), Title 3, Chapter 26, Sections 26.001-26.004, referred to as Chapter 26, regulates the transportation use of public parks, recreation areas, scientific areas, wildlife refuges, and historic sites. The proposed project crosses three features (Salatral Lateral Canal, Mesa Drain, and Clint Lateral Canal) of the NRHP listed EPCWID No. 1 resulting in a TxDOT determination of applicability of Chapter 26 to the proposed project.

There is no feasible and prudent alternative to the use of these features. The preferred alternative for the proposed widening and realignment of FM 1110 was recommended from four reasonable build alternatives. Each of the four build alternatives considered would have crossed at least three or more components of the NRHP listed EPCWID No. 1 and would have required some form of use or take. The NRHP Registration Form for EPCWID No. 1 includes 104 contributing features consisting of 206 miles of canals and 195 miles of drains, totaling 401 miles throughout El Paso County. With the extensive area that the district covers and how the canals and drains wind through towns and farmland, it is not feasible to avoid these components with any proposed roadway that meets the purpose and need of the proposed project.

The project includes all reasonable planning to minimize harm to the features as a historic site resulting from the use. The proposed roadway design would minimize impacts with the placement of concrete box culverts to allow for crossings at each drainage structure. The irrigation features will continue to serve in the same capacity, and there would not be a change to the use or function of the structures. Coordination with the EPCWID No. 1 of the design at the three crossings occurred during the planning stage. The project would require a license agreement between TxDOT and the EPCWID No. 1 for the proposed project to cross each drainage structure. The license agreement would involve approximately 1.21 acres of land within EPCWID No. 1 property. See the **FM 1110 Report for Historical Studies** for additional details.

A public hearing was held on August 1<sup>st</sup>, 2017. Required documentation and publication of notices were completed in accordance with Chapter 26 requirements.

TxDOT determined that there is no feasible and prudent alternative to the use or taking of Chapter 26 protected land, and that the project includes all reasonable planning to minimize harm to the land as a historic site, resulting from the use or taking.

Under the No-Build Alternative, the proposed improvements would not occur; therefore, compliance with Chapter 26 would not be required.

### 5.2.5 Biological Resources

The study area consists of the existing and proposed project ROW, including retention basins, and is within the Chihuahuan Desert Ecoregion as described in the 2012 Texas Conservation Action Plan (TCAP). The majority of the study area has been converted from native habitat to row crops and urban areas.

The TCAP identifies issues associated with new transportation projects which may negatively affect species of greatest conservation need (SGCN) populations, rare communities, and the habitats on which they depend in this region. Transportation improvements associated with new corridors may result in the loss of habitat and species during construction activities, degrade adjacent habitat due to fragmentation, and may hinder daily or seasonal movement of wildlife. The maintenance of ROW may

result in permanent habitat fragmentation and erosion from mowing and trimming of vegetation, impact habitat from the use of herbicides to control vegetation, and no protection of some rare plants only found with the existing TxDOT ROW.

The proposed transportation improvements are not expected to alter existing travel corridors to aquatic and terrestrial wildlife. After construction is completed, the areas of bare ground resulting from the construction activity would be reseeded/revegetated according to TxDOT standards. A detailed analysis of biological resources is included in the following sections.

#### *Farmland Protection Policy Act (FPPA)*

The FPPA protects prime, unique, or state-wide/locally important farmland. The FPPA, as codified in 7 USC 4201 through 4209, was enacted in 1981 “to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses and to assure that federal programs are administered in a manner that, to the extent practicable, will be compatible with State, unit of local government, and private programs and policies to protect farmland” [7 USC 4201(b)]. The FPPA requires federal agencies “to identify and take into account the adverse effects of their programs on the preservation of farmland, consider alternative actions, as appropriate, that could lessen such adverse effects, and assure that (administered) Federal programs, to the extent practicable, are compatible with State, units of local government, and private programs and policies to protect farmland.” The Natural Resources Conservation Service (NRCS), a U.S. Department of Agriculture (USDA) agency, policies govern compliance with the FPPA. It is TxDOT policy to comply with the FPPA in accordance with the NRCS policy for implementing the act and for soliciting approval of transportation projects through the NEPA process.

According to the FPPA, USDA is the department “primarily responsible for the implementation of federal policy with respect to United States farmland.” USDA granted NRCS the authority to determine the criteria used to designate certain soil units as prime farmland and the responsibility to maintain a nationwide inventory of prime and unique farmland. Under 7 CFR 657, NRCS identifies and defines the soil units that qualify as FPPA protected farmland, and protected farmland is evaluated using the criteria and process provided by NRCS in 7 CFR 658: Farmland Protection Policy Act. The NRCS has not identified any prime, unique, state-wide/locally important farmland in El Paso County. Per the results of the Custom Soil Resource Report for El Paso County, Texas (Main Part) generated on January 6, 2016; there were no important farmlands consisting of prime farmland, unique farmland, and farmland of statewide or local importance identified in the project limits.

The proposed project would not use land that meets the criteria to qualify as prime farmland or farmland of state and local importance. Therefore, neither the Build Alternative nor the No-Build Alternative would impact farmlands as defined in 7 CFR 658. The FPPA is not applicable to the Build or No-Build Alternatives.

Under the No-Build Alternative, additional ROW would not be acquired; therefore, no impacts to topography or soils would be anticipated.

#### 5.2.5.1 Threatened and Endangered Species

The Endangered Species Act (ESA) affords protection for federally-listed threatened and endangered species and, where designated, critical habitat for these species. The U.S. Fish and Wildlife Service (USFWS) maintains a list of federally threatened and endangered species of potential occurrence for each Texas County. In El Paso County, the USFWS lists the least tern (*Sterna antillarum*), Mexican spotted owl (*Strix occidentalis lucida*), Northern Aplomado falcon (*Falco femoralis septentrionalis*), piping plover (*Charadrius melodus*), red knot (*Calidris canutus rufa*), Southwestern willow flycatcher (*Empidonax traillii extimus*), yellow-billed cuckoo (*Coccyzus americanus*), and Sneed pincushion cactus (*Coryphantha sneedii* var. *sneedii*). A brief summary of the potential habitat and effect for each species is provided below.

- There is no suitable habitat containing sand or gravel bars, braided streams, or appropriate man-made structures for nesting within the study area for the least tern. The proposed project would have no effect on the species.
- There is no suitable habitat consisting of remote shaded canyons of coniferous mountain woodlands within the study area for the Mexican spotted owl. The proposed project would have no effect on the species.
- Suitable foraging habitat was observed within the study area for the Northern Aplomado falcon. Due to the abundance of available habitat outside of the study area and the urban development and human activity within and adjacent to the proposed project, it is anticipated the proposed project would have no effect on the Northern Aplomado falcon.
- The piping plover and red knot are included in the species list as needing consideration for wind energy projects. This is not a wind energy project, and no suitable habitat is present, so the proposed project would have no effect on the piping plover or red knot.
- There are no thickets of willow, cottonwood, and mesquite along desert streams in the study area for the Southwestern willow flycatcher. The proposed project would have no effect on the species.
- There is no suitable wooded habitat with dense cover and water nearby within the study area for the yellow-billed cuckoo. The proposed project would have no effect on the species.
- There are no limestone outcrops on steep rocky slopes within the study area for Sneed's pincushion cactus. The proposed project would have no effect on the species.

Neither the Build Alternative nor the No-Build Alternative is anticipated to have an effect on federally-listed endangered species.

The Texas Parks and Wildlife Department (TPWD) maintains a list of threatened and endangered species (both state and federally listed) and state species of concern for each Texas County. Based on the evaluation performed for the BE, which is available

for review at the TxDOT El Paso District office, the proposed project is within the range and suitable habitat of state protected species. State listed endangered species include the Northern Aplomado Falcon (*Falco femoralis septentrionalis*). State listed threatened species include the Mountain short-horned lizard (*Phrynosoma hernandesi*) and the Texas horned lizard (*Phrynosoma cornutum*). State listed rare species include the Prairie Falcon (*Falco mexicanus*), Western red bat (*Lasiurus blossevillii*) and the New Mexico garter snake (*Thamnophis sirtalis dorsalis*). SGCN species would include Ferruginous hawk (*Buteo regalis*), Western burrowing owl (*Athene cunicularia hypugaea*), Pecos River muskrat (*Ondatra zibethicus ripensis*), Western small-footed bat (*Myotis ciliolabrum*), Comal snakewood (*Colubrina stricta*), Desert night-blooming cereus (*Peniocereus greggii var greggii*), Sand prickly-pear (*Opuntia arenaria*), Sand sacahuista (*Nolina arenicola*), Texas false saltgrass (*Allolepis texana*), and Wheeler's spurge (*Chamaesyce geyeri var wheeleriana*). If any individuals of state-listed species are observed within the study area during construction, care would be taken to avoid harming them.

The TPWD also maintains special species lists through the Texas Natural Diversity Database (TXNDD) by county. The TXNDD is a geo-referenced database of documented occurrences of rare, threatened and endangered species of Texas maintained by TPWD. Data was initially obtained from TPWD on January 5, 2016 and reviewed for the proposed project. Data was also obtained from TPWD on April 4, 2017 to determine if documentation of any additional species had occurred. The occurrences identified on the 2017 data were also included in the data obtained in 2016. The TXNDD review met all the requirements of the TxDOT-TPWD Memorandum of Agreement (MOA) for sharing and maintaining TXNDD information. The review revealed no state-listed species within 10 miles of the study area. It did identify two SGCN species, Pecos River muskrat (*Ondatra zibethicus ripensis*) and sand prickly-pear (*Opuntia arenaria*) within 1.5 miles of the study area. Habitat for the Pecos River muskrat consisting of fresh water bodies with clumps of marshy vegetation is not present within the study area. Because sandy soils are found within the study area, habitat is present for the sand prickly-pear.

One western burrowing owl, an SGCN species, was seen foraging in a plowed agricultural field approximately 400 ft northwest of the proposed project during the site visit on February 4, 2016. No burrow was located.

The above-mentioned state-listed and SGCN species may be impacted by the Build Alternative. Many of these species are the subject of a Best Management Practice (BMP) Programmatic Agreement (PA) between TxDOT and the TPWD. Early Coordination with TPWD was initiated on April 13, 2016 as documented in **Appendix D: Agency Coordination** and was completed on July 7, 2016. TxDOT agreed to incorporate the following BMPs for these species into the proposed project. The BMPs primarily involve contractor education and avoidance directions, as detailed below.

- Comal snakewood, desert night-blooming cereus, sand prickly-pear, sand sacahuista, or Wheeler's spurge

- If species is observed during construction, stop construction and notify the Area Engineer. A determination to conduct a plant rescue will be considered at that time.
- Western red bat and Western small-footed bat
  - Large hollow trees should be surveyed for maternity colonies and, if found, should not be disturbed until after the pups fledge.
- Mountain short-horned lizard
  - The contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered. Contractors should avoid harvester ant mounds in the selection of Project Specific Locations (PSLs) where feasible.
- New Mexico garter snake
  - The contractors will be advised of potential occurrence in the project area (specifically along the drainage ditches), and to avoid harming the species if encountered.
- Western burrowing owl and all migratory bird species
  - Not disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season;
  - Avoiding the removal of unoccupied, inactive nests, as practicable;
  - Preventing the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair;
  - Not collecting, capturing, relocating, or transporting birds, eggs, young, or active nests without a permit.

#### *Bald and Golden Eagle Protection Act (BGEPA) of 2007*

The proposed project is located in an area that is primarily composed of agricultural, residential, and commercial properties. No suitable habitat (lakes, rivers, large trees, etc.) for Bald or Golden Eagles were observed in the study area. The human/urban disturbances that are within and adjacent to the proposed project would make it unlikely that bald or golden eagles would utilize the study area for nesting or as stopover habitat during migration.

Under the No-Build Alternative, additional ROW would not be acquired and altered by construction activities; therefore, no impacts and/or no effect to threatened/endangered species or wildlife habitat would be anticipated.

#### 5.2.5.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, egg in part or in whole, without a federal permit issued in accordance within the Act's policies and regulations. Migratory patterns would not be affected by the proposed project. In the event that migratory birds are encountered on-site during project construction, adverse impacts on protected birds, active nests, eggs, and/or young would be avoided. The contractor would remove all old migratory bird nests from

October 1 to February 15 from any structure where work would be done. In addition, the contractor would be prepared to prevent migratory birds from building nests between February 15 and October 1, as specified in the environmental permits, issues, and commitments (EPIC) sheet.

Under the No-Build Alternative, no impacts to migratory birds would be anticipated.

#### 5.2.5.3 Vegetation and Wildlife Habitat

##### *Vegetation*

Based on the field surveys conducted on February 4, 2016, the existing habitat types in the study area consist of approximately 31.1 acres of agriculture; 5.6 acres of scrub, thornscrub, shrubland; 30.6 acres of urban; 9.9 acres of warm desert dunes; and 3.5 acres of warm desert riparian, wash. Vegetation SGCN include Comal snakewood (*Colubrina stricta*), Desert night-blooming cereus (*Peniocereus greggii var greggii*), Sand prickly-pear (*Opuntia arenaria*), Sand sacahuista (*Nolina arenicola*), Texas false saltgrass (*Allolepis texana*), and Wheeler's spurge (*Chamaesyce geyeri var wheeleriana*).

Agriculture areas are those areas that have been altered in the past and utilized for row crops. Typical row crops for the study area are cotton and onions. The fields are fallow for some portion of the year and some may rotate into and out of cultivation frequently. The agricultural areas are primarily located between FM 76 and SH 20. Approximately 31.1 acres of agriculture habitat would be impacted by the proposed project.

The scrub, thornscrub, shrubland habitat type is found on deep desert sands. Species such as honey mesquite (*Prosopis glandulosa*), sand sage (*Artemisia filifolia*), soap tree yucca (*Yucca elata*) are common dominants. Common herbaceous vegetation consists of sand dropseed (*Sporobolus cryptandrus*), mesa dropseed (*Sporobolus flexuosus*), giant dropseed (*Sporobolus giganteus*), black grama (*Bouteloua eriopoda*), grassland croton (*Croton dioicus*), and spectaclepod (*Dimorphocarpa sp.*). This habitat type is located between I-10 and FM 76. Approximately 5.6 acres of scrub, thornscrub, shrubland habitat would be impacted by the proposed project.

Urban areas contain trees, shrubs, and grasses associated with residential and commercial properties or unmaintained adjacent properties. The vegetated areas within the existing FM 1110, FM 76, and SH 20 roadways are considered urban as they have been manipulated for transportation use. Approximately 30.6 acres of urban habitat would be impacted by the proposed project.

The warm desert dunes habitat type is found on barren sand dunes in low desert areas. Species such as honey mesquite, yucca, sand dropseed, threeawns (*Aristida sp.*), and soap tree yucca are often present. This habitat type is located between I-10 and FM 76. Approximately 9.9 acres of warm desert dunes habitat would be impacted by the proposed project.

The warm desert riparian, wash is found in sparsely vegetated areas along arroyos and draws at relatively low elevations. Sparse cover of desert shrubs, succulents, and grasses is usually present. This type is mapped along small upland drainages, and may represent a denser version of shrublands in the surrounding landscape, or may be more well-watered than surrounding areas. Common species include honey mesquite, *Baccharis* species, brickellbush species, Apache plume, little walnut, and desert willow. This habitat type is located between FM 76 and the Mesa Drain. Approximately 3.5 acres of warm desert riparian would be impacted by the proposed project.

In accordance with Title 43 of the Texas Administrative Code, Part 1, Chapter 2, Subchapter G, of the MOU between TxDOT and TPWD, several coordination triggers are used to determine whether coordination with TPWD is required. The proposed project would impact agriculture; scrub, thornscrub, shrubland; warm desert dunes; and warm desert riparian, wash. Ecological Mapping Systems of Texas (EMST) mapped habitat types above the thresholds requiring coordination with TPWD. Habitat for SCGN species are also present within the study area. Early Coordination with TPWD was initiated on April 13, 2016 as documented in **Appendix D: Agency Coordination**. Per coordination with TPWD, a determination to conduct a plant rescue will be considered at that time should the SCGN plant species (Comal snakewood, desert night-blooming cereus, sand prickly-pear, sand sacahuista, and Wheeler's spurge) be encountered during construction. Coordination with TPWD was completed on July 7, 2016. TxDOT will include commitments from coordination on the EPIC sheet for the proposed project.

#### *Wildlife*

Overall, there is minimal habitat for wildlife species beyond the limits of most of the study area due to urban development and altering of native habitat for agricultural and urban purposes. Wildlife that may be present within the study area would consist of smaller mammalian species such as rodents; various reptilian species; and various avian species. Due to the time of the year of the site visit (February 4, 2016) wildlife species actually observed in the study area were limited and consisted of a covey of Gambel's quail. One western burrowing owl was observed outside of the study area. No long-term impacts to wildlife populations are anticipated as a result of the proposed project. In areas temporarily impacted, wildlife species adapted to urban areas would likely re-colonize the available habitat areas after construction. Due to the minimal habitat available within the study area, the impacts to wildlife would be considered minor. The No-Build Alternative would involve maintenance, which would have minimal impacts on wildlife.

#### *Invasive Species and Beneficial Landscaping Practices*

Seeding and replanting with TxDOT approved seeding specifications that is in compliance with EO 13112 on Invasive Species would be done where possible. Disturbed areas would be reseeded in accordance with TxDOT's Vegetation Management Guidelines and in compliance with the intent of EO 13112 and the FHWA Executive Memorandum on Environmentally and Economically Beneficial Landscaping Practices. Moreover, abutting turf grasses within the ROW would reestablish throughout

the project limits. Soil disturbance would be minimized to ensure that invasive species would not establish in the ROW.

Under the No-Build Alternative, no additional ROW or easements would be required; therefore, no impacts to vegetation would be anticipated. The No-Build Alternative would require ongoing vegetation management including mowing, trimming, and herbicide treatments.

#### 5.2.6 Water Resources

##### 5.2.6.1 Groundwater

The Texas Water Development Board (TWDB) and Texas Commission on Environmental Quality (TCEQ) data were used to identify four water wells immediately adjacent to the study area. The four wells were not located in the field. One well is located on the east side of FM 76 adjacent to the irrigation channel near the southern limits of the study area. Three wells are located on the west side of SH 20. One is located adjacent to the northern driveway to Clint High School, one is located at the northwest corner of Denton Rd. and SH 20, and one is located 100 ft west of the intersection of SH 20 and Villalobos Dr. No additional ROW would be required at these locations. According to data from the TWDB, the primary uses of the water wells are for de-watering. If the wells are impacted by construction activities, they would need to be properly plugged in accordance with state statutes.

Under the No-Build Alternative, no impacts to groundwater resources are anticipated.

##### 5.2.6.2 Wetlands and Jurisdictional Waters of the U.S.

Pursuant to EO 11990 (Protection of Wetlands), Section 404 of the Clean Water Act (CWA), and Section 10 of the Rivers and Harbors Act of 1899, an investigation was conducted to identify potential waters of the U.S., including wetlands, within the study area.

Two manuals [1987 Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region] were used for identifying potential waters of the U.S., including wetlands based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. National Wetland Inventory (NWI) maps, Geographic Information System (GIS) data, U.S. Geological Survey (USGS) maps, Federal Emergency Management Agency (FEMA) floodplain maps, and field observations on February 4, 2016 were utilized to determine the features that are considered potentially jurisdictional waters and wetlands.

To be considered potentially jurisdictional, drainage features (arroyos, canals, drains, and laterals) must act as a tributary to a traditional navigable water such as the Rio Grande. Then, if any wetlands are associated with these water features, they may also be considered potentially jurisdictional.

The proposed project crosses three irrigation features, the Mesa Drain, Clint Lateral, and Salatral Lateral. These three features were constructed in upland areas to convey irrigation to upland areas. The canals, drains, and laterals do not act as a tributary to the Rio Grande, a traditional navigable water. These features would not be considered jurisdictional and would not be subject to Section 404 of the CWA.

The jurisdictional status of the drainage features was also evaluated under the new regulations in anticipation of the implementation of the Clean Water Rule: Definition of "Waters of the United States." Based on the rule the following are not considered waters of the U.S.; (A) ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary; (B) ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands; and (C) ditches that do not flow, either directly or through another water, into a traditional navigable water, interstate water, or the territorial seas. The Mesa Drain, Clint Lateral, and Salatral Lateral are not a relocated tributary or excavated in a tributary and do not flow directly or indirectly into a traditional navigable water. These features would not be considered jurisdictional under the Clean Water Rule.

Coordination under the Fish and Wildlife Coordination Act (FWCA) would not be necessary as the proposed project does not contain any waters subject to Section 404. Executive Order 11990 on wetlands does not apply because no wetlands would be impacted.

Section 401 of the CWA requires that any person applying for a federal permit or license, which may result in a discharge of pollutants into Waters of the U.S., must obtain a state water quality certification that the activity complies with all applicable water quality standards, limitations, and restrictions. The proposed project would not require a USACE Section 404 Permit; therefore Section 401 Certification would not be required.

The Build Alternative would not require a USACE Section 404 permit as no waters of the U.S., including wetlands, were identified in the study area. Therefore, Section 401 Certification would not be required.

#### 5.2.6.3 Floodplains

FEMA Flood Insurance Rate Maps (FIRMs) were reviewed to determine flood zones within the area for the proposed project. The study area crosses one area that is designated as a special flood hazard area inundated by the 100-year flood as Zone A, no base elevations determined. There are approximately 14 acres of 100-year floodplain within the study area. The floodplain area is located where the proposed project crosses FM 76.

Other areas are designated as Zone X, areas determined to be outside the 500-year floodplain. The Town of Clint and El Paso County are participants in the National Flood Insurance Program (NFIP).

Portions of the existing roadways (FM 1110 and FM 76) are located within the 100-year floodplain. All of the total approximately 14 acres of 100-year floodplain in the study area would be impacted by the proposed project. FEMA regulations require that fill in the 100-year floodplain be compensated with an equal amount of cut below the 100-year floodplain elevation in an area with low connectivity to the main channel floodplain. Two retention basins (totaling approximately 6.2 acres) would be constructed adjacent to the FM 1110/FM 76 intersection to mitigate for the impacts within the 100-year floodplain. Coordination with the local floodplain administrator would be required.

The hydraulic design for this project would be in accordance with FHWA and TxDOT design policies and standards. The proposed project would be in compliance with 23 Code of Federal Regulations (CFR) 650 regarding location and hydraulic design of highway encroachments within the floodplains. The proposed project would comply with EO 11988 which requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. The facility would permit the conveyance of the 100-year flood, inundation of the roadway being acceptable, without causing substantial damage to the facility, stream, or other property. The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances. In consideration of the proposed project's mitigation plans for detention, compensatory floodplain cut, and application of FHWA and TxDOT design policies, the proposed project would have no adverse effect on floodplains.

In accordance with EO 11988, the alternatives considered during the course of project development that would avoid encroachment on floodplains was the No-Build Alternative. This was determined to be not practicable and would not meet the purpose and need of the proposed project. Moreover, the proposed project would conform to state floodplain protection standards. The proposed project is being designed to avoid impacts to floodplains to the maximum extent feasible and practicable.

The No-Build Alternative would involve maintenance activities that may require minor fill in the floodplain and future coordination with the floodplain administrator.

#### 5.2.6.4 Water Quality

The proposed project is within 2.2 linear miles of the Rio Grande (Segment 2307\_05), a threatened/impaired water body, from the 2014 Texas Integrated Report of Surface Water Quality inventory. There is not a direct connection between the canals, drains, and laterals from the study area to the Rio Grande.

#### *Impaired Waters*

Runoff from the proposed improvements would not discharge into Segment 2307-05 of the Rio Grande which is listed as threatened/impaired for bacteria, chloride, and total dissolved solids. The project and associated activities will be implemented, operated, and maintained using appropriate BMPs to control the discharge of pollutants from the project site. Neither the Built Alternative nor the No-Build Alternative would discharge into the Rio Grande or contribute to future impairment of the Rio Grande.

#### *Texas Pollution Discharge Elimination System (TPDES)*

The Build Alternative would include five or more acres of earth disturbance and would be considered a “large construction activity” under the TCEQ’s Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit (CGP). TxDOT would obtain coverage under the CGP. A Storm Water Pollution Prevention Plan (SW3P) would be implemented, and a construction site notice would be posted on the construction site. A Notice of Intent (NOI) and a Notice of Termination (NOT) to the TCEQ and the Municipal Separate Storm Sewer System (MS4) operator would be required. In addition, the project would comply with applicable MS4 requirements.

Under the No-Build Alternative, no impacts to water quality would be anticipated. The No-Build Alternative would involve maintenance activities, which are generally exempt from the CGP.

#### 5.2.7 Traffic Noise

A traffic noise analysis was prepared in accordance with TxDOT’s (FHWA approved) 2011 *Guidelines for Analysis and Abatement of Roadway Traffic Noise*. Existing and predicted traffic noise levels were estimated at receiver locations listed in **Table 5-1 (Appendix A, Exhibit 5: Traffic Noise Receiver Locations)** that represent land use activity areas adjacent to the proposed project that might be impacted by traffic noise and potentially benefit from feasible and reasonable noise abatement.

**Table 5-1: Traffic Noise Levels [dB(A) Leq]**

| Receiver                              | NAC Category | NAC dB(A) Leq | Existing* | Predicted (2038) | Change (+/-) | Noise Impact |
|---------------------------------------|--------------|---------------|-----------|------------------|--------------|--------------|
| R2-Lower Valley Water District Office | NAC D        | 52            | 57        | 61               | +4           | No           |
| R3-House                              | NAC B        | 67            | 45        | 65               | +20          | Yes          |
| R4-House                              | NAC B        | 67            | 46        | 56               | +10          | No           |
| R5-Clint High School                  | NAC D        | 52            | 40        | 40               | 0            | No           |

Source: Study Team, February 2016.

\*Existing noise levels reported for R3, R4 and R5 measured on February 4, 2016.

This analysis indicates that the Build Alternative would result in a traffic noise impact at one representative receiver location and the following noise abatement measures were considered: traffic management, alteration of horizontal and/or vertical alignments; acquisition of undeveloped property to act as a buffer zone and the construction of noise barriers.

Before any abatement measure can be proposed for incorporation into the project, it must be both feasible and reasonable. In order to be “feasible”, the abatement measure must be able to reduce the noise level at greater than 50 percent of impacted, first row receivers by at least 5 dB(A); and to be “reasonable” it must not exceed the cost-effectiveness criterion of \$25,000 for each receiver that would benefit by a reduction of at least 5 dB(A) and the abatement measure must be able to reduce the noise level to at least one impacted, first row receiver by at least 7 dB(A).

A noise barrier was determined to be the only feasible and reasonable noise abatement measure and was proposed for incorporation in the project. Results of the analysis are included in the **Traffic Noise Technical Report** prepared in June 2016 and available for review at the TxDOT El Paso District office. A noise barrier would be feasible and reasonable for receiver R3 (**Table 5-2**, and **Appendix A, Exhibit 5: Traffic Noise Receiver Locations**) as described below.

**Table 5-2: Noise Barrier Proposal (Preliminary)**

| Barrier | Representative Receivers | Total # Benefitted | Length | Height in feet | Total Cost | \$/Benefitted Receiver |
|---------|--------------------------|--------------------|--------|----------------|------------|------------------------|
| 1       | R3                       | 5                  | 868    | 8              | \$124,992  | \$24,998               |

Source: Study Team (June 2016).

Any subsequent project design changes may require a reevaluation of this preliminary noise barrier proposal. The final decision to construct the proposed noise barrier will not be made until completion of the project design, utility evaluation and polling of adjacent property owners.

To avoid noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs must ensure, to the maximum extent possible, no new activities are planned or constructed along or within the following predicted (2038) noise impact contours.

**Table 5-3: Traffic Noise Contours [dB(A) Leq]**

| Location                                | Land use           | Impact Contour | Distance from ROW |
|---|--------------------|----------------|-------------------|
| <b>East of FM 1110 (north of FM 76)</b> | NAC Categories B&C | 66             | 25 ft             |
|   | NAC Category E     | 71             | 0 ft              |
| <b>West of FM 1110 (north of FM 76)</b> | NAC Categories B&C | 66             | 25 ft             |
|   | NAC Category E     | 71             | 0 ft              |
| <b>East of FM 1110 (north of SH 20)</b> | NAC Categories B&C | 66             | 25 ft             |
|   | NAC Category E     | 71             | 0 ft              |
| <b>West of FM 1110 (north of SH 20)</b> | NAC Categories B&C | 66             | 25 ft             |
|   | NAC Category E     | 71             | 0 ft              |

Source: Study Team, February 2016.

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receivers is expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

A copy of this traffic noise analysis would be available to local officials. On the date of approval of this document (Date of Public Knowledge), FHWA and TxDOT are no longer responsible for providing noise abatement for new development adjacent to the project.

If the No-Build Alternative were implemented, noise levels along FM 1110 would be expected to increase with an associated increase in traffic volumes.

## 5.2.8 Air Quality

### 5.2.8.1 Transportation Conformity

The proposed project is located in El Paso County, which contains certain areas in nonattainment for particulate matter 10 (PM10) (City of El Paso) and in maintenance for carbon monoxide (CO) (portion of City of El Paso). The proposed project is located outside of the PM10 nonattainment and CO maintenance areas. The proposed project is located in an area in attainment or unclassifiable for all national ambient air quality standards (NAAQS); therefore, the transportation conformity rules do not apply.

The proposed action is consistent with the *Horizon 2040 MTP* amendment approved on April 28, 2017 and with the 2017-2020 STIP. The MTP and STIP pages for the proposed project are included in **Appendix E: Supplemental Information**.

The proposed project is not located within a CO or PM nonattainment or maintenance area; therefore, a project level hot-spot analysis is not required.

#### 5.2.8.2 Carbon Monoxide (CO)

Traffic data for the ETC year 2020 and design year 2038 are 11,700 and 16,000 vpd, respectively, for FM 1110 between I-10 and SH 20. A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that a CO standard would ever be exceeded as a result of any project with an average annual daily traffic (AADT) below 140,000 vpd. The AADT projections for the project do not exceed 140,000 vpd; therefore, a Traffic Air Quality Analysis was not required.

#### 5.2.8.3 Congestion Management Process (CMP)

This project is located in an area within El Paso County that is in attainment or unclassifiable for ozone and CO; therefore, a project-level CMP analysis is not required.

#### 5.2.8.4 Mobile Source Air Toxics (MSAT)

##### *Background*

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act (CAA) Amendments of 1990, whereby Congress mandated that the Environmental Protection Agency (EPA) regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS) (<https://www.epa.gov/iris/>). In addition, EPA identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 2011 National Air Toxics Assessment (NATA) (<https://www.epa.gov/national-air-toxics-assessment>). These are *1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (diesel PM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter*. While FHWA considers these the priority MSAT, the list is subject to change and may be adjusted in consideration of future EPA rules.

### *Motor Vehicle Emissions Simulator (MOVES)*

According to EPA, MOVES2014 is a major revision to MOVES2010 and improves upon it in many respects. MOVES2014 includes new data, new emissions standards, and new functional improvements and features. It incorporates substantial new data for emissions, fleet, and activity developed since the release of MOVES2010.

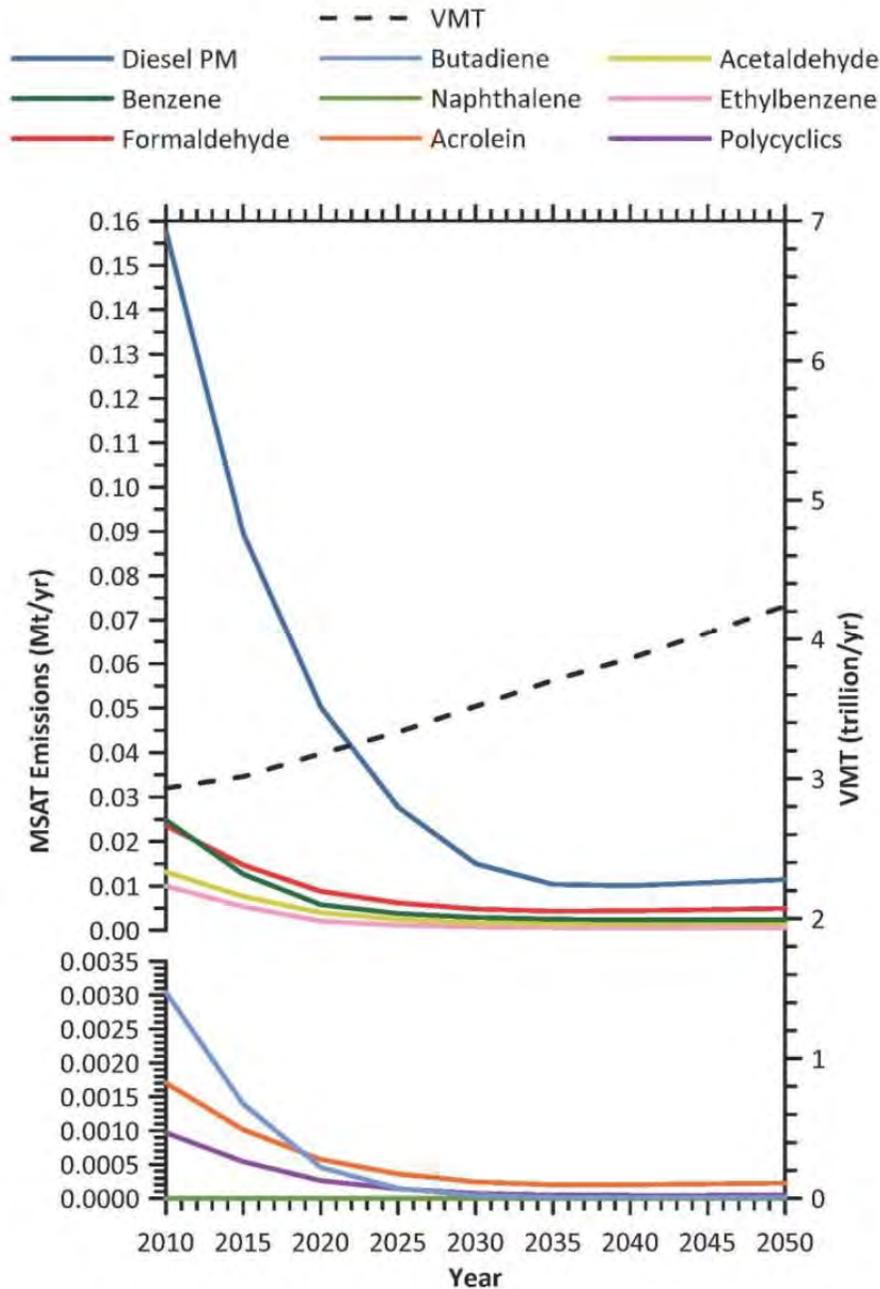
These new emissions data are for light-and heavy-duty vehicles, exhaust and evaporative emissions, and fuel effects. MOVES2014 also adds updated vehicles sales, population, age distribution, and vehicle miles traveled (VMT) data. MOVES2014 incorporates the effects of here new Federal emissions standard rules not included in MOVES2010.

These new standards are all expected to impact MSAT emissions and include Tier 3 emissions and fuel standards starting in 2017 (79 FR 60344), heavy-duty greenhouse gas regulations that phase in during model years 2014-2018 (79 FR 60344), and the second phase of light duty greenhouse gas regulations that phase in during years 2017-2025 (79 FR 60344).

Since the release of MOVES2014, EPA has released MOVES2014a. In the November 2015 MOVES2014a Questions and Answers Guide (<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100NNR0.txt>), EPA states that for on-road emissions, MOVES2014a adds new options requested by users for the input of local VMT, includes minor updates to the default fuel tables, and corrects an error in MOVES2014 brake wear emissions. The change in brake wear emissions results in small decreases in PM emissions, while emissions for other criteria pollutants remain essentially the same as MOVES2014.

Using EPA's MOVES2014a model, as shown in **Graph 5-1**, FHWA estimates that even if VMT increases by 45 percent from 2010 to 2050 as forecast, a combined reduction of 91 percent in the total annual emissions for the priority MSAT is projected for the same time period.

**Graph 5-1: Projected National MSAT Emission Trends 2010-2050 for Vehicles Operating on Roadways Using EPA’s MOVES2014a Model**



Source: EPA MOVES2014a model runs conducted by FHWA, September 2016.

Note: Trends for specific locations may be different, depending on locally derived information representing vehicle-miles travelled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorological, and other factors.

Diesel PM is the dominant component of MSAT emissions, making up 50 to 70 percent of all priority MSAT pollutants by mass, depending on calendar year. Users of MOVES2014a will notice some differences in emissions compared with MOVES2010b. MOVES2014a is based on updated data on some emissions and pollutant processes compared to MOVES2010b, and also reflects the latest Federal emissions standards in place at the time of its release. In addition, MOVES2014a emissions forecasts are based on lower VMT projections than MOVES2010b, consistent with recent trends suggesting reduced nationwide VMT growth compared to historical trends.

#### *MSAT Research*

Air toxics analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health outcomes as a result of lifetime MSAT exposure remain limited. These limitations impede the ability to evaluate how the potential health risks posed by MSAT exposure should be factored into project-level decision-making within the context of the NEPA. The FHWA, EPA, the Health Effects Institute, and others have funded and conducted research studies to try to more clearly define potential risks from MSAT emissions associated with highway projects. The FHWA will continue to monitor the developing research in this emerging field.

#### *Project Specific MSAT Assessment*

A qualitative analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives, found at: [http://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/research\\_and\\_analysis/mobile\\_source\\_air\\_toxics/msatemissions.pdf](http://www.fhwa.dot.gov/environment/air_quality/air_toxics/research_and_analysis/mobile_source_air_toxics/msatemissions.pdf)

For each alternative in this document, the amount of MSAT emitted would be proportional to the VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the Build Alternative is slightly higher than that for the No-Build Alternative because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the Build Alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to the EPA's MOVES2014 model, emissions of all of the priority MSAT decrease as speed increases. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of the EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050. (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016)

([http://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/policy\\_and\\_guidance/msat/index.cfm](http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/index.cfm)). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The additional travel lanes contemplated as part of the Build Alternative will have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, under each alternative there may be localized areas where ambient concentrations of MSAT could be higher under the Build Alternative than the No-Build Alternative. The localized increases in MSAT concentrations would likely be most pronounced along the entire project limits under the Build Alternative because capacity would be added which would move travel lanes closer to populated areas. However, the magnitude and the duration of these potential increases compared to the No-Build Alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a highway is widened, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No-Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT will be lower in other locations when traffic shifts away from them. However, on a regional basis, the EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be lower than today.

#### *Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis*

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the CAA and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the IRIS, which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, <http://www.epa.gov/iris/>). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). A number of studies are summarized in *Appendix D* of FHWA's *Updated Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents*. ([http://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/policy\\_and\\_guidance/msat/index.cfm](http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/index.cfm)). Among the adverse health effects linked to MSAT compounds at high exposures are; cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI, Special Report 16, <https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-review-literature-exposureand-health-effects>) or in the future as vehicle emissions substantially decrease.

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts – each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (Special Report 16, <https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-review-literature-exposureand-health-effects>). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA states that with respect to diesel engine exhaust, “[t]he absence of adequate data to develop a sufficiently confident dose-response relationship from the epidemiologic studies has prevented the estimation of inhalation carcinogenic risk (EPA IRIS database, Diesel Engine Exhaust, Section II.C. [https://cfpub.epa.gov/ncea/iris/iris\\_documents/documents/subst/0642.htm#quainhal](https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0642.htm#quainhal)).”

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the CAA to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards,

such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an “acceptable” level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA’s approach to addressing risk in its two-step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable ([https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD59852578000050C9DA/\\$file/07-1053-1120274.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD59852578000050C9DA/$file/07-1053-1120274.pdf)). Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

#### *Construction Emissions*

During the construction phase of this project, temporary increases in PM and MSAT emissions may occur from construction activities. The primary construction-related emissions of PM are fugitive dust from site preparation, and the primary construction-related emissions of MSAT are diesel particulate matter from diesel powered construction equipment and vehicles.

The potential impacts of particulate matter emissions will be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. The Texas Emissions Reduction Plan (TERP) provides financial incentives to reduce emissions from vehicles and equipment. TxDOT encourages construction contractors to use this and other local and federal incentive programs to the fullest extent possible to minimize diesel emissions. Information about the TERP program can be found at: <http://www.tceq.state.tx.us/implementation/air/terp/>.

However, considering the temporary and transient nature of construction-related emissions, the use of fugitive dust control measures, the encouragement of the use of TERP, and compliance with applicable regulatory requirements; it is not anticipated that emissions from construction of this project will have any significant impact on air quality in the area.

#### 5.2.9 Hazardous Waste and Materials

The project was investigated for known or possibly unknown hazardous material contamination within the proposed project area. A hazardous materials **Initial Site**

**Assessment (ISA)** was completed in August 2016. The **ISA** document included the review of topographic and ROW maps, aerial photographs, a regulatory database search and review, and results of a site visit on February 4, 2016. The regulatory database search and review was conducted in February 2016 in accordance with the American Society for Testing and Materials (ASTM) Practice E1527-13.

Two sites were identified as a recognized environmental concern (REC) for the proposed project as having a potential to impact the project either in the construction or ROW phase. The following two sites are considered RECs.

- Express Fuel (Map ID #1) - Located at 1590 Clint San Elizario Rd., the site was identified as a petroleum storage tank (PST) site (ID# 65290). Currently the site contains five underground storage tanks (one 8,000 gallon gasoline, two 6,000 gallon gasoline, one 6,000 gallon diesel, and one 20,000 gallon diesel) in use. The 6,000 and 8,000 gallon storage tanks were installed in 1990 and the 20,000 gallon diesel storage tank was installed in 2014. The underground storage tanks are located along the west edge of the parcel approximately 60 feet south of the project area. Approximately 0.02 acre of easement would be acquired along the north edge of the parcel. Installation of additional underground storage tanks were occurring during the site visit. The installation of the new tanks is occurring approximately 350 feet south of the project area.
- Stockpile Area (Map ID #2) - Located in the northeast quadrant of the FM 1110 and FM 76 intersection. The site contained what appeared to be construction debris consisting primarily of asphalt. Some concrete and rebar may be present within the larger stockpiles. The area also contained small and large mounds of dirt. There are smaller stockpiles immediately adjacent to the project area with larger stockpiles approximately 100 ft north of the project area. This site is considered a concern because, at this time, the origin of the material is unknown.

Although not considered potential hazardous material issues, the following sites and/or issues were identified during the site survey. It is anticipated that they will be addressed during the ROW process or as an issue resolved during the pre-construction activities.

- Abandoned Facility - Located south of FM 1110 between I-10 and FM 76. The site contains automotive tire partially buried in the ground. The facility appears to have been utilized as a local motorcycle racing course. South of the area containing the buried tires is a former concentrated animal feeding operation (CAFO) and an impoundment that likely captured runoff from the CAFO. No additional ROW is required from the site; however, a proposed retention basin would be constructed immediately southwest of the site. The proposed retention basin would also be located approximately 65 feet southwest of the former CAFO impoundment. The berm for the apparent CAFO runoff is visible between the proposed retention basin and CAFO impoundment.
- Residence - Located at the northwest corner of the FM 76 and FM 1110 intersection. The site is a vacant residential structure. The structure was not

present on 1967 aerials, but does appear on 1996 aerials. Due to the age of the structure an asbestos survey prior to demolition would be needed.

- UPRR - The rail line crosses the proposed project northeast of Coffin Rd. The facility is used by passenger and freight trains. Access to the location where the rail line crosses the proposed project was not available. General observations along the rail line did not identify obvious signs of potential contamination such as stressed vegetation.
- Residence - Located in the southwest quadrant of SH 20 and Denton Rd. The site contains farm equipment scattered across the site. Approximately 0.22 acre of additional ROW would be acquired from the north and east sides of the site and approximately 0.01 acre of easement would be needed along the south side of the site. The areas of additional ROW do not contain signs of potential contamination. Access to the property was not available, but from aerial images it appears the southwest corner of the site may exhibit signs of stressed vegetation and stained soils. This area is approximately 170 ft from the project area. Along SH 20, utility work occurred recently (2015) and it is unknown if any contamination was encountered. However, within the project area there does not appear to be contamination based on surface conditions.

The complete ISA is available for review at the TxDOT El Paso District office.

Should unanticipated hazardous materials/substances be encountered during construction, TxDOT and/or the contractor would be notified and steps would be taken to protect personnel and the environment. Any unanticipated hazardous materials encountered during construction would be handled according to the applicable federal, state, and local regulations per TxDOT Standard Specification. The contractor would take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. All construction materials used for the proposed project would be removed as soon as the work schedules permit. The contractor would initiate early regulatory agency coordination during project development.

Under the No-Build Alternative, no impacts to hazardous waste/substance are anticipated.

#### 5.2.10 Construction Phase Impacts

The Build Alternative would have short-term effects during the construction phase. The estimated construction duration for the proposed project is 3 years. Potential construction impacts include:

- Construction-related air emissions (see Section 5.2.8 - Air Quality)
- Utility relocations would be required throughout the corridor; however, these relocations would be handled so that there would be no substantial impacts to residences and businesses. Conflicting utilities would be either adjusted or

relocated prior to the construction of the proposed project using standard TxDOT procedures.

- Noise generated by construction machinery, which is the major source of noise in construction. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable.
- Potential loss of habitat and species during construction activities, as these activities may degrade adjacent habitat due to fragmentation, and may hinder daily or seasonal movement of wildlife.
- Traffic flow disruptions would occur during road closures or detours. Detour timing and necessary rerouting of emergency vehicles shall be coordinated with proper local officials.

Contractors would be required to follow TxDOT standard specifications and applicable federal, state, and local regulations and ordinances that may minimize construction phase impacts.

The No-Build Alternative would not result in construction phase impacts.

### 5.3 Indirect Impacts

An indirect effects analysis for the proposed project was conducted using a six-step approach in accordance with the *Indirect Impacts Analysis Guidance* by TxDOT (September 2015). Since the preparation of the Indirect Effects Technical Report for the proposed project, reassessment of the vegetation types identified has been performed. The Area of Influence (AOI) used for the analysis remains the same; however, the vegetation types within the entire AOI consist of 43 percent agriculture, 9 percent scrub, thornscrub, and shrubland, 32 percent warm desert dunes, 5 percent warm desert riparian, wash, and 11 percent urban. The analysis concluded that substantial indirect impacts would not be anticipated as a result of the proposed project. Several areas were identified to have the potential to result in induced growth effects; however, from further analysis, little anticipated growth would likely occur as a result of the proposed project. The proposed project would induce growth by increasing the rate of development for two areas: within undeveloped land located adjacent to the proposed facility and within the planned Tropicana subdivision near the town of Clint. Impacts related to an increased rate of development would include loss of vegetation. The potential areas of development covers approximately 159 acres which consist of approximately 69 percent agriculture, 23 percent scrub, thornscrub, and shrubland, 5 percent warm desert riparian, wash and 3 percent warm desert dunes. For additional information, the analysis is described in the **Indirect Effects Technical Report** completed in July 2016 and available for review at the TxDOT El Paso District office.

Under the No-Build Alternative, no indirect impacts are anticipated.

### 5.4 Cumulative Effects

Council on Environmental Quality regulations (40 CFR § 1508.7) defines cumulative impacts (i.e., effects) as “the impact on the environment which results from the incremental impact of the proposed action when added to other past, present and reasonably foreseeable future actions.” The purpose of a cumulative effects analysis is to view the direct and indirect impacts of the proposed project within the larger context of past, present, and future activities that are independent of the proposed project, but which are likely to affect the same resources in the future. This approach allows the evaluation of the incremental impacts of the proposed project in light of the overall health and abundance of selected resources. The evaluation process for each resource considered may be expressed in shorthand form as follows:

$$\begin{array}{ccccccc} \text{BASELINE} & & & & & & \\ \text{CONDITION} & + & \text{FUTURE EFFECTS} & + & \text{PROJECT IMPACTS} & = & \text{CUMULATIVE} \\ \text{(historical and current)} & & \text{(expected projects)} & & \text{(direct and indirect)} & & \text{EFFECTS} \end{array}$$

The following five-step approach as described in TxDOT's *Cumulative Impacts Analysis Guidelines* (2016), was utilized to assess the potential cumulative effects of the past, present, and reasonably foreseeable actions to the resources in the study area:

1. Resource Study Area, Conditions and Trends;
2. Direct and Indirect Effects on Each Resource from the Proposed Project;
3. Other Actions – Past, Present, and Reasonably Foreseeable – and their Effect on Each Resource;
4. The Overall Effects of the Proposed Project Combined with other Actions; and
5. Mitigation of Cumulative Effects.

All of the resource categories considered in this environmental document are candidates for cumulative effects analysis. The initial step of the cumulative effects analysis uses information from the evaluation of direct and indirect impacts in the selection of environmental resources that should be evaluated for cumulative effects. TxDOT's Guidance states: “If a project will not cause direct or indirect impacts on a resource, it will not contribute to a cumulative impact on that resource.” CEQ guidance recommends focusing on key resource issues of national, regional, or local significance. To identify potential issues, the resource is considered whether it is protected by legislation or resource management plans; ecologically important; culturally important; economically important; or important to the well-being of a human community.

Applying the above criteria, the resources or environmental issues considered for the cumulative effects analysis are listed in **Table 5-4**. As recommended by CEQ guidance, specific indicators of each resource's condition are identified and shown. The use of indicators of a resource's health, abundance, and/or integrity are helpful tools in formulating quantitative or qualitative metrics for characterizing overall impacts to resources. These indicators are also key aspects of each resource that have already been evaluated in terms of the project's direct and indirect impacts and facilitate greater consistency and objectivity in the analysis of cumulative effects.

**Table 5-4: Resources and Topics Considered for the Cumulative Impacts Analysis**

| Resource or Topic Evaluated       | TxDOT/CEQ Criteria <sup>1</sup>                   |   |  |  | Included for Cumulative Impacts Analysis | Explanation for Including or Excluding the Resource or Topic from Cumulative Effects Analysis   |
|-----------------------------------|---|---|--|--|--|---|
|                                   | Would the Resource or Topic be Directly Impacted? | Would the Resource or Topic be Indirectly Impacted? | Would the Direct or Indirect Impacts be Substantial? | Is the Resource in Poor or Declining Health? |  |   |
| Air Quality                       | No  | No  | N/A  | N/A  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |
| Traffic Noise                     | Yes   | No  | No   | N/A  | No                                       | Excluded because indirect impacts are not anticipated and the direct impacts are not considered substantial enough to warrant further consideration in the cumulative impacts analysis. |
| Hazardous Waste and Materials     | No  | No  | N/A  | N/A  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |
| <b>Biological Resources</b>       |   |   |  |  |  |   |
| Threatened and Endangered Species | No  | No  | N/A  | Yes  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |
| Vegetation and Wildlife Habitat   | Yes   | Yes   | Yes  | No   | Yes                                      | Included because direct and indirect impacts are anticipated.   |
| <b>Socio-economic Resources</b>   |   |   |  |  |  |   |
| Community Cohesion                | No  | No  | N/A  | N/A  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |
| EJ Populations                    | No  | No  | N/A  | N/A  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |
| LEP Populations                   | No  | No  | N/A  | N/A  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |
| Public Facilities and Services    | No  | No  | N/A  | N/A  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |

<sup>1</sup> In accordance with CEQ (2007) and TxDOT Cumulative Impacts Handbook (2016) selection criteria for limiting the scope of cumulative impacts analysis.

| Resource or Topic Evaluated                                    | TxDOT/CEQ Criteria <sup>1</sup>                   |   |  |  | Included for Cumulative Impacts Analysis | Explanation for Including or Excluding the Resource or Topic from Cumulative Effects Analysis   |
|--|---|---|--|--|--|---|
|  | Would the Resource or Topic be Directly Impacted? | Would the Resource or Topic be Indirectly Impacted? | Would the Direct or Indirect Impacts be Substantial? | Is the Resource in Poor or Declining Health? |  |   |
| Visual/Aesthetic   | Yes   | No  | No   | No   | No                                       | Excluded because indirect impacts are not anticipated and the direct impacts are not considered substantial enough to warrant further consideration in the cumulative impacts analysis.   |
| <b>Cultural Resources</b>                                      |   |   |  |  |  |   |
| Historic Resources   | No  | No  | N/A  | N/A  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |
| Archeological Resources  | No  | No  | N/A  | N/A  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |
| <b>Section 4(f), Section 6(f), Section 106, and Chapter 26</b> |   |   |  |  |  |   |
| Section 4(f) Properties  | Yes   | No  | No   | N/A  | No                                       | Excluded because indirect impacts are not anticipated and the direct impacts to the Section 4(f) properties; which were determined to be de minimis pursuant to 23 U.S.C. 327 and the MOU dated December 16, 2014, and executed by TxDOT and FHWA; are not considered substantial enough to warrant further consideration in the cumulative impacts analysis. |
| Section 6(f) Properties  | No  | No  | N/A  | N/A  | No                                       | Excluded because neither direct nor indirect impacts are anticipated.   |
| Section 106  | No  | No  | N/A  | N/A  | No                                       | Excluded because no adverse effects or indirect impacts are anticipated.  |

| Resource or Topic Evaluated                    | TxDOT/CEQ Criteria <sup>1</sup>                   |   |  |  | Included for Cumulative Impacts Analysis | Explanation for Including or Excluding the Resource or Topic from Cumulative Effects Analysis  |
|--|---|---|--|--|--|--|
|  | Would the Resource or Topic be Directly Impacted? | Would the Resource or Topic be Indirectly Impacted? | Would the Direct or Indirect Impacts be Substantial? | Is the Resource in Poor or Declining Health? |  |  |
| Chapter 26 Properties                          | Yes   | No  | N/A  | N/A  | No                                       | Excluded because indirect impacts are not anticipated and there is no feasible and prudent alternative to the use or taking of Chapter 26 protected land (direct impacts) and are not considered substantial enough to warrant further consideration in the cumulative impacts analysis. |
| <b>Water Resources</b>                         |   |   |  |  |  |  |
| Groundwater                                    | No  | No  | N/A  | No   | No                                       | Excluded because neither direct nor indirect impacts are anticipated.  |
| Wetlands and Jurisdictional Waters of the U.S. | No  | No  | N/A  | No   | No                                       | Excluded because neither direct nor indirect impacts are anticipated.  |
| Floodplains                                    | No  | No  | N/A  | No   | No                                       | Excluded because neither direct nor indirect impacts are anticipated.  |
| Water Quality                                  | No  | No  | N/A  | No   | No                                       | Excluded because neither direct nor indirect impacts are anticipated.  |

Source: Project Team, September 2016.

As documented in **Section 5.0 Environmental Consequences** and the **Indirect Effects Technical Report**, it was determined that the proposed project would not have substantial direct or indirect impacts on the following resources and topics of concern: air quality; hazardous waste and materials; threatened and endangered species; community cohesion; public facilities and services; EJ Populations; LEP populations; historic properties; archeological resources; Section 6(f) properties; Chapter 26 properties; groundwater; floodplains; wetlands and jurisdictional waters of the U.S.; and water quality.

Several topics were identified to have direct or indirect impacts: vegetation/wildlife habitat, visual/aesthetics, Section 4(f), and traffic noise. The topics identified would have warranted a cumulative impacts analysis if direct or indirect impacts were determined to have been substantial or if these topics/resources are considered to be in poor or declining health. Because traffic noise impacts, visual/aesthetic impacts, or impacts to Section 4(f) properties are not considered substantial or in poor or declining health,

these topics would not be included in the cumulative impacts analysis. Therefore, the resource warranting a cumulative impacts analysis is vegetation because the potential direct impacts for this resource are considered substantial.

Cumulative impacts are analyzed in terms of the specific resource being affected. Direct impacts to vegetation are addressed in **Section 5.0 Environmental Consequences**. The following sections describe steps 1 through 5 of the cumulative impacts analysis applied to vegetation as a resource eligible for analysis.

#### 5.4.1 Vegetation/Wildlife Habitat

##### 5.4.1.1 Resource Study Area (RSA), Conditions and Trends

A resource study area (RSA) was determined for the cumulative impacts analysis for vegetation. The watershed boundaries along with the local canals and roads were used to delineate the RSA because vegetation types tend to be affected by the watershed areas and the drainage influences the vegetation types that occur within the area. The vegetation types within the RSA are generally associated with agricultural use and urbanized development. The total area of the RSA is 8,394 acres. The temporal boundary used for the cumulative analysis is from 1948 to 2040. The start year of 1948 reflects the year of TxDOT's new designation of FM 1110 from FM 76 to San Elizario. The future year of 2040 is the horizon year set for the MTP. The timeframe was determined to provide sufficient range of time to determine past, present and reasonably foreseeable actions to be included in the cumulative effects analysis. See **Appendix A, Exhibit 4: Resource Study Area Map** for the RSA map.

The RSA consists of various vegetation types. Using TPWD's EMST data and aerial imagery, the RSA is categorized into three main vegetation categories: agricultural, urban and desert/shrubland. The two most prevalent types are agricultural land and urbanized areas. These areas provide limited to no habitat for wildlife because these areas have already been disturbed by agricultural practices and development. The largest percentage of the RSA is categorized under agricultural land consisting of cropland, orchards and farmland. These areas cover approximately 51 percent of the entire RSA. Urban areas consist of approximately 18 percent of the entire RSA; whereas, the remaining areas consist of 12 percent of scrub, thornscrub, shrubland; 11 percent warm desert riparian and 7 percent warm desert dune areas. These remaining vegetation types provide minimal wildlife habitat for a variety of species that live in desert environments. These vegetation types are shown in **Table 5-5**.

**Table 5-5: Vegetation Types Within the RSA**

| Type                         | Acres | Percentage of RSA |
|------------------------------|-------|-------------------|
| Agriculture                  | 4,313 | 51.4%             |
| Scrub, Thornscrub, Shrubland | 1,014 | 12.1%             |
| Urban                        | 1,545 | 18.4%             |
| Warm Desert Dunes            | 611   | 7.3%              |
| Warm Desert Riparian, Wash   | 911   | 10.8%             |
| Entire RSA                   | 8,394 | 100.0%            |

Source: TPWD 2013 EMST data and 2015 aerial imagery.

Although the RSA is predominantly agricultural land of cropland and orchards, no prime farmland<sup>2</sup> was identified within the RSA. The gradual trend of this region is conversion of farmland and undeveloped lands to urbanized development. Portions of the Town of Clint, City of Socorro and City of San Elizario are within the RSA boundary. The current population trend for the area is steady growth with a percent change of approximately 26 percent from 1990 to 2010 for El Paso County. Furthermore, El Paso County is projected to have a 47 percent change from 2010 to 2040. In looking at the same percent change for the populations of the Town of Clint, San Elizario and Socorro, their percentages are shown in **Table 5-6**.

**Table 5-6: Population Data and Projections**

| Area Name      | Population |         |         |                | Percent Change from 1990-2010 | Percent Change from 2010-2040 |
|----------------|------------|---------|---------|----------------|-------------------------------|-------------------------------|
|                | 1990       | 2000    | 2010    | Projected 2040 |                               |                               |
| El Paso County | 591,610    | 679,662 | 800,647 | 1,176,945      | 26.1%                         | 47.0%                         |
| Town of Clint  | 1,035      | 980     | 926     | 980            | -11.8%                        | 5.8%                          |
| San Elizario   | 4,385      | 11,046  | 20,444  | 48,551         | 78.6%                         | 137.5%                        |
| Socorro        | 22,995     | 27,152  | 33,017  | 47,129         | 30.4%                         | 42.7%                         |

Source: Texas Water Development Board, 2016.

#### 5.4.1.2 Direct and Indirect Effects on Each Resource from the Proposed Project

Direct impacts to vegetation/wildlife habitat are confined to areas within the proposed ROW. Approximately 40 acres of additional ROW and approximately 2 acres of easement and license agreements would result from the proposed project. The vegetation types that would be directly impacted include approximately 31.1 acres of agriculture, 5.6 acres of scrub, thornscrub, shrubland, 3.5 acres of warm desert riparian, wash, and 9.9 acres of warm desert dunes. The direct effects to vegetation/wildlife habitat are further discussed in **Section 5.2.5.3**.

<sup>2</sup> As classified by the NRCS, prime farmland is identified by location and extent of the soils that are best suited to food, feed, fiber, forage and oilseed crops.

Urbanized areas within the RSA provide limited habitat for wildlife; however, certain species that have adapted more readily to co-exist with an urban environment can utilize some of the few vegetated areas. No long-term impacts to wildlife populations are anticipated as a result of the proposed project. The other vegetation types (scrub, thornscrub, shrubland; warm desert riparian wash and warm desert dunes) provide minimal habitat for wildlife species such as rodents, reptiles, and various birds. Due to minimal habitat available within the RSA, the direct impacts to wildlife would be considered minor.

The indirect effects that were identified in the induced growth analysis included areas that total approximately 159 acres. These areas included 69 percent agriculture, 23 percent scrub, thornscrub, and shrubland, 5 percent warm desert riparian, wash and 3 percent warm desert dune vegetation types. Based on the totals above, approximately 31 percent of the area may provide minimal habitat for wildlife. It was determined in the induced growth analysis that the proposed project would increase the rate of development for two potential areas and would result in minimal effects to vegetation. These induced growth areas include the Tropicana development along SH 20 and adjacent undeveloped parcels along the proposed FM 1110 facility. Further discussion of the induced growth analysis is provided in **Section 5.3**.

#### 5.4.1.3 Other Actions – Past, Present, and Reasonably Foreseeable – and their Effect on Each Resource

Past actions that impacted the vegetation resource within the RSA are transportation, residential and commercial developments, and converting agricultural land to urbanized land use. Historically, this region and the area within the RSA has been heavily agricultural which provides limited habitat for wildlife. Over time, these agricultural lands and land with other vegetation types (scrub, thornscrub, shrubland; warm desert riparian wash and warm desert dunes) have been converted to urbanized development. There are portions of the Town of Clint, City of San Elizario, and City of Socorro within the RSA which have had continual development over the last few decades. Commercial developments along the existing FM 1110 alignment and other facilities were built in conjunction with major and arterial roadways within the RSA. The existing FM 1110 facility was open to traffic in 2010. These urbanized areas provide limited to no habitat for wildlife.

As part of the indirect impacts analysis, local planners were interviewed to gather information on local developments and anticipated future developments in their jurisdiction and the county. Areas were identified and included as induced growth areas in **Section 5.4.2**; however, other areas that already exist as urban vegetation types were identified as having future/additional development, such as the build-out of vacant lots within existing subdivisions. As far as new development, no future development was identified that would be considered reasonably foreseeable. Reasonably foreseeable actions must be more than speculated actions, but are actions that are likely or probable, according to TxDOT's *Cumulative Impacts Analysis Guidelines*.

To determine reasonably foreseeable actions within the RSA, master plans and transportation plans of local entities were researched. No planning documents were found for the Town of Clint or the City of San Elizario; however, planning documents were found for the City of Socorro and El Paso County as well as other entities in the area. **Table 5-7** lists these plans, a summary of the planning document and the potential effect on vegetation resources.

**Table 5-7: Summary of Planning Documents**

| Entity/Planning Document/Summary   | Effect(s) to Resource   |
|--|---|
| <p><u>City of Socorro - Comprehensive Master Plan 2014</u><br/>                     Several goals are outlined with a focus on growth and strategic development in addition to preserving historical assets within the city. Thoroughfare plan is also included for transportation improvements to accommodate for future growth.</p>  | <p>No effects to vegetation/wildlife habitat. Although the plan outlines future zoning areas and light industrial development for the portion within the RSA, no funding sources and construction schedules are determined.</p>   |
| <p><u>City of Socorro - Green Infrastructure Plan 2012</u><br/>                     The map shows existing parks, regional and local trails within the city limits, locations of nine proposed parks, and the location of a proposed Mesa Drain Riverwalk (running north to south) along the eastern boundary of the city limits.</p>  | <p>No effects to vegetation/wildlife habitat at this time. Potential effects from construction related to the proposed Mesa Drain Riverwalk; however, unknown funding and design plans were determined for this project.</p>  |
| <p><u>El Paso County - Stormwater Master Plan (2010)</u><br/>                     Socorro, Texas is one of the identified problem areas within the master plan and specific projects are outlined for reconstruction and construction of detention basins and culverts.</p>  | <p>Minimal effects on vegetation/wildlife habitat. Most of the projects identified are construction/replacement of culverts or detention basins within urbanized areas, specifically along roadways and intersections.</p>  |
| <p><u>City of El Paso – El Paso Regional Intermodal Rail Project (2003)</u><br/>                     The project feasibility and development report discusses potential rail and freight expansions for the region. A rail corridor is proposed circumventing the region. The proposal includes a rail line running east/west connecting to a new railyard facility just south of the Town of Clint limits. The report concluded with recommending three projects to proceed.</p>  | <p>No effects to vegetation/wildlife habitat within the RSA. The report evaluated the feasibility of the overall and portions of the proposed project. The railyard near Clint was not recommended to proceed. All three recommended projects are located within/near the City of El Paso and outside of the RSA boundary.</p>              |
| <p><u>Planning and Environmental Linkages Study: Border Highway East (BHE Study)</u><br/>                     The TxDOT study evaluated possible, viable alternatives that would serve as long-term solutions to the identified needs of the region. Several conceptual transportation and other modal solutions were evaluated and recommended that could be used to inform future NEPA phases of development.</p>  | <p>No effects to vegetation/wildlife habitat within the RSA. Although several alternatives and projects were recommended, proposed projects were not identified as projects planned or funded within this study. Projects that would be considered reasonably foreseeable would be encompassed in the TxDOT project tracker or the MTP.</p> |
| <p><u>El Paso MPO – Horizon 2040 Metropolitan Transportation Plan</u><br/>                     The plan discusses regional projects including roadway construction and improvements, intersection improvements, transit projects, safety, lighting, pedestrian and bicycle improvements and POE efficiencies.</p>  | <p>Minimal effects on vegetation/wildlife habitat. Enhancements discussed in the plan are likely to occur; however, actions are anticipated within urbanized areas or existing roadways. Reasonably foreseeable actions are included in the TxDOT project tracker listings.</p>   |
| <p><u>TxDOT - Project Tracker (accessed Sept. 2016)</u><br/>                     Transportation projects were identified within the RSA and include the following:</p> <ul style="list-style-type: none"> <li>• Construction scheduled for SH 20 seal coat of SH 20 from FM 1110 to FM 76</li> <li>• Overlay of SH 20 from Loop 375 to FM 1110 is under development.</li> <li>• Replacing bridge and approach railing of I-10 from FM 1110 to FM 793 is under development.</li> <li>• I-10 frontage road overlay from Horizon (FM 1281) to FM 1110 is finalizing for construction.</li> <li>• Construction scheduled for the bridge replacement of FM 1110 at I-10.</li> </ul> | <p>Minimal to no effects on vegetation/wildlife habitat. Most of the identified projects are within existing roadways and are unlikely to require additional ROW or undisturbed vegetation areas.</p>   |

Source: Project Team, September 2016.

Based on the research of planning documents included in **Table 5-7**, the reasonably foreseeable actions would include the transportation projects identified through the TxDOT project tracker, but as noted in the table, projects are unlikely to require additional ROW as they would occur within the existing ROW. Although these projects consist of bridge replacements, pavement overlay, and seal coat improvements anticipated to occur within the existing ROW, these projects could result in minimal vegetation/wildlife habitat impacts and contribute to a cumulative effect on vegetation/wildlife. Other reasonably foreseeable actions could include developments in the area; however, no other development areas have been identified by local and county staff as likely to be constructed in addition to the Tropicana subdivision already mentioned in the indirect impacts analysis. In summary, based on interviews with local municipal staff and research of planning documents, only the transportation projects from the TxDOT project tracker could affect vegetation/wildlife.

#### 5.4.1.4 Overall Effects of the Proposed Project Combined with other Actions

Overall cumulative effects include past, present and future actions. **Table 5-8** shows the quantitative impacts of the cumulative effects. Past actions include previously developed and impacted areas, which are determined by the existing ROW of the proposed project and existing urban areas. The present action refers to the proposed project and the future action includes potential development areas. The potential development areas are areas identified in the indirect impacts analysis consisting of the Tropicana subdivision and the adjacent properties along the proposed project.

**Table 5-8: Cumulative Impacts within the RSA**

| Type of Action   | Approximate Area of Impact in Acres |
|--|-------------------------------------|
| PAST ACTION<br>(Previously Developed and Impacted Areas) | 1,226                               |
| PRESENT ACTION<br>(The Proposed Project)                 | 42                                  |
| FUTURE ACTION<br>(Potential Development Areas)           | 159                                 |
| <b>TOTAL AREA</b>  | <b>1,427</b>                        |

Source: Project Team, September 2016.

The cumulative effects from past development, the proposed project, and future developments impact vegetation types and wildlife habitat over time through a conversion of undisturbed vegetation types to urbanized development and localized planting typical of urbanized environments. **Table 5-8** shows that approximately 1,427 acres could be impacted from cumulative effects as a result of the proposed project. Most of the cumulative effects are a result of past development and the total acreage accounts for approximately 17 percent of the entire RSA. As a result of past actions, lands were originally converted to the agriculture vegetation type for agricultural

purposes such as croplands and orchards. Over time, the slow but steady population growth of the region has resulted in the conversion of the agriculture lands to urban areas which provide limited habitat for wildlife. The growth trend is not substantial; however, the Tropicana subdivision and roadway construction observed in the region is the evidence that over time, more urbanized development will continue and could impact the remaining areas of the other vegetation types. The transportation projects identified in the TxDOT tracker database could also result in impacts to vegetation/wildlife habitat; however, no reasonably foreseeable actions besides those identified in this study are anticipated to substantially impact the non-urban vegetation types within the temporal boundaries for the cumulative impacts analysis. In the context of the entire RSA, approximately 2.4 percent of the entire RSA would be affected by the present and future actions. The effects to wildlife habitat and the other vegetation types of scrub, thornscrub, shrubland; warm desert riparian wash and warm desert dunes would be minimal as a result of the proposed project.

#### 5.4.1.5 Mitigation of Cumulative Effects

Efforts would be taken through local, state and federal regulations to avoid and minimize any adverse effects from development or future activities. Additional BMPs such as seeding and replanting in accordance with TxDOT approved seeding specification would help mitigate effects from transportation projects. Similar activities of landscaping and planting where feasible would be performed to help mitigate for areas developed for urban use. Other mitigation measures pursuant to the TxDOT and TPWD MOU on BMPs, TxDOT would implement BMPs for suitable habitat as discussed in **Table 5-5**. Future city, county or local plans would help avoid and minimize impacts to these natural resources from future developments or activities. Any impacts associated with future development would be the responsibility of developers in coordination with El Paso County, local municipalities, and local agencies.

#### 5.4.1.6 Summary and Conclusions

The proposed project would not result in substantial cumulative effects. Overall, approximately 1,427 acres of vegetation would be impacted from cumulative effects from past, present and reasonable foreseeable future actions. It is not anticipated that the proposed project would substantially affect the current trends of development and population growth. Although residential development is likely to occur in various portions within the RSA, the development would not be substantial in the overall context of the entire RSA.

## 6.0 INTERAGENCY COORDINATION AND PUBLIC INVOLVEMENT

TxDOT uses a systematic interdisciplinary approach to project planning to assure full consideration is given to all appropriate social, economic, and environmental effects of proposed highway projects. Interdisciplinary planning contributes to effective decisions in the best public interest by supporting balanced consideration of safe and efficient transportation needs and national, state, and local environmental protection goals.

Engineering analyses and alternative designs are prerequisite components of interdisciplinary planning for this proposed project.

The proposed project was one alternative resulting from the BHE PEL Study completed in 2014. TxDOT has been planning and developing the FM 1110 proposed project in close coordination with the local MPO, the City of El Paso, Town of Clint and other local stakeholders as well as with state, federal and local agencies.

### 6.1 Interagency Coordination

TxDOT completed coordination with TPWD on June 3, 2016 regarding potential effects to natural resources. Tribal coordination was completed in June 17, 2016 while the archeological resources review related to the project was completed on July 21, 2016. Coordination with the THC/SHPO regarding historic resources was completed on December 21, 2016. The coordination documentation is included in **Appendix D: Agency Coordination**.

### 6.2 Public Involvement

#### *Public Meetings*

Two public meetings were held on September 17, 2015 and May 3, 2016, respectively. The purpose of the first public meeting was to present four reasonable alternatives and the No-Build Alternative under consideration; and to offer the public an opportunity to ask questions and provide input regarding the alternatives. The public also had an opportunity to learn about the identified environmental constraints. The comments submitted were regarding design or engineering (proposed ROW, alignment modifications, and alternative locations); environmental (impacts to properties, farmland, irrigation features, traffic noise, impacts during construction, and socio-economic impacts); traffic (vehicular, bus and truck traffic); safety; and access. Individuals expressed concern for safety for nearby schools and school buses traveling within the project area. Many comments discussed concern for traffic issues in the Town of Clint and accessing I-10 and the Border Highway. Several individuals expressed their preference for a specific alternative and/or disapproval of other alternatives. Alternatively, many commenters expressed desire to keep existing conditions, not build a new roadway, or to improve/complete other roadways and postpone the proposed project. Overall, attendees expressed support for the proposed project and for the proposed overpass at the UPRR.

The purpose of the second public meeting was to present the recommended preferred alternative and gather public input. Commenters expressed concern for environmental impacts to farmland, design (requests to relocate proposed retention basins, implementation of greater turning radius, shift of alignment of the new location section, and traffic lights). The general consensus of the meeting was support for the project. Commenters expressed satisfaction about a more direct route between I-10 and SH 20, the grade separation at the UPRR, the potential to alleviate traffic congestion, and the

deviation of existing vehicular traffic that currently goes through the Town of Clint resulting from the proposed project.

#### *Public Hearing*

A public hearing for the proposed project was held on August 1<sup>st</sup>, 2017. As part of the TxDOT public involvement process, a notice of availability (NOA) providing locations to allow the public to review the draft EA was included in the legal notice for the public hearing which was mailed out, published in the local newspapers, and posted on the TxDOT website on June 29, 2017. The draft EA was made available at the District, on line and at the public hearing. The purpose of the hearing was to provide information about the proposed project, to provide an opportunity to provide comments and to develop a record of public views. The hearing was held in compliance with both federal and state laws. It met Section 26.001 of the TPWD Administrative Code to examine possible impacts to publicly-owned properties or Section 4(f) properties, in this case the Salatral Lateral canal, Mesa Drain, and the Clint lateral Canal that would be crossed by the project.

The public hearing consisted of an open house session followed by a formal presentation and verbal comment session. A total of 31 comments were received by 27 individuals as part of the public hearing process. From these, 22 of the comments were submitted during the public hearing (9 verbal and 13 written), 1 was received before the public hearing, and 8 were received after the public hearing and within the 15-day comment period which ended on August 16, 2017. The majority of the comments included several topics about environmental (property acquisition, traffic noise, headlight glare, construction impacts, impacts to farmlands/properties, land-lock, concerns about vehicles falling into properties), and engineering/design (safety at non-signalized intersections and at the school, access to private utilities, utility conflicts, flooding, and drainage). The public requested traffic noise barriers, traffic signals at locations where they are not currently proposed, change of the location of the proposed retention basins, and change of alignment. Four comments were in support of the project, three were in opposition to the proposed project, and 11 acknowledged there is a need for the project but disagree with the current proposed route. One adjacent property owner requested to be contacted by TxDOT to discuss the project.

In the Public Hearing Summary, TxDOT provided the following responses to address major public concerns received during the public hearing:

1. Access to private utility services will be maintained as part of the project. Specific adjustments required will be identified during the preparation of the construction plans.
2. TxDOT will perform studies to determine the need for traffic signals at the intersections of FM 1110 with Coffin Rd. and Bridgeway Rd. during preparation of the construction plans of the project.
3. During the during preparation of the construction plans of the project, TxDOT will continue efforts to identify and avoid conflicts with utilities by understanding size, type, location and depth. All utilities identified will be included on future project drawings.

4. During preparation of the construction plans, TxDOT will coordinate with the Clint Independent School District to discuss specific school safety measures.
5. TxDOT will perform studies to determine the need for a traffic signal at the intersection of FM 1110 and Frey Rd. during preparation of the construction plans of the project. A traffic signal would help for safer crossings of farm equipment and other vehicles by assigning right-of-way at this intersection. TxDOT will also consider adding yellow warning signs advising drivers of crossing equipment. Intersections will be designed to satisfy sight distance requirements. Speed limits signs will be posted. Further investigation will be required to determine ownership of Frey Rd.
6. TxDOT's procedures for ROW acquisition will be followed to determine compensation for damages to the property and agricultural operations such as changes to irrigation/utilities, grading, terracing, etc.
7. Property access details will be further discussed with property owners during the ROW and construction plan development stages of the proposed project to provide access to properties in accordance with TxDOT policies.
8. To address comments about the proposed route not benefitting the towns of Clint and San Elizario, TxDOT responded that the proposed alignment would provide a safer and faster route to I-10 from the intersection of SH 20/FM 1110, compared to the existing FM 1110 alignment.

Documentation for both public meetings and public hearing, including meeting material, comments received, and responses to comments, can be found in the following TxDOT weblink:

<http://www.txdot.gov/inside-txdot/get-involved/about/hearings-meetings/el-paso/080117.html>. Users may also go to [www.txdot.gov](http://www.txdot.gov) and search for "FM 1110".

Representatives from TxDOT and project team consultants were available at each station to answer questions and assist attendees with interpretation of the exhibits. A minimum of two project team members were available at all times to accommodate the communication needs of individuals speaking Spanish. Several comment tables were available for attendees to sit and write comments, concerns or questions.

During the preparation for the public involvement process, reasonable steps were taken to ensure that such persons have meaningful access to the programs, services, and information that TxDOT provides. These efforts include the publication of announcements in both Spanish and English newspapers informing the public of the opportunity to request the assistance for language or other special communication needs at the meetings, and that Spanish interpreters for LEP individuals would be present at the meetings. The Civil Rights Restoration Act of 1987 provides that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

In addition to the public meeting and stakeholder meetings, various meetings and/or presentations have been given to public officials for the municipalities along the project.

These meetings provided an overview of the proposed project, initial/draft/modified project concepts, anticipated timeline for the construction of the proposed project, status on operations and funding, and allowed the public officials an opportunity to ask questions or communicate other potential stakeholder interests. A listing of various stakeholder, public, and project meetings is provided in **Table 6-1**.

**Table 6-1: Stakeholder, Public, and Project Meetings**

| <b>Meeting Date and Location</b>                       | <b>Meeting Attendees</b>                            | <b>Topics Discussed</b>   |
|--|---|---|
| August 3, 2015<br>Town of Clint                        | Town of Clint Mayor and TxDOT                       | Project history, overview, concept, funding, future intersections, estimated timeline of construction.  |
| August 10, 2015<br>Chayo Apodaca Community Center      | City of Socorro Mayor and TxDOT                     | Project history, overview, concept, funding, and estimated timeline of construction.  |
| September 15, 2015<br>EPCWID No. 1 Office              | EPCWID No. 1 and TxDOT                              | Project history, overview, conceptual alternatives, funding, and estimated timeline of construction; transportation needs in the Town of Clint area; growing traffic volume of 18-wheelers traveling along the existing FM 1110; EPCWID No. 1 alternative preference; floodplains; utilities; EPCWID No. 1 crossings. |
| September 17, 2015<br>Clint High School                | Public Meeting – open to the public                 | Open house format to present four reasonable alternatives and the No-Build Alternative under consideration.   |
| October 13, 2015<br>Catholic Diocese of El Paso Office | Catholic Diocese of El Paso, TxDOT, and consultants | Project overview; purpose and need of the project, potential location of Basin 2 within the Diocese property at the corner of FM 76 and FM 1110, background of property ownership, business stands located within the property, potential impacts to the property and ROW acquisition procedures.                     |
| March 4, 2016<br>Commissioner Perez Office             | Commissioner Perez, El Paso County and TxDOT        | Recommended preferred alternative, potential environmental impacts and potential mitigation, concerns on the existing sharp turn of FM 1110 at FM 76, planning, project phasing and construction, funding, and upcoming public meeting schedule.  |
| March 9, 2016<br>El Paso County Judge Office           | El Paso County Judge and TxDOT                      | Recommended preferred alternative, potential environmental impacts and potential mitigation, concerns on the existing sharp turn of FM 1110 at FM 76, planning, project phasing and construction, funding, and upcoming public meeting schedule.  |

| <b>Meeting Date and Location</b>                 | <b>Meeting Attendees</b>   | <b>Topics Discussed</b>  |
|--|--|--|
| March 10, 2016<br><br>EPCWID No. 1 Office        | EPCWID No. 1 Manager and TxDOT   | Recommended preferred alternative, potential environmental impacts and potential mitigation, concerns on the existing sharp turn of FM 1110 at FM 76, planning, project phasing and construction, funding, and upcoming public meeting schedule. |
| March 11, 2016<br><br>Local Restaurant           | Town of Clint Mayor and TxDOT  | Project history, overview, concept, funding, future intersections, school safety, estimated timeline of construction.  |
| March 11, 2016<br><br>City of Socorro Offices    | City of Socorro Mayor and TxDOT  | Project history, overview, concept, funding, future intersections, estimated timeline of construction.   |
| March 15, 2016<br><br>Local Restaurant           | State Representative Mary Gonzalez and TxDOT                                 | Recommended preferred alternative, potential environmental impacts and potential mitigation, planning, project phasing and construction, funding, and upcoming public meeting schedule.  |
| March 28, 2016<br><br>TxDOT District Office      | Clint ISD Assistant Superintendent and TxDOT                                 | Project history, overview, concept, funding, future intersections, signal, school buses, estimated timeline of construction.   |
| June 27, 2016<br><br>Local restaurant            | State Representative Gonzalez, affected property owner, and TxDOT            | Public meeting outcome, alignment affected property owner land, status of public meeting comments, ROW acquisition process.  |
| July 7, 2016<br><br>State Representative Office  | State Representative Mary Gonzalez staff, affected property owner, and TxDOT | Follow up on affected property owner requested change to the curvature as it approaches Denton Rd., considerations in the evaluation matrix and results, concerns of impacts to existing at-grade railroad crossings.                            |
| May 3, 2016<br><br>Clint High School             | Public Meeting – open to the public  | Open house format to present the recommended preferred alternative.  |
| July 13, 2016<br><br>State Representative Office | Affected property owner, State Representative Gonzalez staff and TxDOT       | BHE PEL study, alternative alignments, basis for evaluation, and impacts to agricultural lands.  |
| August 1, 2017<br><br>Clint High School          | Public Hearing – open to the public  | Open house and formal presentation on the preferred alternative schematic and potential environmental impacts of the project.  |
| November 7, 2017                                 | State Representative Mary Gonzalez and TxDOT                                 | Project status, preferred alternative, local concerns for impacts to agriculture, economic impacts, potential mitigation measures.   |

Prior to the onset of construction, a notice of impending construction will be provided to owners of adjoining property, affected local governments, and public officials. The notice may be provided via a sign(s) posted in the ROW, mailed notice, printed notice distributed by hand, or notice via website, as appropriate.

### 6.3 Additional Public Review

This project is one of the four types of projects that normally require an EIS under 23 CFR 771.115(a). Per 23 CFR 119(h), the Final EA will be made available for public review for a minimum of 30 days prior to a final project decision.

Notice of availability for public review of the Final EA will be:

- Posted on [txdot.gov](http://txdot.gov)
- Published in the local newspaper previously used for posting notice for this project;

Notice will be posted in English.

## 7.0 MITIGATION, PERMITS, AND ENVIRONMENTAL COMMITMENTS

The proposed project would involve more than 5 acres of earth disturbance. TxDOT would comply with TCEQ's TPDES CGP. A SW3P would be prepared and implemented, and a construction site notice would be posted on the construction site. A NOI and NOT would be required.

During construction, BMPs, including temporary erosion, sedimentation, and water pollution controls would be implemented. All temporary erosion controls would be in compliance with TxDOT Standard Specifications and would be in place, according to the construction plans, prior to commencement of construction-related activities. The contractor would take appropriate measures to prevent, minimize, and control the spill of fuels, lubricants, and hazardous materials in the construction staging area.

During construction, efforts would be taken to avoid and minimize disturbance of vegetation and soils. All disturbed areas would be revegetated, according to TxDOT specifications, as soon as it becomes practicable. In accordance with EO 13112 on Invasive Species, the Executive Memorandum on Beneficial Landscaping, and the 1999 FHWA guidance on invasive species, all revegetation would, to the extent practicable, use only native species. Furthermore, BMPs would be used to control and prevent the spread of invasive species.

TxDOT would take all appropriate actions to prevent the take of migratory birds, their active nests, eggs or young by the use of proper phasing of the project or other appropriate actions.

There is suitable habitat for state-listed threatened or endangered species in the study area. Due to marginal habitat, adjacent urban development, and highway traffic, the project would have no effect on federal species. If any individuals of state-listed species are observed within the study area during construction, care would be taken to avoid harming them; therefore, no impacts to state-listed species would occur as a result of the proposed project.

Any unanticipated hazardous materials and/or petroleum contamination encountered during construction would be handled according to applicable federal, state and local regulations per TxDOT Standard Specifications. The contractor would take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. The use of construction equipment within sensitive areas would be minimized or eliminated entirely. All construction materials used for this project would be removed as soon as work schedules permit.

### *Environmental Permits, Issues, and Commitments (EPIC)*

The following EPIC are required for the proposed project. These must be fulfilled prior to, during, or post-construction.

1. Floodplains: Coordination with local floodplain administrator is required because the project is within the 100-year floodplain. This coordination will be completed prior to the start of construction.
2. Vegetation: Invasive and alien vegetation would be controlled by following the guidance and provisions of EO 13112 on Invasive Species and the Executive Memorandum on Environmentally and Economically Beneficial Landscape practices. The proposed seed mixture (both grasses and forbs) would be in accordance with Item 164, seeding for Erosion Control in TxDOT's Standard Specifications for the construction of Highways, Streets, and Bridges.
3. Air Quality: Proper maintenance and idling of construction equipment and water sprinkling during construction would be observed to control emissions of PM.
4. Noise: Provisions would be included in the construction plans that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems. Notify city and local safety officials of proposed road closures or detours.
5. Emergency Vehicles: Detour timing and necessary rerouting of emergency vehicles shall be coordinated with proper local officials. Lane closures and detours are to comply with TxDOT requirements and Manual of Uniform Traffic Control Devices.
6. Hazardous Materials: No hazardous materials would be stored in the ROW.
7. Water Quality: A SW3P, construction site notice, NOI, and NOT would be required.
8. Migratory Birds: The MBTA of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, egg in part or in whole, without a Federal permit issued in accordance within the Act's policies and regulations. Migratory patterns would not be affected by the proposed project. In the event that migratory birds are encountered on-site during project construction, adverse impacts on protected birds, active nests, eggs, and/or young would be avoided. The contractor would remove all old migratory bird nests from October 1 to February 15 from any structure where work will be done. In addition, the contractor would be prepared to prevent migratory birds from building nests between February 15 and October 1, per the EPIC sheet.
9. Wildlife: The following BMPs from the TPWD TXDOT BMP MOU will be implemented for the following species:
  - Comal snakewood, desert night-blooming cereus, sand prickly-pear, sand sacahuista, or Wheeler's spurge
    - If species is observed during construction, stop construction and notify the Area Engineer. A determination to conduct a plant rescue will be considered at that time.
  - Western red bat and Western small-footed bat
    - Large hollow trees should be surveyed for maternity colonies and, if found, should not be disturbed until after the pups fledge.
  - Mountain short-horned lizard

- The contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered. Contractors should avoid harvester ant mounds in the selection of Project Specific Locations (PSLs) where feasible.
  - New Mexico garter snake
    - The contractors will be advised of potential occurrence in the project area (specifically along the drainage ditches), and to avoid harming the species if encountered.
  - Western burrowing owl and all migratory bird species
    - Not disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season;
    - Avoiding the removal of unoccupied, inactive nests, as practicable;
    - Preventing the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair;
    - Not collecting, capturing, relocating, or transporting birds, eggs, young, or active nests without a permit.
  - Threatened and Endangered Species: If any species on the El Paso County threatened and endangered species list is sighted in the project area during construction, construction would stop and contractor would notify the TxDOT Area Engineer.
10. Archeological Resources: In the event that unanticipated archaeological deposits are encountered during construction, work in the immediate area will cease, and TxDOT archaeological staff will be contacted to initiate post-review discovery procedures.

## **8.0 CONCLUSION**

The engineering, social, economic, and environmental investigations conducted thus far indicate that the Build Alternative option best meets the purpose and need of the proposed project and would result in no significant impacts to the quality of the human or natural environment. Therefore, an EIS is not anticipated. A FONSI will be prepared, which affirms that no significant impacts were found through the analysis performed.

## **APPENDIX A: EXHIBITS**

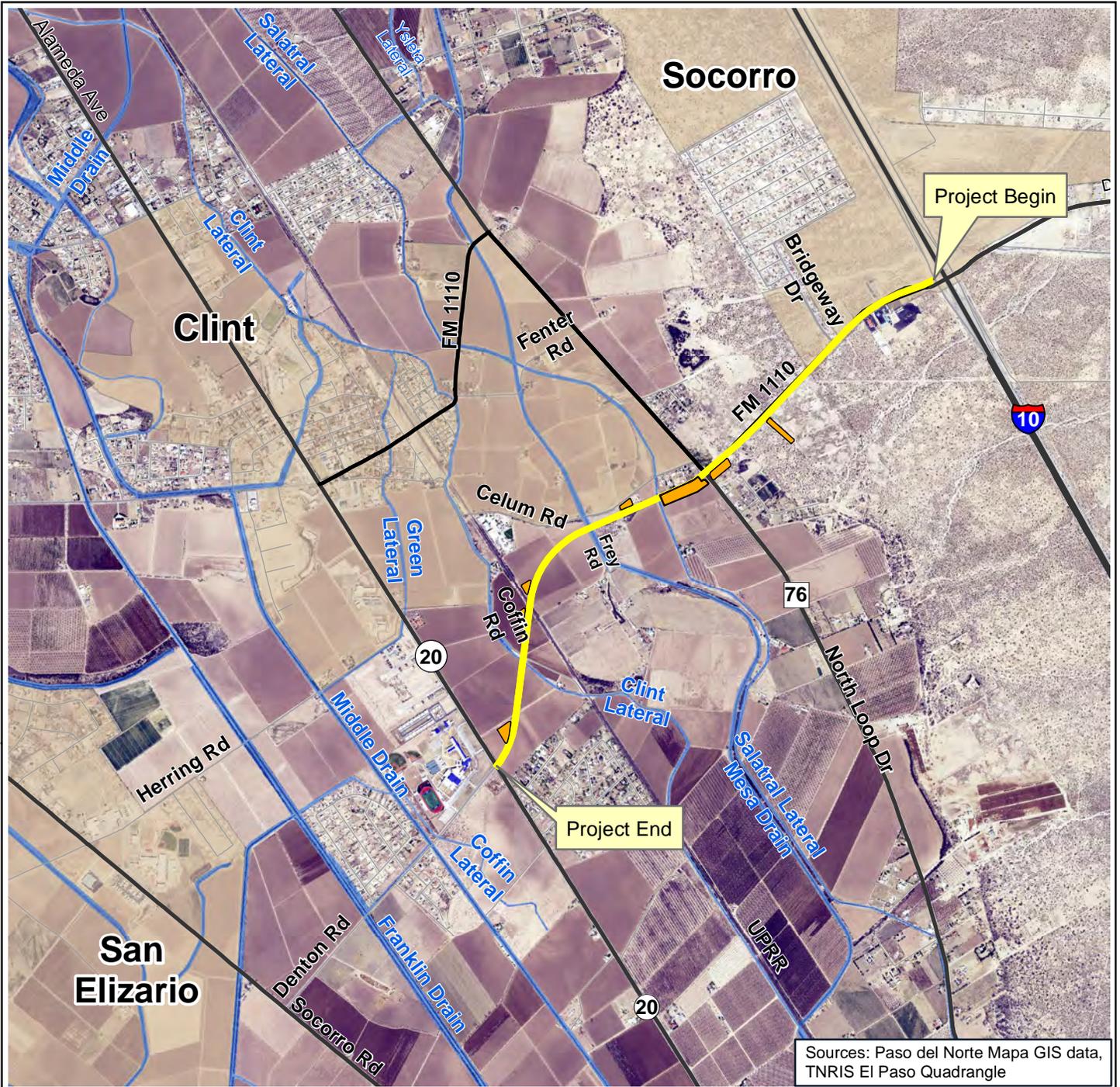
**Exhibit 1: Project Location Map**

**Exhibit 2: USGS Quadrangle and FEMA Floodplain Map**

**Exhibit 3: Environmental Map**

**Exhibit 4: Resource Study Area Map**

**Exhibit 5: Traffic Noise Receiver Locations**



Sources: Paso del Norte Mapa GIS data, TNRRS El Paso Quadrangle



**LEGEND**

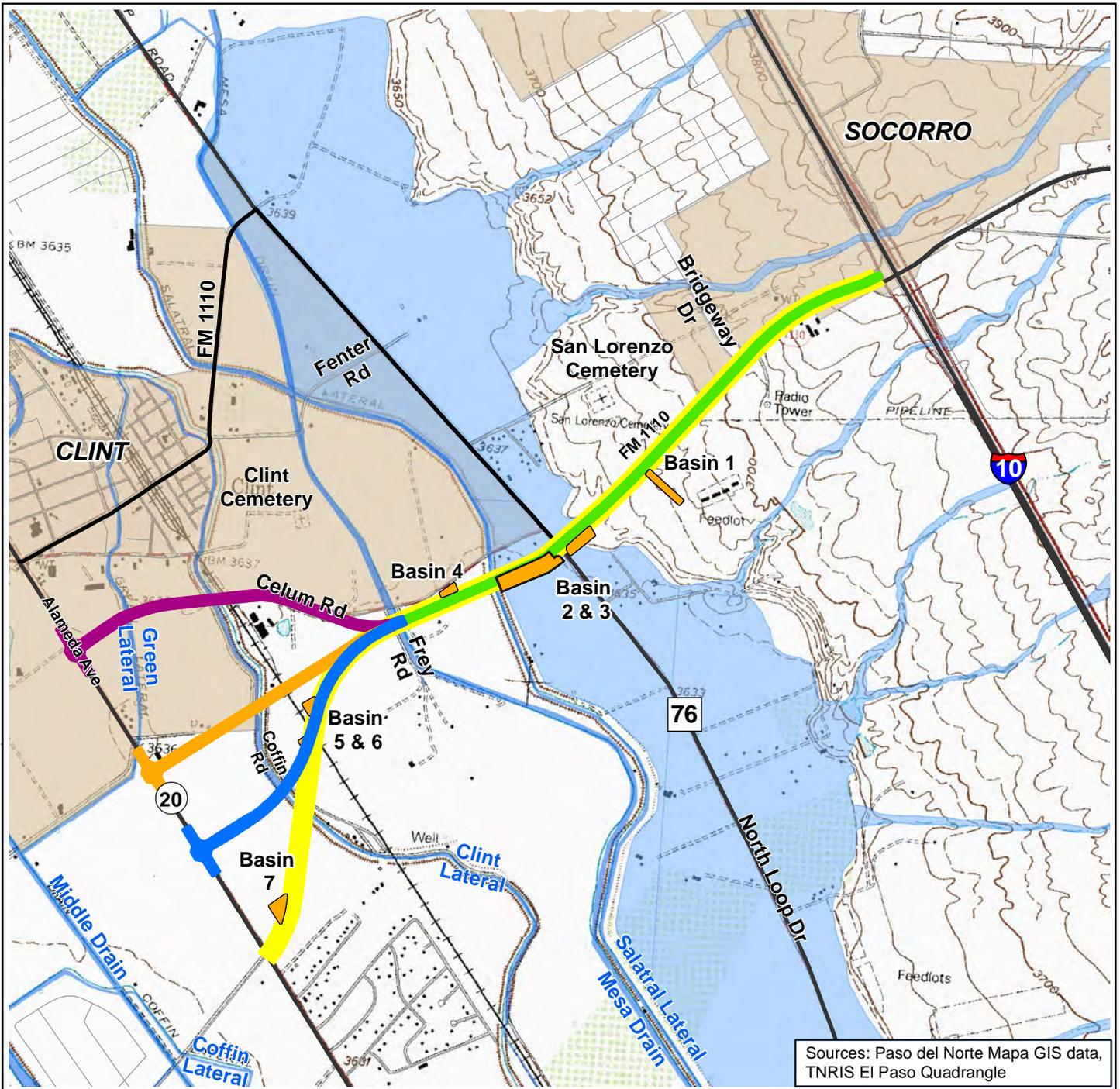
- Proposed Project
- Proposed Retention Basin
- Municipality
- Canal, Drain, Lateral



**EXHIBIT 1  
PROJECT LOCATION MAP  
FM 1110  
WIDENING AND REALIGNMENT  
FROM I-10 TO SH 20**

CSJs: 1281-01-017 AND 1281-02-007

**ENVIRONMENTAL ASSESSMENT  
EL PASO COUNTY, TX**



Sources: Paso del Norte Mapa GIS data, TNRRS El Paso Quadrangle



**LEGEND**

- Proposed Project (Alternative D)
- All Alternatives
- Alternative A
- Alternative B
- Alternative C
- Municipality
- 100-Yr FEMA Flood Zone
- Canal, Drain, Lateral
- Proposed Retention Basin



**EXHIBIT 2  
USGS QUADRANGLE AND  
FEMA FLOODPLAIN MAP**

**FM 1110  
WIDENING AND REALIGNMENT  
FROM I-10 TO SH 20**

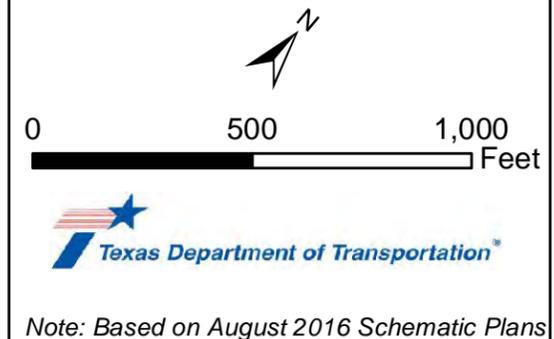
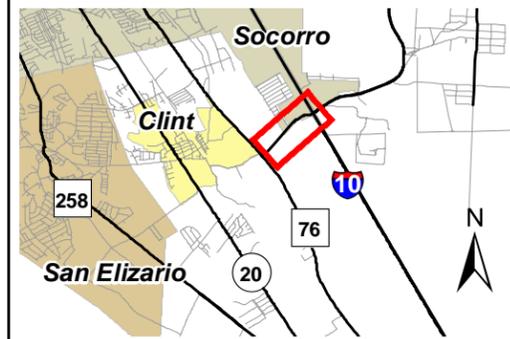
CSJs: 1281-01-017 AND 1281-02-007

**ENVIRONMENTAL ASSESSMENT  
EL PASO COUNTY, TX**



**LEGEND**

- |                          |                        |                           |                          |
|--------------------------|------------------------|---------------------------|--------------------------|
| Existing ROW             | Union Pacific Railroad | Concrete Bridge           | Frontage and Crossing    |
| Proposed ROW             | Flood Zone             | Steel Bridge              | Raised Median            |
| Proposed Easement        | Parcels                | Driveway                  | Potential Displacement   |
| Proposed Bridge          | Cemetery               | Existing Pavement         | Canals, Drains, Laterals |
| Proposed Retention Basin | Proposed Pavement      | Proposed Mill and Overlay |                          |
| HAZMAT Site              |                        |                           |                          |



**EXHIBIT 3  
ENVIRONMENTAL MAP  
SHEET 1 OF 3**

**FM 1110  
WIDENING AND REALIGNMENT  
FROM I-10 TO SH 20**

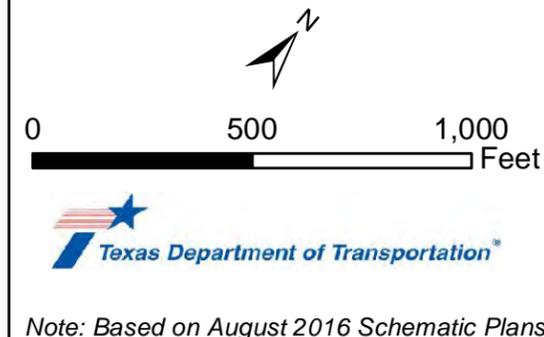
CSJs: 1281-01-017 AND 1281-02-007

**ENVIRONMENTAL ASSESSMENT  
EL PASO COUNTY, TX**



**LEGEND**

- |                          |                        |                           |                          |
|--------------------------|------------------------|---------------------------|--------------------------|
| Existing ROW             | Union Pacific Railroad | Concrete Bridge           | Frontage and Crossing    |
| Proposed ROW             | Flood Zone             | Steel Bridge              | Raised Median            |
| Proposed Easement        | Parcels                | Driveway                  | Potential Displacement   |
| Proposed Bridge          | Cemetery               | Existing Pavement         | Canals, Drains, Laterals |
| Proposed Retention Basin | Proposed Pavement      | Proposed Mill and Overlay |                          |
| HAZMAT Site              |                        |                           |                          |

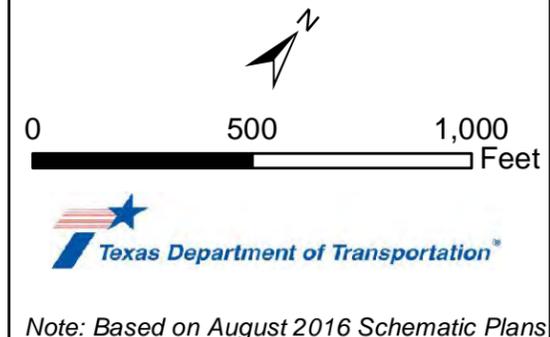
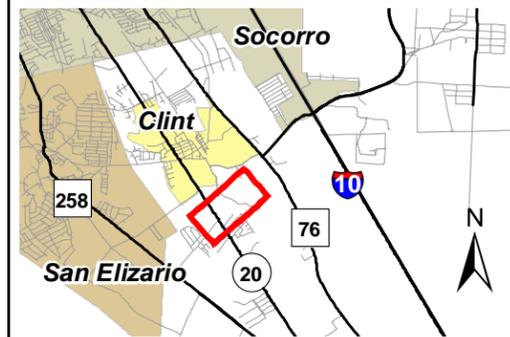


**EXHIBIT 3**  
**ENVIRONMENTAL MAP**  
**SHEET 2 OF 3**  
**FM 1110**  
**WIDENING AND REALIGNMENT**  
**FROM I-10 TO SH 20**  
 CSJs: 1281-01-017 AND 1281-02-007  
**ENVIRONMENTAL ASSESSMENT**  
**EL PASO COUNTY, TX**



**LEGEND**

- |                          |                        |                           |                          |
|--------------------------|------------------------|---------------------------|--------------------------|
| Existing ROW             | Union Pacific Railroad | Concrete Bridge           | Frontage and Crossing    |
| Proposed ROW             | Flood Zone             | Steel Bridge              | Raised Median            |
| Proposed Easement        | Parcels                | Driveway                  | Potential Displacement   |
| Proposed Bridge          | Cemetery               | Existing Pavement         | Canals, Drains, Laterals |
| Proposed Retention Basin | Proposed Pavement      | Proposed Mill and Overlay |                          |
| HAZMAT Site              |                        |                           |                          |

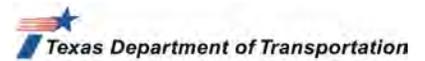
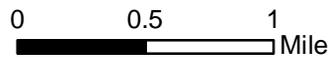
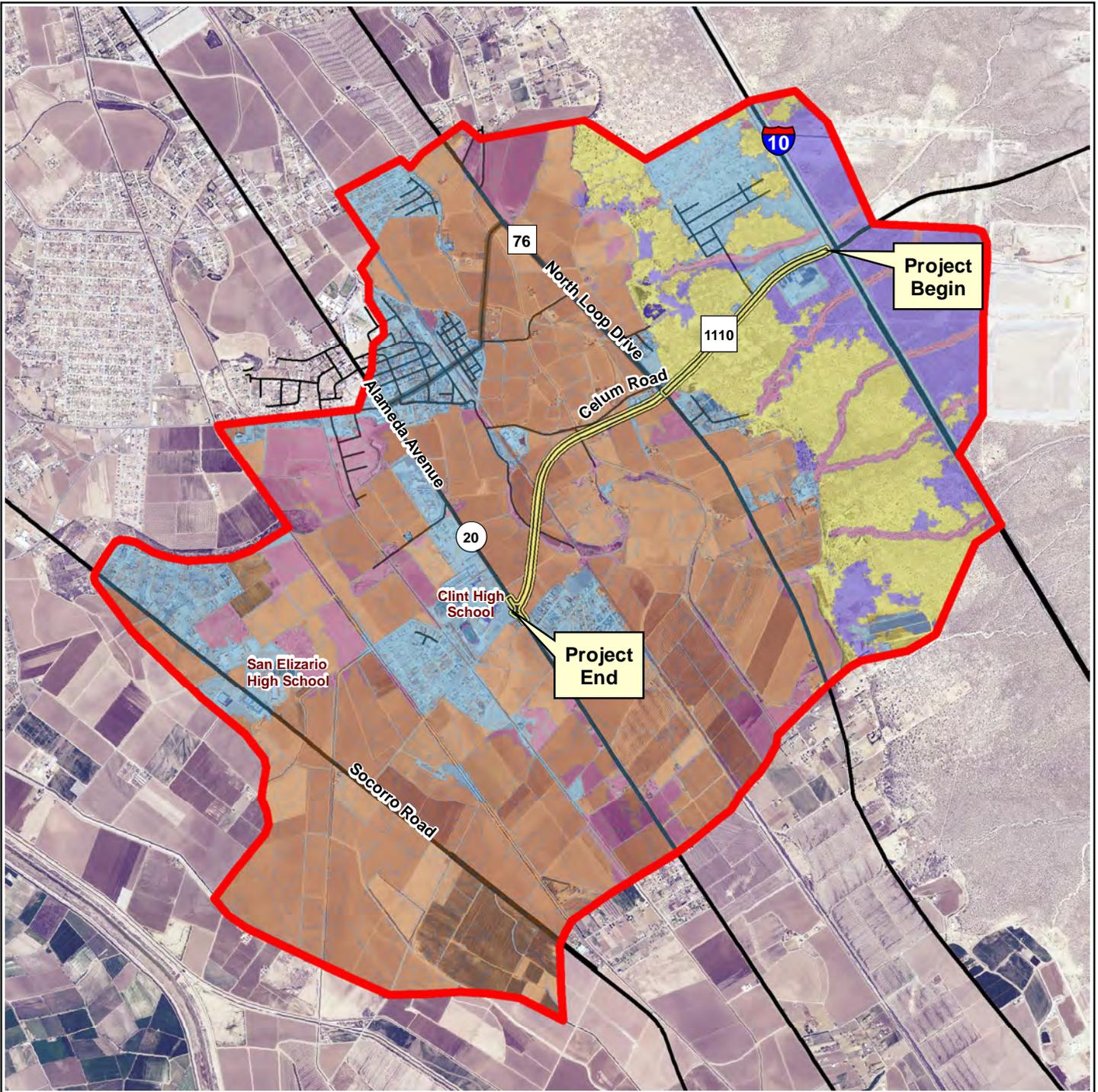


**EXHIBIT 3  
ENVIRONMENTAL MAP  
SHEET 3 OF 3**

**FM 1110  
WIDENING AND REALIGNMENT  
FROM I-10 TO SH 20**

CSJs: 1281-01-017 AND 1281-02-007

**ENVIRONMENTAL ASSESSMENT  
EL PASO COUNTY, TX**



**Legend**

-  Proposed Project
-  RSA Boundary

**Vegetation Types**

-  Agriculture
-  Warm Desert Dunes
-  Scrub, Thornscrub, Shrubland
-  Warm Desert Riparian, Wash
-  Urban



**EXHIBIT 4  
RESOURCE STUDY AREA MAP**

FM 1110  
WIDENING AND REALIGNMENT  
FROM I-10 TO SH 20

CSJs: 1281-02-007 AND 1281-01-017

ENVIRONMENTAL ASSESSMENT  
EL PASO COUNTY, TX

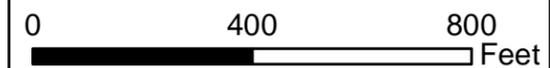
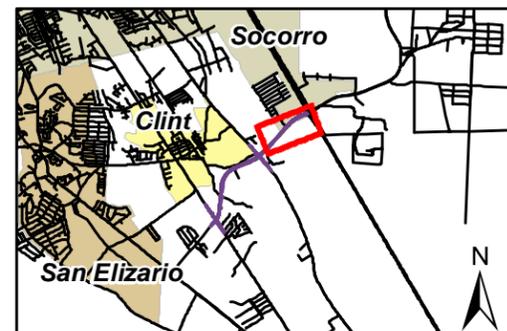


**Legend**

- Benefitted Noise Receiver
- Non-Impacted Noise Receiver
- Proposed Noise Barrier
- Proposed Bridge
- Union Pacific Railroad
- Proposed Easement
- Proposed ROW
- Existing ROW
- Proposed Retention Basin
- Proposed Pavement

**SHEET INDEX**

*\*The extent of each sheet is highlighted in RED.*



*Note: Based on August 2016 Schematic Plans*

**EXHIBIT 5  
TRAFFIC NOISE RECEIVER LOCATIONS  
SHEET 1 OF 3**

FM 1110  
WIDENING AND REALIGNMENT  
FROM I-10 TO SH 20

CSJs: 1281-01-017 AND 1281-02-007

ENVIRONMENTAL ASSESSMENT  
EL PASO COUNTY, TEXAS



**Legend**

- Benefitted Noise Receiver
- Non-Impacted Noise Receiver
- ▬ Proposed Noise Barrier
- ▬ Proposed Bridge
- ▬ Union Pacific Railroad
- - - Proposed Easement
- - - Proposed ROW
- ▬ Existing ROW
- ▨ Proposed Retention Basin
- ▬ Proposed Pavement

**SHEET INDEX**

*\*The extent of each sheet is highlighted in RED.*

0 400 800 Feet

Texas Department of Transportation

*Note: Based on August 2016 Schematic Plans*

**EXHIBIT 5**  
**TRAFFIC NOISE RECEIVER LOCATIONS**  
**SHEET 2 OF 3**

FM 1110  
 WIDENING AND REALIGNMENT  
 FROM I-10 TO SH 20

CSJs: 1281-01-017 AND 1281-02-007

ENVIRONMENTAL ASSESSMENT  
 EL PASO COUNTY, TEXAS

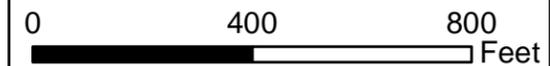
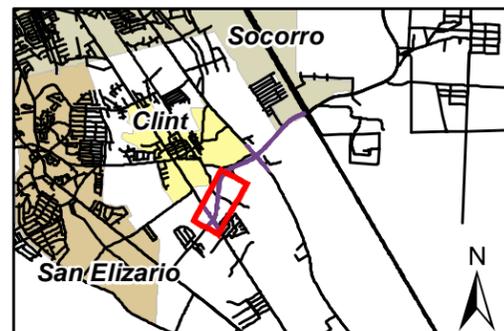


**Legend**

- Benefitted Noise Receiver
- Non-Impacted Noise Receiver
- Proposed Noise Barrier
- Proposed Bridge
- Union Pacific Railroad
- Proposed Easement
- Proposed ROW
- Existing ROW
- Proposed Retention Basin
- Proposed Pavement

**SHEET INDEX**

*\*The extent of each sheet is highlighted in RED.*



*Note: Based on August 2016 Schematic Plans*

**EXHIBIT 5  
TRAFFIC NOISE RECEIVER LOCATIONS  
SHEET 3 OF 3**

FM 1110  
WIDENING AND REALIGNMENT  
FROM I-10 TO SH 20

CSJs: 1281-01-017 AND 1281-02-007

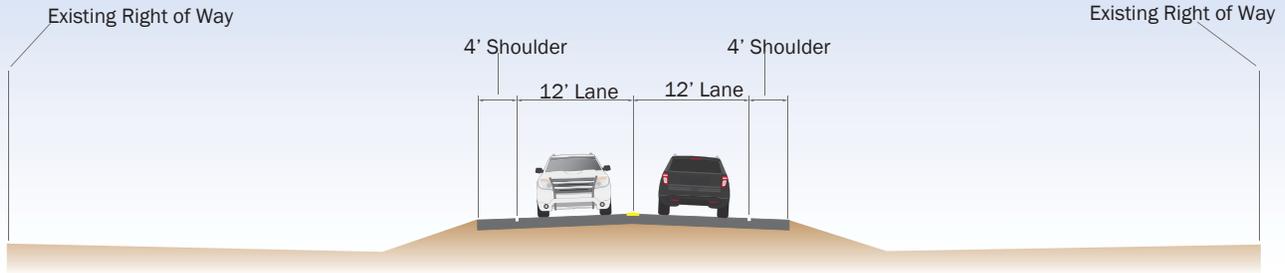
ENVIRONMENTAL ASSESSMENT  
EL PASO COUNTY, TEXAS

## **APPENDIX B: TYPICAL SECTIONS & SCHEMATIC PLANS**

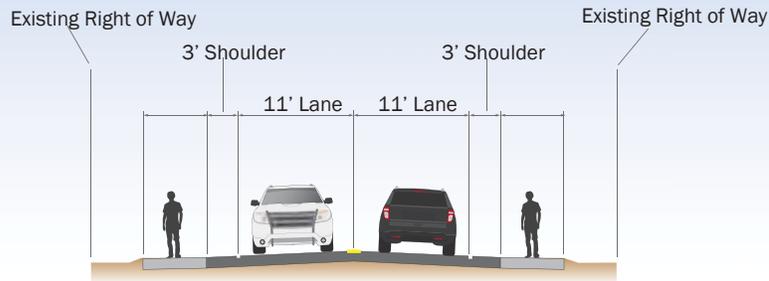
# APPENDIX B: TYPICAL SECTIONS

## EXISTING FM 1110 (2-Lane Urban Collector)

### From I-10 to FM 76

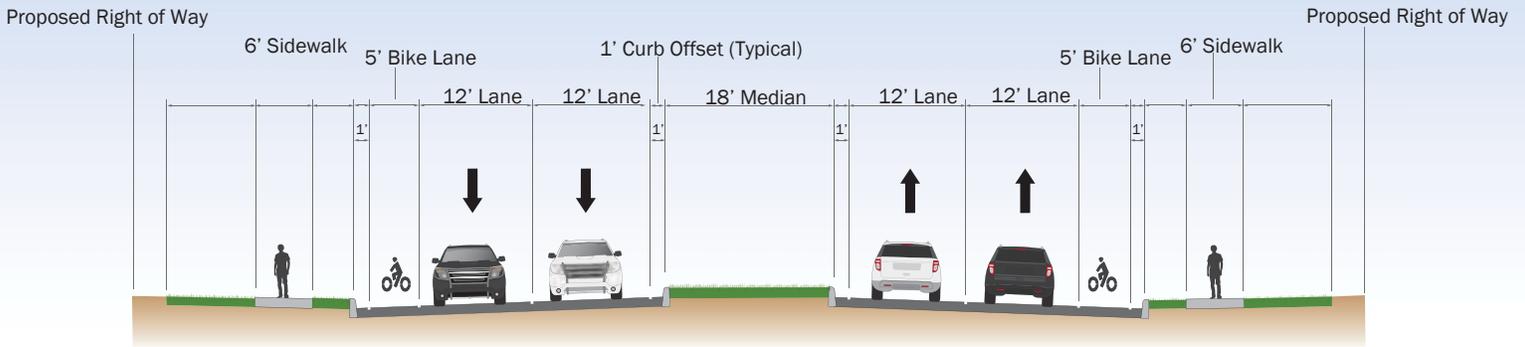


### From FM 76 to SH 20



## PROPOSED FM 1110 (4-Lane Minor Arterial w/Raised Median)

### Proposed FM 1110

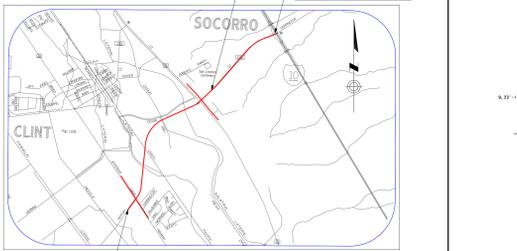




**FM 1110 WIDENING AND REALIGNMENT**  
FROM I-10 TO SH 20 (ALAMEDA AVE)

EL PASO, TEXAS ROLL 1 OF 1

| DATE:      | STATE DISTRICT: | COUNTY: | CONTROL NO.: | SEC. NO.: | JOB NO.: |
|------------|-----------------|---------|--------------|-----------|----------|
| 4/28/2017  | ELP             | EL PASO | 1281         | 02        | 007, ETC |
| DATE REV.: | BY:             | REASON: | BY:          | REASON:   | BY:      |
| 4/28/2017  | ELP             | EL PASO | 1281         | 02        | 007, ETC |



VICINITY MAP  
EL PASO COUNTY  
NOT TO SCALE

**FUNCTIONAL CLASSIFICATION**

|           |                                     |                           |                          |
|-----------|-------------------------------------|---------------------------|--------------------------|
| FM 1110   | - 45 MPH - URBAN MINOR ARTERIAL     | PROJECT LENGTH:           | APPROXIMATELY 2.76 MILES |
| SH 20     | - 50 MPH - URBAN PRINCIPAL ARTERIAL | LIMITS FROM I-10 TO SH 20 |                          |
| FM 76     | - 50 MPH - URBAN MINOR ARTERIAL     |                           |                          |
| CELUM RD  | - 40 MPH - URBAN COLLECTOR          |                           |                          |
| DENTON RD | - 30 MPH - URBAN LOCAL              |                           |                          |

- GENERAL NOTES:**
- PROJECT CONTROL BASED UPON CONTROL POINTS 1 THROUGH 4 ON SHEET 2 OF LRTA INC. PLANS OF PROPOSED RIGHT OF WAY PROJECT, FROM TxDOT CSJ 1281-02-006. ALL PROJECT COORDINATES ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, TEXAS STATE ZONE 10. THE HNTB SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL COORDINATES SHOWN AND CAN BE CONVERTED TO GRID BY DIVIDING BY A SCALE FACTOR OF 1,000,023. UNIT OF MEASURE IS U.S. SURVEY FOOT.
  - ALL DRIVEWAYS IMPACTED BY CONSTRUCTION TO BE RECONSTRUCTED.
  - ROADWAY GEOMETRY AND ROADSIDE ELEMENTS TO BE REFINED DURING PS&E.
  - LOCATIONS WITH SIDESLOPES 2:1 OR STEEPER WILL REQUIRE CONCRETE SLOPE PROTECTION AND PROTECTIVE BARRIER.

**HNTB** HNTB Corporation  
The HNTB Companies  
Engineers, Architects, Planners

FED. RD. DIV. NO. FEDERAL AID PROJECT SHEET NO. 1

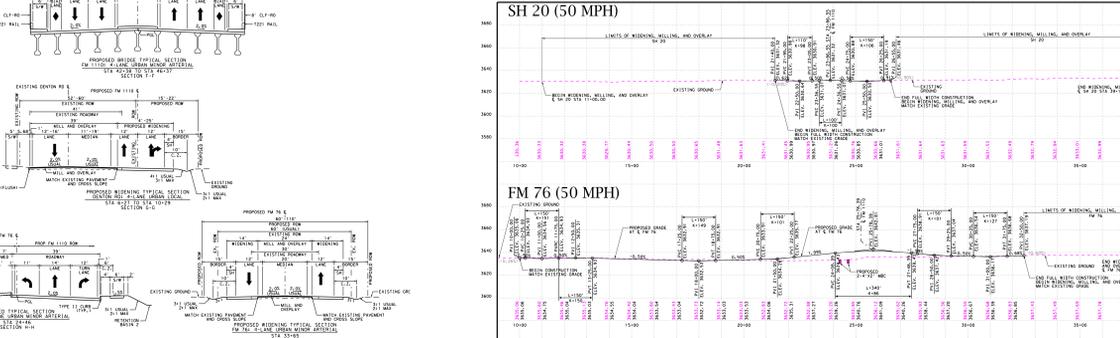
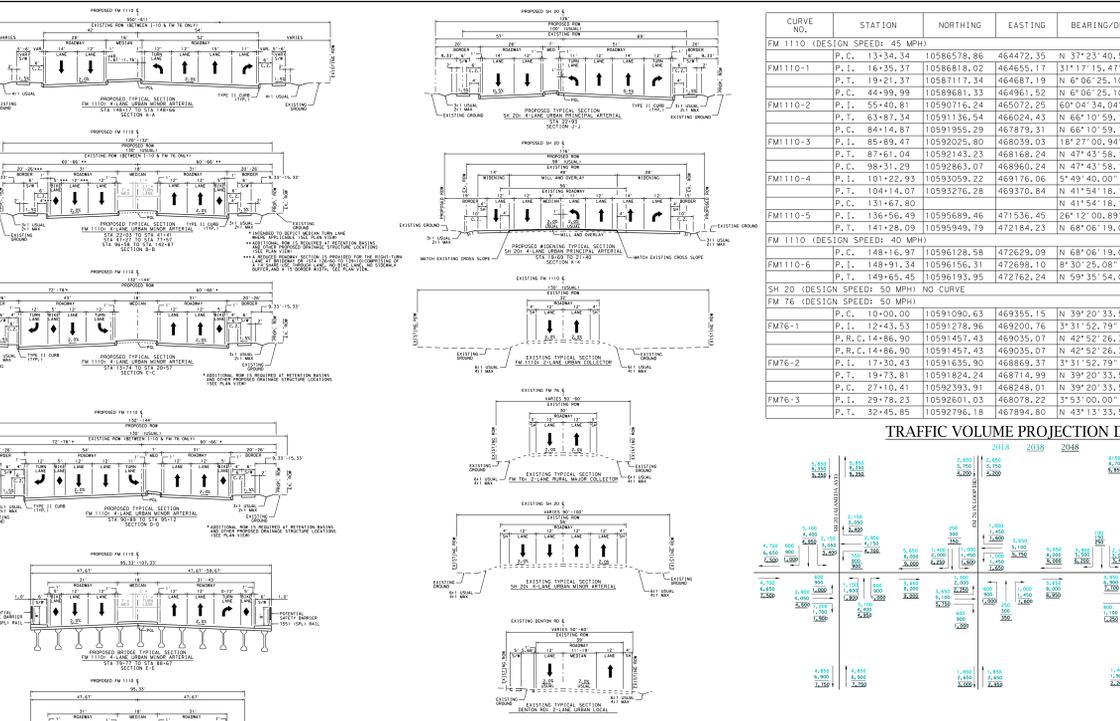
STATE DIST. COUNTY TEXAS ELP EL PASO

CONTROL SECTION JOB HIGHWAY NO. 1281 02 007, ETC FM 1110

DATE: 4/28/2017

PRELIMINARY  
NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.  
ENGINEER: SULAIMAN S. ABAIN, P.E.  
SERIAL NO.: 13333

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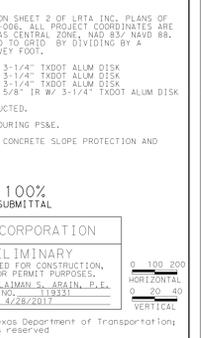
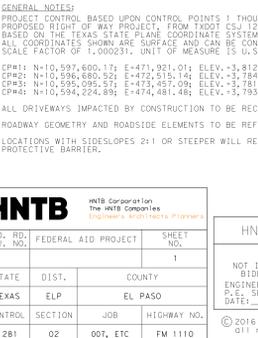
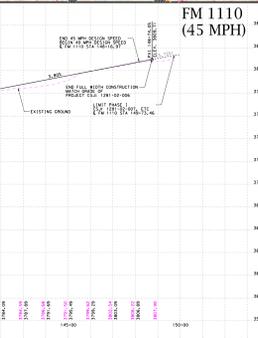
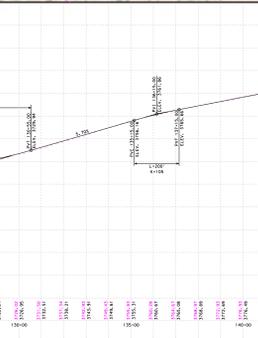
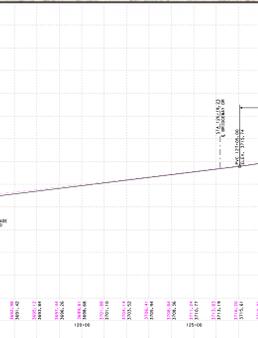
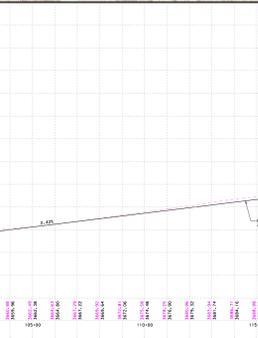
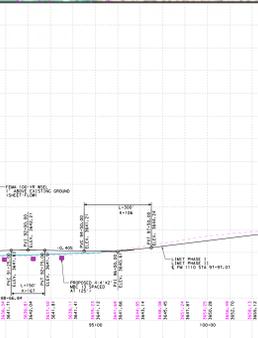
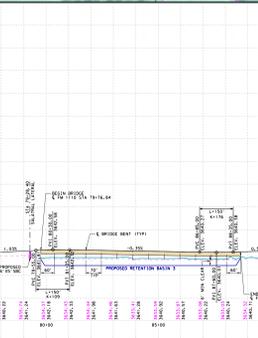
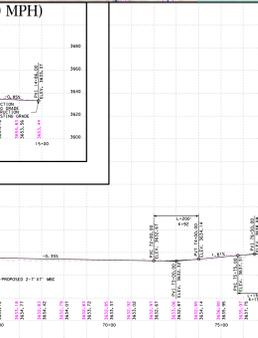
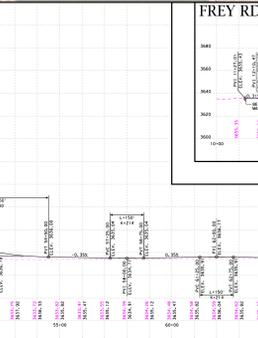
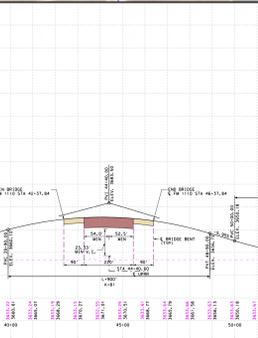
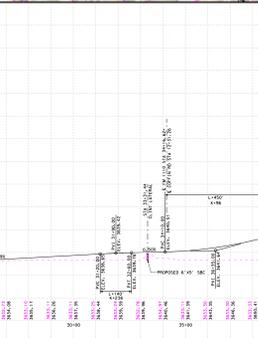
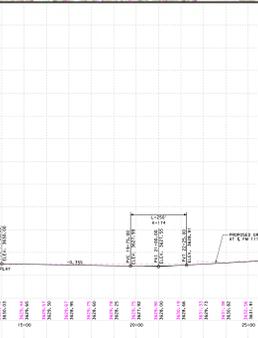
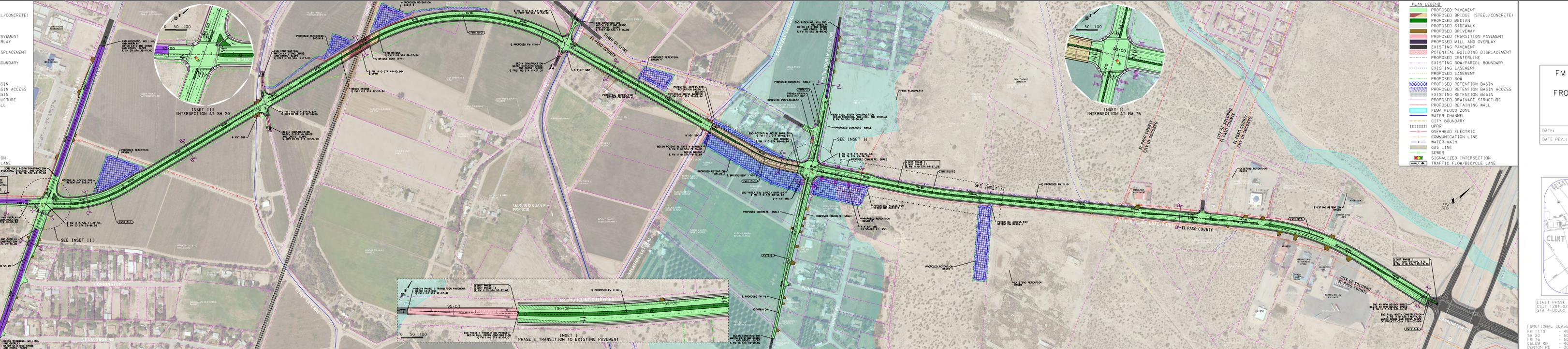
**TRAFFIC VOLUME PROJECTION DIAGRAM**

| CURVE NO.                             | STATION        | NORTHING    | EASTING          | BEARING/DELTA    | LENGTH (FT) | TANGENT (FT) | RADIUS (FT) |
|---------------------------------------|----------------|-------------|------------------|------------------|-------------|--------------|-------------|
| FM 1110 (DESIGN SPEED: 45 MPH)        | P.C. 13124.34  | 10586578.86 | 464472.35        | N 37°23'40.56" E |             |              |             |
| FM110-1                               | P.L. 18335.37  | 10586818.02 | 464655.17        | 31°17'15.47" E   | 587.03      | 301.03       | 1075.00     |
| P.T. 1921.37                          | 10587117.34    | 464667.19   | N 6°06'25.10" E  |                  |             |              |             |
| P.C. 44499.99                         | 10589681.33    | 464961.52   | N 6°06'25.10" E  |                  |             |              |             |
| FM110-2                               | P.L. 55440.81  | 10590716.24 | 465072.25        | 60°04'34.04" R   | 1887.35     | 1040.83      | 1800.00     |
| P.T. 63483.30                         | 10591736.54    | 466024.43   | N 68°10'59.13" E |                  |             |              |             |
| P.C. 84414.87                         | 10591955.29    | 467879.31   | N 68°10'59.13" E |                  |             |              |             |
| FM110-3                               | P.L. 85489.47  | 10592025.80 | 468039.03        | 18°27'00.94" L   | 346.17      | 174.60       | 1075.00     |
| P.T. 87461.04                         | 10592143.23    | 468168.24   | N 47°43'58.19" E |                  |             |              |             |
| P.C. 98431.29                         | 10592883.07    | 468960.24   | N 47°43'58.19" E |                  |             |              |             |
| FM110-4                               | P.L. 101222.93 | 10593059.22 | 469176.06        | 5°49'40.00" R    | 582.78      | 291.64       | 5729.58     |
| P.T. 104114.07                        | 10593276.28    | 469370.84   | N 41°54'18.19" E |                  |             |              |             |
| P.C. 131467.80                        | 10593569.46    | 471536.45   | 28°12'00.89" W   |                  |             |              |             |
| FM110-5                               | P.L. 141228.09 | 10595949.79 | 472184.23        | N 68°06'19.08" E | 960.29      | 488.69       | 2100.00     |
| P.C. 148116.97                        | 10596128.58    | 472629.09   | N 68°06'19.08" E |                  |             |              |             |
| FM110-6                               | P.L. 148491.34 | 10596156.31 | 472698.10        | 8°30'25.08" L    | 148.47      | 74.37        | 1000.00     |
| P.T. 149465.45                        | 10596193.95    | 472762.24   | N 59°35'54.00" E |                  |             |              |             |
| SH 20 (DESIGN SPEED: 50 MPH) NO CURVE |                |             |                  |                  |             |              |             |
| FM 76 (DESIGN SPEED: 50 MPH)          | P.C. 10400.00  | 10581090.63 | 469355.15        | N 39°20'33.51" W | 486.90      | 243.53       | 7900.00     |
| FM76-1                                | P.L. 12443.53  | 10591278.96 | 469200.76        | 3°31'52.79" L    | 486.90      | 243.53       | 7900.00     |
| P.R.C. 14486.90                       | 10591457.43    | 469035.07   | N 42°52'26.30" W |                  |             |              |             |
| P.R.C. 14486.90                       | 10591457.43    | 469035.07   | N 42°52'26.30" W |                  |             |              |             |
| FM76-2                                | P.L. 17430.43  | 10591635.90 | 468869.37        | 3°31'52.79" R    | 486.90      | 243.53       | 7900.00     |
| P.T. 19473.87                         | 10591824.24    | 468714.99   | N 39°20'33.51" W |                  |             |              |             |
| P.C. 27410.41                         | 10592393.91    | 468248.01   | N 39°20'33.51" W |                  |             |              |             |
| P.L. 29478.23                         | 10592601.03    | 468078.22   | 3°53'00.00" L    | 535.44           | 267.82      | 7900.00      |             |
| P.T. 32445.85                         | 10592796.18    | 467894.80   | N 43°13'33.51" W |                  |             |              |             |



**PLAN LEGEND**

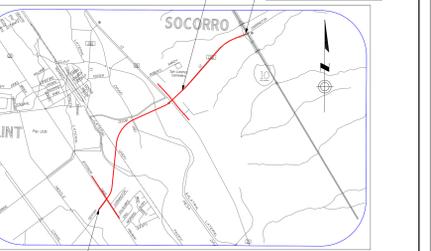
- PROPOSED PAVEMENT
- PROPOSED BRIDGE (STEEL/CONCRETE)
- PROPOSED MEDIAN
- PROPOSED SIDEWALK
- PROPOSED DRIVEWAY
- PROPOSED TRANSITION PAVEMENT
- PROPOSED MILL AND OVERLAY
- EXISTING PAVEMENT
- POTENTIAL BUILDING DISPLACEMENT
- PROPOSED CENTERLINE
- EXISTING CENTERLINE
- EXISTING ROW/PARCEL BOUNDARY
- EXISTING EASEMENT
- PROPOSED ROW
- PROPOSED RETENTION BASIN
- PROPOSED RETENTION BASIN ACCESS
- EXISTING RETENTION BASIN
- PROPOSED DRAINAGE STRUCTURE
- PROPOSED RETAINING WALL
- FEMA FLOOD ZONE
- WATER CHANNEL
- CITY BOUNDARY
- OVERHEAD ELECTRIC
- COMMUNICATION LINE
- WATER MAIN
- GAS LINE
- SEWER
- SIGNALIZED INTERSECTION
- TRAFFIC FLOW/BICYCLE LANE



**FM 1110 WIDENING AND REALIGNMENT**  
FROM I-10 TO SH 20 (ALAMEDA AVE)

EL PASO, TEXAS ROLL 1 OF 1

| DATE:      | STATE DISTRICT: | COUNTY: | CONTROL NO.: | SEC. NO.: | JOB NO.: |
|------------|-----------------|---------|--------------|-----------|----------|
| 4/28/2017  | ELP             | EL PASO | 1281         | 02        | 007, ETC |
| DATE REV.: | BY:             | REASON: | BY:          | REASON:   | BY:      |
| 4/28/2017  | ELP             | EL PASO | 1281         | 02        | 007, ETC |



VICINITY MAP  
EL PASO COUNTY  
NOT TO SCALE

**FUNCTIONAL CLASSIFICATION**

|           |                                     |                           |                          |
|-----------|-------------------------------------|---------------------------|--------------------------|
| FM 1110   | - 45 MPH - URBAN MINOR ARTERIAL     | PROJECT LENGTH:           | APPROXIMATELY 2.76 MILES |
| SH 20     | - 50 MPH - URBAN PRINCIPAL ARTERIAL | LIMITS FROM I-10 TO SH 20 |                          |
| FM 76     | - 50 MPH - URBAN MINOR ARTERIAL     |                           |                          |
| CELUM RD  | - 40 MPH - URBAN COLLECTOR          |                           |                          |
| DENTON RD | - 30 MPH - URBAN LOCAL              |                           |                          |

- GENERAL NOTES:**
- PROJECT CONTROL BASED UPON CONTROL POINTS 1 THROUGH 4 ON SHEET 2 OF LRTA INC. PLANS OF PROPOSED RIGHT OF WAY PROJECT, FROM TxDOT CSJ 1281-02-006. ALL PROJECT COORDINATES ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, TEXAS STATE ZONE 10. THE HNTB SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL COORDINATES SHOWN AND CAN BE CONVERTED TO GRID BY DIVIDING BY A SCALE FACTOR OF 1,000,023. UNIT OF MEASURE IS U.S. SURVEY FOOT.
  - ALL DRIVEWAYS IMPACTED BY CONSTRUCTION TO BE RECONSTRUCTED.
  - ROADWAY GEOMETRY AND ROADSIDE ELEMENTS TO BE REFINED DURING PS&E.
  - LOCATIONS WITH SIDESLOPES 2:1 OR STEEPER WILL REQUIRE CONCRETE SLOPE PROTECTION AND PROTECTIVE BARRIER.

**HNTB** HNTB Corporation  
The HNTB Companies  
Engineers, Architects, Planners

FED. RD. DIV. NO. FEDERAL AID PROJECT SHEET NO. 1

STATE DIST. COUNTY TEXAS ELP EL PASO

CONTROL SECTION JOB HIGHWAY NO. 1281 02 007, ETC FM 1110

DATE: 4/28/2017

PRELIMINARY  
NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.  
ENGINEER: SULAIMAN S. ABAIN, P.E.  
SERIAL NO.: 13333

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## **APPENDIX C: PROJECT PHOTOGRAHS**



1. Looking east on FM 1110, toward curve before I-10 overpass near project begin.



2. From FM 1110, looking west at commercial land uses along the existing facility.



3. Looking southwest at the existing FM 1110 section proposed for widening, near its intersection with I-10.



4. View from north side of FM 1110 toward the potential residential relocation (circled in red) at the corner of FM 76 and Celum Rd.



5. View of cotton field on the northwest corner of Celum Rd. and FM 76.



6. Looking northeast at the existing FM 1110 section proposed for widening, near its intersection with FM 76.



7. Looking southwest at the proposed new location section of the project and along the backyards of the single-family residences represented by noise receiver R3.



8. View looking southeast at commercial buildings located along FM 76.



9. Looking west at noise meter used to measure existing noise levels at Clint High School near the project end.



10. View of irrigation concrete-lined canal located between cotton fields and 975 N. Celum Road.



11. View of adobe farmhouse and farm equipment looking south.



12. View of concrete-lined irrigation canal following along Coffin Road south of Celum Road.

## **APPENDIX D: AGENCY COORDINATION**

**TPWD Coordination (Jun. 3, 2016)**

**Tribal Coordination (Jun. 17, 2016)**

**TxDOT Archeological Memo & Background Study Details (Jul. 21, 2016)**

**Section 106 Coordination with EPCWID (Oct. 31, 2016)**

**Section 106 Coordination with El Paso County Historical Society (Oct. 31, 2016)**

**Section 106 and Section 4(f) Coordination with THC (Dec. 2016)**

**Checklist for Section 4(f) *De Minimis* (Jan. 12, 2017)**

**From:** Laura Zebehazy [<mailto:Laura.Zebehazy@tpwd.texas.gov>]  
**Sent:** Friday, June 03, 2016 4:14 PM  
**To:** Joshua Holguin  
**Subject:** RE: TxDOT El Paso: Early TPWD Coordination CSJ: 1281-02-007 FM 1110 Widening & Realignment

Good afternoon, Josh,

I am finalizing my review of the FM 1110 Widening and Realignment project (CSJ 1281-02-007) in El Paso County, and TPWD recommends the following:

- With regard to the rare plants that have the potential to occur within the project area, TPWD recommends that TxDOT survey during the appropriate time to facilitate plant identification in areas with intact native vegetation such as near the intersection with I-10 and in the proposed detention areas. If populations of Comal snakewood, desert night-blooming cereus, sand prickly-pear, sand sacahuista, or Wheeler's spurge are located within the project area, TPWD recommends to either protect those areas from construction impacts or if impacts cannot be avoided, please contact me to assist in facilitating an opportunity to rescue plant propagules or seeds. Also, for any rare plant populations that may be located, please submit data to the TXNDD (you can find more information on how to do that [here](#)). It will also be beneficial to collect a specimen to facilitate positive identification since some of these species can be easily misidentified.
- For the mountain short-horned lizard, TPWD recommends that contractors be advised of potential occurrence in the project area, and to avoid harming the species if encountered. This should include avoiding harvester ant mounds in the selection of Project Specific Locations (PSLs) where feasible.
- For the New Mexico garter snake, TPWD recommends that the contractors be advised of potential occurrence in the project area (specifically along the drainage ditches), and to avoid harming the species if encountered.
- With regards to any potential impacts to western burrowing owls that may occur within or immediately adjacent to the project area, TPWD suggests that TxDOT contact Lois Balin, TPWD Urban Biologist for El Paso, for assistance with any matters concerning this species. Lois has extensive experience with western burrowing owls and has helped other developers when this species has been found on project areas. Please contact her at [lois.balin@tpwd.texas.gov](mailto:lois.balin@tpwd.texas.gov) or 915-774-9603.

Please respond to indicate whether TxDOT will commit to implementing TPWD's recommendations. Also, please let me know if you have any questions.

Sincerely,

Laura Zebehazy, CWB  
Transportation Conservation Coordinator  
TPWD – Wildlife Habitat Assessment Program  
Phone: (512)389-4638



125 EAST 11TH STREET, AUSTIN, TEXAS 78701-2483 | 512.463.8588 | WWW.TXDOT.GOV

June 17, 2016

RE: CSJ: 1281-02-007; FM 1110, Widening and Realignment, Section 106 Consultation; El Paso County, El Paso District

To: Representatives of Federally-recognized Tribes with Interest in this Project Area

The above referenced transportation project is being considered for construction by the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT). Environmental studies are in the process of being conducted for this project. The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.

The purpose of this letter is to contact you in order to consult with your Tribe pursuant to stipulations of the Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU). The project is located in an area that is of interest to your Tribe.

#### *Undertaking Description*

TxDOT's El Paso District is proposing to widen and realign Farm to Market Road (FM) 1110 in El Paso County, Texas (Exhibit A).

The proposed project would widen the existing FM 1110 roadway between IH 10 and FM76; south of FM 76 to SH 20, the project would realign FM 1110 with the construction of a new location roadway (presently the FM 1110 alignment south of FM 76 is two miles to the west) (Exhibits A and B). The proposed project would also include widening at major intersections to accommodate turn lane improvements, culverts at drain crossings, an overpass at the Union Pacific Railroad (UPRR) tracks, and a bridge over the floodplain near FM 76. Widening of the existing segment of FM 1110 would take place entirely within existing ROW, but new ROW would be required for the new location roadway and for seven proposed retention ponds. Some construction easement would be required for driveway improvements that cross TxDOT ROW, and for work within the UPRR and El Paso County Water Improvement District property.

#### *Area of Potential Effects*

The project's area of potential effects (APE) comprises the following area.

- The project limits extend from IH 10 south to the intersection of State Highway (SH) 20 with Denton Road, partially along existing FM 1110. Between FM 76 and the southern terminus

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OUR MISSION: *Through collaboration and leadership, we deliver a safe, reliable, and integrated transportation system that enables the movement of people and goods.*

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at SH 20 the project would construct a new location roadway for which there is no existing ROW. The total project alignment is 2.76 miles.

- The existing right of way (between IH 10 and FM 76) varies between 128 and 130 feet in width; proposed ROW width would be 124 feet.
- The latitude and longitude for the end points of the project are:
  - Begin latitude: +31.58866700      Begin longitude: -106.19464400
  - End latitude: +31.570508      End longitude: -106.221099
- The existing right of way comprises an area estimated at 60 acres.
- About 40.42 acres of new ROW would be required for the new location alignment, for seven proposed retention ponds, and at the FM 1110 intersections with FM 76 and SH 20.
- About 1.97 acres of construction easement would be required for driveway improvements that cross TxDOT ROW, and for work within the UPRR and El Paso County Water Improvement District property.
- Typical depth of impacts is estimated at two feet, with maximum depth of impacts reaching 50 feet for proposed bridge structures.
- For the purposes of this cultural resources review, the APE also includes an additional 50-foot area around the previously-described horizontal dimensions to account for potential alterations to the proposed APE included in the final project design. Consultation would be continued if potential impacts extend beyond this additional area, based on the final design.

#### *Identification Efforts*

For this project, TxDOT has conducted a desktop-based study of available background information. Based on the results of previous archeological and architectural investigations, the APE has a low probability of encountering intact cultural deposits. Widening of the existing north segment will take place entirely within existing ROW that has been heavily disturbed by previous roadway construction. The proposed new location APE is within the floodplain of the Rio Grande, which has been heavily impacted by decades of agricultural development. The majority of the proposed APE traverses agricultural fields in the floodplain that have been subjected to deep plowing activities (with impacts up to 12 feet). As a result of these land use practices any cultural deposits potentially present in the new location ROW will be destroyed or out of context, and generally lacking in integrity. In summary:

- Much of the sediments within the APE have been previously disturbed by previous roadway construction and modern land use practices. These activities would have destroyed more fragile archeological materials and would have moved more durable materials from their original location. Any sites that may occur within the APE would likely lack sufficient integrity of location, association, and materials to be able to address important questions of history and prehistory (36 CFR 60.4).

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- Based on the foregoing factors, there is little to no reason to expect archeological historic properties (36 CFR 800.16(l)) to be located within the APE.

#### *Findings and Recommendations*

Based on the above, TxDOT proposes the following findings and recommendations:

- a desktop review has found that no archeological historic properties (36 CFR 800.16(l)) would be affected by this proposed undertaking and the proposed project may proceed to construction;
- that a zone of 50 feet beyond the horizontal project limits be considered as part of the cultural resources evaluation; and
- if any future changes to the project APE extend beyond the additional 50-foot zone or if archeological deposits are discovered, your Tribe would then be contacted for further consultation.

According to our procedures and agreements currently in place regarding consultation under Section 106 of the National Historic Preservation Act, we are writing to request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed project APE and the area within the above defined buffer. Any comments you may have on the TxDOT findings and recommendations should also be provided. Please provide your comments within 30 days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible. If you do not object that the proposed findings and recommendations are appropriate, please sign below to indicate your concurrence. In the event that further work discloses the presence of archeological deposits, we will contact your Tribe to continue consultation.

Thank you for your attention to this matter. If you have questions, please contact Kevin Hanselka (TxDOT Archeologist) at 512/416-2639 (email: Kevin.Hanselka@txdot.gov) or Chantal McKenzie at 512/416-2770 (email: Chantal.McKenzie@txdot.gov). When replying to this correspondence by US Mail, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely,



Scott Pletka, Deputy Section Director  
Environmental Affairs Division

---

Concurrence by:

Date:

**OUR GOALS**  
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CSJ: 1281-02-007, El Paso County

4

June 17, 2016

Enclosure

cc w/ enclosure: ENV-ARCH ECOS

**OUR GOALS**

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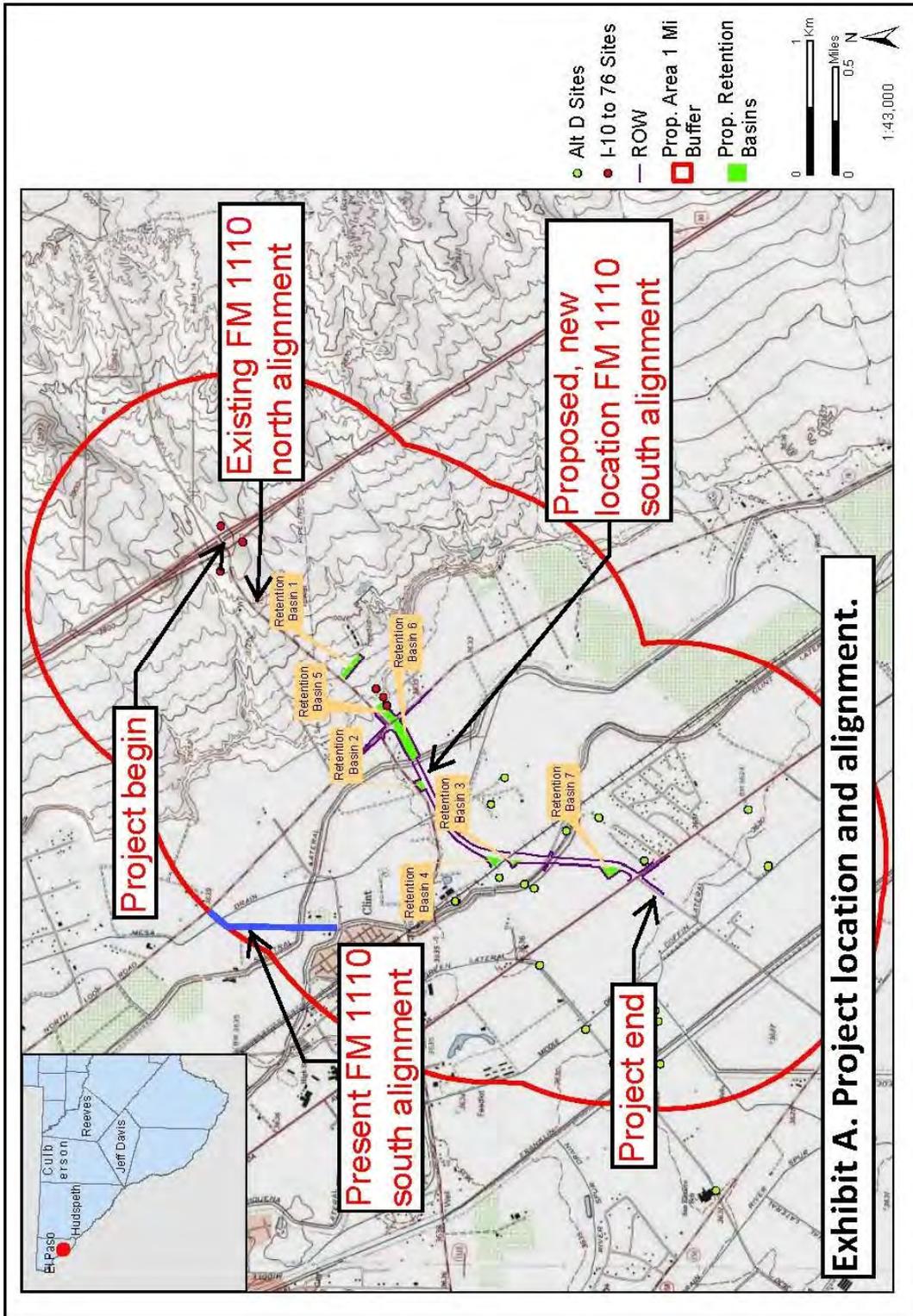


Exhibit B-1. Project schematic, north section.

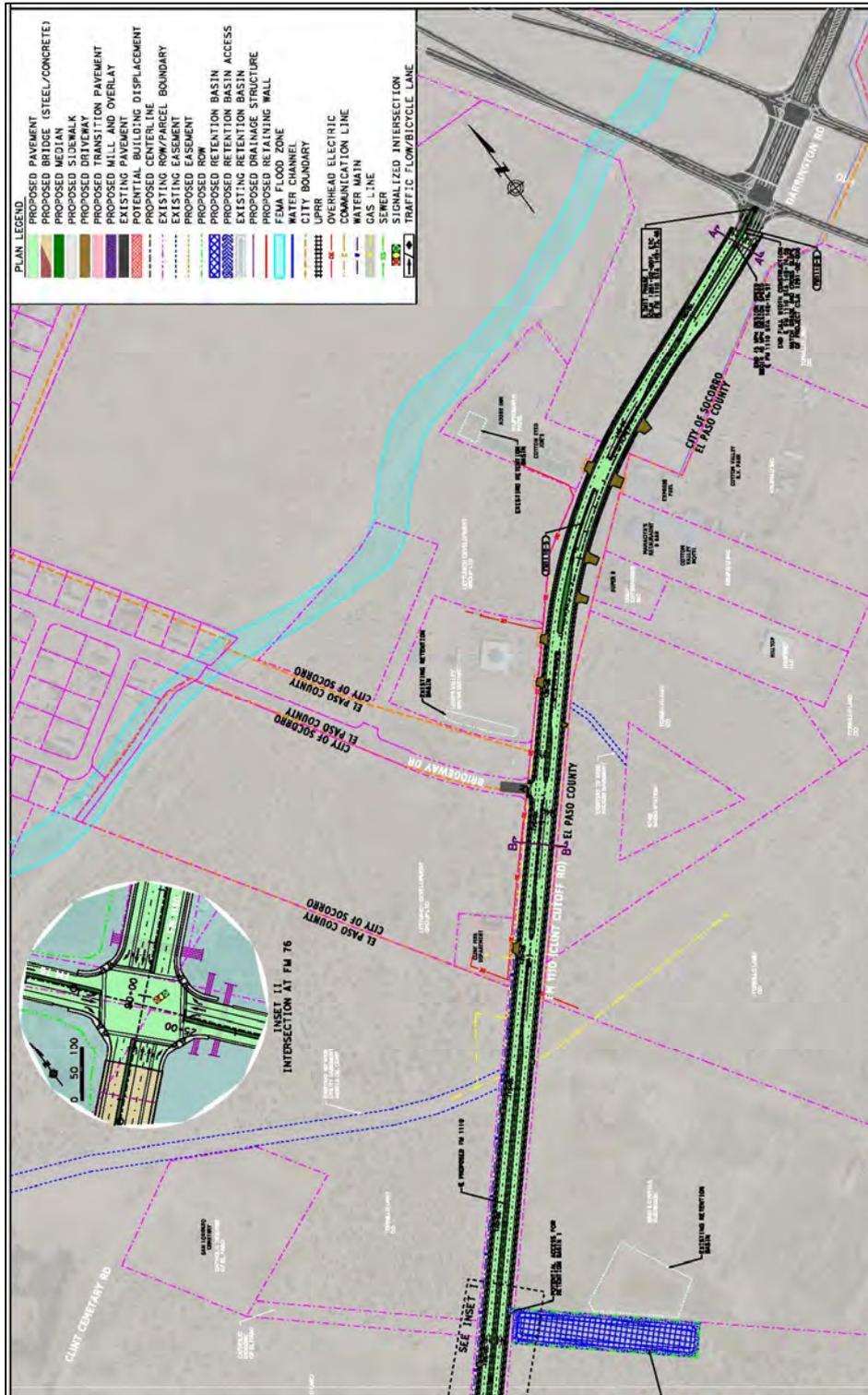


Exhibit B-2. Project schematic, central section.

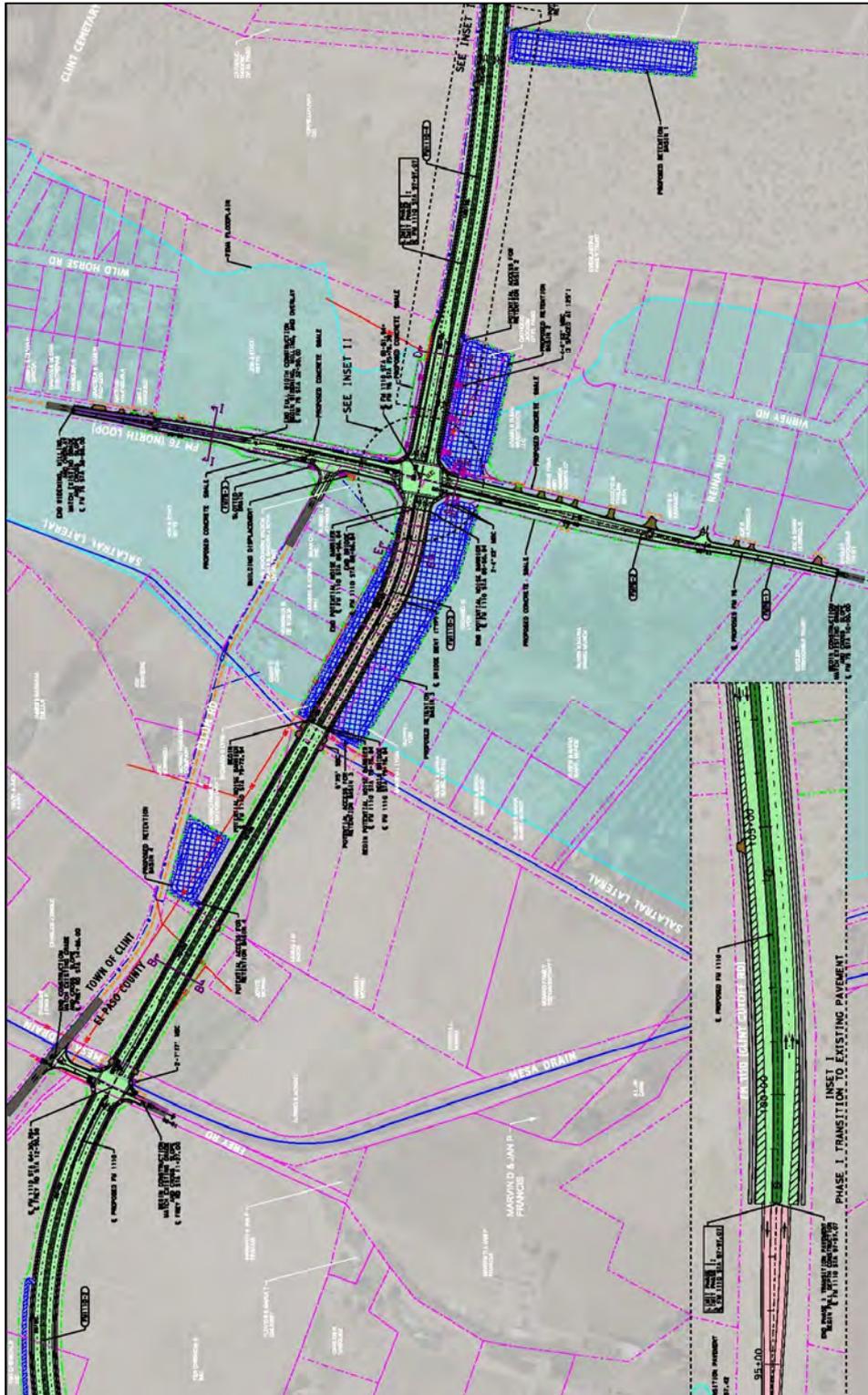
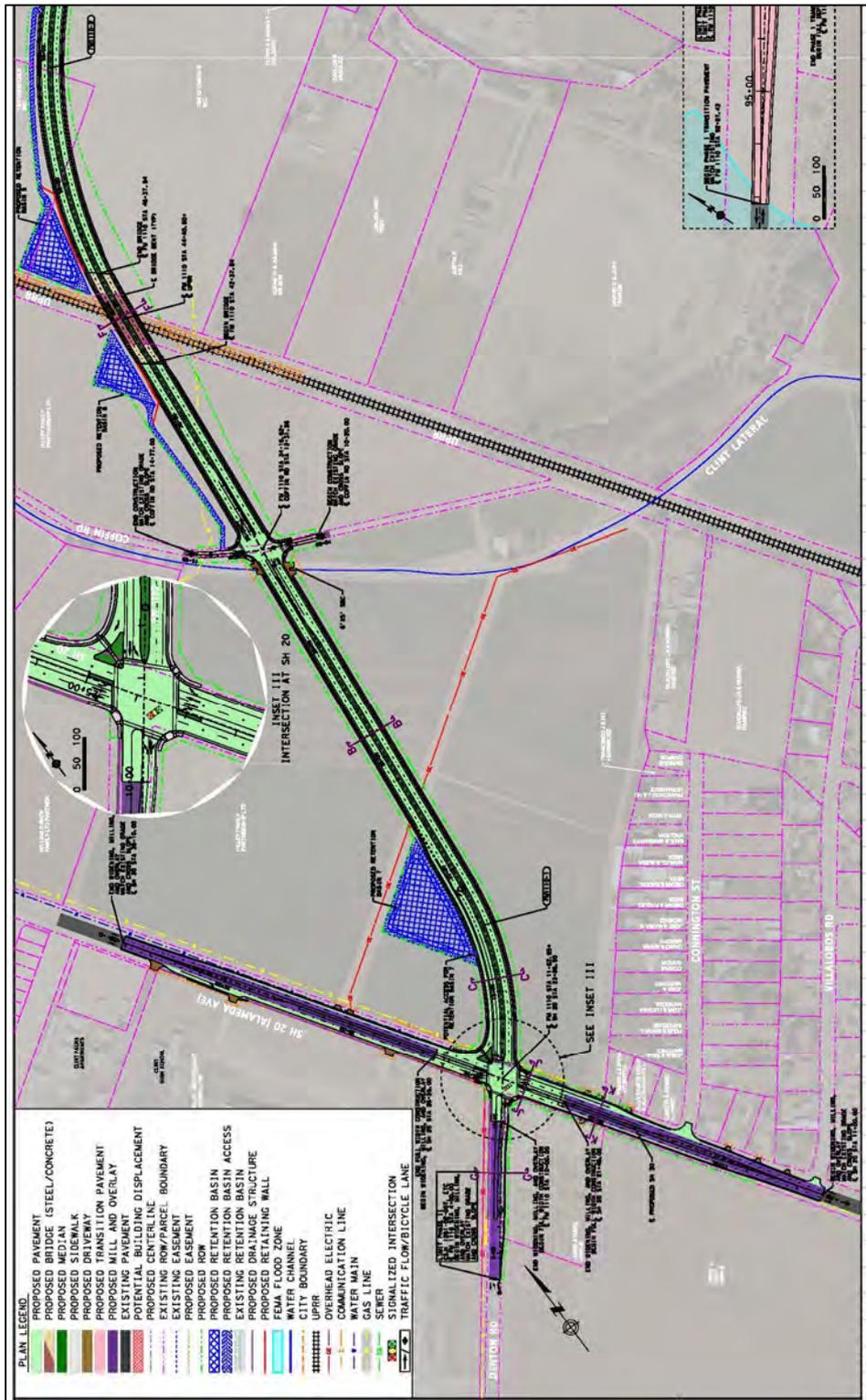


Exhibit B-3. Project schematic, south section.





# MEMO

July 21, 2016

**To:** 850 File, Various Road Projects, Various CSJs, Various Districts

**From:** Scott Pletka, Ph.D.

**Subject:** Internal review under the First Amended Programmatic Agreement Among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU), and internal review under the Memorandum of Understanding (MOU) Between the Texas Historical Commission and the Texas Department of Transportation

Listed below are the projects reviewed internally by qualified TxDOT archeologists from 7/14/16 to 7/20/16. The projects will have no effect on archeological historic properties. As provided under the PA-TU, consultation with the Texas State Historic Preservation Officer is not necessary for these undertakings. As provided under the MOU, the proposed projects do not require individual coordination with the Texas Historical Commission.

| CSJ         | DISTRICT | COUNTY  | ROADWAY | DESCRIPTION                      | WORK PERFORMED   |
|-------------|----------|---------|---------|----------------------------------|------------------|
| 1281-02-007 | El Paso  | El Paso | FM 1110 | Highway Widening and Realignment | Background Study |
| 2121-03-154 | El Paso  | El Paso | I-10    | Highway Widening                 | Background Study |
| 0320-02-036 | Waco     | Bell    | SH 95   | Install Passing Lanes            | Background Study |
| 0913-29-035 | Yoakum   | Lavaca  | CR 260  | Bridge Replacement               | Background Study |
|             |          |         |         |                                  |                  |
|             |          |         |         |                                  |                  |
|             |          |         |         |                                  |                  |
|             |          |         |         |                                  |                  |

Signature 

Date: 07 / 21 / 2016

For TxDOT  
cc: ECOS Data Entry; PD; ENV\_ARC; PA File

*Table Template for Weekly List Memo.doc*

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.

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[Back To List](#)

[Properties](#) ★ [Details](#)

**Archeology Background Study Details**

**Documentation of Project Setting**

- 1. Does the project conform to a type agreed (per Appendix 3 of PA-TU) to pose no potential to affect historic properties? No ▾
- 2. Geologic Atlas of Texas map or PALM or soils maps examined. Yes ▾
- 3. Texas Archeological Sites Atlas map examined for sites within one kilometer of the project area. Yes ▾
- 4. Historical information examined. Check all that apply. Yes ▾

**Resources Used During the Initial Assessment**

- topographic map(s)  Soil map(s)  Road map(s)  As-built plans  Other

If other selected, please identify:

Project has been subject to a previous background study dated 5-31-2016 in ECOS, which was based entirely on a background review compiled by HNTB ("2016-06-03 10\_38\_27\_FM 1110-Archeological Resources\_Backgr Study\_Revise\_06-02-

- 5. Aerial images or project area images (e.g., Google Maps with Street View) examined. Yes ▾

**Analysis of Project Setting**

- 6. Have archeological sites been identified within the area of potential effects (APE) or within 150 feet of the APE? No ▾

Comments:

- 7. Do cemeteries occur within the APE or within 25 feet of the APE? No ▾

Comments:

- 8. Do Holocene-age deposits mapped on Geologic Atlas of Texas or PALM or soils maps occur within the APE? Yes ▾

Comments:

Part of the APE spans the Rio Grande floodplain; this setting has been heavily altered by recent historic farming practices.

- 9. Does the APE cross a waterway with the potential for shipwrecks? No ▾

Comments:

- 10. Is the APE within 500 feet of a historically reliable water source? No ▾

Comments:

The APE spans several artificial canals, but no major drainages.

- 11. Does the APE include a wetland or frequently flooded area? No ▾

Comments:

- 12. Does the Atlas map or other information (enter comment) show that occupation typically occurs on particular landform or landforms that the APE does not contain? No ▾

Comments:

- 13. Have all settings that may have been favorable for occupation been subject to previous disturbances? Check all that apply. Yes ▾

**Previous Disturbances Identified During the Initial Assessment**

- Previous road construction and maintenance  Installation of utilities
- Modern land use practices like plowing and brush clearing  Urban and/or suburban development
- Erosion and scouring by natural processes  Other

If other selected, please identify:

Existing ROW is heavily disturbed by FM 1110 roadway construction; new location APE spans agricultural land subjected for decades to "deep plowing," which impacts earth up to 12 feet (pg. 5 in background study in ECOS "2016-06-03

**14. Have the majority of the settings with high potential for archeological sites within the APE been previously surveyed?** No

**Comments:**

---

**Conclusions**

**15. Have previous investigations covered a sufficient proportion of the APE to conclude that the APE is unlikely to contain archeological sites or cemeteries?** No

**Comments:**

---

**16. Has the APE been sufficiently disturbed that any prehistoric archeological sites would lack the integrity to address important questions? Any such sites would lack integrity of (check all that apply):** Yes

**Integrity Issues Identified During the Initial Assessment**

Location  Design  Materials  Association  Other

**If other selected, please identify:**

---

**17. Has the APE been sufficiently disturbed that any historic-era archeological deposits would lack sufficient integrity to address important questions? Any such sites would lack integrity of (check all that apply):** Yes

**Integrity Issues Identified During the Initial Assessment**

Location  Design  Materials  Association  Other

**If other selected, please identify:**

---

**18. Does historic research show that historic-era archeological deposits, cemeteries, and shipwrecks are not likely to occur within the APE?** Yes

**Comments:**

---

**19. Does the project area occur in a setting that was not conducive to human occupation and activity?** No

**Comments:**

---

**20. Will the project adversely affect archeological sites or cemeteries?** No

**Comments:**

Project has been subject to a previous background study dated 5-31-2016 in ECOS, which was based entirely on a background review compiled by HNTB ("2016-06-03 10\_38\_27\_FM 1110-Archeological Resources\_Backgr Study\_Revised\_06-02-

**Last Updated By:** Kevin Hanselka **Last Updated Date:** 06/15/2016 01:57:20



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October 31, 2016

El Paso County Historical Commission  
Mr. Bernie Sargent  
5326 Rockwood Road  
El Paso, TX 79932

**SECTION 106 REVIEW: FM 1110 Widening, Clint, El Paso County, El Paso District  
CSJ: 1281-02-007**

Dear Mr. Sargent:

We ask that the El Paso County Historical Commission (CHC) comment on area historic resources for the above referenced project. If your CHC does not contact the Texas Department of Transportation (TxDOT) by November 30, 2016 we will assume that the CHC has no comment.

The TxDOT El Paso District is proposing to widen and realign FM 1110 between IH 10 and SH 20 in Clint, El Paso County, Texas.<sup>1</sup> Environmental issues, including the identification of historic properties, are scheduled to be resolved by February 2017. When resolved, the project will be cleared for construction. Please see the attached map for the proposed project location.

TxDOT conducted two historic resources surveys of the project area. We studied in-depth the potential for a rural historic district on properties located between Frey Road and SH 20 (Alameda Avenue). TxDOT did not find a rural historic district present within the project location. I would be happy to provide you with copies of these technical survey reports, upon your request. In addition to these surveys, we request the CHC's help to locate historic properties within our project area. Historic properties are generally those that are 50 years old that are listed in, or eligible to be listed in, the National Register of Historic Places. To date, our research identified the following historic properties within the project area:

- Three components of the El Paso County Water Improvement District Number 1, which are listed in the National Register of Historic Places:
  - Salitral Lateral Canal
  - Mesa Drain
  - Clint Lateral Canal

**Does CHC agree with our findings--are the above properties the only known historic resources in the project area? If so, please sign where indicated below and return this document to TxDOT by November 30, 2016.**

**Does CHC have any additional information about these or other historic resources--pre-1975 historic buildings, structures, objects, cemeteries or other historic resources that may be important locally within the project area? If so, contact TxDOT via letter, e-mail, or phone call by November 30, 2016.**

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Does CHC have general comments or questions about how our project could impact the historic properties in the project area? If so, contact TxDOT via letter, e-mail, or phone call November 30, 2016.

Direct CHC responses and questions to Rebekah Dobrasko (Historic Preservation Specialist) at (512) 416-2570 (email: rebekah.dobrasko@txdot.gov). When replying to this correspondence by US Mail, please ensure that the envelope address includes reference to Environmental Affairs Division, Attn: Rebekah Dobrasko.

Thank you for your assistance in this project.

Sincerely,

*Rebekah Dobrasko*

Rebekah Dobrasko  
Historic Preservation Specialist  
TxDOT Environmental Affairs Division

through: Bruce Jensen, CRM Director, *[Signature]*

This letter and its enclosures serve to initiate consultation with the El Paso CHC on historic resource identification efforts for the proposed project. Please concur with our findings of historic properties listed above or provide other comments below.

\_\_\_\_\_  
El Paso County Historical Commission Chairperson

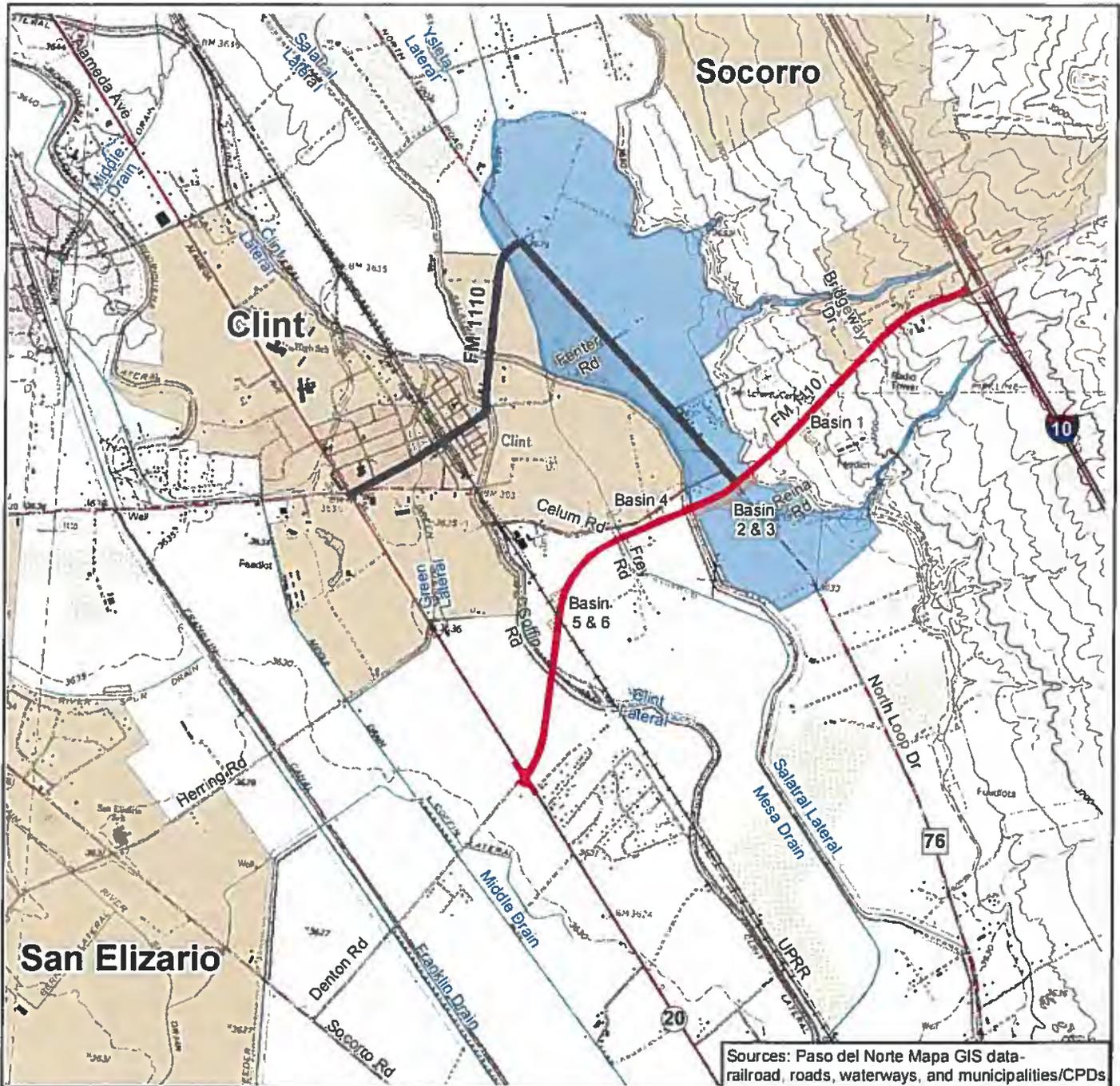
\_\_\_\_\_  
Date:

Contact TxDOT via letter, e-mail, or phone call using information provided in the letter above. If you'd prefer, use the comment section below to share information and return signed copy to TxDOT.

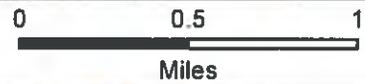
Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

<sup>1</sup> The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT. TxDOT's regulatory role for this project is that of the Federal action agency.



Sources: Paso del Norte Mapa GIS data-railroad, roads, waterways, and municipalities/CPDs



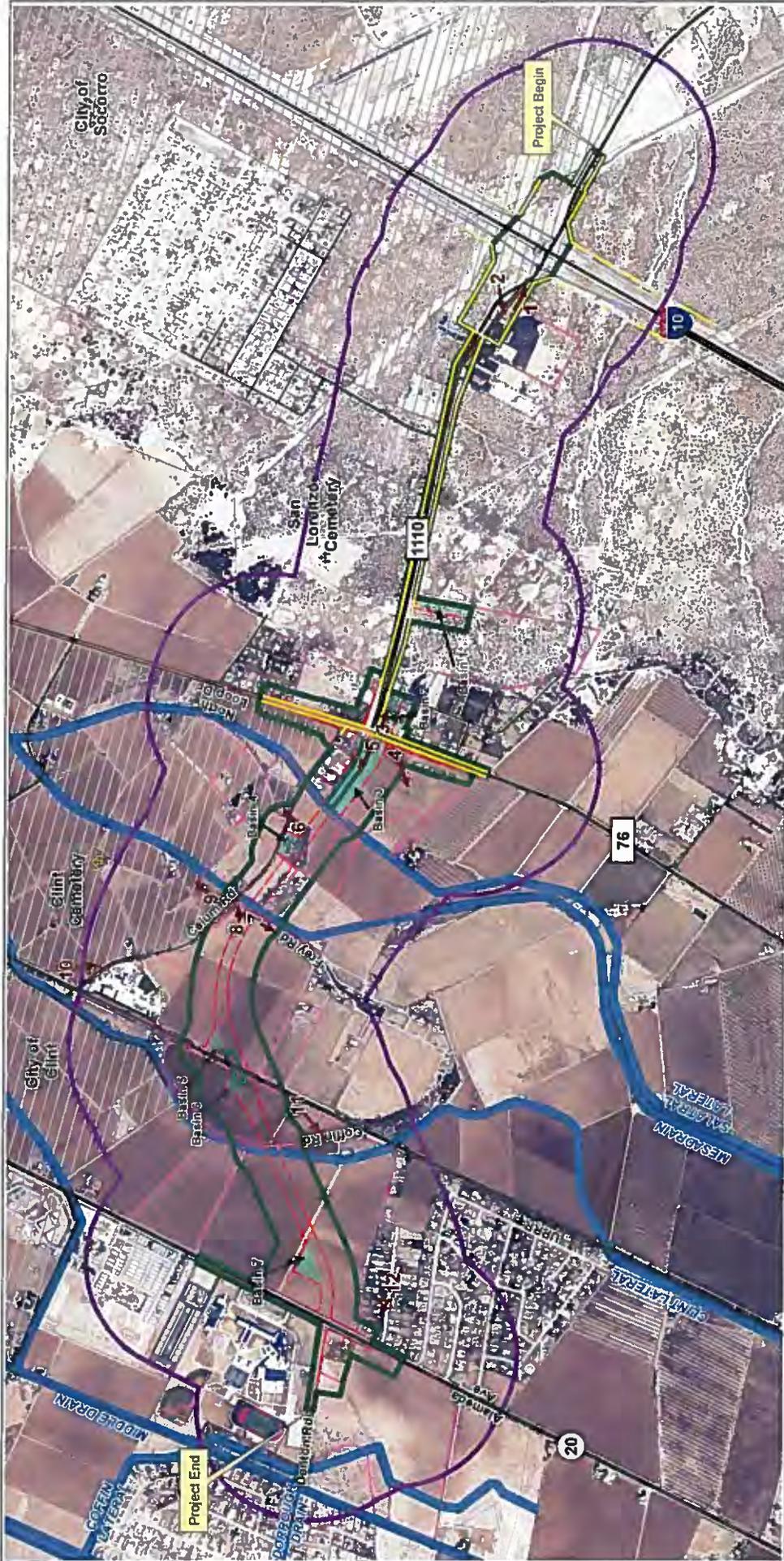
**LEGEND**

- Proposed Project
- Existing FM 1110
- Proposed Retention Basin
- Municipality
- 100-Yr FEMA Flood Zone



**EXHIBIT 1  
PROJECT LOCATION MAP**

FM 1110  
Widening and Realignment  
From I-10 to SH 20  
  
CSJs 1281-02-007 and 1281-01-017  
Historic PCR  
  
El Paso County, Texas



**EXHIBIT 2 - APE MAP**

FM 1110 Realignment and Widening  
 FM 1110 from I-10 to SH 20  
 CSJs 1281-02-007 and 1281-01-017  
 El Paso County, Texas

**LEGEND**

- Study Area
- Area of Potential Effect
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Proposed Retention Basin
- Proposed Bridge
- Parcel Impacted by Proposed ROW
- Existing FM 1110
- City Limits
- Major Arterial
- Local Road
- Union Pacific Railroad
- Cemetery
- NRHP Listed EPCWID#1 Feature
- Project Photograph

Scale: 1,000 500 0 1,000 Feet

Note: Based on March 2016 Schematic Plans

EXHIBIT 6 - Representative Photographs Taken August 7, 2014



Photo 1 – Existing FM 1110, view facing east toward overpass over I-10.



Photo 2 – Existing FM 1110 near I-10, view facing southwest.



**Photo 3 – Buildings on the southeast corner of FM 76 and existing FM 1110 (site of proposed Basin 2), view facing northeast.**



**Photo 4 – Farm buildings on land southwest of the "T" intersection of Existing FM1110 and FM 76, view facing southwest. The buildings are on a parcel outside the APE.**



**Photo 5 – Canal irrigating a field southwest of the “T” intersection of existing FM1110 and FM 76 where Basin 3 is proposed, view facing southwest. The utility poles are along the back yards of existing houses to the right of the intersection. Farmstead east of Cellum Road is in the background.**



**Photo 6 –House at 975 Celum Road, west of the Salatrall Lateral, view facing north northeast.**



**Photo 7 – Francis Farm located on Frey Road with associated building on a parcel south of the proposed project APE, view facing south.**



**Photo 8 – House located northeast of the intersection of Frey and Celum Roads within the APE, view facing northeast.**

EXHIBIT 6 - Representative Photographs Taken August 7, 2014



**Photo 9** – Buildings northwest of Celum Road and Frey Road located on a parcel just outside of APE, view facing north.



**Photo 10** – Cotton field near Coffin and Celum Roads with the U.S. Customs and Border Patrol Facility in the background, view facing southwest.



**Photo 11** – Farm house off Coffin Road east of proposed alignment between the Clint Lateral Canal and the Union Pacific Railroad tracks, view facing south.



**Photo 12** – Houses on Connington Street in Morning Glory neighborhood, view facing southwest near the southwest project limit.



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October 31, 2016

El Paso County Historical Society  
Mr. Jim Fashing  
603 West Yandell  
El Paso, TX 79902

**SECTION 106 REVIEW: FM 1110 Widening, Clint, El Paso County, El Paso District  
CSJ: 1281-02-007**

Dear Mr. Fashing:

We ask that the El Paso County Historical Society comment on area historic resources for the above referenced project. If you do not contact the Texas Department of Transportation (TxDOT) by November 30, 2016 we will assume that the Historical Society has no comment.

The TxDOT El Paso District is proposing to widen and realign FM 1110 between IH 10 and SH 20 in Clint, El Paso County, Texas.<sup>1</sup> Environmental issues, including the identification of historic properties, are scheduled to be resolved by February 2017. When resolved, the project will be cleared for construction. Please see the attached map for the proposed project location.

TxDOT conducted two historic resources surveys of the project area. We studied in-depth the potential for a rural historic district on properties located between Frey Road and SH 20 (Alameda Avenue). TxDOT did not find a rural historic district present within the project location. I would be happy to provide you with copies of these technical survey reports, upon your request. In addition to these surveys, we request the CHC's help to locate historic properties within our project area. Historic properties are generally those that are 50 years old that are listed in, or eligible to be listed in, the National Register of Historic Places. To date, our research identified the following historic properties within the project area:

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  - Salitral Lateral Canal
  - Mesa Drain
  - Clint Lateral Canal

**Does the Historical Society agree with our findings--are the above properties the only known historic resources in the project area? If so, please sign where indicated below and return this document to TxDOT by November 30, 2016.**

**Does the Historical Society have any additional information about these or other historic resources--pre-1975 historic buildings, structures, objects, cemeteries or other historic resources that may be important locally within the project area? If so, contact TxDOT via letter, e-mail, or phone call by November 30, 2016.**

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Does the Historical Society have general comments or questions about how our project could impact the historic properties in the project area? If so, contact TxDOT via letter, e-mail, or phone call November 30, 2016.

Direct responses and questions to Rebekah Dobrasko (Historic Preservation Specialist) at (512) 416-2570 (email: rebekah.dobrasko@txdot.gov). When replying to this correspondence by US Mail, please ensure that the envelope address includes reference to Environmental Affairs Division, Attn: Rebekah Dobrasko.

Thank you for your assistance in this project.

Sincerely,

*Rebekah Dobrasko*

Rebekah Dobrasko  
Historic Preservation Specialist  
TxDOT Environmental Affairs Division

through: Bruce Jensen, CRM Director, *[Signature]*

This letter and its enclosures serve to initiate consultation with the El Paso CHC on historic resource identification efforts for the proposed project. Please concur with our findings of historic properties listed above or provide other comments below.

\_\_\_\_\_  
El Paso Historical Society President

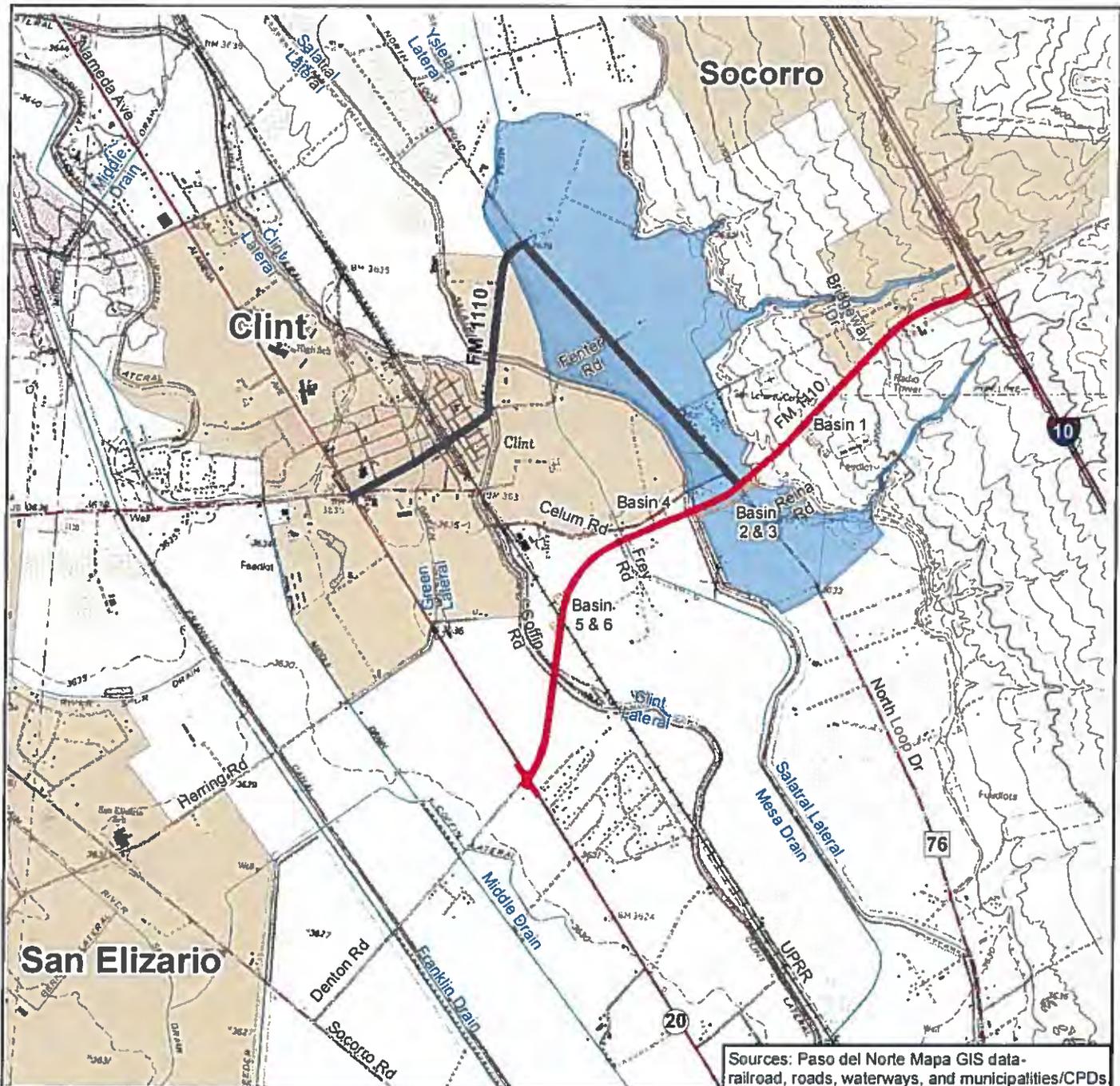
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Date:

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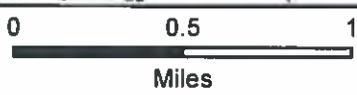
Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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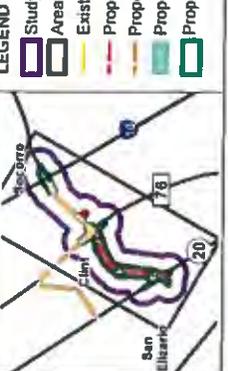
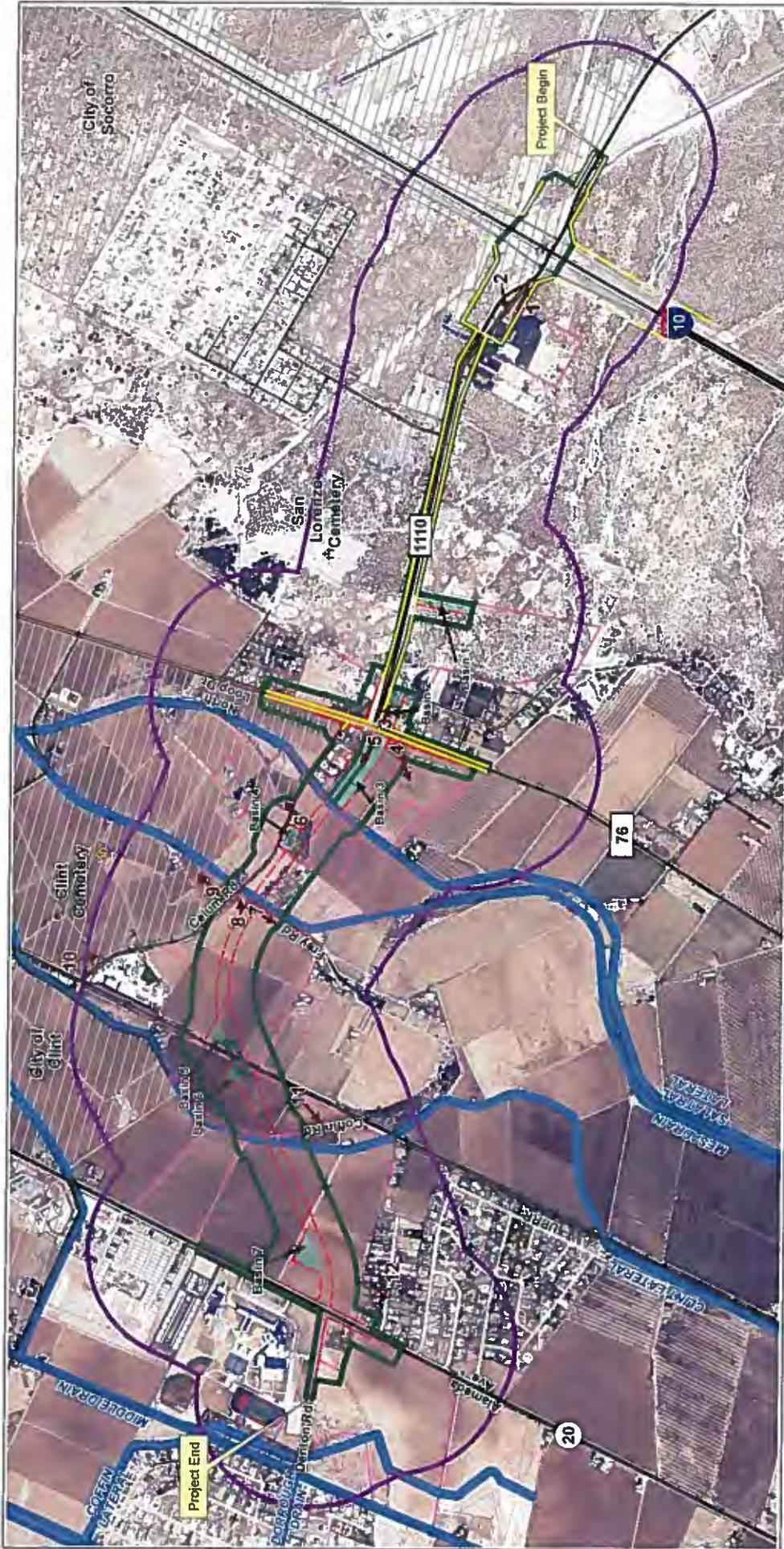
**LEGEND**

- Proposed Project
- Existing FM 1110
- Proposed Retention Basin
- Municipality
- 100-Yr FEMA Flood Zone



**EXHIBIT 1  
PROJECT LOCATION MAP**

FM 1110  
Widening and Realignment  
From I-10 to SH 20  
  
CSJs 1281-02-007 and 1281-01-017  
Historic PCR  
  
El Paso County, Texas



**LEGEND**

- Study Area
- Area of Potential Effect
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Proposed Retention Basin
- Proposed Bridge

- Parcel Impacted by Proposed ROW
- Existing FM 1110
- City Limits
- Major Arterial
- Local Road
- Union Pacific Railroad

- Cemetery
- NRHP Listed EPCWID#1 Feature
- Project Photograph

1,000 500 0 1,000  
Feet

N

**EXHIBIT 2 - APE MAP**

**FM 1110 Realignment and Widening**  
 FM 1110 from I-10 to SH 20  
 CSJs 1281-02-007 and 1281-01-017

El Paso County, Texas

*Note: Based on March 2016 Schematic Plans*

EXHIBIT 6 - Representative Photographs Taken August 7, 2014



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EXHIBIT 6 - Representative Photographs Taken August 7, 2014



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EXHIBIT 6 - Representative Photographs Taken August 7, 2014



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**Photo 12 – Houses on Connington Street in Morning Glory neighborhood, view facing southwest near the southwest project limit.**



rvd-12/1/16

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December 2, 2016

**SECTION 106 REVIEW: DETERMINATION OF NO ADVERSE EFFECT  
SECTION 4(f) REVIEW: NOTIFICATION OF INTENT TO RENDER *DE MINIMIS* SECTION 4(f)  
FINDING**

District: El Paso  
County: El Paso  
CSJ#: 1281-02-007, 1281-01-017  
Highway: FM 1110  
Project Limits: From IH 10 to SH 20  
Section 4(f) Property: El Paso Water Improvement District #1

Ms. Linda Henderson  
History Programs  
Texas Historical Commission  
Austin, Texas 78711

Dear Ms. Henderson:

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT. As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency. In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings, this letter initiates Section 106 consultation.

**Project Description**

TxDOT proposes to widen and improve FM 1110 from IH 10 to SH 20 in Clint, El Paso County, Texas. The proposed project would be constructed in phases. Phase I consists of widening FM 1110 between IH 10 and FM 76 (1.1 miles) and Phase II consists of realigning FM 1110 between FM 76 and SH 20 on a new location (1.7 miles). The proposed project will consist of four 12-foot travel lanes, and 18-foot raised median, 5-foot bicycle lanes, and 6-foot sidewalks. The proposed project will include improvements to the intersections at FM 76 and SH 20, an overpass to cross railroad tracks, and a bridge over the floodplains near FM 76.

In addition to these improvements, the proposed new location portion of the project will cross three components of the El Paso Water Improvement District Number 1 (EPWID1). TxDOT will obtain license agreements for approximately 1.21 acres to install concrete culverts along the Salitral Lateral Canal, the Mesa Drain, and the Clint Lateral Canal (see Exhibits 2 and 3 in the Report for Historical Studies by HNTB Corporation).

Overall the project requires approximately 40.02 acres of new right-of-way (ROW), approximately 0.53 acre of temporary construction easement, and 1.21 acres of license

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agreements within the boundaries of the EPWID1. The project has a customized APE. The APE on the first phase of the project is 150 feet from the proposed new ROW along the existing FM 1110 alignment. The APE on the second phase of the project is 300 feet from the proposed new ROW along

### **Determination of Eligibility**

TxDOT performed a search of the National Register of Historic Places (NRHP), the State Antiquities Landmarks (SAL), Recorded Texas Historic Landmarks (RTHL), and TxDOT project files to identify historic properties. TxDOT historians also conducted a reconnaissance survey of the project's APE as well as an intensive survey on three agricultural parcels. TxDOT identified the following historic properties in the APE:

#### **El Paso Water Improvement District Number 1:**

The EPWID1 is a countywide irrigation system listed in the National Register of Historic Places. There are three contributing components of this system within the project's APE:

- Clint Lateral Canal—designed to carry water from the main irrigation canal to ditches that serve the agricultural fields
- Salitral Lateral Canal—designed to carry water from the main irrigation canal to ditches that serve the agricultural fields
- Mesa Drain—designed to carry water away from fields as needed due to rain or other conditions

### **Consultation with Other Parties**

TxDOT contacted the El Paso County Historical Commission and the El Paso County Historical Society regarding this project and our historic property identification efforts. TxDOT did not receive any response from either organization.

### **Determination of Effects**

- Direct Effect: The project consists of constructing three concrete box culverts to allow for crossings at each drain and canal. The irrigation features will continue to serve in the same capacity, and there will not be a change to the use or function of the structures. Additionally, the wingwalls and abutments will meet the EPWID1 standards and would not constitute a major alteration to the banks of the canals or drain. The purpose of the canals and drain to deliver water would be unaffected. This proposed project would not create a noticeable visible change to the overall system's character-defining features, and would not adversely affect the system's integrity of location, setting, feeling, association, design, workmanship, or materials. The function of the EPWID1 will not be impaired, nor will it cease. Therefore, these minor changes pose **no adverse effect** as the property would still possess its significance following completion of the project.
- Indirect Effects: Project activities pose no indirect effects on the EPWID1. The construction of three concrete box culverts would not affect or diminish the qualities and characteristics that contribute to the historic significance of the property.

#### **OUR GOALS**

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- Cumulative Effects: Additionally, project activities pose no foreseeable cumulative adverse effects to the EPWID1 because the project would not impair the function of the historic irrigation system.

**Conclusion**

In accordance with 36 CFR 800 and the 2015 Section 106 PA, I hereby request your signed concurrence with TxDOT's finding of **no adverse effect** to the El Paso Water Improvement District Number 1. We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the aforementioned MOU dated 12-16-14.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please contact me at (512) 416-2570 or rebekah.dobrasko@txdot.gov.

Sincerely,

*RMDobrasko*

Rebekah Dobrasko  
Historic Preservation Specialist  
Environmental Affairs

thru: Bruce Jensen, Cultural Resource Management Section Director:

*BJ*

CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:  
NO ADVERSE EFFECT: EL PASO WATER IMPROVEMENT DISTRICT NUMBER 1

NAME: *Mark Wolfe*  
for Mark Wolfe, State Historic Preservation Officer

DATE: *12/21/16*

NO COMMENTS ON DETERMINATION OF DE MINIMIS IMPACT UNDER SECTION 4(F) REGULATIONS

NAME: *Mark Wolfe*  
for Mark Wolfe, State Historic Preservation Officer

DATE: *12/21/16*



**Main CSJ:** 1281-02-007

**District(s):** El Paso

**County(ies):** El Paso

**Property ID:** 1

**Property Name:** El Paso Water Improvement District #1

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.

The following checklist was developed as a tool to assist in streamlining the Section 4(f) *De Minimis* process and to ensure that all necessary information is documented in the File of Record (ECOS).

### What Type of Property is Being Evaluated?

- A park, recreation land, or wildlife/waterfowl refuge
- A historic property

### Section 4(f) Defining Criteria for Historic Properties

1.     Yes     Is the property listed or eligible for the NRHP or NHL?

### Establishing Section 4(f) Use of the Property

1.     Yes     Does the project require a use (i.e., new right of way, new easement(s), etc.)?

### Establishing Section 4(f) *De Minimis* Eligibility

1.     Yes     Was it determined that the project will not adversely affect the activities features, or attributes that make the property eligible for Section 4(f) protection?
2.     Yes     Did the Official with Jurisdiction concur that the project will not adversely affect the features or attributes that make the property eligible for Section 4(f) protection?



## Documentation

The following **MUST** be attached to this checklist to ensure proper documentation of the Section 4(f) *De Minimis*:

1. Brief project description
2. Explanation of how the property will be used.
3. A detailed map of the Section 4(f) property including:
  - a. Current and proposed ROW
  - b. Property boundaries
  - c. Existing and planned facilities
4. Concurrence letter with the Official with Jurisdiction

## TxDOT Approval Signatures

### ENV Technical Expert Reviewer Certification

I reviewed this checklist and all attached documentation and confirm that the above property and proposed project meet the requirements of 23 CFR 774 for a Section 4(f) *De Minimis* finding.

**Bruce Jensen**

Digitally signed by Bruce Jensen  
DN: cn=Bruce Jensen, o=Texas Department of Transportation, ou=CRM  
Section Director, Environmental Affairs, email=bruce.jensen@txdot.gov, c=US  
Date: 2017.01.12 11:06:37 -0600'

ENV Personnel Name

January 12, 2017

Date

### TxDOT-ENV Section 4(f) *De Minimis* Final Approval

Based upon the above considerations, this Section 4(f) *De Minimis* satisfies the requirements of 23 CFR 774.

**Jenise Walton**

Digitally signed by Jenise Walton  
DN: cn=Jenise Walton, o=TxDOT, ou=ENV Division,  
email=JENISE.WALTON@TXDOT.GOV, c=US  
Date: 2017.01.17 10:34:57 -0600'

TxDOT-ENV, PD Director or designee

January 17, 2017

Date

## Project Description

TxDOT proposes to widen FM 1110 between I-10 and FM 76 and realign FM 1110 between FM 76 and SH 20 on a new location in Clint, El Paso County. The project is approximately 2.76 miles long and required 40.02 acres of new right-of-way. The existing road is a two-lane rural facility with minimal outside shoulders. Improvements along FM 1110 include constructing four travel lanes, a raised median, bicycle lanes, and sidewalks. TxDOT will improve the intersection at FM 76 and SH 20, an overpass across the Union Pacific Railroad tracks, and three crossings of features associated with the El Paso Water Improvement District No. 1 (EPWID1)

The EPWID1 is listed in the National Register of Historic Places, and all three features of the EPWID1 in the project area are contributing to this listing. This property is therefore a Section 4(f) property, as defined in 24 U.S.C. § 138(a).

## Use of the Property

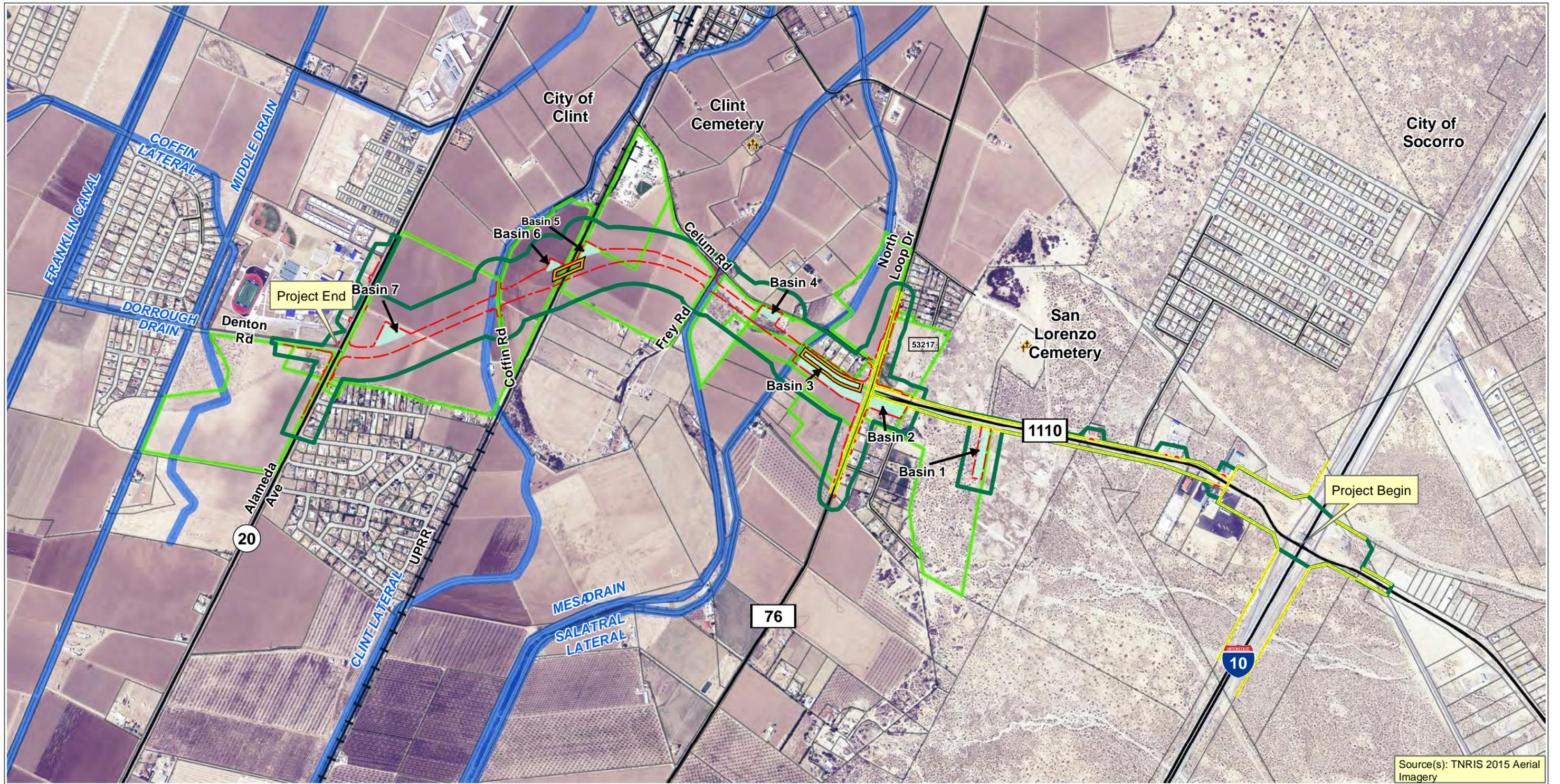
TxDOT proposes to span the following features of the EPWID1 with concrete box culverts:

- Salatral Lateral: single box culvert
- Mesa Drain: multiple box culvert
- Clint Lateral: single box culvert

In order to construct those crossings, TxDOT will acquire 0.53 acre of temporary construction easement and 1.21 acres of license agreement from the EPWID1.

The proposed work will not adversely affect the historic character of the EPWID1. TxDOT finds that the proposed work will be *de minimis* in nature to the Section 4(f) property because:

1. The irrigation features will continue to serve in the same capacity, and there will not be a change to the use or function of the structures.
2. The wingwalls and abutments for the culverts will conform to EPWID1 stands and do not constitute a major alteration to the banks of the canals or drain.
3. The purpose of the canals and drain to deliver water will be unaffected. The function of the EPWID1 will not be impaired, nor will it cease.
4. There will be no noticeable change to the overall system's character-defining features or the system's integrity of location, setting, feeling, association, design, workmanship, or materials.

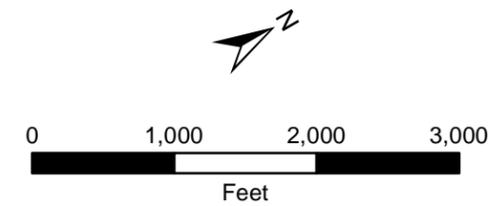


Source(s): TNRIS 2015 Aerial Imagery



**LEGEND**

- Area of Potential Effect
- Study Area
- Parcels partially or wholly within APE
- Existing ROW
- Proposed ROW
- Cemetery
- Union Pacific Railroad
- Proposed Bridge
- Proposed Retention Basin
- NRHP Listed EPCWID No. 1



*Note: Based on June 2016 Schematic Plans*

**EXHIBIT 2  
STUDY AREA**

FM 1110  
Widening and Realignment  
From I-10 to SH 20

CSJs: 1281-02-007 and 1281-01-017

Report for Historical Studies  
El Paso County, Texas



revd-12/7/16

125 EAST 11TH STREET, AUSTIN, TEXAS 78701-2483 | 512.463.8588 | WWW.TXDOT.GOV

December 2, 2016

**SECTION 106 REVIEW: DETERMINATION OF NO ADVERSE EFFECT  
SECTION 4(f) REVIEW: NOTIFICATION OF INTENT TO RENDER *DE MINIMIS* SECTION 4(f)  
FINDING**

District: El Paso  
County: El Paso  
CSJ#: 1281-02-007, 1281-01-017  
Highway: FM 1110  
Project Limits: From IH 10 to SH 20  
Section 4(f) Property: El Paso Water Improvement District #1

Ms. Linda Henderson  
History Programs  
Texas Historical Commission  
Austin, Texas 78711

Dear Ms. Henderson:

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT. As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency. In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings, this letter initiates Section 106 consultation.

**Project Description**

TxDOT proposes to widen and improve FM 1110 from IH 10 to SH 20 in Clint, El Paso County, Texas. The proposed project would be constructed in phases. Phase I consists of widening FM 1110 between IH 10 and FM 76 (1.1 miles) and Phase II consists of realigning FM 1110 between FM 76 and SH 20 on a new location (1.7 miles). The proposed project will consist of four 12-foot travel lanes, and 18-foot raised median, 5-foot bicycle lanes, and 6-foot sidewalks. The proposed project will include improvements to the intersections at FM 76 and SH 20, an overpass to cross railroad tracks, and a bridge over the floodplains near FM 76.

In addition to these improvements, the proposed new location portion of the project will cross three components of the El Paso Water Improvement District Number 1 (EPWID1). TxDOT will obtain license agreements for approximately 1.21 acres to install concrete culverts along the Salitral Lateral Canal, the Mesa Drain, and the Clint Lateral Canal (see Exhibits 2 and 3 in the Report for Historical Studies by HNTB Corporation).

Overall the project requires approximately 40.02 acres of new right-of-way (ROW), approximately 0.53 acre of temporary construction easement, and 1.21 acres of license

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OUR MISSION: Through collaboration and leadership, we deliver a safe, reliable, and integrated transportation system that enables the movement of people and goods.

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agreements within the boundaries of the EPWID1. The project has a customized APE. The APE on the first phase of the project is 150 feet from the proposed new ROW along the existing FM 1110 alignment. The APE on the second phase of the project is 300 feet from the proposed new ROW along

### **Determination of Eligibility**

TxDOT performed a search of the National Register of Historic Places (NRHP), the State Antiquities Landmarks (SAL), Recorded Texas Historic Landmarks (RTHL), and TxDOT project files to identify historic properties. TxDOT historians also conducted a reconnaissance survey of the project's APE as well as an intensive survey on three agricultural parcels. TxDOT identified the following historic properties in the APE:

#### **El Paso Water Improvement District Number 1:**

The EPWID1 is a countywide irrigation system listed in the National Register of Historic Places. There are three contributing components of this system within the project's APE:

- Clint Lateral Canal—designed to carry water from the main irrigation canal to ditches that serve the agricultural fields
- Salitral Lateral Canal—designed to carry water from the main irrigation canal to ditches that serve the agricultural fields
- Mesa Drain—designed to carry water away from fields as needed due to rain or other conditions

### **Consultation with Other Parties**

TxDOT contacted the El Paso County Historical Commission and the El Paso County Historical Society regarding this project and our historic property identification efforts. TxDOT did not receive any response from either organization.

### **Determination of Effects**

- Direct Effect: The project consists of constructing three concrete box culverts to allow for crossings at each drain and canal. The irrigation features will continue to serve in the same capacity, and there will not be a change to the use or function of the structures. Additionally, the wingwalls and abutments will meet the EPWID1 standards and would not constitute a major alteration to the banks of the canals or drain. The purpose of the canals and drain to deliver water would be unaffected. This proposed project would not create a noticeable visible change to the overall system's character-defining features, and would not adversely affect the system's integrity of location, setting, feeling, association, design, workmanship, or materials. The function of the EPWID1 will not be impaired, nor will it cease. Therefore, these minor changes pose **no adverse effect** as the property would still possess its significance following completion of the project.
- Indirect Effects: Project activities pose no indirect effects on the EPWID1. The construction of three concrete box culverts would not affect or diminish the qualities and characteristics that contribute to the historic significance of the property.

#### **OUR GOALS**

**MAINTAIN A SAFE SYSTEM • ADDRESS CONGESTION • CONNECT TEXAS COMMUNITIES • BEST IN CLASS STATE AGENCY**

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- Cumulative Effects: Additionally, project activities pose no foreseeable cumulative adverse effects to the EPWID1 because the project would not impair the function of the historic irrigation system.

**Conclusion**

In accordance with 36 CFR 800 and the 2015 Section 106 PA, I hereby request your signed concurrence with TxDOT's finding of **no adverse effect** to the El Paso Water Improvement District Number 1. We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the aforementioned MOU dated 12-16-14.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please contact me at (512) 416-2570 or rebekah.dobrasko@txdot.gov.

Sincerely,

*RMDobrasko*

Rebekah Dobrasko  
Historic Preservation Specialist  
Environmental Affairs

thru: Bruce Jensen, Cultural Resource Management Section Director:

*BJ*

CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:  
NO ADVERSE EFFECT: EL PASO WATER IMPROVEMENT DISTRICT NUMBER 1

NAME: *Mark Wolfe*  
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NO COMMENTS ON DETERMINATION OF DE MINIMIS IMPACT UNDER SECTION 4(F) REGULATIONS

NAME: *Mark Wolfe*  
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DATE: *12/21/16*

## **APPENDIX E: SUPPLEMENTAL INFORMATION**

**Amended Horizon 2040 MTP Project List  
2017-2020 STIP**

**Amended Horizon 2040 MTP Project List  
TX Highway and Roadway (FHWA and Local funds)**

| CSJ         | Project ID  | Project Name   | Project Description   | From   | To   | Network | Current Const. Cost / 2013-2040 Cost | Est. Const. Cost (Includes Inflation) | Est. PE Cost (Includes Inflation) | Est. ROW Cost (Includes Inflation) | Total Project Cost/YOE (Includes Inflation) | Sponsor   | YOE (FY) |
|-------------|-------------|--|---|--|--|---------|--------------------------------------|---------------------------------------|-----------------------------------|------------------------------------|---|-----------|----------|
| 0924-06-500 | P438X-MOD   | Eastlake Blvd. Phase 2   | Build 4-Lane Divided  | Desert Mist Dr   | Horizon Blvd   | 2020    | \$0                                  | \$0                                   | \$0                               | \$0                                | \$0   | Horizon   | 2016     |
| 0924-06-514 | E402X       | Eastlake Safe Routes To School Project   | Construction Of A 10 Ft Wide Dual Use Path On Both North And South Sides Of Eastlake Blvd To Include Curb Ramps, Signage, Pavement Markings, Landscaping, Lighting, Bike Parking And Bike Racks, As Part Of The Town's Safe Routes To School Plan   | Approximately 800 Feet East Of The Eastlake Boulevard And Darrington Road Intersection | Intersection Of Eastlake Boulevard And Kenazo Avenue | 2020    | \$1,056,898                          | \$1,056,898                           | \$85,000                          | \$0                                | \$1,141,898                                 | Horizon   | 2017     |
| 0924-06-503 | P459X       | Edgemere Blvd. / Rich Beem Blvd Roundabout   | Construct a roundabout that will be designed and constructed to accommodate lanes and parameters.   | Edgemere Blvd/Rich Beem Blvd Roundabout  |  | 2020    | \$2,399,062                          | \$2,399,062                           | \$191,313                         | \$0                                | \$2,590,375                                 | COEP      | 2017     |
| 0924-06-527 | M086X       | El Paso County Regional Transit Feasibility Study  | Provide research to document options for a county-wide transit agency for the County of El Paso   | Countywide   |  | 2020    | \$500,000                            | \$500,000                             | \$0                               | \$0                                | \$500,000                                   | CountyEP  | 2016     |
| 0924-06-446 | T305-CAP    | El Paso Streetcar (Formerly Oregon Streetcar)  | Design/Construct/Procure Roadway/Pedestrian/Other Elements Required For The El Paso Streetcar Project, Including Vehicles   | Oregon Street And Stanton Street   |  | 2020    | \$92,500,000                         | \$92,500,000                          | \$4,500,000                       | \$0                                | \$97,000,000                                | CRRMA     | 2015     |
| 0924-06-344 | C020X       | Feasibility Study For Socorro POE  | Conduct A Feasibility Study For Socorro Port Of Entry   | N/A  |  | 2030    | \$1,000,000                          | \$1,169,859                           | \$0                               | \$0                                | \$1,169,859                                 | Socorro   | 2022     |
|             | P520A-15A   | FM 1110 - Clint Connection Rd.   | Build 2-Lanes From Border Highway Extension To Riverside Rd. And Upgrade/Rehabilitate The Existing Herring Rd. From Riverside Rd To Alameda Ave. (SH 20)  | Border Hwy Extension   | Alameda Ave (SH 20)                                  | 2030    | \$9,106,048                          | \$11,982,938                          | \$587,164                         | \$838,806                          | \$13,408,908                                | Clint     | 2025     |
| 1281-02-007 | P520B-1-15A | FM 1110 Clint Connection Rd. - Phase 1   | Widen from 2 to 4-lane divided roadway  | FM 76 (North Loop Dr)  | I-10   | 2020    | \$5,500,000                          | \$5,500,000                           | \$600,000                         | \$0                                | \$6,100,000                                 | CountyEP  | 2018     |
| 1281-01-017 | P520B-2-15A | FM 1110 Clint Connection Rd. - Phase 2   | Construct a new 4 lane divided roadway with intersection improvements (reconstruction of intersections and additional turnlanes) at FM 76 (North Loop Dr) and SH 20 (Alameda Ave)   | SH 20 (Alameda Ave)  | FM 76 (North Loop Dr.)                               | 2020    | \$29,500,000                         | \$29,500,000                          | \$1,000,000                       | \$0                                | \$30,500,000                                | CountyEP  | 2019     |
| 1281-02-005 | P456X-CAP   | FM 1110 Clint Rd At I-10 Interchange Widening Improvements                                 | Widening FM 1110 Bridge From 2 To 4-Lanes Undivided Including Operational Improvements  | I-10 At FM 1110  |  | 2020    | \$9,449,138                          | \$9,449,138                           | \$0                               | \$0                                | \$9,449,138                                 | TXDOT     | 2014     |
|             | P431X-MOD   | FM 1281 (Horizon Blvd.) Widening   | Widen To 6 Lanes Divided  | I-10   | Antwerp  | 2040    | \$4,454,621                          | \$7,417,271                           | \$363,446                         | \$519,209                          | \$8,299,926                                 | TXDOT     | 2031     |
| 0924-06-406 | E400X       | FM 1281 Horizon Blvd. Walk/Bike Path   | Install Approximately 3 Mi Of Pathway To Accommodate Bikes And Pedestrians.   | Ashford St   | Rifton St  | 2020    | \$1,407,489                          | \$1,407,489                           | \$0                               | \$0                                | \$1,407,489                                 | Horizon   | 2013     |
| 8056-24-003 | A506X-ROW   | FM 1281 Horizon Blvd/ Buford Rd. Row   | Row For Widen To 4 Lanes Divided With Striped Median.   | FM 76 North Loop   | SH 20 Alameda  | 2020    | \$2,808,947                          | \$0                                   | \$0                               | \$2,808,947                        | \$2,808,947                                 | TXDOT     | 2013     |
| 8056-24-001 | A506X-05A   | FM 1281 Horizon Blvd/ Buford Rd. Widening  | Widen To 4 Lanes Divided With Striped Median.   | FM 76 North Loop   | SH 20 Alameda  | 2020    | \$4,267,460                          | \$4,267,460                           | \$324,745                         | \$0                                | \$4,592,205                                 | TXDOT     | 2013     |
|             | P206B-15A   | FM 3255 (Martin Luther King) Widening  | Widen To 4 Lanes Divided  | Nm State Line  | Loma Real Ave.                                       | 2030    | \$4,770,400                          | \$5,803,921                           | \$0                               | \$0                                | \$5,803,921                                 | TXDOT     | 2023     |
| 0924-06-311 | A522C-MOD   | FM 3380 - Manuel F. Aguilera (Mfa) Hwy   | Build 2-Lanes Undivided Including Overpass At SH 20/Upr   | 0.35 Mi S Of SH 20 (Alameda Ave.)  | I-10   | 2020    | \$19,553,540                         | \$19,553,540                          | \$804,978                         | \$0                                | \$20,358,518                                | County EP | 2015     |
|             | A522D-CAP   | FM 3380 - Manuel F. Aguilera Hwy Widening Phase Iii  | Widening From 2 Lane Undivided To 4 Lane Divided. Including Overpass Widening At SH 20 (Alameda Ave.)/Up Railroad   | 0.35 Mi S Of SH 20 (Alameda Ave.)  | I-10   | 2030    | \$15,043,000                         | \$16,921,329                          | \$829,145                         | \$0                                | \$17,750,474                                | County EP | 2021     |
| 1046-01-024 | M405X       | FM 659 - Fiber Interconnect For Zaragoza Road  | FM 659 - Fiber Interconnect For Zaragoza Road   | On FM 659 (Zaragoza Rd)  |  | 2020    | \$726,500                            | \$726,500                             | \$73,500                          | \$0                                | \$800,000                                   | COEP      | 2014     |
|             | P530X-MOD   | FM 659 (Zaragoza Rd.) Widening   | Widen To 6-Lanes Divided  | I-10   | North Loop Dr.                                       | 2040    | \$4,543,713                          | \$7,565,616                           | \$370,715                         | \$529,593                          | \$8,465,925                                 | TXDOT     | 2031     |
| 1046-01-021 | P428X-MOD   | FM 659 (Zaragoza Road) Widening  | Widen 4 Lane To 6 Lanes Divided, to include transitional work from LP 375 to Sunfire  | Sun Fire   | US 62/180 (Montana)                                  | 2020    | \$14,254,786                         | \$15,417,977                          | \$755,481                         | \$1,079,258                        | \$17,252,716                                | TXDOT     | 2020     |
|             | P515-ROW    | FM 659 Zaragoza Rd Overpass-Row  | Row Acquisition   | Sunland St.  | North Mellon   | 2030    | \$12,879,999                         | \$0                                   | \$0                               | \$15,670,488                       | \$15,670,488                                | COEP      | 2023     |
| 0924-06-188 | P515B       | FM 659 Zaragoza Rd RR Overpass   | Grade Separated Overpass  | At Union Pacific Railroad  |  | 2030    | \$10,266,918                         | \$14,050,986                          | \$688,498                         | \$0                                | \$14,739,485                                | COEP      | 2026     |
|             | P518X       | FM 793 (Fabens St)   | Upgrade 2-Lane Street   | K Ave  | I-10   | 2040    | \$1,588,257                          | \$2,644,565                           | \$129,584                         | \$0                                | \$2,774,149                                 | TXDOT     | 2031     |
| 2552-01-054 | F045X       | Franklin Mtn. State Park Entrance Improvements (LET in Nov FY 2015, original YOE was 2020) | Develop A design And Construct A New Entrance For The Franklin Mtn State Park (Loop 375 Transmountain West) And Loop 375 Geometric Improvements May Include Construction Of Curb And Gutter, Left/Right Turn Bays, Signalization, Roundabouts, Pedestrian/Bicycle Amenities, Traffic Control Devices. | Resler   | 0.479 Mi. E. Of Franklin Mtn State Park Entrance     | 2020    | \$7,182,078                          | \$7,182,078                           | \$351,922                         | \$0                                | \$7,534,000                                 | TXDOT     | 2015     |
|             | M069X       | Geometric Improvements City Of El Paso   | Geometric Improvements May Include Construction Of Curb And Gutter, Left/Right Turn Bays, Signalization, Roundabouts, Pedestrian/Bicycle Amenities, Traffic Control Devices.  | Citywide   |  | 2030    | \$1,000,000                          | \$1,124,864                           | \$0                               | \$0                                | \$1,124,864                                 | COEP      | 2021     |
|             | M070X       | Geometric Improvements City Of El Paso   | Geometric Improvements May Include Construction Of Curb And Gutter, Left/Right Turn Bays, Signalization, Roundabouts, Pedestrian/Bicycle Amenities, Traffic Control Devices.  | Citywide   |  | 2030    | \$1,000,000                          | \$1,124,864                           | \$0                               | \$0                                | \$1,124,864                                 | COEP      | 2021     |
|             | M071X       | Geometric Improvements City Of El Paso   | Geometric Improvements May Include Construction Of Curb And Gutter, Left/Right Turn Bays, Signalization, Roundabouts, Pedestrian/Bicycle Amenities, Traffic Control Devices.  | Citywide   |  | 2040    | \$1,000,000                          | \$1,665,074                           | \$0                               | \$0                                | \$1,665,074                                 | COEP      | 2031     |
| 0000-00-000 | M404B-15A   | George Dieter  | Restripe To 6 Lanes   | Rojas  | Montana Ave (US 62/180)                              | 2020    | \$360,000                            | \$389,376                             | \$19,079                          | \$0                                | \$408,455                                   | COEP      | 2020     |
| 0924-06-477 | M082X       | Great Streets And Corridor Plan  | Create A Document To Emphasize A Mechanism To Improve Right-Of-Ways Into High-Quality Public Spaces Intended To Serve All Modes Of Transportation, Including Walkability, Bicycling, And Mass Transit.  | Citywide   |  | 2020    | \$100,000                            | \$100,000                             | \$0                               | \$0                                | \$100,000                                   | COEP      | 2014     |
| 0000-00-000 | P450X-CAP   | Greg Dr./Edgemere Extension  | Build/Widen From 4 To 6 Lanes   | Rene Dr.   | Vista Del Este Rd.                                   | 2020    | \$2,350,000                          | \$2,444,000                           | \$119,756                         | \$171,080                          | \$2,734,836                                 | County EP | 2019     |
| 0000-00-000 | P451X-CAP   | Greg Dr./Edgemere Extension Widening   | Stripe From 4 To 6-Lane Divided Within Existing Row   | Zaragoza   | Rene Dr.   | 2020    | \$273,000                            | \$295,277                             | \$14,469                          | \$0                                | \$309,746                                   | COEP      | 2020     |
| 0924-06-501 | A427X-CAP   | Greg Dr/Edgemere Extension Construction  | Build 4-Lane Divided  | Mager Dr.  | Vista Del Este Rd.                                   | 2020    | \$5,650,000                          | \$5,650,000                           | \$0                               | \$0                                | \$5,650,000                                 | County EP | 2016     |
|             | P531X       | Hawkins Blvd   | Rehabilitation And Intersection Improvements With Right Turn Lanes  | North Loop Dr. (FM 76)   | Ih-10  | 2030    | \$6,622,765                          | \$9,063,711                           | \$444,122                         | \$0                                | \$9,507,833                                 | COEP      | 2026     |
|             | P533X       | Hawkins Blvd. Overpass Design/Construction   | Street Improvements To Include Design And Construction Of Roadway Elements And Overpass.  | North Loop   | Alameda  | 2040    | \$16,785,000                         | \$27,948,259                          | \$1,369,465                       | \$1,956,378                        | \$31,274,102                                | COEP      | 2031     |
|             | P506X-ROW   | Hawkins Blvd. Row  | Row Acquisition   | I-10   | North Loop (FM 76)                                   | 2040    | \$4,767,177                          | \$0                                   | \$0                               | \$7,937,700                        | \$7,937,700                                 | COEP      | 2031     |
| 0924-06-519 | E107X       | Hawthorne Dr Pedestrian and Bicycle Enhancements   | Construction Of New Sidewalks To Include Ada Compliant Curb Ramps, Crosswalks, Landscaping, Irrigation System, Lighting, Reconstruction And Widening Of Existing Sidewalks For On -Street Parking And Bike Lanes  | Rim Road Intersection  | Crosby Avenue Intersection                           | 2020    | \$480,291                            | \$480,291                             | \$39,100                          | \$0                                | \$519,391                                   | UTEP      | 2016     |
| 0924-06-377 | M050X       | Highway Advisory Radio System  | Highway Advisory Radio System On I-10 FM 1905 (Anthony) To Rm793, US 54 Loop 375 Border Hwy To US-54 State Line, & Loop 375 US 62/180 (Montana) Interchange   | Citywide   |  | 2020    | \$317,433                            | \$317,433                             | \$23,356                          | \$0                                | \$340,789                                   | TXDOT     | 2013     |
|             | E004        | I-10 Aesthetics  | Aesthetic Improvements Along I-10   | Citywide   |  | 2030    | \$17,100,000                         | \$19,235,174                          | \$0                               | \$0                                | \$19,235,174                                | COEP      | 2021     |
| 2121-03-153 | E003C       | I-10 At Airway Aesthetics  | Aesthetics At Airway Intersection To Include Fencing, Landscaping And Treatments On Structures  | Geronimo   | Hawkins  | 2020    | \$9,765,000                          | \$9,765,000                           | \$200,000                         | \$0                                | \$9,965,000                                 | CRRMA     | 2013     |
| 2121-04-093 | I007F       | I-10 At Loop 375 (Americas Ave) Direct Connector Nb To Eb And Sb To Eb                     | Interchange Improvements Include: Frontage Rd, Cloverleaf, And Construction Of Remainder Direct Connector Nb To Eb And Sb To Eb   | I-10 At Loop 375 (Americas)  |  | 2020    | \$31,027,043                         | \$31,027,043                          | \$0                               | \$0                                | \$31,027,043                                | TXDOT     | 2014     |

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM  
EL PASO MPO - HIGHWAY PROJECTS  
FY 2019

| 2017-2020 STIP  |                    | 05/2017 Revision: Approved 08/22/2017 |   |                |               |                                 |                |               |                |
|---|--------------------|---------------------------------------|---|----------------|---------------|---------------------------------|----------------|---------------|----------------|
| DISTRICT  | MPO                | COUNTY                                | CSJ   | HWY            | PHASE         | CITY                            | YOE COST       |               |                |
| EL PASO   | EL PASO            | EL PASO                               | 2552-02-028                                 | LP 375         | C             | EL PASO                         | \$ 44,663,725  |               |                |
| <b>LIMITS FROM</b> SPUR 601   |                    | <b>PROJECT SPONSOR</b> TXDOT          |   |                |               |                                 |                |               |                |
| <b>LIMITS TO</b> US 62/180 (MONTANA AVE.)   |                    |                                       |   |                |               | <b>REVISION DATE</b> 05/2017    |                |               |                |
| <b>PROJECT</b> LOOP 375 (PURPLE HEART) WIDENING AND CONSTRUCTION OF FRONTAGE ROADS: WIDEN 4 TO  |                    |                                       |   |                |               | <b>MPO PROJ NUM</b> F057X-CAP   |                |               |                |
| <b>DESCR</b> 6 LANES ON MAIN LANES AND CONSTRUCT 2 LANE FRONTAGE ROADS IN EACH DIRECTION  |                    |                                       |   |                |               | <b>FUNDING CAT(S)</b>           |                |               |                |
| <b>REMARKS</b> AMEND TO PROGRAM INTO AMENDED H2040 MTP, H17-20 TIP P7 , 17-20 STIP IN FY 2019. NONEXEMPT  |                    | <b>PROJECT HISTORY</b>                |   |                |               |                                 |                |               |                |
| <b>TOTAL PROJECT COST INFORMATION</b>   |                    |                                       | <b>AUTHORIZED FUNDING BY CATEGORY/SHARE</b> |                |               |                                 |                |               |                |
| PREL ENG \$   | 2,421,570          | <b>COST OF APPROVED PHASES</b>        | <b>CATEGORY</b>                             | <b>FEDERAL</b> | <b>STATE</b>  | <b>REGIONAL</b>                 | <b>LOCAL</b>   | <b>LC</b>     | <b>TOTAL</b>   |
| ROW PURCH \$  | 7,626,000          |                                       | 4   | \$ 13,911,780  | \$ 3,477,945  | \$ 0                            | \$ 0           | \$ 0          | \$ 17,389,725  |
| CONSTR \$   | 44,663,725         |                                       | 2M  | \$ 21,819,200  | \$ 5,454,800  | \$ 0                            | \$ 0           | \$ 0          | \$ 27,274,000  |
| CONST ENG \$  | 2,125,051          |                                       | TOTAL                                       | \$ 35,730,980  | \$ 8,932,745  | \$ 0                            | \$ 0           | \$ 0          | \$ 44,663,725  |
| CONTING \$  | 88,955             |                                       |   |                |               |                                 |                |               |                |
| INDIRECT \$   | 0                  |                                       |   |                |               |                                 |                |               |                |
| BOND FIN \$   | 0                  |                                       |   |                |               |                                 |                |               |                |
| PT CHG ORD \$   | 2,327,672          |                                       |   |                |               |                                 |                |               |                |
| <b>TOTAL CST</b> \$   | <b>56,925,301</b>  |                                       |   |                |               |                                 |                |               |                |
| 2017-2020 STIP  |                    | 05/2017 Revision: Approved 08/22/2017 |   |                |               |                                 |                |               |                |
| DISTRICT  | MPO                | COUNTY                                | CSJ   | HWY            | PHASE         | CITY                            | YOE COST       |               |                |
| EL PASO   | EL PASO            | EL PASO                               | 1281-01-017                                 | FM 1110        | C             | N/A                             | \$ 29,500,000  |               |                |
| <b>LIMITS FROM</b> SH 20(ALAMEDA AVE)   |                    | <b>PROJECT SPONSOR</b> COUNTYEP       |   |                |               |                                 |                |               |                |
| <b>LIMITS TO</b> FM 76 (NORTH LOOP DR.)   |                    |                                       |   |                |               | <b>REVISION DATE</b> 05/2017    |                |               |                |
| <b>PROJECT</b> FM 1110 CLINT CONNECTION RD - PHASE 2: CONSTRUCT A NEW 4 LANE DIVIDED ROADWAY WI   |                    |                                       |   |                |               | <b>MPO PROJ NUM</b> P520B-2-15A |                |               |                |
| <b>DESCR</b> TH INTERSECTION IMPROVEMENTS (RECONSTRUCTION OF INTERSECTIONS AND ADDITIONAL TURN LANES) AT FM 76 (NORTH LOOP DR) AND SH 20 (ALAMEDA AVE).                                     |                    |                                       |   |                |               | <b>FUNDING CAT(S)</b> 3LC       |                |               |                |
| <b>REMARKS</b> AMEND TO PROGRAM INTO AMENDED H2040 MTP, H17-20 TIP P7 , 17-20 STIP IN FY 2019 NONEXEMPT   |                    | <b>PROJECT HISTORY</b>                |   |                |               |                                 |                |               |                |
| <b>TOTAL PROJECT COST INFORMATION</b>   |                    |                                       | <b>AUTHORIZED FUNDING BY CATEGORY/SHARE</b> |                |               |                                 |                |               |                |
| PREL ENG \$   | 1,000,000          | <b>COST OF APPROVED PHASES</b>        | <b>CATEGORY</b>                             | <b>FEDERAL</b> | <b>STATE</b>  | <b>REGIONAL</b>                 | <b>LOCAL</b>   | <b>LC</b>     | <b>TOTAL</b>   |
| ROW PURCH \$  | 0                  |                                       | 3LC   | \$ 0           | \$ 0          | \$ 0                            | \$ 0           | \$ 29,500,000 | \$ 29,500,000  |
| CONSTR \$   | 29,500,000         |                                       | TOTAL                                       | \$ 0           | \$ 0          | \$ 0                            | \$ 0           | \$ 29,500,000 | \$ 29,500,000  |
| CONST ENG \$  | 0                  |                                       |   |                |               |                                 |                |               |                |
| CONTING \$  | 0                  |                                       |   |                |               |                                 |                |               |                |
| INDIRECT \$   | 0                  |                                       |   |                |               |                                 |                |               |                |
| BOND FIN \$   | 0                  |                                       |   |                |               |                                 |                |               |                |
| PT CHG ORD \$   | 0                  |                                       |   |                |               |                                 |                |               |                |
| <b>TOTAL CST</b> \$   | <b>30,500,000</b>  |                                       |   |                |               |                                 |                |               |                |
| 2017-2020 STIP  |                    | 05/2017 Revision: Approved 08/22/2017 |   |                |               |                                 |                |               |                |
| DISTRICT  | MPO                | COUNTY                                | CSJ   | HWY            | PHASE         | CITY                            | YOE COST       |               |                |
| EL PASO   | EL PASO            | EL PASO                               | 0374-02-097                                 | US 62/180      | C             | EL PASO                         | \$ 121,733,894 |               |                |
| <b>LIMITS FROM</b> ON US 62/180 (MONTANA AVE.) EXPRESSWAY & FRONTAGE ROADS, PHASE I AT GLOBAL REACH DR.   |                    | <b>PROJECT SPONSOR</b> TXDOT          |   |                |               |                                 |                |               |                |
| <b>LIMITS TO</b> FM 659 (ZARAGOZA RD.)  |                    |                                       |   |                |               | <b>REVISION DATE</b> 05/2017    |                |               |                |
| <b>PROJECT</b> BUILDWB3LN FRONTAGE ROAD(FR)GLOBAL REACHDR(GR)TOTIERRA ESTERD(TE). ANCILLARYWORK   |                    |                                       |   |                |               | <b>MPO PROJ NUM</b> F407A-CAP   |                |               |                |
| <b>DESCR</b> GR TO TE TO CONVERTEXISTING3LN EB ML TO 3LN EB FR.CONSTRUCT6LN EXWY EB/WB MLSW/AUXILIARYLNS&GRADESEPARATIONSATINTERSECTIONSLEETREVINODR TO TE. INCIDENTAL WORK TO ZARAGOZA DR. |                    |                                       |   |                |               | <b>FUNDING CAT(S)</b>           |                |               |                |
| <b>REMARKS</b> AMEND TO PROGRAM INTO AMENDED H2040 MTP, H17-20 TIP P7 , 17-20 STIP IN FY 2019 NONEXEMPT   |                    | <b>PROJECT HISTORY</b>                |   |                |               |                                 |                |               |                |
| <b>TOTAL PROJECT COST INFORMATION</b>   |                    |                                       | <b>AUTHORIZED FUNDING BY CATEGORY/SHARE</b> |                |               |                                 |                |               |                |
| PREL ENG \$   | 6,366,239          | <b>COST OF APPROVED PHASES</b>        | <b>CATEGORY</b>                             | <b>FEDERAL</b> | <b>STATE</b>  | <b>REGIONAL</b>                 | <b>LOCAL</b>   | <b>LC</b>     | <b>TOTAL</b>   |
| ROW PURCH \$  | 38,600,000         |                                       | 2M  | \$ 12,669,827  | \$ 3,167,457  | \$ 0                            | \$ 0           | \$ 0          | \$ 15,837,284  |
| CONSTR \$   | 121,733,894        |                                       | 4   | \$ 52,717,288  | \$ 13,179,322 | \$ 0                            | \$ 0           | \$ 0          | \$ 65,896,610  |
| CONST ENG \$  | 0                  |                                       | 12  | \$ 32,000,000  | \$ 8,000,000  | \$ 0                            | \$ 0           | \$ 0          | \$ 40,000,000  |
| CONTING \$  | 2,585,472          |                                       | TOTAL                                       | \$ 97,387,115  | \$ 24,346,779 | \$ 0                            | \$ 0           | \$ 0          | \$ 121,733,894 |
| INDIRECT \$   | 0                  |                                       |   |                |               |                                 |                |               |                |
| BOND FIN \$   | 0                  |                                       |   |                |               |                                 |                |               |                |
| PT CHG ORD \$   | 4,859,129          |                                       |   |                |               |                                 |                |               |                |
| <b>TOTAL CST</b> \$   | <b>169,285,605</b> |                                       |   |                |               |                                 |                |               |                |

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM  
EL PASO MPO - HIGHWAY PROJECTS  
FY 2018

| 2017-2020 STIP  |                   | 02/2018 Revision: Pending Approval   |   |              |                 |              |               |               |
|---|-------------------|--|---|--------------|-----------------|--------------|---------------|---------------|
| DISTRICT  | MPO               | COUNTY   | CSJ   | HWY          | PHASE           | CITY         | YOE COST      |               |
| EL PASO   | EL PASO           | EL PASO  | 1281-02-007                                 | FM 1110      | C               | N/A          | \$ 15,500,000 |               |
| <b>LIMITS FROM</b> FM 76 (NORTH LOOP)   |                   | <b>PROJECT SPONSOR</b> EP COUNTY   |   |              |                 |              |               |               |
| <b>LIMITS TO</b> I-10   |                   | <b>REVISION DATE</b> 02/2018   |   |              |                 |              |               |               |
| <b>PROJECT</b> FM 1110 CLINT CONNECTION RD - PHASE 1: WIDEN FROM 2 TO 4-LANE DIVIDED ROADWAY  |                   | <b>MPO PROJ NUM</b> P520B-1-15A  |   |              |                 |              |               |               |
| <b>DESCR</b>  |                   | <b>FUNDING CAT(S)</b> 11,3LC   |   |              |                 |              |               |               |
| <b>REMARKS</b> Amend to add \$10,000,000 in CAT 11B funds to the ex P7 listing local contribution of \$5,500,000 for a total construction cost of \$15,500,000. |                   | <b>PROJECT HISTORY</b> Amend to program amended H2040 MTP, H17-20 TIP, 17-20 STI P, FY2018 NONEXEMPT |   |              |                 |              |               |               |
| <b>TOTAL PROJECT COST INFORMATION</b>   |                   |  | <b>AUTHORIZED FUNDING BY CATEGORY/SHARE</b> |              |                 |              |               |               |
| PREL ENG \$   | 600,000           | <b>CATEGORY</b>  | <b>FEDERAL</b>                              | <b>STATE</b> | <b>REGIONAL</b> | <b>LOCAL</b> | <b>LC</b>     | <b>TOTAL</b>  |
| ROW PURCH \$  | 0                 | 3LC  | \$ 0  | \$ 0         | \$ 0            | \$ 0         | \$ 5,500,000  | \$ 5,500,000  |
| CONSTR \$   | 15,500,000        | 11   | \$ 8,000,000                                | \$ 0         | \$ 0            | \$ 2,000,000 | \$ 0          | \$ 10,000,000 |
| CONST ENG \$  | 0                 | <b>TOTAL</b>   | \$ 8,000,000                                | \$ 0         | \$ 0            | \$ 2,000,000 | \$ 5,500,000  | \$ 15,500,000 |
| CONTING \$  | 0                 |  |   |              |                 |              |               |               |
| INDIRECT \$   | 0                 |  |   |              |                 |              |               |               |
| BOND FIN \$   | 0                 |  |   |              |                 |              |               |               |
| PT CHG ORD \$   | 0                 |  |   |              |                 |              |               |               |
| <b>TOTAL CST</b> \$   | <b>16,100,000</b> |  |   |              |                 |              |               |               |
| 2017-2020 STIP  |                   | 02/2018 Revision: Pending Approval   |   |              |                 |              |               |               |
| DISTRICT  | MPO               | COUNTY   | CSJ   | HWY          | PHASE           | CITY         | YOE COST      |               |
| EL PASO   | EL PASO           | EL PASO  | 0924-06-561                                 | N/A          | T               | EL PASO      | \$ 2,174,640  |               |
| <b>LIMITS FROM</b> FATHER RAHM  |                   | <b>PROJECT SPONSOR</b> SUN METRO   |   |              |                 |              |               |               |
| <b>LIMITS TO</b> GLORY ROAD   |                   | <b>REVISION DATE</b> 02/2018   |   |              |                 |              |               |               |
| <b>PROJECT</b> STREETCAR OPERATING ASSISTANCE - 2018: OPERATING ASSISTANCE FOR FIRST YEAR OF NE   |                   | <b>MPO PROJ NUM</b> T108X-1  |   |              |                 |              |               |               |
| <b>DESCR</b> W TRANSIT SERVICE INTENDED TO REDUCE CONGESTION AND CO EMISSIONS.  |                   | <b>FUNDING CAT(S)</b>  |   |              |                 |              |               |               |
| <b>REMARKS</b> AMEND H2040 MTP, H17-20 TIP, 17-20 STIP TO PROGRAM P7 IN FY 2018. EXEMPT   |                   | <b>PROJECT HISTORY</b>   |   |              |                 |              |               |               |
| <b>TOTAL PROJECT COST INFORMATION</b>   |                   |  | <b>AUTHORIZED FUNDING BY CATEGORY/SHARE</b> |              |                 |              |               |               |
| PREL ENG \$   | 0                 | <b>CATEGORY</b>  | <b>FEDERAL</b>                              | <b>STATE</b> | <b>REGIONAL</b> | <b>LOCAL</b> | <b>LC</b>     | <b>TOTAL</b>  |
| ROW PURCH \$  | 0                 | 5  | \$ 1,739,712                                | \$ 0         | \$ 0            | \$ 434,928   | \$ 0          | \$ 2,174,640  |
| CONSTR \$   | 2,174,640         | <b>TOTAL</b>   | \$ 1,739,712                                | \$ 0         | \$ 0            | \$ 434,928   | \$ 0          | \$ 2,174,640  |
| CONST ENG \$  | 0                 |  |   |              |                 |              |               |               |
| CONTING \$  | 0                 |  |   |              |                 |              |               |               |
| INDIRECT \$   | 0                 |  |   |              |                 |              |               |               |
| BOND FIN \$   | 0                 |  |   |              |                 |              |               |               |
| PT CHG ORD \$   | 0                 |  |   |              |                 |              |               |               |
| <b>TOTAL CST</b> \$   | <b>2,174,640</b>  |  |   |              |                 |              |               |               |