

Draft Environmental Assessment

Farm-to-Market 2514, Dallas District

Project Limits: From East of Lavon Parkway to Brown Street

CSJ Number(s): 2679-03-015 and 2679-03-016

Collin County, Texas

October 2017

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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List of Acronyms

A list of common acronyms used throughout this document and their definitions is provided below.

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
AOI	Area of Influence
Atlas	Texas Archeological Sites Atlas
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CGP	Construction General Permit
CO	Carbon Monoxide
dB(A)	Decibels (A-weighted)
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMST	Ecological Mapping Systems of Texas
EPIC	Environmental Permits, Issues, and Commitments
EO	Executive Order
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FM	Farm-to-Market Road
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
ISA	Initial Site Assessment
LEP	Limited English Proficiency
Lea	Equivalent Sound Level
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
MSAT	Mobile Source Air Toxics
NAC	Noise Abatement Criteria
NCTCOG	North Central Texas Council of Governments
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
OHWM	Ordinary High Water Mark
PA	Programmatic Agreement
PCN	Preconstruction Notification
ROW	Right-of-Way
RTHI	Recorded Texas Historic Landmark
SAL	State Archeological Landmark
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Officer
SW3P	Storm Water Pollution Prevention Plan
TAOA	Traffic Air Quality Analysis
TCAP	Texas Conservation Action Plan
TCEO	Texas Commission on Environmental Quality
TPDES	Texas Pollutant Discharge Flimination System
TPWD	Texas Parks and Wildlife Department
TSS	Total Suspended Solids
	Tayas Water Development Roard

List of Acronyms (continued)

TxDOT	Texas Department of Transportation
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended in the Surface Transportation and Uniform Relocation
	Assistance Act of 1987
U.S.	United States of America
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 Introduction

The Texas Department of Transportation (TxDOT) Dallas District Office proposes the widening of Farm-To-Market (FM) 2514 (Parker Road) from east of Lavon Parkway to Brown Street in the City of Wylie, the Town of St. Paul, and unincorporated areas in Collin County, Texas. The project length is approximately 3.34 miles. The proposed project would reconstruct and widen this section of FM 2514 from a two-lane undivided roadway to a four-lane (ultimately six-lane) urban divided roadway. See **Appendix A—Project Location Map**.

This draft Environmental Assessment (EA) evaluates the social, economic, and environmental impacts of the proposed project and determines whether such impacts warrant preparation of an Environmental Impact Statement (EIS). The planning process for this project follows TxDOT and Federal Highway Administration (FHWA) environmental policies and procedures in compliance with the National Environmental Policy Act (NEPA). The EA will be made available for public review during a public comment period; subsequently, TxDOT will consider any comments submitted. Once the comment period is over, TxDOT will prepare a final EA. If TxDOT determines there are no significant adverse effects, it will prepare and sign a Finding of No Significant Impact (FONSI), which will be made available to the public.

2.0 Project Description

2.1 Existing Facility

The existing facility is a two-lane undivided roadway, generally running from north to south, with one 12-foot lane and a 2-foot shoulder in each direction within the project limits. The existing right-of-way (ROW) width is 100 feet. Roadway drainage is conveyed by roadside ditches within the project area. There are no bicycle or pedestrian facilities or detention ponds. See **Appendix B–Project Photos**, **Appendix C–Schematics**, and **Appendix D–Typical Sections**.

2.2 Proposed Project

The Dallas District of TxDOT proposes improvements along FM 2514 from east of Lavon Parkway to Brown Street in Collin County, Texas (CSJ: 2679-03-015 and 2679-03-016). The proposed project would widen an existing two-lane roadway to a four-lane (ultimately six-lane) urban divided highway. The proposed improvements including easements would require ROW acquisition of approximately 16.23 acres. Total existing and proposed ROW is approximately 63.76 acres. Lavon Parkway and Brown Street are logical termini for the roadway improvements and this project would have independent utility.

The proposed typical section would have a 14-foot outside shared-use lane with a 2-foot curb offset and an 11-foot inside lane with a 1-foot curb offset in each direction, with a 44-foot raised center median. The left-turn lane at median openings would be 11 feet wide, and the median width would be reduced accordingly. This configuration would accommodate the future expansion of one additional 11-foot inside lane in each direction. Thus, the future median width would be reduced to 22 feet. The proposed ROW width ranges from approximately 72 feet to 230 feet. The 72-foot typical section is at the project southern terminus transitioning to the existing section south of Brown Street. This short section consists of one 11-foot and one 14-foot lane in each direction with sidewalks and no median.

Along both sides of the roadway, 5-foot-wide concrete sidewalks would be installed, offset from the concrete curb by 3 feet. Concrete inlets and pipes would be designed and provided to drain the collected storm water. Approximately 11 pipes/culverts crossing beneath the roadway would be upgraded to carry the increased flow.

An existing at-grade railroad crossing would be reconstructed to accommodate the widened roadway and will continue to be an at-grade crossing.

The proposed project is described in the TxDOT Dallas District Statewide Transportation Improvement Program for the fiscal years 2017-2020 (TxDOT 2016a). The anticipated total cost for the proposed CSJ 2679-03-015 project is approximately \$13,398,142 with \$2,480,000 from federal funding, \$510,000, from state funding, and \$310,000 from local funding for a year of expenditure (YOE) Cost of \$3,300,000. The anticipated total cost for the proposed CSJ 2679-03-016 project is approximately \$6,827,051 with \$4,304,000 from federal funding, \$1,138,000 from state funding and \$538,000 from local funding for a YOE Cost of \$5,980,000. See **Appendix E–Plan and Program Excerpts.**

3.0 Purpose and Need

3.1 Need

Over the next 20 years, traffic is expected to double on this section of FM 2514, which would increase congestion and reduce safety in the local area. The proposed project is needed to address the safety and congestion issues that will be caused by the anticipated increases in traffic in the area.

3.2 Supporting Facts and/or Data

Currently, to travel north-south in this 3.34-mile corridor between the Town of Saint Paul and City of Wylie in Collin County, drivers must travel a two-lane road with limited shoulders. The FM 2514 road currently consists of two 12-foot-wide lanes with 2-foot-wide shoulders. The proposed widening of FM 2514, which will accommodate increased vehicle capacity, provides a safer route and faster thoroughfare between the two communities.

3.3 Purpose

The purpose of the project is to reduce congestion and enhance safety by accommodating traffic volumes which are expected to increase on this section of FM 2514 in the next 20 years. As a result of the proposed project, the communities of Wylie and St. Paul would have a safer and more reliable transportation system. Approximately 17,800 vehicles per day would be expected to use the roadway in 2020, increasing to 25,100 in 2040 (TxDOT 2015a).

4.0 Alternatives

4.1 Build Alternative

The Build Alternative would widen an existing two-lane roadway to a four-lane (ultimately six-lane) urban divided highway. The project limits are from east of Lavon Parkway in the Town of St. Paul to Brown Street in the City of Wylie. The project length is approximately 3.34 miles and traverses the City of Wylie and Town of St. Paul in Collin County. The proposed improvements including easements would require ROW acquisition of approximately 16.23 acres. Total existing and proposed ROW is approximately 63.76 acres. See **Section 2.2** for more details.

The Build Alternative was selected because it will provide improved access from cross streets, it will address safety concerns associated with the current road, and it will also relieve traffic congestion along FM 2514 and in the surrounding area. The Build Alternative has been designed to minimize environmental and human impacts as much as practicable while addressing the safety and congestion issues experienced on the current FM 2514 road. The Build Alternative also accommodates the estimated increase in future traffic volumes, from an estimated 17,800 vehicles per day in 2020 to 25,100 in 2040 (TxDOT 2015a).

4.2 No-Build Alternative

Under the No-Build Alternative, the existing FM 2514 road would not be modified. The No-Build Alternative assumes that no transportation improvements beyond the continued maintenance of the existing facility would occur. This alternative would not improve safety or congestion within the study area; therefore, it would not meet the need and purpose of the project. The No-Build alternative will be carried forward as a baseline against which the recommended alternative will be compared.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

An alternative to using the FM 2514 corridor would require traveling north or south along North Country Club Road (located to the west of the project area), then travelling east on Brown Street to access the City of Wylie or east on Park Boulevard to access the City of Wylie and/or the Town of Saint Paul. This route has more stop lights and intersections than the route along FM 2514. This alternative route to FM 2514 would have required extensive design on new location, high costs, and displacements that exceed the impacts of the Build Alternative.

The Build Alternative design was initially developed to minimize impacts to resources within existing ROW and minimize the amount of proposed ROW required given constraints on both sides of the roadway.

The Build Alternative went through several rounds of revisions to ensure impacts were minimized as much as practicable while fulfilling the need and purpose of improving safety and congestion along the FM 2514 corridor. Design for the Build Alternative took into account potential constraints and public comments from the May 19, 2015 public meeting. Additionally, potential impacts to historic properties were coordinated with TxDOT historians and the project designed in a manner to minimize impacts to historic features.

The Build Alternative option and the No Build option were analyzed in detail.

5.0 Affected Environment and Environmental Consequences

In support of this EA, the following technical reports were prepared:

- Public Involvement Summary (TxDOT 2015b)
- Air Quality Technical Report (TxDOT 2017a)
- Archeological Resources Background Study (TxDOT 2017b)
- Biological Evaluation Form (TxDOT 2017c)
- Community Impact Assessment Technical Report (TxDOT 2017d)
- Hazardous Materials Initial Site Assessment (ISA) (TxDOT 2017f)
- Indirect Impacts Analysis Technical Report (TxDOT 2017g)
- Historical Resources Studies (TxDOT 2017h)
- Traffic Noise Analysis, (TxDOT 2017k)
- Wetlands and Waters of the U.S. Determination Report (TxDOT 2017I)

The technical reports may be inspected and copied upon request at the TxDOT Dallas District Headquarters.

5.1 Right-of-Way/Displacements

The proposed Build Alternative would require displacements and additional ROW. Approximately 16.23 acres of new ROW and easements would be required for the proposed construction of FM 2514. One residential displacement is anticipated during the construction of this project (see **Figure 1** in **Appendix F**). Displacement impacts to the community would be limited to the resident at the one anticipated residential displacement. Displacements are not anticipated for residences of other properties where minor ROW acquisitions will be needed, and any impacts to the residences of those properties are expected to be minor. Comparable housing appears to be available for displaced residences based on current market availability.

TxDOT provides relocation resources to all displaced persons without discrimination in a manner consistent with U.S. Department of Transportation policy as mandated by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended in the Surface Transportation and Uniform Relocation Assistance Act of 1987 (the Uniform Act). All property owners from whom property is needed are entitled to receive just compensation for their land and property. Just compensation is based upon the fair market value of the property. TxDOT also provides, through its ROW Acquisition and Relocation Assistance Program, payment and services to aid in movement to a new location.

The TxDOT ROW Acquisition and Relocation Program would be conducted in accordance with the Uniform Act, and relocation resources are available to all residential and business relocatees without discrimination. Relocation assistance is available to all individuals, families, businesses, farmers, and nonprofit organizations displaced as a result of a state highway or other transportation project. This assistance applies to tenants as well as owners occupying the real property needed for the project. Replacement structures must be located in the same type of neighborhood and be equally accessible to public services and places of employment. The proposed project would proceed to construction only when all displaced persons have been provided the opportunity to be relocated to adequate replacement sites. The available structures must also be open to persons regardless of race, color, religion, or nationality and be within the financial means of those individuals affected.

Encroachment-Alteration Effects

With respect to displacements, encroachment-alteration impacts would be driven by the relocation of one residential property that would be displaced by the proposed project. Examples of encroachmentalteration impacts due to relocations and displacements include a minor reduction in the supply of affordable housing, changes in residential and commercial property values due to the proposed increase in access and mobility, changes in the local tax base due to the anticipated displacements, and impacts to the residents (such as potential increased commuting time) who could be displaced by the proposed improvements to FM 2514. Residential and commercial properties located near FM 2514 that are not physically impacted by the proposed project may experience a change in market value, either positive or negative.

Under the No-Build Alternative, the existing FM 2514 would remain as-is and only normal, routine maintenance would be conducted. No ROW acquisition would be required and no displacements would occur.

5.2 Land Use

The project area is located in Collin County, Texas and traverses the Town of St. Paul, the City of Wylie, and unincorporated areas in the county. The City of Wylie is located within the southern half of the project limits, and the Town of St. Paul is located within the northern half of the project limits. The unincorporated area is located between the two cities.

Surrounding land use ranges from rural agricultural uses, suburban residential, and mixed use (commercial and light industrial) within the northern portion of the project area near the Town of St. Paul to increasingly urbanized residential and mixed use along the southern portion of the project area near the City of Wylie (see **Figure 1** in **Appendix F**).

Although the proposed project would change approximately 16.23 acres of land to transportation use, the proposed project would not substantially alter the existing land use in the area.

Under the No-Build Alternative, no impacts to land use would occur. Land use in the area would remain undeveloped with limited residential and agricultural uses.

5.3 Farmlands

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) database, the proposed project area contains prime farmland soils. **Table 1** identifies the soil map units within the project area and farmland classification according to the USDA website (see **Figure 2** in **Appendix F**).

Soil Unit	Farmland Classification
Burleson clay, 1 to 3 percent slopes	All areas are prime farmland
Heiden clay, 3 to 5 percent slopes, eroded	Not prime farmland
Heiden clay, 5 to 8 percent slopes, eroded	Not prime farmland
Houston Black clay, 0 to 1 percent slopes	All areas are prime farmland
Houston Black clay, 1 to 3 percent slopes	All areas are prime farmland
Houston Black clay, 2 to 4 percent slopes, eroded	Not prime farmland

Table 1: Soil Units and Farmland Classifications for the Proposed FM 2514 Roadway

Source: NRCS 2016

The total corridor assessment was completed on the Farmland Conversion Impact Rating Form for Corridor Type Project (NRCS-CPA-106) for the proposed 16.23 acres of additional ROW. The total corridor assessment merited 6 points out of a maximum of 160 points. In addition, The NRCS evaluates the relative value of farmland that has a maximum score of 100 points. Based on Farmland Protection Policy Act (FPPA) regulations, if a combined score of the total corridor assessment and the relative value of farmland are 160 or more, the project site should be given more consideration for protection.

Since the total corridor assessment for the proposed project only totalled 6 points, coordination with the NRCS was not warranted and no substantial impacts to prime, unique, or other farmlands of statewide or local importance are anticipated.

Under the No-Build Alternative, no impacts to farmland would occur. Undeveloped lands used for agriculture would continue to be used as such.

5.4 Utilities/Emergency Services

The proposed project would require approximately 16.23 acres of new ROW and easements. Implementation of the proposed project may require the relocation and adjustment of utilities such as water lines, sewer lines, gas lines, overhead electrical and telephone lines, and other subterranean and aerial utilities. The need for relocation and adjustment of any utilities would be determined during the detailed design phase and coordinated with the affected utility provider to ensure that no substantial interruption of service would take place. The Collin County EMS, Collin County Sheriff's

Office, and the City of Wiley and the Town of Saint Paul Fire and Police Departments would be notified of the construction start dates and any potential detour routes. Construction activities are not expected to cause substantial delays or access issues for emergency service vehicles. Construction of the proposed roadway could provide enhanced access and reduced response times for local emergency services.

Construction of the proposed project would be phased in a manner that would allow the existing and cross road systems to remain open to traffic during construction of the new roadway. A detailed traffic control plan will be completed prior to construction. At least one access to properties would be available during construction.

Under the No-Build Alternative, no impacts to utilities/emergency services would occur. Traffic patterns would remain unchanged and no detours would occur.

5.5 Bicycle and Pedestrian Facilities

Currently, limited discontinuous sidewalks are located along the project corridor. Sidewalks are most common at intersections or along the frontage of private properties near the downtown area of Wylie, Texas. Current plans for the proposed project include 5-foot-wide concrete sidewalks along both sides of the roadway.

Under the No-Build Alternative, pedestrians and cyclists would continue to use the existing transportation network in its current form.

5.6 Community Impacts

A Community Impacts Assessment Technical Report Form was completed in accordance with TxDOT's *Environmental Handbook: Community Impacts, Environmental Justice, Limited English Proficiency, and Title VI Compliance* guidance (TxDOT 2015c, 2017d). The communities surrounding the project area range from rural agricultural uses, suburban residential, and mixed use (commercial and light industrial) within the northern portion of the project area near the Town of St. Paul to increasingly urbanized residential and mixed use along the southern portion of the project area near the City of Wylie.

Overall mobility along FM 2514 and the community north of Wylie would be enhanced and the added capacity would allow people to access local community assets more efficiently. The proposed added capacity would improve mobility for emergency vehicles and reduce delays. The FM 2514 expansion is anticipated to result in both positive and negative impacts to community cohesion. In some cases, the proposed project would have a positive effect on community cohesion, including increased capacity to access recent developments in the area. Roadway users would also benefit from a decrease in congestion along the corridor. Some roadway users would see a small increase in the travel time required to access their properties due to the divided roadway design. The proposed project would not affect, separate, or isolate any distinct neighborhoods, ethnic groups, or other specific groups.

The proposed improvements to FM 2514 are expected to increase mobility by creating a less congested and safer route through the project area and providing improved connections to existing roadways. The proposed project would improve north-south access through the FM 2514 corridor. Improved access to these services is a benefit to all populations, including sensitive elements such as the elderly, children, and persons with disabilities. The improved access would benefit the general population (including environmental justice populations) that utilizes the public facilities and recreation areas within and beyond the general project vicinity.

Encroachment-Alteration Effects

With respect to encroachment-alteration effects to socio-economic resources, indirect impacts would be driven by changes in travel patterns and access associated with the proposed project. The potential indirect impacts would include improved vehicular access to employment opportunities, markets, goods, services, residential uses, and public facilities due to increased vehicular mobility.

Implementation of the No-Build Alternative would not improve connection or mobility within the project area and Collin County.

5.6.1 Environmental Justice

The proposed project would improve mobility and add capacity for existing and future residences and businesses within the project vicinity. Although isolated Environmental Justice populations are present in the project area, the proposed improvements to FM 2514 would not result in disproportionately high or adverse impacts to these populations. No existing neighborhoods would be divided, and permanent disruptions to normal daily activities are not expected. The design process aimed to minimize adverse impacts on the community, though some property owners would still be adversely affected. Surrounding communities would benefit equally from increased mobility along FM 2514. **Figures 1** and **3** in **Appendix F** illustrate existing land use within the project area, the locations of potential displacements, and census geographies.

Under the No-Build Alternative, no ROW would be required, and no environmental justice impacts would occur. However, the beneficial impacts of the Build Alternative (improved mobility and safety) would not be realized for the entire community, including minorities and low-income individuals, living in the project area. The entire community, including minorities and low-income individuals, could be adversely impacted by the increasing congestion and low mobility in the project area that would occur under the No-Build Alternative.

5.6.2 Limited English Proficiency

Limited English Proficiency (LEP) is defined as persons who speak English "less than very well". The LEP populations in individual census block groups within the project area range from approximately 2.2 to 5.9 percent. Of the 14,474 people over five years of age in the adjacent five census block groups, approximately 3.9 percent speak English "less than very well." The largest LEP population speaks Spanish. In Census Tract 313.08/ Block Group 1, approximately 3.5 percent of the population

speaks Spanish. Other LEP populations include Indo-European, Asian and Pacific Islander, and other languages (TxDOT 2017d).

Reasonable steps will continue to be taken to ensure that all persons have meaningful access to the programs, services, and information TxDOT provides. Notices for the public meeting held in May 2015 were published in *The Dallas Morning News*, *Al Dia* (a Spanish language publication), and *The Wylie News* on a 30-day publication schedule prior to the public meeting. In addition to advertising in a Spanish language publication, materials such as comment cards were provided in Spanish. Continued coordination with the Dallas District will take place to appropriately plan for LEP accommodations at the public hearing scheduled for mid-2017. Public involvement information and/or materials would be made available in English and Spanish, and a translator (for language or other special communication needs) would be provided upon request. Therefore, the requirements of EO 13166, pertaining to LEP, would be satisfied.

5.7 Visual/Aesthetics Impacts

Although the proposed project consists of widening the existing FM 2514, adverse visual impacts are not anticipated as part of the proposed project. The area is currently crisscrossed by a network of municipal roads so the addition of the new roadway is not anticipated to appreciably change the visual environment.

Under the No-Build Alternative, the viewshed would not be altered by the introduction of a new transportation facility.

5.8 Cultural Resources

5.8.1 Archeology

An Archeological Resources Background Study was completed in 2017 for the proposed project by Cox McLain Environmental Consulting, Inc. (TxDOT 2017b). The archeological area of potential effects (APE) is defined as the entire footprint of the proposed improvements. The archeological APE included approximately 16.23 acres of proposed ROW and easements with a total of 63.76 acres of existing and proposed ROW. As is required on TxDOT projects, research was also completed for an additional 1-kilometer buffer zone around the APE.

A review of the Texas Archeological Sites Atlas (Atlas) performed in 2015 indicated that two surveys have been conducted in portions of the archeological APE. These two surveys occurred at the northern end of the APE, but no sites were recorded within the APE during these surveys. In addition, the Atlas shows that two other archeological projects, two archeological sites, three historic cemeteries, and four historical markers have been recorded within the 1-kilometer buffer area surrounding the APE. There are no reports listed in the Atlas for the two additional surveys recorded in the 1-kilometer buffer area, so no details were available. The two archeological sites, 41COL210 and 41COL211, recorded in the buffer area are historic-age residential sites and have been determined ineligible for inclusion in the National Register of Historic Places (NRHP) or designation as State Archeological Landmarks (SALs) (Goodmaster 2014; THC 2015). The boundaries of Site 41COL210 may slightly overlap the

current project APE at the westernmost terminus. Since this site is not eligible for the NRHP, the proposed project would have no impact on the site, regardless of its specific location. All three of the cemeteries (St. Paul, Hughes, and Wylie) are outside of the APE, as are all of the historical markers.

A review of relevant geologic and soil data indicated that the potential for deeply buried sites along this project APE is considered to be nil to extremely low.

In a memorandum from June 15, 2016 TxDOT archeological staff recommended that this project will have no effect on archeological historic properties. As provided under Stipulation IX.B.3. of the Amended Programmatic Agreement for Transportation Undertakings, (PA-TU) between the FHWA, the Texas State Historic Preservation Officer (SHPO), TxDOT archeological staff recommended that no archeological survey was necessary. As provided under the Memorandum of Understanding (MOU), the proposed project does not require individual coordination with the Texas Historical Commission (THC).

Under the No-Build Alternative, no impacts to archeological resources would occur and, as a result, no coordination would be required with the THC.

5.8.2 Historic Properties

A Report for Historical Studies Survey, was completed in 2017 for the proposed project by Cox | McLain Environmental Consulting, Inc. (TxDOT 2017h). Review of the NRHP, the list of State Archeological Landmarks (SAL), and the list of Recorded Texas Historic Landmarks (RTHL) indicated that there no historically significant resources have been previously documented within the historic APE. There is one Official Texas Historical Marker commemorating St. Paul located within the APE near the intersection of FM 2514 and St. Paul Road, behind the St. Paul City Hall. It has been determined through consultation with the SHPO that the APE for the proposed project is defined as the existing ROW in sections where work would be conducted within existing ROW and 150 feet from the outer edges of the existing and proposed ROW and easements in sections where existing roadway would be rehabilitated and widened. Architectural historians with Cox/McLain Environmental Consulting, Inc. conducted a historic resources survey and documented 54 historic-age properties (built prior to 1974) within the project APE. Historic-age resources in the APE consist mainly of early- to mid-twentieth century-residences and associated secondary structures, and agricultural resources. The surveyed resources have been evaluated through application of the Criteria of Eligibility for listing in the NRHP. Four residences were determined eligible for NRHP listing under Criterion C in the area of Architecture at the local level of significance. The remaining resources documented in the survey are not known to be associated with a significant historical event or associated with a person of transcendent importance. They do not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master. Therefore, the remaining resources were determined not eligible for listing in the NRHP.

Minimal amounts of new ROW would be acquired from the parcels on which the four NRHP eligible residences stand (see **Figure 4**). The proposed project would not have an adverse effect on the characteristics that make these buildings eligible for inclusion in the NRHP. Overall, the proposed

project would not lessen one's understanding of each resource's architectural significance and would not constitute adverse indirect effects on the NRHP eligible resources. Furthermore, no reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative were identified in the assessment of effects. However, since new ROW would be acquired from each parcel, the proposed project constitutes a *de minimis* Section 4(f) use of the historic properties.

Pursuant to Stipulation IX "Undertakings with the potential to cause effects per 36 CFR 800.16(i)" 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, TxDOT historians determined there are four historic properties present (Resources 8A, 22A, 26A, and 27) within the APE for the proposed project, and that direct, but not adverse, effects would occur as a result of the proposed project. Individual project coordination with SHPO was completed. The project received concurrence under Section 106 on September 19, 2017 (see Appendix G, Resource Agency Coordination).

Under the No-Build Alternative, no impacts to historic resources would occur and no coordination with THC would be required.

5.9 DOT Act Section 4(f), LWCF Act Section 6(f) and PWC Chapter 26

Four historic properties were determined eligible for NHRP listing. Although the proposed Build Alternative would not pose adverse effects to the four historic properties, new ROW would be acquired from each parcel on which the historic properties stand, thus constituting direct effects to each historic property. The direct effect to each historic property constitutes a *de minimis* Section 4(f) use of each one. There are no Section 6(f), or Chapter 26 properties present in the project corridor. The project received approval of *de minimis* Section 4(f) determination on September 19, 2017 (see Appendix G, Resource Agency Coordination).

Under the No-Build Alternative, no impacts to historic resources would occur and no parcels would constitute a *de minimis* use of a historic site under the U.S. Department of Transportation Act Section 4(f) regulations (23 CFR 774).

5.10 Water Resources

Five water crossings and six water features were identified within the proposed project limits in the *Water Resources Technical Report* for the FM 2514 project (see **Table 2** and **Figure 5** in **Appendix F**). Three water resources were identified as likely jurisdictional Waters of the U.S., including two ephemeral stream channels and one emergent wetland (TxDOT 2017I).

Crossing 1 (Wetland 1) is an emergent wetland that is not depicted on U.S. Geological Survey (USGS) topographic maps, NWI maps, or NHD maps. Wetland 1 is not located within the 100-year floodplain designated by the Federal Emergency Management Agency (FEMA). Based on field observations and historical aerials, this wetland appears to be part of an excavated ditch system, likely constructed as

part of previous road construction. Historical aerials show that this system conveys water to the north via a grass-lined swale. The system was likely excavated to help drain roadsides of excess storm water. Based on current U.S. Army Corps of Engineers (USACE) guidance, it is likely that Wetland 1 would not be considered a water of the U.S. Wetland 1 was excavated in uplands, drains only uplands, and functions as a roadside ditch.

Crossing 2 (Waters 1) is an unnamed tributary to Lavon Lake that is depicted on USGS topographic maps and NHD maps but not on NWI maps. Waters 1 is best described as an ephemeral stream channel that conveys flows to the south. The crossing is not located within a FEMA-designated 100-year floodplain. The width of the Ordinary High Water Mark (OHWM) is approximately 1 to 1.5 feet. No adjacent wetlands were identified at the crossing. Based on current USACE guidance, it is likely that Waters 1 would be considered a water of the U.S. because of a clear surface hydrologic connection to a downstream navigable water.

Crossing 3 (Waters 2, Wetland 2) is an unnamed tributary to Lavon Lake that is depicted on USGS topographic maps and NHD maps but not on NWI maps. The crossing is not located within a FEMA-designated 100-year floodplain. The width of the OHWM is approximately 1 to 4 feet wide. Waters 2 flows from approximately northwest to southeast and travels through a pipe culvert under FM 2514, ultimately flowing to Lavon Lake. Waters 2 transitions into an emergent wetland (Wetland 2) on the east side of FM 2514 before continuing to the east as an ephemeral stream channel. Based on current USACE guidance, it is likely that Waters 2 and Wetland 2 would be considered waters of the U.S. because of a clear surface hydrologic connection to a downstream navigable water.

Crossing 4 (Waters 3) is an open water feature located east of FM 2514 and is not depicted on USGS topographic maps, NHD maps, or NWI Wetland maps. The crossing is not located within the FEMA-designated 100-year floodplain. Crossing 4 appears to be an upland stock tank, excavated to capture runoff from impervious surfaces or agricultural activities in the local area. Based on current USACE guidance, it is likely that Waters 3 would not be considered a waters of the U.S. Waters 3 lacks a clear surface hydrologic connection to a downstream navigable water, it appears to have been excavated in uplands, and it drains only uplands.

Crossing 5 (Wetland 3) is an emergent wetland that is not depicted on USGS topographic maps, NHD maps, or NWI Wetland maps. The crossing is not located within the FEMA-designated 100-year floodplain. Based on field observations and historical aerials, this wetland appears to be part of an excavated ditch system related to past agriculture practices. Historical aerials show that this system conveys water to the north via a straight channel. The system was likely excavated to help drain agricultural fields of excess storm water. Based on current USACE guidance, it is likely that Wetland 3 would not be considered a water of the U.S. Wetland 3 was excavated in uplands, drains only uplands, and functions as a roadside ditch.

It is anticipated, based on the 2017 report, that any impacts to waters of the U.S. would be authorized through Nationwide Permit (NWP) #14. Due to anticipated impacts to a special aquatic site (Wetland 2 - emergent wetland), a Preconstruction Notification (PCN) to the USACE would be required. The actual

amount of impacts to waters under the jurisdiction of USACE would be confirmed during the final design phase, based on acquisition of complete right-of-entry and detailed construction plans. If any impacts to a water of the U.S. exceed 0.5 acre, or the thresholds of the general conditions of the NWP are exceeded, an Individual Permit would be required.

Under the No-Build Alternative, the existing drainage structures along and at water crossings to FM 2514 would remain as is and only normal maintenance would be required. No impacts to waters of the U.S. would occur within the portion of the project on new location.

Single and Complete Crossing #	Name of Water Body	Type of Aquatic Resource	Average OHWM within Right-of- Way (feet)	Existing Structure	Linear Feet/Acres of Water Body within the Project Area	Linear Feet/Acres of Impacts*	Water of the U.S.? (Yes/No)	Permit Required if PJD** Requested?	NWP 14 Permit Potentially Required?	PCN Potentially Required?
1	Wetland 1	Roadside Ditch	N/A	N/A	0.011 acre	0.004 acre	No	Yes	No	No
2	Waters 1	Ephemeral stream Chanel	1 - 1.5	Single pipe culvert	101.51 linear feet 0.009 acre	42.03 linear feet 0.002 acre	Yes	Yes	Yes	No
3	Waters 2 Wetland	Ephemeral Stream Channel Emergent	1 - 1.5 N/A	Single 8x4 box culvert Single 8x4	81.44 linear feet 0.009 acre N/A	71.34 linear feet 0.008 acre N/a	Yes	Yes	Yes	Yes
4	2 Waters 3	Wetland Stock Tank	N/A	box culvert	0.044 acre N/A 0.036 acre	0.032 acre N/A 0.008 acre	No	Yes	No	No
5	Wetland 3	Roadside Ditch	N/A	Single 8x4 box culvert	N/A 0.051 acre	N/A 0.048 acre	No	Yes	No	No

Table 2: Summary of Crossings Evaluated Within the Project Area

*Linear feet/acres of impacts column does not include impacts to culverted waterbodies.

**PJD – Preliminary Jurisdictional Determination

5.10.1 Clean Water Act Section 404

According to the Clean Water Act, coordination with the USACE may be required for this project. For single and complete crossings within public transportation projects, the maximum limit of impacts to non-tidal jurisdictional waters of the U.S. that would be covered under the NWP #14 is 0.5 acres. A PCN would be required if the impacts are greater than 0.1 acres or if there is any proposed discharge within special aquatic sites, including wetlands. The PCN must include a compensatory mitigation proposal to offset permanent losses of waters of the U.S. to ensure that those losses result only in minimal adverse effects to the aquatic environment and a statement describing how temporary losses of waters of the U.S. would be minimized to the maximum extent practicable. A NWP #14 with PCN would cover the construction, expansion, modification, and improvements associated with this linear transportation project if impacts at a single and complete crossing exceed 0.1 acre or occur within a special aquatic feature, including wetlands. Impacts to waters of the US would be minimized to the extent practicable under the Build Alternative.

Under the No-Build Alternative, no impacts to waters of the U.S. would occur and, thus, no permitting would be required with the USACE.

5.10.2 Clean Water Act Section 401

The proposed project is a Tier I project. In order to comply with the Texas Commission on Environmental Quality's (TCEQ's) 401 Water Quality Certification Conditions for NWPs, at least one Best Management Practice (BMP) from each of the following three categories of onsite water quality management must be used on the proposed project: erosion control, post-construction Total Suspended Solids (TSS) control, and sedimentation control. The BMPs to be used on the proposed project include temporary vegetation for erosion control, silt fences for sedimentation control, and vegetative filter strips for post-construction TSS control.

Under the No-Build Alternative, no impacts to waters of the U.S. would occur and, as a result, no 401 Certification would be required.

5.10.3 Executive Order 11990 Wetlands

Executive Order (EO) 11990 Protection of Wetlands (issued in 1977) requires federal agencies to minimize the destruction or modification of wetlands. Wetlands were observed within the proposed project limits. In accordance with EO 11990, alternatives were reviewed with regard to avoidance and minimization of impacts to wetlands. Where applicable and practicable, design should incorporate minimization of impacts by bridging wetland areas. In these areas, impacts to wetlands would be limited to the road grading and culvert extensions and would result in minimal placement of permanent fill in jurisdictional areas.

Under the No-Build Alternative, no impacts to wetlands would occur; therefore, EO 11990 would not apply.

5.10.4 Rivers and Harbors Act

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.5 Clean Water Act Section 303(d)

Storm water runoff from the project area flows to Lavon Lake (Segment ID: 0821) which is a nonimpaired classified reservoir located within 5 miles of the project area. The project does not cross a stream segment listed as impaired on the 2014 TCEQ 303(d) list and it is not within 5 miles upstream of a stream segment listed as impaired on the 2014 303(d) list (TCEQ 2014). The proposed project would discharge storm water runoff from the roadway surface. Since this project is not located within five miles upstream of an impaired water, coordination with the TCEQ would not be required.

Under the No-Build Alternative, no impacts to impaired water segments would occur and coordination with the TCEQ would not be required. Compliance with a Texas Pollutant Discharge Elimination System (TPDES) permit would not be required.

5.10.6 Clean Water Act Section 402

The project would include more than five acres of earth disturbance. To comply with the TCEQ TPDES Construction General Permit (CGP), a Storm Water Pollution Prevention Plan (SW3P) would be implemented, and a construction site notice would be posted. A Notice of Intent (NOI) and Notice of Termination are also required.

Permanent soil erosion control features would be constructed as soon as feasible during the early stages of construction. Disturbed areas would be restored and stabilized as soon as the construction schedule permits and temporary sodding would be considered where large areas of disturbed ground would be left bare for a considerable length of time.

Under the No-Build Alternative, there would be no earth disturbance and compliance with the TPDES CGP would not be required.

5.10.7 Floodplains

EO 11988, Floodplain Management, requires federal agencies to avoid activities which directly or indirectly result in the development of floodplain area. The entire project is located in Collin County with portions of the project located in the City of Wylie and Town of St. Paul. Collin County, the City of Wylie, and the Town of St. Paul participate in the National Flood Insurance Program (FEMA 2015). According to the FEMA Flood Insurance Rate Maps (FIRM) Community Panel Number 48085C0420J, the project is not located within a FEMA-designated 100-year floodplain (see **Figure 5** in **Appendix F**). The proposed construction would not increase the base flood elevation to a level that would violate applicable floodplain regulations or ordinances. Coordination with FEMA would take place if required.

Under the No-Build Alternative, no impacts to floodplains would occur.

5.10.8 Wild and Scenic Rivers

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.9 Trinity River Corridor Development Certification

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.10 Coastal Barrier Resources

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.11 Coastal Zone Management

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.12 Edwards Aquifer

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.13 International Boundary and Water Commission

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

5.10.14 Drinking Water Systems

According to the Texas Water Development Board (TWDB) Groundwater Database, there are no known groundwater wells located within the project area and there are no anticipated impacts to groundwater resources as a result of the proposed project (TWDB 2016).

The No-Build Alternative would have no impacts to drinking water systems.

Encroachment-Alteration Effects

The hydraulic design and analysis conducted for the proposed project would address any encroachment alteration effects to the floodplain. Encroachment-alteration effects to water quality occur primarily due to increased impervious surface area which could increase runoff and decrease water quality downstream. Construction of the proposed improvements would directly contribute to increases in impervious cover. Effects would also occur in areas where vegetation in the proposed project area is cleared during construction, which could accelerate off-site erosion due to runoff. Use of BMPs within the proposed project area would minimize water quality effects downstream.

5.11 Biological Resources

5.11.1 Texas Parks and Wildlife Coordination

The proposed Build Alternative would require impacts to existing vegetation. According to field observations by a qualified biologist and project plans, the proposed project would impact 41.99 acres of Urban habitat, 0.75 acre of Riparian habitat, and 1.03 acres of Edwards Plateau Savannah, Woodland, and Shrubland habitat (**Figure 6** in **Appendix F**). According to the threshold for coordination with Texas Parks and Wildlife Department (TPWD), the following thresholds apply for proposed impacts to these habitat types: Urban habitat has no acreage threshold; Riparian habitat has a 0.10-acre threshold; and Edwards Plateau Savannah, Woodland, and Shrubland habitat has a 1.0-acre threshold.

The proposed Build Alternative would require vegetation impacts for Riparian habitat and Edwards Plateau Savannah, Woodland, and Shrubland habitat which would exceed the threshold for coordination with TPWD. The Build Alternative does not include proposed impacts to federal and state-listed species which require coordination with TPWD. Coordination was initiated for the proposed vegetation impacts on May 26, 2016 and completed on September 21, 2016 (See **Appendix G**). For more information, see the Biological Evaluation Form (TxDOT 2017c), available in TxDOT's project files.

5.11.2 Impacts on Vegetation

The proposed Build Alternative would require vegetation impacts for Riparian habitat and Edwards Plateau Savannah, Woodland, and Shrubland habitat which would exceed the threshold for coordination with TPWD. For more information, see the Biological Evaluation Form (TxDOT 2017c), available in TxDOT's project files.

These habitat types are not considered rare or important remnant vegetation as mapped by the Texas Conservation Action Plan (TCAP). As defined in the *Tier II Site Assessment Programmatic Agreement* between TxDOT and TPWD under the 2013 MOU, special habitat features can include bottomland hardwoods, caves, cliffs and bluffs, native prairies, seeps or springs, snags or groups of snags, existing bridges with known or observed bird or bat colonies, rookeries, and prairie dog towns (TxDOT 2014b). No bottomland hardwoods, caves, cliffs and bluffs, native prairies, seeps or springs, or snags or groups of snags are located within the project area. No bird or bat colonies were identified at any of the bridges or culverts within the project area. Grasslands occurring within the project area do not constitute native prairie, as they contain a number of introduced and/or invasive species. Unusual vegetation features can include unmaintained vegetation; fencerow vegetation; riparian vegetation; trees that are considered historically significant, ecologically significant, or locally important; and unusual stands or islands of vegetation (TxDOT 2014b). Only 0.75 acre of impacts to an unusual vegetation feature (Riparian habitat) listed above are anticipated as a result of the Build Alternative.

5.11.3 Executive Order 13112 on Invasive Species

In accordance with EO 13112 on Invasive Species, all revegetation will, to the extent practicable, use only native species. Under the proposed Build Alternative, upon completion of earthwork activities,

disturbed areas would be reseeded according to TxDOT specifications and in compliance with EO 13112, where applicable.

Under the No-Build Alternative, the existing vegetation would remain as it is presently, except for those areas where a landowner could decide to either harvest or clear the land for other uses. The No-Build Alternative would not require any conversion of vegetation to a transportation facility nor would it impact unusual vegetation or special habitat features. Under the No-Build Alternative EO 13112 on Invasive Species would not be applicable.

5.11.4 Executive Memorandum on Environmentally and Economically Beneficial Landscaping

In accordance with the Executive Memorandum of August 10, 1995, all agencies shall comply with NEPA as it relates to vegetation management and landscape practices for all federally assisted projects. The Executive Memorandum directs that, where cost-effective and to the extent practicable, agencies would (1) use regionally native plants for landscaping; (2) design, use, or promote construction practices that minimize adverse effects on the natural habitat; (3) seed to prevent pollution by, among other things, reducing fertilizer and pesticide use; (4) implement water-efficient and runoff reduction practices; and (5) create demonstration projects employing these practices. The proposed Build Alternative would include landscaping that would be in compliance with the Executive Memorandum and the guidelines for environmentally and economically beneficial landscape practices.

Under the No-Build Alternative, the existing vegetation would remain as it is presently, except for those areas where a landowner could decide to either harvest or clear the land for other uses. The No-Build Alternative would not require any conversion of vegetation to a transportation facility nor would it impact unusual vegetation or special habitat features. Under the No-Build Alternative the Executive Memorandum on Beneficial Landscaping would not be applicable.

5.11.5 Impacts to Wildlife

The vegetation of the Texas Blackland Prairies ecoregion provides habitat for a wide range of reptilian, mammalian, and avian species that are common to the North Texas environment. Common species include the coyote (*Canis latrans*), Virginia opossum (*Didelphis virginiana*), bobcat (*Lynx rufus*), white-tailed deer (*Odocoileus virginianus*), ornate box turtle (*Terrapene ornata*), rough earth snake (*Virginia striatula*), scissor-tailed flycatcher (*Tyrannus forficatus*), red-tailed hawk (*Bueto jamaicensis*), and the Eastern Bluebird (*Sialia sialis*) (TPWD 2015). Under the Build Alternative, these species have the potential to occur within the project area and adjacent undeveloped land. Although believed to utilize to proposed project area, none of these commonly encountered species were observed during the July 17, 2015, November 8, 2015, or June 14, 2016 site visits.

The proposed Build Alternative is anticipated to include undeveloped portions of the existing and proposed ROW where some wildlife species could occur. The proposed Build Alternative is anticipated to require clearing or other construction-related activities which may directly or indirectly affect animals that reside on or adjacent to the project area ROW. Heavy machinery could kill small, low-mobility

animals or could cause soil compaction, impacting animals that live underground. Larger, more-mobile species will typically avoid construction activities and move into adjacent areas. In order to minimize disturbance to inert microhabitats (e.g., snags, brush piles), clearing within the ROW would be minimized to the extent practicable. Although individual animals may be killed or displaced by construction related activities occurring as a result of the proposed Build Alternative the proposed project does not threaten the existence of local populations or species as a whole.

Under the Build Alternative, the proposed project area is within range of and potentially suitable habitat is present for the Species of Greatest Conservation Need (SGCN) plains spotted skunk (*Spilogale putorius interrupta*) and Texas garter snake (*Thamnophis sirtalis annectens*) (TPWD 2016). Although the Build Alternative may result in the removal of potentially suitable habitat or the temporary disturbance of individuals of these species, the project is not anticipated to cause a substantial impact to any species. Any impact to individuals would be incidental in nature. The following BMPs would be implemented in an effort to avoid impacts to the SGCN species:

- Plains spotted skunk BMPs: Contractors will be advised of potential occurrence in the project area, to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
- Texas garter snake: Contractors will be advised of potential occurrence in the project area and to avoid harming the species if encountered.

Under the No-Build Alternative, no impacts to wildlife species, SGCNs, or their habitats would occur.

Encroachment-Alteration Effects

With regard to encroachment-alteration effects under the Build Alternative, the effects of removing important wildlife habitat areas would not extend beyond the riparian vegetation, unmaintained vegetation, and six water features present within the project area. Accordingly, impacts to habitat would be limited to the area of direct impacts and no encroachment impacts are expected. The limited direct impacts on wildlife habitat are not expected to affect the populations of any rare species in the area, and no indirect impacts to such species elsewhere are expected as a result of habitat removal. Furthermore, the existing habitats are already fragmented by the original construction of FM 2514, as well as construction of surrounding commercial and residential properties. Due to the close proximity of adjacent development, no further fragmentation would be expected from the direct impacts beyond what already exists in this environment. Indirect effects to vegetation and wildlife habitat as a result of the proposed improvements are anticipated to be minimal.

5.11.6 Migratory Bird Treaty Act

Under the proposed Build Alternative, the proposed project area was investigated for any structures containing migratory birds or indications of nesting migratory birds. Migratory birds were observed within the proposed project area but no active migratory bird nests were observed nesting during the site visit, though right-of-entry was restricted and individuals may arrive in the project area to breed during construction of the proposed project. Under the proposed Build Alternative migratory birds and/or their habitat may be directly impacted by the proposed construction related activities or

through displacement. Although individual animals may be displaced by construction related activities occurring as a result of the proposed Build Alternative, the proposed project does not threaten the existence of local populations or species as a whole. 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, or egg in part or in whole, without a federal permit issued in accordance within the Act's policies and regulations. Between October 1 and February 15, the contractor would remove all old migratory bird nest(s) from any structure where work would be carried out. In addition, the contractor would be prepared to prevent migratory birds from building nest(s) between February 15 and October 1. In the event that migratory birds are encountered on-site during project construction, efforts to avoid adverse impacts on protected birds, active nests, eggs and/or young would be observed.

The No-Build Alternative would not require any removal or disturbance of migratory birds, their nests, or their young and there would be no impacts to migratory birds.

No bald or golden eagles or their habitats were observed within the project area during field investigations, as verified by a qualified biologist. Neither the proposed Build Alternative nor the No-Build Alternative would impact bald or golden eagles, as no birds or habitat is present within the proposed project area.

5.11.7 Fish and Wildlife Coordination Act

The proposed Build Alternative would require impacts to waters of the U.S. All impacts to waters of the U.S. would be authorized under the USACE NWP # 14; therefore, the U.S. Fish and Wildlife Service (USFWS) considers FWCA coordination to have been completed as part of the review of the NWP, which was last authorized and reissued in 2017.

5.11.8 Bald and Golden Eagle Protection Act of 2007

The Bald and Golden Eagle Protection Act of 2007 was considered but is not applicable to the proposed project because no affected species occur in the project area.

5.11.9 Magnuson-Stevens Fishery Conservation Management Act

The Magnuson-Stevens Fishery Conservation Management Act was considered but is not applicable to the proposed project because no affected species occur in the project area.

5.11.10 Marine Mammal Protection Act

The Marine Mammal Protection Act was considered but is not applicable to the proposed project because no affected species occur in the project area.

5.11.11 Threatened, Endangered, and Candidate Species

Under the proposed Build Alternative, the proposed project area is located within range of four federally listed threatened and endangered species: least tern (*Sterna antillarum*), piping plover (*Charadrius melodus*), red knot (*Calidris canutus rufa*), and whooping crane (*Grus americana*). However, no potentially suitable habitat or critical habitat for these federally listed species occurs

within the proposed project area of the Build Alternative. For this reason, consultation with the USFWS was not initiated and the proposed Build Alternative is not anticipated to have any effect on federally listed endangered species.

Under the Build Alternative, the proposed project area is within range of and potentially suitable habitat is present for the Species of Greatest Conservation Need (SGCN) plains spotted skunk (*Spilogale putorius interrupta*) and Texas garter snake (*Thamnophis sirtalis annectens*) (TPWD 2016). Although the Build Alternative may result in the removal of potentially suitable habitat or the temporary disturbance of individuals of these species, the project is not anticipated to cause a substantial impact to any species. Any impact to individuals would be incidental in nature. The following BMPs would be implemented in an effort to avoid impacts to the SGCN species:

- Plains spotted skunk BMPs: Contractors will be advised of potential occurrence in the project area, to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
- Texas garter snake: Contractors will be advised of potential occurrence in the project area and to avoid harming the species if encountered.

Under the No-Build Alternative, no impacts to SGCNs or threatened or endangered species or their habitats would occur and, as a result, no coordination would be required with the USFWS or TPWD.

Encroachment-Alteration Effects

With regard to encroachment-alteration effects under the Build Alternative, other than potential impacts to the SGCN plains spotted skunk and Texas garter snake, the proposed project would have no effect on any of the remaining listed species that may occur in Collin County, their habitats, or designated critical habitats. The proposed project would not alter the hydric regime or reduce diversity within the ecosystem.

5.12 Air Quality

An Air Quality Technical Report (TxDOT 2017a) was developed in accordance with TxDOT's Standard Operating Procedures for Preparing Air Quality Statements (TxDOT 2017i) and Environmental Handbook – Air Quality (TxDOT 2017e) by Blanton and Associates, Inc. The Air Quality Technical Report discusses regulatory requirements, air quality analyses considered during project development, and the results of those analyses that were mandatory. The air quality regulatory requirements that were evaluated were (1) transportation conformity including, potentially, hot-spot analyses for carbon monoxide (CO) and/or particulate matter (PM); (2) CO traffic air quality analysis (CO TAQA); (3) qualitative analysis of mobile source air toxics (MSAT) analysis; (4) Congestion Management Process (CMP); and (5) assessment of construction-related air emissions. The Air Quality Technical Report will be made available to local officials.

Regarding transportation conformity, the proposed project is located in Collin County, which is part of the Environmental Protection Agency's (EPA) designated ten-county moderate nonattainment area for the 2008 eight-hour standard for the pollutant ozone; therefore, transportation conformity rules apply. The Metropolitan Transportation Plan (MTP) Mobility 2040 plan developed by the North Central Texas

Council of Governments (NCTCOG) and the 2017-2020 Statewide Transportation Improvement Plan (STIP) were found to conform to the TCEQ State Implementation Plan by FHWA and FTA on September 16, 2016 and December 19, 2016, respectively (NCTCOG 2016a; TxDOT 2017j). However, this project is not consistent with the conformity determination because the project costs on the MTP and STIP pages differ by more than 50 percent. A modification request by TxDOT Dallas District was submitted prior to the April 2017 deadline for the August 2017 cycle revision. TxDOT will not take final action on this environmental document until the proposed project is consistent with a currently conforming MTP and TIP.

Project-level hot-spot analyses were not required for the proposed project because it is not located within a CO or PM nonattainment or maintenance area. A CO TAQA was not required for the proposed project because average annual daily traffic (AADT) projections for the project do not exceed 140,000 vehicles per day.

A qualitative MSAT analysis was required under NEPA and is provided in the Technical Report. The qualitative MSAT analysis provides a basis for identifying and comparing the potential differences in MSAT emissions relative to the Build and No-Build Alternatives. This analysis acknowledges that both the Build and No-Build Alternatives may result in increased exposure to MSAT emissions in certain locations, although the concentrations and durations of exposures are uncertain. Because of this uncertainty, the health effects from these emissions cannot be quantitatively estimated. However, even if these increases do occur, they too will be substantially reduced in the future due to implementation of EPA's vehicle and fuel regulations. 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 significantly lower than today.

CMP is a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs. The proposed FM 2514 project was developed from the NCTCOG'S CMP (NCTCOG 2016b), which meets all requirements of 23 CFR 450.320 and 500.109, as applicable. The CMP was approved by the Regional Transportation Council (RTC) in July 2013. The full CMP disclosure is provided in the AQ Technical Report.

Finally, the proposed project would result in construction-related air emissions. During the construction phase of the proposed project, temporary increases in particulate matter (PM) and MSAT emissions (primarily fugitive dust and diesel PM) may occur from construction activities. The potential impacts of PM emissions will be minimized by using appropriate fugitive dust control measures. Construction contractors are encouraged to use the Texas Emissions Reduction Plan (TERP, <u>http://www.tceq.state.tx.us/implementation/air/terp/</u>) to reduce emissions from construction vehicles and equipment. Compliance with applicable regulatory requirements is anticipated. Thus, given their transient nature, as well as the measures to be adopted to control them, construction-related emissions are not expected to have a significant impact on air quality in the area.

Under the No-Build Alternative, air quality conditions would be unchanged, and existing trends in air quality would be expected to continue.

5.13 Hazardous Materials

In January 2017, the *Hazardous Materials Initial Site Assessment* report was completed by Blanton and Associates, Inc. for the proposed project to identify known and possibly unknown hazardous material contamination within the proposed project limits (TxDOT 2017f). Right-of-entry (ROE) was not obtained from the various property owners prior to completion of the ISA. Therefore, the site survey was limited to properties with ROE permission and publicly accessible areas from existing TxDOT ROW.

No hazardous materials concerns were identified as a result of the ISA performed for the proposed action. No further hazardous materials action is required. The ISA is complete for this project. Any unanticipated hazardous material impacts encountered during the project construction phase will be addressed in accordance with regulatory requirements. No further assessment is required.

Under the No-Build Alternative, no impacts to pipelines or disturbance to any potentially contaminated sites would occur. The No-Build Alternative would not require any actions with regard to hazardous materials.

5.14 Traffic Noise

A *Traffic Noise Analysis* report (TxDOT 2017k) was completed by Blanton and Associates, Inc. for the proposed project in accordance with TxDOT's FHWA-approved *Guidelines for Analysis and Abatement of Roadway Traffic Noise* (TxDOT 2011).

The FHWA has established the following Noise Abatement Criteria (NAC) for various land use activity areas that are used as one of two means to determine when a traffic noise impact would occur (**Table 3**).

Activity Category	dB(A) Leq	Description of Land Use Activity Areas
A	57 (exterior)	Lands on which serenity and quiet are of extra-ordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
В	67 (exterior)	Residential

Table 3: FHWA Noise Abatement Criteria (NAC)

Activity Category	dB(A) Leq	Description of Land Use Activity Areas
С	67 (exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A-D or F.
F		Agricultural, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G		Undeveloped lands that are not permitted.

Source: TxDOT and FHWA, 2011.

A noise impact occurs when either the absolute or relative criterion is met:

Absolute criterion: The predicted noise level at a receiver approaches, equals, or exceeds the NAC. "Approach" is defined as one dB(A) below the NAC. For example: a noise impact would occur at a Category B residence if the noise level is predicted to be 66 dB(A) or above.

Relative criterion: The predicted noise level substantially exceeds the existing noise level at a receiver even though the predicted noise level does not approach, equal, or exceed the NAC. "Substantially exceeds" is defined as more than 10 dB(A). For example: a noise impact would occur at a Category B residence if the existing level is 54 dB(A) and the predicted level is 65 dB(A).

When a traffic noise impact occurs, noise abatement measures must be considered. A noise abatement measure is any positive action taken to reduce the impact of traffic noise on an activity area.

Existing and predicted traffic noise levels were modeled at receiver locations (**Table 4** and **Figure 7** in **Appendix F**) that represent the land use activity areas adjacent to the proposed project that might be impacted by traffic noise and that could potentially benefit from feasible and reasonable noise abatement.

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2040	Change (+/-)	Noise Impact
R1 Residence	В	67	65	66	+1	Yes
R2 Residence	В	67	52	54	+2	No
R3 Residence	В	67	60	60	0	No
R4 Residence	В	67	57	58	+1	No
R5 Residence	В	67	59	59	0	No
R6 Residence	В	67	61	62	+1	No
R7 Residence	В	67	60	60	0	No
R8 Town Hall	D	52	36	37	+1	No
R9 Residence	В	67	61	63	+2	No
R10 Residence	В	67	60	61	+1	No
R11 Residence	В	67	61	61	0	No
R12 Residence	В	67	61	61	0	No
R13 Residence	В	67	65	67	+2	Yes
R14 Residence	В	67	66	68	+2	Yes
R15 Residence	В	67	57	58	+1	No
R16 Residence	В	67	68	70	+2	Yes
R17 Residence	В	67	65	66	+1	Yes
R18 Church	D	52	32	33	+1	No
R19 Residence	В	67	58	58	0	No
R20 Residence	В	67	60	60	0	No
R21 Residence	В	67	63	63	0	No
R22 Residence	В	67	63	65	+2	No
R23 Residence	В	67	56	57	+1	No

Table 4: Traffic Noise Levels dB(A) Leq

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2040	Change (+/-)	Noise Impact
R24 Residence	В	67	59	61	+2	No
R25 Residence	В	67	62	62	0	No
R26 Church	D	52	33	33	0	No
R27 Residence	В	67	61	62	+1	No
R28 Residence	В	67	56	56	0	No
R29 Residence	В	67	57	59	+2	No
R30 Church	D	52	32	32	0	No
R31 Residence	В	67	66	67	+1	Yes
R32 Residence	В	67	64	67	+3	Yes
R33 Residence	В	67	67	68	+1	Yes
R34 Residence	В	67	68	70	+2	Yes
R35 Residence	В	67	65	66	+1	Yes
R36 Residence	В	67	68	70	+2	Yes
R37 Residence	В	67	62	61	-1	No
R38 Residence	В	67	67	69	+2	Yes
R39 Residence	В	67	64	65	+1	No
R40 Residence	В	67	62	62	0	No
R41 Residence	В	67	64	64	0	No
R42 Residence	В	67	63	65	+2	No
R43 Church	D	52	34	35	+1	No
R44 Residence	В	67	64	64	0	No
R45 Church	D	52	41	42	+1	No
R46 Playground	С	67	61	63	+2	No

Source: Traffic Noise Analysis (TxDOT 2017k).

As indicated in **Table 4**, the proposed project would result in traffic noise impacts. 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 more than 50% of the impacted, first row receivers by at least 5 dB(A). To be "reasonable," the abatement measure must be able to reduce the noise level for at least one impacted, first row receiver by at least 7 dB(A), and 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).

Noise barriers are the most commonly used noise abatement measure and were evaluated for each of the impacted receiver locations. A summary of the results from the traffic noise analysis report is presented below.

Noise barriers would not be feasible and reasonable for the following impacted representative receivers and, therefore, are not proposed for incorporation into the project:

R1, **R14**, and **R17** represent individual residences adjacent to FM 2514 with driveways that connect to the roadway. Noise barriers up to 20 feet in height at these locations would not be sufficient to achieve the minimum, feasible reduction of 5 dB(A) or the noise reduction design goal of 7 dB(A) for these receivers.

R13 and **R38** represent individual residences adjacent to FM 2514. Noise barriers up to 20 feet in height at these locations would achieve the minimum, feasible reduction of 5 dB(A), but would not be sufficient to meet the 7 dB(A) noise reduction design goal.

R16 and **R32** represent individual residences adjacent to FM 2514. Noise barriers 10 feet in height at these locations would achieve the minimum, feasible reduction of 5 dB(A) and the 7 dB(A) noise reduction design goal for each receiver, but would exceed the cost effectiveness criterion of \$25,000 per benefited receiver.

R35 and **R36** represent residences in the Kinsington Manor Estates subdivision that are adjacent to FM 2514, but are separated by streets and alleys that connect the neighborhood to FM 2514. A non-continuous noise barrier, up to 20 feet in height, would achieve the 7 dB(A) noise reduction design goal for one receiver, but would not be sufficient to achieve the minimum, feasible reduction of 5 dB(A) for a majority of the impacted first-row receivers.

A noise barrier would be feasible and reasonable for the following impacted receivers and, therefore, is proposed for incorporation into the project: (see **Appendix C** and **Appendix F**)

R31, R33, and R34 – These receivers represent 20 residences on Valley Mills Drive and Millstone Drive in the Harvest Bend neighborhood with backyards that face the roadway. Based on preliminary calculations, a two-section noise barrier placed along the FM 2514 ROW, approximately 1,479 feet in total length and 8 feet in height, would reduce noise levels by at

least 5 dB(A) for 16 benefited receivers and meet the 7 dB(A) noise reduction design goal for three of the benefited receivers, at a total cost of \$212,976, or \$13,3110 per benefited receiver.

Any subsequent project design changes may require a re-evaluation 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. A noise workshop for affected property owners will occur after the 2017 public hearing.

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 (2040) noise impact contours (**Table 5**).

Land Use	Impact Contour	Distance from Right of Way
NAC category B & C	66 dB(A)	70 feet
NAC category E	71 dB(A)	25 feet

Table 5: Predicted Noise Impact Contours

Source: Traffic Noise Analysis (TxDOT 2017k).

A copy of this traffic noise analysis will 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.

The No-Build Alternative may maintain existing noise levels or noise levels may change as traffic volumes increase with time.

5.15 Induced Growth

An *Indirect Impacts Technical Report* (TxDOT 2017g) was prepared for the proposed project in accordance with TxDOT's guidance on indirect impacts analysis (TxDOT 2016b). The proposed improvements to FM 2514 are unlikely to result in induced growth within the Area of Influence (AOI). While the proposed project would reduce congestion, and enhance safety along FM 2514, these transportation improvements would not result in changes considered substantial enough to cause shifts in current development rates and patterns within the AOI. Considering the nature of the proposed improvements, the nearly built-out land parcels that are characteristic of the FM 2514 corridor, and the limited availability of undeveloped or vacant parcels within the AOI, the proposed improvements are not anticipated to result in induced growth or related effects. This approximately 3.34-mile-long stretch of FM 2514 would be expected to continue to function mainly as a primary north-south transportation corridor connecting the Town of St. Paul and the City of Wylie to other areas within Collin County.

No induced growth is anticipated; therefore, no resources are expected to be impacted and no mitigation is proposed.

5.16 Cumulative Impacts

The proposed improvements would reduce congestion and enhance safety along FM 2514 by accommodating traffic volumes that are expected to double in the next 20 years. Because the project is not a new-location roadway, it would not open up new areas for development or substantially change access. Based on the findings from the various resource-specific technical reports and interviews with city staff from both municipalities (Town of Saint Paul and City of Wylie) that supported the findings in the *Indirect Impacts Technical Report* (TxDOT 2017g), the proposed improvements to FM 2514 are not anticipated to have substantial direct or indirect impacts and are not anticipated to influence or affect the rate of development within the AOI. Based on the results of the TxDOT risk assessment for cumulative impacts, supported by the information presented in the technical reports prepared for the proposed project, further Cumulative Impacts Analysis is not required (TxDOT 2014a).

5.17 Construction Phase Impacts

Although temporary congestion may occur as a result of project construction, access to parcels in the project vicinity would be maintained during all phases of construction. All practicable steps would be taken to minimize the inconvenience to drivers using the intersecting roadways during the construction phase. People living and working in the immediate area of the proposed project may experience an increase in noise and dust due to the construction activities. 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 are expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected.

Temporary detours would also be required in the project area to assist with diverting traffic through surrounding areas while certain areas are under construction. See **Section 5.12** for the discussion of construction-related air emissions. The following construction-phase BMPs would be utilized:

- Vegetation BMPs
 - Minimize the amount of vegetation cleared. Removal of native vegetation, particularly mature native trees and shrubs, should be avoided to the greatest extent practicable.
 - The use of any non-native vegetation in landscaping and revegetation is discouraged. Locally adapted native species should be used.
- Wildlife BMPs
 - Plains spotted skunk BMPs: Contractors will be advised of potential occurrence in the project area, to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
- Texas garter snake: Contractors will be advised of potential occurrence in the project area and to avoid harming the species if encountered.
- Water Quality BMPs
 - Once construction is complete and disturbed areas have been revegetated, remove silt fence and accumulated sediment to reduce wildlife barriers and hazards.

Under the No-Build Alternative, construction activities would not occur and temporary increases in traffic congestion, air pollution, and MSAT emissions would not occur.

6.0 Agency Coordination

TxDOT has been planning and developing the proposed project in coordination with several agencies. TxDOT has completed coordination with TPWD regarding potential effects to natural resources on May 9, 2017. Archeological resources review related to the project were completed on June 27, 2014, and June 17, 2016. TxDOT completed coordination with TCEQ regarding air quality on March 21st, 2017. Coordination with the USACE would be required because impacts to waters of the U.S., including wetlands, are anticipated. Impacts to waters of the U.S. associated with the construction of this project would likely be covered under Nationwide Permit (NWP) 14. Due to anticipated impacts to a special aquatic site (the emergent wetland), a Preconstruction Notification (PCN) to the USACE would be required. The proposed project includes work within a FEMA designated 100-year floodplain; therefore, coordination with the local Floodplain Administrator would be required. Coordination with the THC regarding historical resources and with FHWA regarding project-level conformity determination is ongoing and will be finalized prior to environmental clearance. The interagency coordination documentation is included in **Appendix G**.

7.0 Public Involvement

TxDOT held an open house public meeting to present the proposed FM 2514 project to the public and receive comments from the public. The meeting was held at Davis Intermediate School (in the cafeteria) located at 950 Park Boulevard, Wylie, Texas 75098 on Tuesday, May 19, 2015, from 5:30 to 7:30 p.m. Comments received as a result of the public meeting concerned public safety and focused on the installation of raised medians, median openings, access to driveways, turning lanes, and setting and enforcement of speed limits. (TxDOT 2015b).

The Public Meeting Documentation may be inspected and copied upon request at the TxDOT Dallas District Office.

A public hearing will be held in late-2017, at a location to be determined, following approval for further processing of this EA document.

8.0 Environmental Permits, Issues, and Commitments

All project-specific commitments and conditions of approval, including resource agency permitting compliance and monitoring requirements, would be incorporated in the project plan for the proposed project. These commitments and conditions of approval may vary depending on the project's final design and construction. Mitigation monitoring would be conducted by TxDOT and other federal, state, and local agencies to ensure compliance.

This section lists the elements that constitute the Environmental Permits, Issues, and Commitments (EPIC) sheet. The permits, impacts, and commitments relevant to the proposed project includes but may not be limited to the following:

- 1. NWP #14
- 2. TPDES includes:
 - a. Construction General Permit
 - b. Storm Water Prevention Pollution Plan
 - c. Site Notice
 - d. Notice of Intent
 - e. Implementation of erosion control, sedimentation control, and postconstruction TSS control BMPs for the TCEQ's 401 Water Quality Certification Conditions for NWPs to prevent water quality impacts from occurring during and after construction
- 3. Implementation of BMPs for SGCNs (including the plains spotted skunk and Texas garter snake)
- 4. EO 13112 on Invasive Species
- 5. Executive Memorandum on Beneficial Landscaping
- 6. MBTA
- 7. 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.
- 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.
- 9. Fugitive dust control measures would be implemented.
- 10. The traffic noise analysis and qualitative air quality analysis will be made available to local officials.
- 11. 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.

9.0 Conclusion

The engineering, social, economic, and environmental investigations conducted thus far indicate that implementation of the proposed project would result in no significant impacts on the human or natural environment. A FONSI is recommended.

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11.0 Appendices

Appendix A—Project Location Map



Appendix B—Project Photos

Project Area Photographs



Photo 1: Observed Vegetation: Maintained Herbaceous Vegetation at northern terminus, viewing west.



Photo 2: Observed Vegetation Type: Fence line Vegetation, viewing west.



Photo 3: Observed Vegetation Type: Riparian Vegetation, viewing north.



Photo 4: Unnamed tributary to Lavon Lake, viewing west.



Photo 5: New subdivision under construction located north of FM 2514 east of the northern terminus, viewing northwest.



Photo 6: St. Paul Town Hall, viewing east.



Photo 7: Observed Vegetation Type: Maintained Herbaceous Vegetation, viewing west.



Photo 8: Observed Vegetation Type: Emergent Wetland Vegetation at Crossing 2 within the existing right-of-way, viewing east.



Photo 9: The Refuge Church, viewing northeast.



Photo 10: Lighthouse Baptist Church, viewing east.



Photo 11: Harvest Bend residential subdivision adjacent to project area, viewing south.



Photo 12: Typical Single-family residence along FM 2514, viewing northwest.



Photo 13: Unnamed tributary to Rush Creek, viewing south.



Photo 14: Example of historic-age house located near southern project terminus, viewing northwest.

Appendix C—Schematics



Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 1 of 14

PARKER-1	CURVE NUMBER	
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----- WW ----- EXISTING WASTEWATER LINE - OH/CTV -- EXISTING OVERHEAD CABLE LINE EXISTING OVERHEAD ELECTRIC LINE PROPOSED RETAINING WALL FILL PROPOSED NOISE WALL PROPOSED SIDEWALK



Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 2 of 14

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 3 of 14

	PARKER-1	CURVE NUMBER		PRODOSED DRAINAGE STRUCTURE		EXISTING WASTEWATED I INC
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		PAVEMENT REMOVAL	WW	EXISTING WASTEWATER FORCE MAIN		PROPOSED SIDEWALK



Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 4 of 14

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 5 of 14

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 6 of 14

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 7 of 14

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 8 of 14

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 9 of 14

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		CITY LIMITS		CONSTRUCTION EASEMENT
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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 10 of 14

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 11 of 14

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 12 of 14

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 13 of 14

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	CITY LIMITS		CONSTRUCTION EASEMENT
	PROPOSED ROW	<u>ww</u> w	EXISTING WATER LINE
	PAVEMENT REMOVAL	WW	EXISTING WASTEWATER FORCE

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Project Layout CSJ: 2679-03-015, 2679-03-016 Sheet 14 of 14

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 - OH/CTV -- EXISTING OVERHEAD CABLE LINE EXISTING OVERHEAD ELECTRIC LINE PROPOSED RETAINING WALL FILL PROPOSED NOISE WALL PROPOSED SIDEWALK

Appendix D—Typical Sections



Typical Sections CSJ: 2679-03-015, 2679-03-016 Sheet 1 of 7



Typical Sections CSJ: 2679-03-015, 2679-03-016 Sheet 2 of 7



Typical Sections CSJ: 2679-03-015, 2679-03-016 Sheet 3 of 7


Typical Sections CSJ: 2679-03-015, 2679-03-016 Sheet 4 of 7









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EXIST -

RETAINING WALL

FM 2514 PROPOSED TYPICAL RETAINING WALL DETAIL (RUNOFF TOWARDS WALL) STA 688+40.00 to 689+90.00

Typical Sections CSJ: 2679-03-015, 2679-03-016 Sheet 5 of 7



Typical Sections CSJ: 2679-03-015, 2679-03-016 Sheet 6 of 7



Typical Sections CSJ: 2679-03-015, 2679-03-016 Sheet 7 of 7

Appendix E–Plan and Program Excerpts

WEDNESDAY, JULY 06, 2016 13:14:38 PM

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM

PAGE: 54 OF 137

DALLAS-FORT WORTH MPO - HIGHWAY PROJECTS

FY 2017

2017-2020 STIP				07/2	2016 Revision	: Pending Appro	oval				
DISTRICT	MPO		COUNTY		CSJ	HWY	PHASE		CITY		YOE COST
DALLAS	DALLAS-FORT	r worth	COLLIN		2679-0	3-016 FM 2514	E,ENG,R,A	CQ	WYLIE	\$	5,980,000
LIMITS FROM	NORTH OF DR	AIN DRIVE					Р	ROJEC	T SPONSOR TXD	OT-DALLAS	
LIMITS TO	BROWN STREE	ET							REVISION DA	TE 07/2016	
PROJECT	WIDEN FACILIT	TY FROM 2 LANE	ΓΟ 4 LANE	JRBAN	DIVIDED (ULT	IMATE 6 LANE	DIVIDED)		MPO PROJ NU	IM 55037	
DESCR									FUNDING CAT	S)	
REWARNS						HISTORY					
TOTAL PRO	JECT COST IN	FORMATION	_			AUTHORIZEI	D FUNDING B	Y CATE	GORY/SHARE		
PREL ENG \$	600,000		CATEGOR	Y	FEDERAL	STATE	REGIONA		LOCAL	LC	TOTAL
ROW PURCH \$	5,380,000	COST OF	SBPE	\$	0 \$	600,000	\$	0 \$	0 \$	0 \$	600,000
CONSTR \$	0	APPROVED	S102	\$	4,304,000 \$	538,000	\$	0 \$	538,000 \$	0 \$	5,380,000
CONST ENG \$	247,160	PHASES	TOTAL	\$	4,304,000 \$	1,138,000	\$	0 \$	538,000 \$	0 \$	5,980,000
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2017-2020 STIP				07/2	2016 Revision	Pending Appro	oval				
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DALLAS	DALLAS-FORT	r worth	COLLIN		2679-0	3-015 FM 2514	E,ENG,R,A	CQ	WYLIE	\$	3,300,000
LIMITS FROM							Р	ROJEC	I SPONSOR TXD	JI-DALLAS	
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INDIRECT \$	226,273										
BOND FIN \$	0										
PT CHG ORD \$	0										
TOTAL CST \$	13,398,142										
2017-2020 STIP				07/2	2016 Revision	Pending Appro	oval				
DISTRICT	MPO		COUNTY		CSJ	HWY	PHASE		CITY		YOE COST
DALLAS	DALLAS-FORT	T WORTH	DALLAS		0353-0	5-090 SP 244	E,ENG,R.A	CQ	DALLAS	\$	205,000
LIMITS FROM	ON NORTHWE	ST HIGHWAY (SPI	JR 244)				P	ROJEC	T SPONSOR TXD	OT-DALLAS	,
LIMITS TO	AT JUPITER								REVISION DA	TE 07/2016	
PROJECT	TRAFFIC SIGN	AL AND PEDESTR	IAN IMPRO	VEMEN	тs				MPO PROJ NU	JM 535	
DESCR									FUNDING CAT	(S)	
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		FORMATION				AUTHORIZEI			GORY/SHARE		
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CONSTR \$	317,500	APPROVED	SBPE	\$	0 \$	82,151	\$	0\$	0 \$	0 \$	82,151
CONST ENG \$	100,592	PHASES	TOTAL	\$	0 \$	82,151	\$	0 \$	0 \$	122,849 \$	205,000
CONTING \$	117,358	\$ 205,000									
INDIRECT \$	66,055										
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Non-Regionally Significant Roadways Dallas District

MTP ID	TIP Code	Project Type	CSJ	Project	From	То	Description	YOE Total Project Cost	FFCS
NRSA1· DAL· 148	83254.0	Bottleneck removal	1394-02-023	FM 1387	West of Kensington Drive	East of Walnut Grove Road	Realign existing roadway in City of Midlothian	\$5,855,000	Major Collector
NRSA1· DAL· 149	20146.2	Addition of lanes	0918-46-245	Bonnie Brae Road	IH 35E	US 380	Widen 2 to 4 lanes divided urban	\$11,000,000	Minor Arterial
NRSA1· DAL· 150	83257.0	Widening	0751-01-046	FM 148	South of US 80	SP 557	Widen existing 2 lane rural to four lane divided	\$12,600,000	Minor Arterial
NRSA1· DAL· 151	11840.0	New roadway	0918-47-079	15th Street Connection (Grand Prairie)	At IH 30/Belt Line Road Park and Ride Facility		Engineer and construct 15th Street extension for connection to facility	\$1,268,537	Major Collector
NRSA1· DAL· 152	20277.2	Widening	0918-24-206	Dallas Parkway	SH 121	Lebanon Parkway	Widen northbound and southbound from 2 to 3 lanes in each direction	\$7,068,000	Major Collector
NRSA1· DAL· 153	20277.1	Widening	0918-24-207	Dallas Parkway	Lebanon Rd	Eldorado Parkway	Widen northbound and southbound from 2 to 3 lanes in each direction	\$4,550,000	Major Collector
NRSA1· DAL· 154	55037.0	Widening	2679-03-016	FM 2514	North of Drain Drive	Brown Street	Widen facility from 2 to 4 lane urban divided (ultimate 6 lane divided)	\$7,000,000	Major Collector
NRSA1· DAL· 155	55038.0	Widening	2679-03-015	FM 2514	East of Lavon Parkway	North of Drain Drive	Widen facility from 2 to 4 lane urban divided (ultimate 6 lane divided)	\$3,300,000	Major Collector
NRSA1· DAL· 156	55039.0	Reconstruction	2679-02-011	FM 2514	West of FM 1378	FM 1378	Reconstruct 2 lane rural to 4 lane urban (ultimate 6 lane urban divided)	\$1,240,000	Major Collector
NRSA1· DAL· 157		Widening		FM 546 Connector	SH 5	East of Country Lane/Airport Drive	Widen existing 4 lane roadway to 6 lanes	\$30,000,000	Minor Arterial
NRSA1· DAL· 158	81198.0	Widening	N/A	Cedar Hill Road	US 67	Mount Lebanon Road	Widen 2 lane rural to 4 lane divided urban (ultimate 6 lanes)	\$6,000,000	Major Collector
NRSA1· DAL· 159	81399.0	Widening	N/A	Shady Grove Road	Glenwick Lane	Bowman Street	Widen roadway from 2 lanes to 4 lanes (ultimate 5 lanes)	\$2,074,000	Minor Arterial
NRSA1· DAL· 160	81400.0	Widening	N/A	Shady Grove Road	Park Grove Lane	Glenwick Lane	Widen roadway from 2 lanes to 4 lanes (ultimate 5 lanes)	\$3,000,000	Minor Arterial
NRSA1· DAL· 161	81401.0	Widening	N/A	Shady Grove Road	Hilburn Court	Shufford Street	Widen roadway from 2 lanes to 4 lanes (ultimate 5 lanes)	\$1,340,000	Minor Arterial
NRSA1· DAL· 162	20297.0	Widening	0918-46-290	Hickory Creek Road	FM 2181	FM 2499	Construct and widen from 2 lane undivided to a 4 lane undivided urban roadway	\$3,000,000	Major Collector
NRSA1· DAL· 163	82384.0	New roadway	N/A	Kirkpatrick Lane	FM 1171	Bellaire Boulevard	Construct 4 lane road	\$9,000,000	Major Collector
NRSA1· DAL· 164	83017.0	Widening	N/A	Old Straus Road	FM 1382	Wolfe Street	Widen from 2 lane rural to 4 lane divided urban (ultimate 6 lanes)	\$2,000,000	Major Collector

Appendix F-Resource-Specific Maps

Figure 1. Land Use, Community Facilities, and Potential Displacements Figure 2. Project Area Soils Figure 3. Census Geographies Figure 4. Water Resources Figure 5. Observed Vegetation Types Figure 6. Noise Analysis Results



G:\Projects\TXDOT\FM2514\CIA_Figure 2_LandUse_20170328.mxd





















:\Projects\TXDOT\FM2514\EA_Figure 5_Observed Vegetation_20171031.mxd



Figure 6a

Noise Receiver Locations and Land Use FM 2514: East of Lavon Parkway to Brown Street CSJ: 2679-03-015, 2679-03-016



Figure 6b Noise Receiver Locations and Land Use FM 2514: East of Lavon Parkway to Brown Street CSJ: 2679-03-015, 2679-03-016





Figure 6C Noise Receiver Locations and Land Use FM 2514: East of Lavon Parkway to Brown Street CSJ: 2679-03-015, 2679-03-016



Figure 6d Noise Receiver Locations and Land Use FM 2514: East of Lavon Parkway to Brown Street CSJ: 2679-03-015, 2679-03-016



Figure 6e

Noise Receiver Locations and Land Use FM 2514: East of Lavon Parkway to Brown Street CSJ: 2679-03-015, 2679-03-016



Figure 6f Noise Receiver Locations and Land Use FM 2514: East of Lavon Parkway to Brown Street CSJ: 2679-03-015, 2679-03-016



Figure 6g Noise Receiver Locations and Land Use FM 2514: East of Lavon Parkway to Brown Street CSJ: 2679-03-015, 2679-03-016



Figure 6h Noise Receiver Locations and Land Use FM 2514: East of Lavon Parkway to Brown Street CSJ: 2679-03-015, 2679-03-016

Appendix G-Resource Agency Coordination

THC/SHPO Coordination TPWD Coordination TCEQ Coordination





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 1/26/17 to 2/1/17. 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
0127-02-142	Brownwood	Eastland	US 183	Straighten and Widen Roadway	Background Study
2222-05-039	Bryan	Walker, Montgomery	Sam Houston National Forest	Multi-Use Trail Rehab	Background Study
2222-16-014	Dallas	Dallas	Big Cedars Pavilion & Wounded Warriors Trail	Construct & Renovate Hike & Bike Trail, Construct Pavilion	Intensive Survey
2679-03-015	Dallas	Collin	FM 2514	Widen Roadway	Background Study
0002-01-095	El Paso	El Paso	SH 20	Extend Box Culvert	Background Study
0913-09-065	Yoakum	Wharton	CR 461	Bridge Replacement	Background Study

Signature

Date: 02 / 01 / 2017

For TxDQT 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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CSJ: 267903015 Proj Nm: CSJ 2679-03-015 FM 2514 Widen 2 to 4 Ln (Ult 6) - EA Dist: DALLAS Cnty: COLLIN Hwy: FM 2514

	Back To List
Properties \star Details	
Archeology Background Study Details	
Documentation of Project Setting	N.
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	
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?	Yes
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?	No
Comments:	
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:	
	N
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 calcoted places identify	

If other selected, please identify:

14. Have the majority of the settings with high potential for archeological sites within the APE been previously surveyed? 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 APF 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? Comments:	Yes				
19. Does the project area occur in a setting that was not conducive to human occupation and activity?	No				
Comments:	110				
20. Will the project adversely affect archeological sites or cemeteries?	No				
Comments:					
Last Updated By: Barbara J Hickman Last Updated Date: 01/31/2017 11:14:19					

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cheology Summa	ry CS1 2670-03	-015 EM 2514 Widen	2 to				
Pro	oject Name: 4 Ln (Ult 6)	- EA	12 (0	CSJ: 267903015			
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	Pending	03/04/201	14 03/04/201	4 Jan M I	Heady		
I	NEPA Cleared	06/27/201	14 07/01/201	4 Barbara J	Hickman		
> 1	NEPA Cleared	06/16/201	16 06/17/201	6 Barbara J	Hickman		
echnical Analysis Fir	ndings						
Technica	l Analysis List	Identified	To Be Performed by Ris	sk Assessment Status	Findings		
orm - No Project-Sp	ecific Review Certification	on	Ν	N/A	N/A		
	Form - Background Stu	dy	Ν	Complet	e N/A		
	Form - Impact Evaluation	on	Ν	N/A	N/A		
	Form - Surv	ey	Ν	N/A	N/A		
	Form - Testi	ng	Ν	N/A	N/A		
	Form - Data Recove	ry	Ν	N/A	N/A		
Form	n - Cemetery Investigati	on	Ν	N/A	N/A		
	Form - Cemetery Remov	val	Ν	N/A	N/A		
Form - Initiate pro	ject coordination with El CF	NV RM	Ν	N/A	N/A		
chedule Status							
		Tasks	Forms	Coordinations	EPICS		
	Number o	of: 12	6	3	0		
	Behind Schedul	e: 0	0	0	0		
	Deadline Warnin	g: 0	0	0	0		
	On Schedul	e: 0	0	0	0		
	Complete	d: 12	6	3	0		
VIC Status	Dro	-Construction	During-Co	nstruction Po	st-Construction		
	Number of:	0	During-Co	n	0		
Rehi	nd Schedule:	0 0		- N	0		
Deadli	ne Warning:	Ũ		~ N	0		
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	Completed	0		- -	0		



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August 21, 2017

SECTION 106 REVIEW: DETERMINATION OF NRHP ELIGIBILITY AND NO ADVERSE EFFECT

District: Dallas County: Collin CSJ#: 2679-03-015 & 2679-03-016 Highway: FM 2514 Project Limits: From east of Lavon Parkway to Brown Street

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. In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement signed December 7, 2015, this letter initiates Section 106 consultation on the effect the proposed undertaking poses for historic properties located within the project's area of potential effects (APE). As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency.

Project Description

TxDOT Dallas District proposes improvements to Farm-to-Market 2514 in Collin County. The proposed project would widen the existing two-lane roadway to a four-lane (ultimately six-lane) urban divided highway. The project traverses the City of Wylie and the Town of St. Paul in Collin County. The project length is approximately 3.4 miles, and requires right-of-way (ROW) acquisition of approximately 16 acres, along with .51 acres of proposed drainage and construction easements. The TxDOT Section 106 Programmatic Agreement defines the APE for this project as existing ROW and 150' from proposed ROW and easements.

Consultation with Other Parties

During identification efforts, TxDOT contacted Ms. Paula Ross with the Collin County Historical Commission for assistance in locating historic resources within the project's APE. Ms. Ross did not identify any significant resources within the proposed project area. Another commissioner, Joy Gough, provided details regarding moved Resource 8A, (discussed in further detail under the eligibility determination section below). TxDOT provided copies of the Reconnaissance Survey to Ms. Ross on June 30, 2017. Ms. Ross offered no response to TxDOT findings and determinations to date.

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Determination of Eligibility:

A review of the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and TxDOT files determined there are no historically significant resources previously documented within the area of potential effects (APE).

In accordance with provisions of 36 CFR 800, TxDOT conducted a cultural resources survey in October of 2016 to identify additional properties listed and potentially eligible for listing in the NRHP. In all, TxDOT identified 54 historic-age (constructed prior to 1974) resources located on 35 parcels in the Reconnaissance Survey (HRSR). TxDOT determined 50 of these historic-age resources not eligible for listing in the NRHP. The survey identified the following historic properties within the project area (for more detailed information, see HRSR eligibility determinations, pages 17-19):

- Resource 8A constructed 1903 1803 Parker Road, St. Paul TxDOT finds this property individually eligible under Criterion C: Architecture, as a good local example of vernacular Hipped Cottage style (see HRSR pages 17, 84-5)
- Resource 22A constructed 1917 415 Ballard, Wylie TxDOT finds this property individually eligible under Criterion C: Architecture, as a good local example of American Foursquare style. Please note, per the owner, the porch was undergoing restoration work during survey to reflect its historical design, materials, and workmanship, based on historic photographs of the home (see HRSR pages 18, 145-6).
- Resource 26A constructed 1890 405 Ballard, Wylie TxDOT finds this property individually eligible under Criterion C: Architecture, as an excellent local example of Queen Anne style (see HRSR pages 18-9, 155-6)
- Resource 27 constructed 1972 401 N. Ballard, Wylie TxDOT finds this property individually eligible under Criterion C: Architecture, as an excellent local example of the Mansard style (see HRSR pages 19, 159-60)

Determination of No Adverse Effect:

Effects from the FM 2514 project result from roadway widening and intersection improvements. Direct, indirect, and cumulative effects to the identified historic properties are discussed in detail below.

<u>Direct Effects:</u> Small amounts of ROW are being acquired from all four of these historic properties (HRSR page 19 for more details). Project designers minimized the amount of ROW required from each of these historic properties to the greatest extent possible while still meeting the project's purpose and need. Below is a chart detailing the proposed ROW take from each resource:

Resource ID	Total Number of Acres	Number of Impacted Acres
8A	1.00	.087
, 22A	.46	.03
26A	.47	.01
27	.57	.001

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Efforts to Reduce and Minimize Harm

- **Resource 8A** In the project area near this resource, total avoidance was not possible. Due to the very close proximity of a house (Resource 10) to the east side of the roadway, shifting the alignment any farther east, away from Resource 8A, would cause additional, significant impacts to this home (see HRSR Figure 3e, page 205). To minimize impacts to Resource 8A, designers set the roadway profile to match ground at the ROW as closely as practical. The parcel associated with Resource 8A generally drains towards FM 2514, so the profile was set such that the proposed edge of sidewalk would be slightly below existing ground at the right-of-way, allowing runoff to come over the curb into the storm drain system, thereby avoiding the need to take additional ROW for a ditch. Designers also incorporated the maximum recommended side slopes to minimize the distance needed for grading tie-in. ROW acquisition at this location represents a small strip adjacent and parallel to FM 2514's current ROW.
- Resources 22A At this project location, total avoidance of Resource 22A was not possible. Due to the close proximity of a home (Resource 35A) to FM 2514 almost directly across the roadway, shifting the alignment any farther east away from Resource 22A would cause additional, significant impacts to Resource 35A (see HRSR Figure 3j, page 210). ROW acquisition at this location represents a small strip adjacent and parallel to FM 2514's current ROW.
- **Resources 26A** At this southern end of the project, total avoidance of this resource was not possible. Due the close proximity of St. Anthony Catholic Church (Resource 34A) on the opposite (east) side of FM 2514, shifting the alignment further east would result in significant impacts to the church. Without being able to shift further east, there is insufficient room to construct the proposed reverse curves that meet TxDOT's design criteria, while still being able to tie back into the current alignment at the north leg of the Brown Street intersection (see HRSR Figure 3j, page 210, and schematic page 228). Alternatively, if the alignment does not tie in to the Brown Street intersection at the current location, the entire intersection would require reconstruction, causing the project limit to extend significantly south of the intersection. This would expand the Area of Potential Effects for this project and result in additional impacts to homes on the southeast corner of this intersection.
- **Resource 27** Total avoidance is not possible, due to the need for a pedestrian ramp at this northwest corner of the FM 2514 and Brown Street intersection (see HRSR schematics, page 228).

Between Resource 21 and the intersection of FM 2514 and Brown Street (see HRSR, page 250 Typical Section STA 695+00 to 703+33.94) additional design changes minimized the amount of ROW needed from Resources 22A, 26A, and 27. These changes include reduced main lanes (from 12-ft to 11-ft), reduced curb offsets (from 2-ft to 1-ft), removed buffers between curbs and sidewalks, and an overall reduction in the outside buffer from 18-ft to 10-ft.

None of the proposed project activities effect the characteristics and character-defining features that qualify each of these resources for inclusion in the NRHP. For resources NRHP-eligible under Criterion C, the paramount aspects of integrity are design, materials, and workmanship. ROW acquisition does not impact any of these aspects of integrity. Furthermore, the project does not impact integrity of location, feeling, and association since all of these properties will continue to

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reside in close proximity to FM 2514. ROW acquisition for roadway widening primarily affects integrity of setting (for more details, see HRSR pages 19-22). For this project, the amount of proposed ROW from each parcel is minimal when compared to the total acreage of each parcel, thereby resulting in a minimal effect to setting, as detailed in the chart above.

4

Indirect Effects: Predictive noise modeling considered the 2040 build scenario and found no noise effects to Resources 22A, 26A, and 27. For Resource 8A, noise modeling predicted a one dB(A) increase, from 65 dB(A) to 66 dB(A). Since an increase in sound is only perceptible if it is 3 dB(A) or greater, this increase in noise is **not an adverse effect** to Resource 8A. In addition, the noise does not impact the character-defining features which make this property significant as a good local example of vernacular Hipped Cottage style architecture. Minor visual changes associated with the roadway widening also **do not adversely effect** any aspects of integrity, since all of these resources are currently situated adjacent to FM 2514.

<u>Cumulative Effects:</u> No visual and very minor noise effects cause by the undertaking result in no reasonably foreseeable cumulative effects cause by the proposed project.

For these reasons, TxDOT determined the proposed project would have no adverse effect to Resources 8A, 22A, 26A, and 27.

Certification of 4(f) De Minimis Eligibility

Although TxDOT determined the proposed project would have no adverse effects to Resources 8A, 22A, 26A, and 27, and the ROW acquisitions constitute a de minimis 'use' of a historic site for all four historic properties under the U.S. Department of Transportation Act Section 4(f) regulations (23 CFR 774).

Conclusion

In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings (December 2015), I hereby request your signed concurrence with TxDOT's eligibility determinations and findings of **no adverse effect** to Resources 8A, 22A, 26A, and 27. I also request your signed concurrence with our eligibility determinations on the other 50 historic-age resources evaluated in the project's APE (please see HRSR, eligibility determinations, pages 13-17).

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, that project activities constitute a de minimis 'use' of Resources 8A, 22A, 26A, and 27 by TxDOT pursuant to 23 U.S.C. 327.

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) 416-2770 or Chantal.McKenzie@txdot.gov.
Sincerely,

Chantal McKenzie Historic Preservation Specialist Texas Department of Transportation

Thru: Rebekah Dobrasko, Historical Studies Team Lead:

Cc: Bruce Jensen, Cultural Resource Management Section Director: ______ BDJ

CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS: HISTORIC PROPERTIES PRESENT: Resources 8A, 22A, 26A, and 27 NO ADVERSE EFFECT

NAME: for Mark Wolfe, State Historic Preservation Officer

DATE:

CSJ: 2679-03-015 NO COMMENTS ON DETERMINATION OF DE MINIMIS UNDER SECTION 4(F) REGULATIONS NAME: DATE for Mark Wolfe, State Historic Preservation Officer

Hi Sandra,

The Bio Resources tasks for the above project are complete in ECOS, including updated species lists/evaluations and new documentation requirements since the project was evaluated last fall. It was determined that coordination is not required because the project changes are so minor in nature. The previous impact/effects determinations and EPICs from fall 2016 still apply. The following summary is applicable to the PS&E EPIC sheet:

- 1. Vegetation Resources No action required. Standard language applies.
- 2. Listed species –**Action required**.
 - a. Texas garter snake may be present on-site.
 - b. Plains spotted skunk may be present on-site.
- 3. Migratory Bird Treaty Act Standard language applies.

Please let me know if you have any questions. I will send an email to the consultant project team tomorrow informing them of the completion of bio resources doc's.

Thanks,

Leslie Mirise

Environmental Specialist Dallas District – Advance Planning Texas Department of Transportation 4777 East Highway 80 Mesquite, Texas 75150 (214) 320-6162 office (214) 320-4470 FAX Re: Response to Request for TCEQ Environmental Review

The Texas Commission on Environmental Quality (TCEQ) received a request from the Texas Department of Transportation (TxDOT) regarding the following project: FM 2514 EA (TxDOT CSJ 2679-03-015 and 2679-03-016) - Air Quality Coordination

In accordance with the Memorandum of Understanding between TxDOT and TCEQ addressing environmental reviews, which is codified in Chapter 43, Subchapter I of the Texas Administrative Code (TAC) and 30 TAC § 7.119, TCEQ is responding to your request for review by providing the below comments:

This project is in an area of Texas classified by the United States Environmental Protection Agency as moderate nonattainment for the 2008 ozone National Ambient Air Quality Standard. Air Quality staff has reviewed the document in accordance with transportation and general conformity regulations codified in 40 Code of Federal Regulations Part 93 Subparts A and B. We concur with TxDOT's assessment.

TxDOT will still need to follow all other applicable laws related to this project, including applying for applicable permits.

If you have any questions, please feel free to contact the NEPA Coordinator at (512) 239-3500 or <u>NEPA@tceq.texas.gov</u>.

Chikaodi Agumadu NEPA Coordinator TCEQ, MC-119 <u>NEPA@tceq.texas.gov</u> 512-239-3500

This report was written on behalf of the Texas Department of Transportation by



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