Draft Environmental Assessment

FM 1626

From Brodie Lane to Manchaca Rd (FM 2304)

CSJ: 1539-02-026

Austin, Texas

November 2015

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 the Federal Highway Administration and TxDOT.

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Table of Contents

1.0 INTRODUCTION 1

2.0 PROJECT DESCRIPTION 1

2.1 EXISTING FACILITY 1

2.2 PURPOSE AND NEED FOR THE PROPOSED PROJECT 1

2.3 ALTERNATIVES ANALYSIS 2

2.3.1 PRELIMINARY ALTERNATIVES 2

2.3.2 REASONABLE ALTERNATIVES 3

2.3.3 PROPOSED FACILITY 4

3.0 PLANNING AND PROGRAMMING STATUS 5

4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES 5

4.1 COMMUNITY IMPACTS 6

4.1.1 RIGHT OF WAY/DISPLACEMENTS 6

4.1.2 LAND USE AND RECREATIONAL RESOURCES 6

4.1.3 COMMUNITY COHESION, MOBILITY AND ACCESS 7

4.1.4 ENVIRONMENTAL JUSTICE 8

4.1.5 LIMITED ENGLISH PROFICIENCY 9

4.1.6 VISUAL/AESTHETICS 9

4.2 CULTURAL RESOURCES 9

4.2.1 ARCHAEOLOGICAL RESOURCES 9

4.2.2 HISTORIC RESOURCES 10

4.3 WATER RESOURCES 11

4.3.1 WATERS OF THE U.S. 11

4.3.2 FLOODPLAINS 11

4.3.3 GROUND WATER 12

4.4 BIOLOGICAL RESOURCES 12

4.4.1 VEGETATION 12

4.4.2 WILDLIFE AND MIGRATORY BIRDS 13

4.4.3 THREATENED AND ENDANGERED SPECIES AND SPECIES OF GREATEST CONSERVATION NEED 14

(a) Federally-listed Species Threatened and Endangered Species 14

(b) State-listed Threatened and Endangered Species 15

(c) Species of Greatest Conservation Need 15

4.5 HAZARDOUS MATERIALS 16

4.6 AIR QUALITY 17

4.7 TRAFFIC NOISE 18

5.0 PUBLIC INVOLVEMENT 18

6.0 CONCLUSION 18

7.0 PERMITS, APPROVALS AND COMMITMENTS 19

7.1 RIGHT-OF-WAY DISPLACEMENTS 19
7.2 VEGETATION AND WILDLIFE HABITAT 19
7.3 WATER QUALITY 20
7.4 AIR QUALITY 21
7.5 NOISE 21
7.6 CULTURAL RESOURCES 21
7.7 HAZARDOUS MATERIALS 21
7.8 TRAFFIC CONTROL 22
8.0 REFERENCES 23

List of Appendices

Appendix A: Figures

Figure 1 – Project Location

Figure 2 – Typical Sections

Figure 3 – Plan View

Figure 4 – USGS Map

Appendix B: CAMPO RTP and TIP Documentation

LIST OF ABBREVIATIONS/ACRONYMS

ADT	Average Daily Traffic
AADT	Average Annual Daily Traffic
AISD	Austin Independent School District
APE	Area of Potential Effect
BMP	Best Management Practice
CAMPO	Capital Area Metropolitan Planning Organization
CFR	Code of Federal Regulations
EJ	Environmental Justice
EMST	Ecological Mapping System of Texas
EO	Executive Order
EPA	Environmental Protection Agency
ETJ	Extra-Territorial Jurisdiction
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FM	Farm-to-Market Road
FONSI	Finding of No Significant Impact
ISA	Initial Site Assessment
LEP	Limited English Proficiency
MOU	Memorandum of Understanding
MSAT	Mobile Source Air Toxics
NEPA	National Environmental Policy Act of 1969
NRHP	National Register of Historical Places
NWP	Nationwide Permit
OHWM	Ordinary High Water Mark
PCN	Preconstruction Notification
ROW	Right of Way
SGCN	Species of Greatest Conservation Need
SSA	Survey Study Area
SW3P	Storm Water Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
THC	Texas Historical Commission
TIP	Transportation Improvement Program
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TxDOT	Texas Department of Transportation
TxNDD	Texas Natural Diversity Database
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

1.0 INTRODUCTION

The Austin District of the Texas Department of Transportation (TxDOT) proposes an expansion of Farm-to-Market Road (FM) 1626 in southwest Travis County, Texas. The proposed project would extend from Brodie Lane to FM 2304 (Manchaca Road) – a total length of approximately 0.9 mile (see **Appendix A: Figure 1**). Transitions would be provided between the improved roadway section and the existing roadway west of Brodie Lane and east of Manchaca Road. Factoring in transition areas, the total length of the project is increased to approximately 1.3 miles. The proposed project would entail upgrading the existing two-lane roadway to a four-lane roadway with a center turn lane and sidewalks. Five-foot-wide shoulders would be provided and would accommodate bicycle traffic.

This Environmental Assessment has been developed in order to study the potential environmental consequences of construction of the proposed project. This document has been prepared in accordance with the procedural provisions of the National Environmental Policy Act (NEPA); the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500- 1508); Environmental Impact and Related Procedures (23 CFR Part 771); and Environmental Review of Transportation Projects (Texas Administrative Code Title 43, Part 1, Chapter 2).

2.0 PROJECT DESCRIPTION

2.1 EXISTING FACILITY

The existing FM 1626 in the project limits is an undivided roadway consisting of two 11-foot-wide travel lanes with zero to 3-foot-wide shoulders. From just east of Edgebrook Drive to Manchaca Road, the existing roadway has a 14-foot-wide center turn lane. No turn lanes exist in the remainder of the project limits. Within the project limits the existing right-of-way (ROW) is typically 80 feet wide. Drainage from the roadway is conveyed by open ditches. **Appendix A: Figure 2** includes a typical section of the existing roadway. **Appendix A: Figure 3** shows the existing edge of pavement and existing ROW.

2.2 PURPOSE AND NEED FOR THE PROPOSED PROJECT

The purpose of the proposed project is to improve mobility and enhance safety while addressing the increased demand for transportation infrastructure resulting from population growth. Current and projected traffic volumes exceed the design capacity of the existing facility which is evidence of the need to improve the roadway. The existing facility lacks accommodations for bicycles and pedestrians; thus, limiting mobility options for non-vehicular traffic. The lack of safe and efficient accommodations for cyclists and pedestrians traveling the corridor is further evidence of the need to improve the roadway. These needs are supported by the evidence of rapid population growth in recent decades. Travis County has grown from a population of 576,407 in 1990 to 1,095,584 in 2012 – a 90 percent increase (Census of Population and Housing, 2013) (US Census Bureau,

2012). Hays County has grown from a population of 65,614 in 1990 to 168,990 in 2012 – an increase of over 150 percent (Census of Population and Housing, 2013) (US Census Bureau, 2012). Rapid growth of these counties is expected to continue well into the foreseeable future.

Population growth has resulted in a corresponding increase in traffic, which will continue into the future. In 2012, the Average Daily Traffic (ADT) in the project area was 13,200. ADT in the project area is projected to reach 20,700 by 2032 – a 157 percent increase.

2.3 ALTERNATIVES ANALYSIS

2.3.1 PRELIMINARY ALTERNATIVES

Initially, four preliminary alternatives were considered for the proposed project: three build alternatives and the No Build Alternative. Each of the preliminary alternatives is discussed below.

Preliminary Alternative 1 (North): Under Alternative 1, the existing southern ROW boundary would be maintained and all necessary ROW would be acquired from the north side of the existing roadway. Approximately 40 feet of additional ROW (approximately 4.9 acres) would be acquired; 19 properties would be impacted by ROW acquisition. No residential displacements would result from this alternative. Two buildings associated with the Austin Christian Academy (both are classroom buildings) and one building (the worship center) associated with Redeeming Grace Lutheran Church would be displaced. Approximately 5.0 acres of this alternative is within the 100-year floodplain of Bear Creek. Additionally, this alternative would impact a parking lot associated with Menchaca Elementary School, a portion of the west side of the school property that is open to the public for recreational purposes, and a City of Austin lift station to the west of the school. The portion of the school property that is open to the public for recreational use is considered a Section 4(f) resource. Impacts to this resource would require an Individual Section 4(f) evaluation.

Preliminary Alternative 2 (Central): With Alternative 2, ROW would be acquired equally from each side of the existing roadway. This alternative would necessitate the acquisition of approximately 20 feet of additional ROW from the north and south sides of the existing ROW (approximately 5.1 acres in total); 33 properties would be impacted by ROW acquisition. No residential displacements would result from this alternative. One building (a classroom building) associated with the Austin Christian Academy would be displaced and a portable storage building associated with Cattlelacs Chainsaw Art Gallery would require relocation (presumably, elsewhere on the same property). Approximately 5.3 acres of this alternative is within the 100-year floodplain of Bear Creek. This alternative would impact parking at Mi Ranchito Taqueria (a restaurant located near the intersection of FM 1626 and Manchaca Road). This alternative would also impact the portion of the school that is open to the public for recreational purpose – a Section 4(f) resource. Due to the small amount of property that would be acquired from the school's public recreational area, impacts to the Section 4(f) resource would be considered de minimis and would not require an Individual Section 4(f) evaluation.

Preliminary Alternative 3 (South): This alternative would maintain the existing northern ROW boundary and the 40 feet of additional ROW would be acquired from the south side of the existing roadway. In total, approximately 5.0 acres of additional ROW would be acquired. Sixteen properties would be impacted by ROW acquisition. One residence, five commercial structures and a water well would be displaced by this alignment. Approximately 5.6 acres of this alternative is within the 100-year floodplain of Bear Creek. This alternative avoids the recreational area associated with Menchaca Elementary School; thus, a Section 4(f) evaluation would not be required.

No Build Alternative: Under the No Build Alternative, the proposed project would not be constructed. The No Build Alternative would leave FM 1626 in its current condition and no funds or energy would be expended for planning or construction.

2.3.2 REASONABLE ALTERNATIVES

After considering the impacts associated with each of the preliminary alternatives and input received from a public meeting held in December 2013 (see **Section 5.0**), a single build alternative and the No Build Alternative were considered reasonable and carried forward for the detailed analyses presented in this Environmental Assessment.

Build Alternative: The Build Alternative is a "hybrid" of Preliminary Alternatives 1 and 2, described above. The Build Alternative utilizes the Preliminary Alternative 1 (North) alignment from west of Brodie Lane to a curve near Edgebrook Drive in order to reduce encroachments into the Bear Creek floodplain. Additionally, utilizing the northern alignment reduces the need to remove and replace the existing bridge over Bear Creek; thereby reducing project costs. After the curve near Edgebrook Drive, the Build Alternative then shifts back to the existing centerline of the roadway to utilize the alignment of Preliminary Alternative 2 (Central) for the remainder of the project length (see **Appendix A: Figure 3**). In this section of the project area, utilizing the Preliminary Alternative (Central) alignment minimized the number of displacements (along the north and south side of the road), while also avoiding the need to do an Individual Section 4(f) evaluation for impacts to the recreational area at Menchaca Elementary School (along the north side of the road). While resource impacts were minimized by the Build Alternative, the actual amount of ROW requirements went up slightly relative to the preliminary alternatives. The additional ROW requirements were due to the area required to transition from a northern alignment to a central alignment.

The Build Alternative would require approximately 5.3 acres of additional ROW. In addition, approximately 1.6 acres of permanent (slope/drainage) easements and 0.1 acre of temporary construction easements would be required. In total, 28 properties would be impacted by ROW acquisition. Approximately 5.3 acres of the Build Alternative is within the 100-year floodplain of Bear Creek. The Build Alternative would result in one displacement: a school (classroom) building at Austin Christian Academy. In addition, a portable storage building associated with an existing commercial establishment (Cattlelacs Chainsaw Art Gallery) would require relocation (presumably,

elsewhere on the same property). The Build Alternative would impact the parking area at Mi Ranchito Taqueria.

The Build Alternative serves to minimize:

(1) the number of displacements that would result from the project,
(2) encroachment into the Bear Creek floodplain,
(3) project costs, and
(4) impacts to the Section 4(f) resource at Menchaca Elementary School (consistent with a de minimis finding).

2.3.3 PROPOSED FACILITY

The improved facility would consist of four 12-foot-wide travel lanes (two in each direction) separated by a continuous left turn lane. The continuous left turn lane would range in width from 14 feet (usual) to 23.5 feet (at the intersection with Brodie Lane). Five-foot-wide shoulders would be constructed and curb, gutter and storm sewer would be installed to handle drainage from the roadway. The overall roadway width would be 73 feet (usual).

The shoulders would accommodate bicycle traffic. Six-foot-wide sidewalks would be constructed parallel to the roadway for pedestrians. On the north side of the roadway, the sidewalk would extend the entire distance of the project. On the south side of the roadway, the sidewalk would extend from Manchaca Baptist Church to the FM 1626/Manchaca Road intersection.

West of Brodie Lane, FM 1626 is currently being upgraded to a five-lane section. That project was the subject of a previous Environmental Assessment for which a Finding of No Significant Impact (FONSI) was issued on October 19, 2011. The proposed project (the subject of this Environmental Assessment) would include a transition from Brodie Lane to Johnson Lane; thus, providing an effective connection between the two projects. The transition would include the construction of a bridge over Bear Creek. The proposed bridge would be immediately adjacent to the existing bridge and, although two separate structures, the two bridges would function as a single crossing. The existing bridge section would carry the two lanes of eastbound traffic and the continuous left turn lane. The new bridge would carry two lanes of westbound traffic.

A transition would also be provided east of Manchaca Road. The transition from the proposed five-lane section to the existing two-lane section would be approximately 700 feet in length (terminating approximately 200 feet east of Deane Drive).

Typical sections of the proposed facility are included in **Appendix A: Figure 2**. **Figures 3a** and **3b** (**Appendix A**) show the plan view (lay-out) of the proposed project.

Logical termini for the proposed improvements are provided by Brodie Lane (west of which FM 1626 is currently being reconstructed to a five lane section) and Manchaca Road (a major arterial).

The proposed project would have independent utility as it would stand-alone to improve mobility in the project area without reliance on additional transportation improvements.

3.0 PLANNING AND PROGRAMMING STATUS

The proposed project is consistent with the Capital Area Metropolitan Planning Organization's (CAMPO) 2040 Regional Transportation Plan (2040 Plan), which calls for the roadway to be improved to a MAD-4 within the project limits. The project is also currently programmed for construction in 2016 in the CAMPO FY 2015–2018 Transportation Improvement Program (TIP). The project would be federally funded with Pass-Through Financing, with an estimated total project cost of $10,500,000 as of May 2015. The proposed project is scheduled for construction letting in April 2016. Copies of relevant pages from the CAMPO 2040 Plan and the TIP are included in **Appendix B**.

4.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The project objectives and environmental issues were a primary focus in the planning, design, and environmental analysis processes. In support of this Environmental Assessment, the following technical reports were prepared:

- Biological Tier II Site Assessment;
- Section 4(f) De Minimis Checklist;
- Archaeological Survey Report;
- Historic Resources Survey Report;
- Hazardous Materials Initial Site Assessment Form;
- Community Impact Assessment Technical Report;
- Indirect and Cumulative Impacts Memo;
- Enhanced Geologic Assessment;
- Barton Springs Salamander Effects Memo;
- Air Quality Technical Report; and
- Traffic Noise Technical Report.

Based on the above technical studies, scoping, and thorough analysis, it was determined that the proposed project would have no impact in the following resource categories:

- Farmlands;
- Wetlands;
- Groundwater;
- Wild and Scenic Rivers;
- Navigable waters;
- Threatened and impaired waters;
- Coastal barriers and resources; and
- Section 6(f) properties.

Additionally, it has been determined that the proposed project would not result in indirect or cumulative impacts.

Resource categories with the potential to be affected by the implementation of the proposed project are summarized in the following sections. The technical reports and studies are located in the project file and at the TxDOT Austin District Office.

4.1 COMMUNITY IMPACTS

4.1.1 RIGHT OF WAY/DISPLACEMENTS

Build Alternative: The proposed project would result in the displacement of one commercial building (the smaller of two Austin Christian Academy buildings situated on land owned by Redeeming Grace Lutheran Church) (TxDOT, 2015a). The larger school building and the church building would remain untouched. The requirements of the Uniform Act would apply to the displacement of the Austin Christian Academy building. Discussions between the project team and the school on how to approach replacement of this building are ongoing.

ROW acquisition would necessitate the relocation of a portable storage building on the Cattlelac's Chainsaw Art Gallery property; it is assumed that the storage building would be relocated elsewhere on the same property. A parking area at Mi Ranchito Taqueria (located near the intersection of FM 1626 and Manchaca Road) would also be impacted. The requirements of the Uniform Act would apply to all three properties. No residential displacements would be required.

No Build Alternative: Under the No Build Alternative, no project-related ROW would be acquired.

4.1.2 LAND USE AND RECREATIONAL RESOURCES

The proposed project is located entirely within the City of Austin's full-purpose jurisdiction (city limits) and/or Austin's two-mile extra-territorial jurisdiction (ETJ). The parcels immediately adjacent to the roadway are characterized by a mix of residential, commercial/office, and institutional uses. Land use in the surrounding area is dominated by residential development, vacant land and open space. Several major utilities are located within the vicinity of the proposed project: overhead power lines, City of Austin water and wastewater infrastructure, and AT&T fiber optic cables.

A publically owned recreational area is located adjacent to Menchaca Elementary School and is owned by the Austin Independent School District (AISD). The recreational area is open to the public for soccer practice and outdoor recreation. The recreational area is approximately 4.5 acres in size. The recreational area qualifies for protection under Section 4(f) of the U.S. Department of Transportation Act of 1966.

Build Alternative: Approximately 5.3 acres of new ROW would be acquired for the proposed project, converting this land to a transportation use. In addition, approximately 1.6 acres would be required

for permanent (slope/drainage) easements and approximately 0.1 acre for temporary construction easements.

Of the 5.3 acres of additional ROW, 0.15 acre would be acquired from the publicly-owned recreational area at Menchaca Elementary School. Coordination with AISD has occurred and required public involvement has been completed. By letter dated September 22, 2014, AISD concurred that the proposed FM 1626 project would not adversely affect activities, features, and attributes that qualify the recreational area for Section 4(f) protection and recommended the use (purchase of 0.15 acre) of the recreational area for highway purposes. Further, AISD concurred that there is no feasible and prudent alternative to the use of the recreational area and that the proposed project includes all reasonable planning to minimize harm to the recreational area. After considering the views of AISD and the results of the public outreach process, on November 3, 2014, TxDOT approved a De Minimis Final Approval satisfying the requirements of 23 CFR 774 and 49 U.S.C. 303 (TxDOT, 2014b). No additional coordination is required for the Section 4(f) property.

The proposed project would require the adjustment or relocation of underground and/or overhead utilities. Impacted utilities would be identified during the final design phase. At that time, coordination with utility owners and service providers would occur and relocation/adjustment plans would be developed. Utility relocations and adjustment would be accomplished with the minimum practicable disruption in service to customers.

No Build Alternative: Under the No Build Alternative, the additional ROW would not be obtained and there would be no FM 1626-related land use impacts or impacts to recreational resources.

4.1.3 COMMUNITY COHESION, MOBILITY AND ACCESS

The project area and surrounding vicinity encompass portions of the City of Austin (and/or its ETJ) and the unincorporated Manchaca census-designated place. Community facilities within the study limits include Menchaca Elementary School, a public recreational area associated with the school (owned by AISD), Austin Christian Academy, and Redeeming Grace Lutheran Church. Socioeconomic and demographic information about the communities affected by the proposed project can be found in the Community Impact Assessment Technical Report (TxDOT, 2015a).

Build Alternative: Direct impacts to community cohesion resulting from the Build Alternative are expected to be positive for the following reasons. The proposed project's alignment on an existing roadway means that it would not bisect any existing developments or neighborhoods. Further, by providing capacity for bicyclists and pedestrians to more safely travel the corridor (through the installation of sidewalks and wide shoulders), the proposed project may be expected to enhance community cohesion by facilitating non-motorized travel along the corridor.

The Build Alternative would be expected to improve mobility and access in the project area by providing a center turn lane, additional travel lanes, and shoulders to allow traffic to bypass potential congestion-causing situations (such as turning movements) and would improve ingress

and egress at adjoining driveways and cross streets by provision of a continuous left turn lane. The mobility improvements resulting from the proposed project would have a positive effect on emergency response as the additional capacity, turning lanes and shoulders would facilitate more efficient movement of emergency vehicles (fire, EMS, police).

Pedestrian mobility would be enhanced by the Build Alternative as the construction of a continuous six-foot-wide sidewalk (on the north side of the roadway) and a non-continuous six-foot-wide sidewalk (on the south side of the roadway) would provide pedestrian access to properties within the project limits. Mobility and access for bicyclists would also be improved by the Build Alternative. Currently, the shoulders along the existing roadway range from two to eight feet in width. The proposed project would increase the shoulders to a width of five feet on each side of the roadway, the minimum paved shoulder width suggested by the American Association of State Highway and Transportation Officials to accommodate bicyclists. No existing driveways would be removed as a result of the proposed project; therefore, no existing access points to buildings along the corridor would be removed.

No Build Alternative: Under the No Build Alternative, there would be no FM 1626-related impacts to communities. There would also be no new accommodations for bicycles and pedestrians.

4.1.4 ENVIRONMENTAL JUSTICE

An environmental justice (EJ) analysis was completed in accordance with Executive Order (EO) 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." No low-income populations as defined by the Federal Highway Administration (FHWA) are located in the three block groups within the community impacts study area, which comprises those areas adjacent to the project area that would be most influenced by the proposed improvements. However, 14 blocks contain over 50 percent minority residents, meaning that EJ populations do exist in the community impacts study area (TxDOT, 2015a). Therefore, potential impacts were analysed to ensure these groups would not be adversely or disproportionately affected by the proposed action.

Build Alternative: The 14 blocks identified as EJ areas are dispersed throughout the community impacts study area. The total resident population of these blocks is 351 people, 61 percent of whom are classified as minority residents. No displacements would occur to homes, businesses, or other buildings within these blocks. No changes to existing access points would occur in these blocks, or along the rest of the project limits.

The proposed project would benefit minority and non-minority residents alike within the community impacts study area, increasing capacity and enhancing safety for motorized and non-motorized forms of transportation throughout its limits. EJ populations would not experience changes in travel distances or times to community-focused destinations in the community impacts study area, nor would non-EJ populations.

Based on the preceding analysis, adverse or disproportionate impacts to EJ populations would not be expected as a result of this project.

No Build Alternative: No FM 1626 project-related impacts to EJ populations would occur under the No Build Alternative as the proposed project would not be constructed.

4.1.5 LIMITED ENGLISH PROFICIENCY

In accordance with EO 13166, "Improving Access to Services for Persons with Limited English Proficiency," an assessment of Limited English Proficiency (LEP) populations was conducted. Within the block groups adjacent to the proposed project, 3.0 percent of the population speaks English less than very well, indicating the presence of LEP populations that may be impacted by the proposed project. Of the 3.0 percent LEP residents in the study area, 73.8 percent are Spanish speakers, 19.0 percent speak a language from the 'Asian and Pacific Islander' category, and 7.2 percent speak a language from the 'Other Indo-European Languages' category (TxDOT, 2015a).

Throughout the project limits, signage is displayed in English. On the Menchaca Elementary School property, Spanish signage is also displayed. A public meeting was held in December 2013 to present information on the proposed project to the public and to allow citizens to submit comments. No requests for translation or special communication services was received for the public meeting, though Spanish-speaking staff members were available should the need have arisen. Efforts will continue to be made throughout the project development process to engage LEP populations by, upon request, providing project and meeting materials and notices in both English and Spanish.

4.1.6 VISUAL/AESTHETICS

Build Alternative: The proposed project would involve upgrading and expanding an existing facility, along an existing alignment rather than introducing a new facility in an area where one does not currently exist. No elevated structures or grade separations would be constructed. The relationship between the transportation facility and the surrounding environment under the Build Alternative would not be substantially different visually or aesthetically than the existing condition.

No Build Alternative: Because the proposed project could not be constructed, no project-related visual impacts would result from the No Build Alternative.

4.2 CULTURAL RESOURCES

4.2.1 ARCHAEOLOGICAL RESOURCES

An archaeological resources inventory survey and assessment was conducted for the proposed project. No temporally diagnostic artifacts or features were observed within the area of potential effects (APE) during the survey (TxDOT, 2014c). Based on the survey/investigations performed, it

was determined that the project area does not include settings with reasonable potential to contain archaeological properties (36 CFR 800.16).

Build Alternative: The proposed project (Build Alternative) would not result in direct impacts to known archaeological resources. Required Section 106 consultation for archaeological resources and Texas Antiquities Code consultation was completed with the Texas Historical Commission (THC) on September 25, 2014. With regard to archaeological resources, the THC has concluded that the proposed project can proceed to construction.

In the unlikely event that cultural resources are discovered during construction of the proposed project, TxDOT would immediately initiate cultural resource discovery procedures. All work in the vicinity of the discovery would cease until a specialist from TxDOT and/or the THC could arrive on site to assess the significance of the discovery and the need, if any, for additional investigation.

No Build Alternative: As construction of the proposed FM 1626 project would not occur; no FM 1626 project-related impacts to archaeological resources would result from the No Build Alternative.

4.2.2 HISTORIC RESOURCES

A historic resources survey and assessment have been completed for the proposed project. A field survey of the APE conducted in 2014 identified 17 historic-age resources. After evaluation, none of these resources was recommend eligible for the National Register of Historic Places (NRHP) because they were all unremarkable examples of their types and lacked distinctive characteristics that would qualify them for significance for association with architectural styles, periods or trends (TxDOT, 2014d).

An additional historic-age resource, the Carpenter House (Resource Number 10 in the Reconnaissance Survey Report), was identified and evaluated for NRHP eligibility. This resource is located outside of the APE, but within the survey study area (SSA). The house was recommended eligible under Criterion A and C.

Build Alternative: There are no NRHP-eligible resources within the project APE. The proposed project would have no direct effect on the NRHP-eligible Carpenter House which is located outside the APE of the project, but within the SSA.

For the reasons cited above, it has been determined that the proposed project would have no effect on historic resources. The Reconnaissance Survey Report has been coordinated with the THC. On November 4, 2014, the THC concurred with the no effect on historic resources determination for the proposed FM 1626 project.

No Build Alternative: Because the FM 1626 project would not be constructed, the No Build Alternative would not result in FM 1626 project-related impacts to historic resources.

4.3 WATER RESOURCES

4.3.1 WATERS OF THE U.S.

A survey for waters of the U.S. was conducted for the proposed project (TxDOT, 2014a). Field surveys determined that Bear Creek and two unnamed tributaries to Bear Creek cross the project area (see **Appendix A: Figure 4**). These three waterbodies have defined ordinary high water marks (OHWM) and, therefore, are considered waters of the U.S. No other surface waters were identified within the project area.

Build Alternative: Bear Creek would be bridged under the proposed plan, resulting in less than 0.10 acre of impacts. Existing culverts would be extended at the two unnamed tributaries to Bear Creek, resulting in less than 0.10 acre of permanent impacts at each of these crossings. Additionally, no jurisdictional wetlands would be impacted. Each of the stream crossings would be considered a single and complete crossing. Because impacts at these crossings would remain below the thresholds requiring a preconstruction notification (PCN) to the U.S. Army Corps of Engineers (USACE) and no wetlands would be impacted, the proposed project would be covered under Nationwide Permit (NWP) 14 without a PCN. An individual permit would not be required; therefore, coordination under the Fish and Wildlife Coordination Act would not be required.

No Build Alternative: The proposed FM 1626 project would not be constructed; thus, no FM 1626 project-related impacts to waters of the U.S. would result from the No Build Alternative.

4.3.2 FLOODPLAINS

Portions of the proposed project would be located within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain (TxDOT, 2014a). According to FEMA 100-year floodplain maps, floodplains within the project area primarily follow the course of Bear Creek and its tributaries.

Build Alternative: Approximately 5.3 acres of the project area would be located within the 100-year floodplain, including temporary easements. Upon completion of construction, temporarily disturbed areas (temporary easements) would be restored and returned to preconstruction-like conditions.

The hydraulic design for this project would be in accordance with current FHWA and TxDOT design policy and standards. The highway facility would permit conveyance of the 100-year flood, inundation of the roadway being acceptable, without causing significant damage to the highway, stream, or other property. The proposed project would not increase the base flood elevation to a level that would violate the applicable floodplain regulations or ordinances. Coordination with the local floodplain administrator would be required.

Since the proposed project crosses floodplains, the following is provided:

Avoiding and minimizing floodplain crossings was considered during design of the Build Alternative. The proposed project must be located in floodplains because in order to avoid floodplains, a significant realignment of FM 1626 would be required, resulting in much higher ROW and project costs, as well as residential and commercial displacements. Additionally, no longitudinal encroachments on the floodplain would occur.

The only alternative considered during the course of project development that would avoid encroachments on floodplains was the No Build Alternative, which does not satisfy the purpose and need for the proposed project. The proposed project would conform to state and local floodplain protection standards.

No Build Alternative: Because the proposed FM 1626 improvements would not be constructed, the No Build Alternative would not result in project-related impacts to floodplains.

4.3.3 GROUND WATER

The proposed project would be located over the transition zone of the Barton Springs Segments of the Edwards Aquifer.

Build Alternative: The proposed project would not result in an increase in impervious cover over the recharge or contributing zones of the Edwards Aquifer. For that reason, no impacts to the quality or quantity of ground water would be anticipated as a result from the proposed project. The proposed project would not be subject to the geologic assessment and water pollution abatement plan requirements of the Edwards Aquifer Rules. However, because the proposed project is located within the Edwards Aquifer transition zone, coordination with the Texas Commission on Environmental Quality (TCEQ) was required pursuant to the Memorandum of Understanding executed between TxDOT and TCEQ. TCEQ coordination was initiated on October 8, 2015 and completed on November 4, 2015.

No Build Alternative: Under the No Build Alternative, the proposed FM 1626 project would not occur. There would be no potential for FM 1626 project-related impacts on ground water.

4.4 BIOLOGICAL RESOURCES

4.4.1 VEGETATION

The proposed project is located in the Edwards Plateau Ecoregion. The analysis of impacts to vegetation was conducted in accordance with the 2013 Memorandum of Understanding (MOU) between TxDOT and the Texas Parks and Wildlife Department (TPWD).

Build Alternative: Approximately 21.12 acres of vegetation from a total of five field-verified Ecological Mapping System of Texas (EMST) vegetation types would be impacted by the proposed project (TxDOT, 2014a) These include Post Oak Motte and Woodland, Oak/Hardwood Motte and

Woodland, Oak/Ashe Juniper Slope Forest, Floodplain Hardwood/Ashe Juniper Forest, and Urban Low Intensity. The 2013 TxDOT/TPWD MOU requires coordination with TPWD for any project that exceeds the threshold acreages for certain habitat types. Approximately 1.07 acres of Floodplain vegetation would be impacted by the proposed project, which is above the threshold for coordination. Therefore, coordination with TPWD was required for the proposed project. TPWD coordination was initiated on September 24, 2014 and completed on November 11, 2014.

Unusual vegetation features (unmaintained vegetation) in the project area include the Post Oak Motte and Woodland, Oak/Hardwood Motte and Woodland, Oak/Ashe Juniper Slope Forest, and Floodplain Hardwood/Ashe Juniper Forest. Vegetation to be removed as part of the proposed project would not be considered habitat for federal candidate species, is not a rare vegetation series, and is not a bottomland hardwood, native prairie, or riparian area. Vegetation in the project area does not differ from that adjacent to the project area, and there is no known local, historical, or ecological significance of the vegetation or individual trees to be removed.

No Build Alternative: If the No Build Alternative were implemented, the proposed project would not be constructed. No effects to vegetation and wildlife habitat related to the construction of the project would occur. Existing land use and activities, including periodic mowing, would continue to periodically affect vegetation communities.

4.4.2 WILDLIFE AND MIGRATORY BIRDS

The Migratory Bird Treaty Act of 1918 makes it unlawful to kill, capture, collect, possess, buy, sell, trade or transport any migratory bird, nest or egg in part or in whole, without a federal permit issued in accordance with the Act's policies and regulations. Migratory bird (barn swallows; *Hirundo rustica*) nests were observed under the FM 1626 bridge over Bear Creek during the May 2014 field survey (TxDOT, 2014a). However, at the time of the survey the nests appeared to be inactive. A follow up survey in August 2014 revealed no barn swallows or their nests under the bridge.

The FM 1626 bridge over Bear Creek where the barn swallow colonies were observed would be considered a special habitat feature, according to the TxDOT/TPWD MOU. The proposed bridge crossing at Bear Creek would be built adjacent to the existing bridge, which would not be disturbed during construction. Therefore, no impacts to this special habitat feature would occur.

Build Alternative: Migratory birds may arrive in the project area to breed during construction of the proposed project. Should this occur, appropriate measures would be taken to avoid adverse impacts on migratory birds (see **Section 7.2**); thus, migratory birds protected under the Migratory Bird Treaty Act would not be impacted by the Build Alternative.

No Build Alternative: Under the No Build Alternative, the proposed FM 1626 project would not be constructed; thus, there would be no project-related impacts to migratory birds or other wildlife.

4.4.3 THREATENED AND ENDANGERED SPECIES AND SPECIES OF GREATEST CONSERVATION NEED

(a) Federally-listed Species Threatened and Endangered Species

Federally-listed threatened and endangered species are protected by the Endangered Species Act (7 U.S.C. § 136, 16 U.S.C. § 1531 et seq.). According to the U.S. Fish and Wildlife Service (USFWS), 11 federally-endangered, one federally-threatened, and one federal candidate species are known to occur or may potentially occur in Travis County (USFWS, 2013).

The federally-endangered species include the Austin blind salamander (*Eurycea waterlooensis*), the Barton Springs salamander (*Eurycea sosorum*), the Bee Creek Cave harvestman (*Texella reddelli*), the Bone Cave harvestman (*Texella reyesi*), the Tooth Cave pseudoscorpion (*Tartarocreagris texana*), the Tooth Cave spider (*Neoleptoneta myopica*), the Black-capped Vireo (*Vireo atricapilla*), the Golden-cheeked Warbler (*Dendroica chrysoparia*), the Whooping Crane (*Grus americana*), the Kretschmarr Cave mold beetle (*Texamaurops reddelli*), and the Tooth Cave ground beetle (*Rhadine persephone*). The Jollyville Plateau salamander (*Eurycea tonkawae*) is listed as federally-threatened and Warton's Cave meshweaver (*Cicurina wartoni*) is candidate for federal listing.

The project area is located in karst Zones 3 and 4. Because Zone 3 cannot be ruled-out as potential habitat, karst feature surveys were performed in accordance with USFWS regulations (USFWS, 2011). The karst feature surveys, conducted in May and August 2014 by qualified biologists, were performed within the existing/proposed ROW of FM 1626. Survey results were negative for the presence of suitable habitat for karst species within the project area. Additionally, suitable habitat is not present in the project area for the federally-listed salamander or bird species found in Travis County (TxDOT, 2014a).

Evaluation of the USFWS Critical Habitat Portal indicates that no critical habitat for any of the listed species exists in the vicinity of the project area. A review of Texas Natural Diversity Database (TxNDD) data was also conducted. No federally-listed species were documented by the TxNDD as occurring within 1.5 miles of the project area. Additionally, none of the species were observed during the field surveys (TxDOT, 2014a). In July 2015, a Barton Springs salamander was discovered in a well located adjacent to the project area. The species, which was discovered in the well at a depth of 188 feet, was confirmed by TPWD (TxDOT, 2015c).

<u>Build Alternative</u>: As indicated above, a Barton Springs salamander occurrence was documented adjacent to the project area. However, based on the project design and hydrogeology in the area, it has been determined that the Build Alternative would have no effect on the Barton Springs salamander (TxDOT, 2015c). Additionally, there would be no effect on any other federally-listed threatened, endangered or candidate species as a result of the proposed project (Build Alternative) nor would there be an effect on designated critical habitat for any federally-listed threatened or endangered species.

No Build Alternative: Under the No Build Alternative, the proposed project would not occur and there would be no potential for project-related impacts on federally-listed species and/or their habitats.

(b) State-listed Threatened and Endangered Species

State-listed threatened and endangered species are protected by state and local laws within Texas (Chapters 67 and 68 of the Texas Parks and Wildlife Code and Sections 65.171 - 65.18 of Title 31 of the Texas Administrative Code). According to TPWD, six state-endangered and eight state-threatened species could occur in Travis County (TPWD, 2013).

The six state-endangered species are the Barton Springs salamander (*Eurycea sosorum*), the Black-capped Vireo (*Vireo atricapilla*), the Golden-cheeked Warbler (*Dendroica chrysoparia*), the Whooping Crane (*Grus americana*), the Interior Least Tern (*Sterna antillarum athalassos*), and the Red wolf (*Canis rufus*). State-threatened species include the American Peregrine Falcon (*Falco peregrines anatum*), the Bald Eagle (*Haliaeetus leucocephalus*), the false spike mussel (*Quadrula mitchelli*), the smooth pimpleback (*Quadrula houstonensis*), the Texas fatmucket (*Lampsilis bracteata*), the Texas fawnsfoot (*Truncilla macrodon*), the Texas pimpleback (*Quadrula petrina*), and the Texas horned lizard (*Phrynosoma cornutum*).

Suitable habitat for state-listed threatened and endangered species is not found in the FM 1626 project area (TxDOT, 2014a). A review of TxNDD data was also conducted. No state-listed species were documented by the TxNDD as occurring within 1.5 miles of the project area. Additionally, none of the species were observed during the field surveys.

Build Alternative: As indicated above, there would be no impact on state-listed threatened or endangered species as a result of the proposed project (Build Alternative). Likewise, there would be no impact on habitat for any state-listed threatened or endangered species as no suitable habitat is found in the project area.

No Build Alternative: Under the No Build Alternative, the proposed project would not occur and there would be no potential for project-related impacts on state-listed species and/or their habitats.

(c) Species of Greatest Conservation Need

In addition to the above listed threatened and endangered species, there are 32 state species of greatest conservation need (SGCN) occurring in Travis County. Based on a review of the TxNDD data, there are no known occurrences of any of these species within 1.5 miles of the project area.

Suitable habitat for several SGCN were observed during the field investigations (TxDOT, 2014a). Insect species may be found throughout the undeveloped portions of the project area where their habitat is present. The Guadalupe bass (*Micropterus treculii*) may have potential habitat within Bear Creek during flow conditions. Plant SGCNs have the potential to occur in the undeveloped portions of the project area. The cave myotis bat (*Myotis velifer*) may have habitat in the FM 1626

bridge over Bear Creek. The plains spotted skunk (*Spilogale putorius interrupta*) may have habitat in undeveloped, grassy areas in the vicinity of the proposed project. Two SCGN reptile species, the spot-tailed earless lizard (*Holbrookia lacerate*) and the Texas garter snake (*Thamnophis sirtalis annectens*), may also have habitat within undeveloped portions of the project area.

Build Alternative: The body of scientific information regarding these species is not complete. General habitat characteristics are known, but more study is needed to determine specific habitat requirements. Although there is an apparent abundance of habitat, the scarcity of species in areas of potential habitat is indicative of the more discriminate, but currently unknown, habitat requirements for these species. Until more information about these species becomes available, it is not possible to accurately assess potential impacts to these species or their habitats. It should be noted that none of these species is currently afforded regulatory protection.

In accordance with the Best Management Practices (BMP) Programmatic Agreement between TxDOT and TPWD, contractors would be advised of the potential occurrence of these species in the project area and care would be taken to avoid direct harm to them. Impacts to vegetation would be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project.

No Build Alternative: Under the No Build Alternative, the proposed FM 1626 project would not occur; therefore, there would be no project-related effects on rare species or SCGN.

4.5 HAZARDOUS MATERIALS

A review of environmental regulatory databases and an Initial Site Assessment (ISA) was performed to identify sites or facilities that might pose a potential for hazardous materials impacts to the proposed project (TxDOT, 2014e). A total of seven records, including three leaking underground storage tanks, were identified in the regulatory database search.

TCEQ has issued final concurrence on the closure of two of the cases. The third leaking underground petroleum storage tank has a status of “pre-assessment and release determination.” All other sites identified in the database search are located outside of the existing/proposed ROW and are considered low-risk types of sites (for example, Tier II sewage treatment facilities).

Build Alternative: The potential for encountering contaminated soil or groundwater prior to or during construction is low. The only identified potential concern is the leaking underground petroleum storage tank with a current status of “pre-assessment and release determination.” This site is a former service station currently occupied by the Mi Ranchito Taqueria (located at 1105 W. FM 1626) at Manchaca Road. Boring log information from the TCEQ file indicates that groundwater contaminated with gasoline constituents may be present at a depth of approximately 19 feet below the ground surface. Based on anticipated project excavation requirements, project activities are unlikely to impact the contamination plume. However, excavation of shallow soils for utility/storm sewer work adjacent to the former fuel dispenser island/tankhold might involve petroleum-

contaminated soils. TxDOT contracts for removal and disposal of contaminated soils would be in place to handle excavation and transportation of any contaminated soils encountered during the project, with minimal delay. Additional assessment would be considered, prior to construction, to better determine the potential for encountering contaminated materials from this site during construction.

The proposed project does include demolition and/or renovation of a bridge structure (FM 1626 over Bear Creek). The structure was inspected for asbestos-containing materials in accordance with EPA asbestos requirements. Asbestos fibers were identified in the textured coating on the concrete barrier rail on the bridge. Notification, abatement, and disposal, as applicable, would be addressed for any work disturbing asbestos-containing materials, in accordance with federal and state regulations.

During the field visit for the ISA, several trash dump locations were identified along the FM 1626 corridor. One dump site included lumber and bamboo; another contained empty unidentified metal containers. All trash and debris would require proper transportation and disposal during ROW clearing activities.

No Build Alternative: No impacts to potential hazardous materials sites would occur from construction if the No Build Alternative were selected.

4.6 AIR QUALITY

The proposed project is located in Travis County. Travis County is in attainment or unclassifiable for all National Ambient Air Quality Standards; therefore, the transportation conformity rules do not apply.

A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that a carbon monoxide 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 is not required.

Build Alternative: Due to incomplete and unavailable information, it is not currently feasible to develop a project specific mobile source air toxics (MSAT) health impacts analysis; however, a qualitative assessment of regional MSAT impacts is possible (TxDOT, 2015d). In summary, 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, 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.

No Build Alternative: The No Build Alternative would result in gradually increasing vehicle miles travelled as traffic volumes increase and traffic congestion worsens within the existing roadway system over time. However, MSAT emissions would likely be lower than present levels in future years as a result of the Environmental Protection Agency's (EPA) national control programs that are projected to reduce annual MSAT emissions by over 80 percent from 2010 to 2050.

4.7 TRAFFIC NOISE

A traffic noise analysis was conducted for the proposed project in accordance with TxDOT's (FHWA approved) 2011 Guidelines for Analysis and Abatement of Highway Traffic Noise (TxDOT 2015e).

Build Alternative: The traffic noise analysis determined that there would be traffic noise impacts at one modeled receiver: the track at Menchaca Elementary School. A barrier analysis concluded that a noise barrier that would be feasible (achieving necessary noise reduction criteria) would exceed the reasonable, cost-effectiveness criterion of $25,000 per benefited receiver. Therefore, noise barriers are not proposed for incorporation into the project.

No Build Alternative: The proposed project would not be constructed under the No Build Alternative. Traffic noise levels at model receiver locations would be expected to increase due to the increase in traffic volumes that would occur over time.

5.0 PUBLIC INVOLVEMENT

One public meeting was held for the proposed project in December 2013. A summary of the public meeting is on file and available for review at the TxDOT-Austin District Office (7901 North IH-35, Austin, Texas) (TxDOT, 2014f). A public hearing is tentatively scheduled to be held in the fall of 2015. Following the public hearing, a summary and analysis document will be prepared and made available for public review.

6.0 CONCLUSION

The Build Alternative satisfies the project's purpose and need (see **Section 2.2**) and does not result in unacceptable environmental impacts (see **Section 4.0**); therefore, the Build Alternative is the preferred alternative.

The No Build Alternative is not the preferred alternative as it does not satisfy the purpose and need for the proposed improvements and is not consistent with the CAMPO 2040 Plan. Although not the preferred alternative, consistent with NEPA, the No Build Alternative was carried forward for further analysis.

7.0 PERMITS, APPROVALS AND COMMITMENTS

7.1 RIGHT-OF-WAY DISPLACEMENTS

The proposed project would result in the displacement of one commercial building at the Austin Christian Academy and the relocation of a portable storage building on the Cattlelac's Chainsaw Art Gallery property. A parking area at Mi Ranchito Taqueria would also be impacted.

TxDOT would provide relocation advisory assistance to any person, business, or nonprofit organization displaced as a result of the acquisition of real property for public use. Any acquisition of property would be carried out in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended. Consistent with the US Department of Transportation policy, as mandated by the Uniform Act, TxDOT would provide relocation resources (including any applicable special provisions or programs) to all displaced persons without discrimination. The available structures would also be open to persons regardless of race, color, religion, or nationality, and be within the financial means of those affected individuals. All property owners from whom property is needed would be entitled to receive just compensation for their land and property. Just compensation is based on the fair market value of the property.

7.2 VEGETATION AND WILDLIFE HABITAT

Impacts to vegetation and wildlife habitat would be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project. The removal of native vegetation, particularly mature native trees and shrubs, would be avoided to the greatest extent practicable. A mix of native and locally-adapted seeds would be used in the landscaping and revegetation of disturbed areas.

Upon completion of earthwork operations, disturbed areas would be restored and reseeded in accordance with TxDOT's Vegetation Management Guidelines and in compliance with the intent of EO 13112 on Invasive Species and the FHWA Executive Memorandum on Environmentally and Economically Beneficial Landscape Practices.

Appropriate measures would be taken to avoid adverse impacts on migratory birds. Such measures, which would be coordinated with the TxDOT-Austin District biologist in advance of implementation, would include the following: The removal or destruction of active migratory bird nests (nests containing eggs and/or young) at any time of the year would be prohibited until the nests become inactive, usually between October 1 and February 15. If colonial nesting (i.e. swallows) occurs on or in structures, nests would not be removed until all nests in the colony become inactive. Measures would be utilized, to the extent practicable, to prevent or discourage migratory birds from building nests within the area scheduled for imminent construction. Inactive nests would be removed from the project area to minimize the potential for reuse by migratory birds. When practicable, vegetation clearing, demolition of existing structures and other activities

with a greater potential for disturbance of migratory birds would be scheduled outside the typical (February 15 to October 1) nesting season. However, it is recognized that provisions of the Migratory Bird Treaty Act apply year-around.

7.3 WATER QUALITY

Impacts to waters of the U.S. resulting from the proposed project would be authorized under NWP 14 without a PCN. A Section 404 Individual Permit would not be required. Appropriate measures would be taken during construction to maintain normal downstream flows to the maximum extent practical. Any temporary fills would consist of materials that are erosion resistant. Temporary fills would be carefully placed so as to minimize the potential for flooding. Upon completion of construction, temporary fills would be removed in their entirety and the affected areas would be returned to preconstruction elevations. The areas affected by temporary fills would be re-vegetated, as appropriate.

Since a NWP would be necessary, construction activities would require compliance with the State of Texas Water Quality Certification Program. The 401 Water Quality Certification requirements for NWP 14 would be met by implementing BMPs from the TCEQ 401 Water Quality Certification Conditions for NWPs.

During the final design phase of project development, a Storm Water Pollution Prevention Plan (SW3P) would be developed. The SW3P would identify a system of temporary BMPs to be employed during construction to mitigate construction-related water quality impacts. The SW3P would be site-specific and tailored to project-area conditions. The SW3P would utilize the temporary control measures/BMPs outlined in TxDOT's Standard Specification for the Construction of Highways, Streets and Bridges.

The proposed project would disturb more than one acre; thus, it is subject to the Texas Pollutant Discharge Elimination System (TPDES) General Permit for Construction Activity. The proposed project would disturb more than five acres; therefore, a notice of intent would be filed and posted on-site. TPDES permit requirements would be met by implementing approved erosion controls, sediment controls and post-construction total suspended solid controls. Temporary erosion controls would be installed, per the construction plans, prior to commencement of construction. Controls would be subject to regular inspections and replaced/maintained as needed. The proposed project is located within the boundaries of the City of Austin and Travis County's Municipal Separate Storm Sewer System (MS4) Phase I permits. Compliance with applicable MS4 regulations would apply.

The proposed project is located within the Edwards Aquifer transition zone; therefore, coordination with the TCEQ was required pursuant to the Memorandum of Understanding executed between TxDOT and TCEQ. TCEQ coordination was initiated on October 8, 2015 and completed on November 4, 2015.

7.4 AIR QUALITY

The construction activity phase of this project may generate a temporary increase in air pollutant emissions. However, considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be utilized, it is not anticipated that emissions from construction of this project would have any significant impact on air quality in the area. Provisions would be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction emissions through abatement measures such as proper maintenance and idling of construction equipment, watering of disturbed areas and the use of temporary vegetation to control dust.

7.5 NOISE

Noise associated with the construction of the proposed 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 are expected to be exposed to construction noise for a long duration; therefore, extended disruption of normal activities is not expected. Provisions would 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.

Provisions would 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.

7.6 CULTURAL RESOURCES

In the unlikely event that significant cultural resources are discovered during construction of the proposed project, TxDOT would immediately initiate cultural resource discovery procedures. All work in the vicinity would immediately cease until a specialist from TxDOT and/or the THC could arrive on site and assess the discovery's significance and the need, if any, for additional investigation.

7.7 HAZARDOUS MATERIALS

TxDOT remediation contracts would be in place to address any petroleum contaminated soils that might be encountered during construction-related excavation adjacent to the leaking petroleum storage tank site at 1105 W. FM 1626. Additional assessment would be considered, prior to construction, to better determine the potential for encountering contaminated materials from this site during construction.

In addition, asbestos fibers were identified in the textured coating on the concrete barrier rail on the FM 1626 bridge over Bear Creek. Notification, abatement, and disposal, as applicable, would

be addressed for any work disturbing asbestos-containing materials, in accordance with federal and state regulations.

Any unanticipated hazardous materials and/or petroleum contamination encountered during construction would be handled according to applicable federal and state regulations per TxDOT Standard Specifications. Section 6.10 of the "General Provisions of the Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges," which applies to all highway projects, includes guidelines addressing the contractor's responsibilities regarding the discovery of hazardous materials.

7.8 TRAFFIC CONTROL

Disruptions would be minimized to the extent possible by the timely notification of affected residents and business owners through posted notices, personal contact, or other notification procedures. Traffic control procedures could include rerouting the traffic, barricading, using traffic cones, or any other measures deemed necessary and prudent by TxDOT and the construction contractor to comply with all local, state, and federal traffic and safety regulations.

Signage and barrier placement should be alert to the inevitable reordering of travel patterns, both during construction and in the long term, as drivers find cut-through routes to shorten travel times. During construction, procedures to minimize traffic congestion, noise, dust and risk to public safety should be specifically adapted to the circumstances of the proposed project.

8.0 REFERENCES

Texas Department of Transportation (TxDOT),

2014a. Biological Tier II Site Assessment.

2014b. Section 4(f) De Minimis Checklist and Final Approval

2014c. Archaeological Survey Report

2014d. Historic Resources Survey Report.

2014e. Hazardous Materials Initial Site Assessment.

2014f. December 2013 Public Meeting Summary Report.

Texas Department of Transportation (TxDOT),

2015a. Community Impact Assessment Technical Report.

2015b. Indirect and Cumulative Impacts Memo.

2015c. Barton Springs Salamander Effects Memo.

2015d. Air Quality Technical Report.

2015e. Traffic Noise Technical Report.

Texas Parks and Wildlife Department. 2013. Annotated County List of Rare Species. http://www.tpwd.state.tx.us/gis/ris/es/

U.S. Fish and Wildlife Service. 2011. Section 10(a)(1)(A) Scientific Permit Requirements for Conducting Presence/Absence Surveys for endangered karst invertebrate species. Revised September 8, 2011. USFWS Ecological Services Field Office, Austin, Texas.

U.S. Fish and Wildlife Service. 2013. Threatened and Endangered Species Lists by State and County. http://www.fws.gov/southwest/es/ES_ListSpecies.cfm/

APPENDIX A: FIGURES

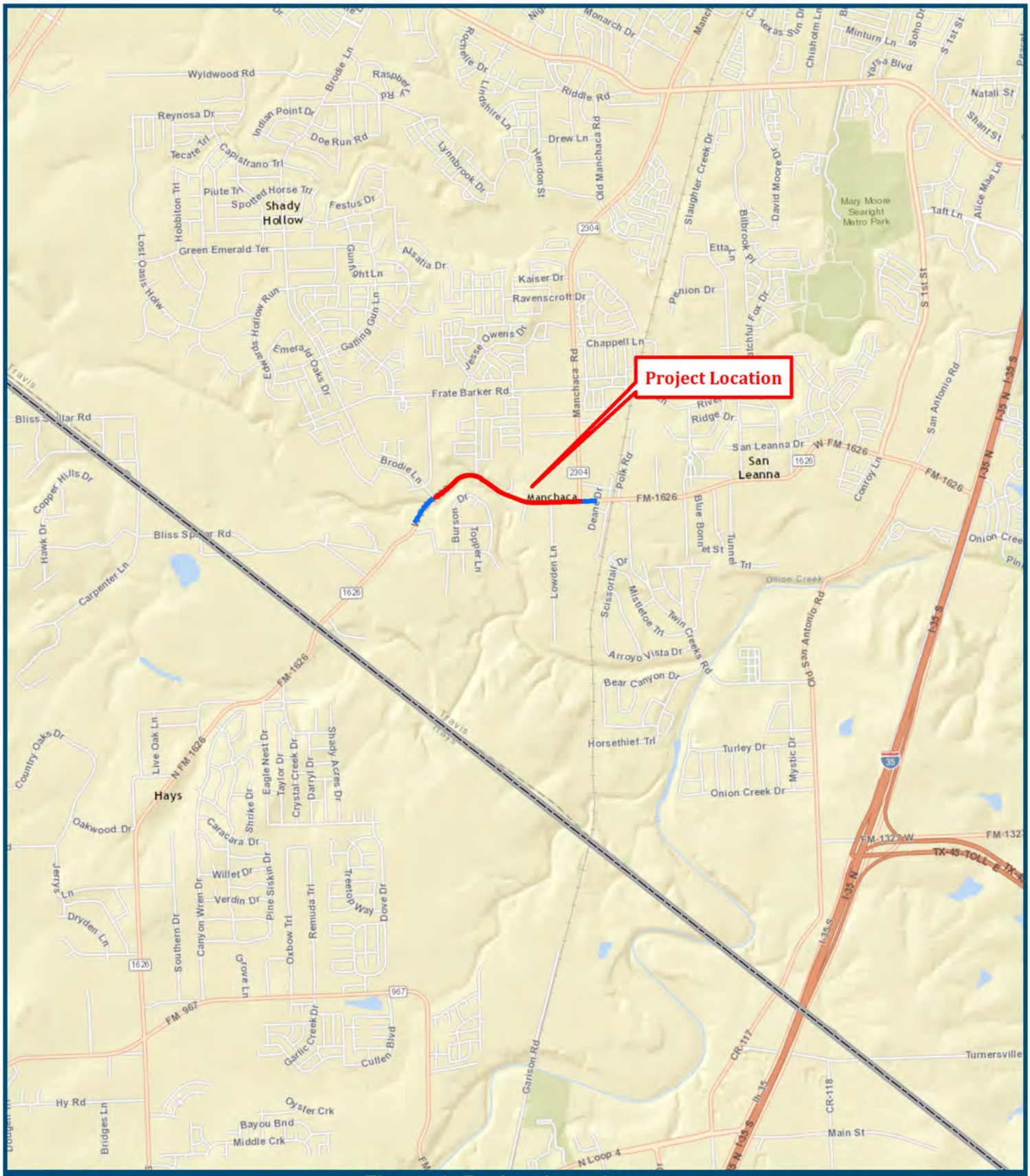


Figure 1: Project Location

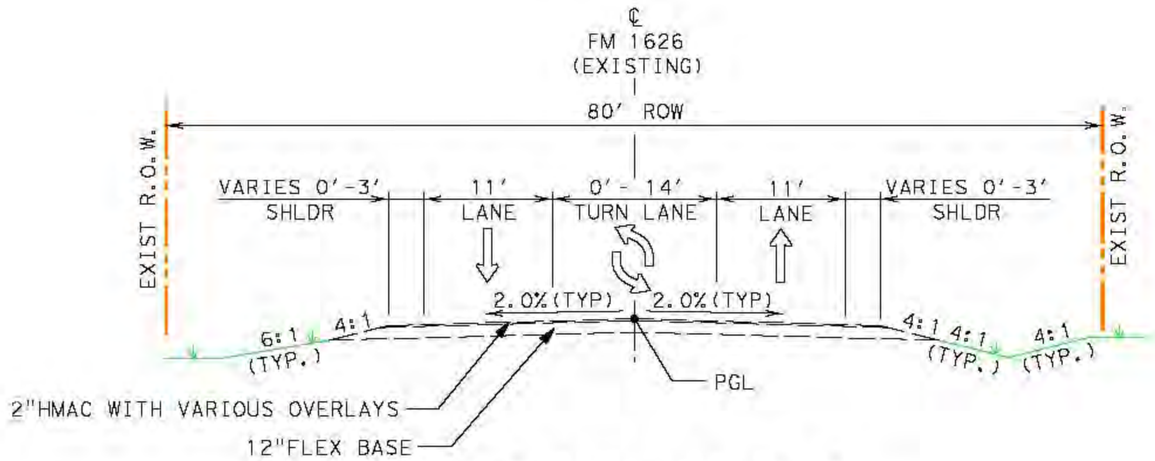
FM 1626 From Brodie Lane to Manchaca Road (FM 2304)
CSJ 1539-02-026

- FM 1626 Project Limits
- Proposed Transition Area
- County Boundary

Miles
0 0.5 1

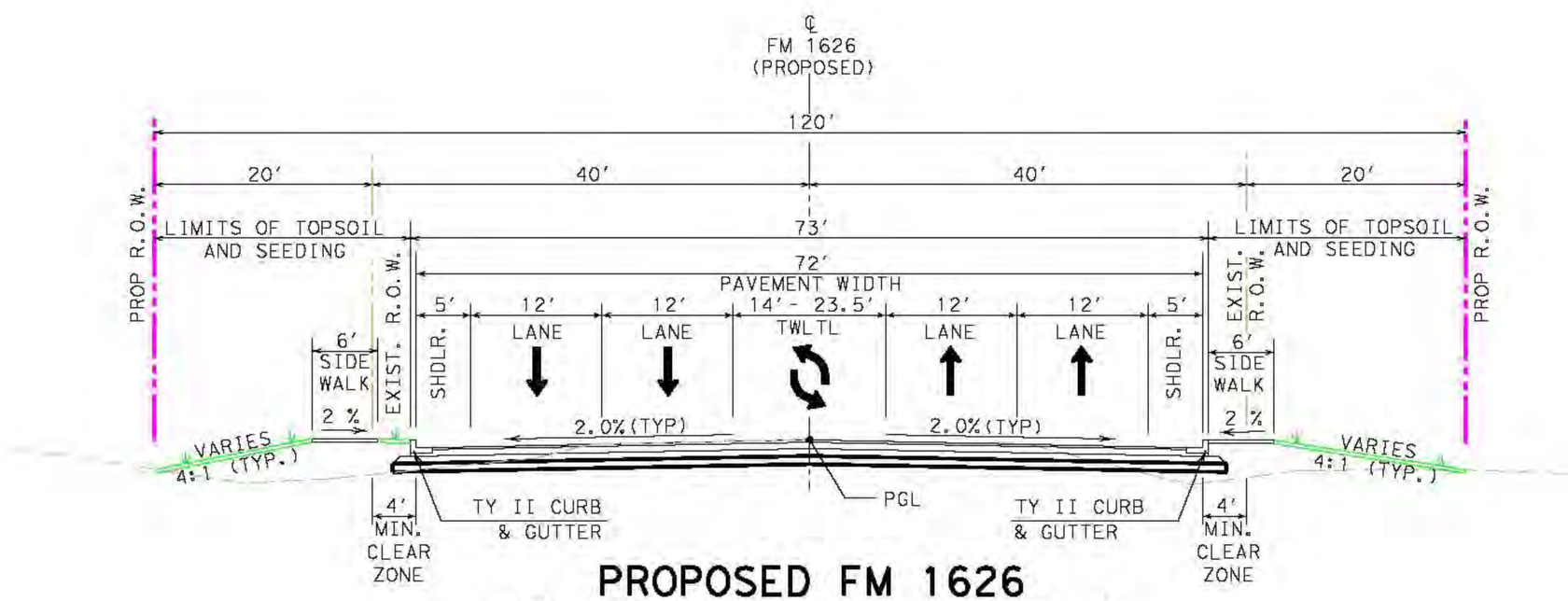
Basemap Source: Esri World Street Map, Esri World Topo

Figure 2: Typical Sections



EXISTING FM 1626

BRODIE LANE TO FM 2304 (MANCHACA RD)



PROPOSED FM 1626

BRODIE LANE TO FM 2304 (MANCHACA RD)

klotz associates
901 SOUTH MOPAC EXPRESSWAY
BUILDING V, SUITE 220
AUSTIN, TX 78746
Phone: (512) 328-5771 Fax: (512) 328-5774
Texas PE Firm Reg. # F-929

Texas Department of Transportation®

FM 1626 IMPROVEMENTS
TYPICAL SECTIONS

COUNTY: TRAVIS	DATE: 8/7/2015
CSJ: 1539-02-026	SCALE: N.T.S.
SHEET NO: 1 OF 1	0513.007.000

Figure 3a: Plan View

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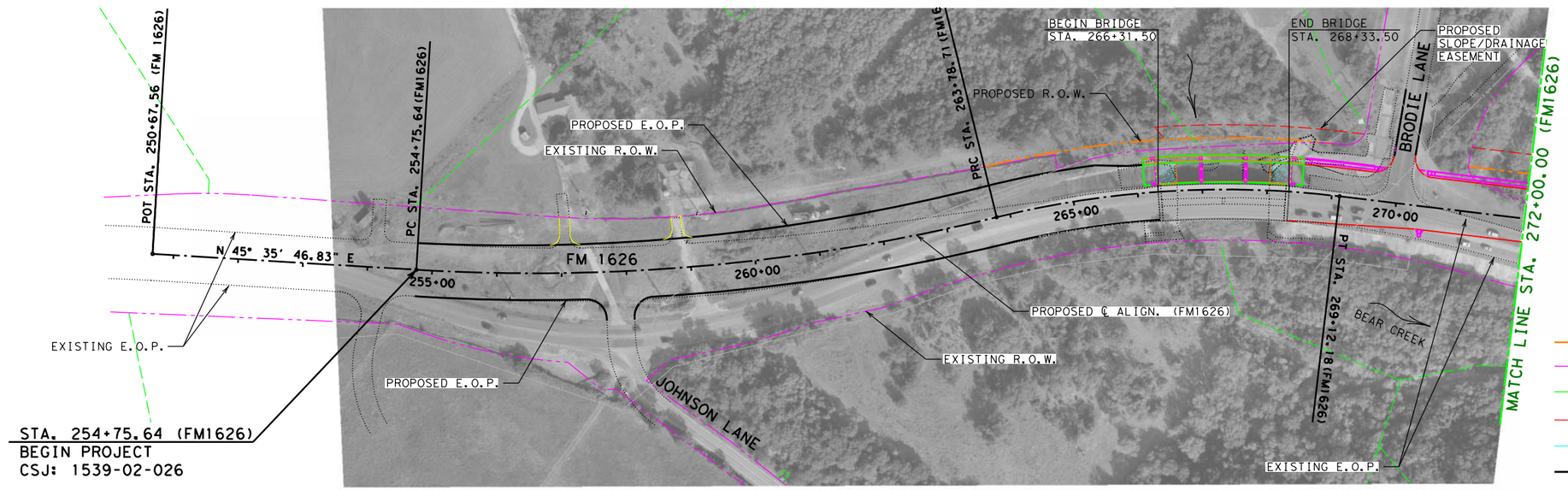

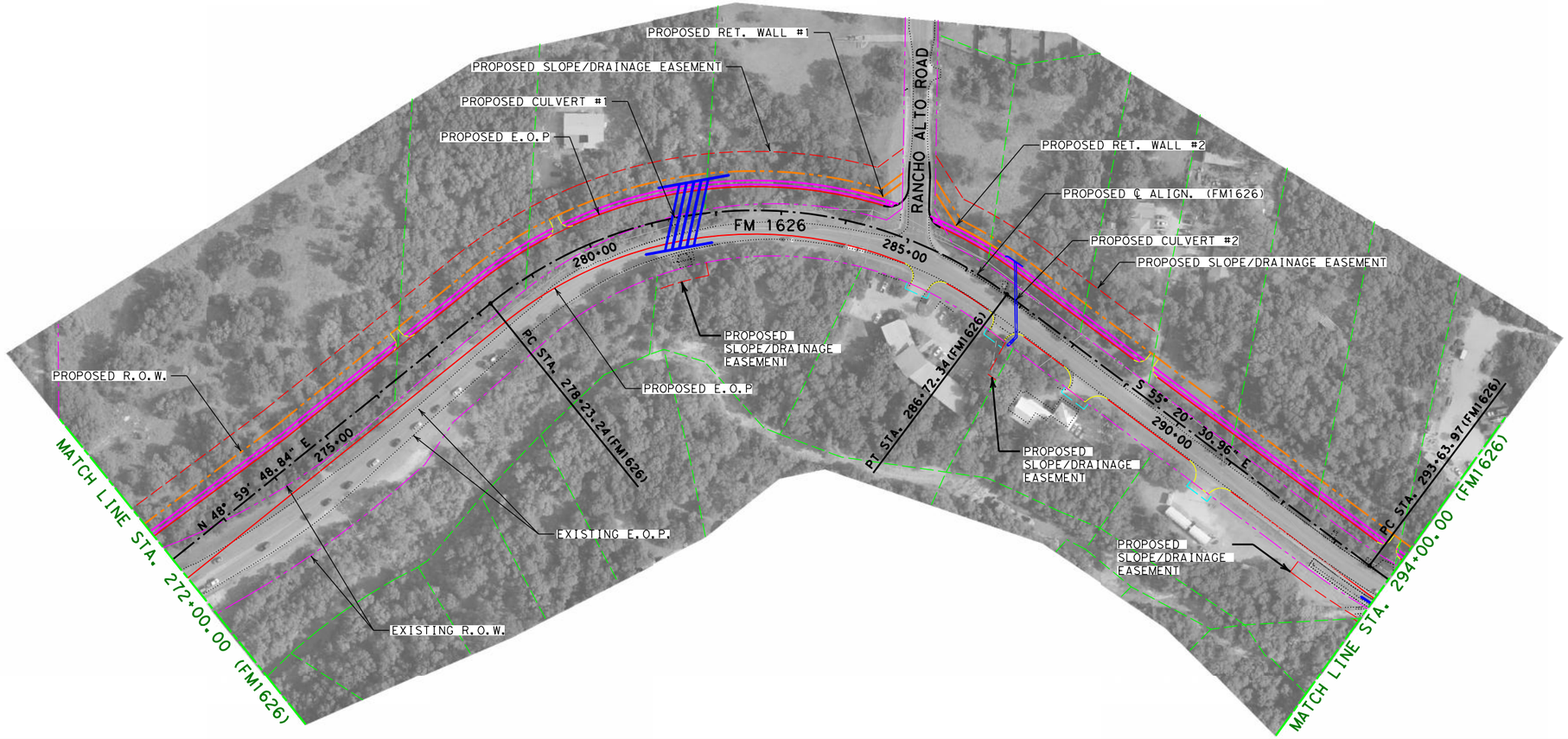

LEGEND

- PROPOSED R.O.W.
- EXISTING R.O.W.
- PROPERTY LINE
- PROPOSED SLOPE/DRAINAGE EASEMENT
- PROPOSED CONSTRUCTION EASEMENT
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CURB AND GUTTER
- PROPOSED SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED BRIDGE
- PROPOSED DRAINAGE CULVERT

PRELIMINARY - 90%

Submitted for interim review under the authority of: BRADLEY R. BROWN P.E. No. 58842
DATE: OCTOBER 2015, it is not to be used for construction, bidding or permit purposes.

FM 1626
PROJECT LAYOUT

STA. 254+75.64 TO STA. 294+00.00
SCALE: HORIZONTAL 1"=200'

SHEET 1 OF 2

klotz associates
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Texas Department of Transportation

FED. RD. DIV. NO.	STATE AID PROJECT NO.		SHEET NO.
6			3
STATE	STATE DIST. NO.	COUNTY	
TEXAS	AUS	TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
1539	02	026	FM 1626

Figure 3b: Plan View

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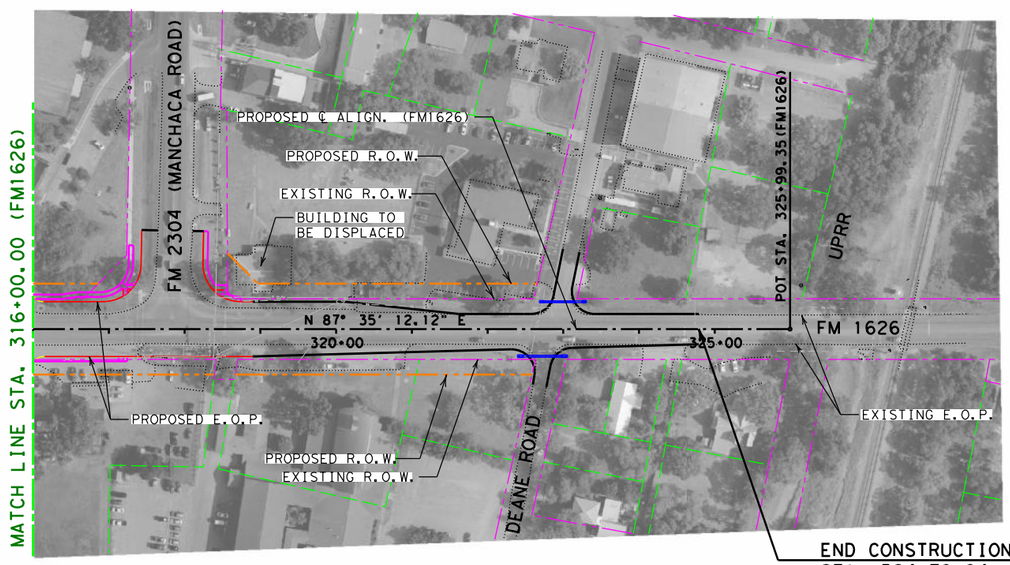

END CONSTRUCTION FM 1626
STA. 324+78.84
CSJ# 1539-02-026

LEGEND

- PROPOSED R.O.W.
- EXISTING R.O.W.
- PROPERTY LINE
- PROPOSED SLOPE/DRAINAGE EASEMENT
- PROPOSED CONSTRUCTION EASEMENT
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CURB AND GUTTER
- PROPOSED SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED BRIDGE
- PROPOSED DRAINAGE CULVERT

PRELIMINARY - 90%

Submitted for interim review under the authority of: BRADLEY R. BROWN P.E. No. 58842
DATE: OCTOBER 2015, it is not to be used for construction, bidding or permit purposes.

FM 1626
PROJECT LAYOUT

STA. 294+00.00 TO
STA. 324+78.84
SCALE: HORIZONTAL 1"=200'

SHEET 2 OF 2

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Texas PE Firm Reg. # F-929

Texas Department of Transportation

FED. RD. DIV. NO.	STATE AID PROJECT NO.		SHEET NO.
6			4
STATE	STATE DIST. NO.	COUNTY	
TEXAS	AUS	TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
1539	02	026	FM 1626

Figure 4: USGS Map

FM 1626 From Brodie Lane to Manchaca Road (FM 2304)
CSJ 1539-02-026

Project Area

Basemap Source: USGS Topo, Esri World Topo (Inset)

Feet
0 1,000 2,000

APPENDIX B: CAMPO RTP and TIP DOCUMENTATION

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
AUSTIN	TRAVIS	1186-01-090	FM 969	C,E,R	City of Austin	Travis County	**$18,128,600**

PROJECT TYPE: Roadway

REV DATE:
MPO PROJECT ID:
FUNDING CATEGORY:
MTP REFERENCE:

LIMITS FROM: FM 3177
LIMITS TO: Hunters Bend Road

TIP DESCRIPTION: Section I will widen FM 969 to provide continuous left turn lane, shoulders and a sidewalk on one side of the roadway from FM 3177 to FM 973. Section II will provide two additional travel lanes, a continuous left turn lane, shoulders and a sidewalk on one side of the roadway from FM 973 to Hunters Bend Road

REMARKS: Map ID 23: Approved in the Pass Through Finance Program for $9,538,600

BICYCLE/PEDESTRIAN: Bicycles accomodated on shoulders; pedestrians accommodated on sidewalks.

Project History:

Total Project Cost Information:

Preliminary Engineering:	$1,140,000
Right Of Way:	$1,580,000
Construction:	$13,538,600
Construction Engineering:	$470,000
Contingencies:	$1,400,000
Indirects:	
Bond Financing:	
Total Project Cost:	**$18,128,600**

Cost of Approved Phases: **$18,128,600**

Authorized Funding by Category/Share:

	Federal	State	Regional	Local	Local Contribution	Funding By Category
3PTF		$9,538,600				$9,538,600
Local				$8,590,000		$8,590,000
Funding by Share:		$9,538,600		$8,590,000		**$18,128,600**

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
AUSTIN	TRAVIS	1539-02-026	FM 1626	C,E,R	City of Austin	Travis County	**$12,223,300**

PROJECT TYPE: Roadway

REV DATE:
MPO PROJECT ID:
FUNDING CATEGORY:
MTP REFERENCE:

LIMITS FROM: West of Brodie Lane
LIMITS TO: FM 2304

TIP DESCRIPTION: Widening and reconstruction of FM 1626 from west of Brodie Lane to FM 2304 (Manchaca Road). Roadway is proposed to be widened to a five lane section with continuous left turn lane.

REMARKS: Map ID 24: Approved in the Pass Through Finance Program for $4,203,300

BICYCLE/PEDESTRIAN: Bicycles accommodated on shoulders. Sidewalks provided along northside of the road for the length of the project.

Project History:

Total Project Cost Information:

Preliminary Engineering:	$1,750,000
Right Of Way:	$2,370,000
Construction:	$7,903,300
Construction Engineering:	$100,000
Contingencies:	$100,000
Indirects:	
Bond Financing:	
Total Project Cost:	**$12,223,300**

Cost of Approved Phases: **$12,223,300**

Authorized Funding by Category/Share:

	Federal	State	Regional	Local	Local Contribution	Funding By Category
3PTF		$4,203,300				$4,203,300
Local				$8,020,000		$8,020,000
Funding by Share:		$4,203,300		$8,020,000		**$12,223,300**

Road Projects (continued)

ID	Sponsor	Cosponsor	County	Project	Limits/Location	Description	Let Year	YOE Cost (Millions)	Funding Source
152	Hays		Hays	FM 165	US 290 - Blanco County Line	MAU-2	2030	$23.1	Local
153	Hays		Hays	FM 621 / Staples Rd	SH 123 - Guadalupe Line	MAU-2	2025	$14.8	Local
154	Williamson	TxDOT	Williamson	FM 734 / Parmer Ln	RM 1431 - Brushy Creek	Widen from 4 lanes with median to 6 lanes with median	2015	$14.4	Local
155	Williamson	TxDOT	Williamson	FM 734 / Parmer Ln	Brushy Creek - Spectrum Dr	Widen from 4 lanes with median to 6 lanes with median	2015	$4.0	Local
156	Travis		Travis	FM 812	FM 973 N - Maha Loop Rd	Improve to MAD-4	2038	$28.0	Local
157	Travis		Travis	FM 812	Maha Loop Rd - Travis County Line	Widen to MAD-4	2040	$11.3	Local
158	Hays		Hays	FM 967	FM 1626 - Main St	MAD-2	2020	$13.8	Local
159	Hays		Hays	FM 967	FM 1826 - FM 1626	MAU-4	2025	$17.4	Local
160	Hays	Buda	Hays	FM 967 / S. Loop 4 / S. Main St	Main St - W Goforth	MAU-4	2020	$1.7	Local
161	Hays	Buda	Hays	FM 967 / S. Loop 4 / S. Main St	W Goforth - IH 35	MAU-4	2020	$0.7	Local
163	Travis		Travis	FM 969	FM 3177 - Hunters Bend	Improve to MAD-4	2017	$18.0	Regional
164	Travis		Travis	FM 969	Hunters Bend - Webberville City Limit	Improve to MAD-4	2038	$49.7	Local
165	Travis		Travis	FM 973	FM 973 Relocation - SH 71 E	Widen to MAD-4	2040	$61.2	Regional
166	Travis		Travis	FM 973	SH 71 E - FM 812	Widen to MAD-4	2040	$26.5	Regional
167	Travis		Travis	FM 973	FM 812 - US 183	Widen to MAD-4	2040	$16.2	Regional
168	Travis		Travis	FM 973 Relocation	US 290 - FM 973	New MAD-4/Improve to MAD-4	2020	$20.5	Local
169	Travis		Travis	FM 973 to Blake Manor Rd. Connector	FM 973 - Blake Manor Rd	New MAD-4	2020	$12.0	Local
170	Elgin		Bastrop	FM 1100	Travis County Line - SH 95	Construct MAD-4	2040	$24.2	Regional
172	Buda	Hays / TxDOT	Hays	FM 1626	0.2 miles south of Brodie Ln to FM 967	Widen to 4-lane divided	2013	$49.3	Regional
173	Hays		Hays	FM 1626	FM 967 - FM 2770	MAD-4	2015	$40.0	Regional
174	Travis		Travis	FM 1626	Manchaca Rd - 0.2 miles south of Brodie Ln	Improve to MAD-4	2018	$12.2	Regional
175	Hays		Hays	FM 1626	SH 45 SW - IH 35	MAD-6	2030	$49.8	Local
176	Travis		Travis	FM 1626	IH 35 - Manchaca Road	Widen to MAD-4	2040	$15.3	Regional
177	TxDOT	Williamson	Williamson	FM 1660	SH 29 - FM 3349	Widen from 2 lanes to 4 lanes with median	2026-2035	$82.3	Local
178	TxDOT	Williamson	Williamson	FM 1660 Realignment	800' south of CR 101 - US 79	Construct new location 2-lane roadway	2016	$32.3	Regional