

Final Environmental Assessment

US 380 Princeton Project, Dallas District

From Farm-to-Market (FM) Road 1827 to County Road (CR) 560 Collin County, Texas
November 2024

CSJ Number(s): 0135-04-036, 0135-03-056, and 0135-16-002

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 United States Code (U.S.C.) 327 and a Memorandum of Understanding dated 12-9-2019, and executed by FHWA and TxDOT.

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Acronyms

AADT Annual Average Daily Traffic
ACT Antiquities Code of Texas
ADA Americans with Disabilities Act

AOI Area of Influence

APE Area of Potential Effects

AST Aboveground Petroleum Storage Tank

BG Block Group

BMP Best Management Practice
CFR Code of Federal Regulations
CGP Construction General Permit

CMAQ Congestion Mitigation and Air Quality Improvement

CMP Congestion Management Process

CO Carbon Monoxide
CR County Road
CT Census Tract
CWA Clean Water Act
dB(A) A-weighted Decibel

EA Environmental Assessment

EFH Essential Fish Habitat

EIS Environmental Impact Statement

EJ Environmental Justice

EMST Ecological Mapping Systems of Texas

EO Executive Order

EPA Environmental Protection Agency

ESA Endangered Species Act
ETC Estimated Time of Completion

FEMA Federal Emergency Management Agency

FHWA Federal Highway Administration FIRM Flood Insurance Rate Maps

FM Farm-to-Market

FONSI Finding of No Significant Impact FPPA Farmland Protection Policy Act FTA Federal Transit Administration

GHG Greenhouse Gas

IBWC International Boundary Water Commission IPaC Information for Planning and Consultation

ISA Initial Site Assessment
LCP Lead-Containing Paint
LEP Limited English Proficiency
Leq Average/Equivalent Sound level

MBTA Migratory Bird Treaty Act

MOU Memorandum of Understanding

MPH Miles per Hour

MS4 Municipal Separate Storm Sewer System

MSA Magnuson-Stevens Fishery Conservation and Management Act

MSAT Mobile Source Air Toxics

NAAQS National Ambient Air Quality Standards

NAC Noise Abatement Criteria

NCTCOG North Central Texas Council of Governments
NEPA National Environmental Policy Act of 1969

NHPA National Historic Preservation Act

NOA Notice of Availability
NOI Notice of Intent
NOT Notice of Termination

NRCS Natural Resources Conservation Service
NRHP National Register of Historic Places

NWP Nationwide Permit
OWJ Official With Jurisdiction
PA Programmatic Agreement
PCN Pre-construction Notification

PM Particulate Matter

PS&E Plans, Specifications, and Estimates

PWC Parks and Wildlife Code

ROE Right-of-Entry ROW Right-of-Way

RSA Resource Study Area

RTEST Rare, Threatened, Endangered Species of Texas

SAL State Antiquities Landmark

SGCN Species of Greatest Conservation Need

SH State Highway

SHPO State Historic Preservation Officer

Sq. Ft. Square Feet

SWP3 Storm Water Pollution Prevention Plan

TAC Texas Administrative Code TAQA Traffic Air Quality Analysis

TCEQ Texas Commission on Environmental Quality

TCMP Texas Coastal Management Plan
TEAM Texas Ecosystem Analytical Mapper
TERP Texas Emissions Reduction Plan
THC Texas Historical Commission

TIP Transportation Improvement Program TMA Transportation Management Area

TPDES Texas Pollutant Discharge Elimination System

TPWD Texas Parks and Wildlife Department

TSS Total Suspended Solids

TWDB Texas Water Development Board
TxDOT Texas Department of Transportation
TxNDD Texas Natural Diversity Database

U.S.C. United States
U.S.C. United States Code
US 380 United States Route 380

USACE United States Army Corps of Engineers

USCB United States Census Bureau

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USDOT United State Department of Transportation USFWS United States Fish and Wildlife Service

VPD Vehicles Per Day

WMA Wildlife Management Area

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1 Introduction

The Texas Department of Transportation (TxDOT), in conjunction with Collin County, is proposing the construction of a new location, controlled-access freeway north of the City of Princeton from west of County Road (CR) 337 to east of CR 458 and the reconstruction and widening of the existing United States (U.S.) 380 roadway from Farm-to-Market (FM) 1827 to west of CR 337 and east of CR 458 to CR 560. The distance of the proposed US 380 Princeton project is approximately 11.7 miles. The existing US 380 roadway would remain.

The purpose of this environmental assessment (EA) is to study the potential environmental consequences of the proposed project and determine whether such consequences warrant preparation of an Environmental Impact Statement (EIS). Since the proposed project would be funded in part by the Federal Highway Administration (FHWA), this EA complies with National Environmental Policy Act (NEPA) regulations as well as relevant TxDOT rules for environmental review of projects and guidance for conducting NEPA studies on behalf of FHWA.

This EA addresses the potential environmental impacts for the proposed project. See **Project Location Map** and **Project Photos** in **Appendix A**, **Exhibit 1** and **Appendix B**, respectively. The Draft EA was made available for public review followed by a public hearing. TxDOT considered comments submitted during the comment period. If TxDOT determines that 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 Project Description

2.1 Existing Facility

The existing US 380 roadway, also known as Princeton Drive, consists of four 12-foot wide lanes (two in each direction), divided urban roadway with raised curbed medians, six- to 10-foot wide outside shoulders, and open vegetated drainage ditches or swales. The right-of-way (ROW) width for the existing facility ranges from approximately 120 to 160 feet. The existing bridge crossing Lavon Lake consists of four 12-foot wide lanes (two in each direction) with six- to 12-foot wide shoulders. The existing ROW width at the existing Lavon Lake bridge is approximately 200 feet.

The existing US 380 roadway, classified as principal arterial, runs east and west through the cities of McKinney, Princeton, and Farmersville and is intersected by several county roads, city streets, and driveways. The posted speed limit along US 380 varies from 45 to 60 miles per hour (MPH). There are no bicycle or pedestrian facilities along the existing US 380 roadway. See **Project Photos** in **Appendix B** and **Typical Sections** in **Appendix C**.

2.2 Proposed Facility

The proposed US 380 Princeton project would create a new location, controlled-access freeway extending north of the City of Princeton from west of CR 337 to east of CR 458, with reconstruction and widening of the existing US 380 roadway from FM 1827 to west of CR 337 and east of CR 458 to CR 560. The proposed US 380 Princeton project crossing at Lavon Lake includes reconstructing the existing US 380 and adding frontage roads. The proposed US 380 Princeton project includes one main alignment that diverges from the main alignment at CR 458, heading southeast, traversing US Army Corps of Engineers (USACE) property, specifically a Wildlife Management Area (WMA), and converging back with the main alignment at CR 492.

The new location alignment would be constructed as an eight to 10 lane divided freeway with 12-foot wide main lanes, auxiliary lanes, ramps, and 10-foot wide outside and 15-foot wide inside shoulders. The proposed project would also include continuous, one-way frontage roads with two to three 12-foot wide lanes with raised curbs and continuous 10-foot wide shared-use paths on both sides of the facility. The proposed project would be constructed within a proposed ROW width of approximately 320 to 536 feet, depending on location.

US 380 crosses Lavon Lake; the freeway would be reconstructed within the existing ROW over the lake, including continuous frontage roads on bridge structures.

The proposed facility would be a controlled-access freeway with entrance and exit ramps. In addition, the proposed US 380 Princeton project would construct grade-separated interchanges at major cross streets to accommodate connectivity to existing and future roadways and bicycle/pedestrian networks. The proposed project would maintain the existing US 380 roadway through the City of Princeton with connectivity at proposed interchanges on both the east and west sides of the city. **Appendix A** shows the project location in relation to the cities of McKinney, Princeton, and Farmersville. **Appendix B** contains photographs of the project area.

The proposed facility would include overpasses at the following cross streets to accommodate connectivity to existing and future roadways and bicycle/pedestrian networks: CR 337, Future CR 404 (by others), Future Princeton Parkway (by others), FM 75, FM 1377, CR 458, East Princeton Drive, Twin Groves Park Road/Future Road, and Caddo Park Road. The proposed project would bridge over 11 stream crossings. All bridges would be prestressed concrete with girders. See the **Typical Sections** and **Schematic Layout** in **Appendix C** and **Appendix D**, respectively.

The construction limits account for transitions into the existing US 380 roadway. The construction limits extend approximately 2,070 feet, or 0.39 mile, east of FM 1827 and approximately 1,120 feet (0.21 mile) west of CR 560. Construction limits are shown in the **Schematic Layout** and **Environmental Resources Map** in **Appendix D** and **Appendix E-3**, respectively.

The total project cost is estimated to be approximately \$979.2 million. The project would be funded by state, federal, and local funds.

2.3 Logical Termini and Independent Utility

2.3.1 Logical Termini

Federal regulations require that federally funded transportation projects have logical termini [23 Code of Federal Regulations (CFR) 771.111(f)(1)]. Simply stated, a project must have a rational beginning and endpoint. Those endpoints may not be created simply to avoid proper analysis of environmental impacts. The logical terminus for the US 380 Princeton project is CR 560 to the east and FM 1827 to the west. CR 560 and FM 1827 were determined to be the logical termini because these facilities are considered major crossroads. These facilities have a functional classification of collectors per the North Central Texas Council of Governments (NCTCOG) *Mobility 2045: The Metropolitan Transportation Plan for North Central Texas – 2022 Update* (Mobility 2045 Update) roadway networks (NCTCOG 2022). The proposed project would be a new location realignment, and the existing US 380 facility would remain; therefore, it includes transition zones to and from the existing US 380.

2.3.2 Independent Utility

Federal regulations require that a project have independent utility and be a reasonable expenditure even if no other transportation improvements are made in the area [23 CFR 771.111(f)(2)]. This means a project must be able to provide benefit by itself and that the project does not compel further expenditures to make the project useful. Stated another way, a project must be able to satisfy its purpose and need with no other projects being built.

The proposed project is of independent utility and reasonable expenditure even if no additional transportation improvements in the area are made, and there are no restrictions on considering alternatives for other reasonably foreseeable projects including those in the Mobility 2045 Update (NCTCOG 2022). As proposed, the project addresses specific transportation needs identified within the project limits. Specifically, the proposed project would improve mobility and safety when compared with existing conditions. The proposed project can stand on its own without the implementation of other traffic improvements because the project provides congestion relief between major cross streets by providing a new location alternative, which satisfies the project's need, and this would be true even if no other roads were built nearby. Because the project stands alone, it cannot and does not irretrievably commit federal funds for other future transportation projects.

Federal law prohibits a project from restricting consideration of alternatives for other reasonably foreseeable transportation improvements [23 CFR 771.111(f)(3)]. This means that a project must not dictate or restrict any future roadway alternatives. The US 380 Princeton proposed project would not restrict the consideration of alternatives for other foreseeable transportation improvements. Ongoing design coordination has occurred to

ensure the proposed project could accommodate projects by others in the area. Other projects within the project limits include improvements to US 380 between Airport Drive and west of Bridgefarmer Road, between west of Bridgefarmer Road and 4th Street, between State Highway (SH) 5 and FM 1827, and between 4th Street and CR 458. The proposed project and these projects are included in the transportation planning documents of the region (TxDOT 2023a, 2023d). See **Appendix A**, **Appendix C**, and **Appendix D** for **Project Location Map**, **Typical Sections**, and **Schematic Layout**, respectively.

2.4 Planning Consistency

The proposed project is included in the NCTCOG Mobility 2045 Update (NCTCOG 2022) and in the 2023-2026 Transportation Improvement Program (TIP) (TxDOT 2023a). The proposed project letting date would be 2027, and the estimated time of completion (ETC) would be 2031.

3 Purpose and Need

3.1 *Need*

The project is needed because the existing US 380 from CR 560 to FM 1827 (1) offers inadequate capacity to meet the future increase in traffic demand stemming from projected population growth, (2) safety concerns along existing US 380 through Princeton, and (3) the existing facility does not meet current design standards.

3.2 Supporting Facts and Data

3.2.1 Traffic Demand

US 380 through Collin County and the City of Princeton is a heavily traveled US highway that serves as a primary route for both local trips within and trips through Princeton. These roadways can become highly congested during peak volume hours, which can lead to gridlock conditions if there is an incident.

According to the United States Census Bureau (USCB), Collin County and the cities of McKinney, Princeton, and Farmersville experienced robust population growth between 2010 and 2020 (USCB 2022). The City of McKinney population increased by approximately 49 percent from 131,117 persons in 2010 to 195,308 persons in 2020. The City of Princeton population increased by approximately 220 from 6,807 persons in 2010 to 17,573 persons in 2020. The City of Farmersville population increased by approximately 9 percent from 3,301 persons in 2010 to 3,612 persons in 2020. Collin County's population increased by approximately 36 percent from 782,341 persons in 2010 to 1,064,465 persons in 2020. Population growth in the area is shown in **Table 3-1**. According to NCTCOG, Collin County's population is projected to increase by approximately 68 percent from a Census-documented population of 1,064,465 in 2020 to a forecasted population of 1,789,009 by 2045. The NCTCOG also projects strong employment growth for Collin County in the year 2040.

According to NCTCOG, employment in Collin County is projected to increase by approximately 126 percent from 472,000 estimated jobs in 2015 to 1,068,555 jobs in 2045.

Table 3-1. Population Growth

Region	2000	2010	% Change 2000-2010	2020	% Change 2010-2020
Farmersville	3,118	3,301	6	3,612	9
McKinney	54,369	131,117	141	195,308	49
Princeton	3,542	6,807	349	17,573	220
Collin County	491,675	782,341	59	1,064,465	36

Source: USCB. 2000, 2010, 2020; Texas Demographics.

As Collin County population and employment continues to grow, a need to improve east/west mobility, provide safe and efficient transportation that meets current and forecasted demand, and provide connectivity throughout the county is anticipated and identified in the *Farmersville, Texas Comprehensive Plan* (City of Farmersville 2013), the *Princeton, Texas Comprehensive Plan* (City of Princeton 2019b), and the *One McKinney 2040 Comprehensive Plan* (City of McKinney 2018). The need to accommodate increasing traffic capacity is supported through analysis of the future traffic demand that is anticipated to utilize the facility. According to TxDOT Transportation Planning and Programming Division traffic projections, the annual average daily traffic (AADT) along US 380 between CR 560 and FM 1827 is projected to increase by 50 percent by the year 2050.

3.2.2 Safety

Table 3-2, on the following page, shows reported vehicle crash data from 2018 to 2021 for US 380 within the project limits. When compared to the statewide average for urban US Highways (4 or more lanes, divided), the rate of crashes along US 380 are below average for 2018, 2019, 2020, and 2021.

Despite the crash rate being lower by comparison for the US 380, the roadway has a mix of local traffic and through freight traffic that causes varying levels of speed and access issues in the project area. In some sections of the roadway, faster vehicles may need to reduce speed and may not be able to pass slower moving vehicles. Vehicles slowing to turn onto driveways and cross-roads to access property may also disrupt the flow of traffic hindering mobility for through traffic. Additionally, four-year (2018-2021) historical crash data

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Crash Year	US 380 Total Crashes	US 380 Crash Rate *	Statewide Average Crash Rate * on Urban US Highway (4 or more lanes, divided)
2018	132	78.73	170.37
2019	209	124.65	174.67
2020	158	94.24	145.52
2021	219	130.62	169.98

Table 3-2. Vehicle Crash Data for US 380 (2018–2021)

Source: TXDOT 2021b

provided by TxDOT's Crash Records Information System (TxDOT 2023g) indicates that crashes within the project limits have occurred from unsafe turning movements, speed, and improper passing. Approximately 269 crashes occurred in the segments between intersections, with 5 percent attributed to driveways. Single-vehicle crashes was the predominant crash type, followed by rear-end crashes. Four fatal crash was reported during the four-year period related to an unsafe turn.

3.2.3 Design Deficiencies (Geometry)

The existing US 380 is a principal arterial roadway; therefore, it does not meet current design standards for the proposed freeway facility. The existing facility has a design speed of 45 MPH with several horizontal and vertical curves that do not meet the 70 MPH freeway design speed. Existing US 380 has raised curb medians, turn lanes, and openings, at-grade signalized intersections, numerous driveways that violate the access control manual requirements, and discontinuous bicycle and pedestrian accommodations, which are now recommended by the US Department of Transportation (USDOT) (USDOT 2010).

3.2.4 Design Deficiencies (Drainage)

The existing drainage is undersized to accommodate design year drainage discharge for a freeway facility. Ditches along both sides of the roadway provide surface drainage from FM 1827 to Tickey Creek, from west of CR 458 to CR 560, and a curb and gutter section between Tickey Creek and west CR 458, which are all undersized. The existing bridges and culverts are undersized for all Federal Emergency Management Agency (FEMA) crossings, Big Branch, Tickey Creek and Tributary 4, Sister Creek Tributaries, and Pilot Creek/Lavon Lake. For further details about surface water in the project area, refer to **Section 5.10**. For non-FEMA crossings, the existing pipes are also undersized compared with the current TxDOT design standards (TxDOT 2023e).

3.3 Purpose

The purpose of the proposed project is to improve mobility, accommodate future traffic demand, improve safety, and comply with current roadway design standards.

[·] Crash rate for the road segments expressed as crashes per 100 million vehicles-miles of travel.

4 Alternatives

4.1 Build Alternative

The Build Alternative as described in **Section 2.2** would meet the project's purpose and need. The proposed project would improve mobility and safety by providing an alternate route for traffic in Princeton, thereby reducing congestion and crashes on US 380 within the project limits. The proposed project would be designed per current TxDOT design standards.

4.2 No-Build Alternative

The No-Build Alternative consists of leaving US 380 as it is today, without a new location realignment. The No-Build Alternative would not require the conversion of proposed ROW for transportation use. However, under the No-Build Alternative, design deficiencies would not be addressed, and the anticipated traffic demand would not be met. Mobility and operational efficiency would not be improved. The No-Build Alternative would not construct the new location realignment following the latest design standards or increase capacity; therefore, it would not improve mobility or meet anticipated future traffic demand. The No-Build Alternative would not meet the purpose of and need for the project.

The No-Build Alternative is carried forward throughout the document as a baseline comparison to the Build Alternative.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

In the spring of 2020, TxDOT completed a feasibility study that evaluated conceptual alternatives for US 380 in Collin County (TxDOT 2020). During the alignment evaluation process, TxDOT considered many factors and constraints, which included engineering analysis, traffic analysis, safety and crash data, ROW requirements, existing and planned residential and commercial developments, and environmental constraints, among others. Alignments were eliminated from consideration if they did not address the problems (needs) identified in the feasibility study.

TxDOT conducted further evaluations and reduced the number of alignments to two alignments with options that minimized environmental impacts (referred to as the "Red" and "Green" alignments). The "Green" alignment follows the existing US 380, while the "Red" alignment is on new location. These alignments were presented to the public during the second series of public meetings in the fall of 2018. Following the fall 2018 public meetings, TxDOT presented the recommended alignment and results of additional studies during the third series of public meetings held in the spring of 2019. In the feasibility study, TxDOT recommended the "Red" alignment for the US 380 segment between FM 1827 and CR 560 because it would result in fewer residential and business relocations and would cost less compared to the "Green" alignment. TxDOT identified an 8 to 10 lane divided freeway (4 to 5 lanes in each direction) alternative to be carried forward to schematic refinement,

public involvement, and detailed environmental evaluation processes. The alternative represents the reasonable alternative and corresponds to the Build Alternative in this report. In June 2020, TxDOT began the project's design schematic, detailed alternatives analysis, and environmental studies. Two steps were completed from 2020 through 2022 to study the alternatives. Each alternative and its refinements considered the project purpose and need, critical constraints, and stakeholder engagement.

During the development of the alternatives between 2020 and 2022, TxDOT held biweekly stakeholder meetings with the city of Princeton and Collin County and coordinated with the US 380 McKinney, Spur 399 Extension, and US 380 Farmersville projects and the cities of McKinney and Farmerville to ensure consistency and connectivity in the county-wide corridor design.

During the first step of the alternatives analysis, TxDOT reviewed refinements to the recommended alignment determined during the feasibility study. Also, TxDOT conducted field reconnaissance from publicly accessible locations, constraints map development, stakeholder meetings, and detailed evaluations.

During the next step of the alternative analysis (Step 2), a detailed evaluation of the Refined Alignments, including Options A and B, was conducted. A schematic design was developed, field reconnaissance was carried out, and a detailed review of existing and proposed commercial development in the area was performed. A detailed evaluation matrix (Evaluation of Alignments Matrix in Appendix A, Exhibit 2) was utilized for the evaluation process. Publicly available data was reviewed by TxDOT to access the rapid development of residential subdivisions in order to minimize impacts to existing and reasonably foreseeable proposed residential and commercial developments. The Option A alignment would cross predominantly through the Princeton Crossroads subdivision, while the Option B alignment slightly north of Option A would cross predominately through the USACE WMA property (refer to the Project Location Map in Appendix A, Exhibit 3). The impacts that each option would have on the human and natural environment were evaluated using a combination of desktop research and field investigations where right-of-entry was available. Major environmental constraints considered in the option development included:

- residential and commercial displacements
- community facilities
- threatened and endangered species habitat
- riparian corridors
- water features
- 100-year floodplains
- cultural resources (including archeological sites and historic properties)

Engineering factors considered included constructability, cost, and the Refined Alignment's ability to meet the project's need and purpose. Due to varying environmental and

engineering constraints, these two alignment options were presented at a public meeting on August 2, 2022.

During previous communications with the USACE, opposition to Lavon Lake property encroachment was expressed during the feasibility study and Steps 1 and 2. TxDOT addressed these concerns in a September 13, 2021, letter to Collin County, leading to ongoing coordination. Subsequent discussions, including a July 13, 2022, letter, outlined considerations and led to the development of a MOA executed on May 15, 2023. Following the August 2, 2022, public meeting, TxDOT continued coordination with the USACE and held a meeting on September 22, 2022, to present the alignments illustrated in Appendix A. Exhibit 3. Discussions in a September 22, 2022, meeting focused on aligning with existing transportation and utility corridors identified in the 2016 Lavon Lake Master Plan. The project kick-off meeting on July 20, 2023, reiterated the USACE's request for further alignment studies, including those avoiding impacts to wildlife management areas and the Princeton Crossroad subdivision. These discussions and evaluations constitute Step 3 of the project, with Alternatives 1 and 2 representing Refined Alignments Option A and Option B, and Alternatives 3 through 8 resulting from discussions with USACE, exploring various alignments to address environmental and community concerns (refer to the Alignment Alternatives Map in Appendix A, Exhibit 4). A detailed evaluation matrix (Evaluation of Alignment Alternatives Matrix in Appendix A, Exhibit 5) was utilized for the evaluation process. A detailed analysis on USACE property can be referred to in both Appendix G. Section 4(f) Documentation and Appendix J, Study On Properties Managed by the USACE.

The eight preliminary build alternatives considered (**Appendix G**, included as part of the Section 4(f) evaluation), and the reasons for their elimination from further consideration, are detailed below:

Alternative 1

From a transportation demand and mobility perspective, Alternative 1 and Alternative 2, most thoroughly meets the purpose and need of the proposed project because it is projected to carry the highest volume of traffic (82,542 vehicles per day (VPD)) and best accommodates future traffic demand and improves mobility better than Alternatives 3 through 8. It largely follows the alignment recommended from the 2020 Feasibility Study which received consensus from various local and county municipality. This alternative has the third lowest construction cost (\$1.56 billion) among the eight alternatives and is the second shortest in length at 11.9 miles. Alternative 1 involves the use of multiple section 4(f) properties, and although it minimizes impacts to the USACE WMA relative to Alternative 2, it would displace a total of 62 residences, including 45 homes in the Princeton Crossroads subdivision. This alternative has the second most impacts to various established communities, Alternative 1 is not seen as a prudent alternative under Section 4(f) regulations and is therefore eliminated from further study.

Alternative 2

Similar to Alternative 1, Alternative 2 best meets the purpose and need of the project because it is projected to carry the highest volume of traffic (82,542 VPD). It accommodates future traffic demand and improves mobility better than Alternatives 3 through 8. Alternative 2 has the fourth lowest construction cost (\$1.6 billion) among the eight alternatives and is the shortest in length at 11.7 miles. Alternative 2 has the least impacts to established businesses and residential neighborhoods among all the alternatives. It avoids dividing an established subdivision, Princeton Crossroads; however, it does increase encroachment into USACE wildlife management area adjacent to Princeton Crossroads, comparing to Alternative 1. It still involves the use of other Section 4(f) properties such as Caddo Park and Twin Groves Park like Alternative 1, it Since this alternative would have the least amount of disruption to established communities, Alternative 2 is being carried forward for further consideration.

Alternative 3

Alternative 3 is projected to carry 65,208 VPD, 21 percent fewer vehicles than Alternatives 1 and 2. It is much less effective at accommodating future traffic demand and improving mobility than either Alternative 1 or Alternative 2. Compared to the other alternatives, Alternative 3 would carry the third lowest volume of traffic. This alternative has an estimated construction cost of \$2.22 billion, the second highest cost among the eight alternatives and \$600 million more than the lowest cost alternative. Alternative 3 is the second longest route (17.3 miles) compared to the other alternatives. This alternative avoids causing displacements in the Princeton Crossroads neighborhood and minimizes the use of Section 4(f) properties to the greatest extent (along with Alternative 5) comparing to the other alternatives. Although it would cross the USACE Lavon Lake property along a designated transportation corridor, it would still require the conversion of 46 acres of the property (11 acres of WMA and 35 acres of Environmentally Sensitive Area). Alternative 3 is therefore not a true Section 4(f) avoidance alternative. Furthermore, Alternative 3 would involve new location roadway improvements to the east of CR 560, the logical terminus of the proposed project.

In addition, Alternative 3 termini is located at nearly mid-way of the US 380 Farmersville project, which has a different purpose and need than this current project. Alternative 3 is not consistent with the purpose and need for this current project because it would extend beyond the project limits. Right of way acquisition for the US 380 Farmersville project has already begun and offers have been made to the property owners starting October 2023. It would be unreasonable for TxDOT to proceed with Alternative 3 considering the stated purpose and need for the proposed project. This alternative would also result in additional construction costs of an extraordinary magnitude, and it would require a NEPA re-evaluation of an already NEPA approved project. Therefore, Alternative 3 is not prudent under Section 4(f) regulations and is therefore eliminated from further study.

Alternative 4

Alternative 4 is projected to carry the second highest volume of traffic (78,415 VPD), 4.9 percent less than Alternatives 1 and 2. This alternative therefore meets the purpose and need of the project better than Alternatives 3 and 5 through 8, and not quite as well as Alternatives 1 and 2, and then veers to the northeast west of CR 463. Alterative 4 continues east and utilizes an existing roadway corridor (FM 1377) to cross the USACE Lavon Lake property before it turns south at CR 561 and utilizes another existing roadway corridor (CR 559) to cross the Lavon Lake property a second time. This crossing of Lavon Lake would require a new bridge outside the dedicated CR 559 corridor due to the horizontal curvature needed to align with existing US 380 across the lake. It would also require construction of a new interchange with existing US 380 and reconstruction of a portion of the existing bridge on the US 380 alignment across Lavon Lake. The construction of the new permanent structure would extend beyond the existing US 380 corridor across Lavon Lake. Alternative 4 would require abandoning portions of multiple existing roadways, including FM 1377, CR 561, and CR 559.

Alternative 4 has the fourth highest construction cost among the eight alternatives (\$1.72 billion) and is the third shortest route at 12.1 miles. Alternative 4 avoids causing displacements in Princeton Crossroads neighborhood; however, it would still cause 32 residential displacements, 16 commercial displacements, and one church. Although it avoids impacts to the Princeton Crossroads subdivision, it would still cause more displacements than Alternative 2. Alternative 4 still involves the use of multiple Section 4(f) properties, including the USACE Lavon Lake property, Caddo Park, and the Caddo Park Lavon Lake Historic District, similar to other alternatives. Alternative 4 would require a new crossing of Lavon Lake, overtaking existing CR 559, and construction of a new interchange to connect the proposed project with the existing US 380 facility with permanent structures beyond the footprint of the existing US 380 facility.

Although Alternative 4 crosses the Lavon Lake property through transportation corridors identified in the 2016 Lavon Lake Master Plan, the proposed right of way for the alignment would impact the Lavon Lake WMA, the Lavon Lake Vegetative Management Area, and the Lavon Lake Environmentally Sensitive Area. It would also impact water resources (including potentially six acres of wetlands, 13 streams, and Lavon Lake), and would have minimal impacts to cultural resources and wildlife habitat.

Alternative 4 involves the use of multiple Section 4(f) properties, similar to other alternatives, and is therefore not a true Section 4(f) avoidance alternative. Alternative 4 would require a new US 380 crossing of Lavon Lake, along the existing CR 559 alignment. To meet current design standards, the construction of a new interchange to connect Alternative 4 with the existing US 380 facility would require extensive permanent bridge column structures beyond the footprint of the existing US 380 facility. The connection of a new bridge crossing of the lake and a new interchange with the existing US 380 alignment

would result in severe environmental impacts to Lavon Lake, which is protected under the Federal Water Pollution Control Act (commonly, the Clean Water Act). The connection of a new bridge crossing of the lake and a new interchange with the existing US 380 alignment cannot be built as a matter of sound engineering judgement. Alternative 4 is therefore not a feasible and prudent alternative under Section 4(f) regulations and is eliminated from further study.

Alternative 5

Alternative 5 is projected to carry the second lowest volume of traffic (65,208 VPD), 22.6 percent fewer vehicles than Alternatives 1 and 2. It is therefore much less effective at accommodating future traffic demand and improving mobility than either Alternative 1 or Alternative 2. Alternative 5 has the highest estimated construction cost of among the alternatives at \$2.4 billion, which is more than \$800 million more than the lowest cost alternative. Alternative 5 is also the longest route of any of the alternatives at 18.9 miles,

This alternative avoids causing displacements in the Princeton Crossroads neighborhood and minimizes the use of Section 4(f) properties to the greatest extent (along with Alternative 3) comparing to the other alternatives. It would cross the USACE Lavon Lake property along the existing transportation corridor in the same location as Alternative 3, and it would still require the conversion of 46 acres of the property (11 acres of WMA and 35 acres of Environmentally Sensitive Area). Alternative 5 is therefore not a true Section 4(f) avoidance alternative. Furthermore, Alternative 5 would involve new location roadway improvements to the east of CR 560, the logical terminus of the proposed project. Alternative 5 would completely bypass the City of Farmersville and the NEPA approved US 380 Farmersville project, which had a different purpose and need compared to this current project. Alternative 5 would not be consistent with the purpose and need of the current project because it would extend beyond the project limits. Right of way acquisition for the US 380 Farmersville project has already begun and offers has been made to the property owners starting October 2023.

It would be unreasonable for TxDOT to proceed with Alternative 5 in light of the stated purpose and need for the proposed project. This alternative would also result in additional construction costs of an extraordinary magnitude, and it would require a NEPA re-evaluation of an already NEPA approved project. Therefore, Alternative 5 is not prudent under Section 4(f) regulations and is therefore eliminated from further study.

Alternative 6

Alternative 6 is projected to carry 72,967 VPD, the fourth highest traffic volume of the alternatives and 11.6 percent lower than Alternatives 1 and 2. This alternative is less effective at accommodating future traffic demand and improving mobility than Alternatives 1, 2, and 4 and more effective than Alternatives 3, 5, 7, and 8. Alternative 6 has the third highest estimated construction cost among the eight alternatives (\$2.09 billion), which is \$500 million more than the lowest cost alternative, and is the third longest route at 15.7

miles. Alternative 6 avoids causing displacements to the Princeton Crossroads neighborhood; however, it would still displace 43 residential homes and 16 businesses. This alternative does minimize the use of Section 4(f) properties comparing to the other alternatives. This alternative crosses the USACE Lavon Lake property in two separate locations and would require the conversion of 102 acres (71 acres of WMA, 12 acres of Environmentally Sensitive Area, and 19 acres of High-density Recreation Area). One of the crossings of the USACE Lavon Lake property is along a utility corridor, identified in the Lavon Lake Master Plan, that is not intended for transportation use according to the USACE. This would therefore be considered a new location roadway crossing of Lavon Lake. Alternative 6 would also include new location roadway improvements to the east of CR 560, the logical terminus of the proposed project. Like Alternative 3, this alternative's east terminus is located at nearly mid-way of the US 380 Farmersville project, which had a different purpose and need than this current project. Alternative 6 is not consistent with the purpose and need for this current project because it would extend beyond the project limits. Right of way acquisition for the US 380 Farmersville project has already begun and offers have been made to the property owners starting October 2023. It would be unreasonable for TxDOT to proceed with Alternative 6 considering the stated purpose and need for the proposed project. This alternative would also result in additional construction costs of an extraordinary magnitude. Therefore, Alternative 6 is not prudent under Section 4(f) regulations and is therefore eliminated from further study.

Alternative 7

Alternative 7 is the least effective among the eight alternatives in meeting the purpose and need of the proposed project because it would carry the least amount of traffic (61,907 VPD). It does not accommodate future traffic demand and improving mobility relative to the other alternatives. Alternative 7 has the second lowest estimated construction cost of the eight alternatives at \$1.52 billion and is the fourth longest route at 14.1 miles. This alternative avoids causing displacement in the Princeton Crossroads neighborhood; however, it would still displace 37 residences and 37 businesses. In addition, it would cause a substantial number of residential and commercial displacements in platted subdivisions currently under construction in the southern part of Princeton.

Alternative 7 would impact a total of 50 acres of the USACE Lavon Lake property and require the use of multiple other Section 4(f) properties. Due to the proximity of the route to the future FM 546 project by Collin County, it would carry substantially fewer vehicles in the future comparing to Alternative 1 and Alternative 2 because of a redundant planned transportation corridor in the southern limit of the city. This alternative is not prudent under Section 4(f) regulations because it would cause severe social and environmental impacts and severe disruption to established communities due to requiring substantially more displacements than other alternatives. For these reasons, Alternative 7 is eliminated from further study.

Alternative 8

Alternative 8 would carry the fourth lowest volume of traffic (66,034 VPD) and is therefore much less effective at meeting the purpose and need than Alternatives 1, 2, 4, and 6. Alternative 8 has the lowest estimated construction cost of the eight alternatives at \$1.38 billion and is the fourth shortest route at 12.5 miles. This alternative avoids displacements in the Princeton Crossroads neighborhood; however, it would still displace 66 residences and 37 businesses along the other part of the alignment corridor, bisect platted subdivisions currently under construction in the southern part of Princeton, and result in a substantial number of residential and commercial displacements.

Alternative 8 would impact a total of 50 acres of the USACE Lavon Lake property and require the use of multiple other Section 4(f) properties. Due to the proximity of the route to the future FM 546 project by Collin County, it would carry substantially fewer vehicles in the future comparing to the best performing alternative because of a redundant planned transportation corridor in the southern limit of the city. This alternative is not prudent under Section 4(f) regulations because it would cause severe social and environmental impacts and severe disruption to established communities due to bisecting a neighborhood and requiring substantially more displacements than other alternatives. For these reasons, Alternative 8 is eliminated from further study.

As previously mentioned, six alternatives based on USACE consultation were evaluated in addition to Alternatives 1 and 2. Desktop review and field work were completed in order to identify and evaluate environmental constraints associated with each of the primary build alternatives. Major environmental constraints considered in the evaluation included residential, commercial, and community facility displacements; the use of Section 4(f) properties; and impacts to water resources, wildlife habitat, and cultural resources (including archeological sites and historic properties).

The primary build alternative is described below, along with their associated environmental constraints, which are summarized in **Appendix A, Exhibit 5.**

Following the evaluation of the eight build alternatives, it was decided to carry Alternative 2 forward for further evaluation and eliminate the Alternatives 1 and 3 through 8 from further consideration due to potential adverse impacts on established communities due to bisecting neighborhoods, bisecting platted subdivisions currently under construction, and affecting a substantial number in both residential and commercial displacements. Alternative 2 would have the least impacts to established businesses and residential neighborhoods among all the alternatives and would avoid dividing an established subdivision, Princeton Crossroads.

The Alternatives Evaluation Report is currently available for review at the TxDOT Dallas District.

5 Affected Environment and Environmental Consequences

In support of this EA, the following documents were prepared and are currently available for review at the TxDOT Dallas District:

- Congestion Management Process Disclosure Statement
- Mobile Source Air Toxics (MSAT) Technical Report
- Transportation Conformity Report Form (in progress)
- Species Analysis Form
- Species Analysis Summary Spreadsheet
- Documentation of Texas Parks and Wildlife Department (TPWD) Best Management Practices
- Surface Water Analysis Form
- Water Features Delineation Report
- Community Impacts Assessment Technical Report Form
- Hazardous Materials Initial Site Assessment (ISA)
- Indirect Effects Technical Report
- Cumulative Effects Technical Report
- Archeological Background Study
- Antiquities Permit Application Form Archeology
- Texas Historical Commission (THC) Permit
- Archeological Survey Interim Report
- Project Coordination Request for Historical Studies Project
- Historical Studies Research Design
- Historical Resources Survey Report
- Traffic Noise Analysis Report
- Farmland Conservation Impact Rating Form
- Public Meeting Summary (2022)
- Study On Properties Managed by the USACE, Alternatives 3, 4, and 5

In 2023, the project's geometric schematic design underwent modifications in October. These changes to the proposed project's ROW limits and acreages to the proposed project were made to accommodate adjustments for access, drainage, and design modifications. The Addendum to Environmental Technical Reports includes any changes to the results to the documents referenced above. This Addendum is currently available for review at the TxDOT Dallas District.

5.1 Right-of-Way/Displacements

The proposed ROW width varies from approximately 320 to 536 feet. The proposed project would require approximately 396 acres of proposed ROW, and 25.06 acres of permanent easement (USACE property). The proposed project and current usage shall be in accordance with the USACE operation and real estate management regulations and policy. The proposed ROW would be necessary to accommodate the ultimate facility, including proposed

pavement width, side slope grading, existing terrain, cross drainage structures, utilities, and property access. TxDOT would be responsible for these property acquisitions. The **Schematic Layout** in **Appendix D** provides further detail.

The potential displacements, shown in the **Resource-specific Maps** in **Appendix E**, include 17 businesses (Progressive Water Treatment, Inc., Parkway Auto Sales, Collin County Truck Parts and Drive Shaft Services, Big City Tire, C & E Auto Sales, J&J Tires, Auto Hail Repair Group, Roy Miller Auto Salvage, Mecanica General, Felix Auto Care, Red River Auto and 4-Wheel Drive, Pretty Polished Paw, Mixed Use Residential/Commercial, Danco Excavation, Lonestar Sheds, JXN Trucks Trailers Equipment, LLC, and A & A Landscape Irrigation); 18 single-family residences; and a non-residential/non-commercial property (Apostolic Church of Jesus Christ located in McKinney, Texas). The Community Impacts Assessment Technical Report Form includes more information on these potential displacements.

TxDOT will provide relocation assistance. The ROW acquisition and relocation process will be conducted in accordance with the Federal Uniform Relocation and Real Property Acquisition Policies Act of 1970.

The No-Build Alternative would not result in displacements; no acquisitions of proposed ROW and no proposed easements would be required.

5.2 Land Use

The project is in a developing area north of existing US 380 in the City of Princeton. Land use in the project area is primarily agricultural and ranchland in the northern portion; however, the area is quickly developing with several existing and planned residential developments underway. Existing residential areas can be found along both sides of US 380 in the City of Princeton. Large areas of newly built single-family residential developments are within the City of Princeton. These residential developments consist of subdivided tracts of land that includes high-density single residences with demonstrated unifying characteristics, including similar housing styles, lot size, and shared access along the dedicated local streets within the subdivision.

The land use is generally urban (commercial properties and some residential properties) at both the west and east termini. Commercial properties include auto repair shops, retail commercial businesses, and gas stations. An electrical substation occurs near the eastern project terminus. The remainder of the project and surrounding area is generally rural in nature; however, there is extensive development pressure on the north and east sides of the City of Princeton, resulting in the rapid development of residential subdivisions.

Community facilities are present along the existing alignment of US 380 including the Apostolic Church of Jesus Christ near the western terminus of the project, the recently constructed Princeton City Hall east of CR 458, and the Princeton Police Training Facility near CR 492. Several schools are located within the study area in the City of Princeton, including Lovelady High School and Princeton High School, adjacent to CR 458. In addition,

two USACE-owned parks are located immediately adjacent to the existing US 380 alignment. These are Twin Groves Park located on the western shore of Lavon Lake and Caddo Park located on the eastern shore of Lavon Lake. In addition to the two parks, the project would cross USACE Lavon Lake property that is designated as a WMA and used for recreational purposes. Impacts to Twin Groves Park, Caddo Park, and the WMA are discussed further in Section 5.9 and Appendix J. The conceptual mitigation plan for the impacts to the USACE Lavon Lake property, Twin Groves Park, and Caddo Park is detailed in Appendix G, Section 4(f) Documentation.

According to the City of Princeton Future Land Use map, growth and highway commercial development is anticipated along the proposed project (City of Princeton 2019a). Land use within the proposed ROW would change from agricultural, residential, open space, or commercial to transportation use. Potential indirect impacts on land use resulting from the proposed project are discussed in more detail in **Section 5.15**.

The Build Alternative would directly convert approximately 396 acres of proposed ROW north of the existing US 380 from mostly agricultural/undeveloped land to highway ROW (transportation use).

The No-Build Alternative would not require proposed ROW; therefore, it would not result in the conversion of land into transportation uses.

5.3 Farmlands

The Farmlands Protection Policy Act (FPPA) of 1981 requires a farmland impact evaluation for applicable, federally funded projects. The purpose of the FPPA is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. The FPPA protects prime, unique, or statewide/locally important farmland. It is TxDOT's policy to comply with the FPPA in accordance with the Natural Resources Conservation Service (NRCS) policy for implementing the act and for soliciting approval of transportation projects through the NEPA process.

According to NRCS, approximately 287.25 acres of prime farmland soils are located within the project limits (NRCS 2018). An additional 29.02 acres with soil classified as farmland of statewide importance are included.

The proposed project would convert farmland subject to the FPPA to non-agricultural, transportation use. A Farmland Conservation Impact Rating Form NRCS-CPA-106 was completed in November 2022 resulting in a score of 60 points on Part VI of the form. Therefore, coordination with NRCS was required and initiated November 22, 2022. Per an NRCS email dated November 29, 2022, the rating of the site is 147. The FPPA states that sites with a rating less than 160 will need no further consideration for protection and no additional evaluation is necessary. Coordination documents, including the NRCS-CPA-106 Form, are included in Appendix F.

The No-Build Alternative would not require proposed ROW and therefore, it would not result in impacts to farmlands subject to the FPPA.

5.4 Utility Relocation

It is reasonably foreseeable that utilities would be relocated as a result of this project. The impacts resulting from removal of any utilities from within existing highway ROW (e.g., construction noise, potential disturbance to archeological resources, and potential impacts to species habitat) have been considered as part of the overall project footprint impacts in this EA.

Several utilities are present within the project limits. Based on the proposed design, utility relocations would be required throughout the project; however, these relocations would have minimal impacts to residences and businesses. Utility crossings and potential parallel conflicts include water lines, gas service lines, three natural gas pipelines, sewer lines, fiber optic and overhead electric. Utility agreements and notice to owners would be required for this project. Conflicting utilities would be either adjusted or relocated prior to the construction of the proposed project using standard TxDOT procedures. Access to private utility services will be maintained as part of the proposed project. Specific adjustments will be identified during the preparation of the construction plans.

No ROW impacts to public facilities are anticipated from the Build Alternative. There are no police stations, fire stations or hospitals adjacent to the proposed project. Police and fire departments are located within the city limits of McKinney, Princeton, and Farmersville. Because the new location realignment of US 380 is over 1 mile north of the existing US 380, the proposed project is not anticipated to result in direct impacts on local response times. In the event emergency responders need to pass through Princeton, the proposed project would improve response times by providing an alternate route around the city. This, in conjunction with continuous frontage roads included as part of the Build Alternative, would further benefit response times by providing ample opportunities to avoid traffic backups in the region.

Under the No-Build Alternative, current conditions would remain; therefore, emergency response times would not change. However, there would not be an alternate route available and consequently no improvement on response times in the event emergency responders need to pass through Princeton. An increase in traffic demand, over time, would result in traffic congestion within the project limits, which could result in increases in emergency response times. The No-Build Alternative would not result in utility relocations.

5.5 Bicycle and Pedestrian Facilities

The U.S. Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations (USDOT 2010) provides guidance on incorporating pedestrian and bicycling facilities into transportation projects. The policy guidance encourages local planning authorities to implement planning and incorporate

design features to facilitate increased pedestrian and bicycling activity. In accordance with this policy, TxDOT proactively plans, designs, and constructs facilities to safely accommodate bicyclists and pedestrians.

Additionally, the Mobility 2045 Update includes policies, programs, and projects that support a range of mobility options such as bicycle and pedestrian facilities (NCTCOG 2022). Improving roadway design to accommodate bicycles and pedestrians can help reduce accidents and injuries.

The proposed project would include bicycle and pedestrian accommodations in compliance with TxDOT's *Bicycle Accommodation Design Guidance* (TxDOT 2021a). This guidance implements USDOT and FHWA policy regarding bicycle and pedestrian accommodations. The proposed project would include a 10-foot shared-use path along the outside of the proposed eastbound and westbound frontage roads. Sidewalks would be at cross streets and would be constructed in accordance with Americans with Disabilities Act (ADA) guidelines.

Under the No-Build Alternative, no bicycle and pedestrian facilities would be implemented.

5.6 Community Impacts

A community impacts assessment for the proposed project includes analyses of regional and community growth; public facilities and services; potential ROW acquisitions, easements, displacements, and relocations; community cohesion; Limited English Proficiency (LEP) population impacts; and Environmental Justice (EJ) population impacts. Refer to the Community Impacts Assessment Technical Report Form for detailed information on the socioeconomic resource analysis prepared for the project.

5.6.1 Displacements

Sixteen commercial businesses would potentially be displaced. The businesses that may be potentially displaced include the Progressive Water Treatment, Inc., Parkway Auto Sales, Collin County Truck Parts and Drive Shaft Services, Big City Tire, C & E Auto Sales, J&J Tires, Auto Hail Repair Group, Roy Miller Auto Salvage, Mecanica General, Felix Auto Care, Red River Auto and 4-Wheel Drive, Pretty Polished Paw, Mixed Use Residential/Commercial, Danco Excavation, Lonestar Sheds, JXN Trucks Trailers Equipment, LLC, and A & A Landscape Irrigation. These businesses may need to close or relocate.

One community facility would potentially be displaced (Apostolic Church of Jesus Christ located in McKinney, Texas) along the proposed project. The Apostolic Church of Jesus Christ is located on an approximate 1.0-acre parcel. The proposed project would potentially displace two structures located on the parcel and may require the acquisition of the total parcel. Coordination with the church has been initiated and is ongoing.

Eighteen single-family residences would be displaced as a result of the proposed project. The alignment is located within USACE property and would not require any displacements within the Princeton Crossroads development; therefore, the proposed project would

displace fewer residences by avoiding the Prince Crossroads subdivision. Residential, commercial, and utility facilities of comparable type, size and value are available for purchase within the study area.

5.6.2 Access and Travel Patterns

The proposed project would be a new location roadway; therefore, access and travel patterns within the study area would be altered by the proposed project. Users of US 380 south of the proposed project would no longer be able to directly access a section of US 380 west of CR 337, and vice versa, because the section of US 380 within the proposed area would be removed. The proposed project would relocate the section of US 380 with proposed access road approximately 0.3 mile west of CR 337 to align with the new proposed West Princeton Drive onto the existing US 380 roadway.

Users of US 380 east of the proposed project would no longer be able to directly access a section of US 380 west of CR 490, connecting to the Proposed East Princeton Drive and east of CR 490 relocating approximately 1.7 miles of roadway along US 380.

Implementation of the proposed project would result in changes of access to and from US 380 within the proposed project limits. Changes in access and travel patterns would likely result from the introduction of the controlled-access facility in rural portions of the project on new location areas and introduction of shared-use paths for the length of the proposed project. Users of the existing US 380 would continue to have access where the route does not change, and the roadway would still be considered US 380. Access would change at the beginning of the project at the Proposed Access Road and West Princeton Drive, and at East Princeton Drive east of the Princeton Crossroads subdivision. The roadway would be maintained and provide the same access points.

Access would be reduced for travelers who need to travel to roads that the proposed project would cross. Travelers would need to turn right onto the US 380 frontage roads, drive to an interchange area, make a U-turn, and turn onto the road from the frontage road from the other direction. Travelers would need to find alternative routes to properties that would be cut off by the proposed US 380 roadway.

Adverse impacts could include travelers from outside of Princeton bypassing the area, leading to loss in revenue for the city. As the city continues to grow, new access would be created with the proposed improvements and new residential, commercial, and industrial opportunities exist in properties along the new location. Sidewalks and shared used paths are also proposed as part of the project to allow pedestrians and bicyclist safe routes along the corridor and to other parts of the communities.

5.6.3 Community Cohesion

The proposed project corridor is primarily located in a rural, developing area. The US 380 Princeton project has been identified in transportation planning efforts for a number of years

and the majority of newly constructed and planned subdivisions were designed to accommodate and have access to the proposed US 380 Princeton corridor.

The proposed project would be adjacent to the existing/platted/planned subdivisions of Whitewing Trails, Princeton Landmark, Sicily, Balu Mahi, Monticello Park, Princeton Heights, Princeton 83, Princeton Crossroads, Walton Tract, Princeton Lakes, Dimauro, and Harvest Point.

The proposed project would not directly or indirectly separate or isolate a group of people. The proposed project would increase mobility throughout the community study area by providing an east-west controlled -access freeway with frontage roads for the growing community. The alignment would be located within USACE property and would not require any displacements within the Princeton Crossroads development. Those living between former US 380 and the new roadway would not be enclosed by high-speed roadways. Cars are the primary mode of transportation within the study area and the proposed project would not permanently remove any access for cars within the study area.

As the majority of the community study area and the land adjacent to the proposed project is rural, the overall impacts to the community cohesion would be beneficial as there would be more direct access between the northern and southern portions. Community cohesion would also be improved due the addition of shared-use paths that would allow for pedestrians and bicyclists to use the facility where there is currently no infrastructure for these modes.

5.6.4 Environmental Justice

Executive Order (EO) 12898, Federal Actions to Address EJ in Minority Populations and Low-Income Populations (February 11, 1994), requires each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." FHWA has identified three fundamental principles of EJ:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low income populations;
- To ensure the full and fair participation by all potentially affected communities in the decision-making process; and
- To prevent the denial of, reduction in, or substantial delay in the receipt of benefits by minority and low-income populations.

FHWA defines disproportionately high and adverse human health or environmental effects as those that:

Are predominantly borne by a minority population and/or a low-income population; or

• Will be suffered by the minority population and/or low-income population and are appreciably more severe or greater in magnitude than the adverse effects that will be suffered by the non-minority population and/or non-low-income population.

Information was compiled using USCB American Community Survey 5-year estimates for 2016-2020 and the 2020 Census. Census areas partially or wholly contained within the proposed project represent the project study area for this analysis.

The proposed project would potentially displace 18 single-family residences, 16 commercial properties, and a non-residential/non-commercial property as a result of the proposed project. The proposed project is located within USACE property and would not require any displacements within the Princeton Crossroads development. Potentially displaced businesses do not serve a specific population.

Twenty-three displacements are located in EJ census geographies on or adjacent to the proposed project. Fifteen commercial displacements would occur in Block Group (BG) 3 Census Tract (CT) 310.03 Blocks 3021, 3029, 3030, 3031: and BG 2 CT 310.05 Block 1004. Seven residential displacements would occur in BG 3 CT 310.03 Blocks 3021, 2030, and 3031: BG 1 CT 310.05 Blocks 1001, 1004. A church displacement (Apostolic Church of Jesus Christ) would occur in BG 3 CT 310.03 Block 3030. The remaining displacements would occur in non-EJ geographies.

There would be no negative access and/or travel patterns impacts to the minority populations in the EJ census geographies. Access and/or travel pattern impacts in the area would benefit minority populations in that area by providing alternative travel options. Limited English Proficiency

LEP persons within the community study area predominantly speak Spanish, with some speaking other Indo-European and Asian and Pacific Island languages. Reasonable steps have been, and will continue to be, taken to ensure LEP persons have meaningful access to the programs, services, and information TxDOT provides. Meeting notices as well as meeting materials were provided in both English and Spanish. Interpreters were not requested but will continue to be available, if requested, for all future meetings. The public hearing legal notice will also be provided in traditional Chinese to the Kalachakra Buddhist Meditation Center, and Chinese interpreters may be provided if requested.

Based on the information provided in this analysis, the proposed project would not result in disproportionately high and adverse impacts to EJ populations. The proposed project would maintain the existing community cohesion of the Cities of McKinney, Princeton, and Farmersville and would result in mobility and access improvements that would equally benefit both EJ and non-EJ populations.

The No-Build Alternative would neither result in displacements, nor would it result in mobility and access improvements that would equally benefit both EJ and non-EJ populations.

5.7 Visual/Aesthetic Impacts

Section 136 of the Federal Aid Highway Act of 1970 (Public Law 91-605) requires consideration of aesthetic values in the highway planning process.

The proposed project would include a new location realignment with elevated bridge sections that would alter existing views at these specific areas. Obstructed views would occur at grade-separated roadways and overpasses that would be approximately 15 to 20 feet above ground. US 380 overpasses would be constructed at CR 337, Future CR 404, Future Princeton Parkway, FM 75, FM 1377, CR 458, East Princeton Drive, Twin Groves Park Road/Future Road, and Caddo Park Road. Overpasses would also be constructed over the Big Branch, unnamed tributaries of Tickey Creek, unnamed tributary of Pilot Grove Creek, Tickey Creek, and floodplains.

The view towards the new roadway would be nondescript and span to the other side of the facility. The views from the road would generally be of open fields and farmland. Parts of the cities of McKinney, Princeton, and Farmersville would possibly be visible, though partially obscured by scattered tree cover. The proposed project would change the views and setting from the existing conditions within the project limits where there is currently no roadway. The proposed bridges would block existing views, resulting in moderate visual impacts. The overall benefit from the bridges would outweigh the potential visual impacts by minimizing floodplain and Waters of the U.S. impacts. Considering the overall benefits from the proposed bridge structures, it is anticipated that the improvements would outweigh the overall visual impacts resulting from the proposed project. The views to and from the existing US 380 would not change.

The main visual impact of the proposed project is the construction of a new highway within a mostly undeveloped rural area. Aesthetic treatments will be applied to help mitigate any adverse visual impacts. The proposed project will apply aesthetic treatments to the proposed structures. Urban design concepts will be developed to help blend the project into the adjacent communities. Additional aesthetic design concepts could be incorporated into the project if additional funding from local governments, interest groups, and organizations could be secured. Additional features such as railings and lighting would be at the discretion of the local jurisdictional areas along the project corridor. Aesthetic improvements associated with the proposed project will follow current TxDOT aesthetic guidelines and will be equal to or improve the existing conditions. In July 2022, a meeting was held with the City of Princeton to discuss potential aesthetic treatments. The aesthetic preliminary concepts will be available at the public hearing for review and comment.

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

5.8 Cultural Resources

Evaluation of impacts to cultural resources has been conducted under Section 106 of the National Historic Preservation Act of 1966 (NHPA) in accordance with the Programmatic Agreement (PA) among FHWA, TxDOT, the Texas State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings.

At the time of this EA, not all parcels that intersect the project area were field delineated for cultural resources due to lack of right-of-entry (ROE). Fieldwork will be completed after further ROW acquisition.

Cultural resources are structures, buildings, archeological/historic sites, districts (a collection of related structures, buildings, and/or archeological sites), cemeteries, and objects. Both federal and state laws require consideration of cultural resources during project planning. At the federal level, NEPA and the NHPA, among others, apply to transportation projects such as this one. In addition, state laws such as the Antiquities Code of Texas (ACT) apply to this project. Compliance with these laws often requires consultation with the THC/SHPO and/or federally recognized tribes to determine the project's effects on cultural resources. Review and coordination of this project followed approved procedures for compliance with federal and state laws.

5.8.1 Archeology

The purpose of the archeological survey is to ensure compliance with Section 106 of the NHPA, as amended, and the ACT. An inventory of archeological resources (as defined by 36 CFR 800.4) was conducted within the proposed project area to identify and evaluate any identified resources for their eligibility for inclusion in the National Register of Historic Places (NRHP), as per Section 106 (36 CFR Part 800), or for designation as State Antiquities Landmarks (SAL) under the ACT and Texas Administrative Code (TAC), Title 13, Chapter 26 (13 TAC 26).

Much of the ROE for the proposed project was denied during the development of this EA. Shovel tests would need to be completed prior to initiation construction. TxDOT would complete the remaining shovel tests (and deep trenching if needed) after TxDOT has acquired the ROW for the proposed project. TxDOT would coordinate with the THC if any additional sites are found. Following the completion of surveys, in the event 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.

The Archeological Background Study was completed in October 2022 (TxDOT 2022a), which recommended that an archeological survey be conducted throughout the proposed ROW within the area of potential effects (APE). Recommended investigations consisted of

intensive pedestrian survey supplemented by shovel testing. Mechanical excavations were recommended in areas determined to contain deep deposits along the drainage crossings.

The intensive archeological survey consisted of a pedestrian visual inspection and photographic documentation of the existing ROW and proposed ROW parcels exhibiting heavy disturbances. Within the parcels recommended for survey, in accessible areas where ROE was granted, the investigations included visual inspections of the proposed ROW APE, supplemented with the excavation of 187 shovel tests in areas exhibiting intact soils. The archeological investigations performed for the project were conducted under Texas Antiquities Permit Number 30911, issued November 16, 2022.

Project archeologists conducted an intensive archeological survey of the project area between December 12 and December 23, 2022, with additional investigations conducted between September 5, 2023, and October 20, 2023, to identify possible cultural resources within the APE. No archeological sites were identified within the APE, and no artifacts were collected as this was a non-collection survey. No archeological resources were identified that meet eligibility requirements for designation as a SAL according to 13 TAC 26, or for listing in the NRHP under 36 CFR 60.4.

A phased approach is being implemented for the survey effort to comply with Section 106, as provided for in 36 CFR 800.4(b)(2). Given the phased nature of the survey and reporting, the interim report presented the results of the initial phase of the intensive-level archeological resources survey conducted as of December 23, 2022 (TxDOT 2023b).

Appendix J includes the investigations conducted between September 5, 2023, and October 20, 2023. Subsequent survey and reporting will be required; thorough investigation of areas not surveyed during these investigations as a result of the lack of ROE, shall be completed after ROW is purchased and before construction begins.

The proposed project is currently 11 meters (37 feet) southeast of the Johnson Cemetery, located south of the intersection of CR 405 and CR 406. If the final design is within 75 feet of the cemetery, ground truthing by scraping will be conducted within the proposed ROW to ensure no unmarked burials are within 75 feet of all areas of ground disturbing activities during construction. The Archeological Background Study Report, Antiquities Permit Application for Archeology, THC Permit, and Archeological Survey Report prepared for the proposed project are available at the TxDOT Dallas District office.

Consultation with federally recognized Native American tribes was initiated on February 10, 2023, with a 30-day review period ending on March 10, 2023. See **Appendix F** for tribal coordination documentation.

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

Under the No-Build Alternative, construction of the proposed project would not occur; therefore, there would be no project-related impacts to archeological resources.

5.8.2 Historic Properties

A historic resources reconnaissance survey of architectural and engineering resources located along the US 380 project was conducted to identify historic-age resources in compliance with Section 106 of the NHPA. Historic-age resources are defined as buildings, structures, objects, districts, or sites that are or will be 50 years old or older on the date the project is let for construction. A reconnaissance survey report included data concerning resources constructed in or prior to 1981 (TxDOT 2023c). The report concluded that 72 properties have historic-age resources within the APE. The historic-age resources and properties were evaluated for NRHP eligibility.

A review of the NRHP, the list of SAL, the list of Recorded Texas Historic Landmarks, the THC Texas Historic Sites Atlas, and TxDOT historical files indicate that there are no previously identified historic resources located within the APE. In accordance with provisions of 36 CFR 800, a TxDOT pre-certified historian conducted a historic studies survey in November 2022 to identify additional properties listed and potentially eligible for listing in the NRHP. One property was recommended as eligible for listing in the NRHP, Caddo Park, shown in the exhibits located in Appendix F and the Figures in Appendix J Caddo Park is recommended as NRHP-eligible because it was part of a USACE pilot program to design and offer wheelchairaccessible parks 15 years prior to the passing of ADA in 1990. The Park was recommended eligible as a historic district at the state level under Criterion A in the Entertainment/Recreation area of significance for its association with the movement to provide access to public facilities for people with disabilities and under Criterion C for Design/Construction. It has wheelchair-accessible restrooms, trails, picnic tables, grills, fishing ponds, and water fountains. No new information was identified during the investigation to dispute the previous determination; therefore, the property is recommended eligible for listing in the NRHP as a Historic District at the State Level.

The proposed project would require approximately 0.17 acres of proposed ROW from Caddo Park Lavon Lake Historic District (Resource 68) along the existing US 380 ROW. The area of proposed ROW contains no buildings, structures, or objects and would not affect the function of the resource and is over 400 feet from the nearest contributing resource. Furthermore, the area of proposed ROW is along an existing transportation corridor. Therefore, pursuant to Stipulation IX, Appendix 6 "Undertakings with the Potential to Cause Effects per 36 CFR 800.16(i)" of the Section 106 PA and the Memorandum of Understanding (MOU), TxDOT historians determined that the proposed impact to the Caddo Park Lavon Lake Historic District (Resource 68) would qualify under an individual Section 4(f).

There would be no indirect effects due to traffic noise at Caddo Park. No direct, indirect, or cumulative effects are anticipated for these resources.

The proposed project would have no adverse effects on historic properties/districts within the APE. Coordination for concurrence with non-archeological Section 106 findings of eligibility and effects is in progress. The Section 106 documentation available to date is included in **Appendix F.**

Under the No-Build Alternative, there would be no changes to existing conditions; therefore, no impacts to historic resources would occur.

5.9 Protected Lands

Three properties within and adjacent to the US 380 Princeton project area meet the definitions of protected public lands and recreational facilities described in this section. Caddo Park, Twin Groves Park, and WMA are operated by USACE and would require a total of approximately 23.72 acres of proposed ROW. The locations of these properties are depicted on the **Environmental Resources Map** provided in **Appendix E-3**.

5.9.1 Caddo Park

Operated by USACE, Caddo Park encompasses 515 acres at Lavon Lake. Caddo Park is directly adjacent to the project near the eastern project limits, east of Lavon Lake Bridge. The park includes 3 fishing ponds, 13 picnic sites, 2 restrooms, and a four-lane boat ramp. Caddo Park was identified as an eligible historic property (Caddo Park Lavon Lake Historic District). The proposed alignment would not displace contributing resource or change the function of the parks, shown in the exhibits located in **Appendix G.** Approximate total of 0.17 acres of proposed USACE easement would be required from this public park; therefore, the proposed project would require a Section 4(f) evaluation.

5.9.2 Twin Groves Park

Operated by USACE, Twin Groves Park covers approximately 115 acres. Twin Groves Park, is directly adjacent to the project near the eastern project limits, west of Lavon Lake Bridge. The park features two restrooms, a two-lane boat ramp and two large parking lots. Approximately 0.02 acres of proposed ROW and 0.53 acres of proposed USACE easement would be required from this public park; therefore, the proposed project would require a Section 4(f) evaluation.

5.9.3 USACE Wildlife Management Area

The WMA at Lavon Lake encompasses approximately 6,480 acres. These lands are typically open to the public, including adjacent landowners, for pedestrian traffic and are frequently used by adjacent landowners for access to the shoreline near their homes. Recreational use includes hiking, horseback riding, bank fishing, canoeing, and kayaking.

Following further consultation with the USACE, it was determined that an additional two acres would be required from the WMA, for a total of 23 acres. The portion located northwest of the Princeton Crossroads neighborhood no longer serves the purpose for the WMA. These additional WMA acres would be incorporated into the mitigation efforts,

involving the transfer of property as part of the new TxDOT easement. A total of 23 acres of USACE property within the WMA at Lavon Lake would potentially be impacted; therefore, the proposed project would require a Section 4(f) evaluation.

5.9.4 Section 4(f)

The proposed project would require the use of, or substantially impair the purposes of publicly owned land from a park, recreational area, wildlife and waterfowl refuge lands, or historic sites of national, state, or local significance; therefore, an Individual Section 4(f) evaluation is required. The Individual Section 4(f) evaluation is included in **Appendix G**, **Individual Section 4(f) Documentation**.

5.9.5 Section 6(f)

There are no Section 6(f) properties adjacent to the project. The proposed project would not require the conversion of properties funded by the Land and Water Conservation Fund program to a non-outdoor public recreation use; therefore, a Section 6(f) evaluation is not required.

5.9.6 Chapter 26 Texas Parks and Wildlife Code

The proposed project would require the use or acquisition of public land designated and used prior to the arrangement of the project as a park, recreation area, scientific area, wildlife refuge, or historic site; therefore, Chapter 26 of the Texas Parks and Wildlife Code would apply to the proposed project.

5.9.7 No-Build Alternative

Under the No-Build Alternative, construction of the proposed project would not occur; therefore, there would be no project-related impacts to Section 4(f), Section 6(f), or Chapter 26 properties.

5.10 Water Resources

5.10.1 Clean Water Act Section 404

This project will involve regulated activity in jurisdictional waters and therefore will require authorization under Section 404. At the time of this EA, most water features were desktop delineated due to the lack of ROE. Approximately 15-percent of the impacted parcels were surveyed for water resources during field surveys conducted in September 2023, January 2024, and April 2024. Fieldwork will be completed after ROW acquisition, prior to project construction.

Table 5-1 lists the waters that are potentially jurisdictional waters in which regulated activity is anticipated to take place. It also indicates whether the impacts are anticipated to be authorized under Section 404 by a Non-Reporting Nationwide Permit (NWP) (i.e., no pre-

construction notification (PCN) required), or if it is anticipated that an NWP with PCN, Individual Standard Permit, Letter of Permission, or Regional General Permit will be required.

Impacts to Waters of the U.S. within the limits of the proposed project would result from both the widening of the existing US 380 roadway and construction on new location. See **Appendix E-1 Water Features Map** and **Section 404/10 Impacts Table** for more detailed information. A Water Features Delineation Report was prepared for the Build Alternative and is available at the TxDOT Dallas District office.

Field delineations would be conducted following ROW acquisition for the Build Alternative. At that time, Section 404 permit mechanism required for the project would be identified. Based on project activities and potential impacts, it is anticipated that an NWP 14 with PCN would be needed. The need for an individual standard permit under Section 404 is likely not required. If it is later determined that an individual standard permit under Section 404 is needed, compliance with the Environmental Protection Agency's (EPA's) Section 404(b)(1) Guidelines would be confirmed prior to submittal of the individual standard permit application.

The activity will comply with all permit general and regional conditions applicable as well as any special conditions set forth by the USACE. Appropriate measures would be taken to maintain normal downstream flows and minimize flooding. Temporary fills will consist of clean materials and will be placed in a manner that would not be eroded by expected high flows. Temporary fills will be removed in their entirety and the affected area returned to preconstruction elevations and revegetated as appropriate. If the project would involve stream modification, stream channel modifications, including bank stabilization, will be limited to the minimum necessary to construct or protect the structure and the immediate vicinity of the project.

Under the No-Build Alternative, construction of the proposed project would not occur; therefore, no project-related impacts on Waters of the U.S. would occur.

Table 5-1. Water Features

(Number Name) of Water Feature	Type of Water Feature	Location of Water Feature (Appendix E-1 Water Features Map)	Covered by Non-Reporting Nationwide Permit under Section 404?	Nationwide Permit with Pre-Construction Notification, Individual Standard Permit, Letter of Permission, or Regional General Permit Required
٧	Vater 00	Intermittent Stream	Sheet 1 of 12	No	Yes

Number (Name) of Water Feature	Type of Water Feature	Location of Water Feature (Appendix E-1 Water Features Map)	Covered by Non-Reporting Nationwide Permit under Section 404?	Nationwide Permit with Pre-Construction Notification, Individual Standard Permit, Letter of Permission, or Regional General Permit Required
Water 01 (Big Branch)	Perennial Stream	Sheet 1 of 12	No	Yes
Water 02	Palustrine Forested Wetland	Sheet 1 of 12	No	Yes
Water 06	Intermittent Stream	Sheet 3 of 12	Yes	No
Water 07	Intermittent Stream	Sheet 3 of 12	No	Yes
Water 08	Riverine Wetland	Sheet 3 of 12	No	Yes
Water 09 (Unnamed Tributary of Ticky Creek)	Intermittent Stream	Sheet 4 of 12	No	Yes
Water 11 (Ticky Creek)	Intermittent Stream	Sheet 5 of 12	No	Yes
Water 14	Intermittent Stream	Sheet 6 of 12	No	Yes
Water 15	Palustrine Forested Wetland	Sheet 6 of 12	No	Yes
Water 16	Freshwater Pond	Sheet 6 of 12	No	Yes
Water 18	Intermittent Stream	Sheet 7 of 12	No	Yes
Water 19	Ephemeral Stream	Sheet 7 of 12	No	Yes
Water 22	Intermittent Stream	Sheet 7 of 12	No	Yes
Water 23	Riverine Wetland	Sheet 7 of 12	No	Yes
Water 30	Intermittent Stream	Sheet 8 of 12	No	Yes
Water 32	Intermittent Stream	Sheet 9 of 12	No	Yes
Water 34	Intermittent Stream	Sheet 9 of 12	No	Yes
Water 36	Intermittent Stream	Sheet 9 of 12	Yes	No
Water 37	Perennial Lake/Pond	Sheet 12 of 12	No	Yes

5.10.2 Clean Water Act Section 401

For projects that require an NWP under Section 404 that is covered by Texas Commission on Environmental Quality (TCEQ's) blanket 401 water quality certification, regardless of whether the NWP is non-reporting, or requires the submission of a PCN, TxDOT complies with Section 401 of the Clean Water Act (CWA) by implementing TCEQ conditions for NWPs. For projects that require authorization under an NWP under Section 404 that is not covered by TCEQ's blanket 401 water quality certifications; or under an Individual Standard Permit, Letter of Permission, or Regional General Permit under Section 404, TxDOT will coordinate the Section 401 water quality certification with TCEQ. TCEQ will either approve or deny the Section 401 water quality certification or issue a waiver. The TCEQ Section 401 water quality certification decision must be submitted to USACE before use of the NWP can be confirmed; or an Individual Standard Permit, Letter of Permission, or Regional General Permit decision can be made. See the Water Features Map in Appendix E-1 for the location of water features within the project limits.

Under the No-Build Alternative, construction of the proposed project would not occur; therefore, no project-related impacts on Waters of the U.S. would occur and compliance with Section 401 of the CWA would not be needed.

5.10.3 Executive Order 11990 Wetlands

This project is federally funded and therefore is subject to EO 11990, Protection of Wetlands, and would involve construction in wetlands.

The project includes expansion of an existing roadway (with portions of the expansion including new location construction) for the purpose of providing congestion relief to the existing west-east trending US 380 through Princeton, and tributaries and associated wetlands trend north-south through the landscape surrounding Princeton; therefore, there is no practicable alternative to construction in wetlands. The project design avoids impacts on wetlands to the maximum extent practicable. Practicable measures to minimize harm to wetlands will include the use of stormwater best management practices during construction. Additionally, measures taken to minimize harm to wetlands include the use of bridges and elevated roadway sections to span water features where practicable.

Under the No-Build Alternative, construction of the proposed project would not occur; therefore, no project-related impacts on wetlands would occur.

5.10.4 Rivers and Harbors Act

Based on the 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. The proposed project does not include construction activities in or over a navigable Water of the U.S.; therefore, Sections 9 and 10 of the Rivers and Harbors Act of 1899 do not apply.

5.10.5 Clean Water Act Section 303(d)

This project would not be located within five linear miles (not stream miles) of, and is not within the watershed of, or does not drain to an impaired assessment unit under Section 303(d) of the federal CWA (TCEQ 2022). The Build and the No-Build Alternative would not result in impacts to Section 303(d) waters.

5.10.6 Clean Water Act Section 402

Since the Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit (CGP) authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by the policies and procedures that govern the design and construction phases of the project. The Project Development Process Manual and the Plans, Specifications, and Estimates (PS&E) Preparation Manual require a storm water pollution prevention plan (SWP3) be included in the plans of all projects that disturb one or more acres. The Construction Contract Administration Manual requires that the appropriate CGP authorization documents (notice of intent [NOI] or site notice) be completed, posted, and submitted, when required by the CGP, to TCEQ and the municipal separate storm sewer system (MS4) operator. It also requires that projects be inspected to ensure compliance with the CGP.

The PS&E Preparation Manual requires that all projects include Standard Specification Item 506 (Temporary Erosion, Sedimentation, and Environmental Controls), and the "Required Specification Checklists" require the current version of Special Provision 506 on all projects that need authorization under the CGP. These documents require the project contractor to comply with the CGP and SWP3, and to complete the appropriate authorization documents.

Under the No-Build Alternative, as construction of the proposed project would not occur, there would be no alteration on the amount of runoff generated within the proposed project area. Therefore, no compliance with runoff associated permits would be required.

5.10.7 Floodplains

This project is federally funded and therefore is subject to EO 11988, Floodplain Management. However, the project would not involve an encroachment in the floodplain.

A review of FEMA Flood Insurance Rate Maps (FIRMs) indicated that the project area crosses multiple FEMA flood zones (FEMA 2009). These flood zones are identified as Zone A 100-year flood zone (special flood hazard areas inundated by the 100-year flood with no base flood elevations determined), Zone AE 100-year flood zone (special flood hazard areas inundated by the 100-year flood with base flood elevations determined), and Zone AE floodway (the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height).

Within the proposed project, flood zones comprise a total of approximately 81.5 acres as follows: 67.5 acres of Zone A 100-year flood zone, 6.1 acres of Zone AE 100-year flood zone, and 7.9 acres of AE floodway. The **Environmental Resources Map** included in **Appendix E-3** displays the floodplain areas crossed by the proposed project.

The No-Build Alternative would not alter the existing level of roadway encroachments into floodplains.

5.10.8 Wild and Scenic Rivers

Based on project scoping analysis, it was determined that both the Build and the No-Build Alternative would not have an impact on wild and scenic rivers. This project would not involve work within the designated segment of the Rio Grande; therefore, coordination with the National Park Service would not be required.

5.10.9 Coastal Barrier Resources

The Coastal Barrier Resources Act of 1982 does not apply.

5.10.10 Coastal Zone Management

The project is not located within the Texas Coastal Management Plan (TCMP) boundary. Therefore, a consistency determination is not required.

5.10.11 Edwards Aquifer

The TCEQ Edwards Aquifer Rules do not apply. The EPA Edwards Aquifer MOU does not apply.

5.10.12 International Boundary and Water Commission

This project would not cross or encroach upon the floodway of the International Boundary Water Commission (IBWC) ROW or an IBWC flood control project.

5.10.13 Drinking Water Systems

In accordance with TxDOT's Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (Item 103, Disposal of Wells), any drinking water wells would need to be properly removed and disposed of during construction of the project. The Texas Water Development Board (TWDB) Water Data Interactive map was utilized to identify any known water wells within the project limits (TWDB 2023). Based on a review of the data, there are no registered water wells identified within the project limits.

5.11 Biological Resources

5.11.1 Impacts to Vegetation

Per the 2021 MOU TPWD, a habitat assessment of the project limits was performed and potential impacts to vegetation/habitat were determined (TPWD 2021). The potential

vegetation impacts are included in the Texas Ecosystem Analytical Mapper (TEAM) Vegetation and Ecosystems Table available at the TxDOT Dallas District office. In accordance with the 2021 MOU, TxDOT will coordinate with TPWD, as this project required an EA. Coordination (collaborative review) was initiated on January 23, 2023.

The proposed project would impact approximately 134.9 acres of Tallgrass Prairie, Grassland; 197.4 acres of Urban land; 135.0 acres of Agricultural land; 76.1 acres of Disturbed Prairie; 11.9 acres of Riparian; 17.6 acres of Floodplain; and 3.8 acres of Edwards Plateau Savannah, Woodland, and Shrubland habitat categories. Refer to Appendix E-2 for the TEAM Mapped and Field Verified Ecological Mapping Systems of Texas (EMST) Vegetation Map for the location of these features.

Potential impacts to vegetation would be confined to the existing and proposed ROW. Impacts to vegetation will be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project. The removal of native vegetation, particularly mature native trees and shrubs, will be avoided to the greatest extent practicable. Seeding and replanting with TxDOT-approved seed mixes containing native species will be used in the revegetation of disturbed areas.

The Texas Natural Diversity Database (TxNDD) data obtained from TPWD in November 2023, were reviewed along with the TPWD Rare, Threatened, and Endangered Species of Texas (RTEST) list for Collin County, accessed on October 8, 2024 (TPWD 2024). The TxNDD radii of 1.5 miles and 10 miles from the project area were searched for element of occurrence records within 1.5 and 10 miles of the proposed project. Within 1.5 miles of the proposed project is one record for the Vertisol Blackland Prairie. The record for the Vertisol Blackland Prairie is located in the far eastern portion of the proposed project south of US 380. Access was granted on the parcel. Grazing was evident due to the land being leased for cattle. However, this area was not overgrazed. There was a variety of grasses and forbs observed, including desirable species such as little bluestem (Schizachyrium scoparium), eastern gamagrass (Tripsacum dactyloides), and native wildflowers, as well as less desirable species, including Johnsongrass (Sorghum halepense) and brome (bromus sp.). The proposed construction of retaining walls has been implemented along portions of the eastbound US 380 mainlines and US 380 eastbound frontage road lanes to help minimize impacts to the Vertisol Blackland Prairie in that area. Further design consideration to extend the retaining walls are being considered to ensure the entire length of the Vertisol Blackland Prairie area is protected with retaining wall installation. Along with the proposed retaining wall installation, TPWD Best management practices (BMPs) will be implemented before, during, and after construction to minimize the effects of vegetation clearing on protected species. Several records are present between 1.5 miles and 10 miles of the proposed project. Each of these occurrences are located outside of the project area and would not be impacted by the proposed project.

Collaborative review with TPWD was concluded on March 21, 2023. TPWD coordination of the EA was initiated on August 13, 2024. TPWD coordination was completed on September 24, 2024. Appendix F includes documentation on the initiation of this coordination. The Species Analysis Form, Species Analysis Summary Spreadsheet, and Documentation of Texas Parks and Wildlife Department Best Management Practices form prepared for the proposed project are available at the TxDOT Dallas District office.

Under the No-Build Alternative, the proposed project would not be constructed. No effects to vegetation related to the construction of the proposed project would occur. Existing land use and activities would continue to periodically affect vegetation communities.

5.11.2 Executive Order 13112 on Invasive Species

This project is subject to and will comply with federal EO 13112 on Invasive Species. TxDOT implements this EO on a programmatic basis through its Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual.

5.11.3 Executive Memorandum on Environmentally and Economically Beneficial Landscaping

This project is subject to and will comply with the federal Executive Memorandum on Environmentally and Economically Beneficial Landscaping, effective April 26, 1994. TxDOT implements this Executive Memorandum on a programmatic basis through its Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual.

5.11.4 Impacts to Wildlife

The proposed project is located in Collin County. Developed and undeveloped lands are present within the proposed project area. Developed land includes single-family residences and retail and commercial facilities. Undeveloped lands comprise vacant (not utilized), agriculture (ranch and pasture), woodlands, disturbed prairies, fence row vegetation. streams, and ponds. Wildlife species expected to inhabit the proposed project area are likely adapted to both a rural environment as well as an urban, developed environment. Mammalian species that likely inhabit the area include the feral hog (Sus scrofa), whitetailed deer (Odocoileus virginianus), coyote (Canis latrans), Virginia opossum (Didelphis virginiana), raccoon (Procyon lotor), and eastern fox squirrel (Sciurus niger). Various avian species likely to inhabit the area include species such as the Northern Mockingbird (Mimus polyglottos), Mourning Dove (Zenaida macroura), Blue Jay (Cyanocitta cristata), Great Blue Heron (Ardea herodias), Turkey Vulture (Cathartes aura), American Crow (Corvus brachyrhynchos), and Red-tailed Hawk (Buteo jamaicensis). Amphibian and reptilian species would also utilize the different available habitats. The species would include various snakes, turtles, lizards, and frogs native to north-central Texas. Examples would be the Texas rat snake (Elaphe obsoleta lindheimeri), red-eared slider (Trachemys scripta elegans), western ribbon snake (Thamnophis proximus), and northern cricket frog (Acris crepitans). Various waterfowl species could utilize the aquatic habitat.

The presence or evidence of the following wildlife species was observed during field reconnaissance: raccoon tracks, Mourning Dove, Turkey Vulture, Great Blue Heron, redeared slider, water moccasin (*Agkistrodon piscivorus*), and leopard frogs (*Rana sphenocephala*). There is suitable habitat present within the proposed project area for federal and state-listed species as well as Species of Greatest Conservation Need (SGCN) as discussed in **Section 5.11.10**.

Substantial impacts to wildlife are not anticipated. The proposed project is the construction of a new location roadway and would result in habitat fragmentation. Some mortality to individual species that are less mobile such as reptiles and amphibians may occur during the initial construction. The constructed roadway would contain a concrete traffic barrier along the main lanes that would restrict wildlife movement. An increase in wildlife mortality would likely occur to wildlife attempting to cross the roadway due to vehicle strikes. The proposed culverts and bridge structures would provide a safer means of crossing the roadway. More mobile species such as mammals and avian species would most likely relocate to suitable surrounding habitats. Wildlife that does currently inhabit adjacent urban development and existing transportation structures (culverts, utility poles, etc.) would be temporarily impacted due to potential structure displacements/relocations and roadway structure reconstruction and relocation. It is likely that some wildlife species would recolonize the available habitat once construction of the proposed project is complete.

As detailed in Section 5.14, while there could be increase in noise during construction that could potentially impact wildlife, these impacts are anticipated to be temporary, short-term, and localized in nature. Long-term, significant impacts to migratory birds as a result of noise post-construction is not anticipated to be higher than pre-construction due to the urbanized nature, and existing highway facilities crossing Lavon Lake. See **Section 8.1** for a list of BMPs to be implemented.

Under the No-Build Alternative, the proposed project would not be constructed; thus, there would be no project-related impacts to wildlife.

5.11.5 Migratory Bird Protections

This project will comply with applicable provisions of the Migratory Bird Treaty Act (MBTA) and Texas Parks and Wildlife Code Title 5, Subtitle B, Chapter 64, Birds. It is TxDOT's policy to avoid removal and destruction of active bird nests except through federal or state approved options. In addition, it is TxDOT's policy to, where appropriate and practicable:

- Use measures to prevent or discourage birds from building nests on man-made structures within portions of the project area planned for construction and
- Schedule vegetation clearing activities outside the typical nesting season.

Additional preemptive and preventive measures that may be applied, where appropriate and practicable, are described in TxDOT's guidance – Avoiding Migratory Birds and Handling Potential Violations (TxDOT 2023f).

5.11.6 Fish and Wildlife Coordination Act

The project is anticipated to require a permit issued under Section 404 of the CWA. Compliance with the Fish and Wildlife Coordination Act will be accomplished by complying with the terms and conditions of the applicable permit.

5.11.7 Bald and Golden Eagle Protection Act of 2007

The proposed project is not within 660 feet of an active or inactive Bald Eagle (*Haliaeetus leucocephalus*) or Golden Eagle (*Aquila chrysaetos*) nest. The project area does include suitable habitat for the Bald Eagle to the east where it crosses tributaries of Sister Grove Creek and the forested habitat adjacent to Lavon Lake.

Based on limited ROE, additional fieldwork would be required to determine whether the proposed project is within 660 feet of an active or inactive Bald or Golden Eagle nest. Coordination with the U.S. Fish and Wildlife Service (USFWS) may be required.

5.11.8 Magnuson-Stevens Fishery Conservation Management Act

The Essential Fish Habitat (EFH)/Magnuson-Stevens Fishery Conservation and Management Act (MSA) does not apply.

5.11.9 Marine Mammal Protection Act

The project area does not contain suitable habitat for marine mammals.

5.11.10 Threatened, Endangered, and Candidate Species

The proposed project must comply with federal and state regulations for protecting and managing threatened and endangered fish, wildlife, and plant species. The Endangered Species Act of 1973 (ESA) affords protection for federally listed threatened and endangered species and, where designated, critical habitat for these species. In general, the ESA protects both the species and the habitat. Details concerning state endangered or threatened animal species are contained in Chapters 67 and 68 of the Texas Parks and Wildlife Code and Sections 65.171 - 65.176 of Title 31 of the TAC. Details concerning endangered or threatened plant species are contained in Chapter 88 of the TPW Code and Sections 69.01 - 69.9 of the TAC.

The USFWS Official Species List from the Information for Planning and Consultation (IPaC) was obtained on October 9, 2024 (USFWS 2024), for the proposed project. The TPWD Annotated County Lists of Rare Species data, accessed on October 8, 2024 (TPWD 2024), was also obtained for the proposed project.

Based on the Federal Register 16776 filed on March 20, 2023, the status of two mussel species, Louisiana pigtoe (*Pleurobema riddellii*) and Texas heelsplitter (*Potamilus amphichaenus*), has changed. At the time of the original documentation, the Louisiana pigtoe was state-threatened with no federal listing status and is now federally proposed threatened, while the Texas heelsplitter was state-threatened with no federal listing status

and is now federally proposed endangered. Suitable habitat for both of these species was identified within the project area as part of the original assessment. See below for updated information.

There were no changes to threatened, endangered, proposed threatened, proposed endangered, or candidate species' status within the time period between the approved Species Analysis Spreadsheet (May 24, 2023) and the latest USFWS and TPWD species lists (October 9 and October 8, 2024, respectively).

Federal and State Listed Species

The USFWS Official Species List includes eight federally listed threatened, endangered, proposed threatened, proposed endangered, or candidate species that could potentially occur within the project area. These species include the tricolored bat (*Perimyotis subflavus*), Whooping Crane (*Grus Americana*), Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), alligator snapping turtle (*Macrochelys temminckii*), Texas fawnsfoot (*Truncilla macrodon*), Texas heelsplitter, and monarch butterfly (*Danaus plexippus*). Though not included on the USFWS Official Species List, the Louisiana pigtoe is included as federally proposed threatened and the Black Rail (*Laterallus jamaicensis*) is included as federally threatened on TPWD's RTEST list for Collin County.

For these federally listed species, either USFWS has not designated critical habitat or, if critical habitat has been designated, there is no critical habitat within the project area. The following discussion of these species also notes which ones are included on TPWD's RTEST list.

The tricolored bat is included on the USFWS Official Species List as proposed endangered. There is suitable habitat consisting of forest, woodland, and riparian areas in the project area. The tricolored bat has been proposed as a federally endangered species, and consultation with USFWS is not required at this time. However, it is anticipated that this species will receive full listing status prior to project construction. Therefore, TxDOT is moving forward with informal consultation, including a Conference Opinion, with the USFWS.

The Whooping Crane is listed as endangered on the federal and state lists. Suitable stopover habitat consisting of ponds and wetlands is present within the project area. The project area is outside of the breeding and wintering ranges for the species. Any use of potential stopover habitat within the project area would be incidental and ephemeral. The project would have no effect or impact on the Whooping Crane.

The Piping Plover and Red Knot are listed as threatened on the federal and state lists. These species are included in the species list as needing consideration for wind energy projects. As this is not a wind energy project and no suitable habitat is present within the project area for either species, the project would have no effect or impact on the Piping Plover or Red Knot.

The alligator snapping turtle is listed as proposed threatened on the federal list and threatened on the state list and can be found in deep perennial water bodies. Suitable

habitat for this species may be present within Big Branch, Lavon Lake, and Tickey Creek. A Habitat assessment will occur once ROE is granted or acquisition attained to determine whether further actions are required. The alligator snapping turtle is a federally proposed threatened species, and consultation with USFWS is not required at this time. If the species is listed, effects will be re-evaluated to determine the appropriate course of action, which may include consultation with USFWS.

The Texas fawnsfoot is listed as threatened on the federal list. The Louisiana pigtoe is listed as federally proposed threatened, but only on the state list for Collin County. The Louisiana pigtoe is also listed as state threatened. One perennial stream, Big Branch, is present within the project area. Big Branch is categorized by USFWS as Group 5 - streams where no federally- or state-listed freshwater mussels occur, but mussels are known to occur; or perennial streams where it is anticipated that live freshwater mussels may occur, but presence or diversity have not been confirmed. The NHD also mapped two perennial streams, Sister Grove Creek and Pilot Grove Creek, within the project area. These streams are part of Lavon Lake, which does not provide suitable habitat as these species do not tolerate impoundments. Based on the NHD, Ticky Creek is Considered intermittent. Ticky Creek is ungrouped by USFWS. Because these streams are categorized as Group 5 and ungrouped, the USFWS-TPWD protocol (May 2023) assumes the streams to not be occupied by state or federally listed mussel species. The proposed project would have no effect or impact to the Texas fawnsfoot or Louisiana pigtoe.

The Texas heelsplitter is listed as proposed endangered on the federal list and threatened on the state list. Lavon Lake is categorized by USFWS as Group 2 - large stream reaches that include designated or proposed Critical Habitat for federally-listed or federally-proposed mussel species, or reaches known to or may be inhabited by federally-listed species. Lavon Lake could provide suitable habitat for the Texas heelsplitter because this species can be found in reservoirs. Freshwater Mussel BMPs, including survey/relocation of native mussels, applies in compliance with USFWS-TPWD Protocol. This species is currently proposed as federally endangered and USFWS consultation is not required at this time. If this species receives full federal listing status during the life of this project, it will be re-evaluated to determine the appropriate course of action, which may include consultation with USFWS. The proposed project may affect/may impact the Texas heelsplitter.

The monarch butterfly is listed as a candidate species on the federal list and can be found in a variety of habitats. The project area contains pastures, open woodlands, and urbanized areas with various nectar plant species. The project may affect the monarch butterfly; however, the monarch butterfly is currently a candidate species and no consultation with USFWS is required at this time. As construction activities for this project are not anticipated to be completed prior to Fiscal Year 2024, when a listing decision for the species is anticipated, additional coordination may be required. The project should be reevaluated at that time to determine whether further action is required if the species becomes proposed for federal listing.

No suitable habitat is present for the Black Rail. The project would have no effect or impact to the Black Rail.

TPWD's RTEST list also included the following species listed only as state threatened: White-faced Ibis (*Plegadis chihi*), Wood Stork (*Mycteria americana*), and Texas horned lizard (*Phrynosoma cornutum*). No suitable habitat is present for the Texas horned lizard. The project would not impact the Texas horned lizard. Potential stopover habitat is present for the White-faced Ibis and Wood Stork. The project limits are outside of the breeding and year-round ranges for these species. Any use of potential stopover habitat within the project limits would be incidental and ephemeral. Therefore, the proposed project would not impact these species.

On February 12, 2021, the Interior Least Tern (Sternula antillarum athalassos) was federally delisted by the USFWS, however, TPWD's RTEST still includes this subspecies as state endangered. No suitable nesting habitat was identified within the project limits and occurrence along Lavon Lake would be considered rare and temporary. Therefore, the project would not impact the Interior Least Tern.

Species of Greatest Conservation Need

The TPWD RTEST list included an additional 41 species listed as SGCN. Suitable habitat was identified within the proposed project limits for the following 29 SGCN species: American bumblebee (Bombus pensylvanicus), Bank Swallow (Riparia riparia), Brewer's Blackbird (Euphagus cyanocephalus), common garter snake (Thamnophis sirtalis), Common Grackle (Ouiscalus quiscula), Common Nighthawk (Chordeiles minor), deertoe (Truncilla truncata), eastern box turtle (Terrapene carolina), eastern spotted skunk (Spilogale putorius), green (Sutherland) hawthorn (Crataegus viridus var. glabriuscula), hoary bat (Lasiurus cinereus), lilliput (Toxolasma parvum), Loggerhead Shrike (Lanius Iudovicianus), Louisiana fatmucket (Lampsilis hydiana), mapleleaf (Quadrula quadrula), Mottled Duck (Anas fulvigula), Northern Bobwhite (Colinus virginianus), pimpleback (Cyclonaias pustulosa), pistolgrip (Tritogonia verrucosa), plains spotted skunk (Spilogale interrupta), slender glass lizard (Ophisaurus attenuatus), southern crawfish frog (Lithobates areolatus areolatus), tapered pondhorn (Uniomerus declivis), western box turtle (Terrapene ornata), Willet (Tringa semipalmata), Wilson's Warbler (Cardellina pusilla), Woodhouse's toad (Anaxyrus woodhousii), Yellow Rail (Coturnicops noveboracensis), and Yellow-billed Cuckoo (Coccyzus americanus). Note the Bald Eagle is no longer listed as SGCN, however, was included in analyses as due diligence under the Bald and Golden Eagle Protection Act. No suitable habitat for the remaining species listed only as SGCN was identified within the project limits.

ROE was not provided for many of the parcels within the project limits. Areas where ROE was not provided would need to be assessed after ROW is acquired. If suitable habitat is observed in those areas, it may result in a change to effect/impact determinations.

The TPWD "Beneficial Management Practices – Avoiding, Minimizing, and Mitigating Impacts of Transportation Projects on State Natural Resources" was utilized to determine the BMPs

to be implemented for this project and coordinated with TPWD during the Collaborative Review process (TPWD 2021). Refer to **Section 8** for the list of BMPs that will be used to avoid or minimize impacts and to the **Documentation of Texas Parks and Wildlife Department Best Management Practices Form**, included in **Appendix F**, for the complete list of BMPs.

Under the No-Build Alternative, the proposed project would not be constructed; thus, there would be no effects to federally and state-listed threatened, endangered, or candidate species and SGCNs.

5.12 Air Quality

5.12.1 Transportation Conformity

This project is located in Collin County, which is within the Dallas-Fort Worth area that has been designated by EPA as severe nonattainment area for the 2008 Ozone national ambient air quality standards (NAAQS) and moderate nonattainment for the 2015 ozone NAAQS; therefore, the transportation conformity rules apply. Conformity for older standards is satisfied by conformity to the more stringent 2008 and 2015 ozone NAAQS, as applicable.

Both NCTCOG's financially constrained Mobility 2045 Update (NCTCOG 2022) and 2023-2026 TIP were found to conform to the TCEQ State Implementation Plan (TCEQ 2023) by FHWA and Federal Transit Administration (FTA) on December 15, 2022. The proposed action is consistent with the Mobility 2045 Update and the 2023–2026 TIP, as amended. All projects in the NCTCOG's TIP that are proposed for federal or state funds were initiated in a manner consistent with federal guidelines in 23 CFR 450 and 49 CFR 613.200 Subpart B.

5.12.2 Hot-Spot Analysis

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

5.12.3 Carbon Monoxide Traffic Air Quality Analysis

Traffic data for the main lanes in Section 1, from FM 1827 to FM 75 at the ETC year (2030) and design year (2050) is 36,325 vehicles per day (VPD) and 59,775 VPD, respectively, while traffic data for the main lanes in Section 2, from FM 75 to CR 560 at the ETC year (2030) and design year (2050) is 51,475 VPD and 92,675 VPD, respectively. Traffic data for the frontage roads in Section 1, from FM 1827 to FM 75 at the ETC year (2030) and design year (2050) is 44,500 VPD and 70,575 VPD, respectively, while traffic data for the frontage roads in Section 2, from FM 75 to CR 560 at the ETC year (2030) and design year (2050) is 18,000 VPD and 31,500 VPD, respectively. The AADT projections for the project do not exceed 140,000 VPD; therefore, triggering the need for a carbon monoxide traffic air quality analysis (CO TAQA) is not required.

A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that the CO standard would ever be exceeded as a result of any project with an AADT below 140,000 VPD.

5.12.4 Mobile Source Air Toxics

A qualitative MSAT assessment has been conducted relative to the Build and No-Build Alternative. As documented in the Mobile Source Air Toxics Technical Report, all project alternatives may result in increased exposure to MSAT emissions in certain locations, although the concentrations and duration of exposure are uncertain. Due to this uncertainty, the health effects from these emissions cannot be estimated. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today. Detailed information of this qualitative analysis can be found in the Mobile Source Air Toxics Technical Report available for review at the TxDOT Dallas District office (TxDOT 2022c).

5.12.5 Congestion Management Process

The proposed project is adding single-occupant vehicle (SOV) capacity, is a project with FHWA/FTA involvement, and is within the Dallas-Fort Worth Transportation Management Area; therefore, a Congestion Management Process (CMP) analysis is required. The 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 project was developed from the NCTCOG's CMP, which meets all requirements of 23 CFR 450.320 and 500.109, as applicable. The CMP was adopted by the NCTCOG in August 2021.

The project-level CMP analysis is available for review at the NCTCOG. The Congestion Management Process Disclosure Statement prepared for the proposed project is available for review at the TxDOT Dallas District office.

Committed congestion reduction strategies and operational improvements within the study boundary will consist of modal options, system reliability, and roadway infrastructure improvements including addition of new lanes, shared-use path for bicyclists and pedestrians, turn lanes, and intersection improvements.

In an effort to reduce congestion and the need for SOV lanes in the region, TxDOT and NCTCOG will continue to promote appropriate congestion reduction strategies through the Congestion Mitigation and Air Quality Improvement (CMAQ) program, the CMP, and the Mobility 2045 Update (NCTCOG 2022). The congestion reduction strategies considered for this project would help alleviate congestion in the SOV study boundary but would not eliminate it.

Therefore, the proposed project is justified. The CMP analysis for added SOV capacity projects in the Transportation Management Area (TMA) is available for review at NCTCOG.

5.12.6 Construction Air Emissions

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

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

https://www.tceq.texas.gov/airquality/terp.

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

The No-Build alternative would not meet TxDOT and NCTCOG goals for congestion reduction goals through CMAQ, the CMP and the Mobility 2045 Update (NCTCOG 2022); would not result in increased exposure to MSAT emissions along the proposed new roadway; or increase construction emission; however, over time, traffic volumes increase, and traffic congestion could worsen within the existing roadway system.

5.13 Hazardous Materials

A Hazardous Materials ISA report was completed to summarize potential hazardous materials within and adjacent to the project corridor. The ISA included a site reconnaissance and environmental regulatory database search for the project area. The ISA was completed to identify sites or facilities that might pose a potential for hazardous materials impacts to the proposed project. The ISA, completed in December 2022, is maintained in the TxDOT Dallas District project files.

The proposed project would potentially impact hazardous materials. Based on the ISA, there is a possibility for hazardous materials impacts to the proposed project from existing hazardous materials sites within the proposed ROW and/or adjoining the project. One landfill facility, the Osttend Landfill, was identified as having a potential environmental risk to the proposed US 380 Princeton project at the eastern project alignment limits. One unmapped site, Metro Stone, was identified as having a potential environmental risk to the proposed US 380 Princeton project.

The Osttend Landfill facility, displayed in the **Environmental Resource Map** included in **Appendix E-3**, located at 2540 East University Dr., McKinney, TX 75069, is adjacent and within proposed ROW near the western alignment study area. This facility has operated

under four different names, however, the main Owner Operator listed with TCEQ is Osttend Landfill LTD. This is a large property of which the small driveway entrance portion and an undeveloped portion are adjacent to the alignment study area.

This facility has five landfill listings but only one approved landfill permit application. The first three landfill permit applications were submitted and withdrawn between 1986 and 1999. The fourth landfill permit application, submitted in 1999, was approved in 2003 and operable (accepting waste) by 2019. A fifth landfill permit application, to increase the excavation depth of the landfill, was submitted in September 2021. The total permitted area is shown as 146.8 acres with 57 non-fill acres. The landfill is listed as a construction and demolition landfill with a total tonnage of 1,518 reported. In addition, there is one 6,000gallon diesel (installed 2019) and two 2,000-gallon diesel (installed 2020) aboveground petroleum storage tanks (ASTs). No releases have been reported for this facility. Noted in the ISA, based on historic aerials, the eastern and western portions of this site were originally utilized as stone quarries. The landfill portion of this large property is approximately 1,200 feet south of proposed ROW along US 380 Princeton alignment study area. ROW would be acquired from the portion of the property that has the landfill's driveway entrance and office, and undeveloped area along US 380 Princeton. Based on distance of the active landfill portion from proposed US 380 Princeton alignment study area. ROW, and proposed work activity, this site is considered a low environmental risk. A low environmental risk determination indicates the issue has a low or no potential to affect the proposed US 380 Princeton project and no further investigations are required.

The Metro Stone site was identified on the Unmapped Sites Summary, within the regulatory database report, and was determined to be adjacent south of the western alignment study area. Based on Collin Central Appraisal District (CCAD) and historic aerials, the possible former AST property was 3110 East University Dr., McKinney, TX 75069, displayed in the Environmental Resource Map included in Appendix E-3. This site formerly utilized two 8,000-gallon diesel and one 12,000-gallon ASTs installed in 1982 and 1986, respectively. The ASTs were listed as out of use in 1987 and 2006 (8,000-gallon) and in 1988 (12,000-gallon). No releases are reported for the former facility. Current use of the property consists of auto repair and/or used car sales. The current business is not identified as a regulatory site. No ROW is proposed for this location. Proposed work activity adjacent to this site consists of removal of current US 380 Princeton roadway and driveway improvements. Based on no reported release and proposed work activity, this site is considered a low environmental risk.

Several automobile salvage, sales, heavy equipment, repair/maintenance facilities were observed on historic aerials and during the site visit. None of these facilities are associated with a regulatory listing. Any abandoned vehicles, debris, contaminated surface soils, etc. that may be present on these sites will be handled during the ROW acquisition process. These sites are considered low environmental risks to the project.

The acquisition of oil and gas wells and sites is performed during early negotiations between ROW and the property/mineral rights owners. Any environmental issues associated with the well sites will be addressed during the ROW acquisition process. The proposed project would also include the demolition of buildings as well as bridges and bridge class culverts. Asbestos-containing Materials (ACMs) and lead-containing paint (LCP) may be present in the structures. Asbestos and LCP inspections, notification, and removal, as applicable, would be addressed prior to demolition in accordance with regulatory requirements.

Based on the review and assessment of regulatory and non-regulatory sites adjacent to the project, no further investigation is warranted for hazardous materials sites. 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.

Under the No-Build Alternative, the proposed project would not be constructed; thus, project-related hazardous materials impacts would not occur.

5.14 Traffic Noise

A traffic noise analysis was prepared in accordance with TxDOT's FHWA-approved Traffic Noise Policy (TxDOT 2019). Details on the traffic noise analysis can be found in the Traffic Noise Technical Report available for review at the TxDOT Dallas District office.

Existing noise levels at selected receiver locations were measured to characterize the existing noise environment along the new location sections of the project. Existing noise levels were modeled along the existing roadway sections where the proposed project would transition into US 380.

Predicted traffic noise levels were modeled at representative receivers for land use activity areas adjacent to the project that might be impacted by traffic noise and would potentially benefit from feasible and reasonable noise abatement. Modeled locations were primarily residential, both single- and multi-family residential, recreational (at Caddo Park and Twin Groves Park picnic area), and a church. The receiver locations are listed in **Table 5-2** and shown in the **Environmental Resources Map** included in **Appendix E-3**.

Table 5-2. Traffic Noise Levels dB(A) Leq

Representative Receiver	Land Use	NAC Category	NAC dB(A) Leq	Existing	Predicted (2050)	Change (+/-)	Noise Impact (Yes/No)
R1	Residential	В	67	67	73	6	Yes
R2	Residential	В	67	63	69	6	Yes
R3	Residential	В	67	54	63	9	No

Representative Receiver	Land Use	NAC Category	NAC dB(A) Leq	Existing	Predicted (2050)	Change (+/-)	Noise Impact (Yes/No)
R4	Residential	В	67	65	63	-2	No
R5	Residential	В	67	59	65	6	No
R6	Residential	В	67	46*	69	22	Yes
R7	Residential	В	67	46*	70	24	Yes
R8	Residential	В	67	50*	68	18	Yes
R9	Residential	В	67	50*	66	16	Yes
R10	Residential	В	67	56*	59	3	No
R11	Residential	В	67	56*	57	1	No
R12	Residential	В	67	54*	61	7	No
R13	Residential	В	67	64*	68	4	Yes
R14	Residential	В	67	64*	65	1	No
R15	Residential	В	67	64*	65	1	No
R16	Residential	В	67	43*	65	22	Yes
R17	Residential	В	67	60*	65	5	No
R18	Residential	В	67	60*	68	8	Yes
R19	Residential	В	67	60*	63	3	No
R20	Residential	В	67	45*	68	23	Yes
R21	Residential	В	67	48*	72	24	Yes
R22	Residential	В	67	48*	73	25	Yes
R23	Residential	В	67	52*	70	18	Yes
R24	Residential	В	67	59	65	6	No
R25	Residential	В	67	55	60	5	No
R26	Residential	В	67	55	64	9	No
R27	Park	С	67	54	62	8	No
R28	Picnic Area	С	67	54	57	3	No
R29	Church	С	67	46	49	3	No

^{*} Existing noise level near new location roadway determined using on site noise measurements. Abbreviations: NAC, Noise Abatement Criteria; dB(A), A-weighted decibel; Leq, average/equivalent sound level.

As indicated in **Table 5-2**, the Build Alternative would result in a traffic noise impact at one or more representative receiver locations under each project alternative and the following noise abatement measures were considered: traffic management, alteration of horizontal and/or vertical alignments, acquisition of undeveloped property to act as a buffer zone, and the construction of noise barriers.

Noise abatement measures were considered for each location with predicted noise impacts. Noise barriers would be feasible and reasonable for the following impacted receptors, and therefore, are proposed for incorporation into the project (**Table 5-3**). Details regarding the abatement analysis can be found in the Traffic Noise Technical Report.

R21B through R23B – These receivers represent 19 residences in the Princeton Crossroads subdivision with backyards that face the roadway. All of the first-row receptors have predicted traffic noise impacts. Based on preliminary calculations, a continuous noise barrier totaling approximately 1,850 feet in length and 6 feet in height would reduce noise levels by at least 5 dB(A) for 15 benefited receptors and meet the noise reduction design goal of 7 dB(A) for at least two of the benefitted receivers at a total cost of \$388,500 or \$25,900 for each benefited receiver (**Table 5-3**). The proposed noise barrier would be elevated and located along the edge of pavement on the US 380 Princeton bridge structure alongside the Princeton Crossroad neighborhood. Refer to the Environmental Resources Map, **Appendix E-3**, Sheet 8 of 12 and Sheet 9 of 12 for the location of the proposed Noise Barrier 1B.

Table 5-3. Noise Barrier Proposal

Barrier	Representative Receivers	Total # Benefited	Length (feet)	Height (feet)	Total Sq. Ft.	Sq. Ft. per Benefited Receptor
1B	R21 through	15	1,850	6	11,100	740

Abbreviations: Sq. Ft., Square Feet

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

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 (2050) noise impact contours identified in **Table 5-4**.

Table 5-4. Predicted Traffic Noise Contours

Location	Distance from Proposed ROW			
	NAC Category B & C 66 dB(A)	NAC Category E 71 dB(A)		
Along US 380 west of BUS 380W	200 feet	60 feet		
Along US 380 west of FM 75	120 feet	ROW		
Along US 380 between BUS 380E and Twin Groves Park Road	210 feet	60 feet		

Impact contours are 1 dB(A) lower than the NAC per category to reflect impacts that would occur as a result of approaching the NAC for the respective contours.

A copy of the traffic noise analysis will be available to local officials to assist in the future land use planning. On the date of approval of this document (Date of Public Knowledge), FHWA or TxDOT are no longer responsible for providing noise abatement for new development adjacent to the project.

Under the No-Build Alternative, traffic noise levels along the new location alignment would remain similar to existing conditions or would increase with increasing traffic on adjacent existing roadways. However, traffic noise along the existing US 380 would be expected to increase with an associated increase in traffic volumes.

5.15 Induced Growth

An Indirect Effects Technical Report was prepared to evaluate the potential of the proposed project to influence local and regional land use decisions and determine the likelihood of the proposed project to result in induced growth and related effects. Local planning experts at the City of Princeton, Town of New Hope, and City of Farmersville provided input on the potential induced growth effects of the proposed project. These local planning experts provided feedback on development of the Area of Influence (AOI) (see **Figure 1** in **Appendix H**), the likelihood of the proposed project to affect land use decisions within the AOI, and how the proposed project would support or conflict with local plans for future development. The AOI measures approximately 33,708 acres and is primarily characterized by agricultural/undeveloped land; developed land (including suburban and commercial development); and parks/open space (see **Figure 2** in **Appendix H**). A total of 9,329 acres were determined to be developable, or approximately 28 percent of the AOI as a whole (see **Figure 3** in **Appendix H**).

Population growth within the AOI and Collin County has been substantial over the past two decades. Rapid growth within the communities of Princeton, Farmersville, and McKinney is expected to continue in the future, regardless of whether the proposed project is constructed; however, the proposed improvements are considered an important component of reducing congestion and improving mobility and connectivity throughout the US 380

corridor. The proposed project was determined likely to encourage development of parcels adjacent and nearly adjacent to the proposed project through the 2050 timeframe. Based on cartographic analysis, land use expert feedback, and planning judgment, the proposed project would potentially result in a total of 4,350 acres of induced growth by 2050 (see **Figure 4** and **Figure 5** in **Appendix H**). This represents approximately 47 percent of developable land in the AOI and approximately 13 percent of the AOI as a whole.

Induced growth effects to ecological resources were assessed using the EMST habitat categories. The habitat category that would be most affected by induced growth related to the project would be Agriculture (2,058 acres), followed by Tallgrass Prairie, Grassland (1,329 acres) and Disturbed Prairie (561 acres) (see **Figure 5** in **Appendix H**). The future development within the AOI that would potentially affect these vegetation types would also potentially result in habitat fragmentation and impacts to wildlife, such as habitat degradation and roadway mortality. Induced growth effects could also include effects on water resources related to increases in impervious cover. However, based on the regulatory protections in place, including the ESA of 1973 and Sections 401, 402, and 404 of the CWA, induced growth effects to ecological resources would not be substantial.

Induced growth effects to socioeconomic resources would include a continued shift away from rural to more suburban development, a pattern that is already evident in the AOI and across the Dallas-Fort Worth Metroplex. The changes that would be expected to occur within the 2050 timeframe—including low-density residential development in predominantly agricultural areas—would be consistent with the planning documents for the municipalities within the AOI. Therefore, socioeconomic effects related to induced growth would not be substantial and could positively contribute to serving population and employment growth in the future.

The proposed project would not be expected to change the trajectory of the strong development trends that have occurred over the last two decades and are expected to continue in the future within the AOI and regionwide. Moreover, the induced development anticipated to occur within the AOI would be consistent with the land use plans at the city, county, and regional levels. Future growth that would be induced by the proposed project would not result in substantial effects to ecological or socioeconomic resources. In consideration of these factors, the induced growth effects of the proposed project would not be expected to be substantial.

Under the No Build Alternative, indirect impacts related to induced growth and related effects would not occur.

5.16 Cumulative Impacts

A Cumulative Impacts Analysis was prepared for the proposed project and focuses on resources anticipated to be substantially impacted by the proposed project (either directly or indirectly), as well as resources that would be affected to any degree by the proposed project and are considered at risk or in poor or declining health. Direct and indirect impacts

to each resource were considered to determine which resources warranted further consideration in the Cumulative Impacts Analysis. Archeological resources, historic resources, socioeconomic resources, and vegetation in the overall Resource Study Area (RSA are considered to not be in poor or declining health and would not undergo substantial impacts as a result of the proposed project; therefore, these resources were not carried forward for detailed evaluation in the Cumulative Impacts Analysis.

Water resources in general would not undergo substantial impacts and are not considered to be in poor or declining health; however, potential cumulative impacts to aquatic habitat for sensitive species that would potentially be impacted by the proposed project were assessed given the inherently at-risk nature of these species. The sensitive species considered in the Cumulative Impacts Analysis include:

- Louisiana pigtoe; state-listed threatened, proposed for federal listing as threatened
- Texas fawnsfoot; state-listed threatened, federally listed as threatened
- Texas heelsplitter; state-listed threatened, proposed for federal listing as Endangered
- Alligator snapping turtle; state-listed threatened, proposed for federal listing as threatened

The RSA that was used in the Cumulative Impacts Analysis measures approximately 115,170 acres and includes the following five subwatersheds: Tickey Creek-Lavon Lake, Clemons Creek-East Form Trinity River, Stiff Creek-Sister Grove Creek, Sister Grove Creek-Pilot Grove Creek, and Elm Creek-Lavon Lake (see **Figure 6** in **Appendix H**). The RSA consists of approximately 8,333 acres of waterbodies and 2,444,505 linear feet of streams (see **Figure 7** in **Appendix H**). The three mollusk species and one aquatic reptile species that potentially occur in the RSA use flowing streams and rivers with varying substrates.

The proposed project could impact approximately 10,402 linear feet of streams, which equates to approximately 0.43 percent of the total linear feet of intermittent streams within the RSA. Additionally, other reasonably foreseeable future development (including planned transportation projects) could impact up to approximately 96,498 linear feet of streams, which is approximately four percent of the total linear feet of streams within the RSA (see **Figure 8-1** through **Figure 8-6** in **Appendix H**). This equates to a total cumulative impact to 106,900 linear feet of streams, or approximately four percent of linear streams within the RSA.

Cumulative impacts to aquatic habitat for sensitive species would primarily be related to increases in impervious cover and altered hydrology that could result from construction of this and other future transportation and development projects. As a result of these changes, increased runoff into receiving waters could affect both surface and groundwater quality. The reasonably foreseeable future actions discussed in this analysis would convert some rural portions of the RSA to more suburban land uses as well as increase the urban nature of other portions of the RSA, through either new or expanded development or transportation network expansion. Therefore, it is assumed that these actions would lead to increases in

storm water runoff that could result in localized erosion and sedimentation of surface streams.

The proposed project would be constructed in full compliance with the CWA, and BMPs would be implemented to further minimize potential degradation of surface water quality. Additionally, post-construction BMPs would be implemented to minimize the conveyance of runoff contaminants to surface water resources. See **Section 8.1** for a list of BMPs to be implemented. Given the existing regulatory protections provided to habitats associated with rivers and streams and associated floodplains, cumulative impacts to aquatic habitat for sensitive species within the RSA would not be substantial. Additionally, the contribution of the proposed project to cumulative impacts to these resources would be minor and would not adversely affect the overall sustainability or long-term health of these resources. Under the No Build Alternative, the proposed project would not contribute to cumulative impacts to any resource.

5.17 Construction Phase Impacts

During the construction phase of the proposed project, there is the potential for noise, dust, or light pollution; impacts associated with physical construction activity; temporary lane, road, or bridge closures (including detours); and other traffic disruptions. Under the Build Alternative, these potential impacts are discussed as follows:

5.17.1 Construction Noise

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 receptors are expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

5.17.2 Fugitive Dust and Air Pollution

As discussed in **Section 5.12.6**, temporary increases in PM and MSAT emissions may occur during the construction phase of the project. These impacts would be minimized by using fugitive dust control measures, the encouragement of the use of TERP, and compliance with applicable regulatory requirements. Considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be utilized, it is not anticipated that emissions from construction of this project will have a significant impact on air quality in the area. Additional discussion on fugitive dust and air emissions are included in **Section 5.12.6** and in the Mobile Source Air Toxics Technical Report which is available for review at the TxDOT Dallas District office.

5.17.3 Light Pollution

Construction normally occurs during daylight hours; however, construction could occur during the night-time hours to minimize impacts to the traveling public during the daylight hours. Due to the close proximity of businesses and residents to the project, if construction were to occur during the night-time hours, it would be of short duration. Construction during the night-time hours would follow any local policies and ordinances established for construction activities, such as light limitations.

5.17.4 Construction Vibration Impacts

Construction activities would be limited to the proposed project footprint. Vibration from construction equipment would be of short duration; however, excessive vibration from construction is not anticipated.

5.17.5 Temporary Lane, Road, or Bridge Closures (Including Detours)

During the construction phase, traffic would follow the existing traffic patterns. Traffic control plans would be prepared and implemented in coordination with the City of Princeton and Collin County. Construction that would require cross street closures would be scheduled so only one crossing in an area is affected at one time. If detours are required, clear and visible signage for an alternative route would be displayed. Work on US 380 would be phased in such a manner to allow the existing roadways to remain open during construction. In the event that road closures or detours are required, county and local public safety officials would be notified of the proposed road closures or detours. Detour timing and necessary rerouting of emergency vehicles would be coordinated with the proper local agencies. Motorists would be inconvenienced during construction of the project due to lane and cross-street closures; however, these closures would be of short duration and alternate routes would be provided.

Residents and businesses in the immediate construction area would be notified in advance of proposed construction activity using a variety of techniques, including signage, electronic media, community newspapers, and other techniques. The proposed project would not restrict access to any existing public or community services, businesses, commercial areas, or employment centers.

Under the No-Build Alternative, construction would not occur and would not result in noise, dust, or light pollution; impacts associated with physical construction activity; temporary lane or road closures; and other traffic disruptions associated with construction.

5.18 Greenhouse Gas Emissions and Climate Change

The public hearing for the proposed project is programmed for early June of 2023. TxDOT has prepared a Statewide On-Road Greenhouse Gas Analysis and Climate Change Assessment Technical Report. The report discloses: 1) an analysis of available data

regarding statewide greenhouse gas (GHG) emissions for on-road GHG emissions, ¹ 2) TxDOT actions and funding that support reducing GHG emissions, 3) projected climate change effects for the state of Texas and 4) TxDOT's current strategies and plans for addressing the changing climate. A summary of key issues in this technical report is provided below. Please refer to the statewide technical report for more details.

The Earth has gone through many natural changes in climate over time. However, since the industrial revolution began in the 1700s, atmospheric concentration of GHG emissions have continued to climb, primarily due to humans burning fossil fuel (e.g., coal, natural gas, gasoline, oil and/or diesel) to generate electricity, heat and cool buildings, and power industrial processes, vehicles, and equipment. According to the Intergovernmental Panel on Climate Change, this increase in GHG emissions is projected to contribute to future changes in climate.

5.18.1 Statewide On-road Greenhouse Gas Emissions

TxDOT prepared a GHG analysis for the statewide on-road transportation system and associated emissions generated by motor vehicle fuels processing called "fuel-cycle emissions." EPA's Motor Vehicle Emissions Simulator (MOVES2014 version) emissions model was used to estimate emissions. Texas on-road and fuel cycle GHG emissions are estimated to be 186 million metric tons in 2050 and reach a minimum in 2032 at 161 million metric tons. Future on-road GHG emissions may be affected by changes that may alter where people live and work and how they use the transportation system, including but not limited to 1) the results of federal policy including tailpipe and fuel controls, 2) market forces and economics, 3) individual choice decisions, 4) acts of nature (e.g., pandemic) or societal changes, and 5) other technological advancements. Such changes cannot be accurately predicted due to the inherent uncertainty in future projections related to demographics, social change, technology, and inability to accurately forecast where people work and live (Transportation Research Board 2007).

5.18.2 Mitigation Measures

Strategies that reduce on-road GHG emissions fall under four major categories:

- Federal engine and fuel controls under the Clean Air Act implemented jointly by EPA and USDOT, which includes Corporate Average Fuel Economy standards;
- "Cash for clunker" programs which remove older, higher-emitting vehicles from roads;
- Traffic system management which improves the operational characteristics of the transportation network (e.g., traffic light timing, pre-staged wrecker service to clear accidents faster, or traveler information systems); and

¹ GHG emissions consist of on-road tailpipe emissions and upstream fuel cycle emissions. Upstream fuel cycle emissions are the emissions generated by extracting, shipping, refining, and delivering fuels.

 Travel demand management which provides reductions in vehicle miles traveled (e.g., transit, rideshare, and bicycle and pedestrian facilities) and requires personal choice decisions.

TxDOT has implemented programmatic strategies that reduce GHG emissions including:1) travel demand management projects and funding to reduce vehicle miles traveled, such as bicycle and pedestrian facilities, 2) traffic system management projects and funding to improve the operation of the transportation system, 3) participation in the national alternative fuels corridor program, 4) clean construction activities, 5) clean fleet activities, 6) CMAQ funding, 7) transit funding, and 8) two statewide campaigns to reduce tailpipe emissions.

5.18.3 TxDOT and Changing Climate

TxDOT has strategies that address a changing climate in accordance with TxDOT and FHWA design, asset management, maintenance, emergency response, and operational policies and guidance. The flexibility and elasticity in TxDOT transportation planning, design, emergency response, maintenance, asset management, and operation and maintenance of the transportation system are intended to consider any number of changing scenarios over time. Additional detail is included in the statewide technical report.

6 Agency Coordination

This section identifies all coordination with agencies outside TxDOT that are required to be conducted for the Build Alternative. The list below identifies the agencies requiring coordination and the status of efforts to coordinate the proposed project.

- SHPO (see Section 5.8): Coordination under Section 106 with the THC/SHPO regarding historic resources and archeological resources is complete. Coordination letters are included in Appendix F.
- TPWD (see Section 5.11): Collaborative review with the TPWD was concluded on March 21, 2023. The coordination correspondence is included in Appendix F. On August 13, 2024, TxDOT provided TPWD with a NOA notifying them that the environmental documents were available for review. The NOA, included in Appendix F, provided information on how to access the document electronically or request a hard copy. TPWD coordination was completed on September 24, 2024. Appendix F includes documentation on the initiation of this coordination.
- Tribal Coordination: Coordination documentation with federally recognized Native American tribes is available in Appendix F.
- NRCS: Because the proposed Build Alternative scored higher than 60 points using the NRCS-CPA-106 form, FPPA coordination was required. Per NRCS email dated November 29, 2022, the combined rating of the site is 147. No further consideration for protection and no additional evaluation is necessary (see **Appendix F**).

- TCEQ: Per the TxDOT-TCEQ MOU, TCEQ was afforded the opportunity to review and comment on the Draft EA. TxDOT provided TCEQ with a NOA notifying them that the environmental documents were available for review. The NOA provided information on how to access the document electronically or request a hard copy. Per the TCEQ letter dated September 4, 2024, the agency is in support of the project and stated that TxDOT shall still follow applicable laws, including applicable permits. A copy of the letter is included in Appendix F.
- USACE: Coordination with the USACE is ongoing regarding impacts to the USACE WMA
 and two USACE-owned parks immediately adjacent to the existing US 380 alignment.
 Coordination includes initial stakeholder meeting with USACE/TxDOT, regular biweekly
 meetings between USACE/TxDOT, USACE/TxDOT meetings with the City of Princeton, and
 site visits with USACE to evaluate alternative alignments, including US 380 and WMA
 alignments. Impacts to waters of the U.S. will be coordinated with the USACE, permits
 obtained, and mitigation accomplished, as appropriate.
- USFWS: Consultation with USFWS regarding effects to federally listed will be conducted
 as necessary. Informal coordination with the USFWS for the Conference Opinion is
 ongoing for the tricolored bat, as it is anticipated that this species will receive full listing
 status prior to project construction.
 - TxDOT coordinated with the Department of the Interior (DOI) for Section 4(f) on February 5, 2024, and on March 6, 2024, the DOI indicated no objection to the Draft Section 4(f) evaluation (Appendix G, see Appendix C of the evaluation).
- Coordination with the Texas Historical Commission under Section 4(f), as the Official with Jurisdiction (OWJ) over the Caddo Park Lavon Lake Historic District, has been completed. TxDOT coordinated with THC on February 17, 2023, and again on February 8, 2024, and on February 29, 2024, the THC concurred with the determination that the use of the historic property would have no adverse effect (Appendix G, see Appendices C). No mitigation for the use of 0.17 acres of the historic property is proposed.
- TxDOT coordinated with the Department of the Interior (DOI) on February 5, 2024, and on March 6, 2024, the DOI indicated no objection to the Draft Section 4(f) evaluation (Appendix G, see Appendices C).

7 Public Involvement

TxDOT held a public meeting (in-person and virtually) for the proposed project Tuesday, August 2, 2022. Public meeting notices were published in seven newspapers. Six newspapers published the notice in English; *The Dallas Morning News* on Monday, July 18, 2022, the *Collin County Commercial Record* on Tuesday, July 19, 2022, the *Princeton Herald* on Thursday, July 21, 2022, the *Farmersville Times* on Thursday, July 21, 2022, the *McKinney Courier Gazette* on Sunday, July 24, 2022, and the *Celina Record* on Monday, July 25, 2022. The newspaper *Al Dia* published the Spanish version of the notice on Wednesday, July 20, 2022. The legal notice was mailed to adjacent property owners, elected officials,

various public and private stakeholders and public agencies. The notice was also sent via email to elected officials, various public and private stakeholders, public agencies and members of the public who signed up previously for project updates. The Cities of Princeton, McKinney, and Farmersville posted the notice to their websites and social media prior to the public meeting.

The in-person public meeting was held in an open house format at the Princeton High School Cafeteria, located at 1000 E Princeton Dr, Princeton, Texas. The virtual public was available at https://www.keepitmovingdallas.com/US380Princeton from Tuesday, August 2, 2022 to Wednesday, August 17, 2022. The same materials were available at the in-person and virtual public meetings. In total, 136 members of the public attended the in-person meeting and there were 630 unique visits to the virtual public meeting web page. The narrated YouTube presentation received 812 views. The YouTube presentation can be found at: https://youtu.be/an4K2-XEXQw.

Comments were received over the 15-day comment period. The comments submitted regarded a variety of topics, including property impacts, utilities, noise, and lighting. Several commenters requested alignment changes. Commenters expressed both support and opposition to the proposed project. The comment and response matrix public meeting is included for reference in **Appendix I**.

The NOA of the Draft EA was published in both English and Spanish in various newspapers that serve the project area, including a general circulation newspaper that is published at least six days a week for three consecutive weeks not less than one week or more than two weeks before the public hearing date to address Chapter 26 of the Texas Parks and Wildlife Code (PWC; 3 PWC 26.002). The notice was also available online at www.txdot.gov and www.txdot.gov and

A Public Hearing (in-person and virtually) for the proposed project was held on Thursday, Sept. 12, 2024, at the Princeton High School Cafeteria, located at 1000 E Princeton Dr, Princeton, Texas. Public hearing notices were published in six newspapers. Five newspapers published the notice in English; The Dallas Morning News on Tuesday, August 13, 2024, Wednesday, August 21, 2024, and Thursday, August 29, 2024 published three consecutive weeks to comply with Texas Parks and Wildlife Code (3 PWC 26.002); the Collin County Commercial Record on Thursday, August 15, 2024; the Princeton Herald on Thursday, August 15, 2024; the Farmersville Times on Thursday, August 15, 2024; and the McKinney Courier Gazette on Sunday, August 18, 2024. The newspaper Al Dia published the Spanish version of the notice on Wednesday, August 14, 2024. The legal notice was mailed to adjacent property owners, elected officials, and public agencies. The meeting material was

posted on the TxDOT project website <u>www.keepitmovingdallas.com/US380Princeton</u>. The comment period ended on September 27, 2024.

In total, 123 members of the public and elected officials attended the in-person hearing and there were 1,170 unique visits to the virtual public hearing web page. The narrated YouTube presentation received 294 views. The YouTube presentation can be found at: https://www.youtube.com/watch?v=HJ3H2cfuDmo&t=4s. Thirteen comments were received during the 15-day comment period that ended on Friday, September 27, 2024. Commenters expressed both support and opposition, expressed concerns about impacts to properties from the widening and realignment, and noise concerns were received at the public hearing. The comment and response matrix public hearing is included for reference in Appendix I.

A NOA of the final EA will be issued, and the FONSI will not be signed until 30 days after the NOA of the final EA. Because the project involves construction of a highway on a new location, a notice of impending construction will be provided to owners of adjoining property and affected local governments and public officials. The notice may be provided via a sign or signs posted in the ROW, mailed notice, printed notice distributed by hand, or website. This notice will be provided after the environmental decision, but before earthmoving or other activities requiring the use of heavy equipment begin.

8 Post-Environmental Clearance Activities and Design/Construction Commitments

8.1 Post-Environmental Clearance Activities

Activities to be completed after environmental clearance are listed and discussed as follows:

- Utilities: Utility relocations would be required throughout the corridor. Utility agreements and notice to owners would be required for this project prior to construction.
- Traffic Noise: Following the environmental clearance, a Notification of Noise letter will be sent to the Local Officials in the Cities of McKinney, Princeton, and Farmersville about traffic noise and its potential impacts on the communities adjacent to the project. A noise workshop meeting would be held to solicit input from the affected property owners and residents associated with the proposed noise abatement measure and finalize TxDOT's noise mitigation measures for the project.
- Section 404: The proposed project would require an NWP 14 with a PCN and a non-reporting NWP 14. The PCN will be obtained before construction. The proposed project would comply with all general conditions of the NWP. All mitigation banks with a service area covering the project will be contacted and a quote will be requested for any required mitigation credits for this project.
- Section 401: The Section 401 Certification requirements for NWP 14 would be met by implementing a SWP3. The SWP3 would include at least one BMP for erosion control, sediment control, and post-construction Total Suspended Solids (TSS) control from the

- Tier 1 Section 401 Water Quality Certification Conditions for NWPs as published by the TCEQ.
- Section 402: The project contractor will comply with the CGP, SWP3, and complete the appropriate authorization documents.
- Wetlands: The project contractor will minimize impacts to wetlands during construction by keeping the construction footprint as small as possible while enabling construction that meets all requirements for the proposed project's implementation. BMPs would be implemented during construction.
- Floodplains: Notification and coordination with the local floodplain administrator is required because portions of the project are within the 100-year floodplain. This coordination will be completed prior to the start of construction.
- Invasive Species: The project contractor is required to preserve native vegetation to the
 extent practical. The contractor must adhere to Construction Specification Requirements
 Specs 162, 164, 192, 193, 506, 730, 751, and 752 in order to comply with
 requirements for invasive species, beneficial landscaping, and tree/brush removal
 commitments.
- Migratory Birds: Before construction begins, the project contractor will use measures to
 prevent or discourage birds from building nests on man-made structures within portions
 of the project area planned for construction; and schedule construction activities outside
 the typical nesting season.
- Threatened, Endangered, and Candidate Species: The following BMPs would be implemented per the 2021 MOU for the proposed project. The full BMPs are included on the Documentation of Texas Parks and Wildlife Department Best Management Practices form included in Appendix F.
 - General Design and Construction BMP
 - Vegetation BMP
 - Stream Crossing BMP
 - Water Quality BMP
 - Insect Pollinator BMP
 - Freshwater Mussel BMP
 - Bird BMP
 - Bat BMP
 - Terrestrial Amphibian and Reptile BMP
 - Aquatic Amphibian and Reptile BMP
 - Rare Plant BMP
 - Invasive Species BMP
- USFWS: Consultation with USFWS regarding effects to federally listed species would be conducted as necessary. Conference Opinion will be conducted for proposed species prior to construction.

- Detours: County and local public safety officials would be notified of any road closures or detours during construction. Detour timing and necessary rerouting of emergency vehicles would be coordinated with the proper local agencies during construction.
- Air Quality: Implement fugitive dust control measures contained in standard specifications to minimize potential impacts of PM emissions during construction.
- Hazardous Materials for Building and Bridge/Bridge Class Culvert Demolition: Structures being demolished will need to be assessed and mitigated for asbestos and LCP.
 Asbestos and LCP inspections, notification, and removal, as applicable, would be addressed prior to demolition in accordance with regulatory requirements.
- Public Involvement: Before construction, a notice of impending construction will be provided to owners of adjoining property and affected local governments and public officials.
- Due to ROE limitation, portions of the project area were inaccessible to complete surveys for Threatened, Endangered, and Candidate Species, wetlands/waters, and archeology, Surveys will be completed after full ROW, prior to construction.
- Section 4(f): Impacts to the Lavon Lake WMA would be mitigated as a direct payment to the USACE, Fort Worth District, to support USACE actions throughout the Lavon Lake WMA. These mitigation commitments and plan are defined in the Compensatory Mitigation Plan, developed in coordination with the USACE and attached in Appendix G. The Compensatory Mitigation Plan has been developed to address the following USACE concerns:
 - improved access to Caddo Park and Twin Groves Park, including restoration of parking, entrance roads, and associated amenities; and
 - vegetation planting and habitat restoration activities throughout the Lavon Lake WMA.
- In addition to the Compensatory Mitigation Plan, TxDOT will incorporate into the final design of this Project, designated parking within TxDOT ROW and adjacent to frontage roads for recreation rest areas near the US 380 bridge over Lavon Lake.

8.2 Design/Construction Commitments

- Archeological Resources: Thorough investigation of areas identified for high potential for intact archeological deposits not surveyed during these investigations as a result of the lack of ROE, shall be completed after ROW is purchased and before construction begins. If unanticipated archaeological deposits are encountered during construction, work in the immediate area will cease, and TxDOT archaeological staff will be contacted to initiate post-review discovery procedures.
- Wetlands: The construction contractor would be required to avoid and minimize unnecessary impacts on wetlands during construction.

- Construction (TPDES): Contractor shall comply with the CGP and SWP3. Complete, post and submit NOI and notice of termination (NOT) to TCEQ and the MS4 operator. Inspect the project to ensure compliance with the CGP.
- Drinking Water Systems: If any unknown wells are encountered during construction activities, they would need to be properly plugged in accordance with state statutes.
- Hazardous Materials: The contractor would take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area.
 All construction materials used for the proposed project would be removed as soon as the work schedules permit. The contractor would initiate early regulatory agency coordination during project development.
- Vegetation: Avoid and minimize disturbance of vegetation and soils. All disturbed areas
 would be revegetated, according to TxDOT specifications as soon as it becomes
 practicable. In accordance with EO 13112 on Invasive Species, the Executive
 Memorandum on Beneficial Landscaping, and the 1999 FHWA guidance on invasive
 species, all revegetation would, to the extent practicable, use only native species.
 Furthermore, BMPs would be used to control and prevent the spread of invasive species.
- Migratory Birds: Take all appropriate actions to prevent the take of migratory birds, their active nests, eggs or young by the use of proper phasing of the project or other appropriate actions. Refer to Section 8.1 for applicable BMPs.
- Air Quality: The TERP provides financial incentives to reduce emissions from vehicles and equipment. TxDOT encourages construction contractors to use this and other local and federal incentive programs to the fullest extent possible to minimize diesel emissions.
- Threatened, Endangered, and Candidate Species: As indicated in Section 8.1, the TPWD-recommended BMPs that will be applied to this project are indicated in the Documentation of Texas Parks and Wildlife Department Best Management Practices form prepared for the project, which is included in Appendix F. If any species on Collin County threatened and endangered species list is sighted in the project area during construction, construction would stop, and contractor would notify the TxDOT Area Engineer. Refer to Section 8.1 for applicable BMPs.

9 Conclusion

Implementation of the proposed project would not result in a significant impact on the human or natural environment. Therefore, a FONSI is recommended.

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11 Names and Qualifications of Persons Preparing the EA

TxDOT Environmental Affairs Division personnel name and title, years of experience, and role:

- Doug Booher, Director of ENV, 25 years, Document Approver
- Michelle Lueck, Project Delivery Manager, 23 years, Document Reviewer
- Ray Umscheid, ENV Project Planner, ENV Traffic Noise Specialist, 15 years, Traffic Noise Reviewer/Approver
- Susan M. Shuffield, ENV Project Planner, Water Team Lead, 24 years, Water Resources Analysis/404 Permitting Reviewer/Approver
- Rebekah Dobrasko, Cultural Resources Section Director, 18 years, Historic Resources Survey and Report Reviewer/Approver
- Scott Pletka, Archeology Program Manager, 19 years, Archeological Resources Survey, Permitting, and Report Reviewer/Approver
- Nicolle Kord, Community Impacts Specialist, 10 years, Community Impacts Assessment Reviewer/Approver
- Spencer Ward, ENV Project Planner, ENV Community Impacts Specialist, 3 years, Community Impacts Assessment Reviewer/Approver
- Tim Wood, Air Quality Specialist, 10 years, Air Quality Analysis Reviewer/Approver
- Glendora Lopez, ENV Project Planner, ENV Air Quality Specialist, 2 years, Air Quality Analysis Reviewer/Approver
- Deborah Nixon, ENV Project Planner, ENV Hazardous Materials Specialist, 21 years, Hazardous Materials Reviewer/Approver
- Leslie Mirise, ENV Project Planner, ENV Biologist, 21 years, Biologist/Approver
- Adam Fouts, ENV Project Planner, ENV Water Resources Specialist, 11 years, Water Resources Specialist/Approver
- Stirling Robertson, Ph.D., Environmental Specialist, Biology Team Lead, 28 years, Biological Resource Analysis Reviewer/Approver
- Sonya Hernandez, Project Delivery Management, Section Director 17 years
- TxDOT Dallas District personnel name and title, years of experience, and role:
- Stephen Endres, P.E., Transportation Engineer, 24 years, Project Manager
- Dan Perge, P.E., Transportation Engineer, 35 years, APD Section Director

Mohammed Shaikh, Environmental Program Manager, 20 years, District Environmental Lead

Melissa Meyer, Public Involvement Specialist, 13 years, District Public Involvement Lead

Manuel Trevino, Environmental Specialist, 16 years, District Traffic Noise Specialist

AECOM personnel name and title, years of experience, and role:

Kerry Winkler, Senior Project Manager, 25 years, Environmental Task Lead

Erin Lee, Environmental Task Lead, 18 years, Quality Control/Quality Assurance NEPA Reviewer

Daniel Salazar, Environmental Planner IV, 15 years, Air Quality Analyst and Community Impacts Analyst

Brad Hernandez, Project Manager VI, 21 years, Project Manager

Jeff Puskos Jr, Project Manager V, 22 years, Deputy Project Manager and Schematic Task Lead

Jodi Hodges, Public Relations Supervisor, 34 years, Public Involvement Analyst

Devin Engelke, Public Relations Specialist I, 1 year, Public Involvement Coordination

Shelley Hartsfield, Principal Investigator, 18 years, Cultural Resources Lead and Cultural Resources Analyst

Tanya Mcdougall, Historian V, 18 years, Cultural Resources Analyst

Beth Reed, Historian II, 20 years, Cultural Resources Analyst

Josh Orr, Science Supervisor, 19 years, Water Resources Analyst

Jennifer Oakley, Science Manager, 13 years, Water Resources Analyst

Joseph Jandle, Biologist II, 7 years, Biological Resources Analyst

Bill Tillar, Senior Environmental Scientist, 28 years, Air Quality Analyst and Noise Analyst

Amy Hall, Ecologist II, 4 years, Water Resources Analyst and Report Preparation

Hayden Blice, Environmental Scientist I, 3 years, Hazardous Materials Analyst

Regina Geren, Administrative Assistant IV, 25 years, Document Control

Helen Potter, GIS Specialist III, 11 years, GIS Analyst

Hicks and Company personnel name and title, years of experience, and role:

Samantha Champion, Planning Program Manager, 14 years, NEPA Specialist

Jason Buntz, Environmental Planner, 24 years, NEPA Oversight, Indirect and Cumulative Impacts

Natasia Moore, Environmental Planner, 6 years, NEPA Specialist, Indirect and Cumulative Impacts

Allison Smith, Environmental Planner, 3 years, NEPA Specialist, Indirect and Cumulative Impacts

Jerod McCleland, GIS Specialist, 15 years, GIS Analyst, Indirect and Cumulative Impacts

Paul Starkel, GIS Specialist, 7 years, GIS Analyst, Indirect and Cumulative Impacts

Allison Smith, Environmental Planner, 4 years, NEPA Specialist, Indirect and Cumulative Impacts

Patricia Frost, P.G. Senior Geoscientist/Project Manager, 34 years, Hazardous Materials

12 Appendices

Appendix A: Project Location Map

Appendix B: Project Photos

Appendix C: Typical Sections

Appendix D: Schematics

Appendix E-1 Water Features Map and Section 404-10 Impacts Table

Appendix E-2 TEAM Mapped and Field Verified EMST Vegetation Map

Appendix E-3 Environmental Resources Map

Appendix F: Resources Agency Coordination

Appendix G: Section 4(f) Documentation

Appendix H: Induced Growth & Cumulative Impacts Maps

Appendix I: Comment and Response Matrix from Public Meeting

Appendix J: Study On Properties Managed by the USACE

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US 380 Princeton from FM 1827 to CR 560

Appendix A: Project Location Map

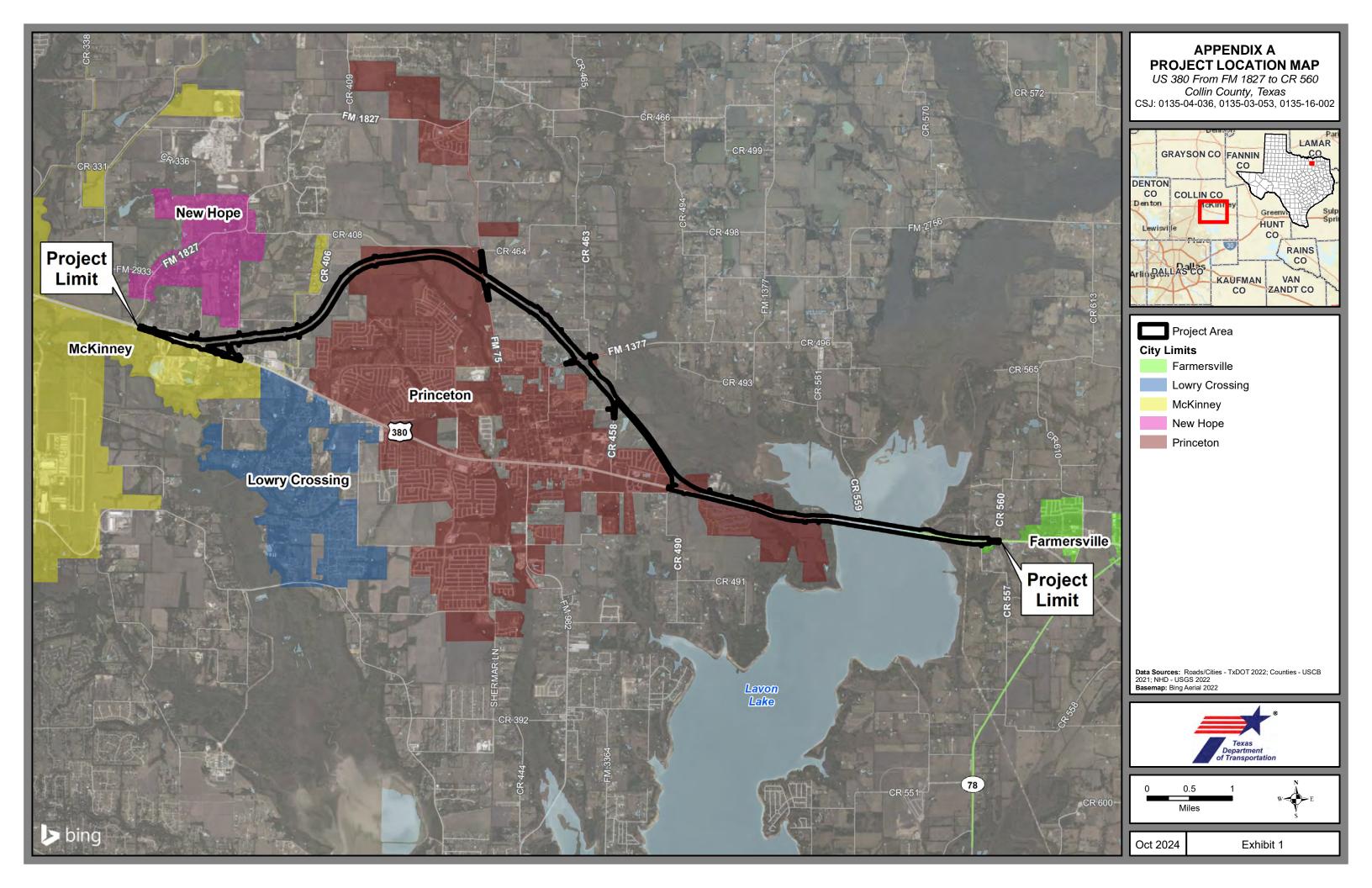


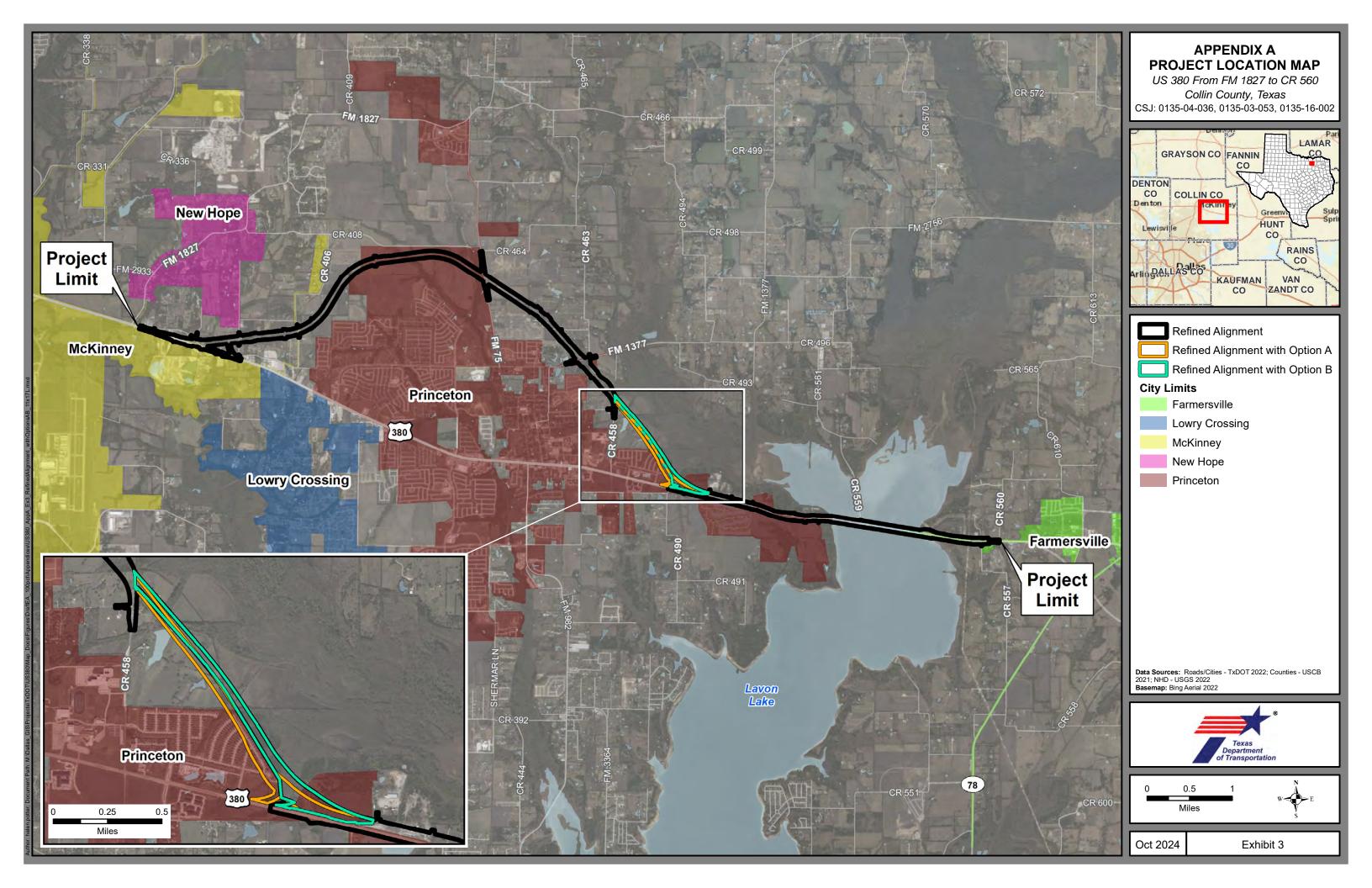
Exhibit 2: Evaluation of Alignments Matrix

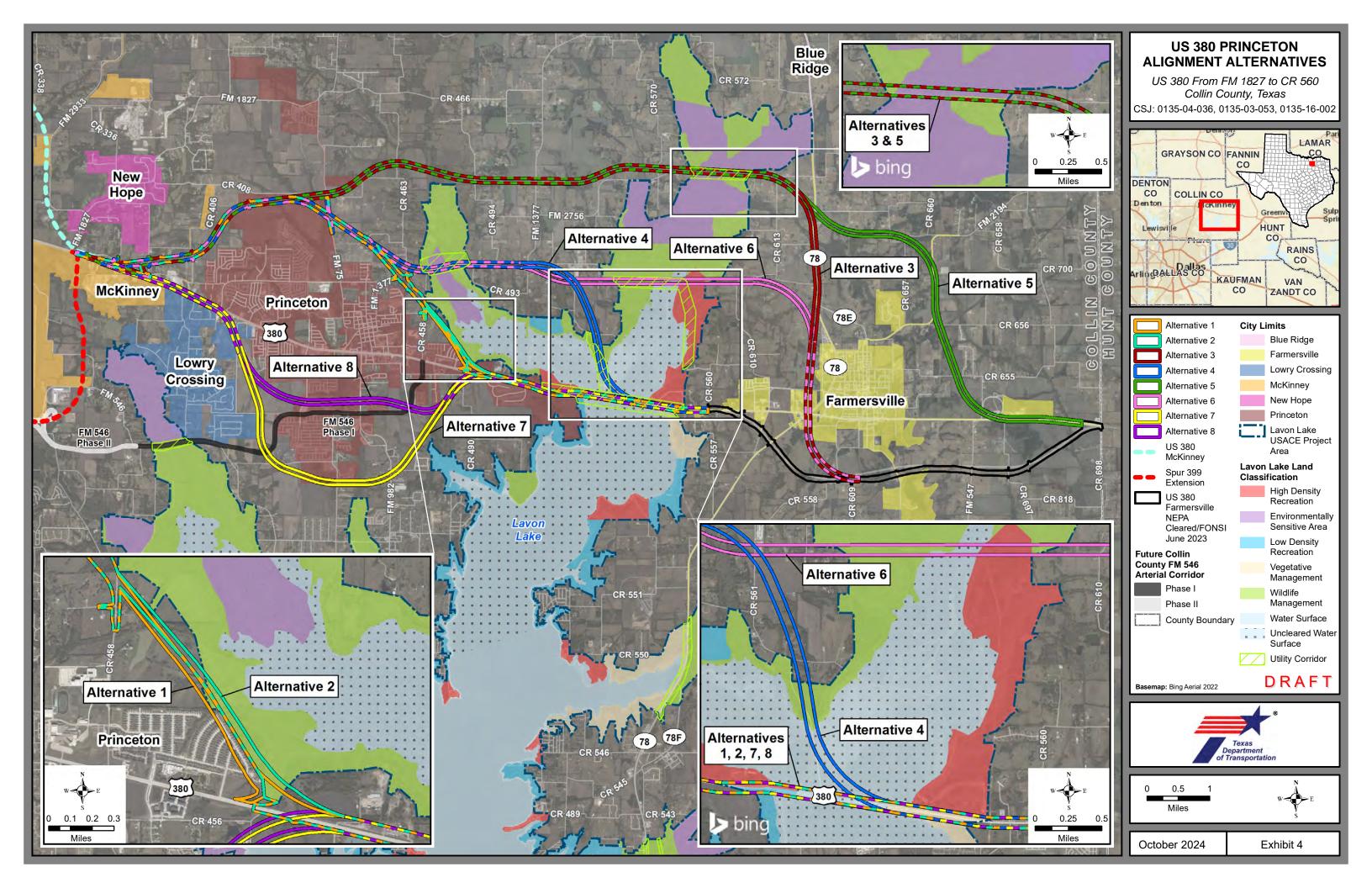
	No Build	2020 Feasibility Study Alignment	Current Refined Alignment Option A	Current Refined Alignment Option E	
Engineering					
Total Length (approximately)		11.8 Miles	11.9 Miles	11.8 Miles	
Total Construction Cost (approximately)	4		\$1.12 Billion	\$1.15 Billion	
Level of Service	LOS F	LOS B-C	LOS B-C	LOS B-C	
ROW Need	0 Acres	370 Acres	370 Acres	375 Acres	
Land Use		- 10	200	4.75	
Residential Displacements (Number)	0	102	53	22	
Commercial Displacements (Number)	0	34	34	34	
Community Facility Displacements (Number)	0	1	1	1	
Developed Land	0 Acres	245 Acres	183 Acres	171 Acres	
Undeveloped Land	0 Acres	185 Acres	225 Acres	239 Acres	
Future Developments	0 Acres	17 Acres	23 Acres	22 Acres	
USACE Wildlife Management Area	0 Acres	0 Acres	6 Acres	18 Acres	
Environmental					
Stream Crossings (Number)	0	21	21	21	
100-Year Floodplain	0 Acres	75 Acres	75 Acres	77 Acres	
Protected Species Potential Habitat	No Impact	Minimal Impacts	Minimal Impacts	Minimal Impacts	
Section 4(f) Protected Lands / Parks (Number)	0	2	2	2	
Air Quality	Decrease	Improve	Improve	Improve	
Traffic Noise	Increase		TBD	TBD	
Community Cohesion	No Impact	Neighborhood Bisected	Neighborhood Bisected	Minimal Impacts	
Cultural Resources	No Impact	100000000000000000000000000000000000000	TBD	TBD	

Information is accurate as of 7.22.2022

CSJs: 0135-04-036, etc.

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Final Environmental Assessment

US 380 Princeton from FM 1827 to CR 560

Exhibit 5: Evaluation of Alignment Alternatives Matrix

	No Build	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8
EVALUATION CRITERIA	ito Bana	Orange	Teal	Maroon	Blue	Green	Pink	Yellow	Purple
Engineering		1	T					T	
Total Length (approximately)	-	11.9 Miles	11.8 Miles	17.3 Miles	12.1 Miles	18.9 Miles	15.7 Miles	14.1 Miles	12.5 Miles
Total Construction Cost (approximately)	-	\$1.56 Billion	\$1.60 Billion	\$2.22 Billion	\$1.72 Billion	\$2.40 Billion	\$2.09 Billion	\$1.52 Billion	\$1.38 Billion
¹ ROW Need	0 Acres	407 Acres	397 Acres	755 Acres	514 Acres	826 Acres	734 Acres	441 Acres	356 Acres
Traffic									
LOS	F	В	В	В	В	В	В	В	В
Average Daily Traffic Volumes	51,053	82,542	82,542	65,208	78,415	62,980	72,967	61,907	66,034
AM Average Traffic Volume for Peak Periods	8,946	16,685	16,685	13,181	15,851	12,731	14,750	12,514	13,348
PM Average Traffic Volume for Peak Period	12,274	22,267	22,267	17,591	21,154	16,990	19,684	16,700	17,814
Daily Vehicle Miles Traveled	857,699	1,749,065	1,749,065	1,148,968	1,652,986	1,109,700	1,329,461	1,443,660	1,341,803
Enhances Regional Mobility	0	•	•	•	•	•	•	•	0
Satisfies Travel Demand	0	•	•	•	•	•	•	•	0
Enhances Safety	0	•	•	•	•	•	•	•	•
Supports Future Regional Transportation Projects	0	•	•	0		0	0	•	•
Land Use			•					<u>'</u>	
² Residential Displacements (Number)	0	62	18	39	32	29	43	37	66
Commercial Displacements (Number)	0	16	16	12	16	13	16	37	37
Community Facilities Displaced (Number)	0	1	1	1	1	1	1	0	0
Developed Land	0 Acres	194 Acres	182 Acres	155 Acres	138 Acres	163 Acres	141 Acres	224 Acres	222 Acres
Undeveloped Land	0 Acres	287 Acres	288 Acres	639 Acres	346 Acres	709 Acres	523 Acres	209 Acres	167 Acres
Future Developments	0 Acres	65 Acres	64 Acres	36 Acres	42 Acres	36 Acres	42 Acres	143 Acres	111 Acres
USACE Wildlife Management Area	0 Acres	6 Acres	21 Acres	11 Acres	41 Acres	11 Acres	71 Acres	0 Acres	0 Acres
USACE Vegetative Management Area	0 Acres	24 Acres	24 Acres	O Acres	25 Acres	0 Acres	0 Acres	25 Acres	25 Acres
USACE Environmentally Sensitive Area	0 Acres	0 Acres	0 Acres	35 Acres	12 Acres	35 Acres	12 Acres	0 Acres	O Acres
USACE Recreation Area	0 Acres	27 Acres	27 Acres	O Acres	5 Acres	0 Acres	19 Acres	25 Acres	25 Acres
Environmental									
Stream Crossings (Number)	0	18	17	20	13	21	18	17	15
100-Year Floodplain (Area in Acres)	0 Acres	81 Acres	82 Acres	133 Acres	108 Acres	141 Acres	118 Acres	70 Acres	70 Acres
³ Wetlands (Area in Acres)	0 Acres	5 Acres	5 Acres	19 Acres	6 Acres	20 Acres	33 Acres	6 Acres	3 Acres
⁴ Water Bodies (Area in Acres)	0 Acres	53 Acres	53 Acres	9 Acres	56 Acres	9 Acres	5 Acres	53 Acres	53 Acres
Protected Species Potential Habitat (Area in Acres)	No Impact	Minimal Impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	Moderate Impacts	Moderate Impacts
⁵ Protected Lands / Parks (Number)	0	4	4	1	3	1	1	3	3
Air Quality	Decrease	Improve	Improve	Improve	Improve	Improve	Improve	Improve	Improve
Traffic Noise	Increase	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Community Cohesion	No Impact	Neighborhood Bisected	Minimal Impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	Minimal Impacts	Neighborhood Bisected	Neighborhood Bisected
Cultural Resources (Recorded Sites)	No Impact	2	2	3	2	1	1	1	1
4 December 2012 and a second s			al Contille discontinuo di all'a	and Allianasia and an illianasia		Maria de la Cultira de Dis			F l F

¹ Based on an estimated corridor width of 400 feet. ² This involves an additional 50 feet of ROW required for the implementation of Alternative 1 in the development of the Cashmere Way roadway within the Princeton Crossroad Community. ³ This category comprises Freshwater Emergent Wetland, Freshwater Forested/Shrub Wetland, and Riverine habitats. Source: NWI from USFWS (2023). ⁴ This includes Lavon Lake and its associated ponds. Source: NHD from USGS (2023). ⁵ Protected Land includes areas such as the USACE Land designated as Wildlife Management Area (WMA), Twin Groves Park, Caddo Park, and the Caddo Park Lavon Lake Historic District.

Criteria Rating Scale						
Does not achieve	Sometimes	Partially meets	Mostly meets	Highly meets		
criteria	meets criteria	criteria	criteria	criteria		
0	•	•	•	•		



US 380 Princeton from FM 1827 to CR 560

Appendix B: Project Photos

CSJs: 0135-04-036, etc. November 2024



Photo 1: From CR 330 on northwest end of project area, view looking east-southeast along US 380 ROW.



Photo 2 (2540 E. University Drive): View looking south from US 380 at Osttend Landfill entrance.



Photo 3 (2735 E. University Drive): View looking north across US 380 at larger vehicle service center.



Photo 4 (2775 E. University Drive): View looking northwest across US 380 at large vehicle tire service facility.



Photo 5 (2825 E. University Drive): View looking northeast across US 380 at used auto sales and maintenance business.



Photo 6 (2861 E. University Drive): View looking northeast across US 380 of auto maintenance business and parked cars.



Photo 7 (2933 E. University Drive): View looking north from US 380 of auto salvage business.



Photo 8 (3007 E. University): View looking north-northwest of residences and parked cars. Lower right inset photo, view looking south from CR 330 of north side of property.



Photo 9 (3038 CR 330): View looking north across US 380 at used auto sales lot with maintenance services. ML STA 2127+00 to ML STA 2128+00.



Photo 10 (2330 CR 337): View looking northeast from southbound side of CR 337 of shed/garage and gravel yard/parking lot. Location of former commercial operation with two relatively small ASTs for fleet fueling. ML STA 2155+00 and WBFR 4144+00.



Photo 11: View looking west from FM 406 near ML STA 2191+50 of farmland within proposed ROW.



Photo 12: View looking west across FM 75 of undeveloped land and ATMOS natural gas line marker near WBFR STA 4330+00.



Photo 13: View from east side of FM 458 looking west-southwest at 4.5-inch natural gas pipeline crossing near ML STA 2439+00.



Photo 14: View looking west along US 380 from westbound shoulder just west of CR 560.



Photo 15: View of Johnson Cemetery from CR 406, looking west.



Photo 16: View of tombstones outside of the Johnson Cemetery fence line, looking northwest.



Photo 17: View of Big Branch facing upstream and associated riparian vegetation, looking north of the stream crossing along US 380.



Photo 18: View of stock pond and surrounding habitat just southwest of County Road (CR) 458, looking south.

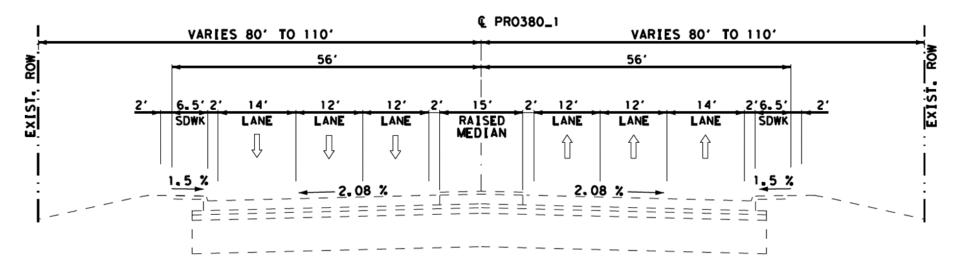


Photo 19: View looking southeast of the sign for Caddo Park, located along the north side of US 380 near the eastern project limits. Caddo Park- closed due to damage from flooding events. This USACE park was determined to be eligible for the NHRP.

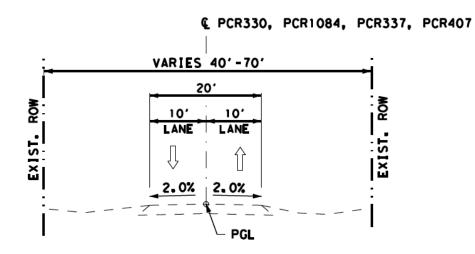


Photo 20: View looking southeast of the sign for Twin Groves Park, located along the north side of US 380 near the eastern project.

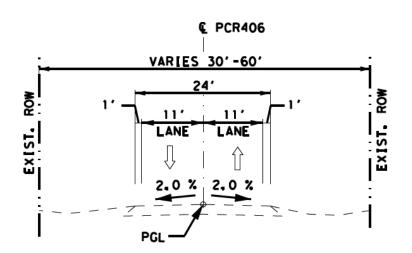
Final Environmental Assessment	t	US 380 Princeton from FM 1827 to CR 560
Appendix C: Typical Sections		



EXISTING US 380 TYPICAL SECTION

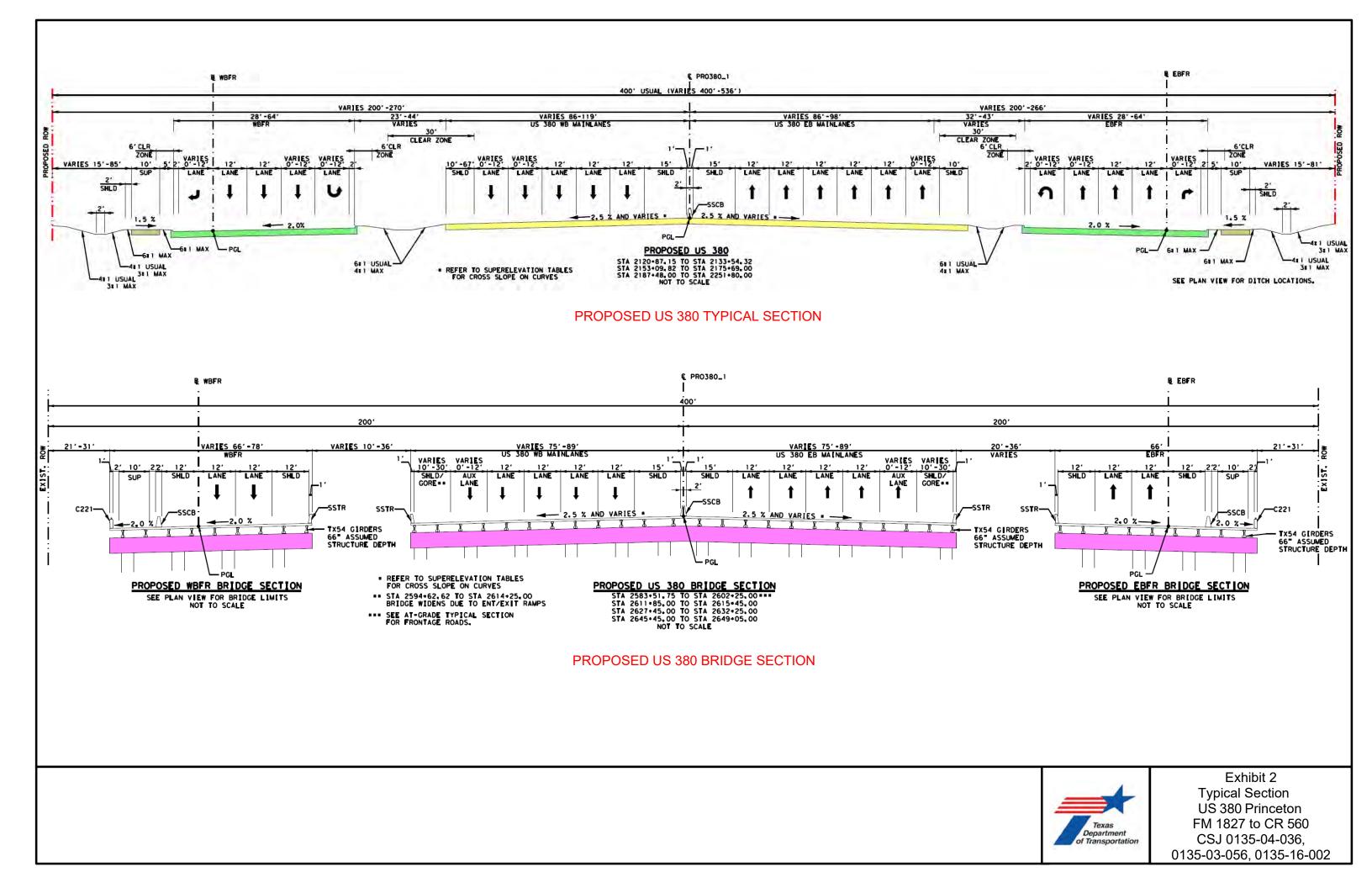


EXISTING CR 330, CR 1084, CR 337, CR 407 TYPICAL SECTION



EXISTING CR 406 TYPICAL SECTION

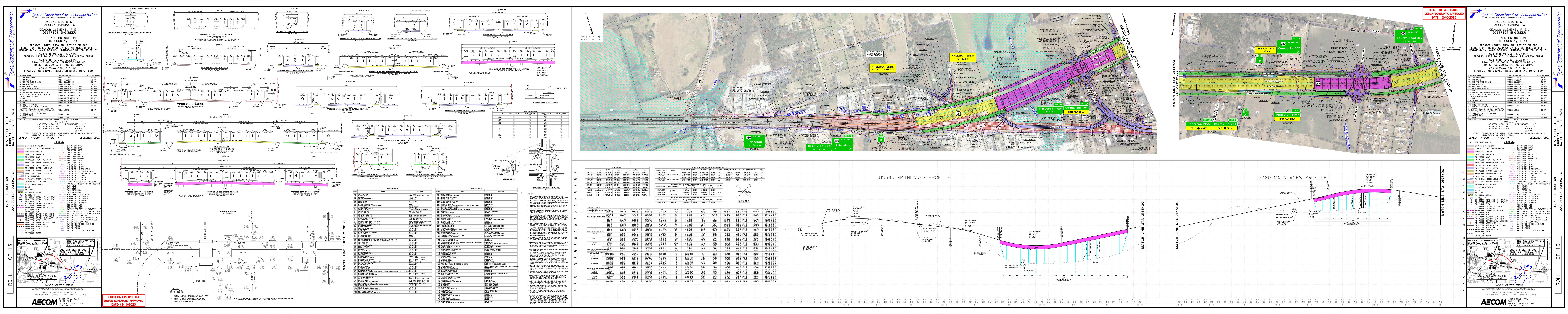


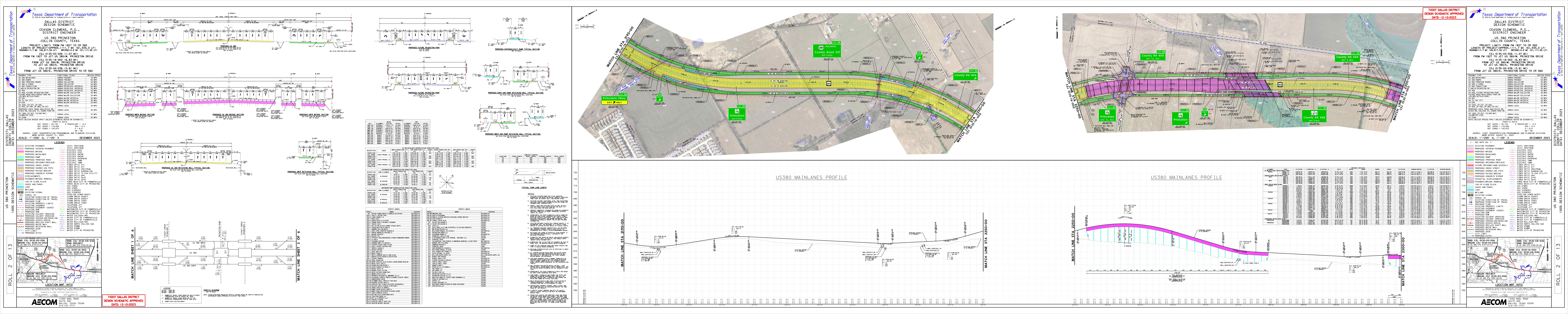


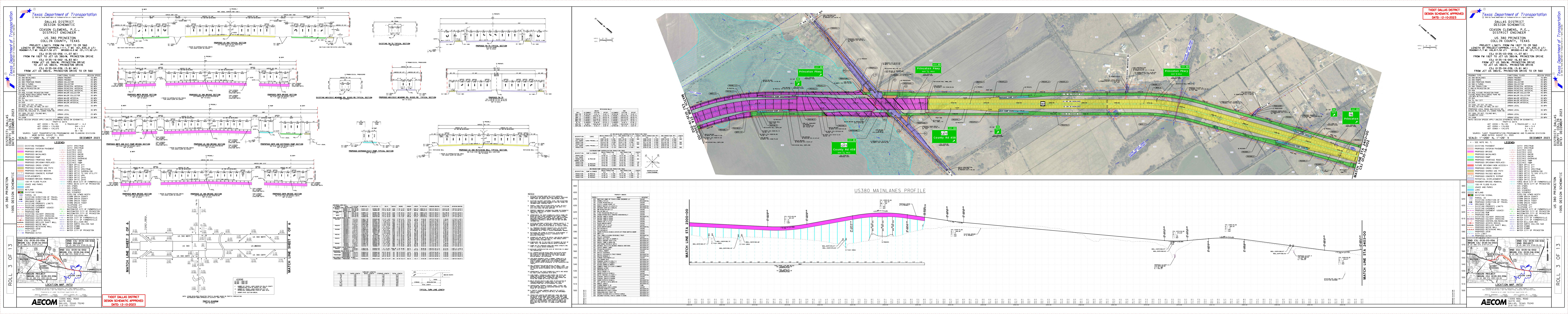
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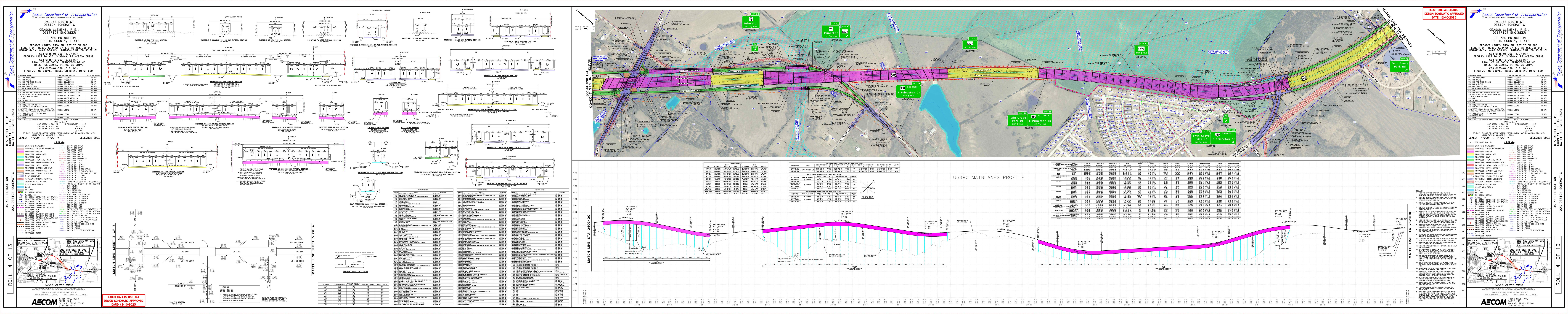
US 380 Princeton from FM 1827 to CR 560

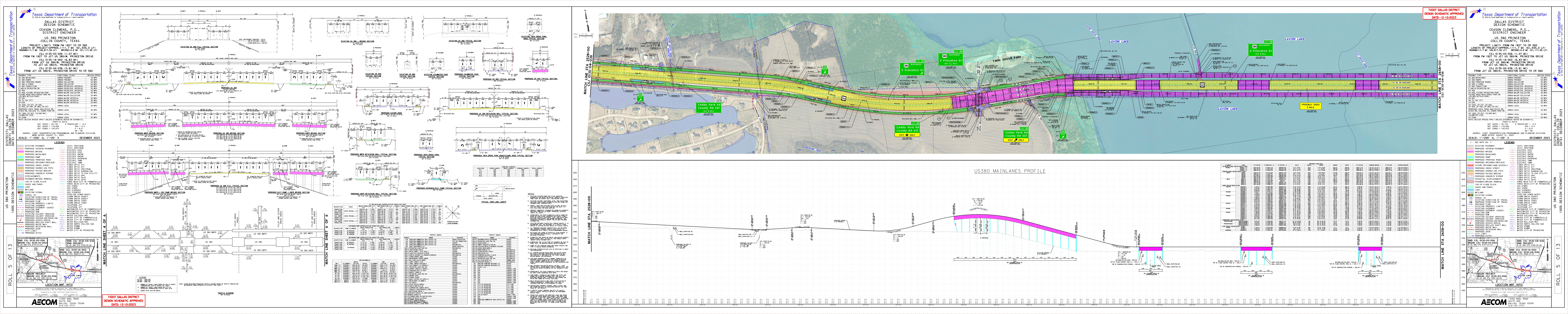
Appendix D: Schematic Layout

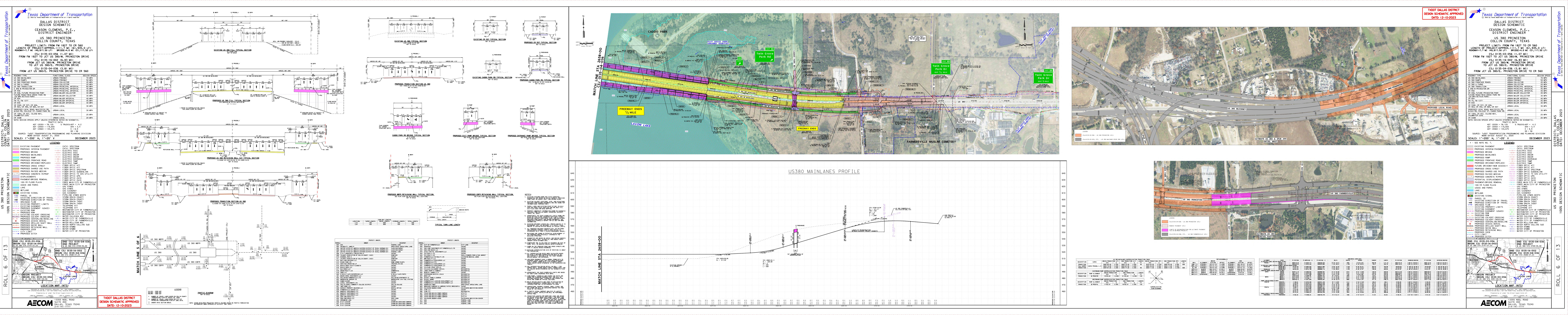


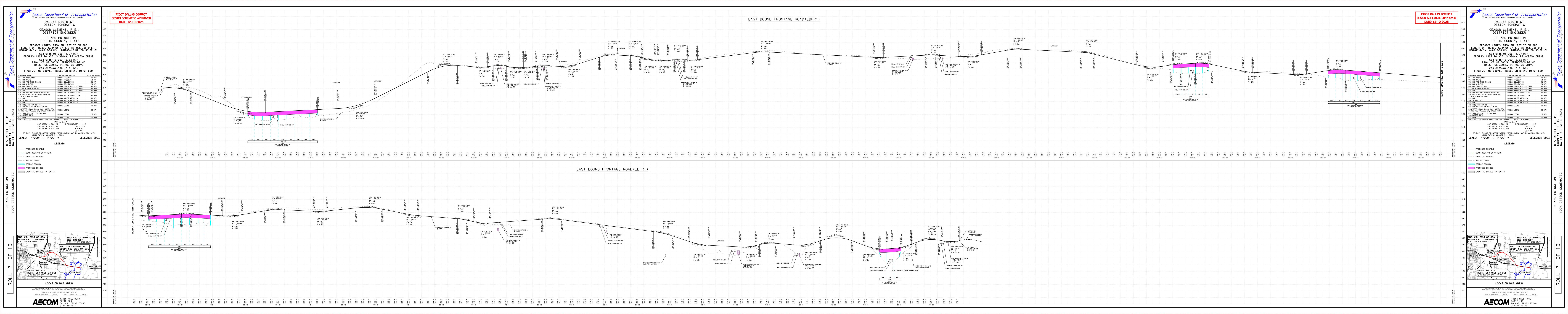


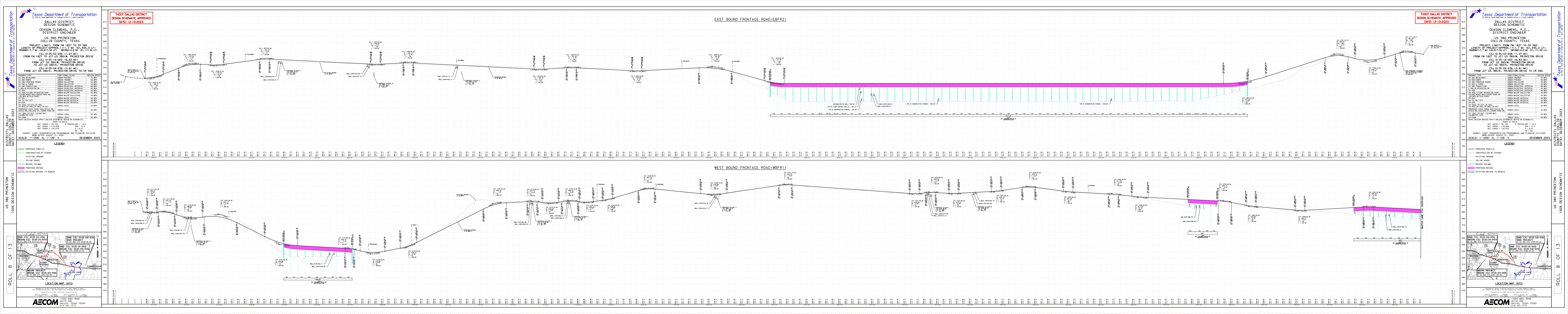


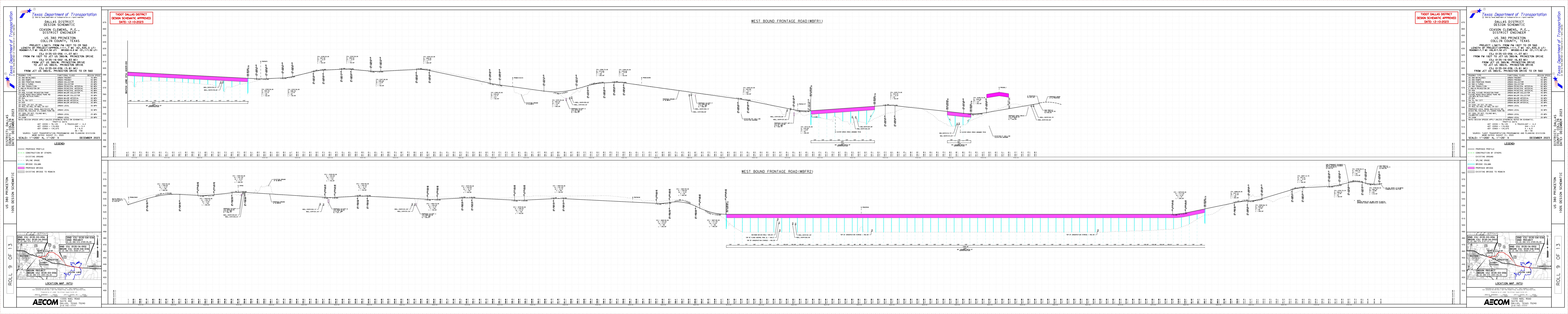


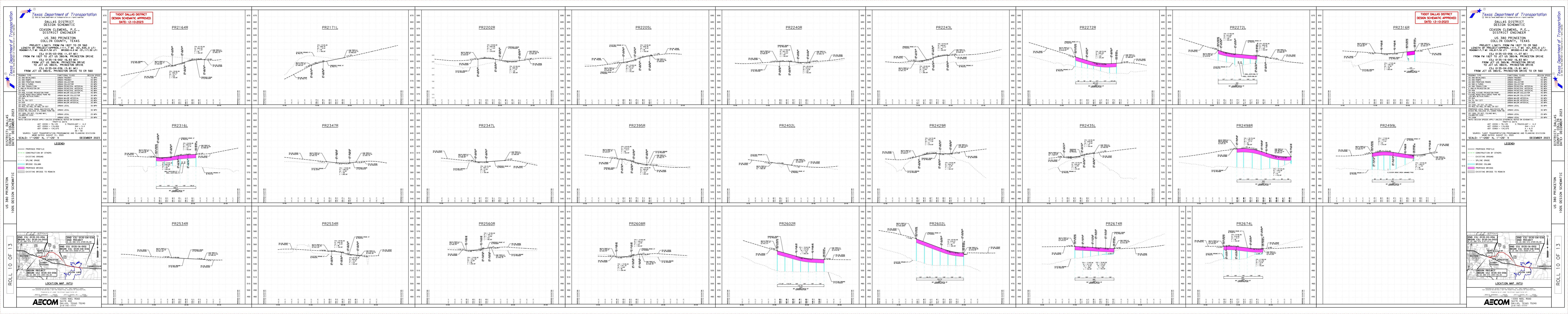


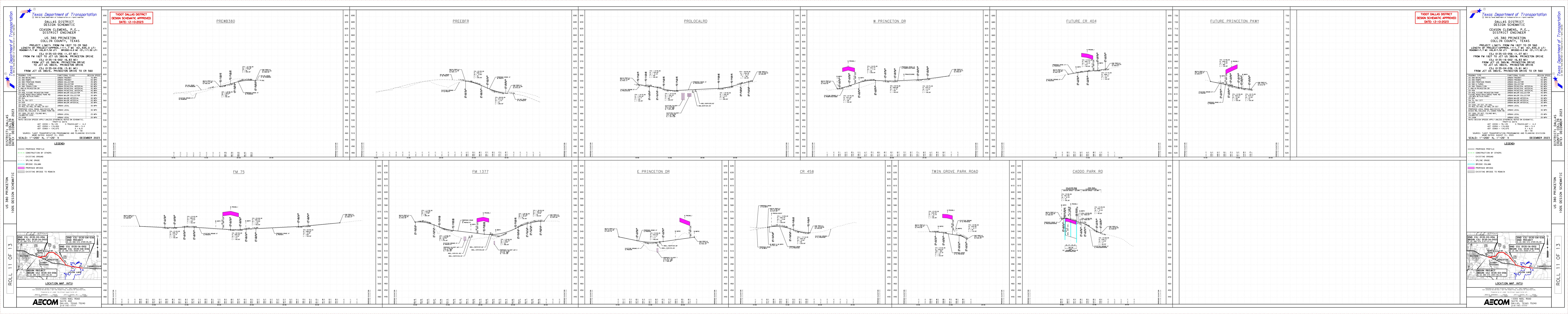


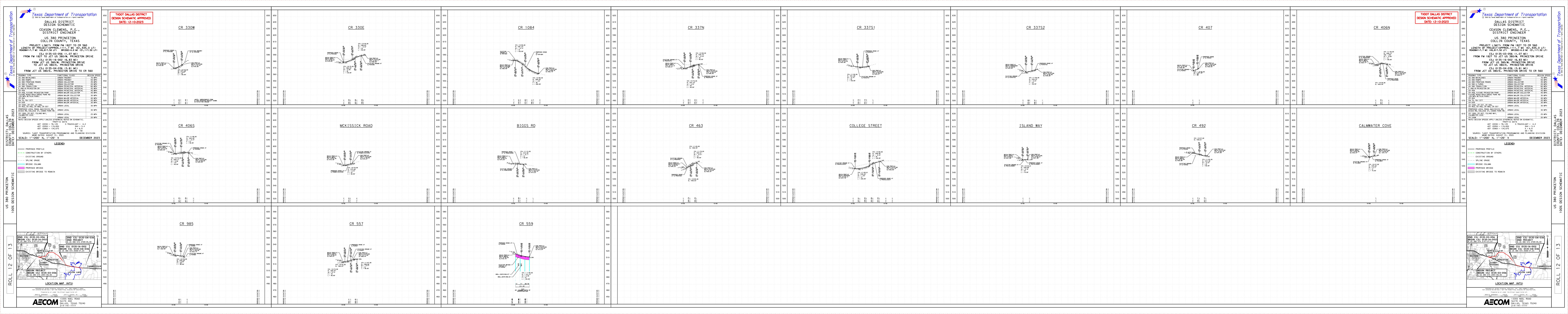


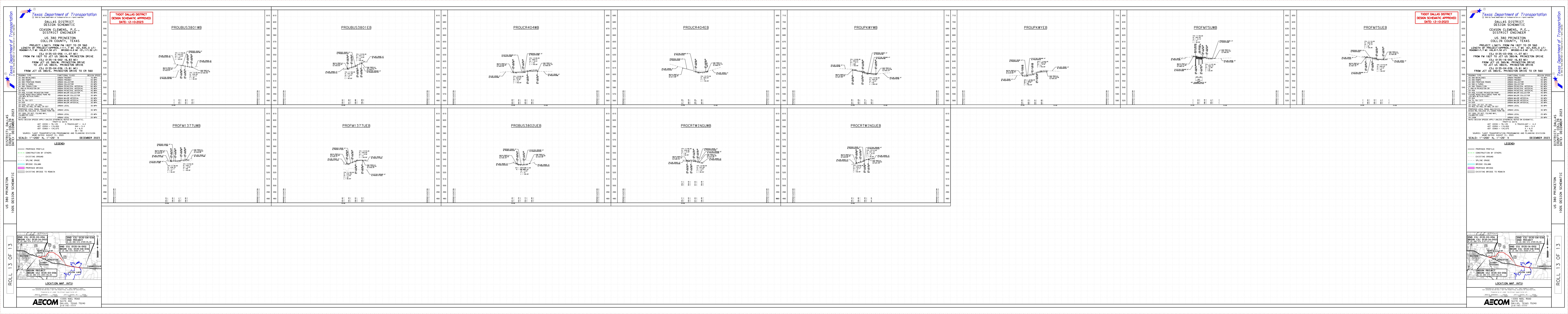




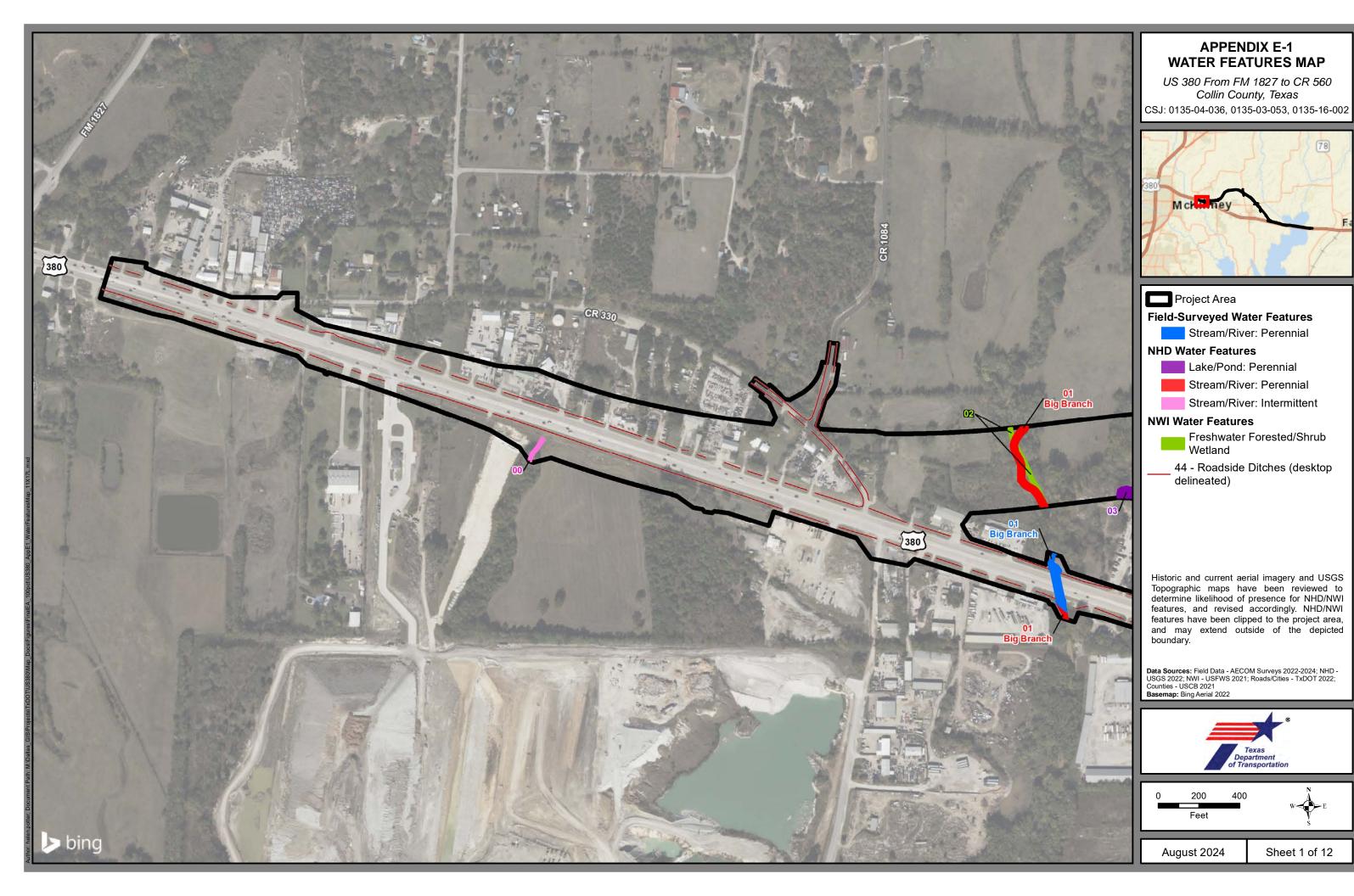


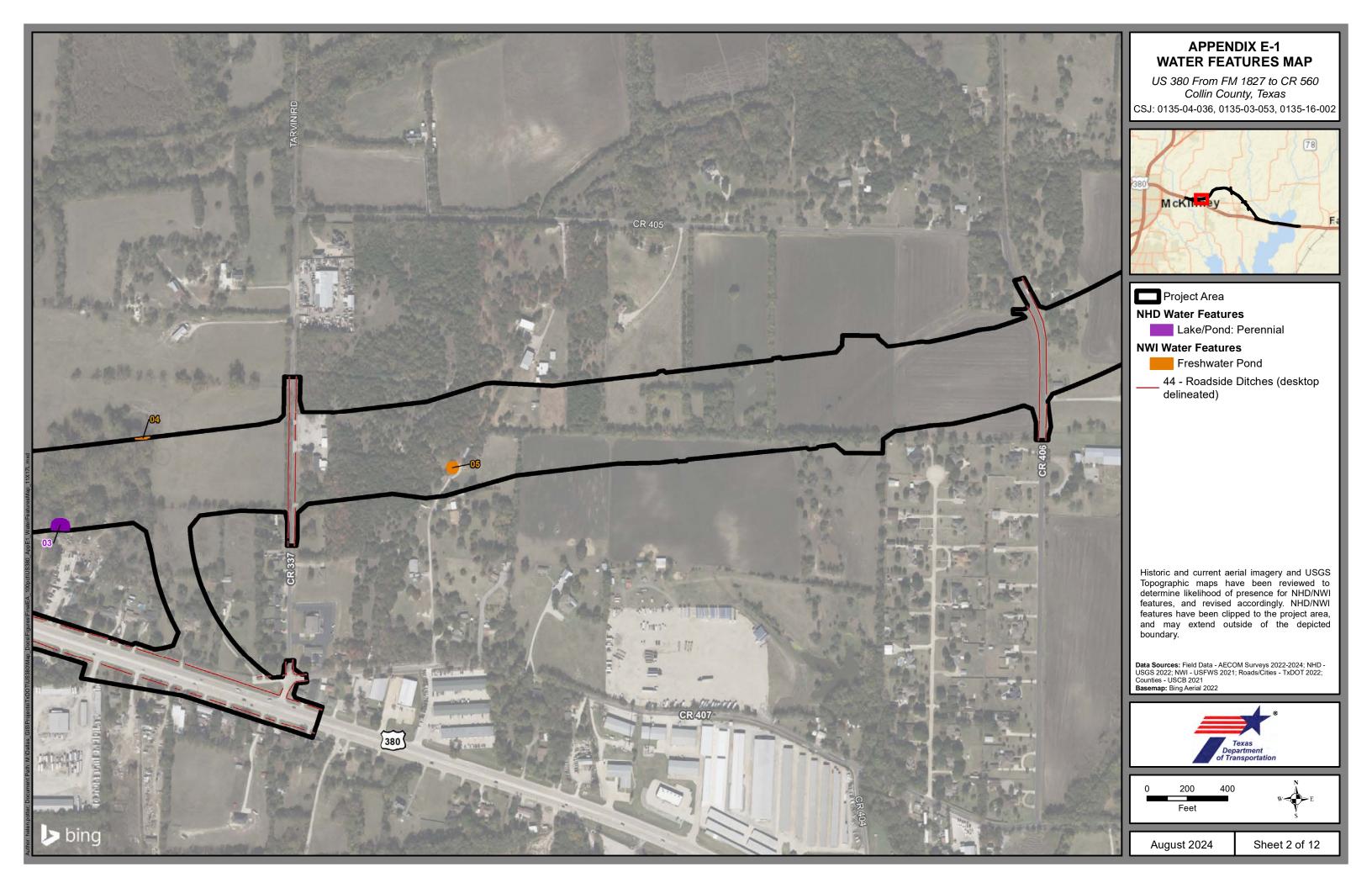




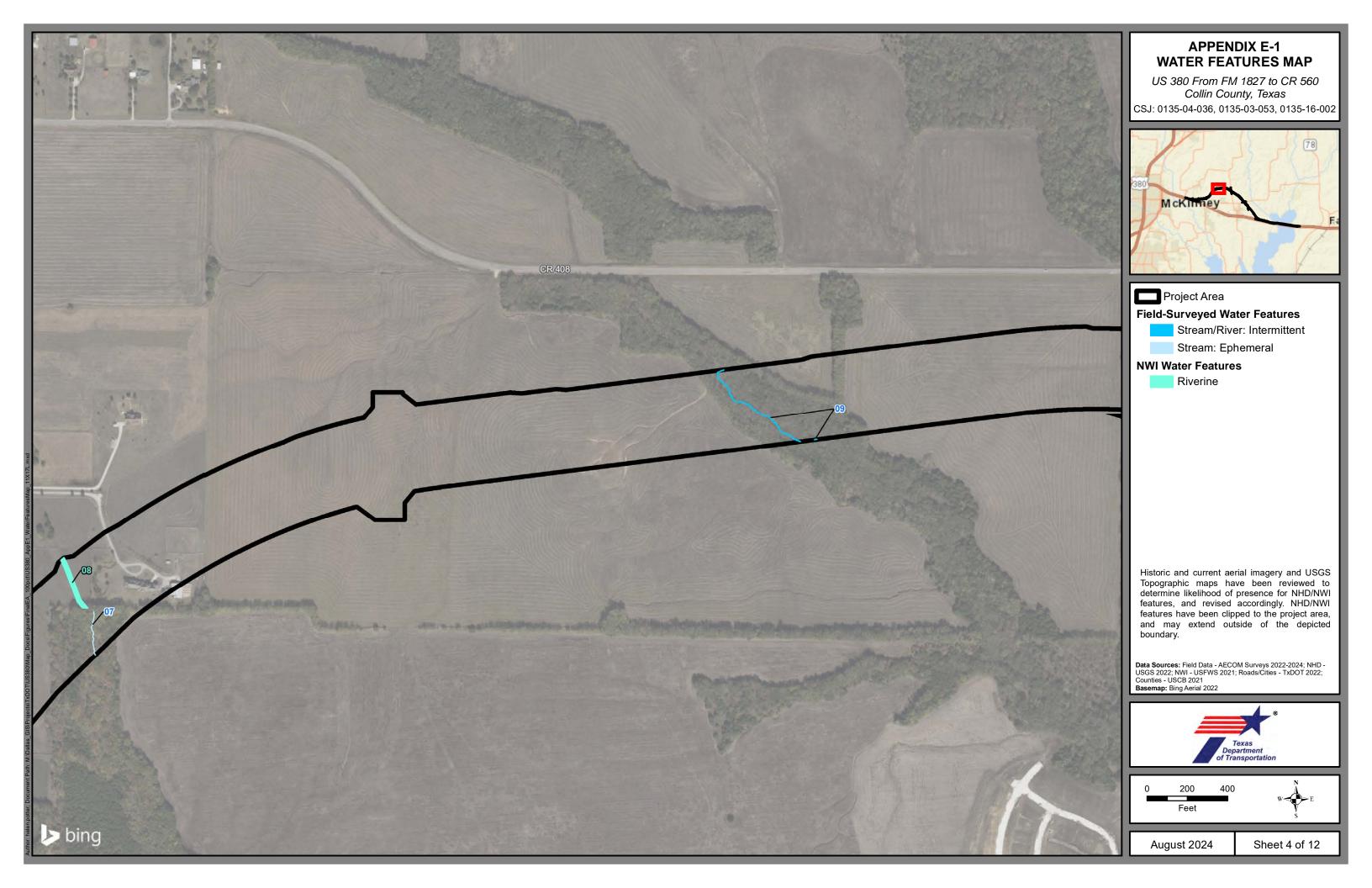


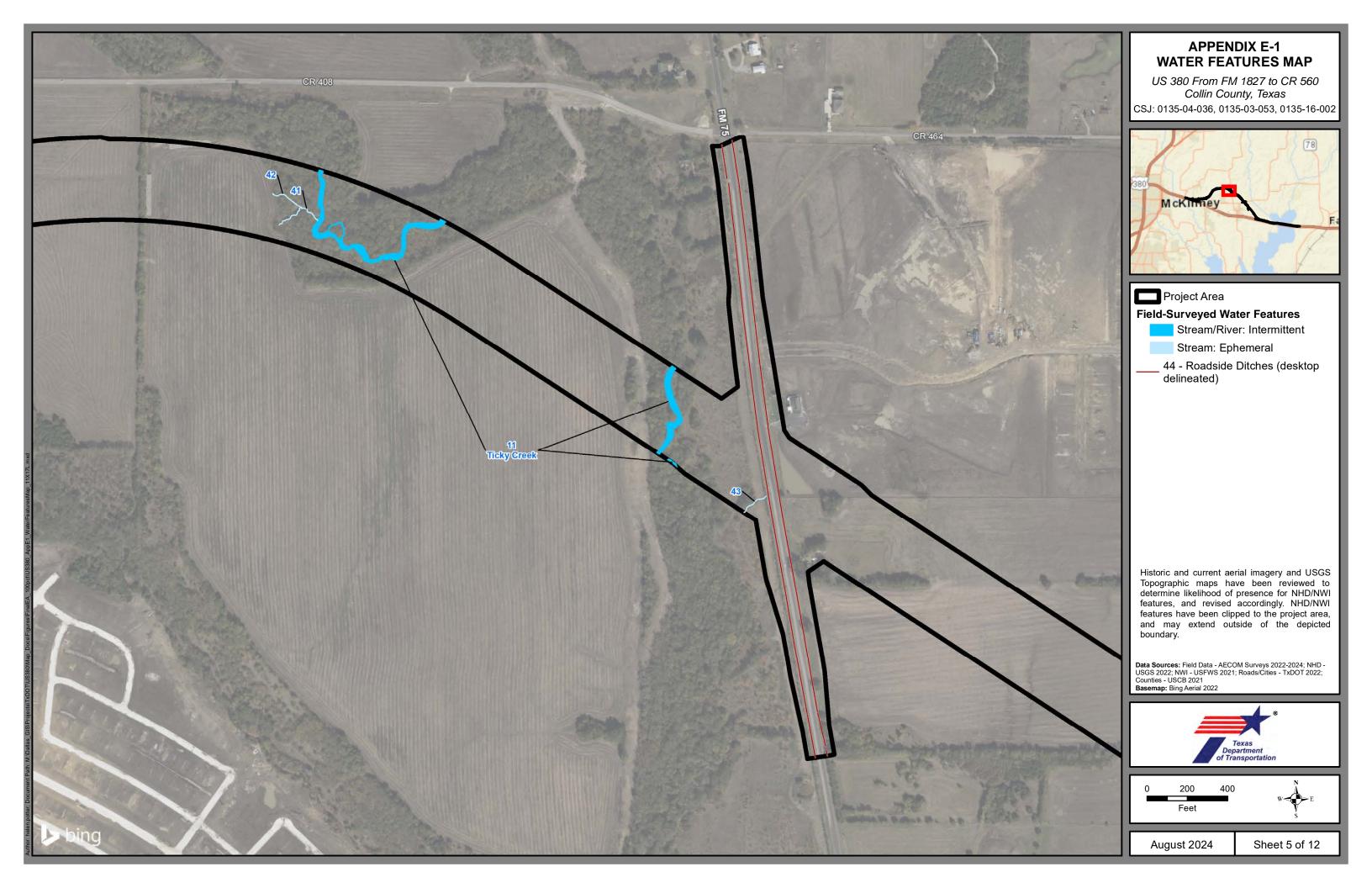
Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Appendix E-1: Water Features Map and S	Section 404-10 Impacts Table

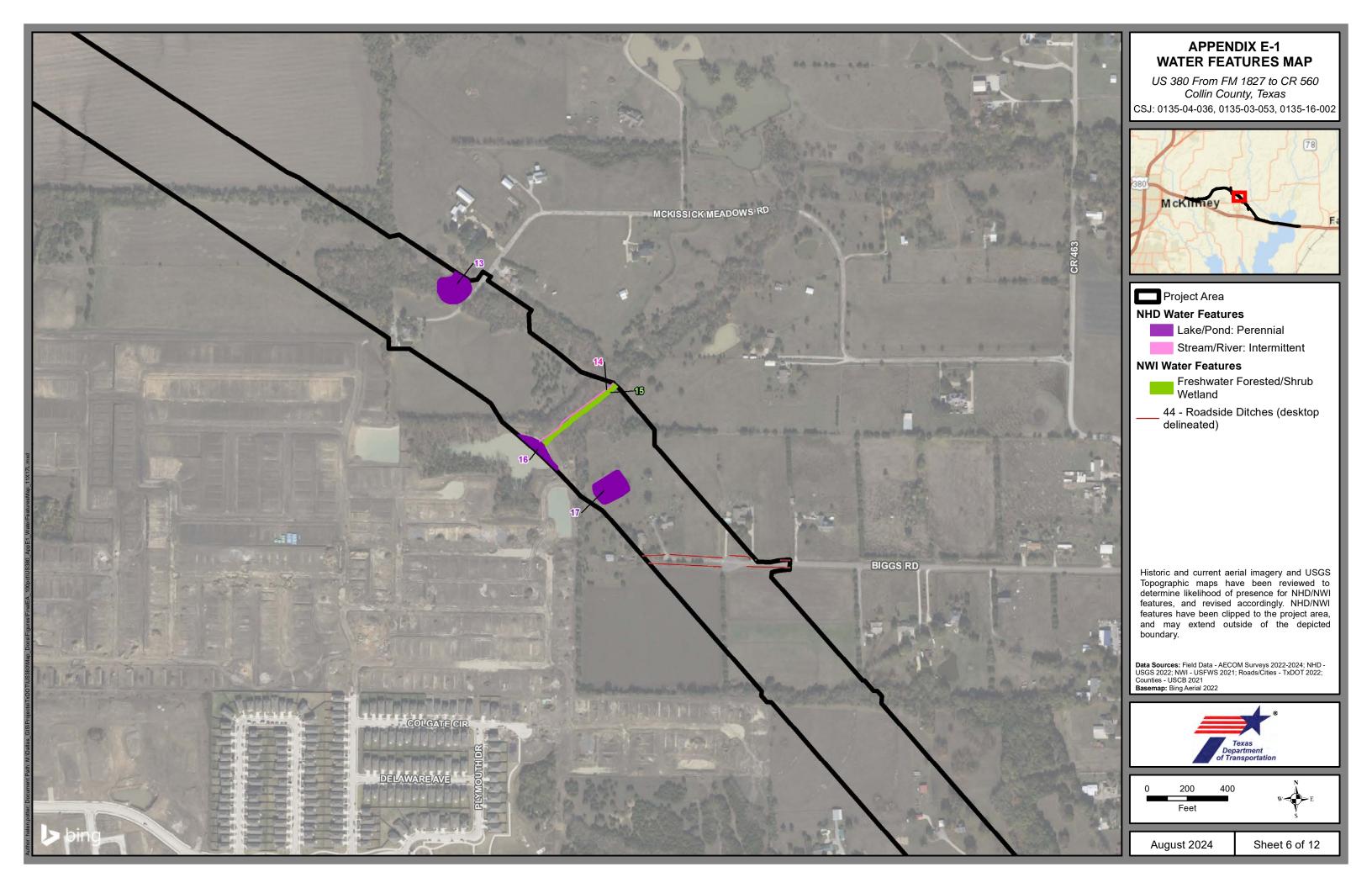


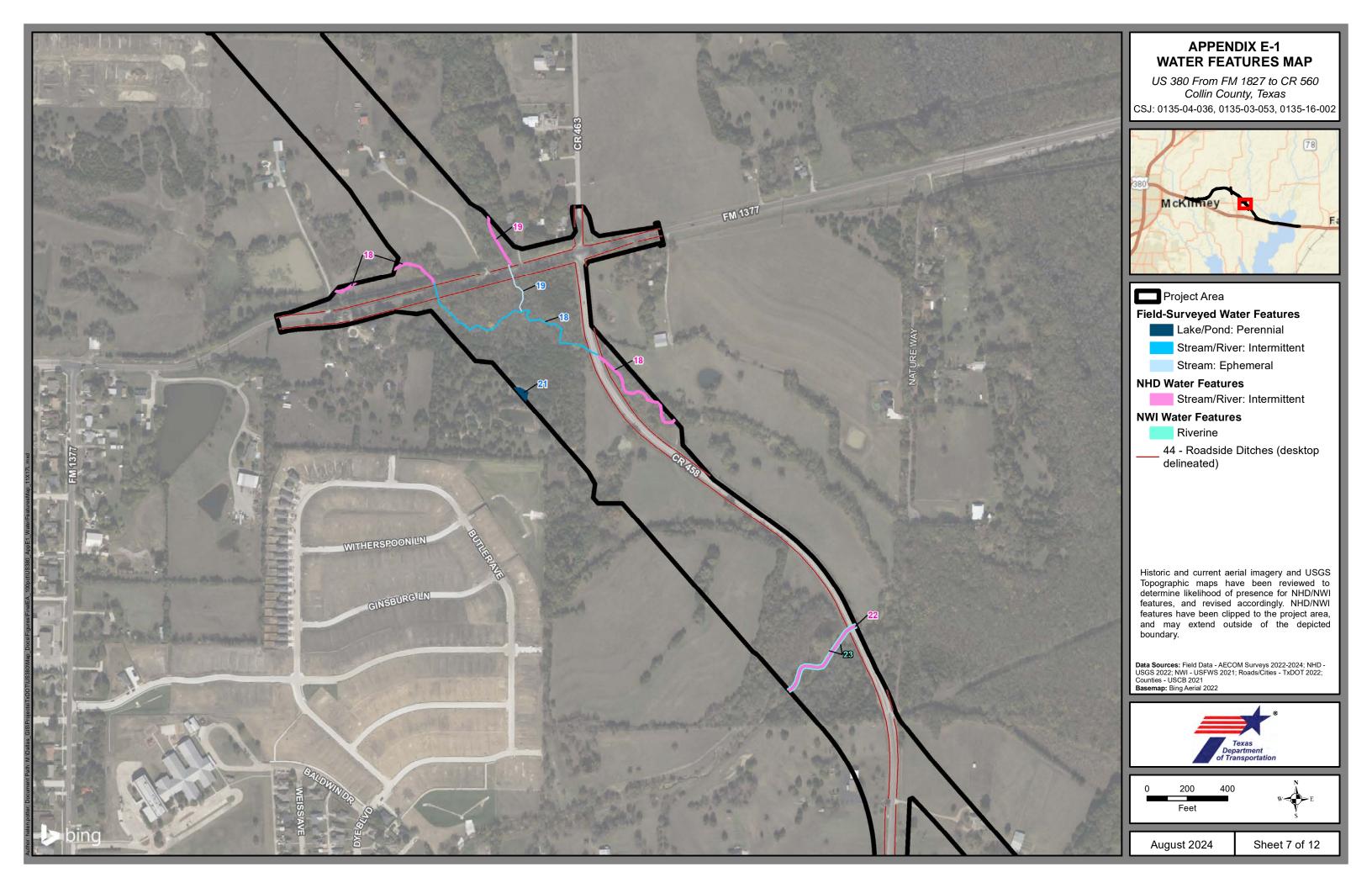










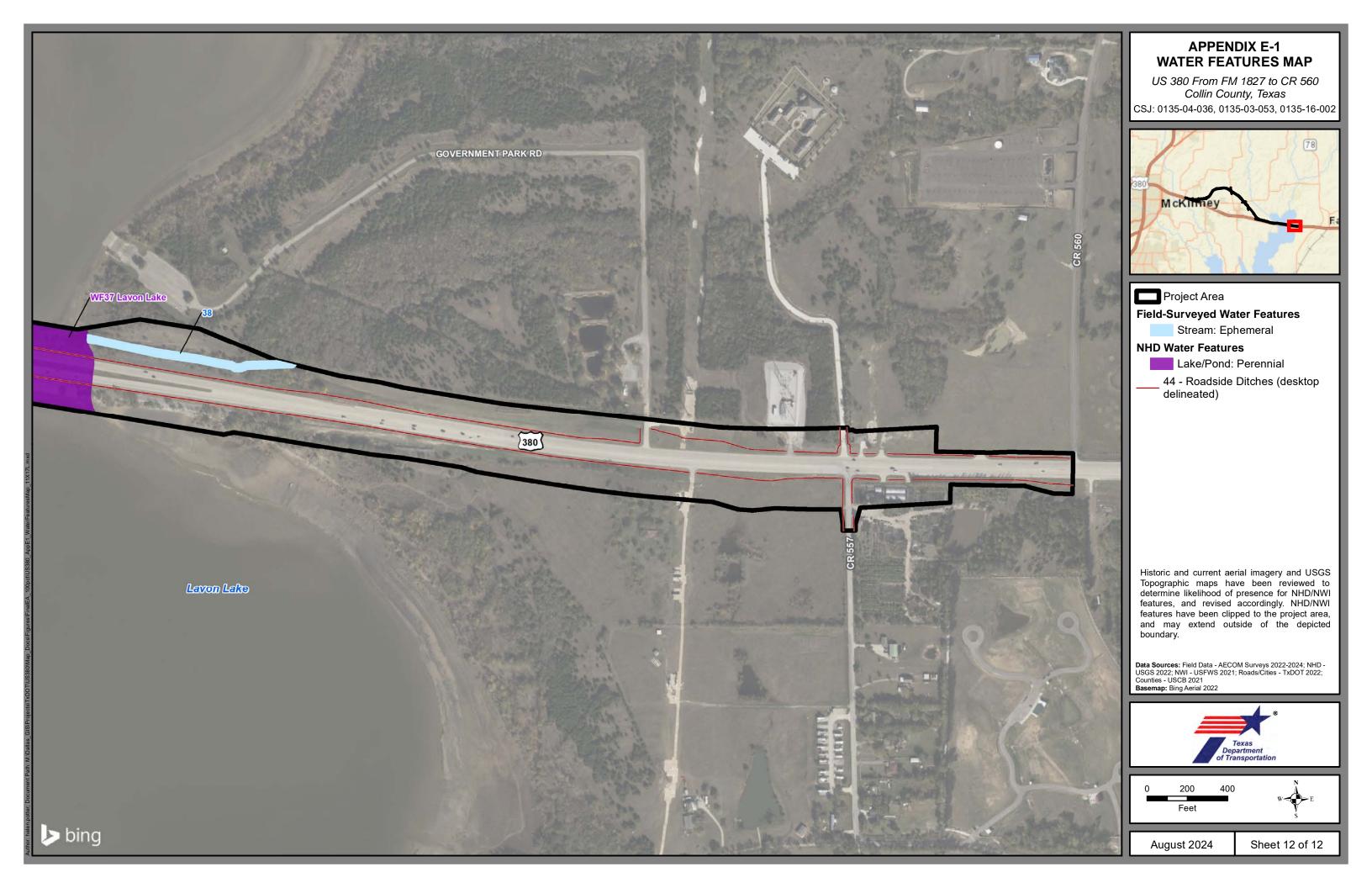












Section 404/10 Impacts Table

Version 3, July 2021

US 380 From FM 1827 to CR 560

0135-04-036, 0135-03-056, 0135-16-002

15-Aug-24

Part							1	Total Section 404 impacts for WATERBODY OR WETLAND							Total section 404 impacts for CROSSING										
Part	Waterbody or wetland characteristics					Potentially Jurisdictional?				·							Authorization								
Column	_	_	None			project area (all waterbodies	within project area (streams	(waters of the	(navigable	waterbody or wetland	stream impacts (linear	of fill material to be temporarily	waterbody or wetland impacts	stream impacts (linear	of fill material to be permanently	waterbody or wetland	stream impacts (linear	of fill material to be temporarily	waterbody or wetland impacts	stream impacts (linear	fill material to be permanently		-		_
State	number	number	Name	Туре			.,		,	impacts (acres)	feet/acres)	discharged	(acres)	feet/acres)	ŭ	impacts (acres)	feet/acres)	discharged	(acres)	feet/acres)				only)	Required?
24					96.570295 33.194208, -					,												reporting		N/A Discharge into special aquatic site	No Yes
	1B	02	Unnamed Wetland	Palustrine forested		0.11	N/A	Yes	No	0.00	N/A	0.00	0.11	N/A	0.00										
1		03	Unnamed Pond	Pond/Impoundment	96.560751	0.10	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
1		04	Unnamed Pond	Pond/Impoundment		0.01	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
1		05	Unnamed Pond	Pond/Impoundment	96.554385	0.06	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	No
Second	2	06	Unnamed Stream	Intermittent stream		0.02	130	Yes	No	N/A	0.00	0.00	N/A	105/0.02	TBD	N/A	0.00	0.00	N/A	105/0.02	TBD		14	N/A	No
1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		07	Unnamed Stream	Ephemeral stream	33.206866, -	0.05	220	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A	No
No. Control Control	3	08	Unnamed Wetland	Other wetland ^b		0.12	N/A	Yes	No	0.00	N/A	0.00	0.11	N/A	TBD	N/A	N/A	N/A	0.11	N/A	TBD	NWP - PCN	14	Discharge into special aquatic site	
Second Conference Second Second	4	09	Unnamed Stream	Intermittent stream		0.03	615	Yes	No	N/A	0.00	0.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	No
42 Urnamed Stemen	5A	11	Ticky Creek	Intermittent stream		0.87	1,943	Yes	No	N/A	0.00	0.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	No
Comment of the Comm		41	Unnamed Stream	Ephemeral stream	33.209582,	<0.01	278	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
43 Unsamed Stream Cahemeral stream 33,005,407, 20,007,407, 20,007,407, 20,007,407, 20,007,407, 20,007,407, 20,007,407, 20,007,407,407,407, 20,007,407,407,407,407,407,407,407,407,40		42	Unnamed Stream	Ephemeral stream		<0.01	179	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
Second		43	Unnamed Stream	Ephemeral stream	33.205547,	<0.01	147	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
Second Column		13	Unnamed Pond	Pond/Impoundment	96.497012	0.45	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
Second S	6A	14	Unnamed Stream	Intermittent stream		0.02	465	Yes	No	N/A	0.00	0.00	N/A	441/0.02	TBD	0.00	0.00	0.00	0.38	441/0.02	TBD	NWP - PCN	14	Multiple	Yes
Second Fine Information of Principal Control Second Seco	6B	15	Unnamed Wetland	Palustrine forested	96.495058	0.21	N/A	Yes	No	0.00	N/A	0.00	0.21	N/A	TBD									<u> </u>	
1	6C	16	Unnamed Pond	Pond/Impoundment	96.495625	0.17	N/A	Yes	No	0.00	N/A	0.00	0.17	N/A	TBD									<u> </u>	
The contract of the contract		17	Unnamed Pond	Pond/Impoundment	96.494489	0.45	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
1					96.488168				No							0.00	47/<0.01	TBD	0.00	1,201/0.14	TBD	NWP - PCN	N/A	N/A	Yes
8A 22 Unnamed Stream Intermittent stream 33.18578. 0.12 505 Yes No N/A 57/0.01 TBD N/A 0.00 0.00 0.01 57/0.01 TBD 0.00 0.00 0.00 0.00 0.00 NWP-Non-reporting 14 N/A	7B				96.487277											0.00	N/4	0.00	0.00	N/A	0.00	NI/A	N1/A	N/A	No
88 23 Unamed Wetland Other wetland b 33.187233, - 96.481765	8A				33.186723, -						<u> </u>									-		NWP - Non-		N/A N/A	No No
1	8B				33.186723, -												.,					reporting		,	
25		24	Unnamed Pond	Pond/Impoundment	33.182988, -	0.28	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
27 Unnamed Pond Pond/Impoundment 96.478202 0.08 N/A No No N/A N/A		25	Unnamed Stream	Ephemeral stream		0.03	251	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
9 30 Unnamed Stream Intermittent stream 96.473833 U.03 434 NO NO N/A		27	Unnamed Pond	Pond/Impoundment	96.478202	0.08	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A										1
9 30 Unnamed Stream Intermittent stream 96.473477 0.04 630 Yes No N/A 0.00 0.00 N/A 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.		29	Unnamed Stream	Ephemeral stream	96.473833	0.03	434	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
	9	30	Unnamed Stream	Intermittent stream	96.473477	0.04	630	Yes	No	N/A	0.00	0.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	No
	10	32	Unnamed Stream	Intermittent stream		0.04	403	Yes	No	N/A	0.00	0.00	N/A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	No

Section 404/10 Impacts Table

Version 3, July 2021

US 380 From FM 1827 to CR 560

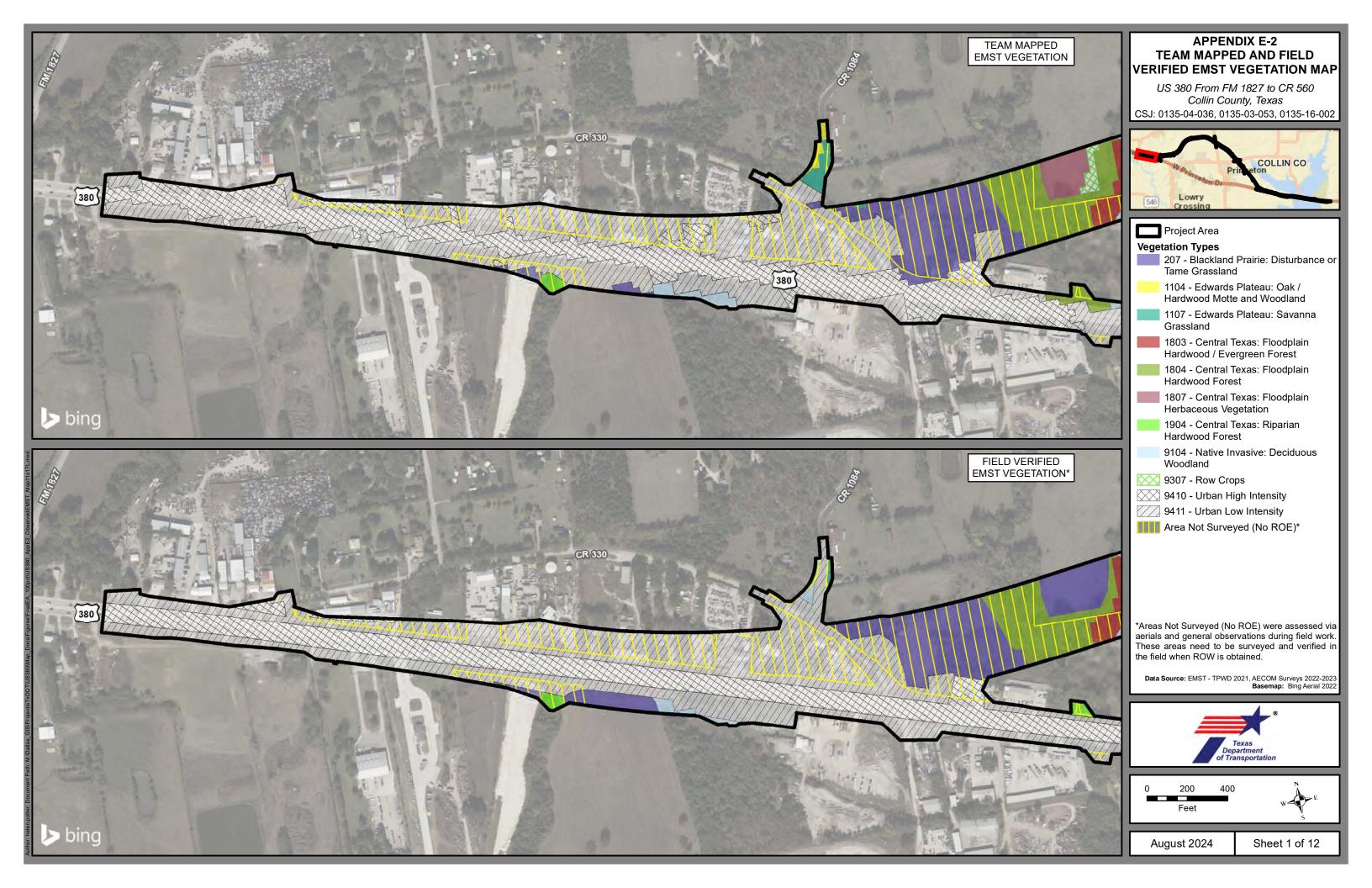
0135-04-036, 0135-03-056, 0135-16-002

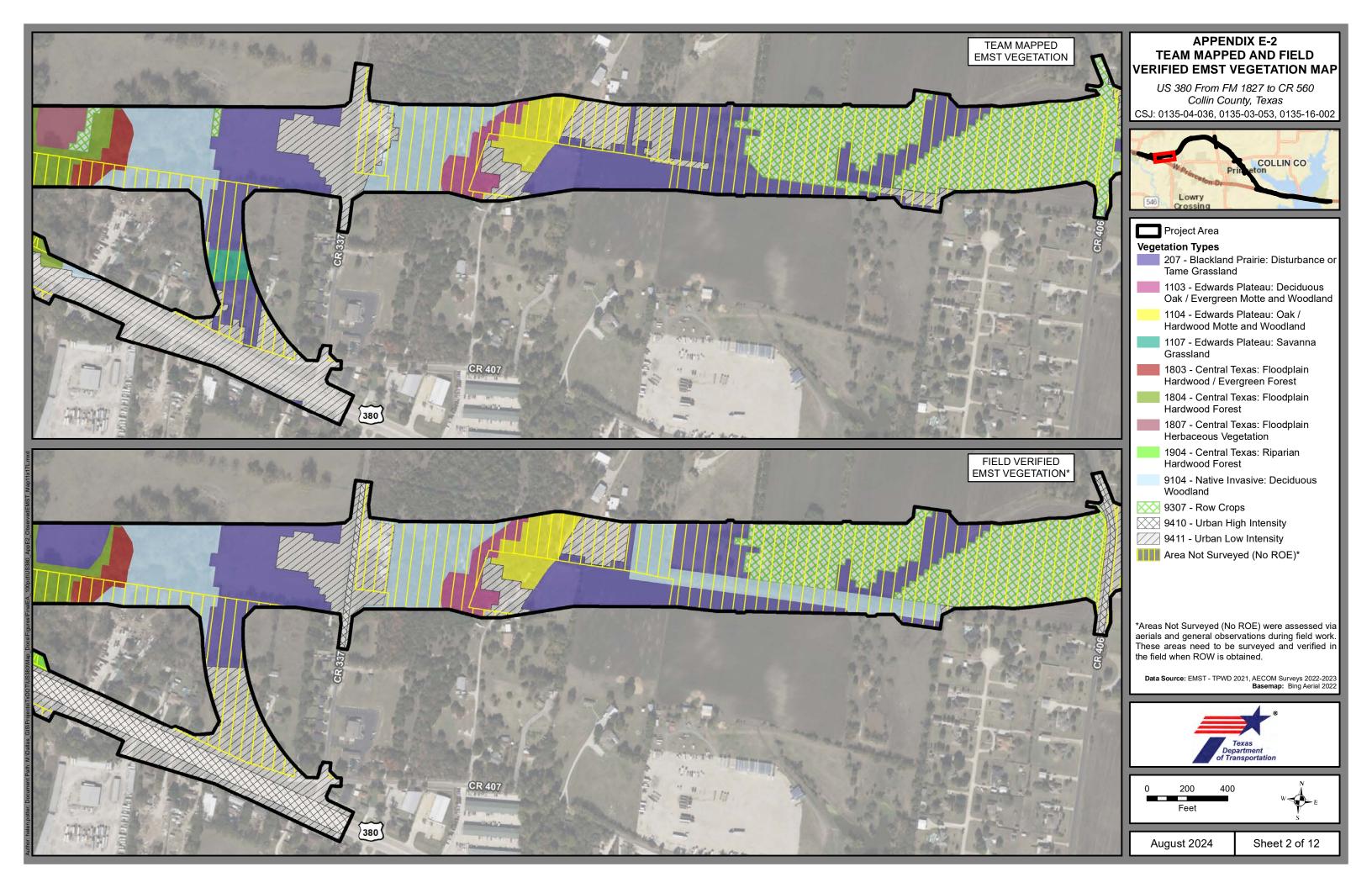
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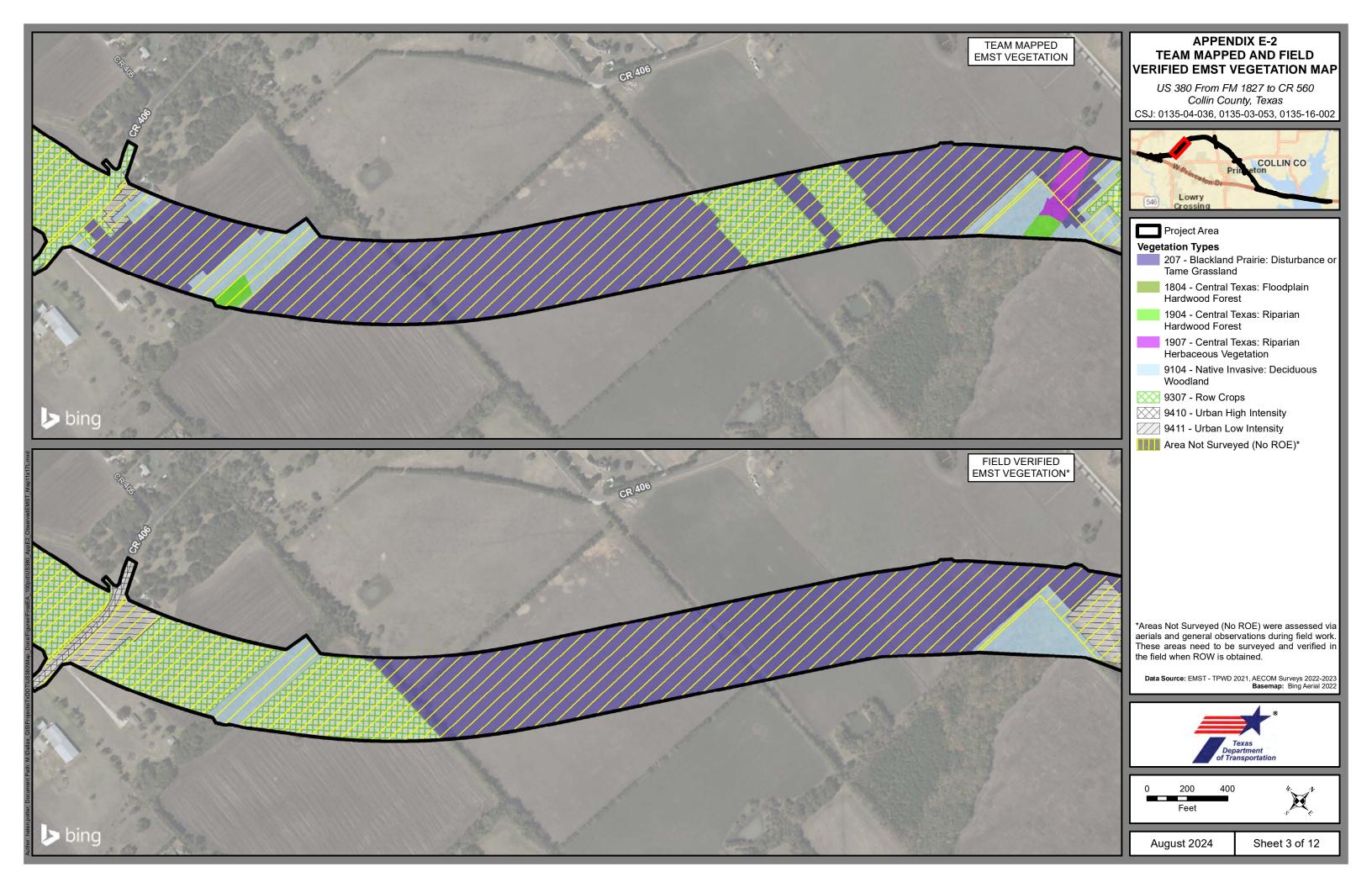
Waterbody or wetland characteristics						Potentially Jurisdiction		tight Jurisdictional Total Section 404 impacts for WATERBODY OR WETLAND						Total section 404 impacts for CROSSING						Authorization				
	Transfer of the state of the st						Potentially Jurisdictional?			Temporary Permanent				Temporary			Permanent			Authorization				
Crossing number	Waterbody or wetland number ^a	Name	Type	Latitude, Longitude	Acres within project area (all waterbodies and wetlands)	Linear feet/acres within project area (streams only)	Section 404 (waters of the U.S.)	(navigable	Temporary waterbody or wetland impacts (acres)	Temporary stream impacts (linear feet/acres)	Cubic yards (CY) of fill material to be temporarily discharged	Permanent waterbody or wetland impacts (acres)	stream	be permanently	Temporary waterbody or wetland impacts (acres)	Temporary stream impacts (linear feet/acres)	Cubic yards (CY) of fill material to be temporarily discharged	Permanent waterbody or wetland impacts (acres)	Permanent stream impacts (linear feet/acres)	Cubic yards (CY) of fill material to be permanently discharged	Authorization Type	Number (NWP		Mitigatio Required
number	number	Name	туре	33.171818, -	and wettands)	Only)	0.3.)	waters)	impacts (acres)	reet/acres)	discharged	(acres)	reet/acres)	discharged	impacts (acres)	reet/acres)	discharged	(acres)	reet/acres)	discharged	Authorization Type	and KGP only)	only)	Required:
	39	Unnamed Stream	Ephemeral stream	96.469431	0.08	420	No	No	N/A	N/A	N/A	N/A	N/A	N/A										
	40	Unnamed Stream	Ephemeral stream	33.171445, - 96.469214	0.01	142	No	No	N/A	N/A	N/A	N/A	N/A	N/A										
11	34	Unnamed Stream	Intermittent stream	33.170144, - 96.468886	0.16	1,216	Yes	No	N/A	265/0.05	0.00	N/A	251/0.05	TBD	N/A	265/0.05	0.00	N/A	251/0.05	TBD	NWP - PCN	14	Multiple	Yes
12	36	Unnamed Stream	Intermittent stream	33.167326, - 96.457958	0.08	327	Yes	No	N/A	20/0.01	TBD	N/A	253/0.06	TBD	N/A	20/0.01	TBD	N/A	253/0.06	TBD	NWP - Non- reporting	14	N/A	No
13	37	Lavon Lake	Open water	33.162302, - 96.428334	50.21	N/A	Yes	No	50.14	N/A	0.00	0.07	N/A	TBD	50.14	N/A	TBD	0.07	N/A	TBD	NWP - PCN	14	Other	No
14	38	Unnamed Stream	Ephemeral stream	33.160617, - 96.41736	0.94	1,082	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
	44	Roadside Ditches	Drainage ditch			67,724	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No

"Other Wetland" indicates Riverine Wetland

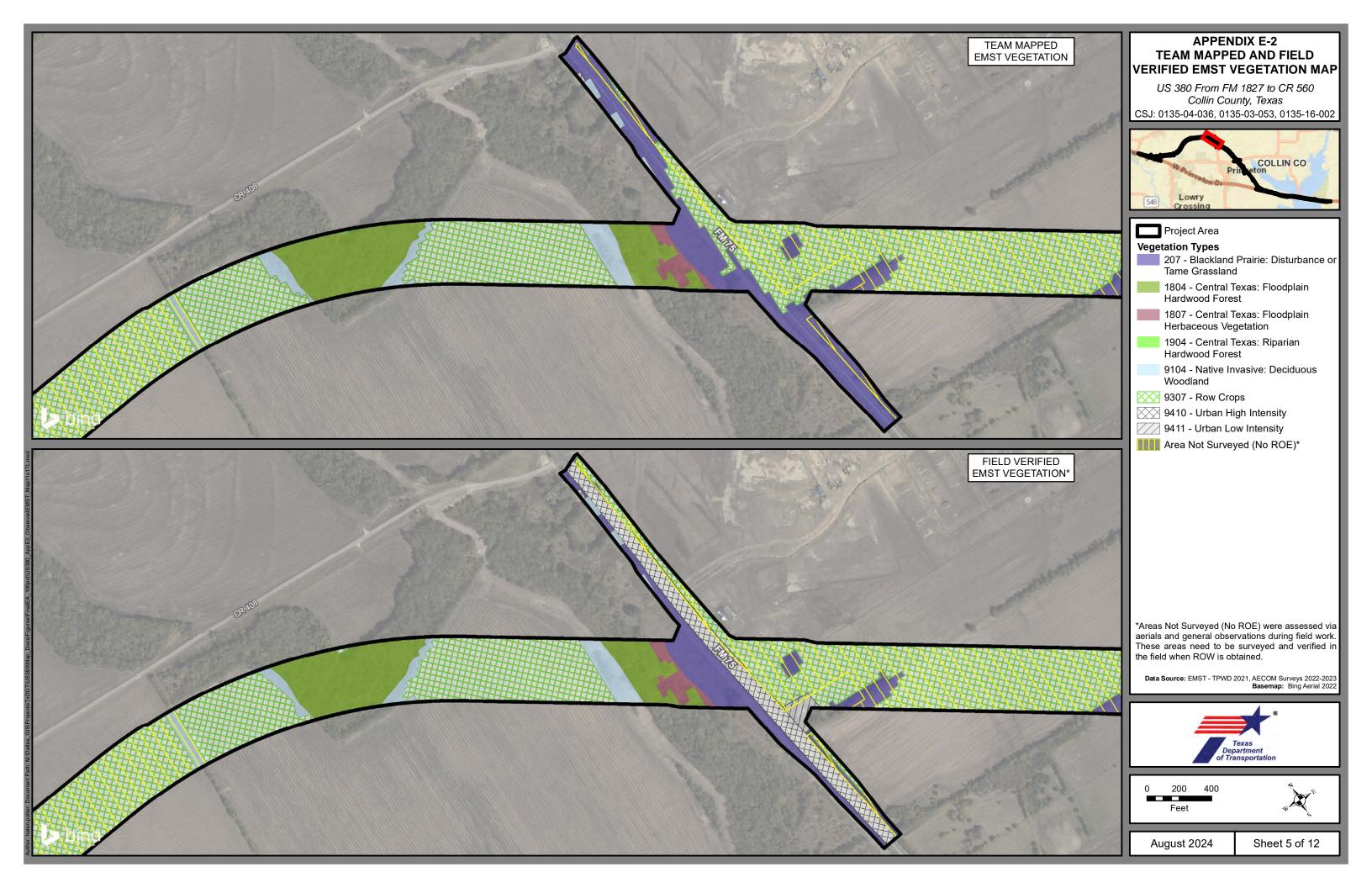
Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Appendix E-2: TEAM Mapped and Field \	Verified FMST Vegetation Man
Appendix 2 20 12/111 mapped and 1 load	eimen ziner regetation map

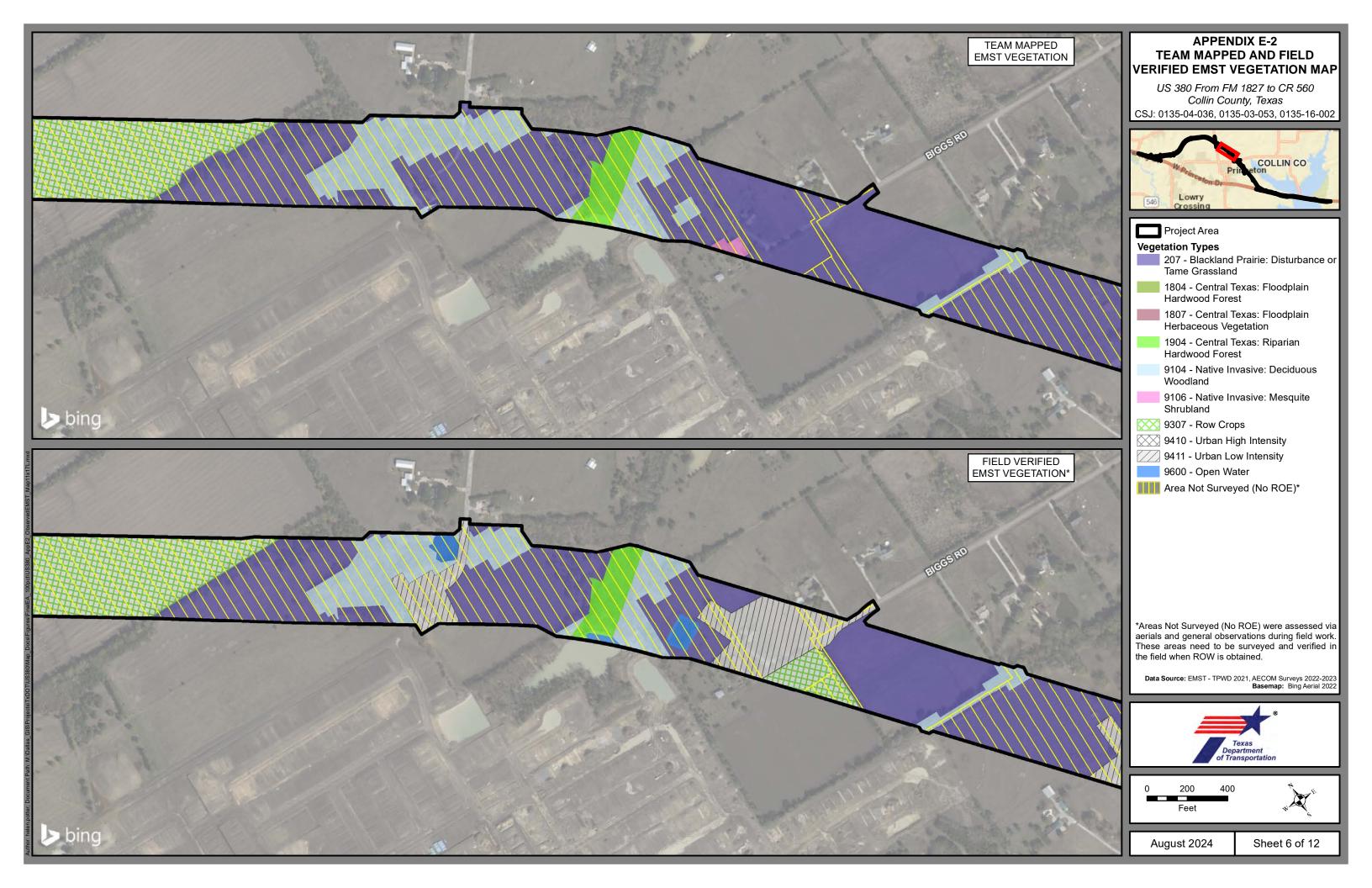


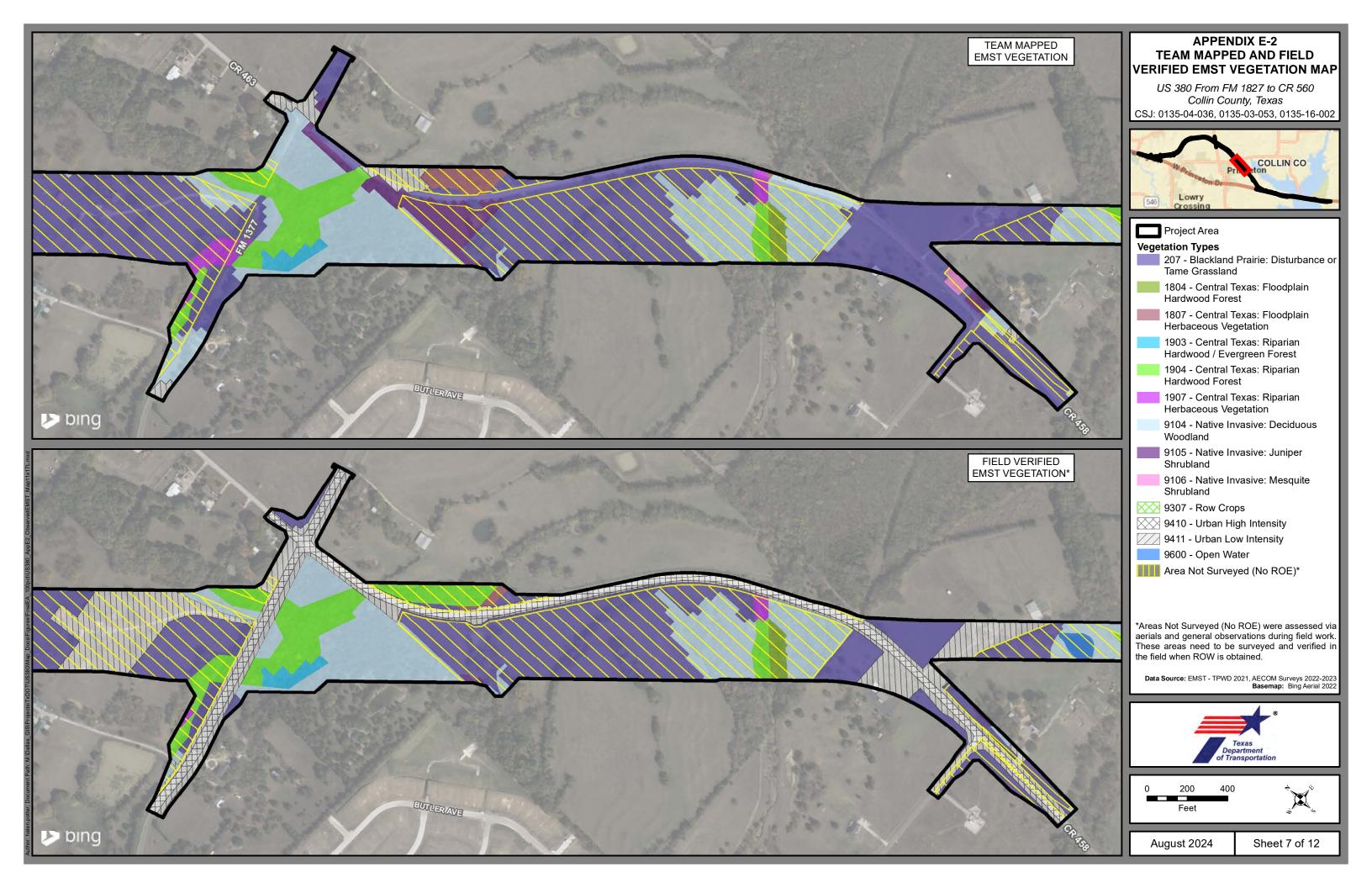




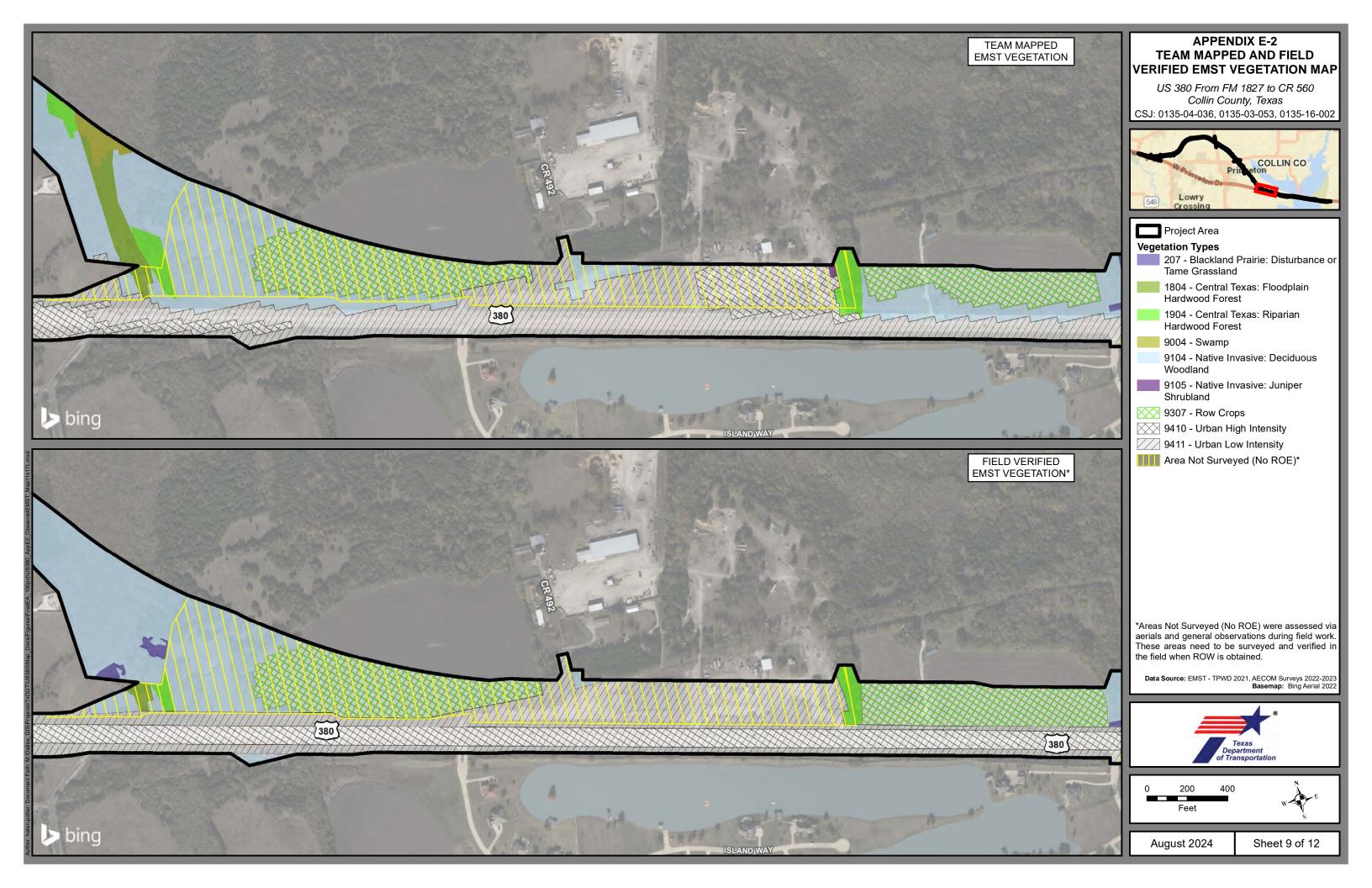


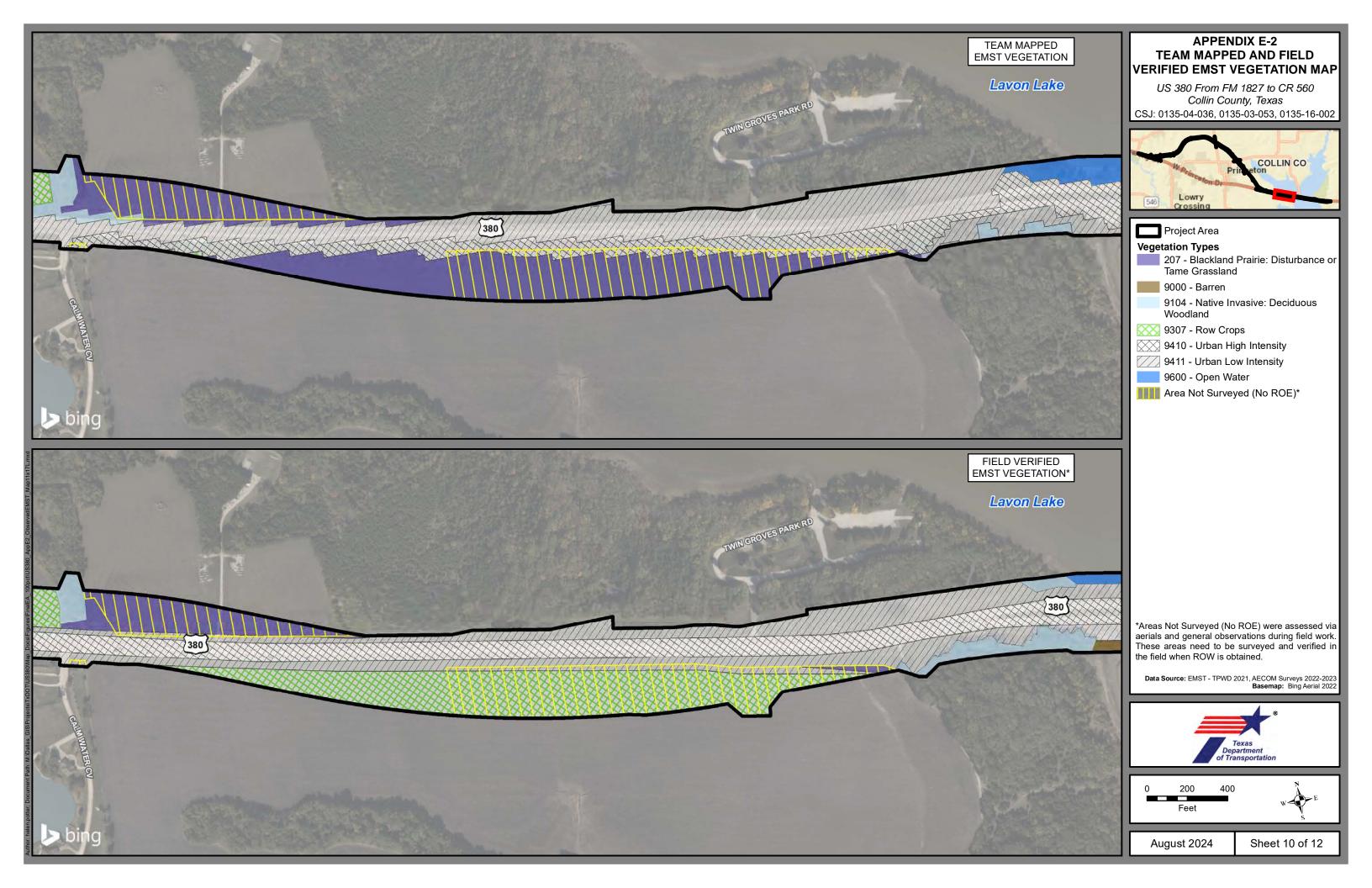


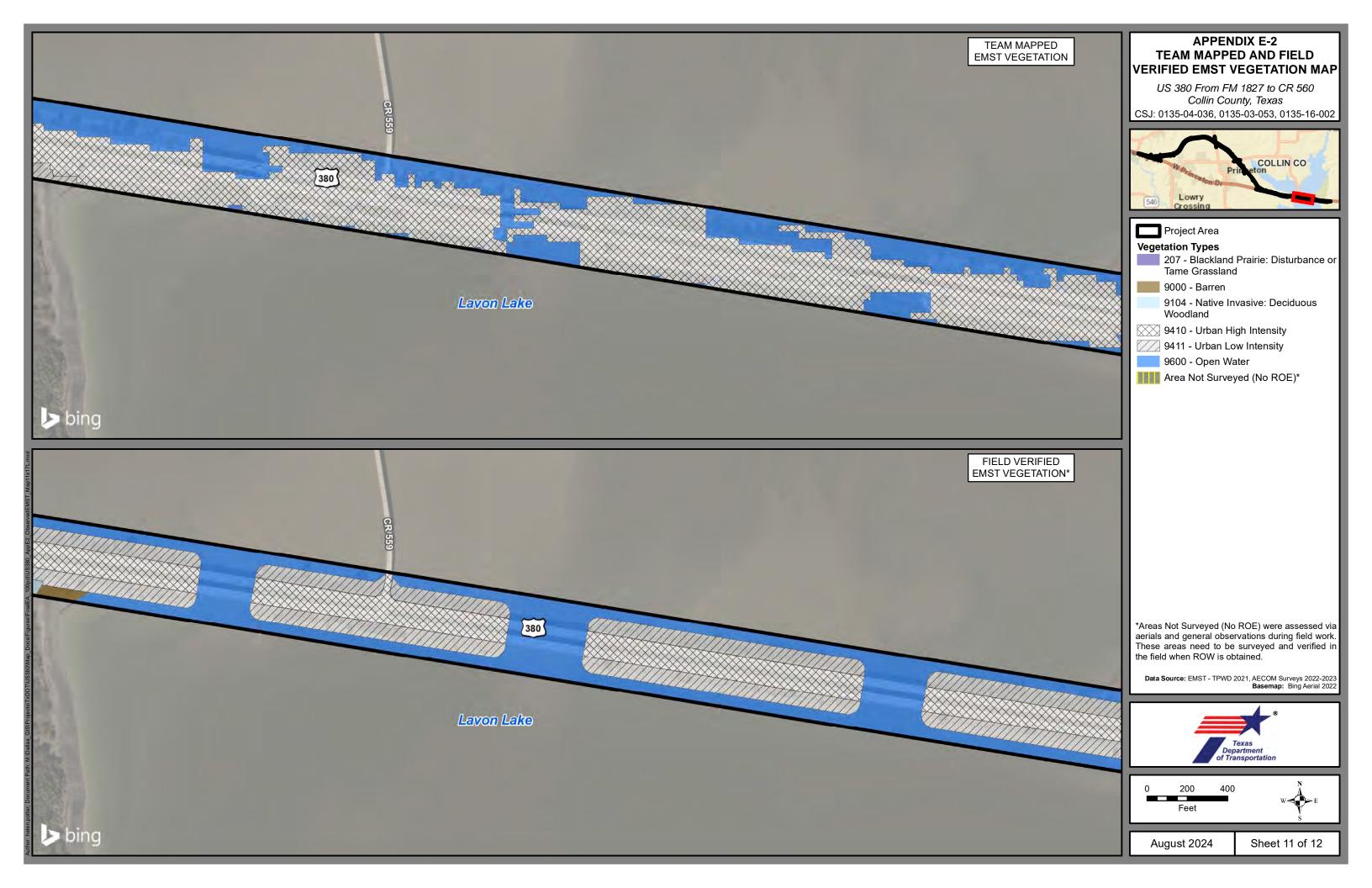


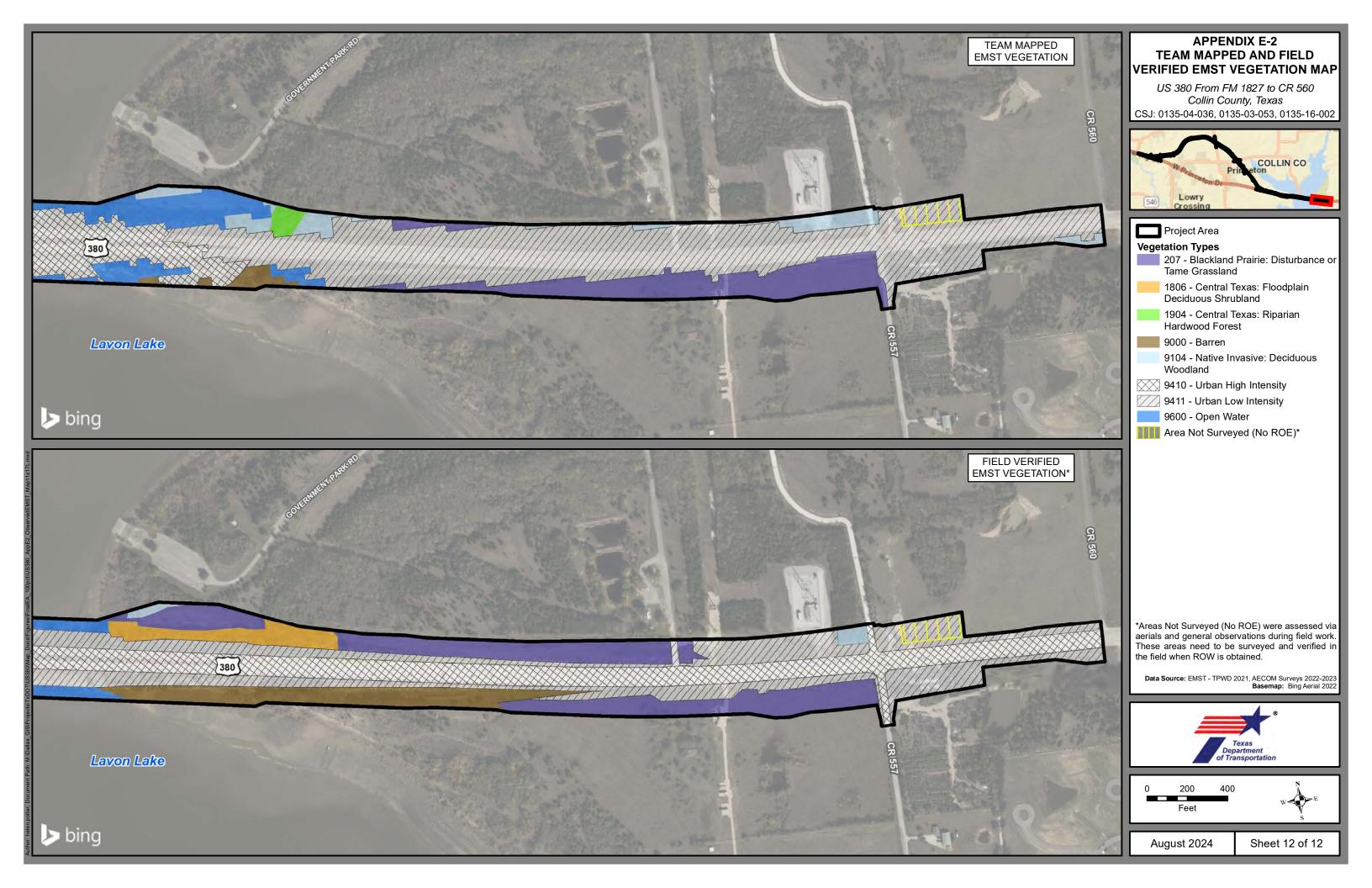




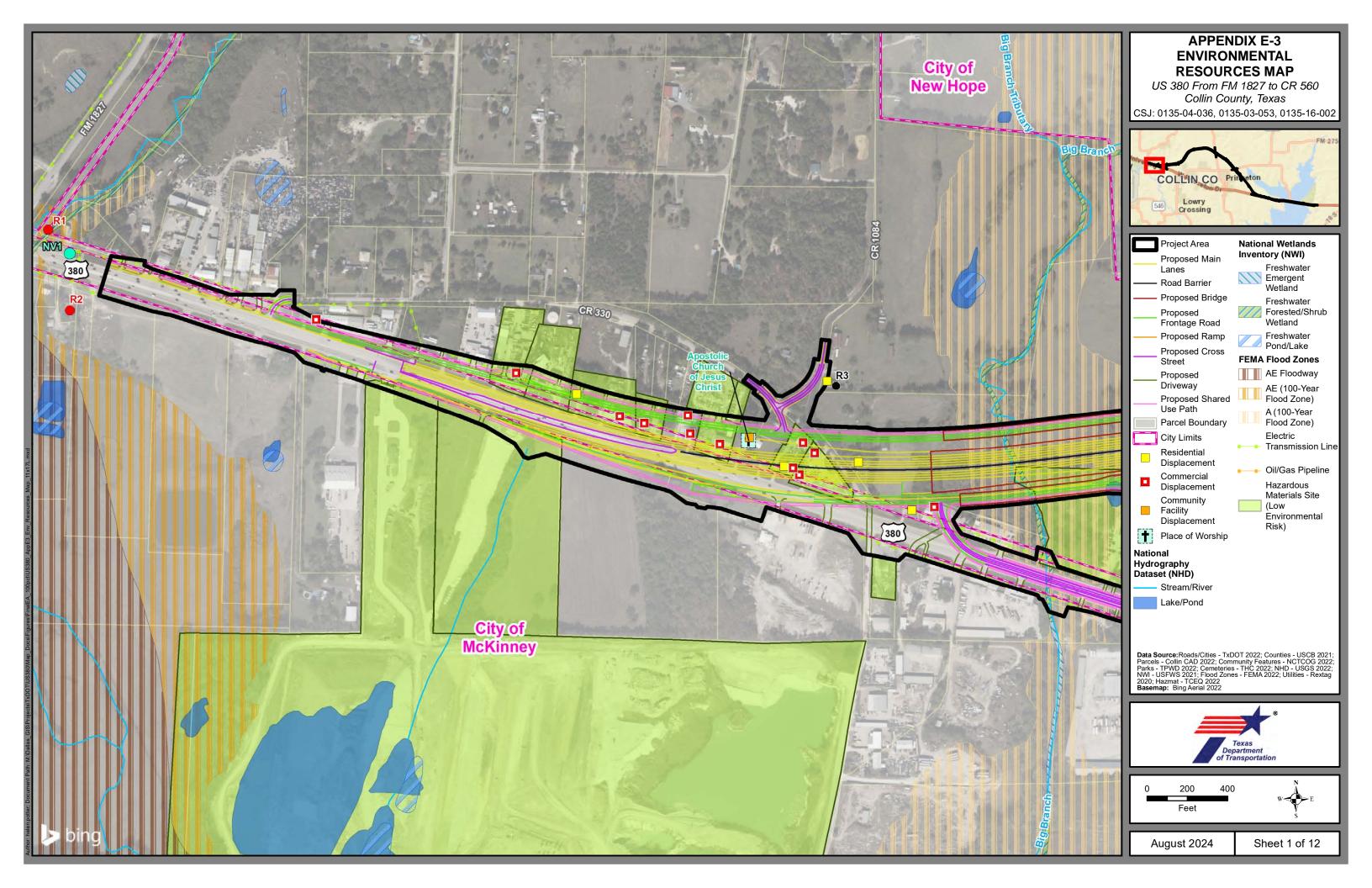


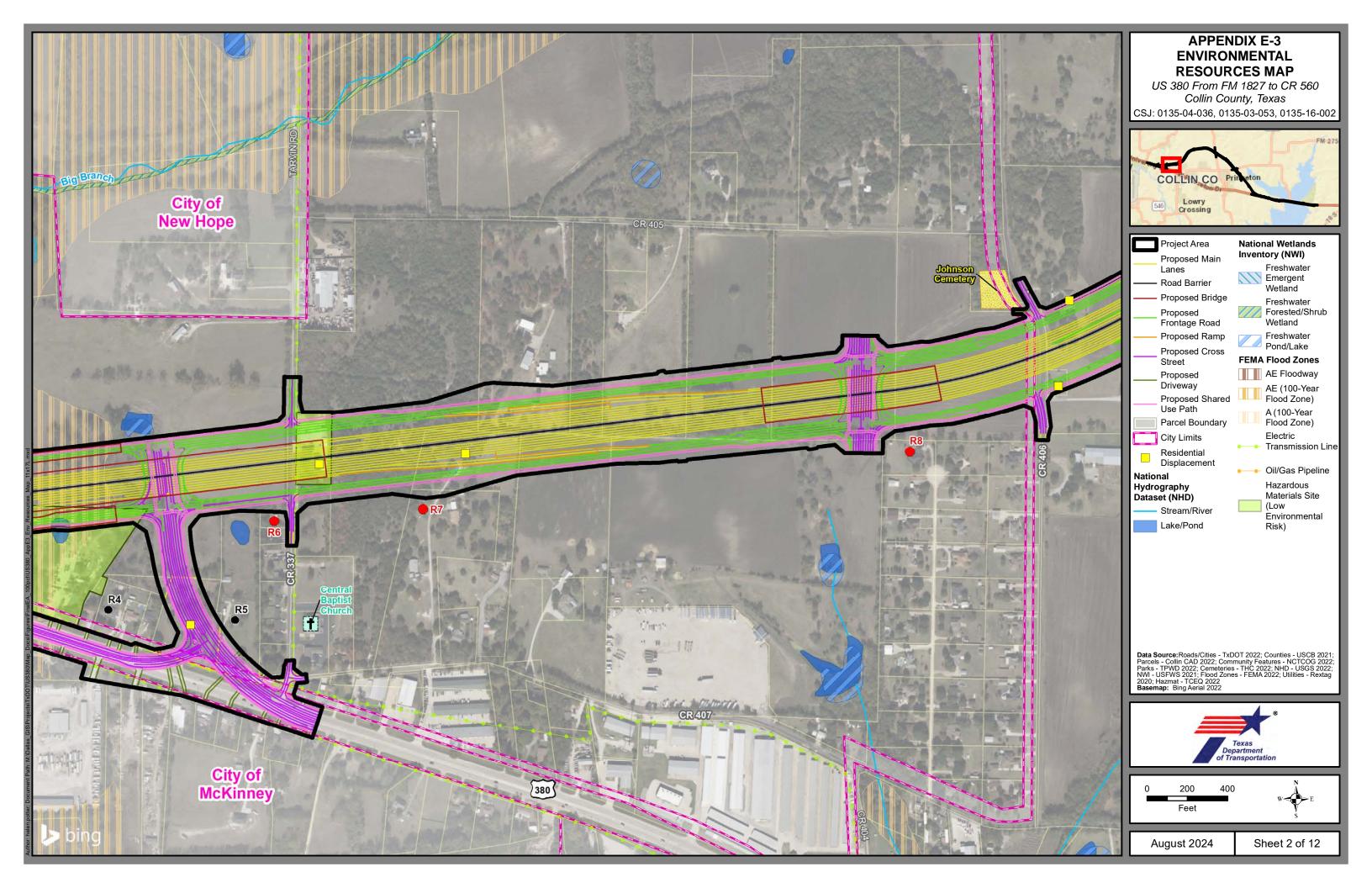




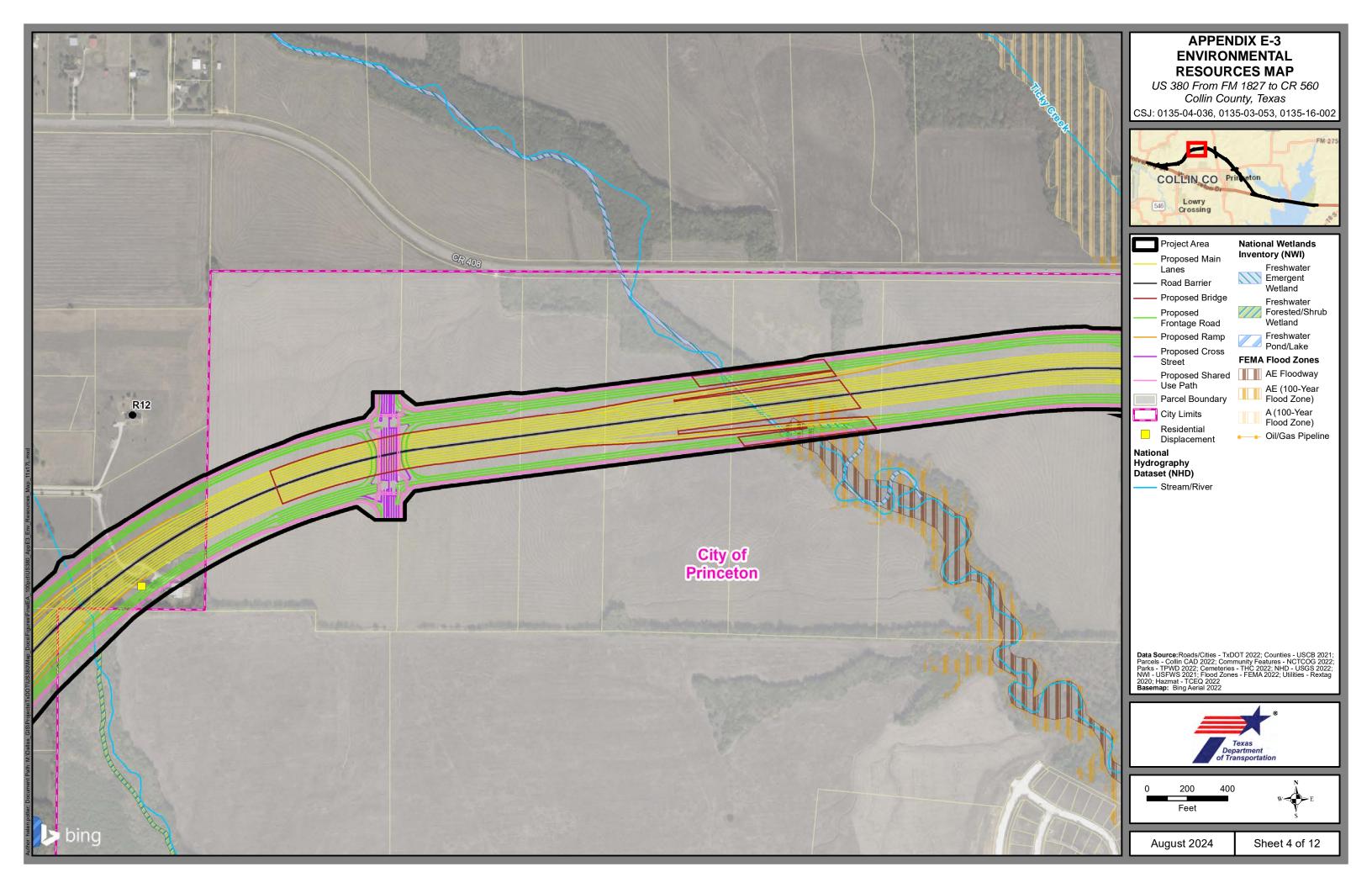


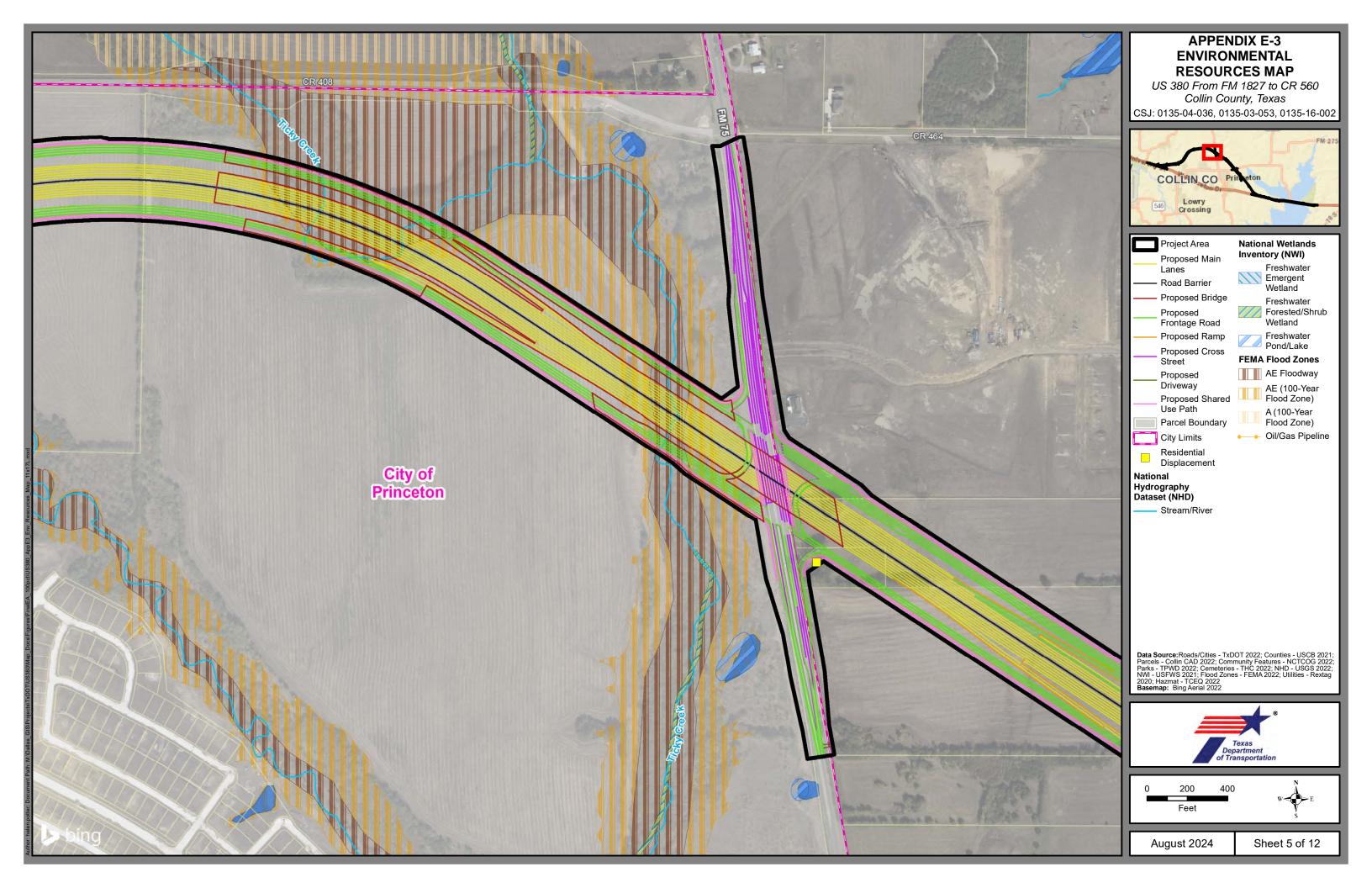
Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Appendix E-3: Environment	al Resources Map
CS In: 0125 04 026 ata	

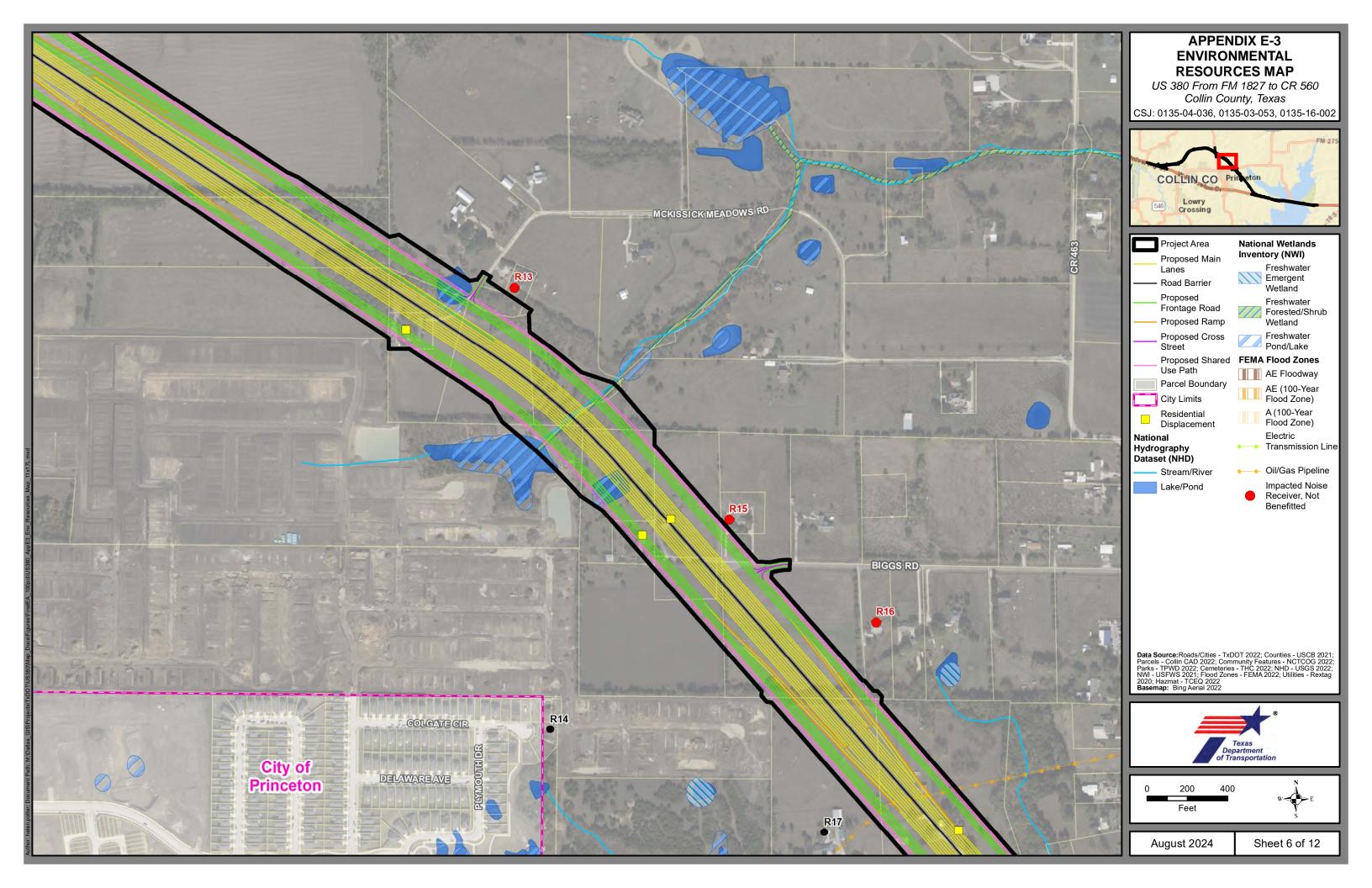


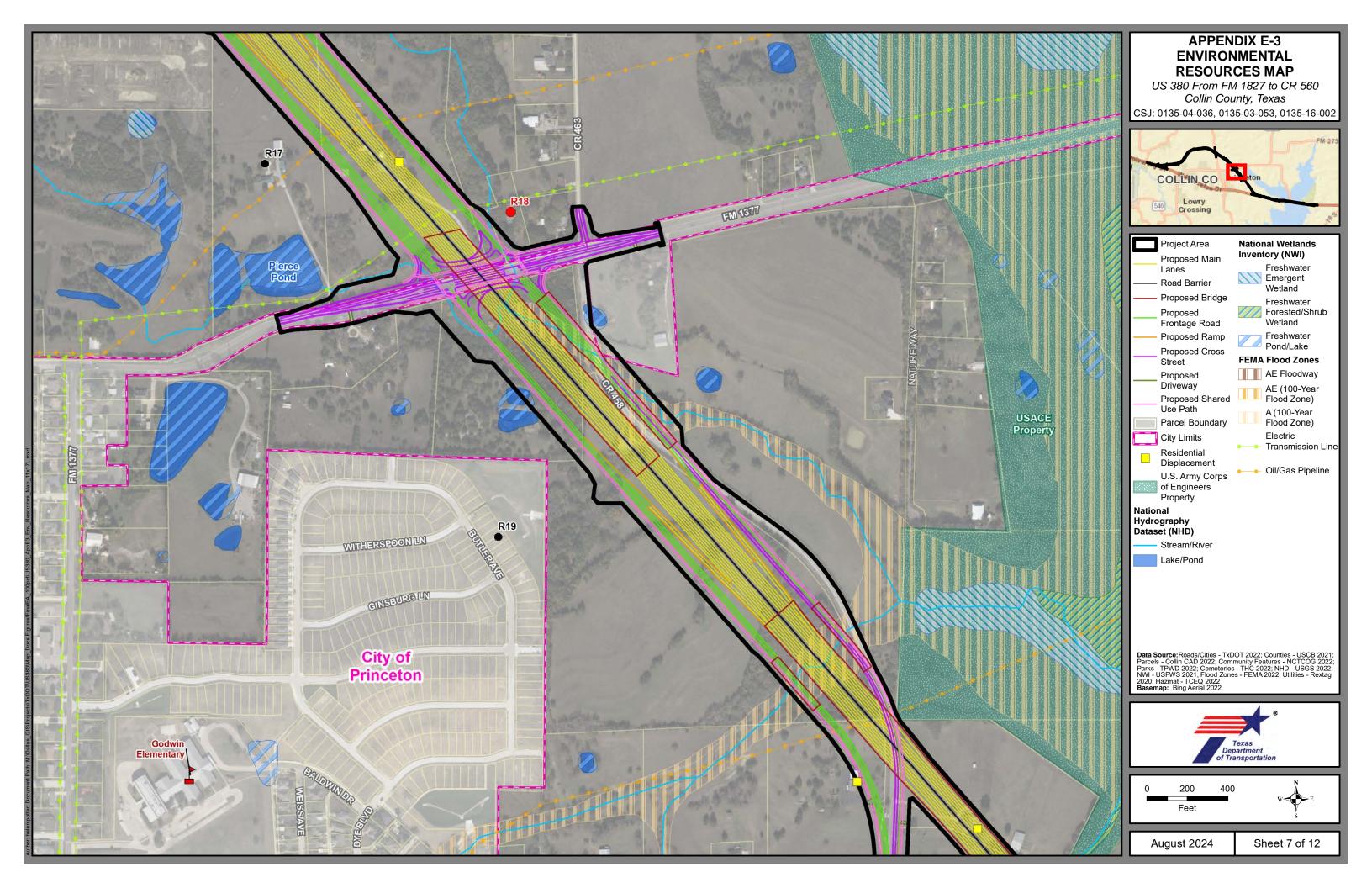


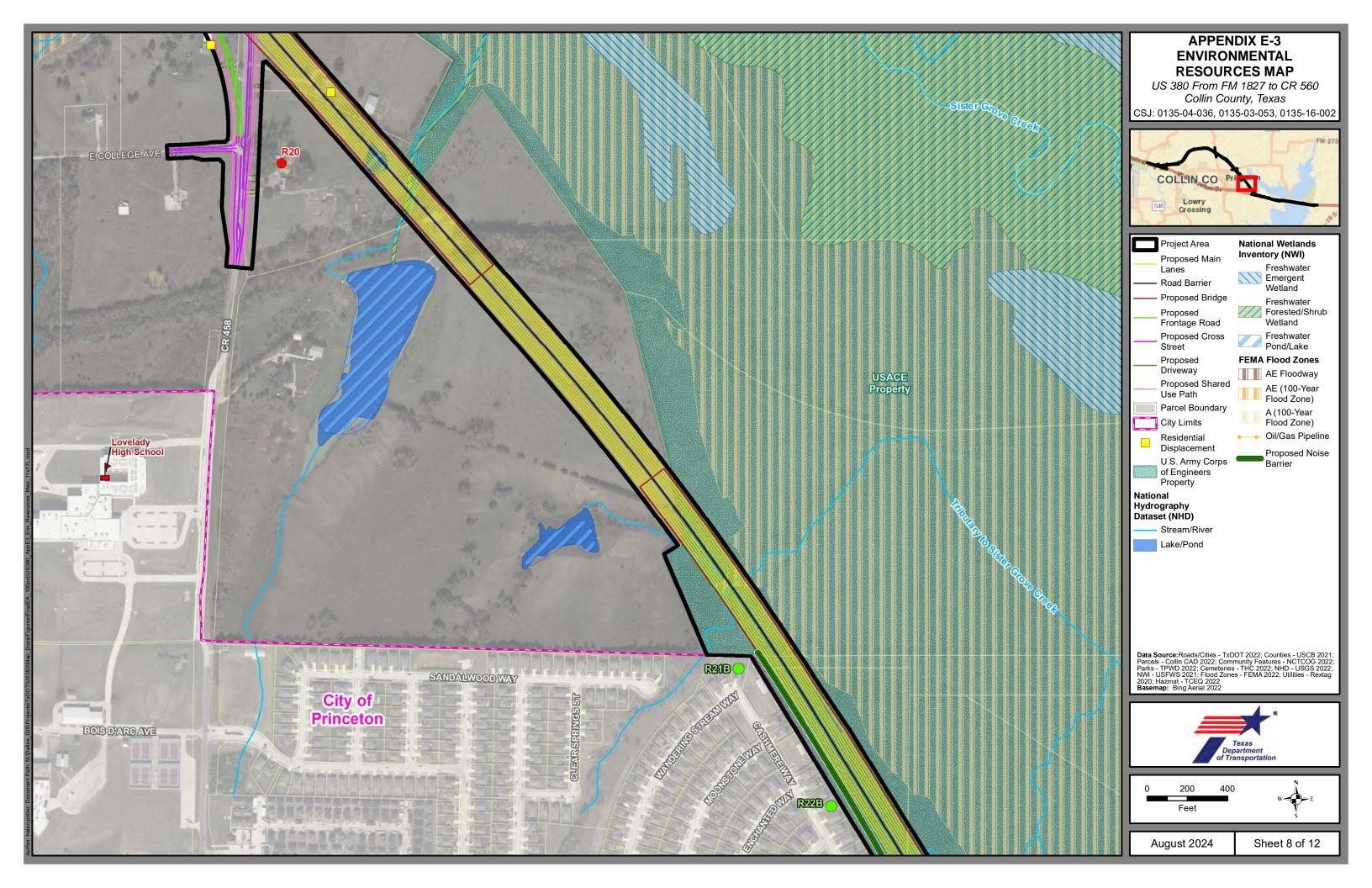


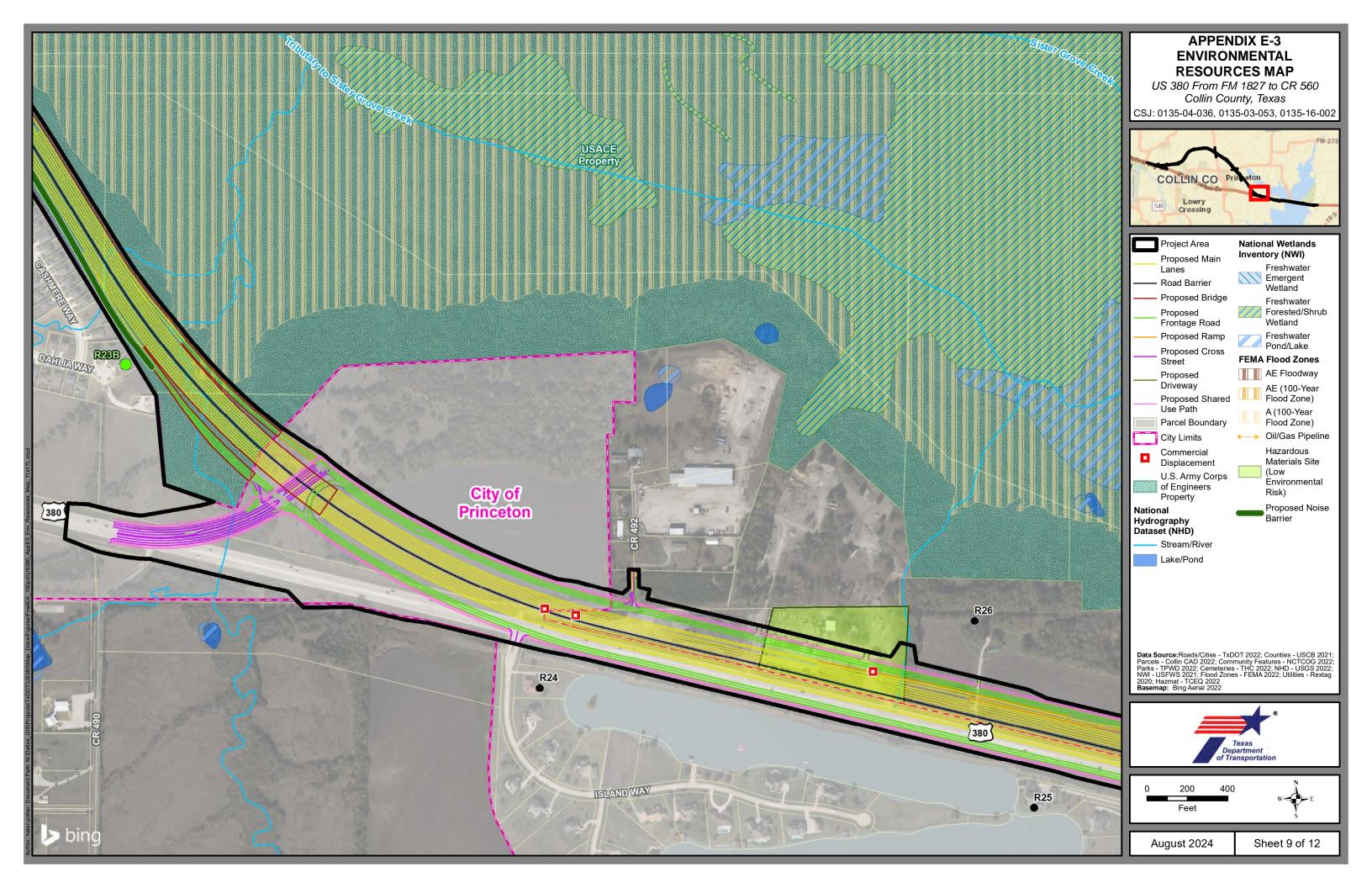


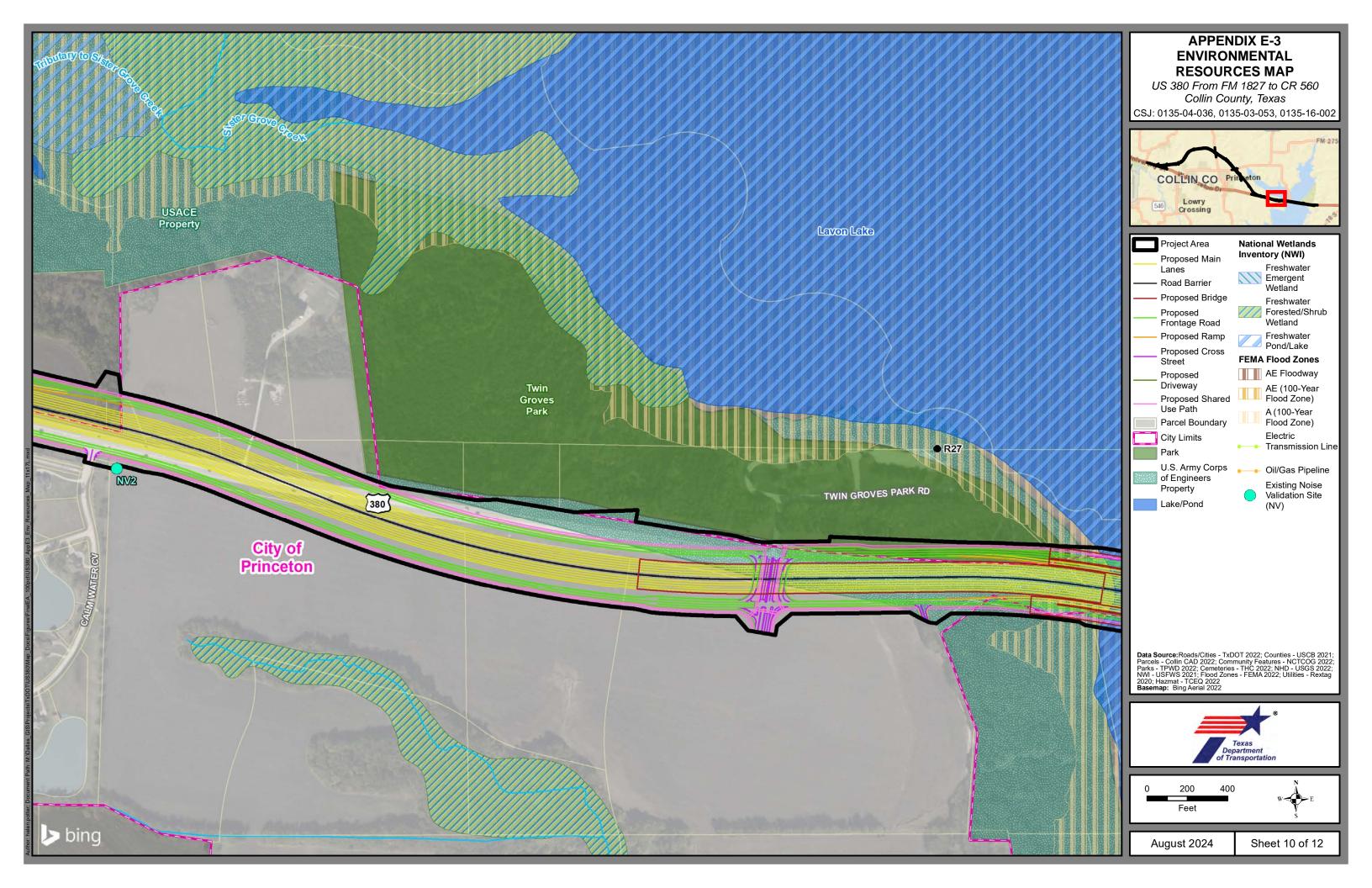


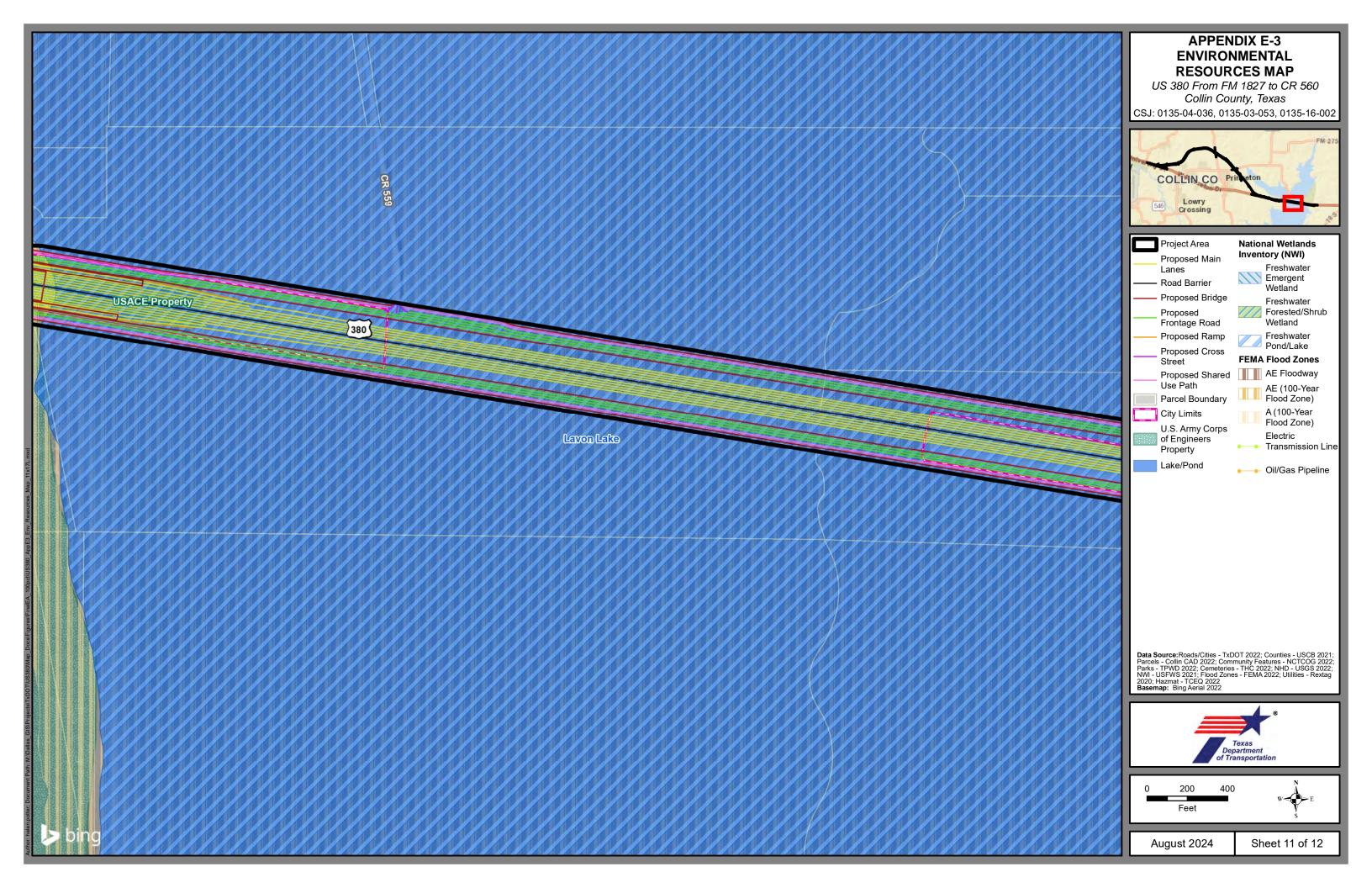


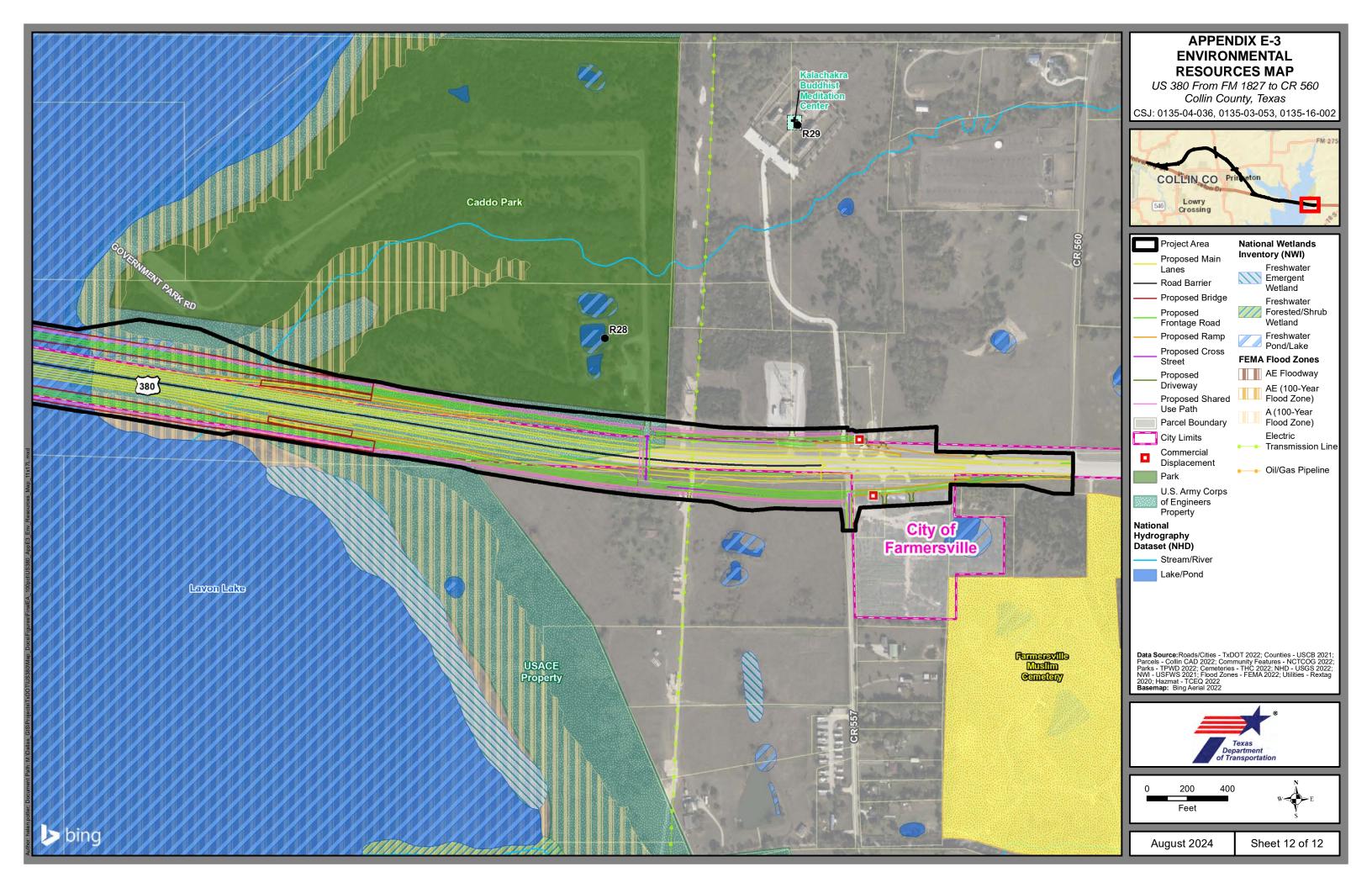












Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Appendix F: Resource Age	ency Coordination

Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
	NRCS Coordination

From: Winkler, Kerry
To: Salazar, Daniel

Subject: FW: CSJ 0135-04-036, etc. US 380 Princeton - Request for FPPA coordination

Date: Monday, February 27, 2023 5:11:30 PM

Attachments: APPROVED 0135-04-036, etc. US 380 FPPA package 20221122.pdf

APPROVED 0135-04-036, etc. US 380 Urban Areas Map 20221122.pdf

~WRD0006.jpg

From: Leslie Mirise <Leslie.Mirise@txdot.gov>
Sent: Tuesday, November 22, 2022 3:48 PM
To: Winkler, Kerry <kerry.winkler@aecom.com>

Cc: Christine Polito <Christine.Polito@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov> **Subject:** FW: CSJ 0135-04-036, etc. US 380 Princeton - Request for FPPA coordination

This Message Is From an External Sender

This message came from outside your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Report Suspicious

Kerry,

We've completed our review of the draft 2 FPPA submittal. The approved files are attached, and the request to initiate coordination with NRCS is below.

Thanks,

Leslie Mirise

Environmental Specialist
Dallas District – DAL-ENV
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

From: Leslie Mirise

Sent: Tuesday, November 22, 2022 3:32 PM

To: alan.stahnke@usda.gov

Cc: Christine Polito <Christine.Polito@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Stirling Robertson <Stirling.Robertson@txdot.gov>

Subject: CSJ 0135-04-036, etc. US 380 Princeton - Request for FPPA coordination

Mr. Stahnke,

The TxDOT Dallas District is conducting a NEPA analysis, including two alternatives, of the US 380 Princeton project (CSJ 0135-04-036, etc.) in Collin County, Texas. As such, TxDOT is also reviewing the project under the FPPA including scoring using the NRCS-CPA-106 form. Because one of the two alternatives scored at or higher than 60 points, we request FPPA coordination. The US Census Bureau Urbanized Areas map, NRCS CPA-106, justification table, and soil table and maps are attached.

The project description is as follows:

Limits of All Activities

The Texas Department of Transportation proposes to improve US 380 from Farm to Market Road (FM) 1827 to County Road (CR) 560 in within the cities of McKinney, Princeton, and Farmersville in Collin County, Texas, a distance of approximately 11.8 miles. The existing US 380 roadway would be widened and reconstructed as a freeway facility from FM 1827 to west of CR 337. From west of CR 337 to east of CR 458, the freeway would be on new location, at which point it would rejoin the existing US 380 alignment and would be reconstructed as a freeway to CR 560 east of Lavon Lake.

Two alternatives are currently under consideration - Option A and Option B.

- Option A diverges from the proposed alignment at CR 458, heading southeast, traversing the eastern portion of the Princeton Crossroads neighborhood crossing Lake Ridge Road, and converging back with the proposed alignment at CR 492. Option A requires approximately 370 acres of new ROW.
- Option B diverges from the proposed alignment at CR 458, heading southeast, traversing USACE property, and converging back with the proposed alignment at CR 492. Option B requires approximately 375 acres of new ROW.

The existing ROW width is approximately 120-160 feet. The existing ROW width at the existing Lavon Lake bridge is approximately 200 feet. The proposed ROW would be approximately 320-400 feet wide.

Project Setting

The land use is generally urban (commercial properties and some residential properties) at both the west and east termini. Commercial properties include auto repair shops, storage, and gas stations. In addition, an electrical substation occurs near the eastern project terminus. The remainder of the project and surrounding area is generally rural in nature; however, there is extensive development pressure on the north and east sides of the City of Princeton resulting in the rapid development of residential subdivisions. Traffic generators in the area include the numerous residential and commercial developments, as well as east-west through traffic on US 380.

Vegetation within the project limits from the western project terminus to approximately County Road (CR) 377 consists of a mix of maintained properties and maintained ROW. Vegetation within the project limits from approximately CR 377 to the Lavon Lake bridge consists of agricultural/pasture, maintained ROW, maintained properties, undeveloped woodland, and riparian

corridors. Vegetation within the project limits from the Lavon Lake bridge to the eastern project terminus consists of maintained ROW and maintained properties. Vegetation for the United States Corps of Engineers (USACE) property adjacent to the project and along Lavon Lake is deciduous woodland and floodplain, and riparian hardwood forest.

There are extensive water resources in the project area including eight waterbodies, with the largest being Lavon Lake. In addition, there are numerous 100-year floodplains associated with the major stream crossings including Big Branch, Ticky Creek, Sister Grove Creek, and Pilot Grove Creek, which are located within the project limits. There are two USACE-owned parks immediately adjacent to the existing US 380 alignment. These are Twin Groves Park located on the western shore of Lavon Lake and Caddo Park (currently closed to the public due to maintenance/improvements) located on the eastern shore of Lavon Lake. In addition to the two parks, the project would cross USACE Lake Lavon property that is designated as a wildlife management area. The wildlife management area is used for recreational purposes.

Community facilities are present along the existing alignment of US 380 starting with the Apostolic Church of Jesus Christ near the western terminus of the project, the recently constructed Princeton City Hall east of CR 458, and the Princeton Police Training Facility near CR 492, which are located within the project limits.

Existing Facility

The existing US 380 roadway is classified as a principal arterial with a varying speed limit of 45 to 60 miles per hour (mph). The current alignment consists of four 12-foot-wide lanes (two in each direction) with a right-of-way (ROW) width of approximately 120 to 160 feet. In addition, the roadway has a flush median, 6 to 10-foot-wide shoulders, and open vegetated drainage ditches or swales. The existing roadway does not provide pedestrian or bicyclist accommodations. The existing bridge crossing at Lavon Lake consists of four 12-foot-wide lanes (two in each direction) with 6 to 12-foot-wide shoulders. The ROW width at the bridge is approximately 200 feet.

Proposed Facility

The new location controlled access freeway would realign US 380 north of the City of Princeton within an anticipated proposed right-of-way (ROW) of 320 to 400 feet, depending on location. The proposed project includes 8 to 10 lanes of divided freeway (4 to 5 lanes in each direction) with 12-foot travel lanes, auxiliary lanes (as needed), 15-foot inside shoulders, and 10-foot outside shoulders. The proposed project also includes ramps and continuous two-lane one-way frontage roads with raised curbs, 12-foot travel lanes, and 10-foot shared-use paths.

US 380 crosses Lavon Lake; the freeway would be reconstructed within the existing ROW over the lake, including continuous frontage roads on bridge structures. Proposed grade-separated interchanges would be constructed at major cross streets to accommodate connectivity to existing and future roadways and bicycle/pedestrian networks. The proposed project would maintain the existing US 380 roadway through the City of Princeton with connectivity at proposed interchanges on both the east and west sides of the city.

Please feel free to contact me if you have any questions or need additional information.

Sincerely,

Leslie Mirise

Environmental Specialist
Dallas District – DAL-ENV
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX



(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		4414	of Land Evaluation	regarden.		Sheet 1	of 1		
1, Name of Project US 380 Princeton Improvement		5, Federal Agency Involved TxDOT							
2. Type of Project Transportation		6. County and State Collin County, Texas							
PART II (To be completed by NRCS)				Date Request Received by NRCS					
Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form).				YES NO 1			Acres Irrigated Average Farm Size		
5. Major Crop(s)	y Do not complete add			nment Jurisdiction		7. Amou	nt of Farmland As D	Defined in FPPA	
an invator is select		Acres:		%		Acres: %			
8. Name Of Land Evaluation Sys	tem Used	9. Name of Lo	cal Site Asse	ssment System		10. Date	Land Evaluation R		
				Alternat	ive Corr	idor For	Segment		
PART III (To be completed b	y Federal Agency)			Corridor A		idor B	Corridor C	Corridor D	
A. Total Acres To Be Converted	Directly			168.3	170.4				
B. Total Acres To Be Converted	Indirectly, Or To Rece	eive Services		0.0	0.0				
C. Total Acres In Corridor				556.0	559	.9			
PART IV (To be completed	by NRCS) Land Eva	luation Information	n						
A. Total Acres Prime And Uniq	ATTENDED TO STATE OF THE	\$190.00 (\$100.00)			+		1	+	
B. Total Acres Statewide And I	CT THE RESIDENCE	and			*		+	+	
C. Percentage Of Farmland in			lad		+			+	
D. Percentage Of Farmland in (*		+	1	
PART V (To be completed by I					*		1	1	
value of Farmland to Be Servi									
PART VI (To be completed by Assessment Criteria (These	Federal Agency) Co	rridor	Maximum	1					
	лиена аге ехріаніец	1117 CFK 038.5(C))	Points	42	10				
Area in Nonurban Use	E.v.		15	13	13				
2. Perimeter in Nonurban U	Other Control		10	5	9				
Percent Of Corridor Bein Restaction Provided By 5		misset	20	0	5		-	1	
4. Protection Provided By S			10	2	0 2				
Size of Present Farm Un Creation Of Nonfarmable		e	25	8	8			+	
Availablility Of Farm Sup			5	5	5		-		
On-Farm Investments	port dervices		20	2	3				
Effects Of Conversion O	n Farm Support Service	es	25	10	10				
10. Compatibility With Exist			10	5	5				
TOTAL CORRIDOR ASSES			160	59	60		0	0	
PART VII (To be completed b	y Federal Agency)								
Relative Value Of Farmland ((From Part V)		100	0	0		0	0	
Total Corridor Assessment (F assessment)	From Part VI above or a	local site	160	59	60		0	0	
TOTAL POINTS (Total of above 2 lines)			260	59	60		0	0	
Corridor Selected:	Total Acres of Converted by	Farmlands to be Project:	3. Date Of	Selection:	4. Was	A Local S	Ite Assessment Usa	ad?	
5. Reason For Selection:	,	1,							
Signature of Person Completing Jose	this Part: ph Jandle (AECO	M) X				DAT	11/14/22		
NOTE: Complete a form f	or each segment v	vith more than or	e Alterna	te Corridor					

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
 More than 90 percent - 15 points
 90 to 20 percent - 14 to 1 point(s)
 Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use? More than 90 percent - 10 points 90 to 20 percent - 9 to 1 point(s) Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)

Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland? Site is protected - 20 points

Site is protected - 20 points Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)
As large or larger - 10 points

Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project - 25 points

Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)

Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available - 5 points

Some required services are available - 4 to 1 point(s)

No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures? High amount of on-farm investment - 20 points

Moderate amount of on-farm investment - 19 to 1 point(s)

No on-farm investment - 0 points

- (9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area? Substantial reduction in demand for support services if the site is converted 25 points

 Some reduction in demand for support services if the site is converted 1 to 24 point(s)

 No significant reduction in demand for support services if the site is converted 0 points
- (10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

 Proposed project is incompatible to existing agricultural use of surrounding farmland 10 points

 Proposed project is tolerable to existing agricultural use of surrounding farmland 9 to 1 point(s)

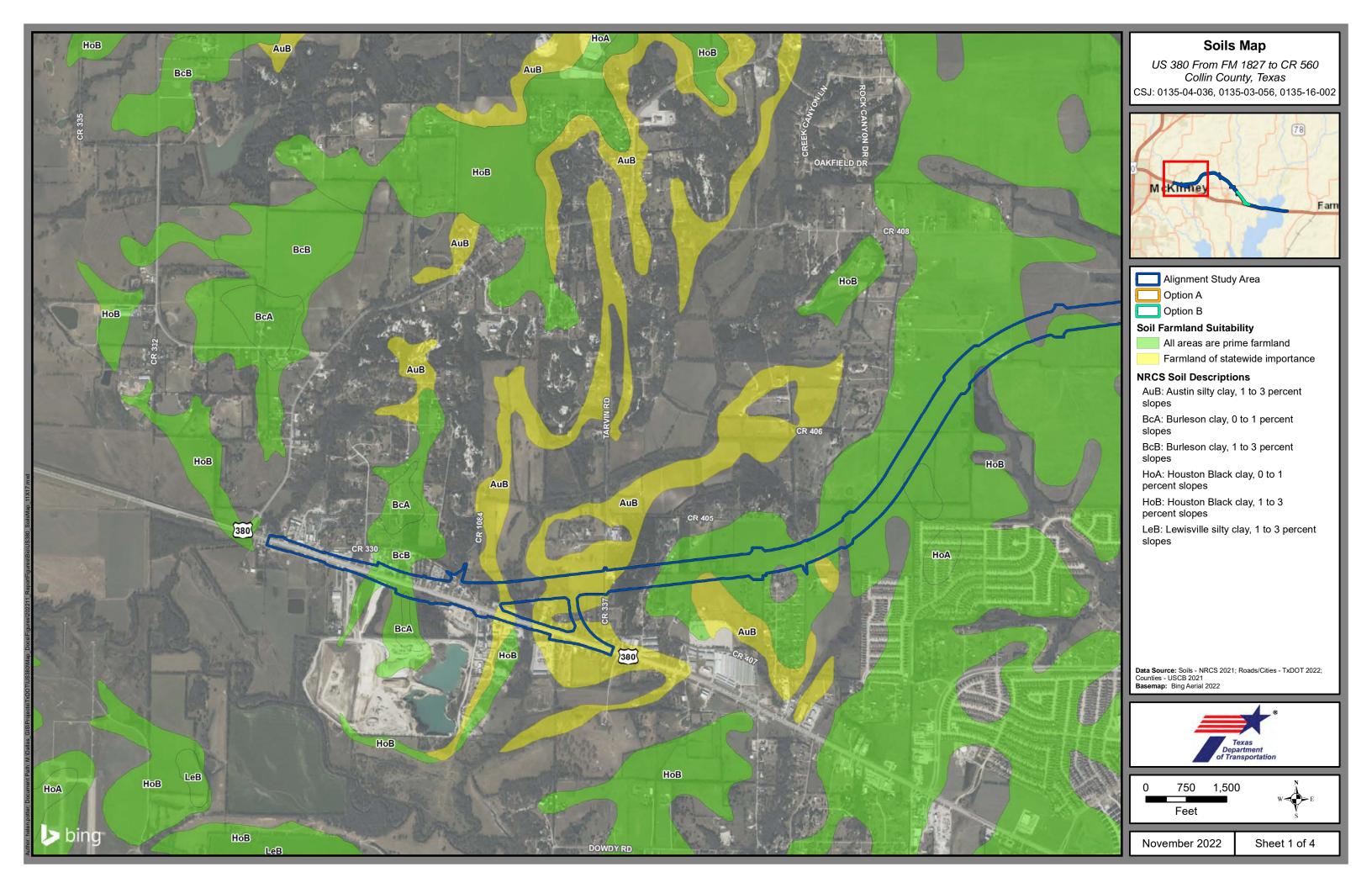
 Proposed project is fully compatible with existing agricultural use of surrounding farmland 0 points

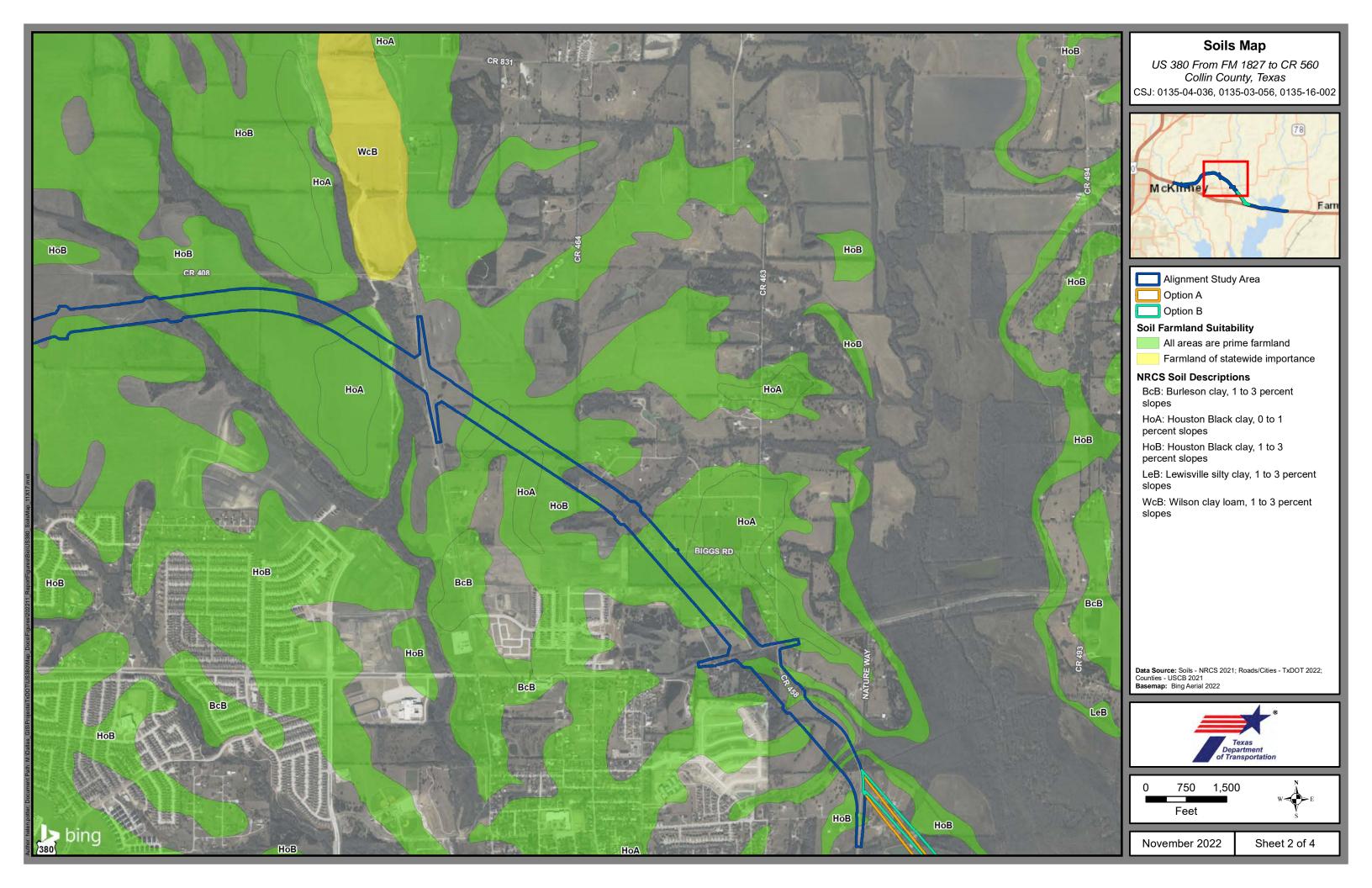
US 380 Prinecton Improvement - FPPA Form Justification Table

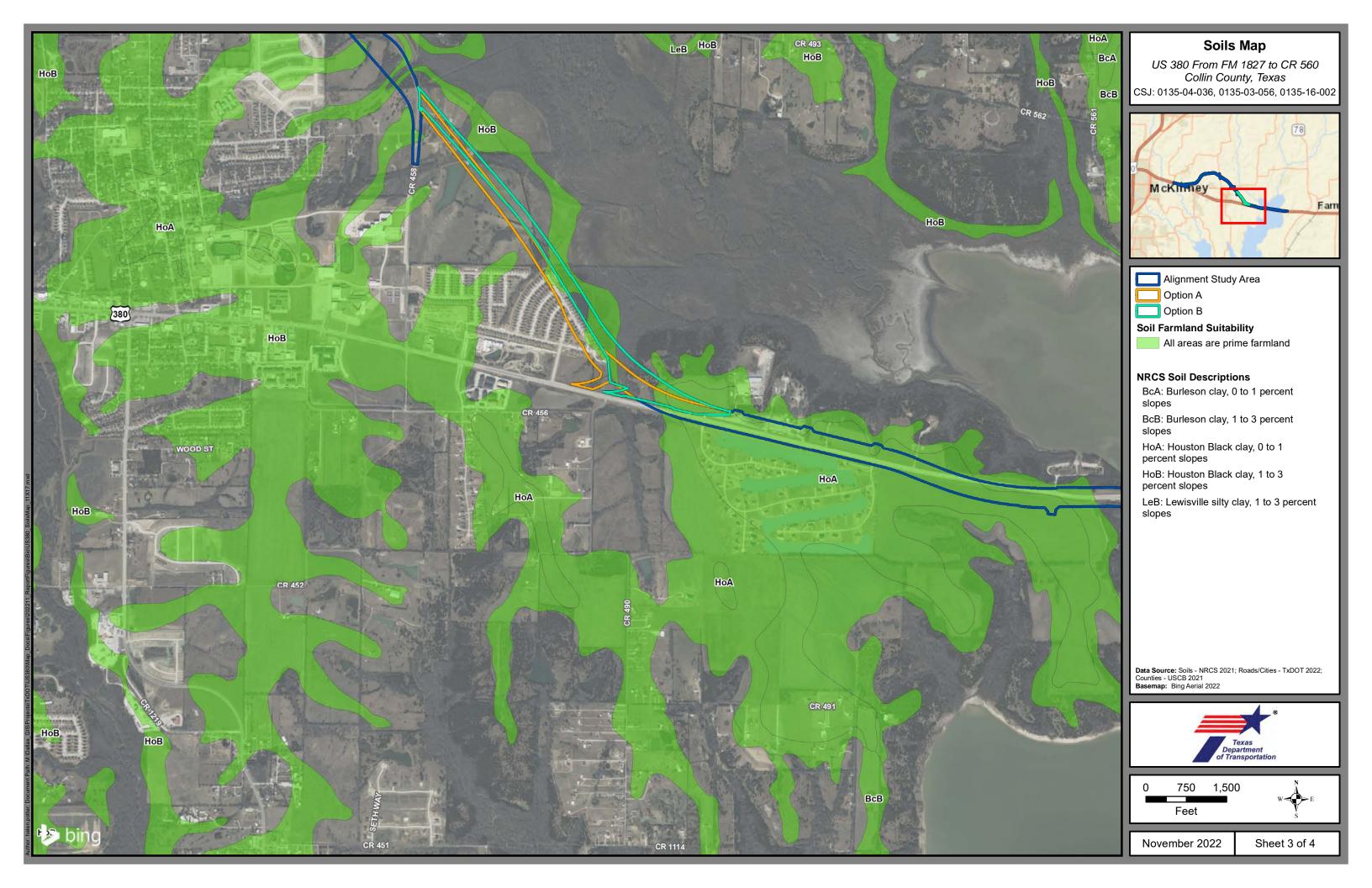
Number	Criteria	Maximum Points	JS 380 Prinecton Improvement - FPPA Form Justification Table Methodology/Justification	Corridor A	Corridor B
1	Area in Nonurban Use	15	Using GIS software and aerial imagery, a one mile buffer was created around the project area. Polygons were created for land within this buffer that we considered nonurban. The total acres of nonurban land use was calculated and compared to the total acres within the buffer minus the project area itself. The amount of nonurban land was 14,518 acres. The Total amount of land between the project area and a one mile radius from the project area was 17,462 acres. Therefore, 83 percent of the land within a radius of one mile from the project area was considered in nonurban use. A 10 percent change in use between 90 and 20 percent corresponds to a two point change. The same score was applied to both corridors because the difference in nonurban acres had a negligible change in the overall percent of nonurban land within a one-mile radius of the project area.	13	13
2	Perimeter in Nonurban Use	10	Using GIS software and aerial imagery, the length of the perimeter adjacent to urban land was measured for each corridor. The perimeter of Corridor A adjacent to urban land was approximately 19,192 feet. The perimeter of Corridor B adjacent to urban land was approximately 17,241 feet. The entire perimeter of the project area for each corridor was approximately the same (137,280 feet). Approximately 86 percent of the perimeter of Corridor A was estimated to be adjacent to nonurban land and approximately 87 percent of the perimeter of Corridor B was estimated to be adjacent to nonurban land. It was determined that each 10 percent change in perimeter adjacent to nonurban land, within the range between 20 and 90 percent, was equivalent to a 1.15 point change. Therefore, the score calculated for Corridor A was 8.54 and the score calculated for Corridor B was 8.71. Both scores were rounded up to 9.	9	9
3	Percent of Corridor Being Farmed	20	Using GIS software and aerial imagery, the total acreage of each corridor was calculated. The total acreage in Corridor A was 555.98. The total acreage in Corridor B was 559.90. The total area of each corridor being farmed was estimated with aerial imagery and acreage was calculated by creating polygons for all farmed land within each corridor. Approximately 202.1 acres were being farmed in Corridor B. Based on these calculations, approximately 36 percent of Corridor A was being farmed and approximately 36 percent of Corridor B was being farmed. It was determined that each 10 percent change in acres being farmed, within the range between 20 and 90 percent, was equivalent to a 2.57 point change. The calculated score for each corridor was 5.11. Therefore, a score of 5 was given to each corridor.	5	5
4	Protection Provided By State And Local Government	20	No protections provided by state or local govenrnment were identified for Collin County. Therefore, a score of 0 was given to each corridor.	0	0
5	Size of Present Farm Unit Compared To Average	10	The size of farm units intersecting the project area were estimated with county appraisal data and aerial imagery. The largest farm unit was approximately 385 acres and the smallest farm unit was approximately 6 acres. The overall average farm unit size for both corridors was 60 acres. According to county data from the 2017 Census of Agriculture, the average farm unit size in Collin County was 104 acres. Therefore, the average farm unit size within the project area was approximately 42 percent below the county average and eight points were deducted form the score for each corridor.	2	2
6	Creation Of Nonfarmable Farmland	25	We assumed the creation of nonfarmable land would occur if the project would reduce an entire farm to less than five acres or if the project would cut off access to a portion of cropland that was less than five acres. We estimated that approximately 23 acres of farmland would become nonfarmable for each option. Therefore, approximately 14 percent of the remaining land on impacted farms would become nonfarmable within each corridor. Each one percent change between 5 and 25 percent is equivalent to a 0.87 point change in the score. Therefore, each corridor was given a score of eight.	8	8
7	Availability Of farm Support Services	5	All the required services were assumed to be available.	5	5
8	On-Farm Investments	20	Five small barns were identified within the project area from recent aerial imagery. Corridor B includes the corner of a large barn or storage building likely used for farming. No other on-farm investments were identified within the project area. Therefore, Corridor A was given a score of 2 and Corridor B was given a score of 3.	2	3
9	Effects Of Conversion On Farm Support Services	25	We assumed there would be some decrease in demand for farm support services but this question is very subjective. We gave it a score of 10 for each corridor	10	10
10	Compatibility With Existing Agricultural Use	10	We assumed that since this is a linear transportation project that agricultural use could still occur along the project area but over time that would be reduced to some degree in the most rural areas due to development along the corridor.	5	5

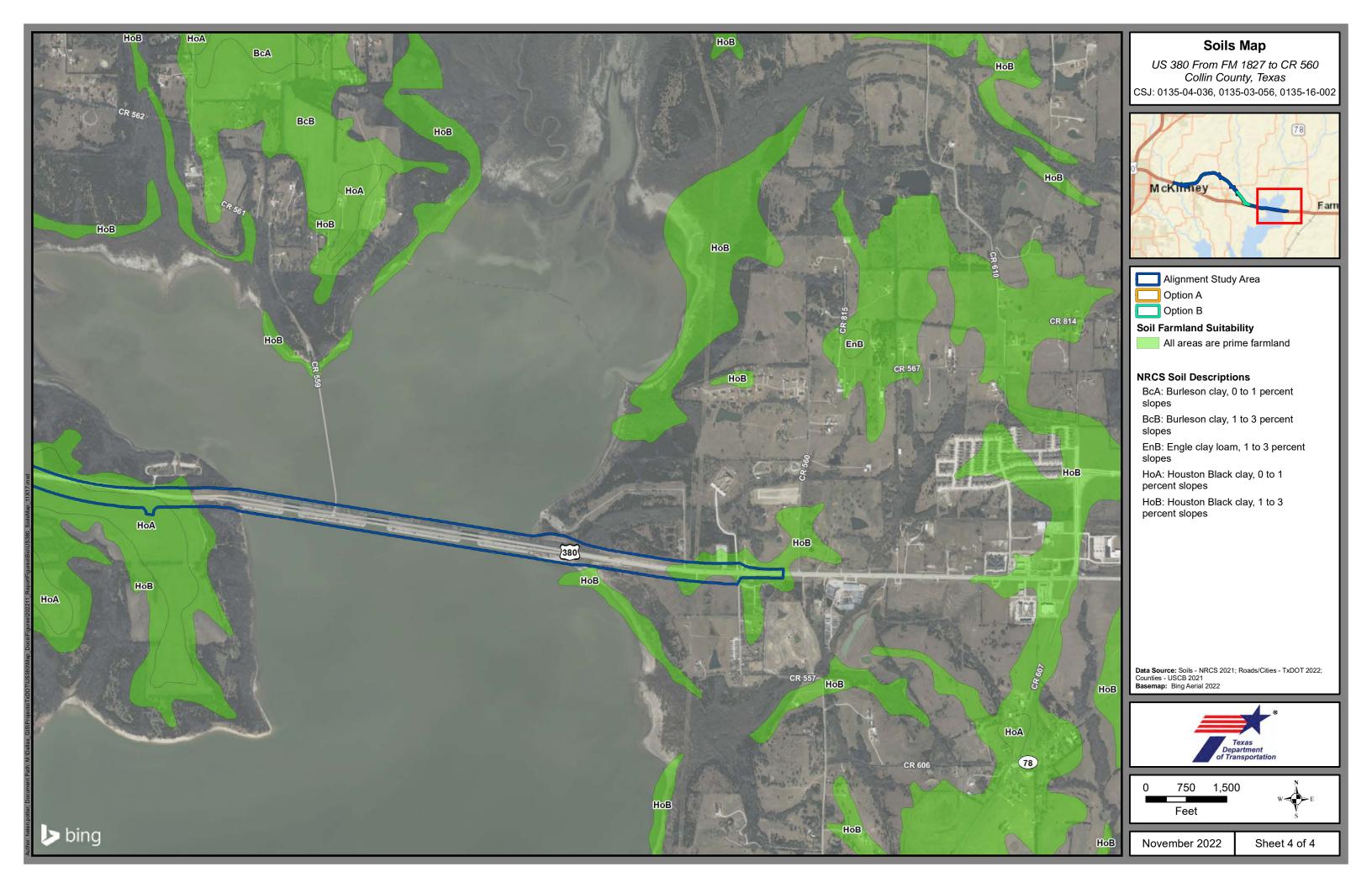
US 380 Princeton Improvement - FPPA Soils Table

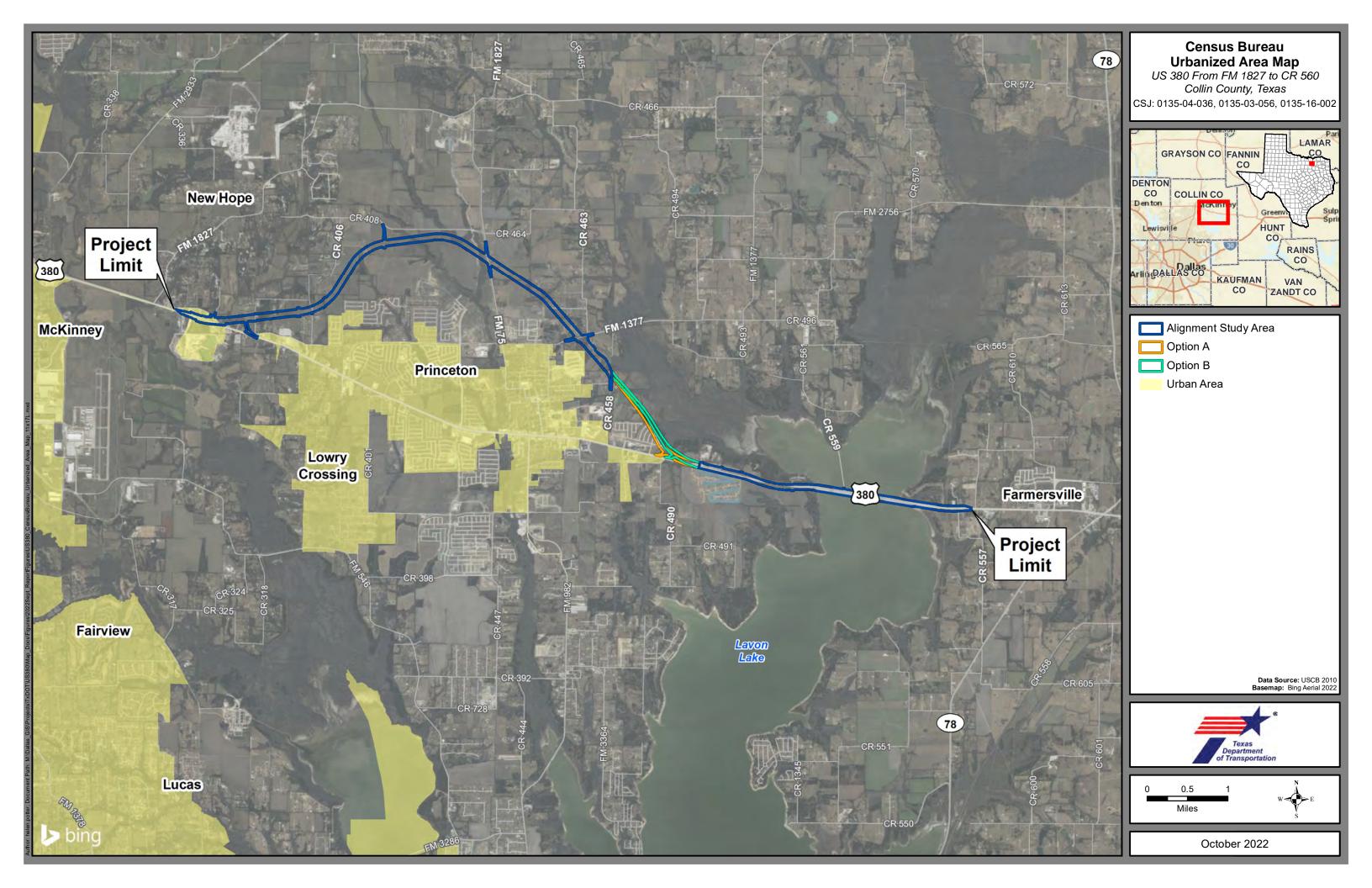
Soil Map Unit Symbol	Soil Map Unit Name	Farmland Class	Alignment Project Area Acres	Option A Acres	Option B Acres
AID2	Altoga silty clay, 5 to 8 percent slopes, eroded	Not prime farmland	27.91	1.66	2.76
AuB	Austin silty clay, 1 to 3 percent slopes	Farmland of statewide importance	26.75	0.00	0.00
AuC2	Austin silty clay, 2 to 5 percent slopes, eroded	Not prime farmland	12.37	0.00	0.00
AuD2	Austin silty clay, 5 to 8 percent slopes, moderately eroded	Not prime farmland	17.70	0.00	0.00
BcA	Burleson clay, 0 to 1 percent slopes	All area are prime farmland	0.21	0.00	0.00
BcB	Burleson clay, 1 to 3 percent slopes	All area are prime farmland	6.88	0.00	0.00
BcB2	Eddy gravelly clay loam, 3 to 8 percent slopes, eroded	Not prime farmland	6.15	0.00	0.00
EdD2	Ferris-Heiden clay, 5 to 12 percent slopes, severly eroded	Not prime farmland	8.18	0.59	<0.01
FeE3	Frio clay loam, frequently flooded	Not prime farmland	2.67	0.00	0.00
Ff	Frio clay loam, occasionally flooded	Not prime farmland	4.55	0.00	0.00
Fo	Heiden clay, 3 to 5 percent slopes, eroded	Not prime farmland	12.11	5.24	4.53
HcC2	Heiden clay, 5 to 8 percent slopes, eroded	Not prime farmland	34.40	24.89	20.42
HcD2	Houston Black clay, 0 to 1 percent slopes	All area are prime farmland	61.18	4.68	6.40
HoA	Houston Black clay, 1 to 3 percent slopes	All area are prime farmland	186.02	7.31	13.27
НоВ	Houston Black clay, 2 to 4 percent slopes, eroded	Not prime farmland	28.49	0.00	0.00
HoB2	Leson clay, 2 to 4 percent slopes, eroded	Not prime farmland	9.90	0.00	0.00
LeC2	Lewisville silty clay, 3 to 5 percent slopes, eroded	Not prime farmland	1.54	0.00	0.00
SeC2	Stephen-Eddy complex, 2 to 5 percent slopes	Not prime farmland	0.62	0.00	0.00
Tf	Tinn clay, 0 to 1 percent slopes, frequently flooded	Not prime farmland	13.22	1.21	2.26
W	Water	Not prime farmland	49.40	0.13	0.00
		To	otal 510.27	45.71	49.64











Leslie Mirise

From: Palmer, Mark - FPAC-NRCS, Temple, TX <Mark.Palmer@usda.gov>

Sent: Tuesday, November 29, 2022 3:22 PM

To: Leslie Mirise

Cc: Stahnke, Alan - NRCS, Temple, TX **Subject:** US380 Princeton FPPA Evaluation

Attachments: Princeton CPA 106.pdf; 20221129_FPPA_US380Princeton.pdf

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

This project has been determined non-exempt with an impact rating of 146 for Site A and 147 for Site B, FPPA law states that sites with an impact rating of less than 160 need no further consideration.

Mark V. Palmer Cartographic Technician USDA – NRCS 101 South Main Temple, Texas 76501 Mark.Palmer@USDA.gov Mobile – (505)516-7822

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Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
	Tribal Coordination

From: Scott Pletka <Scott.Pletka@txdot.gov>
Sent: Friday, February 10, 2023 9:27 AM

To: theodorev@comanchenation.com; martina.minthorn@comanchenation.com;

jflynn@jenachoctaw.org; curator@kiowatribe.org; museumassistant@kiowatribe.org;

holly@mathpo.org; Section106@shawnee-tribe.com; thpo@shawnee-tribe.com; tonya@shawnee-tribe.com; mallen@tonkawatribe.com; lbrown@tonkawatribe.com; Terri.Parton@wichitatribe.com;

gary.mcadams@wichitatribe.com; mary.botone@wichitatribe.com

Subject: TxDOT Sec. 106 Consultation Request - CSJ: 0135-04-036, Collin Co, Dallas District

Sec. 106 Consultation

FEBRUARY 10, 2023

Contacts:

<u>Scott Pletka</u> 512-416-2631

Notice:

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carriedout by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TXDOT.

We kindly request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed project. Please see the following summary for project details and information. To access the associated reports, which include a detailed project description, APE definition and identification efforts, use the attached link. After 30 days, the link will expire. We will provide an updated link upon request.

Summary:

Project ID (CSJ), Roadway, Limits, County and TxDOT District	CSJ 0135-04-036, US 380, from FM 1827 to CR 560, Collin County, Dallas District
Lat/Longs:	Begin: 33.1738780, -96.4943460 End: 33.1569736, -96.3687063
Project Sponsor:	TxDOT
Consultation Status:	☑Initial Consultation ☐Continuation of Consultation
Short Description:	Widen roadway
New Right of Way:	375 acres of new ROW, 5 acres of permanent easements, and 7 acres of temporary easements
Depth of Impacts:	2 feet typical and maximum 50 feet
Known Archeological Sites or Properties in project area:	Site 41COL56 is a scatter of non-diagnostic lithic artifact, previously determined to be ineligible for listing in the National Register of Historic Places. The site location was inaccessible during the current survey.
Identification Efforts:	Archeological Survey
Recommendations:	No archeological historic properties affected within the evaluated areas; survey to be completed in remaining portion of the Area of Potential Effects once new right of way has been acquired.
Link to Detailed Report:	https://txdot.box.com/s/bo515a2urf3ssz6fvpepc4xjsg008109

Please provide any comments that you may have on the TxDOT findings and recommendations. Please provide your comments within 30 days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible.

Salazar, Daniel

From: Jonathan Rohrer <noreply@jotform.com>
Sent: Tuesday, February 28, 2023 8:22 AM

To: Scott Pletka

Subject: Widen Road - CSJ: 0135-04-036; 0135-16-002; 0135-03-056

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Scott

Thank you for your request for consultation, received on 02-27-2023. The Caddo Nation appreciates your willingness to conduct proper consultation, pursuant to Section 106 of the National Historic Preservation Act.

Upon review of the project and location I have determined that it does not affect known cultural, traditional or sacred sites of interest to the Caddo Nation. As such, the Caddo Nation has no objection to the project at this time. However, in the event that an inadvertent discovery of potentially relevant cultural sites, funerary objects, or human remains occurs, we request that the project be immediately halted and the proper authorities be contacted. Additionally, The Caddo Nation would need to be notified of an inadvertent discovery with 24 hours.

Should you have any question or concerns regarding this response please feel free to contact our office.

Best regards,

Jonathan

Jonathan M. Rohrer

Tribal Historic Preservation Officer



Caddo Nation

P.O. Box 487 Binger, OK 73009 t: (405)656-0970 Ext. 2070 e: jrohrer@mycaddonation.com

www.mycaddonation.com



COMANCHE NATION



Texas Department of Transportation Attn: Mr. Scott Pletka 118 E. Riverside Texas 78704

March 14, 2023

Re: TXDOT Sec. 106 Consultation Request – CSJ-0135-04-036, U.S. 380 from FM 1827 to CR 560, Collin County, Dallas District

Dear Mr. Pletka,

In response to your request, the above reference project has been reviewed by staff of this office to identify areas that may potentially contain prehistoric or historic archeological materials. The location of your project has been cross referenced with the Comanche Nation site files, where an indication of "*No Properties*" have been identified. (IAW 36 CFR 800.4(d)(1)).

Please contact this office at (580) 492-1153) if you require additional information on this project.

This review is performed in order to identify and preserve the Comanche Nation and State cultural heritage, in conjunction with the State Historic Preservation Office.

Regards

Comanche Nation Historic Preservation Office Theodore E. Villicana, Technician #6 SW "D" Avenue, Suite C Lawton, OK. 73502

Consult Response delayed due to Covid-19 work conditions.

Salazar, Daniel

From: Eugenie Big Eagle <museumassistant@kiowatribe.org>

Sent: Monday, February 13, 2023 11:40 AM

To: Scott Pletka

Subject: Re: TxDOT Sec. 106 Consultation Request - CSJ: 0135-04-036, Collin Co, Dallas District

Attachments: Kiowa Migration Map Line.pdf

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

This location is too far East of our Migration Line. This is a No on the further Consultation on this location.

Thank you,

Eugenia Big Eagle Museum Assistant

From: Scott Pletka <Scott.Pletka@txdot.gov> Sent: Friday, February 10, 2023 9:26 AM

To: theodorev@comanchenation.com <theodorev@comanchenation.com>; martina.minthorn@comanchenation.com <martina.minthorn@comanchenation.com>; jflynn@jenachoctaw.org <jflynn@jenachoctaw.org>; Tahnee Ahtone <curator@kiowatribe.org>; Eugenie Big Eagle <museumassistant@kiowatribe.org>; holly@mathpo.org <holly@mathpo.org>; Section106@shawnee-tribe.com <Section106@shawnee-tribe.com>; thpo@shawnee-tribe.com <thoya@shawnee-tribe.com>; mallen@tonkawatribe.com <mallen@tonkawatribe.com>; lbrown@tonkawatribe.com <lbrown@tonkawatribe.com>; Terri.Parton@wichitatribe.com <Terri.Parton@wichitatribe.com <mallen@tonkawatribe.com

Subject: TxDOT Sec. 106 Consultation Request - CSJ: 0135-04-036, Collin Co, Dallas District

<gary.mcadams@wichitatribe.com>; mary.botone@wichitatribe.com <mary.botone@wichitatribe.com>

Sec. 106 Consultation

FEBRUARY 10, 2023

Contacts:

<u>Scott Pletka</u> 512-416-2631

Notice:

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carriedout by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TXDOT.

We kindly request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed project. Please see the following summary for project details and information. To access the associated reports, which include a detailed project description, APE definition and identification efforts, use the attached link. After 30 days, the link will expire. We will provide an updated link upon request.

Summary:

Project ID (CSJ), Roadway, Limits, County and TxDOT District	CSJ 0135-04-036, US 380, from FM 1827 to CR 560, Collin County, Dallas District
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New Right of Way:	375 acres of new ROW, 5 acres of permanent easements, and 7 acres of temporary easements
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Known Archeological Sites or Properties in project area:	Site 41COL56 is a scatter of non-diagnostic lithic artifact, previously determined to be ineligible for listing in the National Register of Historic Places. The site location was inaccessible during the current survey.
Identification Efforts:	Archeological Survey
Recommendations:	No archeological historic properties affected within the evaluated areas; survey to be completed in remaining portion of the Area of Potential Effects once new right of way has been acquired.
Link to Detailed Report:	https://txdot.box.com/s/bo515a2urf3ssz6fvpepc4xjsg008109

Please provide any comments that you may have on the TxDOT findings and recommendations. Please provide your comments within 30 days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible.



Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Archeological Resource	es Coordination
Al cheological Resource	,cs Goordination
CSJs: 0135-04-036, etc.	

November 2024

February 14, 2023

RE: CSJ: 0135-04-036; US 380, Widen Road, Collin County, Dallas District; Section 106 Consultation and Antiquities Code Coordination; Texas Antiquities Permit No. Number 30911

Mr. Mark Wolfe Texas Historical Commission P.O. Box 12276 Austin, Texas 78711

Dear Mr. Wolfe:

As required by the Programmatic Agreement and the Memorandum of Understanding with your agency, we are initiating consultation on this project. Environmental studies are in the process of being conducted for this project. The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019 and executed by FHWA and TxDOT. We have enclosed for your further review a draft report of archeological investigations for this undertaking.

Undertaking Description

The proposed project will be undertaken with federal funds and will occur in part or in whole on non-federal public lands. TxDOT is proposing to realign US 380 on new location. The new location, controlled-access freeway would realign US 380 north of the City of Princeton within an anticipated proposed right-of-way (ROW) of 320 to 400 feet, depending on location. Currently, TxDOT is considering two different alignments. The proposed project includes 8 to 10 lanes of divided freeway (4 to 5 lanes in each direction) with 12-foot travel lanes, auxiliary lanes (as needed), 15-foot inside shoulders, and 10-foot outside shoulders. The proposed project also includes ramps and continuous two-lane one-way frontage roads with raised curbs, 12-foot travel lanes, and 10-foot shared-use paths. US 380 crosses Lavon Lake; the freeway would be reconstructed within the existing ROW over the lake, including continuous frontage roads on bridge structures. Proposed grade-separated interchanges would be constructed at major cross streets to accommodate connectivity to existing and future roadways and bicycle/pedestrian networks. The proposed project would maintain the existing US 380 roadway through the City of Princeton with connectivity at proposed interchanges on both the east and west sides of the city.

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Area of Potential Effects

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

- The project limits extend from Farm to Market Road (FM) 1827 to County Road (CR) 560 within the cities of McKinney, Princeton, and Farmersville in Collin County, Texas, a distance of approximately 11.8 miles. The APE includes any existing ROW within these limits.
- The existing ROW comprises approximately 163.1 acres.
- The proposed project would require up to 375 acres of new right of way.
- The proposed project would require up to five acres of new permanent easements and up to seven acres of temporary easements.
- The estimated depth of impacts is typically two feet with a maximum depth of impacts of 50 feet
- The APE is further detailed and illustrated in the attached report.

Identification Efforts

For this project, TxDOT has conducted a survey. The enclosed report of investigations has more details regarding this work. The following bullets summarize the identification efforts.

- The investigations reported here concern portions of the APE that did not warrant survey and portions of the APE that were accessible during survey.
- Archeologists undertook a survey. For this survey,
 - No acres had been previously surveyed or otherwise evaluated for this project;
 - Approximately 163.1 acres of existing ROW were identified as not requiring field survey, due to existing conditions of the setting identified through background research and described in the attached report;
 - 54.6 acres of proposed new ROW, distributed across 25 parcels, were surveyed and described in the attached report; none of these 54.6 acres require further work;
 - an additional 22.2 acres of proposed ROW, distributed across 71 parcels, did not require intensive survey based on the extent of prior disturbances;
 - up to 94 parcels may still require survey due to access issues (note that this number will be reduced when one alignment is selected, as the number of parcels includes the unsurveyed portions of two different alignments);
 - o previous investigation within the APE identified no sites in the APE; and
 - o the current survey identified no archeological sites.

Effects Determination

The proposed project would have direct effects resulting from ground-disturbing construction activities within the APE. Given the results of the identification efforts, TxDOT proposes that the project will have no effect on archeological history properties within the existing ROW and 76.8 acres of proposed new ROW that have been evaluated. Up to 94 parcels of proposed new ROW still require further work once the ROW has been acquired and prior to

CSJ: 0135-04-036, US 380, Collin County, Dallas District Texas Antiquities Permit No. 30911

construction. The next section identifies the steps recommended by TxDOT based on the results of the identification efforts and this effects analysis.

Recommendations

TxDOT seeks your concurrence on the following points:

- The identification efforts and analysis of effects completed to date within the existing ROW and 76.8 acres of proposed new ROW are adequate.
- TxDOT shall continue identification efforts within the unevaluated portions of the proposed new ROW, once the ROW has been acquired.
- The attached draft report meets the reporting requirements of the Texas Antiquities Permit issued for the investigation.

Thank you for your consideration of this matter. If you have any questions or have need of further information, please contact me at 512-416-2631.

Sincerely,

Scott Pletka

Sattelle

Archeological Studies Branch Environmental Affairs Division



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

February 14, 2023

RE: CSJ: 0135-04-036; US 380, Widen road, Collin County, Dallas District; Section 106 Consultation

Mr. Jonathan M. Rohrer, THPO Caddo Nation P.O. Box 487 Binger, OK 73009

Dear Mr. Rohrer:

The above referenced transportation project is being considered for construction by the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT). Environmental studies are in the process of being conducted for this project. The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TxDOT.

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

Undertaking Description

TxDOT is proposing to realign US 380 on new location. The new location, controlled-access freeway would realign US 380 north of the City of Princeton within an anticipated proposed right-of-way (ROW) of 320 to 400 feet, depending on location. The proposed project includes 8 to 10 lanes of divided freeway (4 to 5 lanes in each direction) with 12-foot travel lanes, auxiliary lanes (as needed), 15-foot inside shoulders, and 10-foot outside shoulders. The proposed project also includes ramps and continuous two-lane one-way frontage roads with raised curbs, 12-foot travel lanes, and 10-foot shared-use paths. US 380 crosses Lavon Lake; the freeway would be reconstructed within the existing ROW over the lake, including continuous frontage roads on bridge structures. Proposed grade-separated interchanges would be constructed at major cross streets to accommodate connectivity to existing and future roadways and bicycle/pedestrian networks. The proposed project would maintain the existing US 380 roadway through the City of Princeton with connectivity at proposed interchanges on both the east and west sides of the city. This project will utilize funding and/or require approval from the Federal Highway Administration.

Area of Potential Effects

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

- The project limits extend from Farm to Market Road (FM) 1827 to County Road (CR) 560 in within the cities of McKinney, Princeton, and Farmersville in Collin County, Texas, a distance of approximately 11.8 miles. The APE includes any existing ROW within these limits.
- The existing ROW comprises approximately 163.1 acres.
- The proposed project would require up to 375 acres of new right of way.
- The proposed project would require up to acres of five acres of new permanent easements and up to seven acres of temporary easements.
- The estimated depth of impacts is typically two feet with a maximum depth of impacts of 50 feet.
- The APE is further detailed and illustrated in the attached report.

Identification Efforts

For this project, TxDOT has conducted an archeological survey of accessible portions of the APE. See the attached technical report for details.

Findings and Recommendations

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

- The identification efforts and analysis of effects completed to date are adequate.
- No further work or consultation is required within the evaluated portions of the APE. Once
 access is obtained to areas for which access has been denied, TxDOT will complete required
 investigations and consultation prior to construction.

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

Thank you for your attention to this matter. If you have questions, please contact Scott Pletka at 512/416-2631 (email: Scott.Pletka@txdot.gov). When replying to this correspondence by US Mail, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely.

Sattu

Scott Pletka, Environmental Program Manager

Archeological Studies Branch, Environmental Affairs Division

Enclosure

Salazar, Daniel

From: noreply@thc.state.tx.us

Sent: Wednesday, February 22, 2023 9:27 AM **To:** Scott Pletka; reviews@thc.state.tx.us

Subject: 013504036 US 380

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.



Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas

THC Tracking #202305142

Date: 02/22/2023

013504036 US 380 (Permit 30911)

US 380 at FM 1827 Princeton,TX 75407

Description: TxDOT proposes to construct a road on new location. The submitted report is the draft archeological survey report for the accessible portions of the APE.

Dear TxDOT Staff:

Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

The review staff, led by Bill Martin, has completed its review and has made the following determinations based on the information submitted for review:

Archeology Comments

- No historic properties affected. However, if cultural materials are encountered during construction or disturbance activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.
- THC/SHPO concurs with information provided.
- THC/SHPO has comments on the draft report submitted to this office for review.

We have the following comments: The Abstract needs to state where the records will be curated for this survey. Since Lake Lavon is one of the lakes with Wylie pits, the background section should reference them, especially since there is no mention of a Transitional Archaic, which is when these pits first appeared and also because they appear on the list of recorded sites. See the Richland/Chambers report for updated information.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: bill.martin@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit http://thc.texas.gov/etrac-system.

Sincerely,

for Mark Wolfe, State Historic Preservation Officer Executive Director, Texas Historical Commission

William S. Mart

Please do not respond to this email.

Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Historic Resource (Coordination
nistoric Resource C	Soordination
CSJs: 0135-04-036. etc.	

November 2024



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

February 17, 2023

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

Collin County/Dallas District US 380 Widening--Princeton CSJ: 0135-04-036, etc.

Mr. Justin Kockritz History Programs Texas Historical Commission Austin, TX 78711

Dear Mr. Kockritz:

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 12-9-19, and executed by FHWA and TxDOT. In accordance with 36 CFR 800 and our 2015 Section 106 Programmatic Agreement, this letter initiates Section 106 consultation on the effect the proposed undertaking poses for a historic property 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

See attached description from TxDOT's Environmental Coordination Oversight System (ECOS).

Determination of Eligibility

TxDOT historians conducted research to identify properties previously listed in or determined eligible for the National Register of Historic Places (NRHP), as State Antiquities Landmarks (SAL), and Recorded Texas Historic Landmarks (RTHL) in the project's Area of Potential Effect (APE). TxDOT historians determined the area of potential effects (APE) for this project is 150 feet from the existing and proposed new road right-of-way (ROW) and 300 feet from the new location ROW. TxDOT conducted a historic resources reconnaissance survey of the entire APE. We recommend the following historic-age property (built prior to 1982) as eligible for listing in the NRHP:

Caddo Park at Lavon Lake: The US Army Corps of Engineers (USACE) opened Caddo Park in 1975 as part of a pilot program to provide wheelchair-accessible parks along USACE lakes. Caddo Park was one of two parks in Texas in the pilot program and may have been one of the first public parks designed for wheelchair accessibility. The park includes accessible paths, parking lots, bathrooms, picnic tables, fishing areas, and a boat ramp. Caddo Park at Lavon Lake is eligible at the state level of significance under Criterion A for Entertainment/Recreation and Criterion C for Design as recognition for its significance in promoting public accessibility. Only a portion of the park is wheelchair-accessible, and the historic property's boundaries encompass that portion, not the entire boundaries of Caddo Park.

TxDOT finds the remaining 71 historic-age properties identified in the historic resources survey report (HRSR) as not eligible for listing in the NRHP. The properties either do not retain any historic integrity or are not significant in events in history, for people or for design.

Consultation with Interested Parties

TxDOT has conducted multiple stakeholder and public meetings to discuss the project. In addition, TxDOT invited the Collin County Historical Commission to review and comment on the findings in the HRSR, and we have not received any comments from them on the project. The Collin CHC has not participated in any of TxDOT's US 380 widening projects in the county.

Determination of Effects

For the US 380 Princeton Widening project, TxDOT plans to acquire a small portion of ROW from Caddo Park. The portion of ROW needed for this project is along the current US 380 ROW. Overall, Caddo Park encompasses approximately 160 acres. However, the portion of the park that is eligible for the NRHP is only 106.6 acres. TxDOT's ROW acquisition, at the maximum, would be approximately 2.4 acres, for an overall acquisition of 0.02% of the overall historic property.

The proposed new ROW extends approximately 648 feet along the existing TxDOT ROW and does not contain any contributing resources to the historic district. The ROW acquisition is over 400 feet from a contributing resource. While the park is currently closed, the proposed ROW will not affect any future use of the park or its amenities. TxDOT finds that the proposed project will cause **no adverse effect** to Caddo Park.

Section 4(f) Findings

As part of this coordination, TxDOT determined that the proposed project meets the requirements for a Section 4(f) *de minimis* impact findings on Caddo Park under 23 CFR 774. TxDOT based its determination on the fact that the use for the Carroll House is minimal and the project will have **no adverse effect** on the historic property. TxDOT plans to acquire 0.02 percent of the overall historic site and will not affect any character-defining features or attributes of the property.

Conclusion

In accordance with 36 CFR 800 and our Programmatic Agreement, I hereby request your signed concurrence with TxDOT's findings of eligibility and of **no adverse effect**. We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the afore-mentioned MOU dated 12-9-19.

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 call me at (512) 431-3422 or rebekah.dobrasko@txdot.gov.

Sincerely,

Rebekati Dobrasko

Rebekali Dobrasko

Section Director, Cultural Resources Environmental Affairs Division

CONCURRENCE WITH NRHP ELIGIBLITY AND NO ADVERSE EFFECT SECTION 106 DETERMINATION

NAME:

NAME:

Digitally signed by Justin Kockritz Date: 2023.03.01 11:37:38

-06'00'

DATE:

for Mark Wolfe, State Historic Preservation Officer

NO COMMENTS ON DETERMINATION OF *DE MINIMIS* TO SECTION 4(F) REGULATIONS

Digitally signed by Justin Kockritz

Date: 2023.03.01 11:37:50

-06'00'

DATE:____

for Mark Wolfe, State Historic Preservation Officer

Back To List WPD Section I - Project Definition WPD Section II - Tool • WPD Section III - Project Work Plan • WPD Section IV - Findings Print this Page + -Project Definition Project 0135-04-036, etc. US 380 Princeton Improvement Anticipated Environmental Classification: CSJ: 0135 - 04 - 036 Yes 🗸 Is this an FHWA project that normally requires an EIS per 23 CFR 771.115(a)? Project Association(s) Auto Associate CSJ from DCIS Manually Associate CSJ: Add DCIS DCIS Main or Doc **DCIS** Funding **CSJ Env Classification** Actions Number Classification Tracked In Associate CSJ:013503056 Federal,State EΑ NLF Associate Main 1 CSJ:013516002 Federal, State EΑ NLF Associate Main DCIS Project Funding and Location Funding DCIS Funding Type: ☐ Private Federal State ✓ Local Location Highway: US 380 DCIS Project Number: County: COLLIN District: JCT US 380/ EAST PRINCETON DRIVE Project Limit -- From: Project Limit -- To: CR 560 Begin Latitude: + 33 1738780 4943460 Begin Longitude: - 96 End Latitude: + 33 1569736 End Longitude: - 96 3687063 DCIS & P6 Letting Dates DCIS District: 03/27 DCIS Approved: DCIS Actual: P6 Ready To Let: P6 Proposed Letting: DCIS Project Description Type of Work: Spelly Layman's Description: WIDEN ROAD - ADD LANES DCIS Project Classification: WF - WIDEN FREEWAY Design Standard: Roadway Functional Classification: 3 - Rural principal arterial

☐ Jurisdiction

No V Doe	es the project cross a state boundary, or require a new Presidential Permit or modification of an existing Presidential Permit?					
Who is the lead agency responsible for the approval of the entire project?						
✓	FHWA - Assigned to TxDOT □ TxDOT - No Federal Funding □ FHWA - Not Assigned to TxDOT					
Who is the project sponsor as defined by 43 TAC 2.7? Is a local government's or a private developer's own staff or consultant preparing the CE documentation, EA or EIS?						
Yes V Doe	es the project require any federal permit, license, or approval?					
☑ USACE □ IBWC □ USCG □ NPS □ IAJR □ Other						
Yes V Doe	Yes V Does the project occur, in part or in total, on federal or tribal lands?					
Environmental Cleara	nce Project Description					
Project Area						
Typical Depth of Impacts						
New ROW Required: New Perm. Easement Rec	(Catala)					
New Term. Lasement Rec	(Actes) New Temp. Lasement required.					
Project Description						
Describe Limits of All A						
1827 to County Road	of Transportation proposes to improve US 380 from Farm to Market Road (FM) (CR) 560 in within the cities of McKinney, Princeton, and Farmersville in s, a distance of approximately 11.8 miles.					
to west of CR 337.	Proadway would be widened and reconstructed as a freeway facility from FM 1827 From west of CR 337 to east of CR 458, the freeway would be on new location, at a decided the decided of th					
to CR 560 east of I						
	ce currently under consideration - Option A and Option B. s from the proposed alignment at CR 458, heading southeast, traversing the					
back with the propo	the Princeton Crossroads neighborhood crossing Lake Ridge Road, and converging used alignment at CR 492. Option A requires approximately 370 acres of new ROW.					
property, and conve	s from the proposed alignment at CR 458, heading southeast, traversing USACE erging back with the proposed alignment at CR 492. Option B requires					
	approximately 375 acres of new ROW.					
	The existing ROW width is approximately 120-160 feet. The existing ROW width at the existing Lavon Lake bridge is approximately 200 feet. The proposed ROW would be approximately 320-400 feet wide.					
Describe Project Setting	Spell.					

The land use is generally urban (commercial properties and some residential properties) at both the west and east termini. Commercial properties include auto repair shops, storage, and gas stations. In addition, an electrical substation occurs near the eastern project terminus. The remainder of the project and surrounding area is generally rural in nature; however, there is extensive development pressure on the north and east sides of the City of Princeton resulting in the rapid development of residential subdivisions.

Traffic generators in the area include the numerous residential and commercial developments, as well as east-west through traffic on US 380.

Vegetation within the project limits from the western project terminus to approximately County Road (CR) 377 consists of a mix of maintained properties and maintained ROW. Vegetation within the project limits from approximately CR 377 to the Lavon Lake bridge consists of agricultural/pasture, maintained ROW, maintained properties, undeveloped woodland, and riparian corridors. Vegetation within the project limits from the Lavon Lake bridge to the eastern project terminus consists of maintained ROW and maintained properties. Vegetation for the United States Corps of Engineers (USACE) property adjacent to the project and along Lavon Lake is deciduous woodland and floodplain, and riparian hardwood forest.

There are extensive water resources in the project area including eight waterbodies, with the largest being Lavon Lake. In addition, there are numerous 100-year floodplains associated with the major stream crossings including Big Branch, Ticky Creek, Sister Grove Creek, and Pilot Grove Creek, which are located within the project limits.

Community facilities are present along the existing alignment of US 380 starting with the Apostolic Church of Jesus Christ near the western terminus of the project, the recently constructed Princeton City Hall east of CR 458, and the Princeton Police Training Facility near CR 492, which are located within the project limits.

There are two USACE-owned parks immediately adjacent to the existing US 380 alignment. These are Twin Groves Park located on the western shore of Lavon Lake and Caddo Park (currently closed to the public due to maintenance/improvements) located on the eastern shore of Lavon Lake. In addition to the two parks, the project would cross USACE Lake Lavon property that is designated as a wildlife management area. The wildlife management area is used for recreational purposes.

Describe Existing Facility:



The existing US 380 roadway is classified as a principal arterial with a varying speed limit of 45 to 60 miles per hour (mph). The current alignment consists of four 12-foot-wide lanes (two in each direction) with a right-of-way (ROW) width of approximately 120 to 160 feet. In addition, the roadway has a flush median, 6 to 10-foot-wide shoulders, and open vegetated drainage ditches or swales. The existing roadway does not provide pedestrian or bicyclist accommodations.

The existing bridge crossing at Lavon Lake consists of four 12-foot-wide lanes (two in each direction) with 6 to 12-foot-wide shoulders. The ROW width at the bridge is approximately 200 feet.

Describe Proposed Facility:



The new location controlled access freeway would realign US 380 north of the City of Princeton within an anticipated proposed right-of-way (ROW) of 320 to 400 feet, depending on location. The proposed project includes 8 to 10 lanes of divided freeway (4 to 5 lanes in each direction) with 12-foot travel lanes, auxiliary lanes (as needed), 15-foot inside shoulders, and 10-foot outside shoulders. The proposed project also includes ramps and continuous two-lane one-way frontage roads with raised curbs, 12-foot travel lanes, and 10-foot shared-use paths.

US 380 crosses Lavon Lake; the freeway would be reconstructed within the existing ROW over the lake, including continuous frontage roads on bridge structures.

Proposed grade-separated interchanges would be constructed at major cross streets to accommodate connectivity to existing and future roadways and bicycle/pedestrian networks.

The proposed project would maintain the existing US 380 roadway through the City of Princeton with connectivity at proposed interchanges on both the east and west sides of the city.

Yes V Would the project add capacity?			
Transportation Planning No			
The project is located in Non-Attainment/Maintenance This status applies to: □ CO - Carbon Monoxide □ PM10 - Particulate	✓ area. ✓ O3 - Ozone		
Environmental Clearance Information Environmental Clearance Date: Closed Date: Approved Environmental Classification:	Environmental LOA Date: Archived Date:		
Project Contacts Created By: Christine Polito Date Created: 03/26/2020			
Project Sponsor: TXDOT (Or) Local Government Sponsor Point Of Contact: Christine Polito - Environmental Program Manager			
ENV Core Team Member: Michelle Lueck - Environmental Specialist District Core Team Member: Christine Polito - Environmental Program Manager			
Other Point of Contact(s):	\$\sqrt{\sq}}\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}		
Last Updated Christine Polito By:	Last Updated Date: 10/07/2022 07:12:51		



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February 8, 2024

SECTION 4(f) REVIEW: NOTIFICATION OF INDIVIDUAL ALTERNATIVE ANALYSIS

Collin County/Dallas District US 380 Widening--Princeton CSJ: 0135-04-036, etc.

Mr. Justin Kockritz History Programs Texas Historical Commission Austin, TX 78711

Dear Mr. Kockritz:

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 12-9-19, and executed by FHWA and TxDOT. This letter seeks Official With Jurisdiction (OWJ) comment on an individual Section 4(f) analysis for the above-referenced project. As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency.

Project Description

See attached description from TxDOT's Environmental Coordination Oversight System (ECOS).

Presence of Historic Site Protected by Section 4(f):

In past correspondence with your agency in February 2023, TxDOT determined, and your office concurred, that the Caddo Park at Lavon Lake is eligible for the National Register of Historic Places. The US Army Corps of Engineers (USACE) opened Caddo Park in 1975 as part of a pilot program to provide wheelchair-accessible parks along USACE lakes. Caddo Park was one of two parks in Texas in the pilot program and may have been one of the first public parks designed for wheelchair accessibility. The park includes accessible paths, parking lots, bathrooms, picnic tables, fishing areas, and a boat ramp. Caddo Park at Lavon Lake is eligible at the state level of significance under Criterion A for Entertainment/Recreation and Criterion C for Design as recognition for its significance in promoting public accessibility. Only a portion of the park is wheelchair-accessible, and the historic property's boundaries encompass that portion, not the entire boundaries of Caddo Park.

Determination of Section 4f Findings of Use of a Historic Site

In 2023, TxDOT sought your concurrence with our finding that the proposed project would have no adverse effect to Caddo Park at Lavon Lake. However, the additional OWJ for this project, the USACE as owner of the park, did not concur with that finding. Therefore, TxDOT finds that the proposed acquisition of land containing parks and the Caddo Park at Lavon Lake historic site constitutes a use subject to analysis under Section 4(f). TxDOT determined there are no prudent and feasible alternatives that meet the project's purpose and need that would avoid the use of these sites protected under Section 4(f). which are the same as those disclosed in the May 2023 letter.

Based on the Section 4(f) evaluation, TxDOT intends to make the following findings under 23 CFR 774 for this project. Please see the attached Individual Section 4f analysis report for your review. We request your comments on our findings as the OWJ for the Caddo Park at Lavon Lake historic site:

- 1. There is no feasible and prudent avoidance alternative to the use of land from the historic site.
- 2. The Build Alternative includes all possible planning to minimize harm to the property resulting from such use, including the proposed mitigation.

Originally, TxDOT proposed to use approximately 2.4 acres of the Caddo Park Lavon Lake Historic District. To minimize harm to the Caddo Park Lavon Lake Historic District, TxDOT shifted the proposed alignment for Alternative 2 to the south and minimized the proposed acquisition of ROW and easement area from the Section 4(f) property. The proposed design includes retaining walls along the westbound mainlanes to minimize the acquisition of land from the historic site and to minimize the need for grading. The proposed design also includes a parallel ramping scheme for the westbound frontage road entrance ramp to the westbound US 380 mainlanes. The spacing between the frontage road, the entrance ramp, and the mainlanes has been compressed to the minimum necessary to meet design standards. Currently, TxDOT proposes to use only 0.17 acres of the historic site as a permanent easement.

The proposed use does not contain any contributing resources and is over 400 feet from a contributing resource. The portion of the part that is a historic site is 106.6 acres. TxDOT's permanent easement acquisition comprises less than 0.001% of the overall historic site.

Conclusion

We notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our findings will be integrated into decision-making regarding prudent and feasible alternatives for the Section 4(f) evaluation. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the afore-mentioned MOU dated 12-9-19.

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 call me at (512) 431-3422 or rebekah.dobrasko@txdot.gov.

Sincerely,
Pocusioned by:

Rubukah Pobrasko
Rebekah Dobrasko
Section Director, Cultural Resources

NAME:

Section Director, Cultural Resources Environmental Affairs Division

NO COMMENTS ON SECTION 4F INDIVIDUAL ANALYSIS

Digitally signed by Justin

Kockritz

Date: 2024.02.29 13:53:28

-06'00'

for Bradford Patterson, Deputy State Historic Preservation Officer

DATE:____

Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
TPWD Collaborative	e Review
CSJs: 0135-04-036, etc.	

November 2024

From: <u>Leslie Mirise</u>
To: <u>WHAB TXDOT</u>

Cc: <u>Dan Perge; Christine Polito; Stirling Robertson</u>

Subject: CSJ 0135-04-036, etc. US 380 Princeton Improvements Project - Request for Collaborative Review

Date: Monday, January 23, 2023 2:46:56 PM

Hello,

TxDOT requests initial collaborative review for the US 380 Princeton Improvement project in Collin County, Texas. Please see ECOS WPD I screen for the project description. The project includes widening of the existing US 380 and new location roadway within the cities of McKinney, Princeton, and Farmersville, a distance of approximately 11.8 miles. The following file names for relevant documents are available in ECOS:

- 1. CSJ 0135-04-036, etc. US 380 USFWS Species List 20221107.pdf
- 2. CSJ 0135-04-036, etc._US 380_TPWD RTEST Species List_20221108.pdf
- 3. APPROVED 01 0135-04-036, etc. US 380 SAS 20230123.pdf
- 4. APPROVED 02 0135-04-036, etc. US 380 SAF 20230123.pdf
- 5. APPROVED 03 0135-04-036, etc. US 380 BMP Form 20230123.pdf
- 6. APPROVED 04 0135-04-036, etc. US 380 TxNDD accessed 20221222.pdf
- 7. APPROVED 05 0135-04-036, etc. US 380 Mapped EMST 20230123.pdf
- 8. APPROVED 06 0135-04-036, etc. US 380 Observed EMST 20230123.pdf
- 9. APPROVED 07 0135-04-036, etc. US 380 EMST Table 20230123.xlsx
- 10. APPROVED 08 0135-04-036, etc. US 380 Photo Log 20230123.pdf
- 11. APPROVED 09 0135-04-036, etc. US 380 Species Habitat Map 20230123.pdf
- 12. APPROVED 10 0135-04-036, etc. US 380 Soils Map 20230123.pdf
- 13. APPROVED 11 0135-04-036, etc. US 380 Soil Report Option A 20230123.pdf
- 14. APPROVED 12 0135-04-036, etc. US 380 Soil Report Option B 20230123.pdf

The water resources technical documents are in review and will be available soon. As general timeline information, the Draft EA is expected to be published in summer 2023 and environmental clearance in winter 2023. Please contact me with any questions or if additional information is needed.

Thank you,

Leslie Mirise

Environmental Specialist
Dallas District – DAL-ENV
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

Leslie Mirise

From: Leslie Mirise

Sent: Monday, March 20, 2023 4:44 PM

To: Suzanne Walsh

Cc: Christine Polito; Dan Perge

Subject: RE: CSJ 0135-04-036, etc. US 380 Princeton Improvements Project - Request for

Collaborative Review

Attachments: APPROVED 0135-04-036, etc. US 380 BMP Form 20230320.pdf

Suzanne,

Thank you for your comments on the US 380 Princeton Improvements project.

TPWD Recommendation 1: TPWD recommends that the new location roadway section of the proposed project consider further road alignment changes to avoid or reduce impacts on intact native vegetation, riparian corridors, and wetlands. **TxDOT Response 1:** TxDOT considers impacts to natural resources, including but not limited to native vegetation, riparian corridors, and wetlands, during NEPA analysis and project development. Bridges are used as appropriate to minimize impacts to riparian areas, wetlands, and floodways.

TPWD Recommendation 2: TPWD encourages TxDOT to be proactive in incorporating bat-friendly design into bridges and culverts for this proposed project. The creation of additional roosting habitat will help reduce habitat loss impacts to SGCN bat species. TPWD is available to assist with incorporating bat-friendly design.

TxDOT Response 2: TxDOT is taking a proactive approach to evaluate potential locations for bat houses in the project area where practicable. It is not feasible to specify locations or quantities of bat house locations at the current phase of project development. However, as the project progresses through design, TxDOT will review incorporation of bat-friendly design into appropriate locations where practicable.

TPWD Recommendation 3: TPWD recommends that the district implement Invasive Species BMP.

TxDOT Response 3: TxDOT will incorporate the Invasive Species BMP into the BMP Form and include appropriate text in the Draft EA.

Please let me know if I can be of further assistance.

Thank you,

Leslie Mirise

Environmental Specialist
Dallas District – DAL-ENV
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

From: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>

Sent: Friday, March 17, 2023 6:00 PM **To:** Leslie Mirise <Leslie.Mirise@txdot.gov>

Subject: RE: CSJ 0135-04-036, etc. US 380 Princeton Improvements Project - Request for Collaborative Review

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Leslie,

Thank you for your patience.

TPWD recommends that the new location roadway section of the proposed project consider further road alignment changes to avoid or reduce impacts on intact native vegetation, riparian corridors, and wetlands.

TPWD encourages TxDOT to be proactive in incorporating bat-friendly design into bridges and culverts for this proposed project. The creation of additional roosting habitat will help reduce habitat loss impacts to SGCN bat species. TPWD is available to assist with incorporating bat-friendly design.

TPWD recommends that the district implement Invasive Species BMP:

- For all work in_water bodies designated as 'infested' or 'positive' for invasive zebra (*Dreissena polymorpha*) or quagga mussels (*Dreissena bugensis*) on http://texasinvasives.org/zebramussels/ as well as waters downstream of these lakes, all machinery, equipment, vessels, or vehicles coming in contact with such waters should be cleaned prior to leaving the site to remove any mud, plants, organisms, or debris, water drained (if applicable), and dried completely before use in another water body to prevent the potential spread of invasive mussels.
- Care should be taken to prevent the spread of aquatic and terrestrial invasive plants during construction activities. Educate contractors on how to identify common invasive plants and the importance of proper equipment cleaning, transport, and disposal of invasive plants in a manner and location that prevents spread when invasive plants are removed during construction.
- Care should be taken to avoid the spread of aquatic invasive plants such as giant Salvinia (*Salvinia molesta*), common salvinia (*Salvinia minima*), hydrilla (*Hydrilla verticillata*), water hyacinth (*Eichhornia* spp.), Eurasian watermilfoil (*Myriophyllum spicatum*), water lettuce (*Pistia stratiotes*), and alligatorweed (*Alternanthera philoxeroides*) from infested water bodies into areas not currently infested. All machinery, equipment, vessels, boat trailers, or vehicles coming in contact with waters containing aquatic invasive plant species should be cleaned prior to leaving the site to remove all aquatic plant material and dried completely before use on another water body to prevent the potential spread of invasive plants. Removed plants should be transported for disposal in a secure manner to prevent dispersal.
- Colonization by invasive plants should be actively prevented on disturbed sites in terrestrial habitats. Vegetation management should include removing or chemically treating invasive species as soon as practical while allowing the existing native plants to revegetate the disturbed areas; repeated removal or treatment efforts may be needed. Only native or non-invasive plants should be planted. Care should be taken to avoid mowing invasive giant reed (*Arundo donax*), which spreads by fragmentation, and to clean equipment if inadvertently mowed to prevent spread. If using hay bales for sediment control, use locally grown weed-free hay to prevent the spread of invasive species. Leave the hay bales in place and allow them to break down, as this acts as mulch assisting in revegetation.
- Aquatic invasive species (e.g., tilapias (*Oreochromis* spp., *Tilapia zillii*), suckermouth armored catfish (*Hypostomus plecostomus*, *Pterigoplichthys* spp.), Asian clams (*Corbicula fluminea*), zebra mussels (*Dreissena polymorpha*)) or those not native to the subwatershed should not be relocated but rather should be dispatched. Invasive mussels attached to native mussels should be removed and destroyed or disposed prior to relocation of the native mussels. Prohibited aquatic invasive species, designated as such in 31 TAC §57.112, should be killed upon possession.

Please let me know if you have any questions.

Thanks, Suzanne

From: WHAB_TxDOT < WHAB_TxDOT@tpwd.texas.gov >

Sent: Monday, January 23, 2023 4:54 PM **To:** Leslie Mirise < Leslie.Mirise@txdot.gov>

Cc: Suzanne Walsh < Suzanne. Walsh@tpwd.texas.gov >

Subject: FW: CSJ 0135-04-036, etc. US 380 Princeton Improvements Project - Request for Collaborative Review

The TPWD Wildlife Habitat Assessment Program has received your request and has assigned it project ID # 49915. The Habitat Assessment Biologist who will complete your project review is copied on this email.

Thank you,

John Ney

Administrative Assistant

Texas Parks & Wildlife Department

Wildlife Division - Ecological & Environmental Planning Program

4200 Smith School Road

Austin, TX 78744

Office: (512) 389-4571

From: Leslie Mirise < Leslie.Mirise@txdot.gov > Sent: Monday, January 23, 2023 2:47 PM

To: WHAB_TxDOT < WHAB_TxDOT@tpwd.texas.gov >

Cc: Dan Perge < Dan.Perge@txdot.gov >; Christine Polito < Christine.Polito@txdot.gov >; Stirling Robertson

<Stirling.Robertson@txdot.gov>

Subject: CSJ 0135-04-036, etc. US 380 Princeton Improvements Project - Request for Collaborative Review

ALERT: This email came from an external source. Do not open attachments or click on links in unknown or unexpected emails.

Hello,

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- 2. CSJ 0135-04-036, etc._US 380_TPWD RTEST Species List_20221108.pdf
- 3. APPROVED 01 0135-04-036, etc. US 380 SAS 20230123.pdf
- 4. APPROVED 02 0135-04-036, etc. US 380 SAF 20230123.pdf
- 5. APPROVED 03 0135-04-036, etc. US 380 BMP Form 20230123.pdf
- 6. APPROVED 04 0135-04-036, etc. US 380 TxNDD accessed 20221222.pdf
- 7. APPROVED 05 0135-04-036, etc. US 380 Mapped EMST 20230123.pdf
- 8. APPROVED 06 0135-04-036, etc. US 380 Observed EMST 20230123.pdf
- 9. APPROVED 07 0135-04-036, etc. US 380 EMST Table 20230123.xlsx
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- 14. APPROVED 12 0135-04-036, etc. US 380 Soil Report Option B 20230123.pdf

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Thank you,

Leslie Mirise

Environmental Specialist
Dallas District – DAL-ENV
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
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A Texas Department of Transportation message



From: Suzanne Walsh
To: Adelina Munoz

Cc: <u>Mohammed Shaikh; Michelle Lueck; Dan Perge; Jan Heady</u>

Subject: RE: Coordination of the Draft EA: 0135-04-036, etc. US 380 Princeton Notice of Availability of the Draft EA

Date: Tuesday, September 24, 2024 4:45:55 PM

Attachments: <u>image001.png</u>

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Adelina,

Thank you for submitting the following project for coordination of an Environmental Assessment (EA): US 380 from FM 1827 to CR 560 (CSJ: 0135-04-036). TPWD appreciates TxDOT's commitment to implement the practices listed in the Draft EA (January 2024) submitted on August 13, 2024. Based on a review of the documentation, the avoidance and mitigation efforts described, and provided that project plans do not change, TPWD considers coordination to be complete. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect plants, fish, and wildlife.

According to \$2.207(f) of the 2021 TxDOT-TPWD MOU, TxDOT agreed to provide TXNDD reporting forms for observations of tracked SGCN (which includes federal- and state-listed species) occurrences within TxDOT project areas. Please keep this mind when completing project due diligence tasks. For TXNDD submission guidelines, please visit the following link: http://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml

Sincerely,

Suzanne Walsh

Transportation Liaison Phone: (512) 389-4579

From: WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>

Sent: Tuesday, August 13, 2024 11:35 AM

To: Adelina Munoz <Adelina.Munoz@txdot.gov>; WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>; Mohammed Shaikh <Mohammed.Shaikh@txdot.gov>; Michelle Lueck <Michelle.Lueck@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Jan Heady <Jan.Heady@txdot.gov>

Cc: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>

Subject: RE: Coordination of the Draft EA: 0135-04-036, etc. US 380 Princeton Notice of Availability of the Draft EA

assigned it project ID # 52690. The Habitat Assessment Biologist who will complete your project review is copied on this email.

Thank you,

John Ney
Administrative Assistant
Texas Parks & Wildlife Department
Wildlife Division - Ecological & Environmental Planning Program
4200 Smith School Road
Austin, TX 78744

From: Adelina Munoz < Adelina. Munoz@txdot.gov >

Sent: Tuesday, August 13, 2024 8:58 AM

To: WHAB_TxDOT < WHAB_TxDOT@tpwd.texas.gov >

Cc: Mohammed Shaikh < <u>Mohammed.Shaikh@txdot.gov</u>>; Michelle Lueck < <u>Michelle.Lueck@txdot.gov</u>>; Dan Perge < <u>Dan.Perge@txdot.gov</u>>; Jan Heady

<<u>Jan.Heady@txdot.gov</u>>

Office: (512) 389-4571

Subject: Coordination of the Draft EA: 0135-04-036, etc. US 380 Princeton Notice of Availability of

the Draft EA

ALERT: This email came from an external source. Do not open attachments or click on links in unknown or unexpected emails.

Good morning TPWD,

Attached to this email is the Notice of Draft EA and Public Hearing and the request for initial collaboration for this project.

The public hearing materials will be posted on September 12, 2024, at the following web address:

US 380 Princeton public hearing | Keep It Moving Dallas

Type of request: Coordination of Draft EA

CSJs: 0135-04-036, 0135-03-056, and 0135-16-002 **Project Name:** 0135-04-036, etc. US 380 Princeton

Project Location: Cities of McKinney, Princeton and Farmersville in Collin County, Texas

Draft EA in ECOS: APPROVED 0135-04-036, etc. US 380 Princeton Draft EA.pdf

TxDOT ENV Point-of-Contact: Adelina Munoz / Adelina.Munoz@txdot.gov / 214-320-6140

Sincerely,

ADELINA MUÑOZ

Environmental Specialist Dallas Environmental Texas Department of Transportation 4777 E. Highway 80 Mesquite, TX 75150-6643

Office: 214-320-6140 | Adelina.Munoz@txdot.gov

TxDOT.gov | Texas Highways Magazine | Get Involved



Out of office: August 26th-30th



Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Documentation of Texas Parks a	and Wildlife Department Best
Management Pr	
CSJs: 0135-04-036, etc.	

November 2024



FormDocumentation of Texas Parks and Wildlife Department Best Management Practices

Project Name: US 380 Princeton Improvement		
CSJ(s): 0135-03-056, 0315-16-002, and 0135-04-036		
Со	unty(ies): Collin	
Da	te Form Completed: January 23, 2023	
Pr€	epared by: Joseph Jandle (AECOM)	
in t	formation on state-listed species, SGCN, water resources, and other natural resources can be found the ECOS documents tab under the filenames specified in the e-mail sent to HAB_TXDOT@tpwd.texas.gov .	
1.	Does the project impact any state parks, wildlife management areas, wildlife refuges, or other designated protected areas?	
	□ No	
	⊠ Yes	
Tw	o alternatives are currently under consideration - Option A and Option B:	
the bac nev	tion A diverges from the proposed alignment at County Road (CR) 458, heading southeast, traversing e eastern portion of the Princeton Crossroads neighborhood crossing Lake Ridge Road, and converging ck with the proposed alignment at CR 492. Option A requires a total of approximately 393 acres of w ROW/easements and would impact approximately six additional acres of U.S. Army Corps of gineers (USACE) property.	
pro 397	tion B diverges from the proposed alignment at CR 458, heading southeast, traversing USACE operty, and converging back with the proposed alignment at CR 492. Option B requires approximately 7 acres of new ROW/easements and would impact approximately 21 additional acres of USACE operty.	
for	Does TxDOT need TPWD assistance in identifying and locating Section 404 mitigation opportunities this project?	
	No / N/A / Not yet determined	
	☐ Yes	
2.	Is there a species or resource challenge that TPWD can assist with additional guidance? If so,	



At this time, a specific species or resource challenge that TPWD can assist with has not been identified. However, if a species or resource challenge is identified in the future, TxDOT will reevaluate the need for TPWD assistance.

3. List all BMP that will be applied to this project per the document *Beneficial Management Practices:*Avoiding, Minimizing, and Mitigating Impacts of Transportation Projects on State Natural Resources.

*Note, these are BMP that TxDOT commits to implement at the time this form is completed. This list may change prior to or during construction based on changes to project impacts, design, etc.

BMP to be Implemented:

The following specific Taxa BMPs would be implemented as necessary:

2.1 Rare Plant BMP

- The following plant BMP apply to projects within range of and in suitable habitat for all plant SGCN that are listed on TPWD's RTEST online application.
- Survey project area during appropriate seasons to allow for correct species identification. Habitat and survey seasons are usually during the flowering and/or fruiting period listed on the RTEST website, if available. Surveys should be performed within suitable habitat for the species. Survey effort is project-, species- and habitat-dependent. Botanical field surveys should be conducted by qualified individual(s) with botanical experience and according to commonly accepted survey protocols. Ensure that any equipment, tools, footwear and clothing are clean prior to entering the project site area to avoid introducing invasive species. Prior to surveying, TPWD Staff is available to provide assistance with species identification and appropriate survey effort.
- If SGCN plants are located, the surveyor should attempt to determine the complete extent of the occurrence and the approximate number of individuals within the occurrence. Suitable GPS equipment should be used to map the boundaries of the population. Photographs should be taken and/or voucher specimens should be collected (if sufficient plants are present, i.e., more than 10 reproductive plants). Please note that a state collection permit is required from TPWD to collect voucher specimens of state-listed species and a federal collection permit is required from U.S. Fish and Wildlife Service (USFWS) to collect federally listed species. Photographs should capture diagnostic characters of the species for verification and should be discussed with TPWD Staff prior to surveys if surveyor is unfamiliar with the species. Vouchers should be deposited with TPWD Staff or in one of Texas' major herbaria (e.g., University of Texas at Austin, Botanical Research Institute of Texas, Texas A&M University, Sul Ross State University, etc.).
- If there is a known TXNDD SGCN plant population within the project area and project timing or other constraints do not allow for surveys, contact TPWD Transportation Staff as soon as possible to discuss other options.
- If an SGCN plant species is located during surveys of the project area, then complete the following during the construction phase:
 - a. Avoid impacts and minimize unavoidable impacts. Plant locations should be protected with temporary barrier fencing and contractors should be instructed to avoid protected areas. Conducting construction outside of the growing season or after a plant has produced mature fruit is the preferred way to avoid/minimize impacts to SGCN plant populations. Staging areas, stockpiles, and other project related sites on TxDOT ROW should not impact SGCN plant populations. After construction begins,



- minimize herbicide use near SGCN plant populations (if possible, use hand-held spot sprayers, several meters from rare plants, on still or days with little wind).
- b. If there are unintended impacts to SGCN populations, these impacts should be reported to TPWD Transportation Staff.
- c. If the project footprint is finalized or is subject to change AND impacts to SGCN plants cannot be avoided, notify TPWD Transportation Staff as soon as possible. Early notification will allow adequate time and opportunity to seed bank or otherwise conserve populations prior to construction.
- Submit observation(s) of SGCN plant populations and associated data to the TXNDD and WHAB_TxDOT@tpwd.texas.gov. A TXNDD Reporting Form with shapefiles delineating the outer boundary of the population are preferable. Include detailed information on who identified and how a species was identified (resources/references used; diagnostic characters observed). If an SGCN plant population is located near non-native invasive plants, this should be recorded and reported in TXNDD Reporting Form.
- Although these BMP do not apply to federally listed species, the observation of federally listed species should also be submitted to TPWD.
- During project period, conduct work during times of the year when plants are dormant and/or conditions minimize disturbance of the habitat.
- Develop a plan based on growing season, mower height/season, etc. for protecting sites into future. Maps should also be developed for rare plant area, which includes no mow areas. Known rare plant sites on ROWs and/or new sites found in future projects can be added to this map/plan.
- Conducting maintenance outside of the growing season or after a plant has produced mature fruit is the preferred way to avoid/minimize impacts to habitat.

2.6.1 Aquatic Amphibian and Reptile BMP

- For projects within existing right-of-way (ROW) when work is in water or will permanently impact a water feature and potential habitat exists for the target species complete the following:
 - Minimize impacts to wetlands, temporary and permanent open water features, including depressions, and riverine habitats.
 - Maintain the existing hydrologic regime and any connections between wetlands and other aquatic features.
 - Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in construction areas directly adjacent, or that may directly impact, potential habitat for the target species.
 - Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas around wetlands and in riparian areas. If erosion control blankets or mats will be used, the product should not contain netting, but should only contain loosely woven natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic netting should be avoided.
 - Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features.
 - When work is directly adjacent to the water, minimize impacts to shoreline basking sites (e.g., downed trees, sand bars, exposed bedrock) and refugia/overwinter sites (e.g., brush and debris piles, crayfish burrows, aquatic logjams, and leaf packs).



- o If gutters and curbs are part of the roadway design, install gutters that do not include the side box inlet and include sloped (i.e., mountable) curbs to allow small animals to leave roadway. If this modification to the entire curb system is not possible, install sections of sloped curb on either side of the storm water drain for several feet to allow small animals to leave the roadway. Priority areas for these design recommendations are those with nearby wetlands or other aquatic features.
- For projects that require acquisition of additional ROW and work within that new ROW is in water or will permanently impact a water feature, implement BMP for projects within existing ROW above plus those below:
 - For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barriers should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent feature or 80 feet long in each direction, or whichever is the lesser of the two.
 - For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wingwalls and barrier walls with overhangs.
 - When riprap or other bank stabilization devices are necessary, their placement should not impede the movement of terrestrial or aquatic wildlife through the water feature. Biotechnical streambank stabilization methods using live native vegetation or a combination of vegetative and structural materials should be used.

2.6.2 Terrestrial Amphibian and Reptile BMP

- For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling
- Avoid or minimize disturbing or removing cover objects, such as downed trees, rotting stumps, brush piles, and leaf litter. If avoidance or minimization is not practicable, consider removing cover objects prior to the start of the project and replace them at project completion.
- Examine heavy equipment stored on site before use, particularly after rain events when
 reptile and amphibian movements occur more often, to ensure use will not harm individuals
 that might be seeking temporary refuge.
- Due to increased activity (mating) of reptiles and amphibian during the spring, construction
 activities like clearing or grading should attempt to be scheduled outside of the spring
 (March-May) season. Also, timing ground disturbing activities before October when reptiles
 and amphibians become less active and may be using burrows in the project area is also
 encouraged.
- When designing roads with curbs, consider using Type I or Type III curbs to provide a gentle slope to enable turtles and small animals to get out of roadways.
- If Texas tortoises (*Gopherus berlandieri*) or box turtles (*Terrepene* spp.) are present in a project area, they should be removed from the area and relocated between 100 and 200 meters from the project area. After removal of the individuals, the area that will be disturbed during active construction and project specific locations should be fenced off to exclude reentry by turtles, tortoises, and other reptiles. The exclusion fence should be constructed and maintained as follows:
 - The exclusion fence should be constructed with metal flashing or drift fence material.



- Rolled erosion control mesh material should not be used.
- The exclusion fence should be buried at least 6 inches deep and be at least 24 inches high.
- The exclusion fence should be maintained for the life of the project and only removed after the construction is completed and the disturbed site has been revegetated.
- After project is complete, revegetate disturbed areas with an appropriate locally sourced native seed mix. If erosion control blankets or mats will be used, the product should not contain netting, but should only contain loosely woven natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic netting should be avoided.

2.5.3 Bat BMP

- Inform TPWD WHAB during initial collaborative review phase for projects that may impact the following bat species:
 - o Any Myotis spp.
 - Tricolored bat (Perimyotis subflavus)
- If identification of a bat species is in question, consult with TPWD or a qualified TxDOT biologist during initial collaborative review phase.
- For activities that have the potential to impact structures, cliffs or caves, or trees; a qualified biologist will perform a habitat assessment and occupancy survey of the feature(s) with roost potential as early in the planning process as possible or within one year before project letting.
- For roosts where occupancy is strongly suspected but unconfirmed during the initial survey, revisit feature(s) at most four weeks prior to scheduled disturbance to confirm absence of bats.
- If bats are present or recent signs of occupation (i.e., piles of guano, distinct musky odor, or staining and rub marks at potential entry points) are observed, take appropriate measures to ensure that bats are not harmed, such as implementing non-lethal exclusion activities or timing or phasing of construction.
- Exclusion devices can be installed by a qualified individual between September 1 and March 31. Exclusion devices should be used for a minimum of seven days when minimum nighttime temperatures are above 50°F AND minimum daytime temperatures are above 70°F. Prior to exclusion, ensure that alternate roosting habitat is available in the immediate area. If no suitable roosting habitat is available, installation of alternate roosts is recommended to replace the loss of an occupied roost. If alternate roost sites are not provided, bats may seek shelter in other inappropriate sites, such as buildings, in the surrounding area.
- If feature(s) used by bats are removed as a result of construction, replacement structures should incorporate bat-friendly design or artificial roosts should be constructed to replace these features.
- Conversion of property containing cave or cliff features to transportation purposes should be avoided.
- Avoid unnecessary removal of dead fronds on native and ornamental palm trees in south Texas (Cameron, Hidalgo, Willacy, Kenedy, Brooks, Kleberg, Nueces, and San Patricio counties) from April 1 through October 31. If removal of dead fronds is necessary at other times of the year, limit frond removal to extended warms periods (nighttime temperatures ≥ 55°F for at least two consecutive nights), so bats can move away from the disturbance and find new roosts.
- Large hollow trees, snags (dead standing trees), and trees with shaggy bark should be surveyed for colonies and, if found, should not be disturbed until the bats are no longer



- occupying these features. Post-occupancy surveys should be conducted by a qualified biologist prior to tree removal from the landscape.
- Retain mature, large diameter hardwood forest species and native/ornamental palm trees.
- If gating a cave or abandoned mine is desired, consult with TPWD before installing gates. Gating should only be conducted by qualified groups with a history of successful gating operations. Gate designs must be approved by TPWD.
- In all instances, avoid harm or death to bats. Bats should only be handled as a last resort and after communication with TPWD.
- Coordinate with TPWD about the latest bat handling restrictions and protocols involving COVID-19 and bat handling. In general, all staff must follow the guidelines listed below:
 - Do not handle bats if not part of a critical or time-sensitive research project. Contact TPWD to discuss your project needs before beginning work.
 - o All participants must follow CDC social-distancing guidelines.
 - Wear a face mask to minimize the exchange of respiratory droplets such as a surgical mask, dust mask, or cloth mask when within 6 feet of a living bat.
 - Use disposable exam gloves or other reusable gloves (e.g., rubber dish-washing gloves) that can be decontaminated to prevent spread of pathogens. Do not touch your face or other potentially contaminated surfaces with your gloves prior to handling bats.
 - Limit handling to as few handlers as possible.
 - o Do not blow on bats for any reason.
 - Use separate temporary holding containers for each bat such as disposable paper bags.
 - Caves housing bats should be avoided unless absolutely necessary.
 - o Implement additional disinfection, guarantine, and cleaning procedures.
- Bat surveys of structures should include visual inspections of structural fissures (cracked or spalled concrete, damaged or split beams, split or damaged timber railings), crevices (expansion joints, space between parallel beams, spaces above supports piers), and alternative structures (drainage pipes, bolt cavities, open sections between support beams, swallow nests) for the presence of bats.
- Before excluding bats from any occupied structure, bat species, weather, temperature, season, and geographic location must be incorporated into any exclusion plans to avoid unnecessary harm or death to bats. Winter exclusion must entail a survey to confirm either,
 1) bats are absent or 2) present but active (i.e., continuously active not intermittently active due to arousals from hibernation).
 - Avoid using materials that degrade quickly, like paper, steel wool or rags, to close holes
 - Avoid using products or making structural modifications that may block natural ventilation, like hanging plastic sheeting over an active roost entrance, thereby altering roost microclimate.
 - Avoid using chemical and ultrasonic repellents.
 - o Avoid use of silicone, polyurethane or similar non-water-based caulk products.
 - Avoid use of expandable foam products at occupied sites.
 - Avoid the use of flexible netting attached with duct tape.
- In order to avoid entombing bats, exclusion activities should be only implemented by a qualified individual. A qualified individual or company should possess at least the following minimum qualifications:



- Experience in bat exclusion (the individual, not just the company).
- o Proof of rabies pre-exposure vaccinations.
- Demonstrated knowledge of the relevant bat species, including maternity season date range and habitat requirements.
- o Demonstrated knowledge of rabies and histoplasmosis in relation to bat roosts.
- Contact TPWD for additional resources and information to

2.2.1 Bird BMP

- The following Bird BMP apply to projects within the range and in suitable habitat for all bird SGCN listed on TPWD's RTEST application. Please note that projects within the range and in suitable habitat for the bald eagle (*Haliaeetus leucocephalus*) are required to comply with the Bald and Golden Eagle Protection Act.
- In addition to complying with the Migratory Bird Treaty Act (MBTA) and Chapter 64 of the Parks and Wildlife Code (PWC) regarding nongame bird protections, perform the following BMP:
- Avoid vegetation clearing activities during the general bird nesting season, March through August, to minimize adverse impacts to birds.
- Prior to construction, perform daytime surveys for nests including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be disturbed. If active nests are observed during surveys, TPWD recommends a 150-foot buffer of vegetation remain around the nests until the young have fledged or the nest is abandoned.
- Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season.
- If unoccupied, inactive nests will be removed, ensure that nests are not protected under the Endangered Species Act (ESA), MBTA, or BGEPA.
- Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair.
- Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.
- Minimize extended human presence near nesting birds during construction and maintenance activities. Protect sensitive habitat areas with temporary barriers or fencing to limit human foot-traffic and off-road vehicle use to alert and discourage contractors from causing any unintentional impacts.
- Minimize construction noise above ambient levels during general bird nesting season to minimize adverse impacts on birds.
- Minimize construction lighting during the general bird nesting season by scheduling work activities between dawn and dusk.

2.4.3 Freshwater Mussel BMP

- In addition to Water Quality and Stream Crossing BMP, follow the most recent, "TPWD— TxDOT Annual Work Plan for Pre-Construction Surveys, Aquatic Resources Relocations, and Other Best Management Practices to Avoid, Minimize, and Mitigate Impacts to Freshwater Resources."
- When work is adjacent to the water: Water Quality BMP implemented as part of the Texas
 Commission on Environmental Quality (TCEQ) Stormwater Pollution Prevention Plan (SWPPP)
 for a construction general permit or any conditions of the 401 Water Quality Certification for
 the project will be implemented. (Note: SWPPP and 401 BMP are not listed in this document).



2.4.4 Insect Pollinator BMP

- Mowing should only be applied to 30% or less of a site in a given year when practical. In general, mowing is inadequate for management of native insect pollinator habitat in the long term, except to remove annual non-native plants during establishment (i.e., high-mowing before they flower) or to facilitate a light disking. When conducted it should be done post bloom or when host plants have gone dormant for the growing season. This can also be done by leaving strips of habitat farthest from road or highway corridors un-mowed when practical.
 If mowing is required during period of active bloom or high pollinator activity it should be implemented during the heat of the day and with a high mower deck to allow for pollinators to escape and to give late season blooming species a chance to recover and bloom.
- Deep soil disturbances, such as, tilling or deep disking in areas that host aggregations of ground-nesting bees should be avoided. Tilling and disking also may promote the invasion or germination of non-native plants. Different species of native ground-nesting bees prefer different soil conditions, although research suggests that many ground nesting bees prefer sandy, loamy sand or sandy loam soils. In areas with these soil types consider leaving open patches of soil.
- Allow dead trees to stand (so long as they do not pose a risk to property or people) and protect shrubs and herbaceous plants with pithy or hollow stems (e.g., cane fruits, sumac, elderberry), as these provide nesting habitat for tunnel-nesting native bees.
- Retain dead or dying branches whenever it is safe and practical at the edges of the ROW.
 Wood-boring beetle larvae often fill dead trees and branches with narrow tunnels into which tunnel-nesting bees will establish nests. Additionally, bumble bees may choose to nest in wood piles.
- Retain rotting logs at edges of the ROW where some bee species may burrow tunnels in which to nest.
- Protect sloped or well-drained ground sites where plants are sparse and direct access to soil is available. These are the areas where ground-nesting bees may dig nests. Turning the soil destroys all ground nests that are present at that depth and hinders the emergence of bees that are nesting deeper in the ground.
- Protect grassy thickets, or other areas of dense, low cover from mowing or other disturbance.
 These are the sites where bumble bees might find the nest cavities they need, as well as annual and perennial wildflowers that can provide important food resources.
- Where available and economical, native plants and seed should be procured from local ecotype providers. Seed mixes should be diverse and include as many ecoregion natives as possible ensuring full season floral resources. Species by Texas ecoregion can be found in the Texas Management Recommendations for Native Insect Pollinators in Texas document: https://tpwd.texas.gov/publications/pwdpubs/media/pwd_bk_w7000_1813.pdf.
- Planting at least three different native flowering plants within each of three blooming periods are recommended (spring, summer, early fall) in high rainfall regions of Texas. In drier regions of the state, a target of three native flowering plants within each of two blooming periods can be used. In areas along the I-35 corridor of central Texas consider increasing fall blooming nectar resources as this is a critical time period of monarch butterflies (*Danaus plexippus*) and nesting bees and has been identified as a critical need for these species in Texas. Habitat enhancements for native pollinators should include at least one native bunchgrass adapted to the site.



Utilize an Integrated Pest Management Strategy (IPM) strategy for controlling weedy or
invasive plants by minimizing broad use of certain herbicides and surfactants in close
proximity to intact habitats utilized by native pollinators. Reduce application timing to periods
of low pollinator activity and not during peak bloom season.

1.4 Water Quality BMP

In addition to BMP required for a TCEQ Storm Water Pollution Prevention Plan and/or 401 Water Quality Certification:

- Minimize the use of equipment in streams and riparian areas during construction. When possible, equipment access should be from banks, bridge decks, or barges.
- When temporary stream crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.
- Wet-Bottomed detention ponds are recommended to benefit wildlife and downstream water quality. Consider potential wildlife-vehicle interactions when siting detention ponds.
- Rubbish found near bridges on TxDOT ROW should be removed and disposed of properly to minimize the risk of pollution. Rubbish does not include brush piles or snags.

1.5 Stream Crossings BMP

- Use spanning bridges rather than culverts.
- If using a culvert, staggered culverts that concentrate low flows but provide conveyance of higher flows through staggered culverts placed at higher elevations is recommended.
- Bottomless culverts are recommended to allow for fish and other aquatic wildlife passage in the low flow channel. If bottomless culverts are not used, making a low flow channel for fish passage is recommended.
- Avoid placing riprap across stream channels and instead use alternative stabilization such as biotechnical stream bank stabilization methods including live native vegetation or a combination of vegetative and structural materials. When riprap or other bank stabilization devices are necessary, their placement should not impede the movement of aquatic and terrestrial wildlife underneath the bridge. In some instances, rip rap may be buried, backfilled with topsoil and planted with native vegetation.
- Incorporate bat-friendly design into bridges and culverts.
- Design bridges for adequate vertical and horizontal clearances under the roadway to allow for terrestrial wildlife to safely pass under the road.
- A span wide enough to cross the stream and allow for dry ground and a natural surface path under the roadway is encouraged. For culverts, incorporation of an artificial ledge inside the culvert on one or both sides for use by terrestrial wildlife is recommended.
- Riparian buffer zones should remain undisturbed.

1.2 Vegetation BMPs

- Minimize the amount of vegetation cleared. Removal of native vegetation, particularly
 mature native trees and shrubs should be avoided. Impacted vegetation should be replaced
 with in-kind on-site replacement/restoration of native vegetation.
- To minimize adverse effects, activities should be planned to preserve mature trees, particularly acorn, nut or berry producing varieties. These types of vegetation have high value to wildlife as food and cover.



- It is strongly recommended that trees greater than 12 inches in diameter at breast height (DBH) that are removed be replaced. TPWD's experience indicates that for ecologically effective replacement, a ratio of three trees for every one (3:1) lost should be provided to either on-site or off-site. Trees less than 12 inches DBH should be replaced at a 1:1 ratio.
- Replacement trees should be of equal or better wildlife quality than those removed and be regionally adapted native species.
- When trees are planted, a maintenance plan that ensures at least an 85 percent survival rate after three years should be developed for the replacement trees.
- The use of any non-native vegetation in landscaping and revegetation is discouraged. Locally adapted native species should be used.
- The use of seed mix that contains seeds from only regional ecotype native species is recommended.

1.1 General Design and Construction BMP

- Employees and contractors will be provided information prior to start of construction to
 educate personnel of the potential for all state-listed threatened species or other SGCN to
 occur within the project area and should be advised of relevant rules and regulations to
 protect plants, fish, and wildlife.
- Contractors will be informed to avoid harming all wildlife species if encountered and allow them to safely leave the project site. Due diligence should be used to avoid killing or harming any wildlife species in the implementation of transportation projects.
- Direct animals away from the construction area with the judicious use and placement of sediment control fencing to exclude wildlife. Exclusion fence should be buried at least 6 inches and be at least 24 inches high, maintained for the life of the project, and removed after construction is completed. Contractors should examine the inside of the exclusion area daily to determine if any wildlife species have been trapped inside the area of impact and provide safe egress opportunities prior to initiation of construction activities.
- Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas around wetlands and in riparian areas.
- If erosion control blankets or mats will be used, the product should not contain netting, but should only contain loosely woven natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic netting should be avoided.
- Project staging areas, stockpiles, temporary construction easements, and other project
 related sites should be situated in previously disturbed areas to avoid or minimize impacts to
 sensitive or unique habitats including intact native vegetation, floodplains, riparian corridors,
 wetlands, playa lakes, and habitat for wildlife species.
- When lighting is added, consider wildlife impacts from light pollution and incorporating darksky practices into design strategies. Minimize sky glow by focusing light downward, with full cutoff luminaries to avoid light emitting above the horizontal. The minimum amount of nighttime lighting needed for safety and security should be used.

1.3 Invasive Species BMP

• For all work in water bodies designated as 'infested' or 'positive' for invasive zebra (*Dreissena polymorpha*) or quagga mussels (*Dreissena bugensis*) on



http://texasinvasives.org/zebramussels/ as well as waters downstream of these lakes, all machinery, equipment, vessels, or vehicles coming in contact with such waters should be cleaned prior to leaving the site to remove any mud, plants, organisms, or debris, water drained (if applicable), and dried completely before use in another water body to prevent the potential spread of invasive mussels.

- Care should be taken to prevent the spread of aquatic and terrestrial invasive plants during
 construction activities. Educate contractors on how to identify common invasive plants and
 the importance of proper equipment cleaning, transport, and disposal of invasive plants in a
 manner and location that prevents spread when invasive plants are removed during
 construction.
- Care should be taken to avoid the spread of aquatic invasive plants such as giant Salvinia (Salvinia molesta), common salvinia (Salvinia minima), hydrilla (Hydrilla verticillata), water hyacinth (Eichhornia spp.), Eurasian watermilfoil (Myriophyllum spicatum), water lettuce (Pistia stratiotes), and alligatorweed (Alternanthera philoxeroides) from infested water bodies into areas not currently infested. All machinery, equipment, vessels, boat trailers, or vehicles coming in contact with waters containing aquatic invasive plant species should be cleaned prior to leaving the site to remove all aquatic plant material and dried completely before use on another water body to prevent the potential spread of invasive plants. Removed plants should be transported for disposal in a secure manner to prevent dispersal.
- Colonization by invasive plants should be actively prevented on disturbed sites in terrestrial habitats. Vegetation management should include removing or chemically treating invasive species as soon as practical while allowing the existing native plants to revegetate the disturbed areas; repeated removal or treatment efforts may be needed. Only native or non-invasive plants should be planted. Care should be taken to avoid mowing invasive giant reed (Arundo donax), which spreads by fragmentation, and to clean equipment if inadvertently mowed to prevent spread. If using hay bales for sediment control, use locally grown weed-free hay to prevent the spread of invasive species. Leave the hay bales in place and allow them to break down, as this acts as mulch assisting in revegetation.
- Aquatic invasive species (e.g., tilapias (*Oreochromis* spp., *Tilapia zillii*), suckermouth armored catfish (*Hypostomus plecostomus*, *Pterigoplichthys* spp.), Asian clams (*Corbicula fluminea*), zebra mussels (*Dreissena polymorpha*)) or those not native to the subwatershed should not be relocated but rather should be dispatched. Invasive mussels attached to native mussels should be removed and destroyed or disposed prior to relocation of the native mussels. Prohibited aquatic invasive species, designated as such in 31 TAC §57.112, should be killed upon possession.
- 4. List all TxDOT species protection specifications that will be applied to this project (e.g., Amphibian and Reptile Exclusion Fence, Bat Houses, etc.)

Species protection specifications to be Implemented:

Form: Documentation of Texas Parks and Wildlife Department Best Management Practices		
, _	mentation of Texas Parks and Wildlife Department Be	

Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Texas Commission on	Environmental Quality
CS Is: 0125 04 026 ata	

CSJs: 0135-04-036, etc. November 2024 Jon Niermann, *Chairman*Bobby Janecka, *Commissioner*Catarina R. Gonzales, *Commissioner*Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 4, 2024

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:

NITED STATES HIGHWAY (US) 380 PRINCETON FROM FARM-TO-MARKET (FM) 1827 TO COUNTY ROAD (CR) 560, COLLIN COUNTY, TEXAS, CSJS: 0135-04-036, 0135-03-056, 0135-16-002.

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 severe nonattainment for the 2008 ozone National Ambient Air Quality Standard (NAAQS) and serious nonattainment for the 2015 ozone NAAQS. Air Quality staff has reviewed the document in accordance with transportation and general conformity regulations codified in 40 Code of Federal Regulations Part 93. We concur with TxDOT's assessment.

We are in support of the project. The environmental assessment addresses issues related to surface and groundwater quality.

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 contact the agency NEPA coordinator at (512) 239-0010 or NEPA@tceq.texas.gov

From: Mohammed Shaikh
To: Lee, Erin; Salazar, Daniel
Cc: Dan Perge; Stephen Endres

Subject: FW: CSJs: 0135-04-036, 0135-03-056, & 0135-16-002 - US 380 Princeton Draft EA Available for review

Date: Wednesday, September 4, 2024 2:08:43 PM

Attachments: <u>image001.png</u>

TxDOT NEPA Response Letter 24-19.pdf

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Report Suspicious

Erin and Daniel,

Please see attached response from TCEQ. Please incorporate this in the final EA.

Thanks,

Mohammed

From: NEPA < NEPA@tceq.texas.gov>

Sent: Wednesday, September 4, 2024 1:01 PM

To: Mohammed Shaikh < Mohammed . Shaikh@txdot.gov>

Cc: DAL-ENV <DAL-ENV@txdot.gov>; Michelle Lueck <Michelle.Lueck@txdot.gov>

Subject: RE: CSJs: 0135-04-036, 0135-03-056, & 0135-16-002 - US 380 Princeton Draft EA Available

for review

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Dear Mohammed,

Attached is the NEPA review by TCEQ for the proposed project "NITED STATES HIGHWAY (US) 380 PRINCETON FROM FARM-TO-MARKET (FM) 1827 TO COUNTY ROAD (CR) 560, COLLIN COUNTY, TEXAS, CSJS: 0135-04-036, 0135-03-056, 0135-16-002" in Collin County.

Please feel free to contact us if you require additional information.

Have a great day!



Information Specialist II External Relations Division

Texas Commission on Environmental Quality

Ph: 512-239-5538

stefania.munoz@tceq.texas.gov



How's our Customer service? Please fill out our **Customer Satisfaction Survey**.

From: Mohammed Shaikh < <u>Mohammed.Shaikh@txdot.gov</u>>

Sent: Tuesday, August 13, 2024 4:37 PM

To: NEPA < <u>NEPA@tceq.texas.gov</u>>

Cc: DAL-ENV <<u>DAL-ENV@txdot.gov</u>>; Michelle Lueck <<u>Michelle.Lueck@txdot.gov</u>>

Subject: CSJs: 0135-04-036, 0135-03-056, & 0135-16-002 - US 380 Princeton Draft EA Available for

review

Good afternoon,

Attached please find a Notice of Availability of a DRAFT environmental assessment for the US 380 widening project in Collin County, Texas.

Thank you,
Mohammed Shaikh
Environmental Program Manager
DAL - ENV
Texas Department of Transportation
4777 E. Highway 80

Tel: 214-320-6148

Mesquite, TX 75150-6643



Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Documentation of the S	ection 4(f)
	`,
CSJs: 0135-04-036, etc.	

November 2024



United States Department of the Interior

OFFICE OF THE SECRETARY

Office of Environmental Policy and Compliance 1001 Indian School Road NW, Suite 348 Albuquerque, New Mexico 87104

Electronic Submittal Only ER 24/0049

March 6, 2024

Mohammed Shaikh Texas Department of Transportation mohammed.shaikh@txdot.gov

Subject: Comments on the Texas Department of Transportation (TxDOT) Individual

Section 4(f) Evaluation for the US 380 Princeton Project, Dallas District, Collin

County, Texas

Dear Mr. Shaikh:

The United States (U.S.) Department of the Interior (Department) has reviewed the TxDOT individual Section 4(f) evaluation for the US 380 Princeton Project, Dallas District, Collin County, Texas.

The Department understands the purpose of the project is to is to meet current roadway design standards and traffic demand to reduce congestion and improve mobility, safety, and access on US 380 from County Road 560 to FM 1827 along existing US 380 through Princeton. The evaluation seeks to analyze impacts to properties that qualify under Section 4(f) of the U.S. Department of Transportation Act.

Section 4(f) of the U.S. Department of Transportation Act specifies that the Secretary of Transportation may approve a transportation program or project requiring the use of Section 4(f) property only if there is no prudent and feasible alternative that avoids the Section 4(f) property and that the project includes all possible planning to minimize harm to the Section 4(f) property; or, FHWA makes a finding that the project has a de minimis impact on the Section 4(f) property. The proposed project would require use from six Section 4(f) resources:

1. Lavon Lake Wildlife Management Area - The proposed improvements to US 380 would require the permanent incorporation of 21 acres of permanent easement from the Lavon Lake Wildlife Management Area (WMA), publicly owned and operated by United States Army Corps of Engineers (USACE). The proposed use would convert wildlife habitat to transportation use in a small portion of the WMA (0.33 percent of the total

area), although it would not impair the activities, attributes, or features of the overall WMA to the extent that the public recreational use and enjoyment of the overall property could not continue.

- 2. **Twin Groves Park** The proposed improvements to US 380 would require the permanent incorporation of 0.02 acres of right-of-way and 0.53 acres of permanent easement from Twin Groves Park, publicly owned and operated by USACE. The proposed use would not impair the activities, attributes, or features of Twin Groves Park.
- 3. **Lavon Lake Low Density Recreation Area** The proposed improvements to US 380 would require the permanent incorporation of 0.29 acres of permanent easement from the Low Density Recreation area publicly owned and operated by USACE. The proposed use would not impair the activities, attributes, or features of the Lavon Lake Low Density Recreation Area.
- 4. **Caddo Park** The proposed improvements to US 380 would require the permanent incorporation of 0.17 acres of permanent easement from Caddo Park, publicly owned and operated by USACE. The proposed use would not impair the activities, attributes, or features of Caddo Park.
- 5. **Lavon Lake Vegetative Management Area** The proposed improvements to US 380 would require the permanent incorporation of 1.07 acres of permanent easement from the Lavon Lake Vegetative Management Area publicly owned and operated by USACE. The proposed use would not impair the activities, attributes, or features of the Lavon Lake Vegetative Management Area.
- 6. **Caddo Park Lavon Lake Historic District** The proposed improvements to US 380 would require the permanent incorporation of 0.17 acres of permanent easement from the Caddo Park Lavon Lake Historic District. The proposed use would have no adverse effect to the Caddo Park Lavon Lake Historic District.

For all six Section 4(f) resources, as defined in 23 CFR 774.17, TxDOT concluded there were no feasible and prudent alternatives to the use, and the proposed project included all possible planning to minimize harm to the Section 4(f) properties.

The Department has reviewed the individual Section 4(f) evaluation provided by TxDOT for this project, and the Department has no objection to the Section 4(f) evaluation of this project. The Department concurs with the determination that there are no prudent and feasible avoidance alternatives for Section 4(f) use of the historic properties noted, and that the Section 4(f) evaluation describes the affected Section 4(f) resources including properties that are listed or eligible for listing in the National Register of Historic Places. Pursuant to Section 6(f) of the Land and Water Conservation Fund Act (LWCF), please also coordinate with the state agency coordinators for the LWCF Program-assisted project entitled 48-01083 Farmersville South Lake Park II. Pursuant to the 2015 Section 106 Programmatic Agreement and continued consultation

with the Texas State Historic Preservation Office, the Department has no objection to Section 4(f) approval of this project.

The Department has a continuing interest in working with TxDOT to ensure that impacts to resources of concern to the Department are adequately addressed. For matters related to the Department's Section 4(f) comments, please contact Karen Skaar, NEPA Specialist, National Park Service – Regions 6, 7, and 8 at 303-349-4160 or karen-skaar@nps.gov.

If you have any additional questions for the Department or need assistance, please contact me at 720-814-6167 or rebecca collins@ios.doi.gov.

Sincerely,

REBECCA COLLINS

Digitally signed by REBECCA COLLINS Date: 2024.03.06 13:24:01 -07'00'

Rebecca Collins, Regional Environmental Officer Office of Environmental Policy and Compliance

Cc: Karen Skaar, National Park Service, <u>karen skaar@nps.gov</u>
Roxanne Runkel, National Park Service, <u>roxanne runkel@nps.gov</u>

Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Appendix G: Section 4(f)	Documentation



Final Individual Section 4(f) Evaluation

US 380 Princeton Project, Dallas District

From Farm-to Market (FM) Road 1827 to County Road (CR 560)

CSJ Number(s): 0135-04-036, 0135-03-056, and 0135-16-002

November 2024

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 12-9-2019, and executed by FHWA and TxDOT.

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Introduction

The Texas Department of Transportation (TxDOT), in conjunction with Collin County, is proposing the construction of a new location, controlled-access freeway north of the city of Princeton from west of County Road (CR) 337 to east of CR 458 and the reconstruction and widening of the existing United States (US) 380 roadway from Farm-to-Market (FM) 1827 to west of CR 337 and east of CR 458 to CR 560 (see **Figure 1**). The distance of the proposed US 380 Princeton project is approximately 11.8 miles. The existing US 380 roadway would remain.

II Description of the Proposed Action

II.A Purpose and Need for the Project

II.A.i Need

The project is needed because the existing US 380 from CR 560 to FM 1827 (1) offers inadequate capacity to meet the future increase in traffic demand stemming from projected population growth, (2) presents safety concerns along existing US 380 through Princeton, and (3) does not meet current design standards.

II.A.ii Purpose

The purpose of the proposed project is to improve mobility, accommodate future traffic demand, improve safety, and comply with current roadway design standards.

II.B Existing Facility

The existing US 380 roadway, also known as Princeton Drive, consists of four 12-foot-wide lanes (two in each direction), divided with a flush median; six- to 10-foot-wide outside shoulders; and open vegetated drainage ditches or swales. The right-of-way (ROW) width for the existing facility ranges from approximately 120 to 160 feet. The existing bridge crossing Lavon Lake consists of four 12-foot-wide lanes (two in each direction) with six- to 12-foot-wide shoulders. The existing ROW width at the existing Lavon Lake bridge is approximately 200 feet.

The existing US 380 roadway, classified as a principal arterial, runs east and west through the cities of McKinney, Princeton, and Farmersville and is intersected by several county roads, city streets, and driveways. The posted speed limit along US 380 varies from 45 to 60 miles per hour. There are no bicycle or pedestrian facilities along the existing US 380 roadway.

II.C Proposed Improvements

The proposed US 380 Princeton project would create a new location, controlled-access freeway extending north of the city of Princeton from west of CR 337 to east of CR 458, with reconstruction and widening of the existing US 380 roadway from FM 1827 to west of CR 337 and east of CR 458 to CR 560. The proposed US 380 Princeton project crossing at Lavon Lake includes reconstructing the existing US 380 and adding frontage roads. The proposed US 380 Princeton project includes a new location alignment that diverges from the existing US 380 alignment at CR 458, heading southeast, traversing US Army Corps of Engineers (USACE) property, specifically a Wildlife Management Area (WMA), and converging back with the existing alignment at CR 492.

The new location alignment would be constructed as an eight to 10-lane divided freeway with 12-foot-wide main lanes, auxiliary lanes, ramps, and 10-foot-wide outside and 15-foot-wide inside shoulders. The proposed project would also include continuous, one-way frontage roads with two 12-foot-wide lanes with raised curbs and continuous 10-foot-wide shared-use paths on both sides of the facility. The proposed project would be constructed within a proposed ROW width of approximately 320 to 536 feet, depending on location. US 380 would be reconstructed within the existing ROW over Lavon Lake, including continuous frontage roads on bridge structures.

The proposed facility would be a controlled-access freeway with entrance and exit ramps. In addition, the proposed US 380 Princeton project would include grade-separated interchanges at major cross streets to accommodate connectivity to existing and future roadways and bicycle/pedestrian networks. The proposed project would maintain the existing US 380 roadway through the city of Princeton with connectivity at proposed interchanges on both the east and west sides of the city.

The proposed facility would include overpasses at the following cross streets to accommodate connectivity to existing and future roadways and bicycle/pedestrian networks: CR 337, Future CR 404 (by others), Future Princeton Parkway (by others), FM 75, FM 1377, CR 458, East Princeton Drive, Twin Groves Park Road/Future Road, and Caddo Park Road. The proposed project would bridge over 11 stream crossings. All bridges would be prestressed concrete with girders.

The construction limits account for transitions into the existing US 380 roadway. The construction limits extend approximately 2,070 feet, or 0.39 mile, east of FM 1827 and approximately 1,120 feet (0.21 mile) west of CR 560.

The total project cost is estimated to be approximately \$890 million. The project would be funded by state, federal, and local funds.

II.D Preferred Build Alternative

Alternative 2 (the Build Alternative) is the preferred build alternative for this project. It extends 11.8 miles along the existing US 380 from approximately 0.6 miles east of Private Road 5446, where the new location alignment begins and continues easterly for approximately six miles to CR 458. From here, Alternative 2 diverges to the southeast, traversing the western portion of the USACE Lavon Lake property and connecting to existing US 380 at CR 492. Alternative 2 crosses Lavon Lake and terminates approximately 0.06 miles west of CR 560 (see **Figure 2**).

The new location, controlled-access freeway would realign US 380 north of Princeton within an anticipated proposed ROW width of 320 to 400 feet. The proposed project includes eight to 10 lanes of divided freeway (four to five lanes in each direction) with 12-foot-wide travel lanes, auxiliary lanes, 10-foot-wide outside shoulders, and 15-foot-wide inside shoulders. The proposed project also includes ramps and continuous two-lane, one-way frontage roads with raised curbs and 10-foot shared-use paths on both sides of the facility. Where the proposed project traverses the USACE WMA, the proposed freeway would include mainlanes, ramps, and auxiliary lanes on bridge structures with no frontage roads within an easement width ranging from approximately 190 to 311 feet.

Where US 380 crosses Lavon Lake, the freeway would be reconstructed within the existing ROW and easement over the lake, including continuous frontage roads on bridge structures. Proposed grade-separated interchanges would be constructed at major cross streets to provide connectivity to existing and future roadways and bicycle and pedestrian networks. The existing US 380 roadway through Princeton would remain in place. The new-location freeway would connect to existing US 380 via proposed interchanges on both the east and west sides of Princeton.

Section 4(f) Evaluation

This Section 4(f) evaluation is being prepared to comply with Section 4(f) of the Department of Transportation Act of 1966 (23 USC 138) and FHWA's regulations implementing Section 4(f) (23 CFR Part 774). The project would require the use of six Section 4(f) properties:

- Lavon Lake Wildlife Management Area
- Lavon Lake Low Density Recreation Area
- Twin Groves Park
- Caddo Park
- Lavon Lake Vegetative Management Area
- Caddo Park Lavon Lake Historic District

III.A Section 4(f) Evaluation for Lavon Lake Wildlife Management Area

III.A.i Description of Lavon Lake Wildlife Management Area

Lavon Lake is a multipurpose reservoir property owned and operated by USACE. The lake and associated federal lands are located within Collin County along the East Fork of the Trinty River approximately 22 miles northeast of Dallas, Texas. The northern extent of the lake lies between the cities of Princeton and Farmersville; US 380 crosses Lavon Lake connecting the two cities as well as points east and west of the lake. The Lavon Lake property, originally constructed in the 1950s, is publicly owned and managed for public recreation, environmental stewardship, flood risk management, and water conservation (USACE 2016). The total area of the lake and surrounding public lands is approximately 16,606 acres and in addition to the water surface, it includes the following land classifications: High Density Recreation, Environmentally Sensitive Areas, Low Density Recreation, Wildlife Management, and Vegetation Management (see Figure 3). Each of the individual land classifications within the larger Lavon Lake Section 4(f) property are considered separate Section 4(f) properties for the purposes of this evaluation.

According to the USACE Lavon Lake Master Plan, the Wildlife Management Area at Lavon Lake encompasses approximately 6,480 acres (USACE 2016). The WMA is not contiguous and is typically found along major tributaries to the lake. USACE manages these areas to support native vegetation and native wildlife species. The public uses the WMA for hiking, horseback riding on existing trails, bank fishing, canoeing and kayaking, and hunting (USACE 2016).

III.A.ii Proposed Use of Lavon Lake Wildlife Management Area

The proposed improvements to US 380 would require the permanent incorporation of 23 acres of permanent easement from the Lavon Lake WMA on the northeast side of the city of Princeton, west of Lavon Lake. This would constitute 0.35 percent of the total 6,480-acre WMA surrounding Lavon Lake. The proposed project in this area would be on new location and would include the construction of new US 380 elevated mainlanes without frontage roads. The permanent incorporation of land would affect a densely vegetated strip of trees approximately 2,400 feet long and up to 300 feet wide along the western boundary of the USACE property; the area is adjacent to a new residential subdivision known as Princeton Crossroads (see **Figure 4**). No public trails or other recreational improvements within the park would be affected by the use, and the area to be converted to transportation use is not along a creek or the shoreline of Lavon Lake.

III.A.iii Evaluation of "Feasible and Prudent Avoidance Alternatives" to the Use of Lavon Lake Wildlife Management Area

As part of the overall project development process for the US 380 Princeton project under the National Environmental Policy Act (NEPA), a full evaluation of preliminary alternatives was undertaken beginning with a feasibility study finalized in 2020 and continuing through the development of an Environmental Assessment and public involvement phase. The process of alternatives development and evaluation is documented in the Alternatives Evaluation Technical Report (TxDOT 2023a). As documented in that report, multiple location alternatives were evaluated to avoid the use of the Lavon Lake WMA; Alternative 1 and Alternatives 3 through 8. A description of each of these alternatives, along with the No Build Alternative, is included below and a determination of whether an alternative is feasible and prudent is also included.

Under Section 4(f) regulations (23 CFR 774.17), a feasible and prudent avoidance alternative is defined as the following:

- (1) A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute.
- (2) An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.
- (3) An alternative is not prudent if:
 - (i) It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
 - (ii) It results in unacceptable safety or operational problems;
 - (iii) After reasonable mitigation, it still causes:
 - (A) Severe social, economic, or environmental impacts;
 - (B) Severe disruption to established communities;
 - (C) Severe disproportionate impacts to minority or low income populations; or
 - (D) Severe impacts to environmental resources protected under other Federal statutes:
 - (iv) It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
 - (v) It causes other unique problems or unusual factors; or
 - (vi) It involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

No Build Alternative

Under the No Build Alternative, the proposed new location, controlled-access freeway would not be constructed. The current US 380 facility in Princeton is above capacity in peak periods with an average daily traffic (ADT) volume of 51,053 vehicles per day (vpd); travelers are currently seeking alternative routes to avoid US 380. By the year 2030, the existing US 380 project corridor is projected to have traffic volumes over 75,075 ADT, resulting in a Level of Service (LOS) of F, which indicates very congested traffic conditions. The No Build Alternative would not increase mobility, safety, or accessibility in the region, and would not meet the purpose and need for the project. Consequently, the anticipated benefits of the proposed project would not be realized with this alternative. As population growth and development in the area continue, reduced mobility, increased congestion, and decreased safety are anticipated. For these reasons, the No Build Alternative is not a prudent avoidance alternative to the proposed use of the Lavon Lake WMA.

Alternative 1

Alternative 1 largely follows the recommended alignment from the 2020 Feasibility Study (TxDOT 2020) with refinements. These refinements reduce the number of residential displacements in the Princeton Crossroads neighborhood relative to the alignment from the 2020 Feasibility Study (see Figure 5). Alternative 1 has an estimated construction cost of \$1.56 billion and is projected to carry 82,542 vpd along a length of 11.9 miles. This alternative minimizes impacts to Lavon Lake by utilizing the existing US 380 roadway corridor and bridge crossing; however, it would result in other adverse environmental impacts. These impacts include, among others, the displacement of approximately 62 residences (including 45 displacements in the Princeton Crossroads neighborhood), 16 commercial businesses, and one church. Alternative 1 would also require the use of multiple Section 4(f) properties, including the USACE Lavon Lake WMA, of the Lavon Lake Vegetative Management Area, Twin Groves Park, Caddo Park, and the National Register-eligible Caddo Park Lavon Lake Historic District. Additionally, there would be impacts to water resources (including potentially five acres of wetlands, 18 streams, and Lavon Lake), and minimal impacts to cultural resources and wildlife habitat.

From a transportation perspective, Alternative 1 meets the purpose and need of the proposed project because it is projected to carry the highest volume of traffic (82,542 vpd) and accommodates future traffic demand and improves mobility better than Alternatives 3 through 8. This alternative has the third lowest construction cost (\$1.56 billion) among the eight alternatives and is the second shortest in length at 11.9 miles. Alternative 1 involves the use of multiple Section 4(f) properties, and although it minimizes impacts to the USACE WMA relative to Alternative 2, it would displace a total of 62 residences, including 45 homes in the Princeton Crossroads neighborhood. Because of the severe disruption to an

established community, Alternative 1 is not a feasible and prudent alternative under Section 4(f) regulations and is therefore eliminated from further study.

Alternative 3

Alternative 3 begins at the western terminus of the proposed project, following the alignment of Alternatives 1 and 2, and then veers to the northeast west of FM 75. It continues east and utilizes an existing roadway corridor (FM 2756) across the USACE Lavon Lake property. The alignment then turns south, passing to the west of the city of Farmersville, crossing existing US 380 east of CR 560 at the SH 78 interchange and tying into the future realignment of US 380 south of Farmersville (see **Figure 5**). Alternative 3 has an estimated construction cost of \$2.22 billion and is projected to carry 65,208 vpd along a length of 17.3 miles.

Alternative 3 would avoid the use of several Section 4(f) properties, including Twin Groves Park, Caddo Park, and the Caddo Park Lavon Lake Historic District along existing US 380; however, this alternative would still result in a Section 4(f) use of the USACE Lavon Lake property. Although Alternative 3 crosses the Lavon Lake property through a transportation corridor identified by USACE in the 2016 Lavon Lake Master Plan, the proposed right of way for the alignment would impact the Lavon Lake WMA and the Lavon Lake Environmentally Sensitive Area. Alternative 3 would avoid displacements within the Princeton Crossroads neighborhood, although, it would still displace 39 residences, 12 commercial businesses, and one church. This alternative additionally would have impacts to water resources (including potentially 19 acres of wetlands, 20 streams, and nine acres of other waterbodies), and minimal impacts to cultural resources and wildlife habitat.

Alternative 3 is projected to carry 65,208 vpd, 21 percent fewer vehicles than Alternatives 1 and 2. It is much less effective at accommodating future traffic demand and improving mobility than either Alternative 1 or Alternative 2. Compared to the other alternatives, Alternative 3 would carry the third lowest volume of traffic. This alternative has an estimated construction cost of \$2.22 billion, the second highest cost among the eight alternatives and \$600 million more than the lowest cost alternative. Alternative 3 is the second longest route (17.3 miles) compared to the other alternatives. This alternative avoids causing displacements in the Princeton Crossroads neighborhood and minimizes the use of Section 4(f) properties to the greatest extent (along with Alternative 5) relative to the other alternatives, including Alternative 2. Although it would cross the USACE Lavon Lake property along a designated transportation corridor, it would still involve the use of the Lavon Lake WMA and of the Lavon Lake Environmentally Sensitive Area. Alternative 3 is therefore not a true Section 4(f) avoidance alternative.

Furthermore, Alternative 3 would terminate near the mid-point of the US 380 Farmersville project, which was approved by TxDOT through a NEPA process resulting in a FONSI issued on June 30, 2023. The US 380 Farmersville project has a different purpose and need than

the proposed US 380 Princeton project. Alternative 3 is not consistent with the purpose and need of the US 380 Princeton project because it would extend beyond the limits of the proposed project. Right of way acquisition for the US 380 Farmersville project has already begun and offers have been made to property owners as of October 2023. It would be unreasonable for TxDOT to proceed with Alternative 3 in light of the stated purpose and need for the proposed US 380 Princeton project. This alternative would also result in additional construction costs of an extraordinary magnitude. Alternative 3 is not feasible and prudent under Section 4(f) regulations and is therefore eliminated from further study.

Alternative 4

Alternative 4 begins at the western terminus of the proposed project, following the alignment of Alternatives 1 and 2, and then veers to the northeast west of CR 463. It continues east and utilizes an existing roadway corridor (FM 1377) to cross the USACE Lavon Lake property before it turns south at CR 561 and utilizes another existing roadway corridor (CR 559) to cross the Lavon Lake property a second time (see **Figure 5**). This crossing of Lavon Lake would require a new bridge outside the dedicated CR 559 corridor due to the horizontal curvature needed to align with existing US 380 across the lake. It would also require construction of a new interchange with existing US 380 and reconstruction of a portion of the existing bridge on the US 380 alignment across Lavon Lake. The construction of the new permanent structure would extend beyond the existing US 380 corridor across Lavon Lake. Alternative 4 would require abandoning portions of multiple existing roadways, including FM 1377, CR 561, and CR 559.

Alternative 4 has an estimated construction cost of \$1.72 billion and is projected to carry 78,415 vpd along a length of 12.1 miles. This alternative would require the use of multiple Section 4(f) properties, including the USACE Lavon Lake property, Caddo Park, and the Caddo Park Lavon Lake Historic District. Although Alternative 4 crosses the Lavon Lake property through transportation corridors identified in the 2016 Lavon Lake Master Plan, the proposed right of way for the alignment would impact the Lavon Lake WMA, the Lavon Lake Vegetative Management Area, and the Lavon Lake Environmentally Sensitive Area. Alternative 4 would avoid residential displacements in the Princeton Crossroads neighborhood, although it would still displace 32 residences, 16 commercial businesses, and one church. It would also impact water resources (including potentially six acres of wetlands, 13 streams, and Lavon Lake), and would have minimal impacts to cultural resources and wildlife habitat.

Alternative 4 is projected to carry the second highest volume of traffic (78,415 vpd), 4.9 percent less than Alternatives 1 and 2. This alternative therefore meets the purpose and need of the project better than Alternative 3 and Alternatives 5 through 8, and not quite as well as Alternatives 1 and 2. Alternative 4 has the fourth highest construction cost among the eight alternatives (\$1.72 billion) and is the third shortest route at 12.1 miles. Alternative 4 involves the use of multiple Section 4(f) properties, similar to other alternatives, and is

therefore not a true Section 4(f) avoidance alternative. Alternative 4 would require a new US 380 crossing of Lavon Lake, along the existing CR 559 alignment. To meet current design standards, the construction of a new interchange to connect Alternative 4 with the existing US 380 facility would require extensive permanent bridge column structures beyond the footprint of the existing US 380 facility. The connection of a new bridge crossing of the lake and a new interchange with the existing US 380 alignment would result in severe environmental impacts to Lavon Lake, which is protected under the Federal Water Pollution Control Act (commonly, the Clean Water Act). Alternative 4 is therefore not a feasible and prudent alternative under Section 4(f) regulations and is eliminated from further study.

Alternative 5

Alternative 5 shares a majority of the same alignment as Alternative 3. It begins at the western terminus of the proposed project, following the alignment of Alternatives 1 and 2, and then veers to the northeast just west of FM 75. It continues east and utilizes a designated transportation corridor (FM 2756) across the USACE Lavon Lake property. The alignment then turns southeast, passing to the east of the city of Farmersville and tying into existing US 380 west of CR 698 and the Collin County line, which is the eastern terminus for the US 380 Farmersville project (see **Figure 5**). Alternative 5 would create a northern bypass around the city of Farmersville, and it would bypass the previously approved and locally supported alignment for the US 380 Farmersville project.

Alternative 5 has an estimated construction cost of \$2.4 billion and is projected to carry 62,980 vpd along a length of 18.9 miles. This alternative would avoid the use of several Section 4(f) properties, including Twin Groves Park, Caddo Park, and the Caddo Park Lavon Lake Historic District; however, this alternative would still result in a Section 4(f) use of the USACE Lavon Lake property. While the alignment crosses the property through a transportation corridor identified in the 2016 Lavon Lake Master Plan, the proposed right of way for the alignment would impact of the Lavon Lake WMA and of the Lavon Lake Environmentally Sensitive Area. Alternative 5 would avoid residential displacements in the Princeton Crossroads neighborhood, although it would still result in the displacement of 29 residences, 13 commercial businesses, and one church. This alternative additionally would result in impacts to water resources (including potentially 20 acres of wetlands, 21 streams, and nine acres of other waterbodies), and minimal impacts to cultural resources and wildlife habitat.

Alternative 5 is projected to carry the second lowest volume of traffic (65,208 vpd), 22.6 percent fewer vehicles than Alternatives 1 and 2. It is therefore much less effective at accommodating future traffic demand and improving mobility than either Alternative 1 or Alternative 2. Alternative 5 has the highest estimated construction cost among the alternatives at \$2.4 billion, which is more than \$800 million more than the lowest alternative. Alternative 5 is also the longest route of any of the alternatives at 18.9 miles. This alternative avoids causing displacements in the Princeton Crossroads neighborhood

and minimizes the use of Section 4(f) properties to the greatest extent (along with Alternative 3) in comparison with the other alternatives, including Alternative 2. It would cross the USACE Lavon Lake property along a transportation corridor in the same location as Alternative 3, although it would still impact the Lavon Lake WMA and of the Lavon Lake Environmentally Sensitive Area. Alternative 5 is therefore not a true Section 4(f) avoidance alternative.

Furthermore, Alternative 5 would completely bypass the city of Farmersville and the approved US 380 Farmersville project, which has a different purpose and need than the proposed US 380 Princeton project. Alternative 5 is not consistent with the purpose and need of the proposed project because it would extend beyond the limits of the proposed project. Right of way acquisition for the US 380 Farmersville project has already begun and offers have been made to property owners as of October 2023. It would be unreasonable for TxDOT to proceed with Alternative 5 in light of the stated purpose and need for the proposed project. This alternative would also result in additional construction costs of an extraordinary magnitude. Alternative 5 is not feasible and prudent under Section 4(f) regulations and is therefore eliminated from further study.

Alternative 6

Alternative 6 begins at the western terminus of the proposed project, following the alignment of Alternatives 1 and 2, and then veers to the northeast west of CR 463, similar to Alternative 4. It continues east and utilizes an existing roadway corridor (FM 1377) to cross the USACE Lavon Lake property. Alignment 6 varies from Alternative 4 by continuing east on a new alignment that crosses the Lavon Lake property a second time along a utility corridor. The alignment continues east of the Lavon Lake property and then turns south, passing to the west of the city of Farmersville, crossing existing US 380 east of CR 560 at the SH 78 interchange and tying in near the mid-point of the future realignment of US 380 south of Farmersville, similar to Alternative 3 (see **Figure 5**).

Alternative 6 has an estimated construction cost of \$2.09 billion and is projected to carry 72,967 vpd along a length of 15.7 miles. This alternative would avoid the use of several Section 4(f) properties, including Twin Groves Park, Caddo Park, and the Caddo Park Lavon Lake Historic District along existing US 380; however, this alternative would still result in a Section 4(f) use of the USACE Lavon Lake property. Although Alternative 6 crosses the Lavon Lake property through a transportation corridor and a utility corridor identified in the 2016 Lavon Lake Master Plan, the proposed right of way for the alignment would impact the Lavon Lake WMA, of the Lavon Lake Environmentally Sensitive Area, and of the Lavon Lake High-density Recreation Area. During coordination with TxDOT, USACE commented that the utility corridor is not intended for transportation use, and therefore this would be considered a new location roadway crossing of the Lavon Lake property. Alternative 6 would result in the displacement of 43 residences, 16 commercial businesses, and one church, although it would avoid causing displacements in the Princeton Crossroads neighborhood. There would

be impacts to water resources (including potentially 33 acres of wetlands, 18 streams, Lavon Lake, and four acres of other waterbodies), and minimal impacts to wildlife habitat.

Alternative 6 is projected to carry 72,967 vpd, the fourth highest traffic volume of any of the alternatives and 11.6 percent lower than Alternatives 1 and 2. This alternative is less effective at accommodating future traffic demand and improving mobility than Alternatives 1, 2, and 4 and more effective than Alternatives 3, 5, 7, and 8. Alternative 6 has the third highest estimated construction cost among the eight alternatives (\$2.09 billion), which is \$500 million more than the lowest cost alternative, and is the third longest route at 15.7 miles. This alternative does minimize the use of Section 4(f) properties in comparison to the other alternatives. Alternative 6 crosses the USACE Lavon Lake property in two separate locations and would impact the Lavon Lake WMA, of the Lavon Lake Environmentally Sensitive Area, and of the Lavon Lake High-density Recreation Area. Alternative 6 is therefore not a true Section 4(f) avoidance alternative. One of the crossings of the USACE Lavon Lake property is along a utility corridor that is not intended for transportation use according to USACE. This would therefore be considered a new location roadway crossing of Lavon Lake.

Alternative 6 would terminate near the mid-point of the US 380 Farmersville project, which has a different purpose and need than the proposed US 380 Princeton project. Alternative 6 is not consistent with the purpose and need of the US 380 Princeton project because it would extend beyond the limits of the proposed project. Right of way acquisition has already begun for the US 380 Farmersville project and offers have been made to property owners as of October 2023. It would be unreasonable for TxDOT to proceed with Alternative 6 in light of the stated purpose and need for the proposed project. This alternative would also result in additional construction costs of an extraordinary magnitude. Alternative 6 is not feasible and prudent under Section 4(f) regulations and is therefore eliminated from further study.

Alternative 7

While the 2020 Feasibility Study considered alignments to the south of existing US 380 around Princeton, the study ultimately recommended an alignment to the north of Princeton. TxDOT revisited the potential alignments south of existing US 380 in the Princeton area to minimize impacts to the USACE Lavon Lake property and the Princeton Crossroads neighborhood. Alternative 7 begins at the western terminus of the proposed project and follows existing US 380 to the east, turning south to the west of Simpson Crossing and following an alignment between Lowry Crossing and Princeton. The alignment turns east after crossing the future FM 546 corridor proposed by Collin County, then turns northeast near FM 982. The alignment continues to the north and eventually ties into existing US 380 west of Lavon Lake, continuing across the lake on the existing US 380 alignment (see Figure 5).

FM 546 is a planned arterial to accommodate existing and future east-west traffic south of existing US 380 from SH 5 to the west side of Lavon Lake (see **Figure 5**). The 6-lane arterial FM 546 project is already partially constructed, and Collin County is currently going through schematic development and the NEPA process to further develop the overall project. The eastern segment (Phase I) spans across the city limits and Extra-territorial Jurisdictions (ETJ) of the city of Lowry Crossing and the city of Princeton, from Bridgefarmer Road to US 380. FM 546/CR 400 Corridor Study – Phase I East has been conducted in Collaboration with the City of Lowry Crossing and the City of Princeton. The preferred alignment for the eastern segment was approved at a regular session of the Collin County Commissioners Court on June 7, 2021, in McKinney, Texas. The anticipated construction of the FM 546 Phase I is Summer/Fall 2024.

The western segment (FM 546 Extension Phase II) is located within the city limits and ETJs of the city of McKinney and city of Lowry Crossing. The project limits of the western segment (Phase II) are from Airport Drive to CR 393; the project is a partnership between Collin County and TxDOT. Collin County has begun ROW acquisition and negotiations with impacted property owners along the FM 546 Phase I and Phase 2 corridor.

Alternative 7 has an estimated construction cost of \$1.52 billion and is projected to carry 61,907 vpd along a length of 14.1 miles. This alternative would require the use of multiple Section 4(f) properties, including Twin Groves Park, the Lavon Lake Low Density Recreation Area, Caddo Park, the Lavon Lake Vegetative Management Area, and the Caddo Park Lavon Lake Historic District. Alternative 7 would avoid causing displacements in the Princeton Crossroads neighborhood; however, it would result in the displacement of approximately 37 residences and 37 commercial businesses, as well as a substantial number of impacts to residences and businesses in platted subdivisions and developments that are currently under construction along Simpson Crossing and in the southern part of the city of Princeton. There would be impacts to water resources with this alternative (including potentially six acres of wetlands, 17 streams, and Lavon Lake), minimal impacts to cultural resources, and moderate impacts to wildlife habitat.

Alternative 7 is the least effective among the eight alternatives in meeting the purpose and need of the proposed project because it would carry the least amount of traffic (61,907 vpd). It does not adequately accommodate future traffic demand and improve mobility relative to the other alternatives. Alternative 7 has the second lowest estimated construction cost of the eight alternatives at \$1.52 billion and is the fourth longest route at 14.1 miles. Alternative 7 would impact 50 acres of the USACE Lavon Lake property and require the use of multiple other Section 4(f) properties. Due to the proximity of the route to the future FM 546 project by Collin County, it would carry substantially fewer vehicles in the future compared to Alternative 1 and Alternative 2. This alternative is not prudent under Section 4(f) regulations because it would cause severe social and environmental impacts and severe disruption to established communities due to requiring substantially more displacements than Alternative 2. It also does not meet the purpose and need of the project due to its

inability to meet traffic demand. For these reasons, Alternative 7 is eliminated from further study.

Alternative 8

Alternative 8 was another potential southern alignment from the 2020 Feasibility Study that TxDOT revisited to minimize impacts to the USACE Lavon Lake property and the Princeton Crossroads neighborhood. Like Alternative 7, Alternative 8 begins at the western terminus of the proposed project and follows existing US 380 to the east, turning south to the west of Simpson Crossing and following an alignment between Lowry Crossing and Princeton. The alignment turns east, just north of the future FM 546 Phase I corridor proposed by Collin County, then turns northeast west of CR 490 after crossing future FM 546. The alignment continues to the north and ties into existing US 380 west of Lavon Lake, continuing along existing US 380 across the lake (see **Figure 5**).

Alternative 8 has an estimated construction cost of \$1.38 billion and is projected to carry 66,034 vpd along a length of 12.5 miles. This alternative would require the use of multiple Section 4(f) properties, including Twin Groves Park, the Lavon Lake Low Density Recreation Area, Caddo Park, the Lavon Lake Vegetative Management Area, and the Caddo Park Lavon Lake Historic District. Alternative 8 would avoid causing displacements in the Princeton Crossroads neighborhood; however, it would bisect a neighborhood south of US 380 and result in the displacement of approximately 66 residences and 37 commercial businesses. It would also have a substantial number of impacts to residences and businesses in platted subdivisions and developments that are currently under construction along Simpson Crossing and in the southern part of the city of Princeton. There would be impacts to water resources with this alternative (including potentially three acres of wetlands, 15 streams, and Lavon Lake), minimal impacts to cultural resources, and moderate impacts to wildlife habitat.

Alternative 8 would carry the fourth lowest volume of traffic (66,034 vpd) and is therefore much less effective at meeting the purpose and need than Alternatives 1, 2, 4, and 6. Alternative 8 has the lowest estimated construction cost of the eight alternatives at \$1.38 billion and is the fourth shortest route at 12.5 miles. Alternative 8 would impact 50 acres of the USACE Lavon Lake property and require the use of multiple other Section 4(f) properties. Due to the proximity of the route to the future FM 546 project by Collin County, it would carry substantially fewer vehicles in the future compared to Alternative 1 and Alternative 2. This alternative is not prudent under Section 4(f) regulations because it would cause severe social and environmental impacts and severe disruption to established communities due to bisecting a neighborhood and requiring substantially more displacements than Alternative 2. It also does not meet the purpose and need of the project due to its inability to meet traffic demand. For these reasons, Alternative 8 is eliminated from further study.

III.A.iv Evaluation of All Possible Planning to Minimize Harm for Lavon Lake Wildlife Management Area

To minimize harm to the Lavon Lake WMA, the roadway design for Alternative 2 through the property only includes proposed US 380 mainlanes with no frontage roads, and the proposed acquisition of easement area from the Section 4(f) property has been minimized to the maximum practicable extent. Land to the southwest of Alternative 2 opposite the WMA is the new Princeton Crossroads residential subdivision containing over 300 homes and a community park and playground. Shifting the proposed alignment to the southwest to entirely avoid the WMA would displace approximately 45 homes and cause severe disruption to the neighborhood. This shifting of the proposed alignment is represented by Alternative 1, which in the preceding section was determined to not be a prudent alternative due to these impacts in the Princeton Crossroads neighborhood.

III.A.v Conclusion Regarding Lavon Lake Wildlife Management Area

The proposed improvements to US 380 would require the permanent incorporation of 23 acres of permanent easement from the Lavon Lake WMA, publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would convert wildlife habitat to transportation use in a small portion of the WMA (0.35 percent of the total area), although it would not impair the activities, attributes, or features of the overall WMA to the extent that the public recreational use and enjoyment of the overall property could not continue.

III.B Section 4(f) Evaluation for Twin Groves Park

III.B.i Description of Twin Groves Park

Twin Groves Park covers approximately 115 acres that is owned and operated by USACE. The park features two restrooms, a two-lane boat ramp, and two large parking lots. According to the USACE Lavon Lake Master Plan, the park receives little visitation outside of fishing and duck hunting season (USACE 2016). The shallow nature of the lake and shoreline in this area provides favorable conditions for ducks and catfish, and the park is used primarily as an access point for hunting and fishing. USACE does not charge fees for the public to enter and enjoy the park.

III.B.ii Proposed Use of Twin Groves Park

Alternative 2 would involve the construction of elevated mainlanes, frontage roads, and a new grade separated overpass at Twin Groves Park Road. The expansion of US 380 would require the use of approximately 0.02 acres of proposed ROW and 0.53 acres of permanent easement from this public park (see **Figure 6**), which is approximately 0.5 percent of the overall 115-acre property.

The permanent incorporation of land would not affect the activities, attributes, or features that qualify Twin Groves Park for protection under Section 4(f) regulations, and the public use and enjoyment of the park would not be impaired. The public boat ramp, which is the primary amenity at Twin Groves Park, would not be altered by the proposed project. The area to be used north of US 380 is maintained grasses with a few trees, some of which are within the existing state-owned ROW.

III.B.iii Evaluation of "Feasible and Prudent Avoidance Alternatives" to the Use of Twin Groves Park

Although some of the location alternatives considered for the proposed project would avoid the use of Twin Groves Park (Alternatives 3, 4, 5, and 6), none of these alternatives would completely avoid Section 4(f) properties; refer to the discussion regarding feasible and prudent alternatives included above in the section entitled *Evaluation of Alternatives to the Use of Lavon Lake Wildlife Management Area*. Based upon that evaluation, there are no feasible and prudent alternatives to the use of Twin Groves Park.

Land to the south of US 380 opposite Twin Groves Park is also Section 4(f) property, the Lavon Lake Low Density Recreation Area owned by USACE. Shifting the proposed alignment for Alternative 2 further to the south to entirely avoid Twin Groves Park would require additional use of the Lavon Lake Low Density Recreation Area and is therefore not a true Section 4(f) avoidance alternative.

III.B.iv Evaluation of All Possible Planning to Minimize Harm for Twin Groves Park

To minimize harm to the public park, the proposed US 380 alignment for Alternative 2 was shifted to the south. The proposed acquisition of ROW and easement area from the Section 4(f) property has been minimized to the maximum practicable extent by utilizing a retaining wall along the westbound frontage road to reduce the roadway side slope, and by including a parallel ramping scheme for the westbound frontage road entrance ramp to the westbound US 380 mainlanes. The spacing between the frontage road, the entrance ramp, and the mainlanes also has been compressed to the minimum necessary to meet design standards.

III.B.v Conclusion Regarding Twin Groves Park

The proposed improvements to US 380 would require the permanent incorporation of 0.02 acres of ROW and 0.53 acres of permanent easement from Twin Groves Park, publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would not impair the activities, attributes, or features of Twin Groves Park.

III.C Section 4(f) Evaluation for Lavon Lake Low Density Recreation Area

III.C.i Description of Lavon Lake Low Density Recreation Area

The Lavon Lake Low Density Recreation Area to the south of US 380 opposite Twin Groves Park (see **Figure 3**) is publicly owned land managed by USACE for public recreation use. Within the larger Lavon Lake property, Low Density Recreation Areas make up 2,468 acres (USACE 2016), approximately 15 percent of the total area. These lands are generally narrow parcels adjacent to private residential areas. The lands are typically open to the public, including adjacent landowners, for pedestrian traffic and are frequently used for access to the shoreline of the lake (USACE 2016).

III.C.ii Proposed Use of Lavon Lake Low Density Recreation Area

Alternative 2 would involve the construction of elevated mainlanes, frontage roads, and a new grade separated overpass at Twin Groves Park Road. The expansion of US 380 would require the use of approximately 0.29 acres of the Lavon Lake Low Density Recreation Area (see **Figure 6**), which is approximately 0.1 percent of the overall 2,468 acres of this land classification within the larger Lavon Lake property.

The permanent incorporation of land and removal of a small number of trees would not affect the activities, attributes, or features that qualify the Lavon Lake Low Density Recreation Area for protection under Section 4(f) regulations, and the public use and enjoyment of the Area would not be impaired.

III.C.iii Evaluation of "Feasible and Prudent Avoidance Alternatives" to the Use of Lavon Lake Low Density Recreation Area

Although some of the location alternatives considered for the proposed project would avoid the use of the Lavon Lake Low Density Recreation Area (Alternatives 3, 4, 5, and 6), none of these alternatives would completely avoid Section 4(f) properties; refer to the discussion regarding feasible and prudent alternatives included above in the section entitled *Evaluation of Alternatives to the Use of Lavon Lake Wildlife Management Area*. Based upon that

evaluation, there are no feasible and prudent alternatives to the use of the Lavon Lake Low Density Recreation Area.

Land to the north of US 380 opposite the Lavon Lake Low Density Recreation Area is Twin Groves Park, which is also Section 4(f) property. Shifting the proposed alignment for Alternative 2 further to the north to entirely avoid the Lavon Lake Low Density Recreation Area would require additional use of the Twin Groves Park and is therefore not a true Section 4(f) avoidance alternative.

III.C.iv Evaluation of All Possible Planning to Minimize Harm for Lavon Lake Low Density Recreation Area

To minimize harm to the Lavon Lake Low Density Recreation Area, the proposed acquisition of land from the Section 4(f) property has been minimized to the maximum practicable extent. To accomplish this, the proposed design includes a retaining wall along the eastbound frontage road to reduce the roadway side slope, and a parallel ramping scheme for the eastbound frontage road entrance ramp to the eastbound US 380 mainlanes. The spacing between the frontage road, the entrance ramp, and the mainlanes also has been compressed to the minimum necessary to meet design standards.

III.C.v Conclusion Regarding Lavon Lake Low Density Recreation Area

The proposed improvements to US 380 would require the permanent incorporation of 0.29 acres of permanent easement from the Low Density Recreation area publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would not impair the activities, attributes, or features of the Lavon Lake Low Density Recreation Area.

III.D Section 4(f) Evaluation for Caddo Park

III.D.i Description of Caddo Park

Owned and operated by USACE, Caddo Park encompasses 515 acres on the east side of Lavon Lake adjacent to US 380. This land was originally designed as a park with special access features for persons with disabilities (USACE 2016). The park includes three fishing ponds, 13 picnic sites, two restrooms, and a four-lane boat ramp. USACE does not charge fees for the public to enter and enjoy the park; the park is closed seasonally from October 1 to March 31 (USACE 2016).

III.D.ii Proposed Use of Caddo Park

Alternative 2 would involve the construction of elevated mainlanes, frontage roads, and a new grade separated overpass at Caddo Park Road. The expansion of US 380 would require the use of approximately 0.17 acres of proposed permanent easement from this public park (see **Figure 7**), which is approximately 0.03 percent of the overall 515-acre property. The permanent incorporation of land would not affect the activities, attributes, or features that qualify Caddo Park for protection under Section 4(f) regulations, and the public use and enjoyment of the park would not be impaired. The public boat ramp, fishing ponds, and picnic area, which are the primary amenities at Caddo Park, would not be altered by the proposed project.

The area to be used north of US 380 is maintained grasses with a few trees, some of which are within the existing State-owned ROW. The removal of a small number of trees from Caddo Park north of US 380 would not impair the activities, attributes, or features of the property.

III.D.iii Evaluation of "Feasible and Prudent Avoidance Alternatives" to the Use of Caddo Park

Although some of the location alternatives considered for the proposed project would avoid the use of Caddo Park (Alternatives 3, 5, and 6), none of these alternatives would completely avoid Section 4(f) properties; refer to the discussion regarding feasible and prudent alternatives included above in the section entitled *Evaluation of Alternatives to the Use of Lavon Lake Wildlife Management Area.* Based upon that evaluation, there are no feasible and prudent alternatives to the use of Caddo Park.

Shifting the proposed alignment for Alternative 2 further to the south to entirely avoid Caddo Park would require additional use of the Lavon Lake Vegetative Management Area, publicly owned and operated by USACE, and is therefore not a true Section 4(f) avoidance alternative.

III.D.iv Evaluation of All Possible Planning to Minimize Harm for Caddo Park

To minimize harm to Caddo Park, the proposed alignment for Alternative 2 was shifted to the south, and the proposed acquisition of ROW and easement area from the Section 4(f) property has been minimized to the maximum practicable extent. The proposed design includes retaining walls along the westbound mainlanes and westbound frontage road to minimize the acquisition of land from the public park and historic district and to minimize the need for grading within the park. The proposed design also includes a parallel ramping scheme for the westbound frontage road entrance ramp to the westbound US 380

mainlanes. The spacing between the frontage road, the entrance ramp, and the mainlanes has been compressed to the minimum necessary to meet design standards.

III.D.v Conclusion Regarding Caddo Park

The proposed improvements to US 380 would require the permanent incorporation of 0.17 acres of permanent easement from Caddo Park, publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would not impair the activities, attributes, or features of Caddo Park.

III.E Section 4(f) Evaluation for Lavon Lake Vegetative Management Area

III.E.i Description of Lavon Lake Vegetative Management Area

The Lavon Lake Vegetative Management Area to the south of US 380 opposite Caddo Park (see **Figure 3**) is publicly owned land managed by USACE for public recreation use. Although no designated public access is provided from US 380 to the USACE property, there is evidence of material laydown within the existing State-owned ROW, and this area is used by the public as an entry point to the eastern shoreline of Lavon Lake. Within the larger Lavon Lake property, Vegetative Management Areas make up 824 acres (USACE 2016), approximately 5 percent of the total area. These lands include two parcels on the east side of the lake intended for prairie restoration efforts. Public use of these lands includes bank fishing and pedestrian access, and hunting is allowed in the area adjacent to US 380 opposite Caddo Park (USACE 2016).

III.E.ii Proposed Use of Lavon Lake Vegetative Management Area

Alternative 2 would involve the construction of elevated mainlanes, frontage roads, and a new grade separated overpass at Caddo Park Road. The expansion of US 380 would require the use of approximately 1.07 acres of proposed permanent easement from the Lavon Lake Vegetative Management Area (see **Figure 7**), which is approximately 0.13 percent of the overall 824 acres of this land classification. The permanent incorporation of land and the removal of a small number of trees would not affect the activities, attributes, or features that qualify the Lavon Lake Vegetative Management Area for protection under Section 4(f) regulations, and the public use and enjoyment of the area would not be impaired.

III.E.iii Evaluation of "Feasible and Prudent Avoidance Alternatives" to the Use of Lavon Lake Vegetative Management Area

Although some of the location alternatives considered for the proposed project would avoid the use of the Lavon Lake Vegetative Management Area (Alternatives 3, 5, and 6), none of these alternatives would completely avoid Section 4(f) properties; refer to the discussion regarding feasible and prudent alternatives included above in the section entitled *Evaluation of Alternatives to the Use of Lavon Lake Wildlife Management Area*. Based upon that evaluation, there are no feasible and prudent alternatives to the use of the Lavon Lake Vegetative Management Area.

Shifting the proposed alignment for Alternative 2 further to the north to entirely avoid the Lavon Lake Vegetative Management Area would require additional use of Caddo Park and is therefore not a true Section 4(f) avoidance alternative.

III.E.iv Evaluation of All Possible Planning to Minimize Harm for Lavon Lake Vegetative Management Area

To minimize harm to the Lavon Lake Vegetative Management Area, the proposed acquisition of easement area from the Section 4(f) property has been minimized to the maximum practicable extent. To accomplish this, the proposed design includes retaining walls along the eastbound frontage road and eastbound mainlanes to reduce the roadway side slope, and a parallel ramping scheme for the eastbound frontage road entrance ramp to the eastbound US 380 mainlanes. The spacing between the frontage road, the entrance ramp, and the mainlanes also has been compressed to the minimum necessary to meet design standards.

III.E.v Conclusion Regarding Lavon Lake Vegetative Management Area

The proposed improvements to US 380 would require the permanent incorporation of 1.07 acres of permanent easement from the Lavon Lake Vegetative Management Area publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would not impair the activities, attributes, or features of the Lavon Lake Vegetative Management Area.

III.F Section 4(f) Evaluation for Caddo Park Lavon Lake Historic District

III.F.i Description of Caddo Park Lavon Lake Historic District

Caddo Park was determined eligible for listing in the NRHP in 2022 as a Historic District under Criterion A for Recreation and Criterion C for Design at the State Level. The historic

district boundary consists of 106.6 acres, and the contributing resources associated with the historic district are identified as Resources 01a through 01aa in the *US 380 Historical Resources Survey Report* (TxDOT 2023b).

III.F.ii Proposed Use of Caddo Park Lavon Lake Historic District

Alternative 2 would involve the construction of elevated mainlanes, frontage roads, and a new grade separated overpass at Caddo Park Road. The proposed expansion of US 380 would have no effect on contributing resources within the Caddo Park Lavon Lake Historic District (see **Figure 8**) and the proposed use of 0.17 acres of permanent easement would not adversely affect the integrity or NRHP-eligibility of the historic Section 4(f) property. The area of proposed use is mostly maintained grasses and a few trees.

III.F.iii Evaluation of "Feasible and Prudent Avoidance Alternatives" to the Use of Caddo Park Lavon Lake Historic District

Although some of the location alternatives considered for the proposed project would avoid the Caddo Park Lavon Lake Historic District (Alternatives 3, 5, and 6), none of these alternatives would completely avoid Section 4(f) properties; refer to the discussion regarding feasible and prudent alternatives included above in the section entitled *Evaluation of Alternatives to the Use of Lavon Lake Wildlife Management Area*. Based upon that evaluation, there are no feasible and prudent alternatives to the use of the Caddo Park Lavon Lake Historic District.

Shifting the proposed alignment for Alternative 2 further to the south to entirely avoid the Caddo Park Lavon Lake Historic District would require additional use of the Lavon Lake Vegetative Management Area, publicly owned and operated by USACE, and is therefore not a true Section 4(f) avoidance alternative.

III.F.iv Evaluation of All Possible Planning to Minimize Harm for Caddo Park Lavon Lake Historic District

To minimize harm to the Caddo Park Lavon Lake Historic District, the proposed alignment for Alternative 2 was shifted to the south, and the proposed acquisition of ROW and easement area from the Section 4(f) property has been minimized to the maximum practicable extent. The proposed design includes retaining walls along the westbound mainlanes to minimize the acquisition of land from the historic district and to minimize the need for grading. The proposed design also includes a parallel ramping scheme for the westbound frontage road entrance ramp to the westbound US 380 mainlanes. The spacing between the frontage road, the entrance ramp, and the mainlanes has been compressed to the minimum necessary to meet design standards.

III.F.v Conclusion Regarding Caddo Park Lavon Lake Historic District

The proposed improvements to US 380 would require the permanent incorporation of 0.17 acres of permanent easement from the Caddo Park Lavon Lake Historic District. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would have no adverse effect to the Caddo Park Lavon Lake Historic District.

IV Coordination

A Public Hearing (in-person and virtually) for the proposed project was held on Thursday, September 12, 2024, at the Princeton High School Cafeteria, located at 1000 E Princeton Drive, Princeton, Texas. Public hearing notices were published in six newspapers. Five newspapers published the notice in English; The Dallas Morning News on Tuesday, August 13, 2024, Wednesday, August 21, 2024, and Thursday, August 29, 2024, published three consecutive weeks to comply with Texas Parks and Wildlife Code (PWC; 3 PWC 26.002); the Collin County Commercial Record on Thursday, August 15, 2024; the Princeton Herald on Thursday, August 15, 2024; the Farmersville Times on Thursday, August 15, 2024; and the McKinney Courier Gazette on Sunday, August 18, 2024. The newspaper Al Dia published the Spanish version of the notice on Wednesday, August 14, 2024. The legal notice was mailed to adjacent property owners, elected officials, and public agencies. The meeting material was posted on the TxDOT project website www.keepitmovingdallas.com/US380Princeton. The comment period ended on September 27, 2024.

In total, 123 members of the public and elected officials attended the in-person hearing and there were 1,170 unique visits to the virtual public hearing web page. The narrated YouTube presentation received 294 views. The YouTube presentation can be found at: https://www.youtube.com/watch?v=HJ3H2cfuDmo&t=4s. Thirteen comments were received during the 15-day comment period that ended on Friday, September 27, 2024. Commenters expressed both support and opposition, expressed concerns about impacts to properties from the widening and realignment, and noise concerns were received at the public hearing.

Coordination with the USACE, the Owner of Jurisdiction (OWJ) over the Lavon Lake property has been completed. This coordination with the USACE includes over two years of meetings, workshops, site-visits, and project reviews of environmental documentation, including the Draft Section 4(f) Evaluation and Environmental Assessment. USACE coordination completed throughout the environmental review is summarized in the table below.

Record of Coordination with the USACE (OWJ) March 2022–October 2024

- 4/17/2018 USACE/TxDOT Meeting Initial stakeholder meeting under feasibility study.
 USACE requested that TxDOT keep the proposed new road off USACE property.
- 10/6/2020 USACE/TxDOT Meeting Early coordination meeting following release of Feasibility study. USACE requested analysis if alignment further east and/or north could be considered.
- 2020 Meeting TxDOT provided modified alignment with minimal impacts (0.1 acres) and USACE indicated support of alignment in feasibility study.
- 5/11/2021 USACE/TxDOT Meeting TxDOT provided project updates since the feasibility study and reviewed 3 alternative routes adjacent to USACE near the city of Princeton. USACE requested review of alternative outside of USACE property.
- 5/12/2021 TxDOT email to USACE Provided updated figure of alternative reviewed in previous 5/11/2021 meeting.
- 8/26/2021 USACE/TxDOT Meeting Discussed status of project and USACE identified real
 estate and regulatory triggers. Also stated that a new location bridge should not be
 considered feasible.
- 9/13/2021 USACE letter to Collin County (copying TxDOT) USACE stated that the USACE cannot support the project alignment crossing ~30 acres of USACE Lavon Lake Properties.
- 4/22/2022 USACE/TxDOT Meeting USACE agreed to continue further communication regarding alignment alternatives and would work with TxDOT to develop an MOA.
- 7/13/2022 TxDOT Letter to USACE TxDOT requested USACE reconsider opposition of project alignments.
- 8/2/2022 TxDOT held Public Meeting presenting Project and recommended Build Alternative with Options A and B on/adjacent to USACE Properties.
- 8/4/2022 USACE/TxDOT Meeting Status Update
- 8/18/2022 USACE/TxDOT Meeting Status Update
- 9/22/2022 USACE/TxDOT Meeting Status Update
- 10/13/2022 TxDOT email to USACE Provided copy of public comments received from the Public Meeting.
- 11/16/2022 TxDOT email to USACE Provided TxDOT's Public Meeting Summary including completed public comments and TxDOT responses.
- 12/13/2022 USACE letter to TxDOT regarding response to ROE request
- 12/22/2022 TxDOT letter to USACE requesting updated ROE
- 1/3/2023 USACE email to TxDOT on ROE request
- 5/22/2023 USACE signed MOA
- 6/27/2023 USACE MOA Correspondence
- 7/6/2023 USACE/TxDOT meeting reviewing the feasibility study (meeting minutes document USACE requested alignment further north).
- 7/20/2023 USACE TxDOT Meeting; City of Princeton Meeting
- 7/20/2023 USACE/TxDOT meeting, initiating regular biweekly meetings under MOA
 - o 08/02/2023 USACE/TxDOT biweekly meeting
 - o 08/16/2023 USACE/TxDOT biweekly meeting
 - o 08/30/2023 USACE/TxDOT biweekly meeting
 - o 09/13/2023 USACE/TxDOT biweekly meeting
 - o 09/27/2023 USACE/TxDOT biweekly meeting
 - o 10/11/2023 USACE/TxDOT biweekly meeting
 - 10/25/2023 USACE/TxDOT biweekly meeting

- o 11/09/2023 USACE/TxDOT biweekly meeting
- 12/08/2023 USACE/TxDOT biweekly meeting
- 12/21/2023 USACE/TxDOT biweekly meeting
- 01/04/2024 USACE/TxDOT biweekly meeting
- 01/18/2024 USACE/TxDOT biweekly meeting
- 02/01/2024 USACE/TxDOT biweekly meeting
- 02/15/2024 USACE/TxDOT biweekly meeting
- 02/29/2024 USACE/TxDOT biweekly meeting
- o 04/11/2024 USACE/TxDOT biweekly meeting
- o 05/22/2024 USACE/TxDOT biweekly meeting
- 06/06/2024 USACE/TxDOT biweekly meeting
- o 07/18/2024 USACE/TxDOT biweekly meeting
- o 08/01/2024 USACE/TxDOT biweekly meeting
- o 08/15/2024 USACE/TxDOT biweekly meeting
- o 09/26/2024 USACE/TxDOT biweekly meeting

USACE /TxDOT Leadership Meetings –

o 04/26/2024 and various in May, June, and September 2024

• USACE/TxDOT Site Visits

- o 8/21/2023 8/23/2023 US 380 and WMA Alignments Site Visits (NR)
- o 12/5/2023 12/6/2023 Alternative Alignments Site Visits (NR)

• Documents Reviewed by USACE:

- Miscellaneous data requests throughout biweekly meetings related to alignments and USACE properties.
- o Cultural Resources Report (USACE Lavon Lake Properties)
 - TxDOT provided draft to USACE 11/2/2023
 - No comments from USACE confirmed 11/17/2023
- Biological and Water Resources Reports
 - TxDOT provided draft to USACE 9/27/2023
 - USACE comments provided to TxDOT 10/17/2023 and 10/27/2023
 - Revised draft submitted by TxDOT 11/2/2023
 - No comments from USACE confirmed 12/18/2023
- Alternatives Analysis
 - TxDOT provided draft to USACE 11/20/2023
 - USACE confirmed no official comment on draft 1/4/2024; informal questions discussed during 1/18/2024 biweekly meeting
- o Draft Environmental Assessment
 - TxDOT provided draft to USACE 1/29/2024
 - USACE comments provided to TxDOT 8/12/2024; coordination meeting held 8/20/2024
 - Revised draft submitted by TxDOT 9/6/2024
 - USACE attendance at TxDOT's 9/12/2024 Public Hearing
- Draft Section 4(f) Evaluation
 - TxDOT provided draft to USACE 2/5/2024
 - USACE comments provided to TxDOT 8/5/2024
 - USACE provided a Compensatory Mitigation Plan to be included in the Final Section 4(f) Evaluation – 10/23/2024

Impacts to the Lavon Lake WMA would be mitigated as a direct payment to the USACE, Fort Worth District, to support USACE actions throughout the Lavon Lake WMA. These mitigation commitments and plan are defined in the Compensatory Mitigation Plan (CMP), developed in coordination with the USACE and attached as **Appendix B**. The CMP has been developed to address the following USACE concerns:

- improved access to Caddo Park and Twin Groves Park, including restoration of parking, entrance roads, and associated amenities; and
- vegetation planting and habitat restoration activities throughout the Lavon Lake WMA.

In addition to the CMP, TxDOT will incorporate into the final design of this Project, designated parking within TxDOT ROW and adjacent to frontage roads for recreation rest areas near the US 380 bridge over Lavon Lake.

Coordination with the Texas Historical Commission, the OWJ over the Caddo Park Lavon Lake Historic District has been completed. TxDOT coordinated with THC on February 17, 2023, and again on February 8, 2024, and on February 29, 2024, the THC concurred with the determination that the use of the historic property would have no adverse effect (Appendix C). No mitigation for the use of 0.17 acres of the historic property is proposed.

TxDOT coordinated with the Department of the Interior (DOI) on February 5, 2024, and on March 6, 2024, the DOI indicated no objection to the Draft Section 4(f) evaluation (Appendix C).

V References

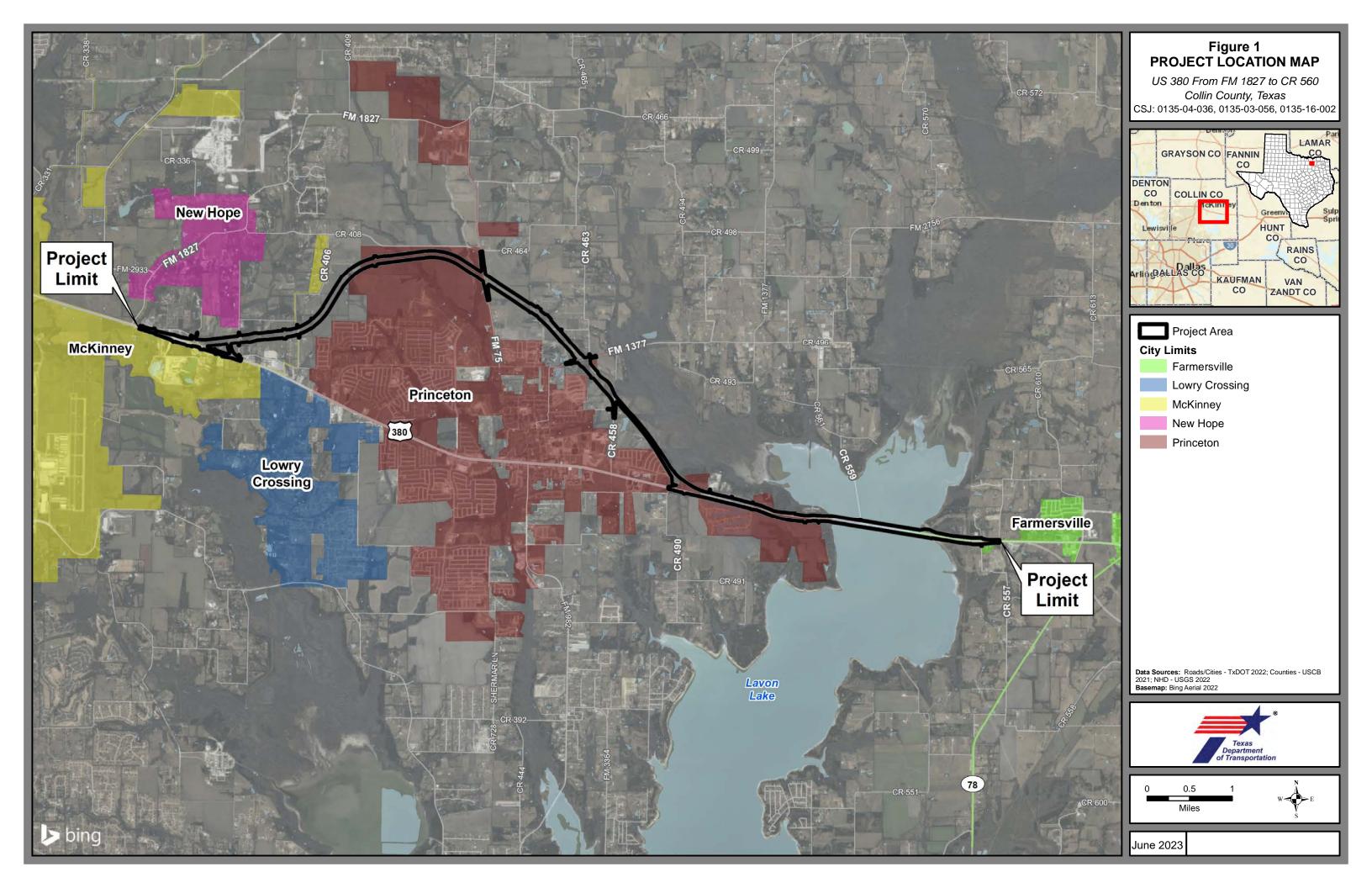
Texas Department of Transportation. 2020. *US 380 Collin County Feasibility Study*. https://www.keepitmovingdallas.com/projects/us-highways/us-380-collin-county-feasibility-study

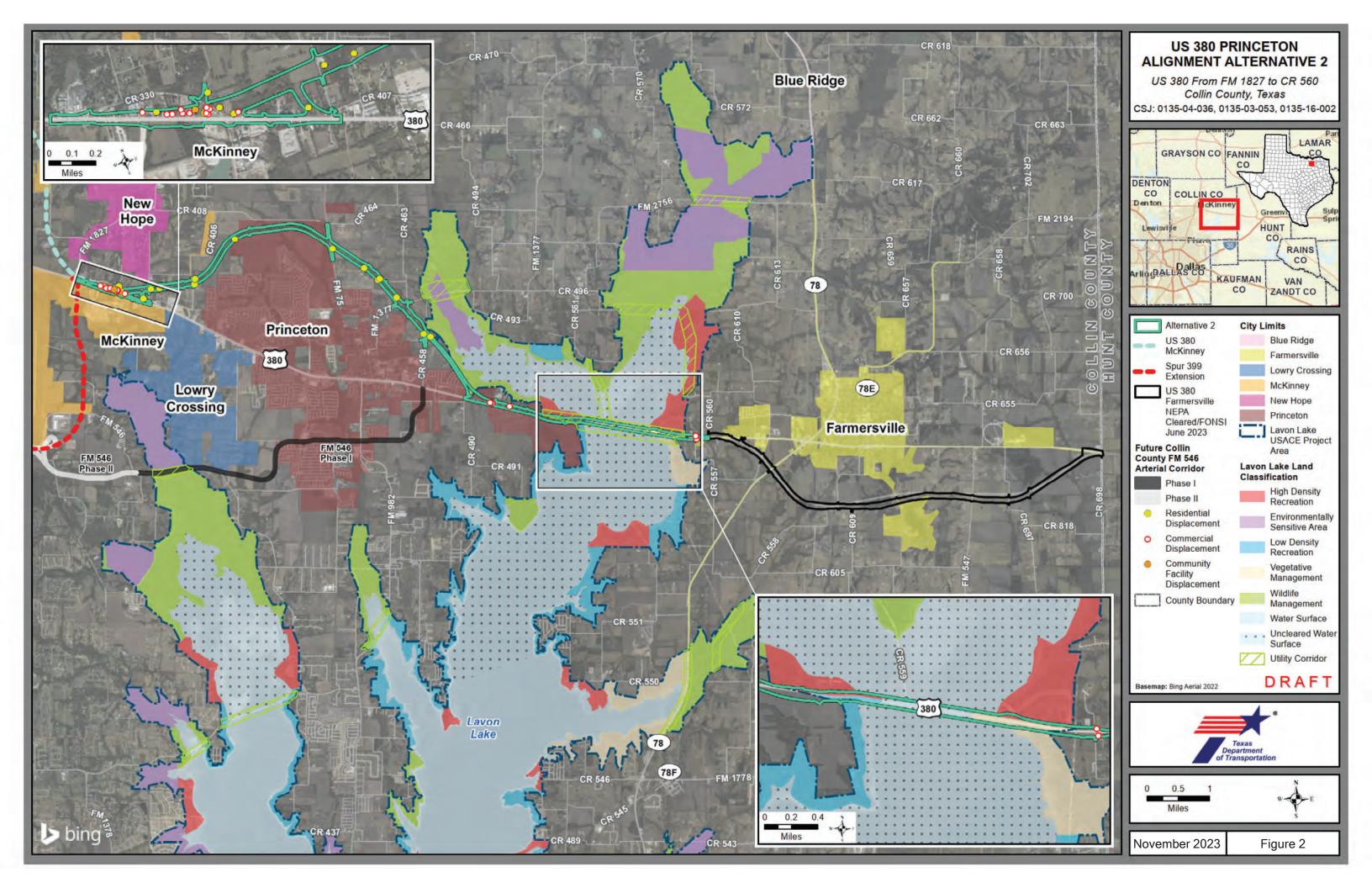
2023a. Alternatives Evaluation Technical Report. US 380 Princeton from FM 1827 to CR 560. November 2023.

2023b. Historical Resources Survey Report. Reconnaissance Survey. US 380 From CR 560 to CR 699. Dallas District, Collin County, February 2023.

U.S. Army Corps of Engineers. 2016. Lavon Lake Master Plan, East Fork of Trinity River, Collin County, Texas. USACE, Fort Worth District.

APPENDIX A FIGURES





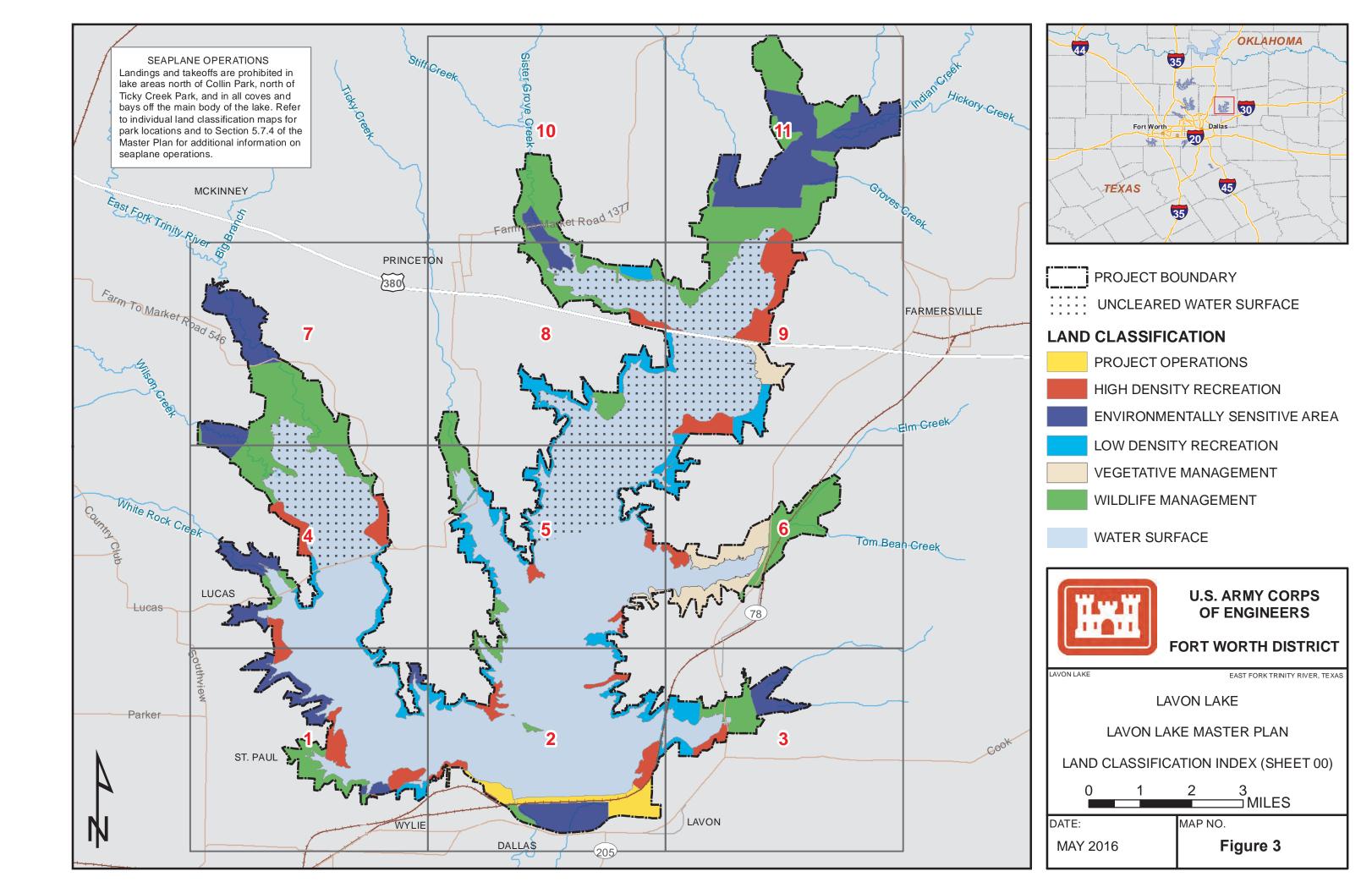
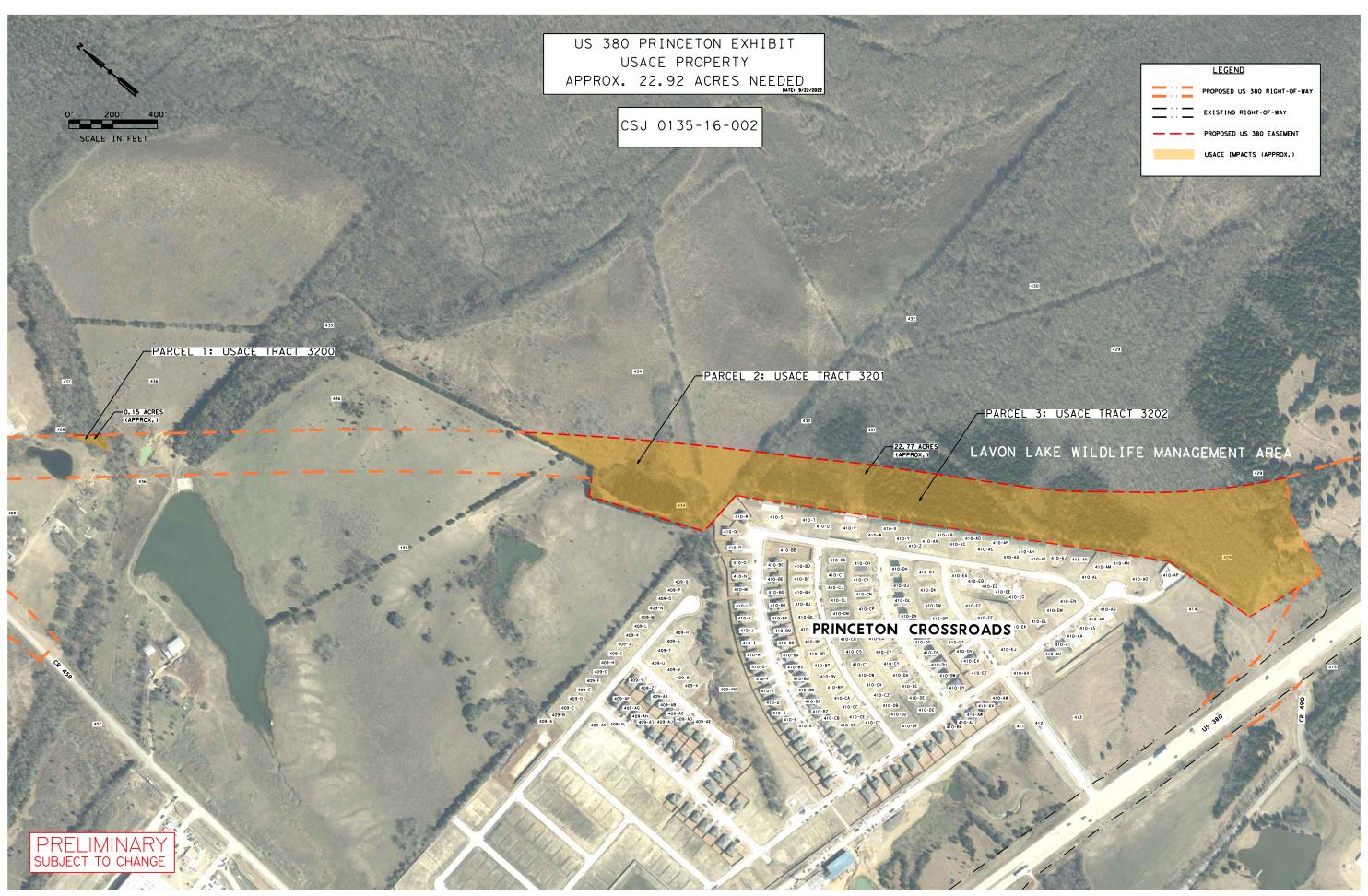


FIGURE 4



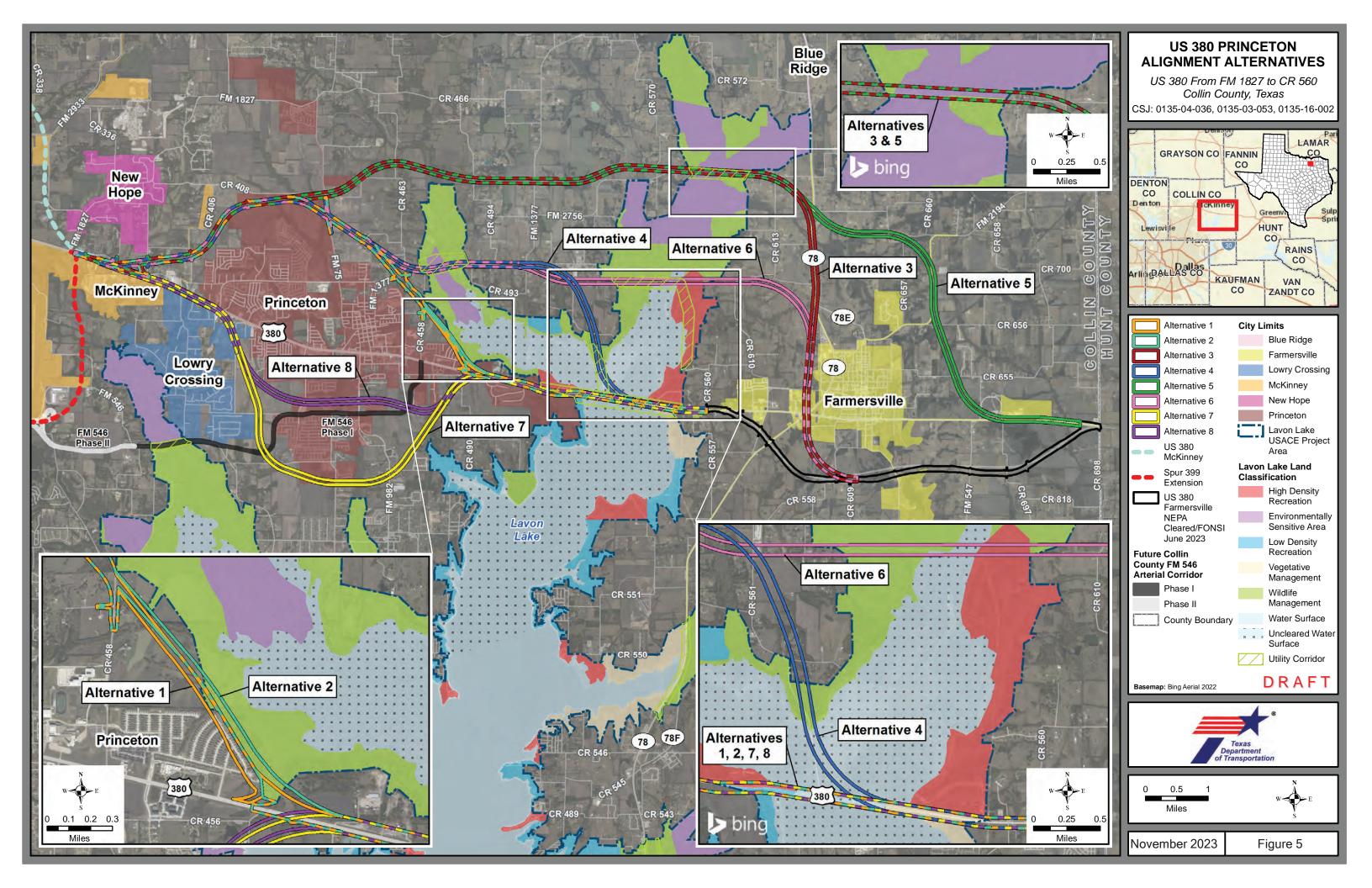


FIGURE 6

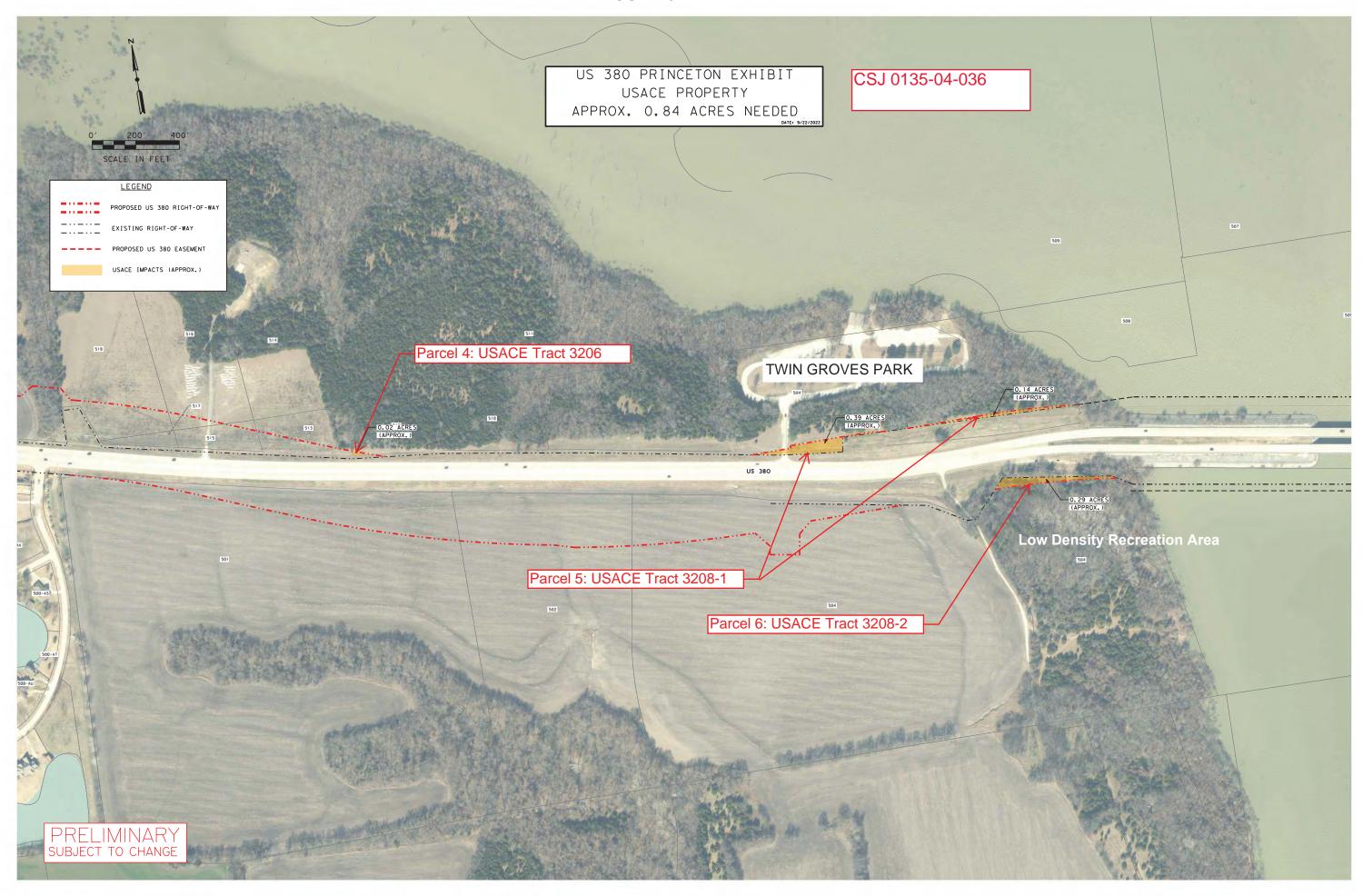
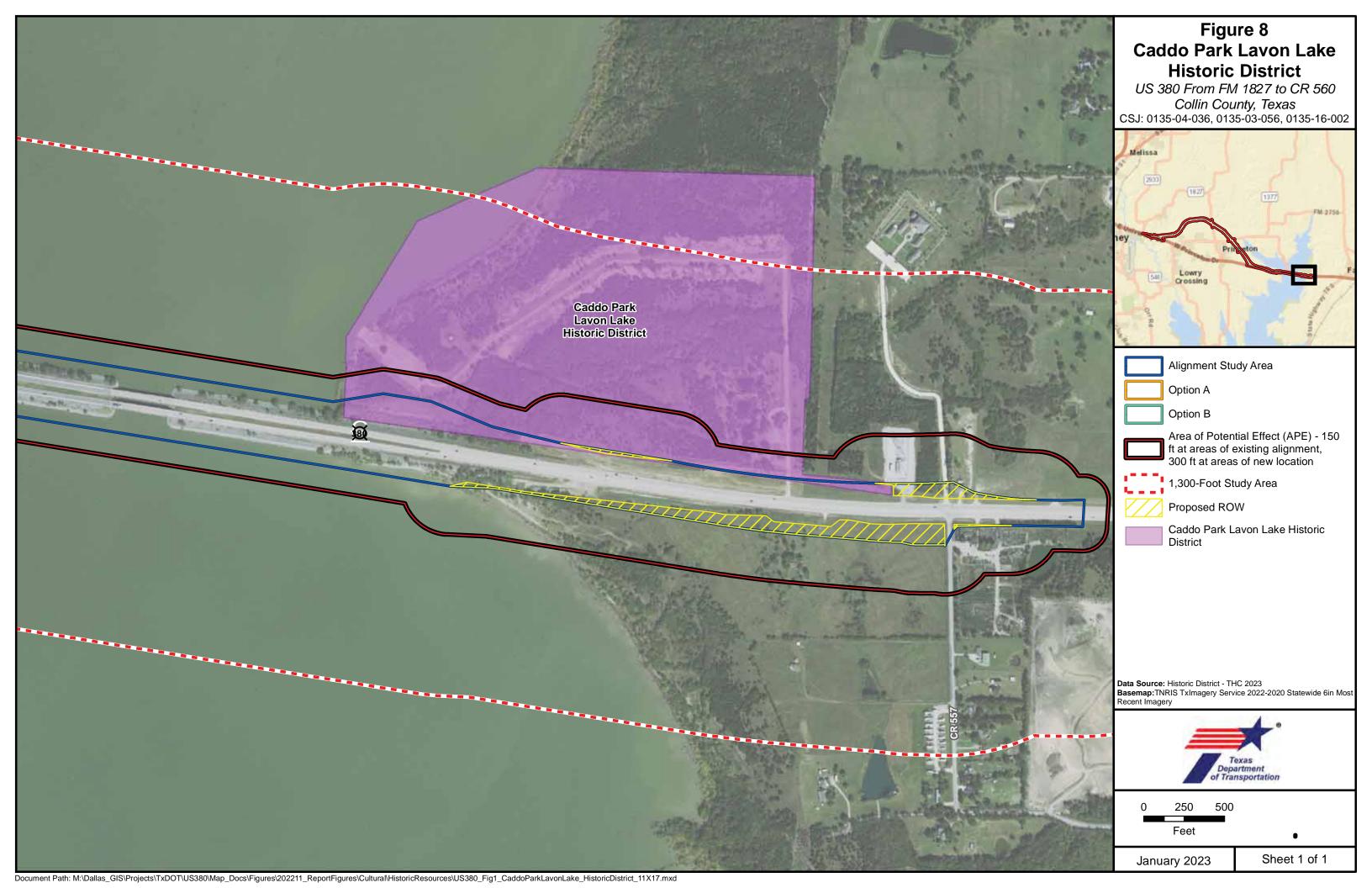


FIGURE 7





APPENDIX B

MITIGATION

Draft MITIGATION PLAN

US 380 PRINCETON PROJECT LAVON LAKE

COLLIN COUNTY, TEXAS

October 2024



Prepared by: U.S. Army Corps of Engineers Fort Worth District 819 Taylor St. Fort Worth, TX 76102

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1.0 OVERVIEW

This document presents the compensatory mitigation plan for unavoidable habitat impacts associated with the Texas Department of Transportation (TxDOT) US 380 Princeton project. This plan addresses only compensatory mitigation work and not the sequence of other activities performed during project planning to avoid, minimize, rectify, or reduce habitat impacts from the proposed project alternative (see Engineer Regulation (ER) 1105-2-100, Section C-1(e)(8) and Fort Worth Operations Mitigation Guidelines). Details of those sequence actions are included in the plan formulation and environmental consequences sections of TxDOT's Environmental Assessment and design documents, and those actions are incorporated into the mitigation objectives of this plan. The planning work performed to document those sequencing actions is complete and led the team to the need to develop a compensatory habitat mitigation plan for unavoidable impacts to USACE land and fish and wildlife resources. This document details the work performed, including coordination, plan formulation, and environmental compliance, to develop the compensatory habitat mitigation plan.

2.0 BACKGROUND

The Texas Department of Transportation (TxDOT), in conjunction with Collin County, is proposing the construction of a new location, controlled-access freeway north of the City of Princeton from west of County Road (CR) 337 to east of CR 458 and the reconstruction and widening of the existing United States (U.S.) 380 roadway from Farm-to-Market (FM) 1827 to west of CR 337 and east of CR 458 to CR 560. The distance of the proposed US 380 Princeton project is approximately 11.7 miles. The existing US 380 roadway would remain.

The proposed US 380 Princeton project would create a new location, controlled-access freeway extending north of the City of Princeton from west of CR 337 to east of CR 458, with reconstruction and widening of the existing US 380 roadway from FM 1827 to west of CR 337 and east of CR 458 to CR 560. The proposed US 380 Princeton project crossing at Lavon Lake includes reconstructing the existing US 380 and adding frontage roads. The proposed US 380 Princeton project includes one main alignment that diverges from the main alignment at CR 458, heading southeast, traversing US Army Corps of Engineers (USACE) property, specifically a Wildlife Management Area (WMA), and converging back with the main alignment at CR 492.

3.0 EXISTING CONDITIONS

The ecoregion that spans the entire vicinity of Lavon Lake is the Texas Blackland Prairie. This prairie community historically forms a belt across Texas and was dominated by tallgrass prairies on uplands prior to the now established row crop agriculture and suburban development. The intense suburban and agricultural development has almost completely annihilated all vestiges of tallgrass prairie. Intact Texas Blackland Prairie remains predominantly as a treeless rolling prairie of bunch and short grasses; however, hardwoods such as elm species (*Ulmus spp.*), hackberry (*Celtis occidentalis*), pecan (*Carya illinoiensis*) and oak species (*Quercus spp.*) occur along streams and bottomlands. Groundcover consists of such native grasses as buffalograss (*Bouteloua dactyloides*), various bluestems and grama combined with various forbs and vines.

The current dominant canopy species along creeks in the project area include pecan, black willow (*Salix nigra*), cedar elm (*Ulmus crassifolia*), and eastern cottonwood. The dominant

sapling/shrub species within both areas include young tree species, buttonbush (*Cephalanthus occidentalis*), flameleaf sumac (*Rhus lanceolata*), and roughleaf dogwood (*Cornus drummondii*). Finally, herbaceous species near the aquatic resources were dominated by wild rye (*Elymus spp.*), coralberry (*Symphoricarpos orbiculatus*), smartweed, (*Polygonum spp.*), cocklebur (*Xanthium strumarium*), inland seaoats (*Chasmanthium latifolium*), cattail (*Typha latifolia*), and sedge (*Carex spp.*). The herbaceous species within the upland areas are dominated by giant ragweed (*Ambrosia trifida*), Bermuda grass (*Cynodon dactylon*), and perennial ryegrass (*Lolium perenne*). However, there are still remnants of native prairie that support little bluestem (*Schizachyrium scoparium*), switchgrass (*Panicum virgatum*), Indiangrass (*Sorghastrum nutans*), tall dropseed (*Sporobolus compositus*), goldenrod (Solidago sp.), and cut-leaf daisy (*Erigeron compositus*). Invasive species such as broomweed (*Sporobolus compositus*), King Ranch bluestem (*Bothriochloa ischaemum var. songarica*), and Johnsongrass (*Sorghum halepense*) are now common in many portions of the grasslands. Brushy species such as honey mesquite (*Prosopis glandulosa*) and eastern redcedar (*Juniperus virginiana*) have also invaded many portions of the grasslands as a result of the minimization of natural and manmade fires.

4.0 FIELD DATA COLLECTIONS

USACE biologists along with TxDOT's natural resource consultants went to Lavon Lake August 2023 to survey the proposed impacted area of Lavon Lake property. Habitat surveying was done utilizing the Habitat Evaluation Procedures (HEP) species models to better capture and summarize shrubland and upland forest habitat. The results summarized that the projected impacted lands were of low to medium quality shrublands and upland forests with a mix of native and invasive vegetative species. Those results have been projected into numerical values aligning with the HEP modeling techniques and calculations discussed in Section 5.

5.0 ANALYSIS

The impacts of the alternatives have been assessed primarily through the application of the USFWS HEP (USFWS 2014) to the project area to (a) quantitatively characterize existing fish and wildlife resources in the project area in terms of acreage and habitat values; and (b) to estimate the area and condition of those resources over time in the future in order to compare quantitatively the net gains and losses of habitat that would occur under the different alternatives. HEP is a USFWS-developed model used for habitat-based impact assessment, with a focus on impacts to the habitat resources on which fish and wildlife are dependent. To this end, HEP modelling is not a single approach to all systems, but instead relies on the identification of several indicator species for each habitat, and then applying the models that are unique to each individual species. The species-focus also allows the analysis to evaluate the health of multiple habitats, as well as the interaction among habitats by selecting species that use multiple habitat types. The HEP evaluates changes in habitat acreages and values (as measured by habitat suitability indexes [HSIs]) that can be projected over a 50-year period that begins at the conclusion of construction (Year "0").

To evaluate the specific impacted area, Upland Forest Habitat Value was derived from the average HSIs of two HEP species models, Barred Owl and Carolina Chickadee (Table 1). Shrubland Habitat Value was derived from the average HSIs of two HEP species models, Eastern Meadowlark and Eastern Cottontail (Table 2). For future without project (FWOP), habitat value is assumed to be stable for future 50 years.

Table 1. Upland Forest Habitat Value Calculations							
	FWOP	FWOP	FWOP	FWOP	FWOP	FWOP	
FWOP Forest	0	1	10	15	25	50	
Avg BAOW	0.13	0.14	0.14	0.22	0.58	0.78	
Avg CACH	0.14	0.14	0.2	0.33	0.33	0.42	
Habitat Value							
(avg)	0.14	0.14	0.17	0.28	0.46	0.6	

Table 2. Shrubland Habitat Value Calculations						
FWOP	FWOP	FWOP	FWOP	FWOP	FWOP	FWOP
Shrubland	0	1	3	5	10	50
Avg EAME	0.11	0.11	0.11	0.11	0.11	0.11
Avg EACO	0.61	0.64	0.64	0.64	0.64	0.64
Habitat Value						
(avg)	0.36	0.38	0.38	0.38	0.38	0.38

Habitat specific HSI scores were generated for using the habitat-specific spreadsheet calculators. The HSI scores were then multiplied by the acreages to calculate the Habitat Units (HUs).

HUs represent a numerical combination of quality (i.e. Habitat Suitability Index) and quantity (acres) existing at any given point in time. HUs represent a single point in time; however, the impacts of any of the proposed actions would occur over the entire planning horizon (50 years). To account for the value of change over time, when HSI scores are not available for each year of analysis, the cumulative HUs are calculated using a formula that requires only the target year (TY) and the area estimates (USFWS 1980). The following formula was used:

$$\int_{0}^{T} HU dt = (T_{2} - T_{1}) \left[\left(\frac{A_{1}H_{1} + A_{2}H_{2}}{3} \right) + \left(\frac{A_{2}H_{1} + A_{1}H_{2}}{6} \right) \right]$$

Where:

T1= first target year of time interval

T2 = last target year of time interval 6

A1 = area of available habitat at beginning of time interval

A2= area of available habitat as the end of time interval

H1 = Habitat Suitability Index at the beginning of time interval

H2 = Habitat Suitability Index at the end of time interval

3 and 6 = constants derived from integration of HSI x Area for the interval between any two target years

This formula was developed to precisely calculate cumulative HUs when either HSI or area or both change over a time interval, which is common when dealing with the unevenness found in nature. HU gains or losses are annualized by summing the cumulative HUs calculated using the above equation across all target years in the period of analysis and dividing the total (cumulative HUs [CHU]) by the number of years in the planning horizon (i.e. 50 years). This calculation results in the Average Annual Habitat Units (AAHUs) (USFWS 1980).

Tables 3 and 4 below note existing and Future Without Project (FWOP), Future With Project (FWP) conditions which show a loss of habitat output for both upland forest and shrublands. Furthermore, FWOP and FWP habitat modeling was completed to identify mitigation needs to offset habitat output lost as part of the proposed project.

	Table 3. Upland Forest Project Condition Calculations								
Condition	Habitat	Acres	Habitat Value	TY1	TY2	Habitat Units	IHABV	AAHUs	
	Upland								
FWOP	Forest	20	0.14	0	1	2.8	2.8		
		20	0.17	1	10	3.4	30.6		
		20	0.28	10	15	5.6	28		
		20	0.46	15	25	9.2	92		
		20	0.6	25	50	12	300		
							453.4	9.1	
Condition	Habitat	Acres	Habitat Value	TY1	TY2	Habitat Units	IHABV	AAHUs	
	Upland								
FWP	Forest	20	0	0	1	0	0		
		20	0	1	10	0	0		
		20	0	10	15	0	0		
		20	0	15	25	0	0		
		20	0	25	50	0	0		
							0	0.0	
						AAHU C	hange	-9.1	

Existing/Future-Without Project Conditions

Table 3 FWOP shows Upland Forest habitat model outputs assuming Upland Forest habitat conditions found during habitat surveying have persisted into the future producing 9.1 AAHUs across 20 acres that may be impacted from the construction the expanded highway.

Target years (TY) of 0, 1, 5, 25, and 50 were utilized to annualize habitat changes over time. Years 0, 1, and 50 were based on the start of a project, one year after construction begins, and 50-year planning horizon of projects. Year 5 was selected to early forest development, or lack thereof, while Year 25 was selected due to it's the likely earliest period where substantial forest development in terms of mast production and canopy cover can be expected.

Future-With Project Conditions

Table 3 FWP assumes a complete loss of the 20 acres of Upland Forest resulting from tree removal and Highway 380 expansion. The results indicate a loss of 9.1 AAHUs between the FWOP and FWP conditions. Thus, compensatory mitigation for Upland Forest is required.

	Tabl	e 4. Shrul	bland Proje	ct Con	dition C	Calculations	3	
Condition	Habitat	Acres	Habitat Value	TY1	TY2	Habitat Units	IHABV	AAHUs
FWOP	Shrubland	2.53	0.36	0	1	0.9108	0.9108	
		2.53	0.38	1	3	0.9614	1.9228	
		2.53	0.38	3	5	0.9614	1.9228	
		2.53	0.38	5	10	0.9614	4.807	
		2.53	0.38	10	50	0.9614	38.456	
							48.0194	1.0
Condition	Habitat	Acres	Habitat Value	TY1	TY2	Habitat Units	IHABV	AAHUs
FWP	Shrubland	2.53	0	0	1	0	0	
		2.53	0	1	3	0	0	
		2.53	0	3	5	0	0	
		2.53	0	5	10	0	0	
		2.53	0	10	50	0	0	
							0	0.0
						AAHU	Change	-1.0

Existing/Future-Without Project Conditions

Table 4 FWOP shows Shrubland habitat model outputs assuming Shrubland habitat conditions found during habitat surveying have persisted into the future producing 1 AAHUs across 2.53 acres that may be impacted from the construction the expanded highway.

Target years (TY) of 0, 1, 3, 5, 10, and 50 were utilized to annualize habitat changes over time. Years 0, 1, and 50 were based on the start of a project, one year after construction begins, and 50-year planning horizon of projects. Year 3 was selected to early Shrubland development, or lack thereof, while Year 10 was selected due to it's the likely earliest period where substantial Shrubland development in terms of mast production, shrub crown cover and herbaceous canopy.

Future-With Project Conditions

Table 3 FWP assumes a complete loss of the 2.53 acres of Shrubland resulting from tree and vegetation removal and Highway 380 expansion. The results indicate a loss of 1 AAHUs between the FWOP and FWP conditions. Thus, compensatory mitigation for Shrubland is required.

6.0 MITIGATION REQUIREMENTS

To determine the total habitat acreage for the environmental mitigation portion of the overall compensatory mitigation total, calculations were done for FWOP and FWP with the addition of mitigation sites at Lavon Lake.

<u>Upland Forest Mitigation Calculations</u>

Ideally, a single large tract of land with minimal habitat presence, such as pasture or agriculture/crop lands, would identify with suitable hydrological connectivity to support Upland Forest. Table 5 demonstrates the need for 27 acres of land to be planted and managed for Upland Forest in order to produce the needed 9.1 AAHUs of Upland Forest to offset the loss of 20 acres of Upland Forest. The larger acreage needed is driven by the long maturation time of forest growth with habitat output. Upland Forest habitat output is not anticipated to occur for 25 years post planting.

Tabl	Table 5. Upland Forest Project Condition Calculations – With Mitigation Sites							
Condition	Habitat	Acres	Habitat Value	TY1	TY2	Habitat Units	IHABV	AAHUs
	Upland							
FWOP	Forest	27	0.14	0	1	3.78	3.78	
		27	0.18	1	10	4.86	43.74	
		27	0.23	10	15	6.21	31.05	
		27	0.26	15	25	7.02	70.2	
		27	0.26	25	50	7.02	175.5	
							324.27	6.5
Condition	Habitat	Acres	Habitat Value	TY1	TY2	Habitat Units	IHABV	AAHUs
	Upland							
FWP	Forest	27	0	0	1	0	0	
		27	0	1	10	0	0	
		27	0.47	10	15	12.69	63.45	
		27	0.78	15	25	21.06	210.6	
		27	0.78	25	50	21.06	526.5	
							800.55	16.0
						AAHU (Change	9.5
						Target (Change	9.1

Shrubland Mitigation Calculations

Table 6 demonstrates the need for 3 acres of land to be planted and managed for Shrubland to produce the needed 1 AAHUs of Shrubland to offset the loss of 2.53 acres of Upland Forest. The slightly larger acreage needed is driven by the maturation time of Shrubland growth with habitat output. Shrubland maturation is anticipated to be less time than Upland Forest.

Ta	Table 6. Shrubland Project Condition Calculations – With Mitigation Sites							
Condition	Habitat	Acres	Habitat Value	TY1	TY2	Habitat Units	IHABV	AAHUs
FWOP	Shrubland	3	0.36	0	1	1.08	1.08	
		3	0.38	1	3	1.14	2.28	
		3	0.38	3	5	1.14	2.28	
		3	0.38	5	10	1.14	5.7	

		3	0.38	10	50	1.14	45.6	
							56.94	1.1
Condition	Habitat	Acres	Habitat Value	TY1	TY2	Habitat Units	IHABV	AAHUs
FWP	Shrubland	3	0.44	0	1	1.32	1.32	
		3	0.46	1	3	1.38	2.76	
		3	0.69	3	5	2.07	4.14	
		3	1	5	10	3	15	
		3	1	10	50	3	120	
							143.22	2.9
						AAHU C	hange	1.7
						Target (Change	1

The USACE project delivery team (PDT) developed a list of mitigation projects on Lavon Lake to account for the combination loss of wildlife habitat, USACE land and recreation impacts. The PDT utilized the Operations Section "Guidelines for Determining Natural Resources Mitigation for Action Affecting Federally Owned Land at Operational Civil Works Projects". Using these guidelines and HEP results, it was determined the impacted land is considered a Resource Category 4 – Habitat is of medium to low value for evaluation species. The mitigation ratio determined from Table 7 below at a 100 year frequency and for poor quality habitat condition was a 4:1 mitigation ratio.

Table 7. Typical	Table 7. Typical Compensatory Mitigation Ratio for Loss of Forested Habitat						
Flood Event	Ve	Vegetation/Habitat Condition					
Frequencies	Poor	Good	Excellent				
5 Year	1:1	2:1	3:1				
10 Year	2:1	3:1	4:1				
50 Year	3:1	4:1	5:1				
100 Year	4:1	5:1	6:1				

Assuming a 30-acre impact and a 4:1 mitigation ratio to offset losses to public outdoor areas and associated recreational loss, the target was 128 acres. To account for recreation access degradation, 4 acres were added as a buffer, totaling 132 target acres. For an additional cushion of acreage, projects #9 and #10 were added to total 177 acres of mitigation. Below in Table 8 is the list of mitigation projects in order of priority, paired with Figure 1 for location reference.

The following areas were prioritized for mitigation efforts. During future design efforts, a detailed monitoring and adaptive management plan would be developed to ensure initial and long-term habitat development.

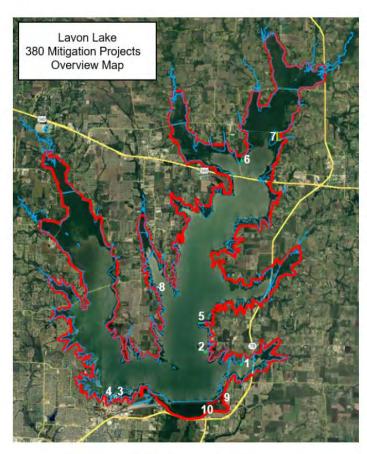
Metrics to be monitored include ensuring invasive species are kept below 10% of the total restored area, Native species exist across greater than 85% of the restored areas for 5 years. When these and other to be developed monitoring metrics are not met, adaptive management measures such as additional invasive species removal and additional native planting/seeding efforts, supplemental watering would be implemented to ensure native habitats are established before entering normal operation and maintenance programs.

	Table 8.	Lavon Lake N	Mitigation Pro	jects
Proj#	Proj Name	Proj Type	Proj Acres	Proj Description
1	Cottonwood Rehab	Demo and Rehab	15	Demolish roads, parking, restroom, WWTP, boatramp (~6 ac). Remove trees along both sides of existing road. Replant/Improve prairie. Plant trees and buttonbush along shoreline. Install ~ 450 linear feet of double pipe rail w/ 1 gate to help control illegal access.
2	Old Little Ridge Rehab	Demo and Rehab	29	Demolish roads, parking, old picnic sites, restroom (~4 acres). Remove cedars and selectively remove hardwoods. Replant/Improve prairie. Plant riparian trees and buttonbush along shoreline. Install ~2,400 linear feet of barbed wire fence w/ 2 gates to help control illegal access.
3	ESA 1 East	Prairie Resto	7	Remove existing trees. Replant/Improve prairie to include hard ground cover. Remove existing barbed wire fence and encumbered trees along Skyview Drive. Install ~500 linear feet of barbed wire fence w/ 1 pipe rail gate to help control illegal access. NOTE: Expands on area clearing done under vegetation removal contract.
4	ESA 1 West	Prairie Resto	19	Remove existing trees. Replant/Improve prairie to include hard ground cover. Remove existing barbed wire fence and encumbered trees along Skyview Drive. Improve existing park and fish parking area with additional compacted road base and new fencing. Install ~1,000 linear feet of

	T	1		
				barbed wire fence along roadway and around improved park and fish parking area w/ 1 pipe rail gate to help control illegal access. NOTE: Expands on area clearing done under vegetation removal contract.
5	Old Pebble Beach Rehab	Demo and Rehab	9.7	Demolish roads, parking, boatramp (~3 acres). Replant/Improve prairie. Plant riparian trees and buttonbush along shoreline. Install ~1,900 linear feet of double rail pipe w/ 1 gate to help control illegal access.
6	Blue Ridge Rehab	Demo and Rehab	11	Demolish roads, parking, restroom, boat ramp (~4.3 ac). Remove cedars. Replant with native trees. Plant riparian trees and buttonbush along shoreline.
7	CR 565	Forest Resto	36.7	Remove cedars. Remove existing boundary fence and encumbered trees. Clear boundary line to 10' to accommodate vehicle traffic for watering and to improve boundary monitoring. Improve Park and Hunt parking lot with additional compacted road base, expanding lot to the south. Rework/install ~550 linear feet of double pipe rail fence w/ 1 pipe rail gate to control illegal access at park and hunt. Install ~1,900 linear feet of barbed wire along boundary to control illegal access. Plant aquatic species at 4 small ponds. Repopulate area with native trees and understory (potential for slippery elm/chinquapin oak habitat).

8	Culleoka Rehab	Demo and Rehab	4.6	Demolish road, parking, boatramp (~1.65 ac). Remove cedars. Replant/Improve prairie. Plant trees and buttonbush along shoreline. Install ~1,250 feet of double pipe rail with 1 gate to help control illegal access.
9	ORV Pond	Prairie Resto	28	Remove cedars. Remove existing biomass from previously shredded trees. Remove existing barbed wire fence and encumbered trees along Lake Road. Install ~5,400 linear feet of double rail pipe w/ 2 gates to help control illegal access. NOTE: Expands on existing mitigation being done by NTMWD.
10	ORV Boneyard	Prairie Resto	17	Clean up and remove all excess materials from boneyard area. Remove cedars. Replant/Improve prairie. Plant trees and aquatics along pond shoreline. NOTE: Expands on existing mitigation being done by NTMWD.
Total Pro	ject Acreage		177	

Figure 1. Lavon Lake Mitigation Projects Map



Projects:

- 1 Cottonwood Park Rehab
- 2 Old Little Ridge Park Rehab
- 3 ESA 1 East
- 4 ESA 1 West
- 5 Old Pebble Beach Park Rehab
- 6 Blue Ridge Park Rehab
- 7 County Road 565 Reforestation
- 8 Culleoka Park Rehab
- 9 ORV Pond
- 10 ORV Boneyard

Additional details and guidelines during mitigation projects include but not limited to:

Road, Parking & Boat Ramp Demolition

Removal of roadway materials, to include basecourse and haul offsite. Grade remaining ground into existing terrain ensuring positive drainage.

Restroom, Picnic Site, & Park Facility Demolition

Demolish existing structures and foundations and haul offsite. Grade remaining ground into existing terrain ensuring positive drainage.

Waste Water Treatment Plant Demolition

Remove decommissioned, drained and backfilled wastewater treatment structures and grade remaining ground into existing terrain ensuring positive drainage.

Tree Removal

Trees will be removed down to or below the ground surface and all debris will be hauled offsite.

Ground Disturbance

All disturbed ground will be reseeded/replanted with Blackland Prairie native ground coverings.

Area Tree Replanting

Trees will be planted in a mott type formation, 12 foot on center equaling a 50 foot diameter patch. This patch will be surrounded by a band of shrubs and smaller native woody species creating a 15 foot buffer transitioning back to prairie. Motts will occur on 100 foot centers.

Shoreline Planting

Shoreline areas identified will have button bush seeded/planted on a 5 foot interval with every 50 foot receiving a native riparian tree.

Area Prairie Plantings

Planting and replanting areas will receive native Blackland Prairie seed appropriate for the area and will receive shrub groupings on 250-foot centers creating a 30 foot diameter patch.

7.0 REFERENCES

Engineer Regulation 1105-2-100 Planning Guidance Notebook. Appendix C – Environmental Evaluation and Compliance.

USACE. Guidelines for Determining Natural Resources Mitigation for Actions Affecting Federally Owned Land at Operational Civil Works Projects. Fort Worth District Operations.

APPENDIX C AGENCY COORDINATION



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

February 8, 2024

SECTION 4(f) REVIEW: NOTIFICATION OF INDIVIDUAL ALTERNATIVE ANALYSIS

Collin County/Dallas District US 380 Widening-Princeton CSJ: 0135-04-036, etc.

Mr. Justin Kockritz History Programs Texas Historical Commission Austin, TX 78711

Dear Mr. Kockritz:

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 12-9-19, and executed by FHWA and TxDOT. This letter seeks Official With Jurisdiction (OWJ) comment on an individual Section 4(f) analysis for the above-referenced project. As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency.

Project Description

See attached description from TxDOT's Environmental Coordination Oversight System (ECOS).

Presence of Historic Site Protected by Section 4(f):

In past correspondence with your agency in February 2023, TxDOT determined, and your office concurred, that the Caddo Park at Lavon Lake is eligible for the National Register of Historic Places. The US Army Corps of Engineers (USACE) opened Caddo Park in 1975 as part of a pilot program to provide wheelchair-accessible parks along USACE lakes. Caddo Park was one of two parks in Texas in the pilot program and may have been one of the first public parks designed for wheelchair accessibility. The park includes accessible paths, parking lots, bathrooms, picnic tables, fishing areas, and a boat ramp. Caddo Park at Lavon Lake is eligible at the state level of significance under Criterion A for Entertainment/Recreation and Criterion C for Design as recognition for its significance in promoting public accessibility. Only a portion of the park is wheelchair-accessible, and the historic property's boundaries encompass that portion, not the entire boundaries of Caddo Park.

Determination of Section 4f Findings of Use of a Historic Site

In 2023, TxDOT sought your concurrence with our finding that the proposed project would have no adverse effect to Caddo Park at Lavon Lake. However, the additional OWJ for this project, the USACE as owner of the park, did not concur with that finding. Therefore, TxDOT finds that the proposed acquisition of land containing parks and the Caddo Park at Lavon Lake historic site constitutes a use subject to analysis under Section 4(f). TxDOT determined there are no prudent and feasible alternatives that meet the project's purpose and need that would avoid the use of these sites protected under Section 4(f). which are the same as those disclosed in the May 2023 letter.

Based on the Section 4(f) evaluation, TxDOT intends to make the following findings under 23 CFR 774 for this project. Please see the attached Individual Section 4f analysis report for your review. We request your comments on our findings as the OWJ for the Caddo Park at Lavon Lake historic site:

- 1. There is no feasible and prudent avoidance alternative to the use of land from the historic site.
- 2. The Build Alternative includes all possible planning to minimize harm to the property resulting from such use, including the proposed mitigation.

Originally, TxDOT proposed to use approximately 2.4 acres of the Caddo Park Lavon Lake Historic District. To minimize harm to the Caddo Park Lavon Lake Historic District, TxDOT shifted the proposed alignment for Alternative 2 to the south and minimized the proposed acquisition of ROW and easement area from the Section 4(f) property. The proposed design includes retaining walls along the westbound mainlanes to minimize the acquisition of land from the historic site and to minimize the need for grading. The proposed design also includes a parallel ramping scheme for the westbound frontage road entrance ramp to the westbound US 380 mainlanes. The spacing between the frontage road, the entrance ramp, and the mainlanes has been compressed to the minimum necessary to meet design standards. Currently, TxDOT proposes to use only 0.17 acres of the historic site as a permanent easement.

The proposed use does not contain any contributing resources and is over 400 feet from a contributing resource. The portion of the part that is a historic site is 106.6 acres. TxDOT's permanent easement acquisition comprises less than 0.001% of the overall historic site.

Conclusion

We notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our findings will be integrated into decision-making regarding prudent and feasible alternatives for the Section 4(f) evaluation. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the afore-mentioned MOU dated 12-9-19.

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 call me at (512) 431-3422 or rebekah.dobrasko@txdot.gov.

Sincerely,
Pocusioned by:

KULLAL Pobrasko
Rebekati Dobrasko
Section Director, Cultural Resources
Environmental Affairs Division

	NO COMMENTS ON SECTION 4F INDIVIDUAL ANALYSIS	
NAME:	Bradford Patterson, Deputy State Historic Preservation Officer	DATE:



United States Department of the Interior

OFFICE OF THE SECRETARY

Office of Environmental Policy and Compliance 1001 Indian School Road NW, Suite 348 Albuquerque, New Mexico 87104

Electronic Submittal Only ER 24/0049

March 6, 2024

Mohammed Shaikh Texas Department of Transportation mohammed.shaikh@txdot.gov

Subject: Comments on the Texas Department of Transportation (TxDOT) Individual

Section 4(f) Evaluation for the US 380 Princeton Project, Dallas District, Collin

County, Texas

Dear Mr. Shaikh:

The United States (U.S.) Department of the Interior (Department) has reviewed the TxDOT individual Section 4(f) evaluation for the US 380 Princeton Project, Dallas District, Collin County, Texas.

The Department understands the purpose of the project is to is to meet current roadway design standards and traffic demand to reduce congestion and improve mobility, safety, and access on US 380 from County Road 560 to FM 1827 along existing US 380 through Princeton. The evaluation seeks to analyze impacts to properties that qualify under Section 4(f) of the U.S. Department of Transportation Act.

Section 4(f) of the U.S. Department of Transportation Act specifies that the Secretary of Transportation may approve a transportation program or project requiring the use of Section 4(f) property only if there is no prudent and feasible alternative that avoids the Section 4(f) property and that the project includes all possible planning to minimize harm to the Section 4(f) property; or, FHWA makes a finding that the project has a de minimis impact on the Section 4(f) property. The proposed project would require use from six Section 4(f) resources:

1. Lavon Lake Wildlife Management Area - The proposed improvements to US 380 would require the permanent incorporation of 21 acres of permanent easement from the Lavon Lake Wildlife Management Area (WMA), publicly owned and operated by United States Army Corps of Engineers (USACE). The proposed use would convert wildlife habitat to transportation use in a small portion of the WMA (0.33 percent of the total

area), although it would not impair the activities, attributes, or features of the overall WMA to the extent that the public recreational use and enjoyment of the overall property could not continue.

- 2. **Twin Groves Park** The proposed improvements to US 380 would require the permanent incorporation of 0.02 acres of right-of-way and 0.53 acres of permanent easement from Twin Groves Park, publicly owned and operated by USACE. The proposed use would not impair the activities, attributes, or features of Twin Groves Park.
- 3. **Lavon Lake Low Density Recreation Area** The proposed improvements to US 380 would require the permanent incorporation of 0.29 acres of permanent easement from the Low Density Recreation area publicly owned and operated by USACE. The proposed use would not impair the activities, attributes, or features of the Lavon Lake Low Density Recreation Area.
- 4. **Caddo Park** The proposed improvements to US 380 would require the permanent incorporation of 0.17 acres of permanent easement from Caddo Park, publicly owned and operated by USACE. The proposed use would not impair the activities, attributes, or features of Caddo Park.
- 5. **Lavon Lake Vegetative Management Area** The proposed improvements to US 380 would require the permanent incorporation of 1.07 acres of permanent easement from the Lavon Lake Vegetative Management Area publicly owned and operated by USACE. The proposed use would not impair the activities, attributes, or features of the Lavon Lake Vegetative Management Area.
- 6. **Caddo Park Lavon Lake Historic District** The proposed improvements to US 380 would require the permanent incorporation of 0.17 acres of permanent easement from the Caddo Park Lavon Lake Historic District. The proposed use would have no adverse effect to the Caddo Park Lavon Lake Historic District.

For all six Section 4(f) resources, as defined in 23 CFR 774.17, TxDOT concluded there were no feasible and prudent alternatives to the use, and the proposed project included all possible planning to minimize harm to the Section 4(f) properties.

The Department has reviewed the individual Section 4(f) evaluation provided by TxDOT for this project, and the Department has no objection to the Section 4(f) evaluation of this project. The Department concurs with the determination that there are no prudent and feasible avoidance alternatives for Section 4(f) use of the historic properties noted, and that the Section 4(f) evaluation describes the affected Section 4(f) resources including properties that are listed or eligible for listing in the National Register of Historic Places. Pursuant to Section 6(f) of the Land and Water Conservation Fund Act (LWCF), please also coordinate with the state agency coordinators for the LWCF Program-assisted project entitled 48-01083 Farmersville South Lake Park II. Pursuant to the 2015 Section 106 Programmatic Agreement and continued consultation

with the Texas State Historic Preservation Office, the Department has no objection to Section 4(f) approval of this project.

The Department has a continuing interest in working with TxDOT to ensure that impacts to resources of concern to the Department are adequately addressed. For matters related to the Department's Section 4(f) comments, please contact Karen Skaar, NEPA Specialist, National Park Service – Regions 6, 7, and 8 at 303-349-4160 or karen skaar@nps.gov.

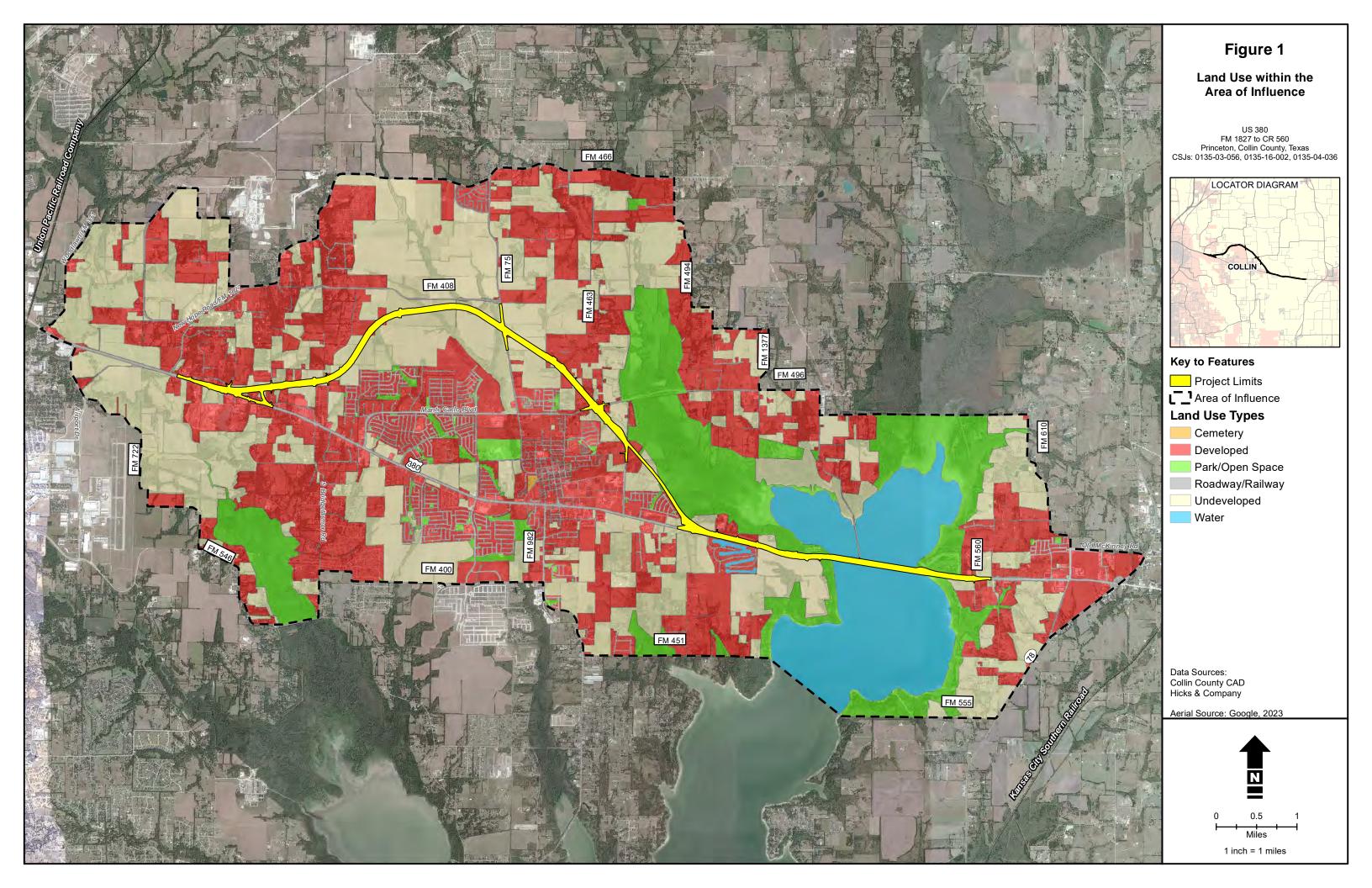
If you have any additional questions for the Department or need assistance, please contact me at 720-814-6167 or rebecca collins@ios.doi.gov.

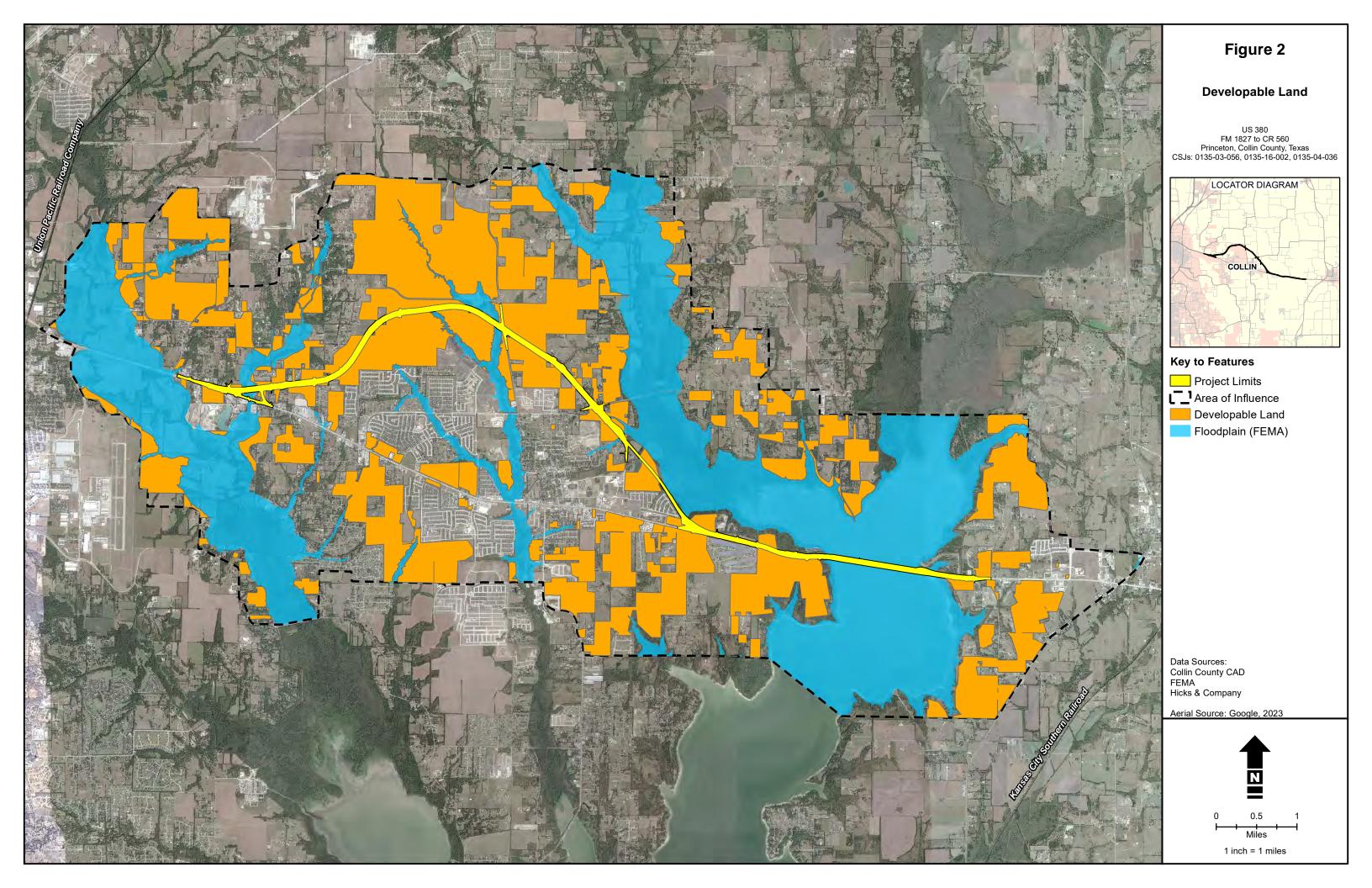
Sincerely,

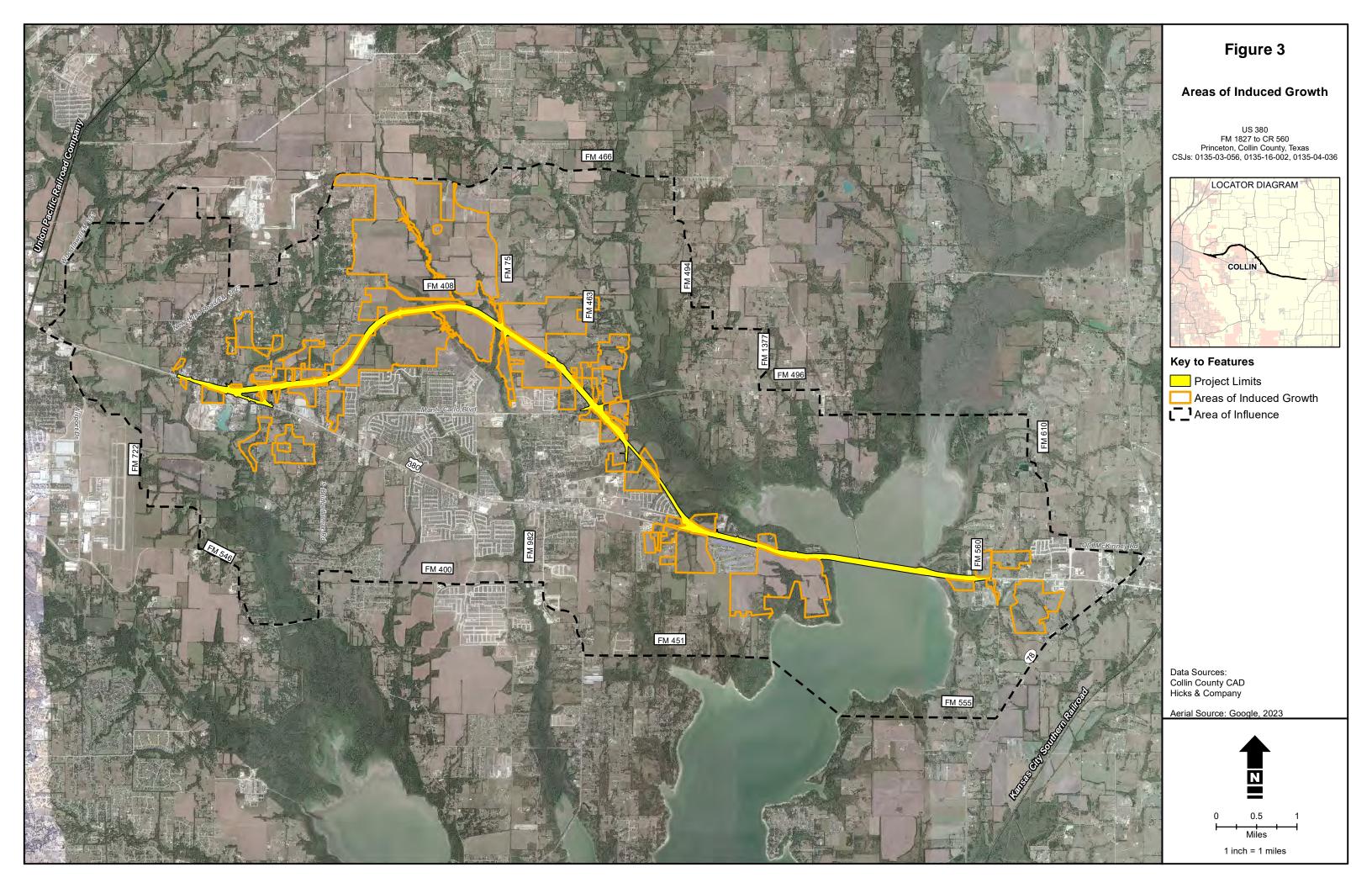
Rebecca Collins, Regional Environmental Officer Office of Environmental Policy and Compliance

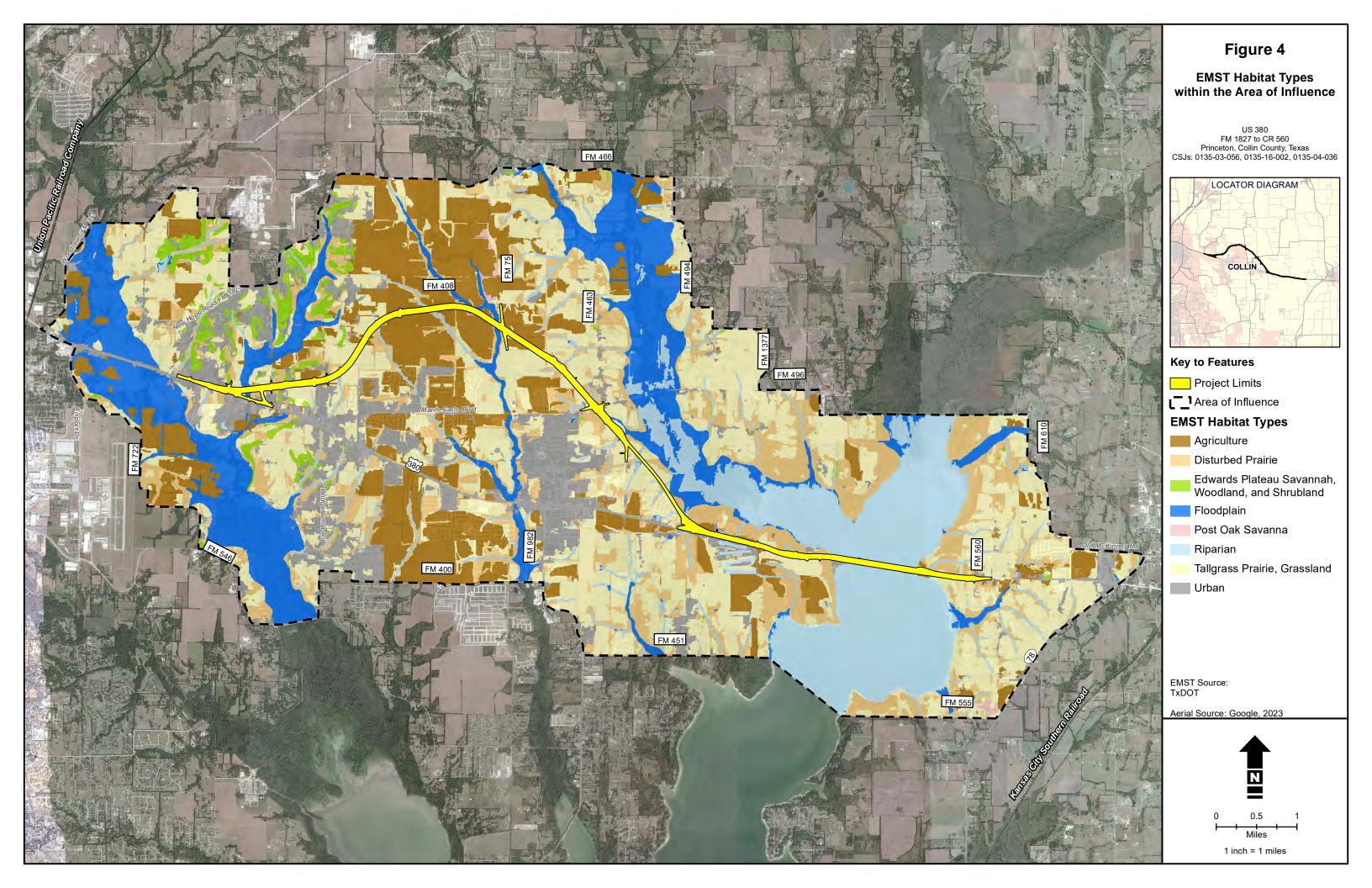
Cc: Karen Skaar, National Park Service, <u>karen_skaar@nps.gov</u>
Roxanne Runkel, National Park Service, <u>roxanne_runkel@nps.gov</u>

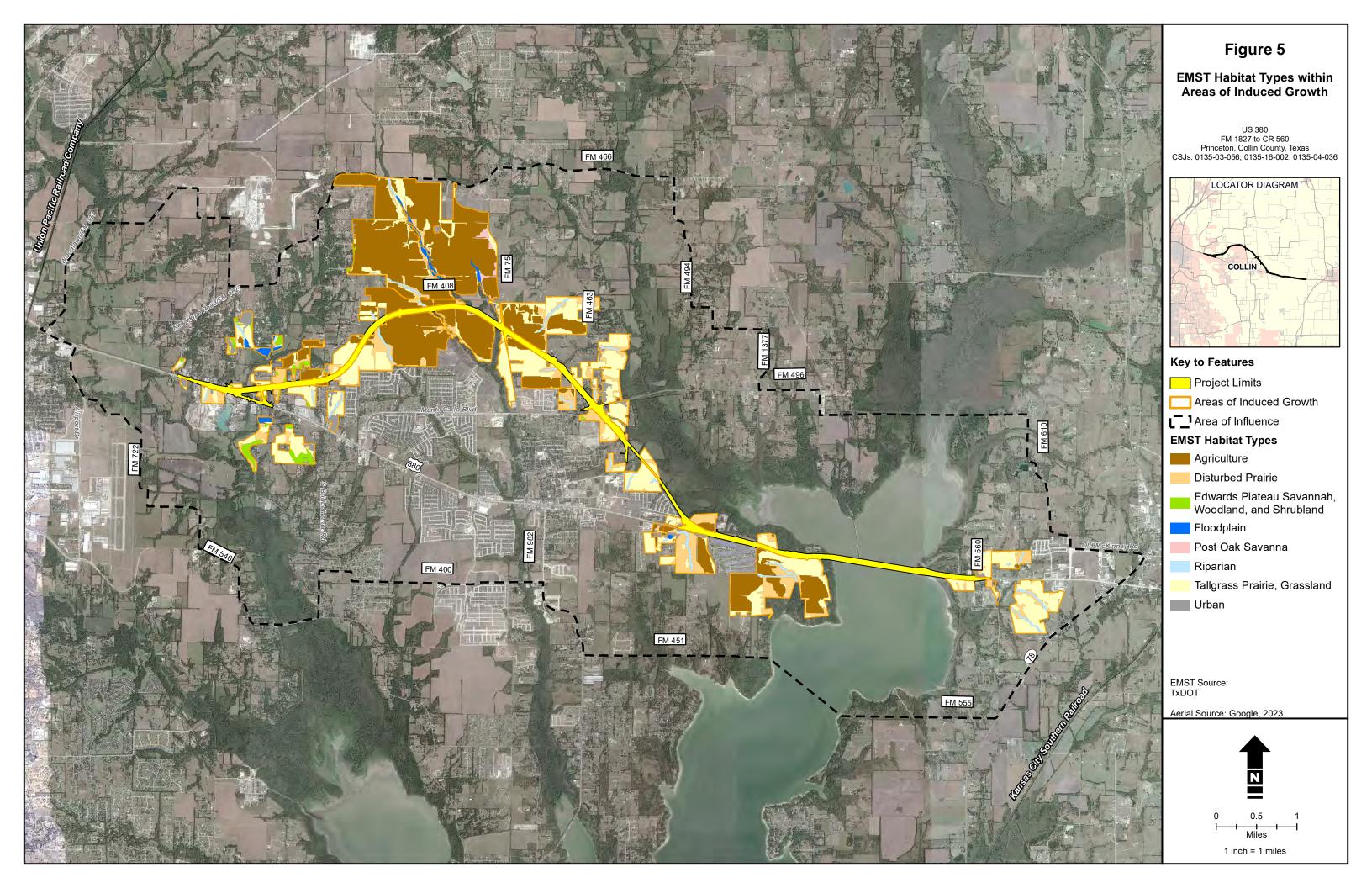
Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Appendix H: Induced Growth &	Cumulative Impacts Maps

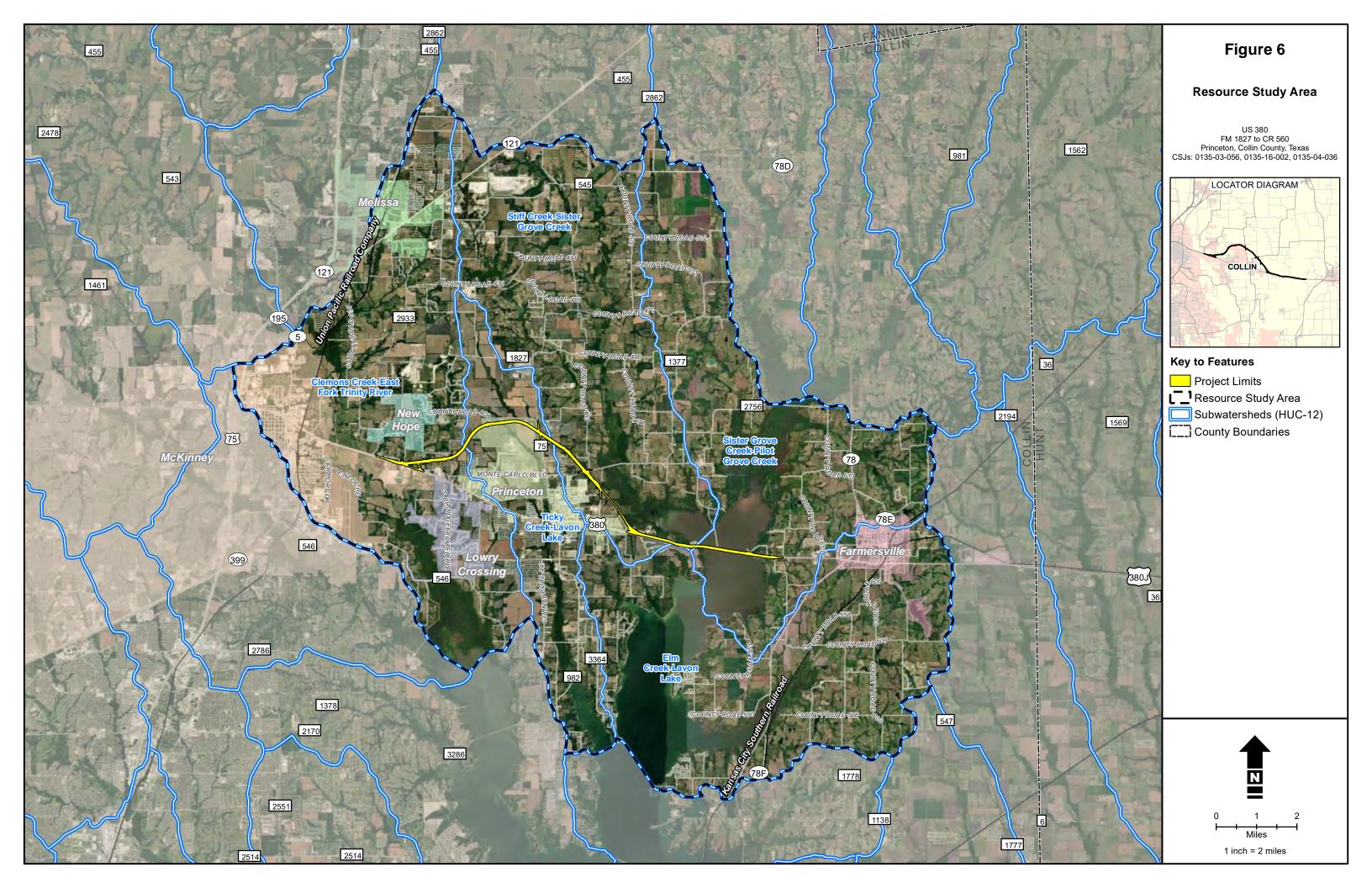


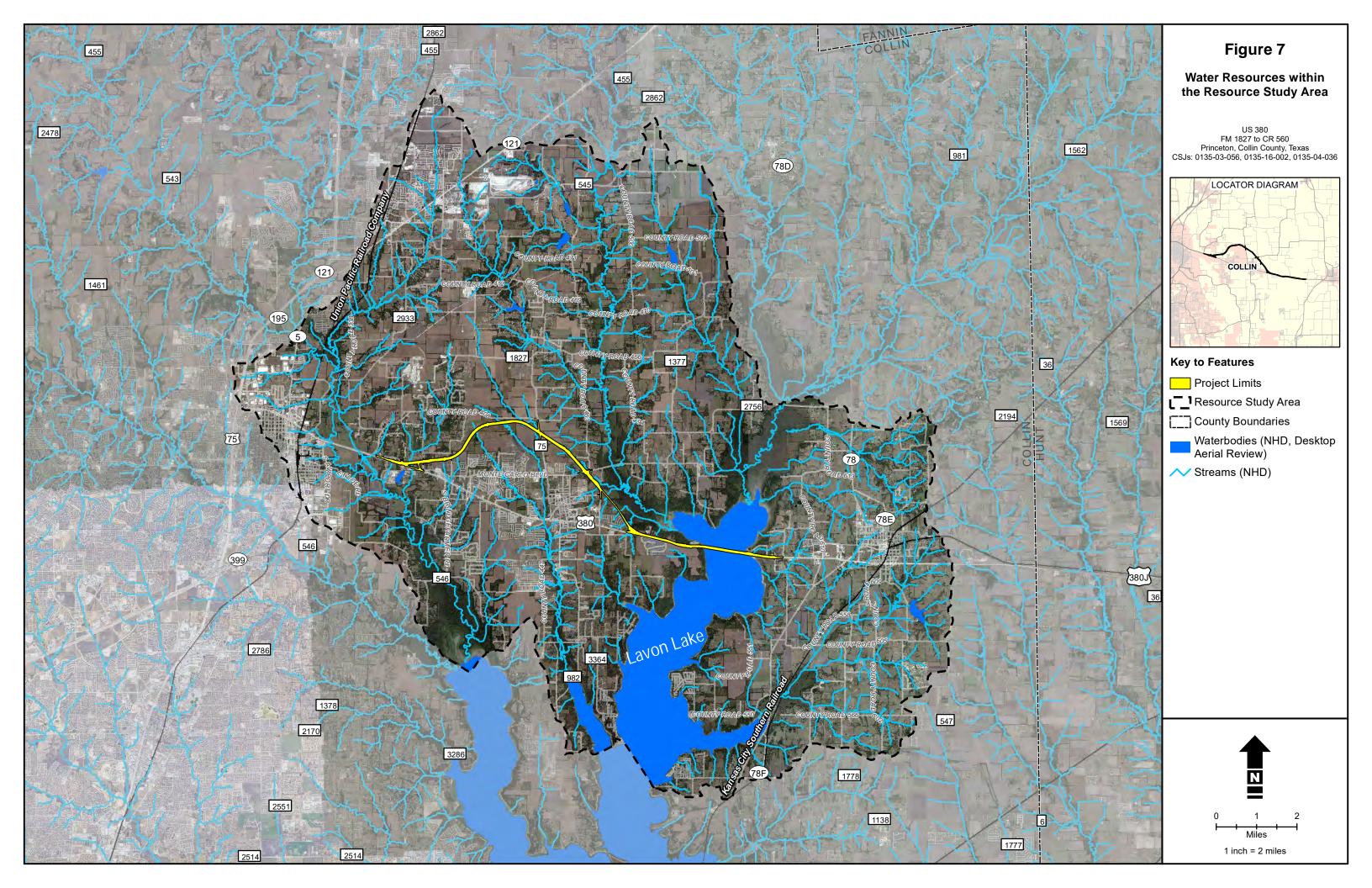


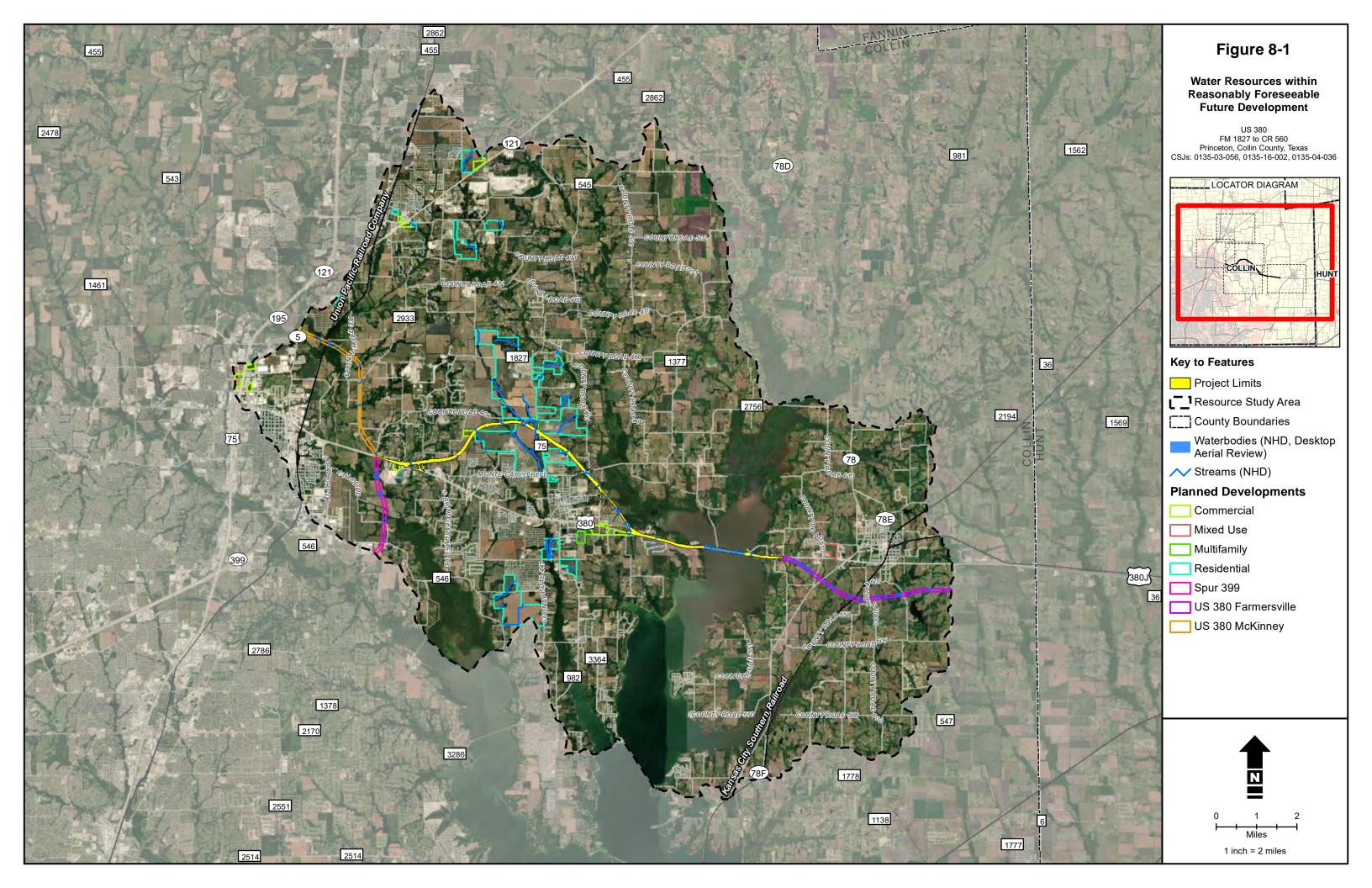


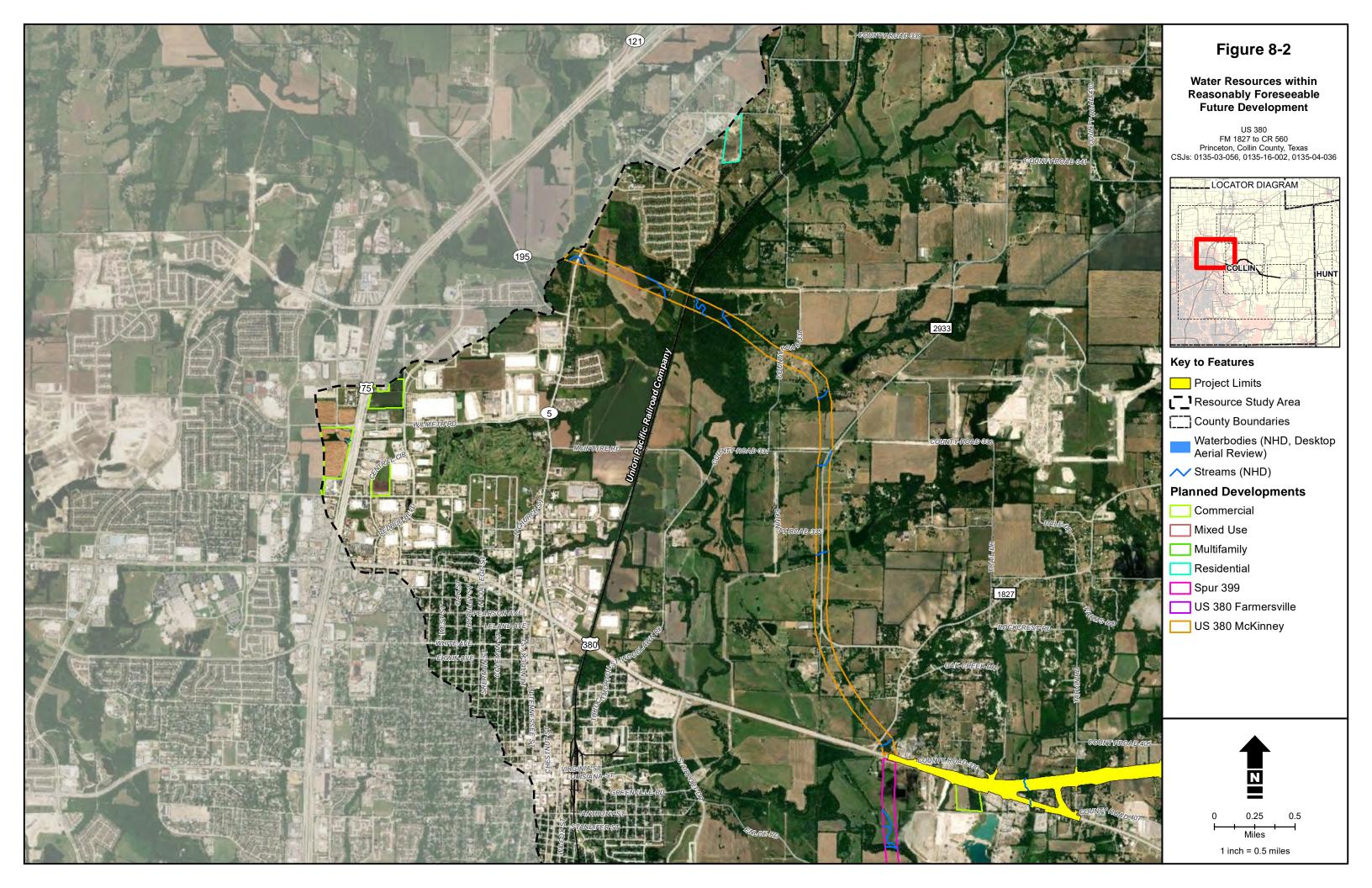


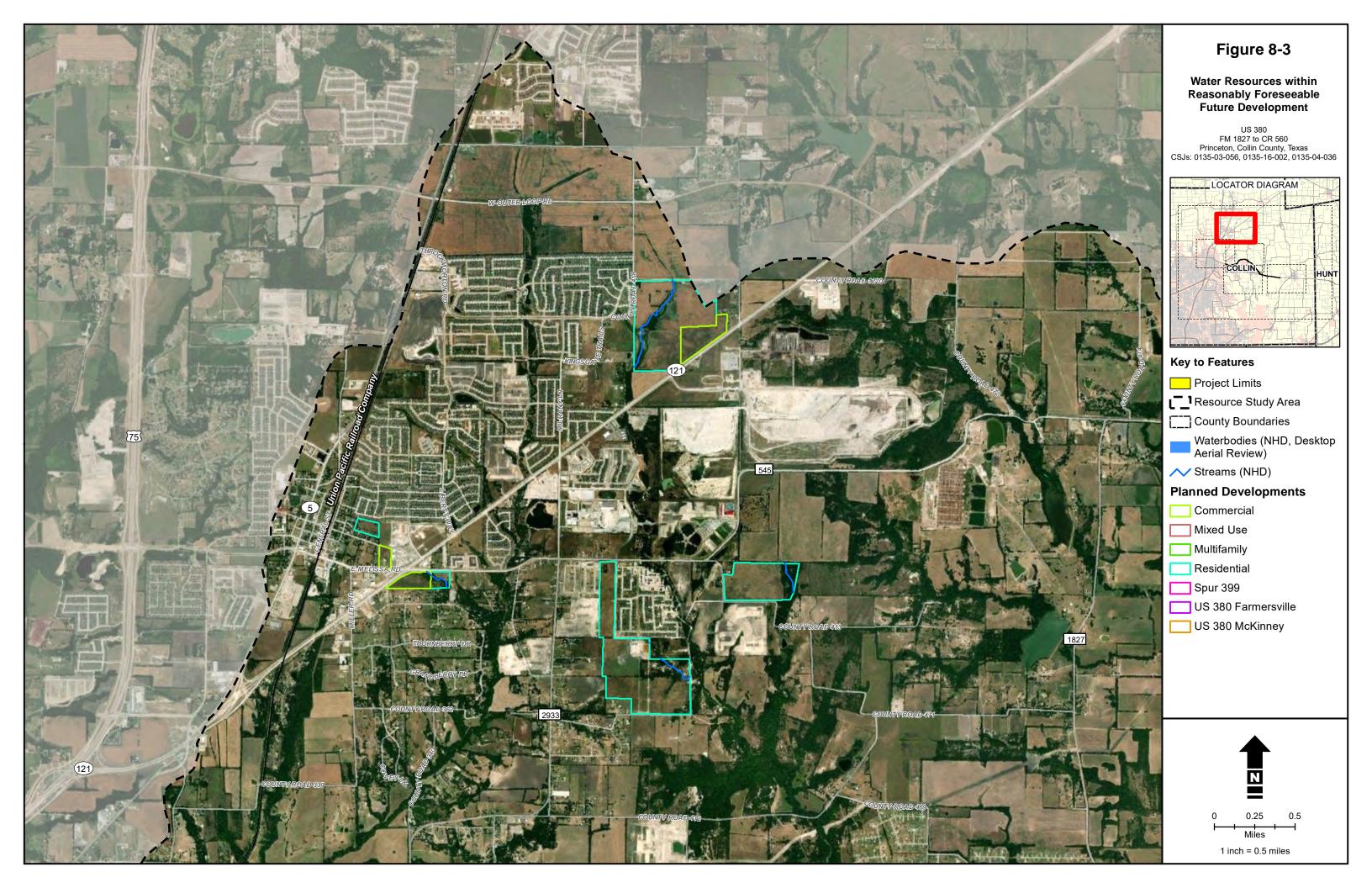


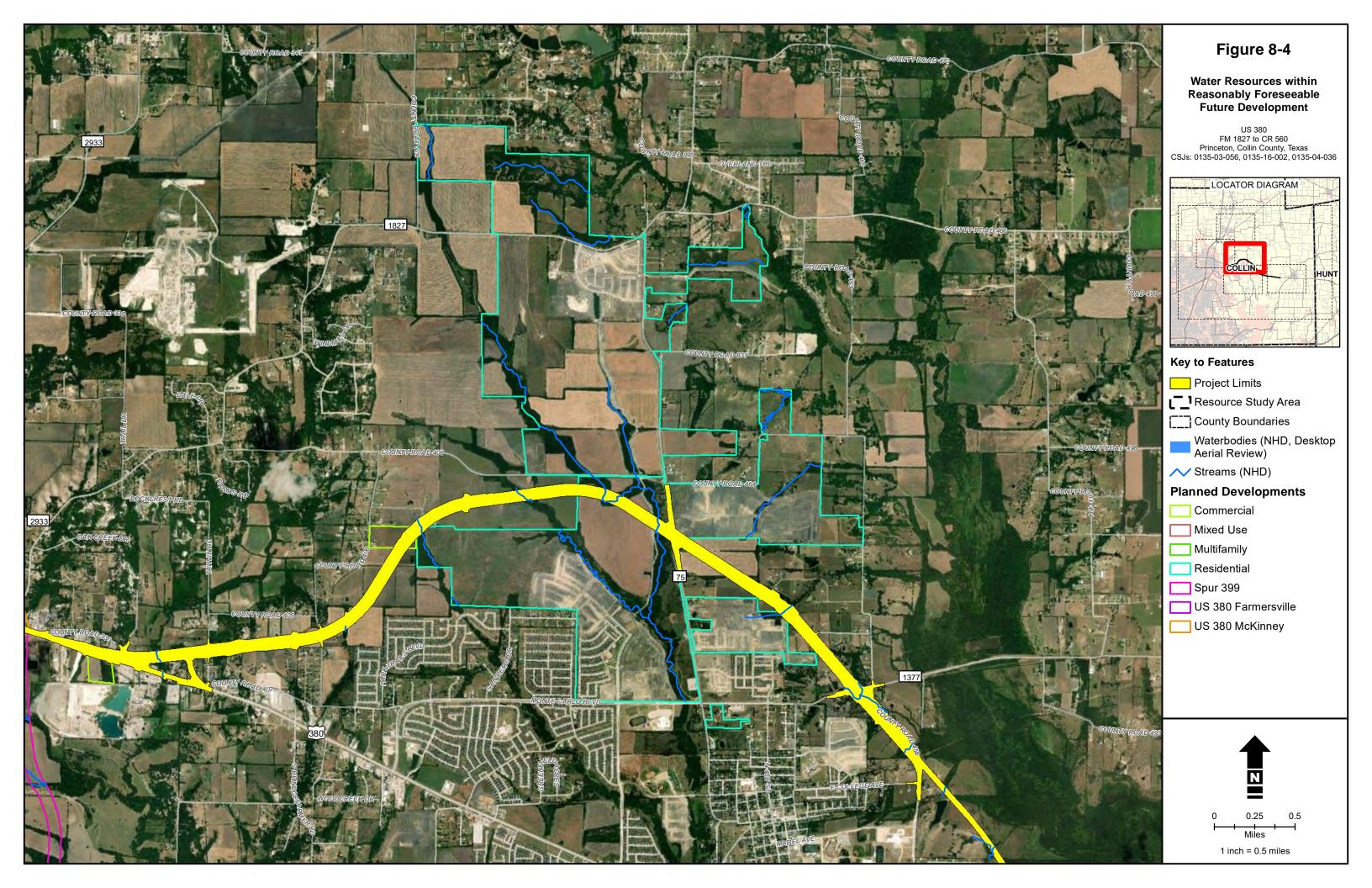




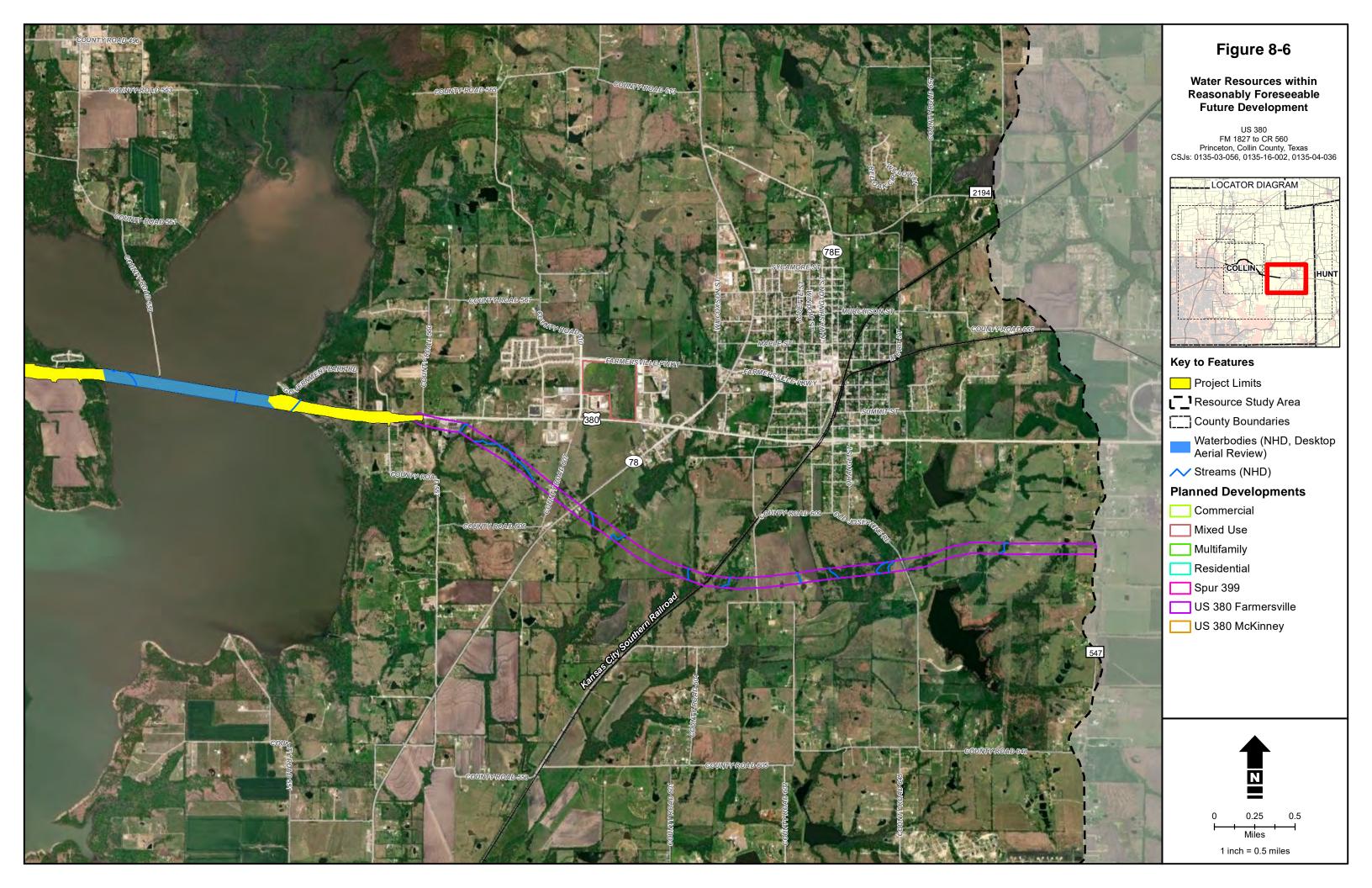












Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 56
Appendix I: Comment and Respon	nse Matrix from Public Meeting

United States (US) 380 Princeton

From Farm-to-Market (FM) 1827 to County Road (CR) 560 0135-04-036, 0135-03-056, 0135-16-002

Aug. 2, 2022 Public Meeting - Comment Response Matrix

Comment No.	Commenter Name	Date Received	Source	Comment	Response
1	Princeton Lakes Property Owners Association - Board of Directors - Mr. Larry Thompson	8/1/2022	Email	Mr. Stephen Endres, The Princeton Lakes Property Owners Association (PLPOA) Board of Directors request that the proposed US380 schematics do not impact the south side of US380 in front of our neighborhood. We want to make sure that the berm, lake, and existing homes are not impacted, and that the expanded right of way (ROW) extends only to the north side of US380 where there is very little current development. Any impact to our lake closest to US380 would negatively impact 59 homeowners since the 4 lakes are interconnected. When we study the schematics, we will be looking for noise abatement and lighting designs that preserve or improve our current environment. We are concerned about the impact of any elevated portion of the new US380 near Princeton Lakes. Access to and from our entrances at Island Way and Calm Water Cove needs to be preserved, and safety needs to be improved from the current design. The PLPOA is especially concerned about the proposed Dimauro Addition that includes plans to build high density housing using the current ROW on the north side of US380 across from Calm Water Cove, which conflicts with the proposed ROW. The developer is aware of the US380 plans but apparently does not care. Collin County or TXDOT needs to procure the ROW on the north side of US380 quickly to prevent further development. Thanks for your continued support in this matter. PLPOA Board of Directors	Your comment is noted. The current proposed design of the project would maintain the existing TxDOT right of way boundary on the south side of US 380, with the majority of the project being located north of US 380. As part of the environmental review process, TxDOT will conduct a traffic noise analysis to establish existing baseline conditions, and potential noise impacts resulting from the construction and operation of the proposed improvements. Noise analyses will be conducted in accordance with federal regulations and TxDOT's Guidelines for Noise Abatement of Roadway Traffic Noise. The analysis will also determine and identify appropriate noise abatement measures as necessary. The results of the traffic noise study, including the locations and characteristics of any proposed noise barriers will be presented as part of community workshops prior to final project design. Discover more about this process in TxDOT's Traffic Noise Toolkit, which can be accessed at https://www.txdot.gov/business/resources/environmental/compliance-toolkits/traffic-noise.html . Safety lighting will be provided along the corridor under bridges, at intersections, and at certain ramps. A lighting schematic will be produced during the development of the construction plans. It is TxDOT's intent to maintain all existing access points on US 380, though there may be temporary disruption during construction. TxDOT will communicate traffic control measures, including reroutes and temporary closures, with the public, local officials and the media prior to and during construction activities. TxDOT will maintain access to businesses and residences throughout construction with appropriate signage directing drivers to access points. Access will be maintained at Island Way and Calm Water Cove along the eastbound frontage road. As presented during the public meeting, the purpose of the proposed project includes the development of a controlle
2	Princeton Lakes Property Owners Association - Board of Directors - Mr. Larry Thompson	8/16/2022	Email	 Mr. Endres, Upon review of the schematics, the Princeton Lakes Property Owners Association (PLPOA) has the following feedback: Overall, the PLPOA is very supportive of the design. Most of our key concerns appear to have been addressed. In the property owners table on roll 5, the entire 500 series of properties (500-A thru 500-AV) that describes Princeton Lakes (PL) lots is inaccurate. These properties are not owned by "Arroyo Cap IA LCC" or any of the listed owners, and they are not vacant as shown on the table. The schematics do not appear to list any provisions for noise abatement. The overpass at Twin Grove Park and the frontage area along PL will likely require noise abatement. We would be interested in knowing the plans for existing power lines in front of PL along the south side of US380. Ideally the power lines would be buried as part of the project. At the west side of PL the proposed elevation of the lanes is close to the current roadbed at ~551' (roll 4). Then in roll 5 for no apparent reason the proposed lanes rise to 557.55' right in front of PL before dropping back to near the existing level. This does not seem to make much sense – please explain. This design would definitely need a wall to limit noise and visual impact to PL. 	 community workshops prior to final project design. Additional information about this process can be found in TxDOT's Traffic Noise Toolkit, which can be accessed at https://www.txdot.gov/business/resources/environmental/compliance-toolkits/traffic-noise.html. TxDOT will determine the utilities that will be impacted from this proposed project and begin utility

Comment No.	Commenter Name	Date Received	Source	Comment	Response
				PLPOA Board of Directors	project and will continue to evaluate and optimize the proposed roadway profiles to minimize wall and noise impacts while meeting current roadway and drainage design standards.
3	Deborah Fahrenthold	8/2/2022	Comment Form (2)	My Address is 851 CR 458. It appears that you will be going thru the NW side of 458 & our property. There is a gas line going thru that area. How will that be handled? 851 CR 458 - appears you are going thru all the infrastructure on our land - 40x40 Bldg's (2) pavement, septic, water - UGH - & Beautiful rock & gated entrance Look a bit more south or north please	Your comments are noted. To support detailed design of the project, TxDOT is performing a subsurface utility engineering survey to locate and identify utilities within the project limits. For those utilities within proximity to the project identified as potential impacts, TxDOT will perform additional analyses including a pothole test to determine utility below surface elevation and then determine appropriate design solutions to minimize and/or mitigate potential impacts.
				please	TxDOT reviewed the impacts to your property. The current proposed alignment is based on the standard minimum horizontal curve criteria for a 45 MPH facility to connect US 380 eastbound frontage road to CR 458. The current design would impact approximately 2.1 acres from your property. As TxDOT develops the detailed design, we will continue to refine design to minimize impacts to existing infrastructure and structures throughout the entire project area based on public comments.
					If right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the public meeting website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process.
4	Robert Dickerman	8/2/2022	Comment Form (2)	Surveyors have entered my property without notification. They were supposed to notify me when they entered my property. They did not. I want an explanation! 1) Why did TxDOT move the right of way from vacant land to cutting through homes and near homes?	Your comments are noted. Right of Entry (ROE) letters are sent by TxDOT to property owners to perform field survey and data collection. TxDOT or its consultants would need to receive permission for ROE before accessing property. If you see TxDOT staff or its consultants on your property without prior approval, please contact TxDOT Project Manager Stephen Endres at Stephen.Endres@txdot.gov .
				Reference the present homes at 3624 County Road 406 and 3630 County Road 406. The new roadway disrupts an existing neighborhood unneccesarily. There is plenty of vacant land to the south of the neighborhood to be used. It appears that money talks! This is crooked!	In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment options to minimize impacts. Each alignment was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alignment alternatives, the 2020 Feasibility Study Alignment was not carried forward for further consideration due to the larger number of displacements and impacts to current and future land developments. Feedback from the public meeting and ongoing coordination with stakeholders will further refine the alignment to minimize impacts while meeting the purpose and need for the project. The alternatives analysis matrix and proposed refined alignment schematic can be found on TxDOT's website at www.keepitmovingdallas.com/US380Princeton .
5	Stacy Roberts	8/2/2022	Comment Form	We moved out in the country from Dallas because we wanted to live in a quiet peaceful neighborhood and to have horses. We have to worry now if our horses can get out, instead of being safe grazing in our neighbors yards they could be hit by cars due to the highway going in in front of our house. How are we going to be compensated for the noise traffic and depreciation of our property. Our Retirements have now been compromised as well.	Your comment is noted. This is a rapidly developing area within Collin County. To accommodate current and future traffic demands the US 380 project has been identified as a regionally significant east-west corridor for Collin County by the North Central Texas Council of Governments. The US 380 Princeton project is one of four segments identified for improvements within the county due to the rapid development within the project area. The current US 380 configuration cannot handle the future projected traffic volumes and it does not meet the current freeway design as identified in the need and purpose for the project.
					As part of the environmental review process, TxDOT will conduct a traffic noise analysis to establish existing baseline conditions, and potential noise impacts resulting from the construction and operation of the proposed improvements. Noise analyses will be conducted in accordance with federal regulations and TxDOT's Guidelines for Noise Abatement of Roadway Traffic Noise. The analysis will also determine and identify appropriate noise abatement measures as necessary. The results of the traffic noise study, including the locations and characteristics of any proposed noise barriers will be presented as part of community workshops prior to final project design. Additional information about this process can be found in TxDOT's Traffic Noise Toolkit, which can be accessed at https://www.txdot.gov/business/resources/environmental/compliance-toolkits/traffic-noise.html .
					If fencing or other structures are impacted by the proposed project, TxDOT would reimburse the property owner through the right-of-way acquisition process. The acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process.

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6	Carly Roberts	8/2/2022	Comment Form	all homes affected on 406 have been made into homes through blood sweat and tears mowing, weed eating, building fences by hand, remodeling and maintence to be the homes comfortable enough to have last breaths in. we all deserve compinsation for the devalue of our homes and emotions through this devistating time. county road 408/406 and more are hidden gems of mckinney/princeton. my 4 year old son, small dog, two horses do not need to live next to a freeway and need enough money to relocate COMFORTABLE	Your comment is noted. TxDOT continues to refine the proposed project in detailed design to minimize impacts. TxDOT only acquires property within the schematic's proposed right-of-way. TxDOT only acquires property within the schematic's proposed right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process.
7	Mark Roberts	8/2/2022	Comment Form	WE ARE ON CR 406. WE MOVED THERE IN 2013 TO HAVE A HOUSE IN THE COUNTRY WHERE WE CAN HAVE OUR HORSES. THIS PLAN NOT ONLY RUINS THE LIFESTYLE WE BOUGHT, BUT IT ALSO WILL DEVALUE OUR PROPERTY. WE NEED TO BE COMPENSATED FOR IT. I AM 58 YRS OLD AND THIS PROPERTY WAS A MAJOR PART OF MY RETIREMENT PLAN.	Your comment is noted. TxDOT continues to refine the proposed project in detailed design to minimize impacts. TxDOT only acquires property within the schematic's proposed right-of-way. If right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process.
ω	Geels	8/2/2022	Comment Form	HOW MANY YEARS ADVANCE NOTICE ARE GIVEN FOR FUTURE IMPROVEMENTS? WE ARE JUST IN THE PROCESS OF BUILDING STRUCTURES FOR A FOREVER HOME FOR 4 FAMILIES AND DON'T WANT TO SPEND \$\$ ONLY TO HAVE IT CHANGE ENTIRE PLANS.	Your comment is noted. Environmental clearance for this project is anticipated in 2023. Following environmental clearance in 2023, TxDOT would begin the right-of-way acquisition and utility relocation process. This project is currently not funded for construction but will potentially be ready to be let for construction by 2027. All right-of-way acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process. To view the current project schedule, please visit https://www.keepitmovingdallas.com/projects/us-highways/us-380-from-fm-1827-to-cr-560-princeton-area .
9	Keith and Rhonda Pryor	8/2/2022	Comment	What is TxDOT doing to compensate Property owners impacted by Noise, nuiciance, accessibility due to the proximity of the 1827 - 75 section of the proposed ROW path The personal value of our property to be living a quiet lifestyle is permanetly and irrevocably impacted. Our ability to sell and relocate during this project construction is impacted we had planned to sell within 2 years to retire. This property IS our retirement plan. We are Now unable to proceed.	Your comment is noted. TxDOT continues to refine the proposed project in detailed design to minimize impacts. TxDOT only acquires property within the schematic's proposed right-of-way. If right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process. It is TxDOT's intent to maintain all existing access points on US 380, though there may be temporary disruption during construction. TxDOT will communicate traffic control measures, including reroutes and temporary closures, with the public, local officials and the media prior to and during construction activities. TxDOT will maintain access to businesses and residences throughout construction with appropriate signage directing drivers to access points. Access will be maintained at Island Way and Calm Water Cove along the eastbound frontage road. As part of the environmental review process, TxDOT will conduct a traffic noise analysis to establish existing baseline conditions, and potential noise impacts resulting from the construction and operation of the proposed improvements. Noise analyses will be conducted in accordance with federal regulations and TxDOT's Guidelines for Noise Abatement of Roadway Traffic Noise. The analysis will also determine and identify appropriate noise abatement measures as necessary. The results of the traffic noise study, including the locations and characteristics of any proposed noise barriers will be presented as part of community workshops prior to final project design. Additional information about this process can be found in TxDOT's Traffic Noise Toolkit, which can be accessed at <a business="" compliance-toolkits="" environmental="" href="https://www.txdot.gov/business/resource</td></tr><tr><td>10</td><td>Keith and Rhonda
Pryor</td><td>8/5/2022</td><td>Online
Comment
Form</td><td>We attended the in person meeting held on August 2nd in Princeton Texas regarding the 380 Bypass from 1827 to CR 560. We wanted to know what TxDot is going to do to compensate property owners for the impact of the construction, namely noise, displacement of routes, available utilities and access to our property, Furthermore, the future impact of property value, loss of lifestyle and damage from road runoff and waste from traffic will be a detriment to our home, which is located at 3347 CR 406 less than 1000 feet from the proposed path of the road. This property and the sales value is a integral part of our ability to retire in the next 2-3 years. With the proposed construction we are now concerned that we'll be unable to sell, or enjoy our current lifestyle during our impending retirement. We understand the need for this project, but TXDot must compensate those property owners that will be directly impacted by this proposed route. Keith and Rhonda Pryor</td><td>Your comment is noted. As part of the environmental review process, TxDOT will conduct a traffic noise analysis to establish existing baseline conditions, and potential noise impacts resulting from the construction and operation of the proposed improvements. Noise analyses will be conducted in accordance with federal regulations and TxDOT's Guidelines for Noise Abatement of Roadway Traffic Noise. The analysis will also determine and identify appropriate noise abatement measures as necessary. The results of the traffic noise study, including the locations and characteristics of any proposed noise barriers will be presented as part of community workshops prior to final project design. Additional information can be found about this process in TxDOT's Traffic Noise Toolkit, which can be accessed at https://www.txdot.gov/business/resources/environmental/compliance-toolkits/traffic-noise.html .

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					TxDOT will determine the utilities that will be impacted from this proposed project and begin utility adjustments following environmental clearance and right-of-way acquisition. The type of utility relocations will be determined by the utility companies during construction. TxDOT continues to refine the proposed project in detailed design to minimize impacts. If right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process.
11	Judy Travis	8/2/2022	Comment Form	I find it interesting that a subdivision (white trails that isn't even built is being bypassed by this project. Instead you decide to go through an area where we have homes already built. I am sure this is plitical and involves money. I worked for my home for over 25 yrs in healthcare and now the vaule will tank. This meeting was just to check a box that u had a meeting. TxDOT doesn't even care enough to speak face to face. I am so disapponted!!! I doubt anything I have to say makes a difference.	Your comment is noted. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment options to minimize impacts. Each alignment was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alignment alternatives, the 2020 Feasibility Study Alignment was not carried forward for further consideration due to the larger number of displacements and impacts to current and future land developments. Feedback from the public meeting and ongoing coordination with stakeholders will further refine the alignment to minimize impacts while meeting the purpose and need for the project. The alternatives analysis matrix and proposed refined alignment schematic can be found on the public meeting website at www.keepitmovingdallas.com/US380Princeton .
12	Tom Potter	8/2/2022	Comment Form (2)	Regarding discussion with AECOM Potter Property - CR 406 Want to meet/discuss - area of Known ground water sepage (look for green grass in drought!) AND - location of two abandoned wells in the current path Bypasses? So how are you going to deal with the traffic backups that occur at every intersection? Every place that the shared (old) roadway intersects there will be massive backups (just like at every one of them in any metro area). So, with the backups; a) people are not going to get anywhere any quicker meaning b) the amount of pollution will only get worse. What about the older sections? There isn't a place that I know of where a bypass has occured and the old roadway didnt decay into a mess in a few years (great, another Harry Hines Blvd right here in Collin Countyl). Are the taxing entities aware of how much taxable growth you are taking out by using at least 2X the amount of real estet that should be required for the highway? I hope that all the engineers associated with this move on to something lucrative before the mess is found out - once people experience the outcomes of this mess you are creating then you will not want it on your resume!	Your comments are noted. Mr. Stephen Endres, P.E. the TxDOT Project Manager contacted Tom Potter via email on Oct. 28, 2022 with the following: "Mr. Potter: This is Stephen Endres the project manager for the US 380 Princeton Project. At the US 380 Princeton Public meeting you made the comment that you would like to meet with our study team. You commented on that you would want us to see the location of ground water seepage. If this still is the case when would be good dates and times for us to come out and meet with you. I will attend along with some people from my consultant team. I am available next Wednesday ald day, next Thursday afternoon and next Friday morning. However, please provide us with multiple days and times you are available so we can check our project team's schedules." Mr. Endres and Mr. Hernandez met with Mr. Potter on Nov. 4, 2022 to discuss the location. Note: The email response can be found in the D1 Comment Forms and Emails Received section of the public meeting summary. The Collin County US 380 projects have been identified as a regionally significant east-west corridor by the North Central Texas Council of Governments. The US 380 Princeton project is one of four segments identified for improvements within the county due to the rapid development within the project area. The existing US 380 cannot handle the projected future traffic volumes and does not meet current freeway design as identified in the need and purpose for the project. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment options to minimize impacts. Each alignment was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alignment alternatives, the 2020 Feasibility Study Alignment was not carried forward for further consideration due to t

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13	Scharlotte Wilder	8/2/2022	Online Comment Form	would like to be updated on any information	Your contact information has been added to the project email list. You may also go to https://www.keepitmovingdallas.com/projects/us-highways/us-380-from-fm-1827-to-cr-560-princeton-area for project updates.
14	Ronald L Potter	8/2/2022	Online Comment Form	i live on county rd 406 . this plan will take out my house. and a lot of my 64 acres . my parents bought this 64 acres in 1957 it is our home place . there has got to be a better way !	Your comment is noted. A comprehensive feasibility study was conducted by TxDOT and completed in 2020. The study recommended a proposed new location freeway north of US 380 and the city of Princeton. The proposed recommended alignment has been carried forward to the schematic and environmental phase. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment alternatives to minimize impacts. Each alignment alternative was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alternatives, the 2020 Feasibility Study Alignment was not carried forward for further consideration due to the larger number of displacements and impacts to current and future land developments. Feedback from the public meeting and ongoing coordination with stakeholders will further refine the alignment to minimize impacts while meeting the purpose and need for the project. The alternatives analysis matrix and proposed refined alignment schematic can be found on TxDOT's website at www.keepitmovingdallas.com/US380Princeton . If right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process.
15	S. Potter	8/2/2022	Online Comment Form	Why bypasses? The road should only be in the existing right of way! You want a bypass a few miles north of an existing route then another bypass (outer loop) only a few miles from that? Isnt that 3 eastwest routes within only a few miles of each other? If you are going to bypass then dont create all the congestion - do one from west mckinney and stay north all the way across to the east side of Princeton (gets rid of two instersections that only connect the old road for less than a mile). You all need to stop trying to satisfy all of the special interests of cities and counties, etc and starting thinking only on facts and logical reasoning!	Your comment is noted. The Collin County US 380 projects have been identified as a regionally significant eastwest corridor by the North Central Texas Council of Governments. The US 380 Princeton project is one of four segments identified for improvements within the county due to the rapid development within the project area. The existing US 380 cannot handle the future traffic volumes and does not meet current freeway design as identified in the need and purpose for the project. TXDOT performed a feasibility study that concluded in 2020. The study evaluated alignment alternatives along existing US 380 and south and north of existing US 380. The southern alignment alternatives were ruled out due to the future traffic demands not requiring a freeway facility and the alignment alternative along existing US 380 was ruled out due to the significant proposed right-of-way impacts and the number of displacements. The feasibility study evaluated multiple northern alignment options and concluded the feasibility study with a recommended alignment north of the City of Princeton. More information and documentation from the feasibility study can be found by going to https://www.keepitmovingdallas.com/projects/us-highways/us-380-collin-county-feasibility-study . During the Feasibility Study, TxDOT found that if nothing is done, US 380 will continue to experience a failing, congested level of service in the future, even if we built all the planned roadways in Collin County including the Outer Loop that is being planned by Collin County and the plans to improve current traffic demands through the 2024 existing US 380 from FM 1827 to CR 458 in Princeton to six lanes with raised curbed medians and continuous sidewalks. Therefore, a US 380 freeway is needed to relieve congestion. Expanding existing US 380 into a freeway will not be examined further due to significant impacts to both businesses and residents. Following th
16	Jenny Machalicek	8/2/2022	Online Comment Form	It's too bad that builders aren't more severely penalized for knowingly building in the path of roadways. I am just a common, yet educated, citizen, and I knew this road would impact all of the new builds on CR458. Yet, they soldiered on, knowing the tax payers of the State of Texas would pay for the road to go around them. The poor dumb home owners will pay dearly, as will the wildlife that get displaces. Oh, sure, there will be "mitigation"such a joke and a shame. In all honesty, I know this goes on and on,	Your comment is noted. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment options to minimize impacts. Each alternative alignment was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alternatives, the 2020 Feasibility Study Alignment was not

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No.	Name	Received		and has forever and forever. It doesn't make it right, and it will never stop, but I counted to ten and said my piece. I cannot wait to see how many businesses get leveled when the current 380 gets widened.	carried forward for further consideration due to the larger number of displacements and impacts to current and future land developments. Feedback from the public meeting and ongoing coordination with stakeholders will further refine the alignment to minimize impacts while meeting the purpose and need for the project. The alternatives analysis matrix and proposed refined alignment schematic can be found on TxDOT's website at www.keepitmovingdallas.com/US380Princeton . TxDOT will continue to work with the United States Army Corps of Engineers and stakeholders to minimize impacts. Studies will be conducted as part of the environmental process as the design is further refined. TxDOT will hold a public hearing to allow the public to view and provide feedback prior to environmental clearance.
17	Wayne Becker	8/2/2022	Online Comment Form	I live on CR 406. I DO NOT want a major highway built. this is a result of poor city planning. the residents who have lived on CR 406 and built land and farms do not want a major highway 2 blocks down the road from us. This is another example of poor planning and i as a resident will fight it every step of the way.	Your comment is noted. The Collin County US 380 projects have been identified as a regionally significant eastwest corridor by the North Central Texas Council of Governments. The US 380 Princeton project is one of four segments identified for improvements within the county due to the rapid development within the project area. The existing US 380 cannot handle the future traffic volumes and does not meet current freeway design as identified in the need and purpose for the project. TxDOT performed a feasibility study that concluded in 2020. The study evaluated alignment alternatives along
					existing US 380 and south and north of existing US 380. The southern alignment alternatives were ruled out due to the future traffic demands not requiring a freeway facility and the alignment alternative along existing US 380 was ruled out due to the significant proposed right-of-way impacts and the number of displacements. The feasibility study evaluated multiple northern alignment options and concluded the feasibility study with a recommended alignment north of the City of Princeton. More information and documentation from the feasibility study can be found by going to https://www.keepitmovingdallas.com/projects/us-highways/us-380-collin-county-feasibility-study .
					In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment options to minimize impacts. Each alignment alternative was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alternatives, the 2020 Feasibility Study Alignment was not carried forward for further consideration due to the larger number of displacements and impacts to current and future land developments. Feedback from the public meeting and ongoing coordination with stakeholders will further refine the alignment to minimize impacts while meeting the purpose and need for the project. The alternatives analysis matrix and proposed refined alignment schematic can be found on TxDOT's website at www.keepitmovingdallas.com/US380Princeton .
18	Scott Di Benedetto	8/2/2022	Online Comment Form	i am fortunate and my property is not being directly impacted (indirectly impacted yes, but not directly). My biggest concern is that the changes seem to have been done to appease the rich people who can make noise and focus the impact on those with less wealth instead.	Your comment is noted. TxDOT has moved the project to the schematic and environmental phase. During this phase, TxDOT will acquire more detailed survey and data collection within the project area. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment options to minimize impacts. Each alternative was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alignment alternatives, the 2020 Feasibility Study Alignment was not carried forward for further consideration due to the larger number of displacements and impacts to current and future land developments. Feedback from the public meeting and ongoing coordination with stakeholders will further refine the alignment to minimize impacts while meeting the purpose and need for the project. The alternatives analysis matrix and proposed refined alignment schematic can be found on TxDOT's website at www.keepitmovingdallas.com/US380Princeton.

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19	(No Name Provided)	8/2/2022	Online Comment Form	Congratulations on destroying farm land and families. Clearly you didn't do environmental impact for my family and animals who will now be subject to reduced public health outcomes. Did you know that noise and traffic are significantly associated with poor health outcomes? Most of us chose to live in the area that you plan to build in based on our desire to be far removed from what you propose. I still find it extremely ludicrous that you would not find a way to expand 380 on 380 based; businesses are far more fluid (and less important) than families, and I would be shocked to discover that a business that hung a shingle on 380 would not expect it to require expansion; in fact, I reckon that businesses would WELCOME better flowing traffic right in front of their storefronts. But yet-you choose to destroy multiple households- and the hopes and dreams of those living in them. I hope someone builds a 14 lane highway in front of your million dollar house (like you are doing to us).	Your comment is noted. As part of the environmental review process, TxDOT will conduct a traffic noise analysis to establish existing baseline conditions, and potential noise impacts resulting from the construction and operation of the proposed improvements. Noise analyses will be conducted in accordance with federal regulations and TxDOT's Guidelines for Noise Abatement of Roadway Traffic Noise. The analysis will also determine and identify appropriate noise abatement measures as necessary. The results of the traffic noise study, including the locations and characteristics of any proposed noise barriers will be presented as part of community workshops prior to final project design. Additional information can be found about this process in TxDOT's Traffic Noise Toolkit, which can be accessed at https://www.txdot.gov/business/resources/environmental/compliance-toolkits/traffic-noise.html . TxDOT performed a feasibility study that concluded in 2020. The study evaluated alignment options along existing US 380 and south and north of existing US 380. The southern alignment options were ruled out due to the future traffic demands not requiring a freeway facility and the alignment alternative along existing US 380 was ruled out due to the significant proposed right-of-way impacts and the number of displacements. The feasibility study evaluated multiple northern alignment options and concluded the feasibility study with a recommended alignment north of the City of Princeton. More information and documentation from the feasibility study can be found by going to https://www.keepitmovingdallas.com/projects/us-highways/us-380-collin-county-feasibility-study . During the Feasibility Study, TxDOT found that if nothing is done, US 380 will continue to experience a failing, congested level of service in the future,
20	Chanda Dromgoole	8/2/2022	Online Comment Form	The traffic is terrible and to many people have lost their lives on 380. This project is good for the safety of our citizens.	Your comment is noted.
21	Michaelle Ray	8/2/2022	Online Comment Form	I would like Option A to be chosen. Option B will displace even more wildlife. I believe that the wildlife will need to have access across the current alignment through the flood plane. The people living in Option B are recent residents to the area. The City of Princeton should have never let them build in the proposed ROW. Do NOT TAKE Corps of Engineer land. Use Option A.	Your comment is noted. TxDOT will continue to work with the United States Army Corps of Engineers and stakeholders to minimize impacts.
22	Collin Hartman	8/2/2022	Online Comment Form (2)	This section will put a highway through our back yard, and destroy my neighbors house. It will destroy our home and property value as well as our way of life. We thought we had bought our forever home that we would raise our kids at in a quite country fashion, as well as help set us up financially for retirement. Now we wont even be able to go for a walk without crossing a major highway. This section need to be relocated or not completed at all. Progress be damned expand 380 where it is currently located and leave the rest of our property alone.	Your comment is noted. TxDOT continues to refine the proposed project in detailed design to minimize impacts. If right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process. During the Feasibility Study, TxDOT found that if nothing is done, US 380 will continue to experience a failing, congested level of service in the future, even if we built all the planned roadways in Collin County including the Outer Loop that is being planned by Collin County and the plans to improve current traffic demands through the 2024 existing US 380 from FM 1827 to CR 458 in Princeton to six lanes with raised curbed medians and continuous sidewalks. Therefore, a US 380 freeway is needed to relieve congestion. Expanding existing US 380 into a freeway will not be examined further due to significant impacts to both businesses and residents.

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					TxDOT performed a feasibility study that concluded in 2020. The study evaluated alignment options along existing US 380 and south and north of existing US 380. The southern alignment alignments were ruled out due to the future traffic demands not requiring a freeway facility and the alignment option along existing US 380 was ruled out due to the significant proposed right-of-way impacts and the number of displacements. The feasibility study evaluated multiple northern alignment alternative and concluded the feasibility study with a recommended alignment north of the City of Princeton. More information and documentation from the feasibility study can be found by going to https://www.keepitmovingdallas.com/projects/us-highways/us-380-collin-county-feasibility-study .
23	Richard Hartman	8/2/2022	Online Comment Form	It's too bad that long time home owners get burried, rather that building the highway on empty land, just becasuse some developer wants to build 500 houses on that empty land. the long term land owner should get more preference. Let the developer build further out.	Your comment is noted. During this phase of the project, TxDOT has collected more data and acquired more detailed surveys within the project area. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment alternatives to minimize impacts. Each alternative was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alignment alternatives, the 2020 Feasibility Study Alignment was not carried forward for further consideration due to the larger number of displacements and impacts to current and future land developments. Feedback from the public meeting and ongoing coordination with stakeholders will further refine the alignment to minimize impacts while meeting the purpose and need for the project. The alternatives analysis matrix and proposed refined alignment schematic can be found on TxDOT's website at www.keepitmovingdallas.com/US380Princeton .
24	Trinity Marler	8/2/2022	Online Comment Form (2)	Living in the Princeton Crossroads development, I Would obviously prefer to see option B move forward on the eastern edge of the residential development, though I am for whichever option advances the project quicker.	Your comment is noted. TxDOT will continue to work with the United States Army Corps of Engineers and stakeholders to minimize impacts.
25	Laurie Hartman	8/2/2022	Online Comment Form	We live on a 11 acre property which is close to the new road to be developed, the irony is when we bought out here it was for forever with our son and his family living directly across the street, this destroys the value of our home and farmland for our horses and family, heartbreaking and for what!!	Your comment is noted. The Collin County US 380 projects have been identified as a regionally significant eastwest corridor by the North Central Texas Council of Governments. The US 380 Princeton project is one of four segments identified for improvements within the county due to the rapid development within the project area. The existing US 380 cannot handle the projected future traffic volumes and does not meet current freeway design as identified in the need and purpose for the project. TxDOT continues to refine the proposed project in detailed design to minimize impacts. If right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process.
26	Michael Brinkerhoff	8/2/2022	Online Comment Form	I would appreciate a consideration to bring the connection back to the existing 380 hwy East of Princeton, moved to East of Farmersville. Instead of investing in the major expense of expanding the bridge across Lake Lavon, move the highway North of the lake would eliminate that expense, impact less homes resolve congestion problems. I understand that no one wants their properties impacted, but further North of the lake and Farmersville would impact less home and individuals than the current proposed route. There will be connecting roads that could run N & S from the existing 380 to the new highway North.	Your comment is noted. TxDOT performed a feasibility study that concluded in 2020. The study evaluated alignment alternatives along existing US 380 and south and north of existing US 380. The southern alignment alternatives were ruled out due to the future traffic demands not requiring a freeway facility and the alignment alternative along existing US 380 was ruled out due to the significant proposed right-of-way impacts and the number of displacements. The feasibility study evaluated multiple northern alignment alternatives and concluded the feasibility study with a recommended alignment north of the City of Princeton. More information and documentation from the feasibility study can be found by going to https://www.keepitmovingdallas.com/projects/us-highways/us-380-collin-county-feasibility-study . In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment options to minimize impacts and develop connectivity to city and county thoroughfare plans. Each alignment alternative was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alignment alternatives, the 2020 Feasibility Study Alignment was not carried forward for further consideration due to the larger number of displacements and impacts to current and future land developments. Feedback from the public meeting and ongoing coordination with stakeholders will further refine the alignment to minimize impacts while meeting the purpose and need for the project. The alternatives analysis matrix and proposed refined alignment schematic can be found on TxDOT's website at www.keepitmovingdallas.com/US380Princeton . Fee

Comment No.	Commenter Name	Date Received	Source	Comment	Response
27	Mohammed Mohiuddin	8/2/2022	Online Comment Form (2) and Email	I am a resident of Princeton Crossroads. Between Alignment Option A and Option B, none of them are good options. This highway should not be here, and if needs to be here, then it should be much away from the neighborhood. This is a shock to say the least. No indication had been given by the city or the builder before purchase of the property at this neighborhood. This is going to impact the well being of the families in the neighborhood - noise, dust, accidents, and ton of other things. It is going to severely impact the lifelong hard earned investments in the property which we call our home. Please do the needful to avoid this piece of highway from the Princeton Crossroads neighborhood. Dear Stephen, My home is part of Princeton Crossroads community. For me and this community, it is incomprehensible to have such a highway going so close to the homes. I know you are trying to minimize impact families like mine will have because of the highway plans. Let me share that the current plans are extremely bad (whether option A or option B), and are going to severely impact us – both our well-being and the peace/security/value of our neighborhood. Please find another location for this highway. One suggestion would be to move the highway through FM1377 into CR559 then onto 380. This will avoid extreme hardship for me and the hundreds of families of Princeton crossroads. Will a lot of hope and earnest request to find another way - PLEASE, Mohammed Mohiuddin	Your comments are noted. TxDOT performed a feasibility study that concluded in 2020. The study evaluated alignment alternatives along existing US 380 and south and north of existing US 380. The southern alignment alternative were ruled out due to the future traffic demands not requiring a freeway facility and the alignment alternative along existing US 380 was ruled out due to the significant proposed right-of-way impacts and the number of displacements. The feasibility study evaluated multiple northern alignment alternatives and concluded the feasibility study with a recommended alignment north of the City of Princeton. More information and documentation from the feasibility study can be found by going to https://www.keepitmovingdallas.com/projects/us-highways/us-380-collin-county-feasibility-study. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment alternatives to minimize impacts. Each alternative was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. At the conclusion of comparing the alignment alternatives, the 2020 Feasibility Study Alignment was not carried forward for further consideration due to the larger number of displacements and impacts to current and future land developments. The 2020 feasibility study alignment Option A would minimize displacements to approximately 31 properties within the Princeton Crossroads' development. The Current Refined Alignment Option A would minimize displacements within the Princeton Crossroads development. The proposed refined alignment with options A and B presented at the public meeting was selected, with stakeholder input, to move forward. Feedback from the public meeting and ongoing coordination with stakeholder input, to move forward. Feedback from the public meeting the purpose and need for the project. The
28	Srinivas R Vaddi	8/2/2022	Online Comment Form and Email	Roll 3: Lot 301 (Balu Mahi Investments) is impacted. We are in active phase of single-family community development contract with developer and at this time we oppose the impact to out lot. We strongly recommend that the road plan shift 300 feet south to eliminate impact to lot 301. Brad Thank you for taking time this evening and discussing the impact to Roll 3: 301 lot (Balu Mahi Investments). Could you please arrange for the Schematics (CAD survey) to understand the total impact as discussed, I am attaching the survey of the land for supper imposing to identify the acres impact. We have signed the contract with builder and this information will have certain impact on the contract. Also, we strongly recommend the proposed road be moved little south to eliminate the impact to lot 301. Thank you Note: The email attachment can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.	Your comments are noted. Due to the area's numerous current and future developments and constraints, the proposed alignment cannot shift, but TxDOT will continue to refine the alignment to minimize impacts where possible. We appreciate your ongoing coordination with TxDOT and its consultant staff and ask that you please continue to coordinate with TxDOT Project Manager Stephen Endres at Stephen.Endres@txdot.gov and AECOM Project Manager Brad Hernandez at Brad.Hernandez@aecom.com regarding your development and the proposed US 380 project. Mr. Brad Hernandez, P.E., the AECOM Project Manager responded to Srinivas Vaddi via email on Aug. 3, 2022 with the following, "Mr. Vaddi, Thank you for attending the public meeting last night. We appreciate your comment and coordination with TxDOT. I've attached an exhibit showing the approximate ROW impacts to your property. Please let us know if you have any questions. Regarding your comment requesting to shift the alignment to the south. Due to the numerous existing and future developments and constraints, we do not anticipate shifting the alignment in this area. If you would like to meet to discuss the impacts to your property in greater detail, please let us know." Note: The email response and attachment can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.
29	Jackson Hurst	8/3/2022	Online Comment Form	I approve and support TxDOT's US 380 Princeton from FM 1827 to CR 560 Project. The aspect that I love about TxDOT's US 380 Princeton from FM 1827 to CR 560 Project is that US 380 will be widened from 2 lanes in each direction to 4 lanes in each direction and converted to a freeway from FM 1827 to CR 560 which will improve safety, reduce congestion, and improve freight mobility on US 380.	Your comment is noted.

Comment No.	Commenter Name	Date Received	Source	Comment	Response
30	Shiva Chakilam	8/4/2022	Online Comment Form	I vote for Option B as the number of homes that are effected is less than Option A	Your comment is noted. TxDOT will continue to work with the United States Army Corps of Engineers and stakeholders to minimize impacts.
31	Anthony J Perry	8/4/2022	Online Comment Form	First off thank you for sharing this information. I live at 2126 Songbird Ln off of CR 407 and my name is included on your list of properties. My name is Anthony James Perry and #149 on the list I saw that you provided. Does this mean I will eventually get an offer to sell my property? I am interested but wanted to know if my property would be bought out. I am looking to sell so If it is not part of your buyout then I would just go through my realtor but I wanted to check first if my property was included before I do that.	Your comment is noted. Based on the current proposed project design, your property at Parcel #149 would not be directly impacted and would not require acquisition.
32	(No Name Provided)	8/4/2022	Online Comment Form	You will reap what you sow- literally. The continued flippant attitude towards destroying farmlands will result in increased prices in livestock, hay, and feed- which will come back to hit the consumer, and you will surely point your fingers to the current administration as your scapegoat. Additionally, the again flippant attitude towards destroying current houses in the name of preserving future developments (more ugly, cookie cutter developments) is ludicrous. So many of us have worked so hard to purchase and preserve the land that we love so much, and to preserve a lifestyle that is the very essence of what our communities were founded on. You are destroying the spirit of Texas. Reconsider this plan and expand 380 on 380, where businesses can more easily move versus uprooting families and animals. Plus, we have no where to go. We can't afford this land unless we move much further away. If you continue incentivizing white-collar movement into our community, you will be incentivizing homogeneity of the workforce, which will greatly impact cost of living in this area. The displacement of farm land is a huge mistake. TXDOT continues to show how out of touch, and behind the times, that it is.	Your comment is noted. TxDOT performed a feasibility study that concluded in 2020. The study evaluated alignment options along existing US 380 and south and north of existing US 380. The southern alignment alternatives were ruled out due to the future traffic demands not requiring a freeway facility and the alignment alternative along existing US 380 was ruled out due to the significant proposed right-of-way impacts and the number of displacements. The feasibility study evaluated multiple northern alignment options and concluded the feasibility study with a recommended alignment north of the City of Princeton. More information and documentation from the feasibility study can be found by going to https://www.keepitmovingdallas.com/projects/us-highways/us-380-collin-county-feasibility-study . During the Feasibility Study, TxDOT found that if nothing is done, US 380 will continue to experience a failing, congested level of service in the future, even if we built all the planned roadways in Collin County including the Outer Loop that is being planned by Collin County and the plans to improve current traffic demands through the 2024 existing US 380 from FM 1827 to CR 458 in Princeton to six lanes with raised curbed medians and continuous sidewalks. Therefore, a US 380 freeway is needed to relieve congestion. Expanding existing US 380 into a freeway will not be examined further due to significant impacts to both businesses and residents. TXDOT has moved the project to the schematic and environmental phase. During this phase, TxDOT will acquire more detailed survey and data collection within the study area. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment alternatives to minimize impacts. Each alternative was compared using a quantitative and qualitative analysis matrix (number of displacements for cu
33	Luigi Basalo	8/4/2022	Form	Please stop enabling the environmental disaster that is suburban sprawl. The military considers this a national security threat. By doing nothing, TXDOT forces developers and cities to get innovative. This project will bake in millions of tons of emissions over its life and is unobjectably bad. Please don't waste my tax dollars and burden my kids with this monstrosity	Your comment is noted. The proposed project will accommodate the future traffic volume and reduce congestion which will improve air quality. As part of the development of the project, TxDOT will perform an air quality analysis and document the results in the environmental assessment document for the project. Discover more about this process in TxDOT's Air Quality Toolkit, which can be accessed at https://www.txdot.gov/business/resources/environmental/compliance-toolkits/air-quality.html .
34	Beverly Fleener	8/4/2022	Email	Stephen, Our property # 157 on the schematic map Roll 1 of the 380 Princeton bypass is affected to the north of our property line. Could you tell me how accurate the property lines as drawn on the maps are? We are trying to determine what trees of ours may be in the ROW. Thanks.	Mr. Stephen Endres, P.E., the TxDOT Project Manager responded to Beverly Fleener via email on Aug. 8, 2022 with the following, "The property lines are pretty close to as shown. I would think at least within 5 feet." Note: The email response can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.
35	Beverly Fleener	8/9/2022	Email	Thanks. Our tree line is very close so I guess we will wait until someone reaches out to us. If they are in the ROW do they usually remove them? We are trying to determine if we need to build fencing to block the view of traffic. Thank you for your responses and patience.	Mr. Stephen Endres, P.E., the TxDOT Project Manager responded to Beverly Fleener via email on Aug. 9, 2022 with the following, "Usually, if the trees are within the proposed right of way they will be removed." Note: The email response can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.
36	Beverly Fleener	8/10/2022	Email	One more question. The plans show a north entrance to our property off the service road. We currently do not have a north entrance to the property and really don't want one. We access our property from Fm407.	Mr. Stephen Endres, P.E., the TxDOT Project Manager responded to Beverly Fleener via email on Aug. 17, 2022 with the following, "We will keep that under consideration. Do you know where Songbird lane begins or ends. It appears it goes north of your property from what I can tell. So normally we would provide a driveway to the road. There is also other properties along Songbird Lane we must consider."

Comment No.	Commenter Name	Date Received	Source	Comment	Response
					Note: The email response can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.
37	Beverly Fleener	8/17/2022	Email	Songbird Lane starts at 407 at our property line and goes north. It dead ends at the home on Property 159. We own Songbird Lane from FM 407 north to property 159. There is no access from the north.	Your comment is noted.
				Songbird Lane is a drive which we had to name for 911 purposes after we placed our daughter's home on it.	
				There is one home right at 407, two homes on our property and one home to the north which will be affected by the project.	
38	Navakanth Gorrepati	8/5/2022	Email	Dear Mr. Endres, greetings! On roll one for 189 and 191, these lots are actually facing County Road 405. On the legend listed on roll one it is listed as County Road 406. Is there a plan to change the county road name or develop a new County Road or is it a typo. Please advise thank you, Navakanth Gorrepati	Your comment is noted. The schematic roll will be updated with the correct information.
39	Claude and Patsy Owen	8/5/2022	Email	Do you know what month the fall meeting will be held about the Princeton 380 Project? My wife and I have to be at this meeting and want to make sure we are in town. We are located on CR 458. Thank you, Claude and Patsy Owen	Mr. Stephen Endres, P.E., the TxDOT Project Manager responded to Claude and Patsy Owen via email on Aug. 8, 2022 with the following, "I cannot make a commitment on what month the public hearing will be held. We hope it will be in November, but it could easily move to December. This of course is if there are no delays in the project."
					Note: The email response can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.
					TxDOT will advertise the public hearing notice with the hearing date and location approximately 15 days prior to the hearing. The public hearing notice will be mailed to elected officials, adjacent property owners and stakeholders in advance of advertisements and publications. You can also visit TxDOT's website at https://www.keepitmovingdallas.com/projects/us-highways/us-380-from-fm-1827-to-cr-560-princeton-area for project updates. We also have record of Mr. Owen providing an email address for US 380 Princeton project meeting updates. The notice will be emailed in advance of the hearing.
40	Larry Costello	8/5/2022	Email	Stephen, Sorry but this has really confused me now. I live on the very Eastern Edge of us 380 - Mckinney proposal (options C & D) & very Western Edge of US 380 -Princeton proposal. Putting it simply the US 380 Hwy as shown on the two proposals do not meet up at all at eh Mckinney / Princeton Junction!! The Mckinney Proposal is showing my house at 2495 County Road 330 as Residential displacement while the Princeton proposal does not show US 380 anywhere near my house	Mr. Stephen Endres, P.E., the TxDOT Project Manager responded to Larry Costello via email on Aug. 8, 2022 with the following, "I understand you confusion. The Princeton project is shown as a separate project and therefore does not show the US 380 McKinney schematic design. We have to show each project as independent projects for our environmental clearance purposes. Nothing has changed on the McKinney project. We are still showing we will clip you property on the southwest corner."
				or several others as identified in the Mckinney proposal!? Again, this brings to mind the initial question I sent after the Mckinney proposal was released in March of this year, which is "why does latest Mckinney proposal show displacement of my home while all previous versions showed the 380 project at very front of my home (& avoiding Water Mains in my yard) & now the Princeton proposal puts it nowhere near my home (actually almost on top of current 380 road way)"!? I would appreciate some sort of response on this as I'm trying to make plans, but the window you are publishing keeps changing & I have ABSOLUTLY No idea what you are trying to show or do with this Hwy. I am trying to make future plans regarding this but you have again confused the heck out of me on what If anything I will really need to do on this.	
				Thank you,	
41	Deepak Gantla	8/5/2022	Email	Larry Costello Stephen, I have reviewed the TXDOT alignment with my property and I have a concern that it is cutting across in such a way that the northern part of the property depth is low. This may result in non-utilization of the property. I would suggest the alignment from the middle of the property so that both sides will be utilized. If you have details of the alignment with measurements, please send it. Thank You,	Your comment is noted. With input from the city of Princeton and Collin County regarding future development, TxDOT evaluated alignment alternatives in this area to minimize impacts to current and future development. The alignment presented at the public meeting was determined as the recommended alignment for the project. TxDOT continues to refine the proposed project in detailed design which will be presented at the public hearing for review and feedback.
42	Aaron Banks - Oncor	8/5/2022	Email (2)	Deepak Gantla Stephen, The Anna Switch – Royse Switch 138 kV Line is currently scheduled to be rebuilt prior to this TxDOT project's let date.	Your comment is noted. TxDOT has received the proposed utility development plans and is currently reviewing the information provided by Oncor. TxDOT will provide the proposed schematic design files at the Audie Murphy Substation and continue to coordinate with Oncor to accommodate both projects.

Comment No.	Commenter Name	Date Received	Source	Comment	Response
				Could you provide information pertaining to the proposed grading plans and proposed ROW spacing relative to the Audie Murphy Substation? Included in this email is a KMZ of the area in question. Thanks, Aaron Banks	
43	John Worley	8/8/2022	Email	Please read and include the attached PDF document with the comments from the public hearing of August 2, 2022. I am not employed by TxDOT. I do no business with TxDOT. I could benefit monetarily from the project about which I am commenting. >> The project will use 1/2 to 1 acre of my property (while destroying the beautiful view). >> However, unless TxDOT buys my entire property or I sell the entire property to a developer before TxDOT acts, county law would make the remaining property unsellable (by me) without a (about) \$1M investment on my part - or my somehow getting an exception from county laws. John Worley Note: The email attachment can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.	Your comment is noted. TxDOT continues to refine the proposed project in detailed design to minimize impacts. TxDOT only acquires property within the schematic's proposed right-of-way. If right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process. The Collin County US 380 projects have been identified as a regionally significant east-west by the North Central Texas Council of Governments. The US 380 Princeton project is one of four segments identified for improvements within the county due to the rapid development within the project area. The existing US 380 cannot handle the future traffic volumes and does not meet current freeway design as identified in the need and purpose for the project. During the Feasibility Study, TxDOT found that if nothing is done, US 380 will continue to experience a failing, congested level of service in the future, even if we built all the planned roadways in Collin County including the Outer Loop that is being planned by Collin County and the plans to improve current traffic demands through the 2024 existing US 380 from FM 1827 to CR 458 in Princeton to six lanes with raised curbed medians and continuous sidewalks. Therefore, a US 380 freeway is needed to relieve congestion. Expanding existing US 380 into a freeway will not be examined further due to significant impacts to both businesses and residents. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County, the North Texas Municipal Water District and adjacent projects, TxDOT evaluated multiple alignment alternatives to minimize impacts. Each alternative was comparing the alig
44	James and Susan Waters	8/9/2022	Email	Mr. Endres, We attended a meeting on August 2nd concerning the new bypass through Princeton. Our property and home are involved in the right of way. We are interested in talking with someone about selling our property to the state. If possible, can either you or someone in your office contact us. Your help is greatly appreciated. Sincerely, James and Susan Waters	Mr. Stephen Endres, P.E., the TxDOT Project Manager responded to James and Susan Waters via email on Aug. 9, 2022 with the following, "Thank you for your comment. TxDOT will not start the process to acquire right of way until we have environmentally cleared the project. Hopefully that will occur next year. Please call me if you would like to discuss." Note: The email response can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.
45	Nilanjan Chatterjee	8/11/2022	Online Comment Form	I vote against this effort . I do not support this construction. I have a property at the neighborhood that will be very close to the new construction hence it will be too noisy for my and my family.	Your comment is noted. The alternative selection process does not involve voting. As part of the environmental review process, TxDOT will conduct a traffic noise analysis to establish existing baseline conditions, and potential noise impacts resulting from the construction and operation of the proposed improvements. Noise analyses will be conducted in accordance with federal regulations and TxDOT's Guidelines for Noise Abatement of Roadway Traffic Noise. The analysis will also determine and identify appropriate noise abatement measures as necessary. The results of the traffic noise study, including the locations and characteristics of any proposed noise barriers will be presented as part of community workshops prior to final project design. Additional information can be found about this process in TxDOT's Traffic Noise Toolkit, which can be accessed at https://www.txdot.gov/business/resources/environmental/compliance-toolkits/traffic-noise.html . TxDOT will continue to work with the United States Army Corps of Engineers and stakeholders to minimize impacts.
46	Steven Lu	8/14/2022	Email (2)	As landowner of 2465 County Road 337 McKinney TX 75071 (parcel 1101), please find my feedback regarding the preliminary design schematic below: 1. There will be no North bound entrance from US 380 WB Frontage Road, West of W Princeton Drive into my property because the US 380 bridge begins immediately after the intersection. a. Can the highlighted section in white (US380 WB Frontage Road) in image A from the proposed frontage bridge (in blue color) be changed to match the proposed frontage road (in green color)? This	 Your comment is noted. TxDOT will evaluate the location of the existing floodplain at Big Branch and, if possible, reduce the bridge length along the westbound frontage road. See response above. a. TxDOT will continue to evaluate and analyze the drainage impacts due to the proposed project. If possible, TxDOT would reduce the limits of the bridge.

Comment Commenter Date No. Name Received	Source	Comment	Response
		section is not in 100-year floodplain and would be the only access to exit from US 380 into my property. 2. There will not be access to my property from US 380 WB Frontage Road, West of W Princeton Drive. Refer to highlighted circle in image A. This property will likely transform into a commercial property in the future. Thus, more frontage road would benefit residents in the community to easily access to the property.	 b. See response above. c. TxDOT is analyzing the traffic operations for exit/entrance ramps based on future traffic patterns and volumes. Proposed ramp locations are still being optimized and are subject to change.
		 a. Can the floodplain in highlighted section in white in image B be filled with earth in (as it's only 1-2 ft lower than non-flood zone in image C)? b. If not, can a flood barrier be constructed to remedy Big Branch Creek to remove this section from flood zone? c. Can frontage road with entrance/exit be built instead of bridging in this section to maximize the 	
		convenience for commuters traveling US 380? Looking forward to hearing from you. Best regards, Ethan MC Property LLC	
		Note: The email attachment can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.	
47 Arnold Hight 8/15/2022	Email (1) and Online Comment Form (2)	I've got to say this is one of the most asinine plans I've seen from any government agencies: the city of Princeton Texas, Collin County, and the state of Texas. Every one of these agencies knew this was a possibility before they approved the creation of this brand new housing development. They re-zoned the property as residential and approved building on a site that they knew full well had a high probability to become the very land they would use for a Highway in less than six years. Maybe they were blinded by greed on how much they would make in building permits, property taxes, utilities etc. Not one of them even bothered to disclose the fact that they planned to build a six lane highway on the very site families were building their homes on before allowing the sale of homes on the fruture contested land. It is obvious the sale of said homes would have either never been completed or the people who purchased said properties would have never paid full value for property under this type of scrutiny. This didn't stop the government agencies who are supposed to serve the best interest of their citizens from colluding with LGI home to push the sell through since they knew they would be able to collect hundreds of thousands in property taxes and other fees before their evil plan came to fruition all wall screwing families out of the biggest piece of equity that most families have. Not only that it didn't stop the county from doubling property taxes on these homes in less than two years from the purchase which is another bit of government bullshit, but I won't delve into that here . Then there is the culpability of LGI Homes. Not only did LGI homes not disclose the potential of a six lane highway being diverted on the very land that the homes they were selling or within 80 feet of the land where the homes were being built. They literally pointed to the green area and stated nothing could EVER be built back there because it was Army Corps of Engineer land and protected wildlife area. There are literally no words in a	Your comments are noted. The Collin County US 380 projects have been identified as a regionally significant east-west corridor by the North Central Texas Council of Governments. The US 380 Princeton project is one of four segments identified for improvements within the county due to the rapid development within the project area. The existing US 380 cannot handle the projected future traffic volumes and does not meet current freeway design as identified in the need and purpose for the project. TXDOT performed a feasibility study that concluded in 2020. The study evaluated alignment alternatives along existing US 380 and south and north of existing US 380. The southern alignment alternatives were ruled out due to the future traffic demands not requiring a freeway facility and the alignment alternatives were ruled out due to the significant proposed right-of-way impacts and the number of displacements. The feasibility study evaluated multiple northern alignment alternatives and concluded the feasibility study with a recommended alignment north of the City of Princeton. Per state regulation, project environmental clearance is required in order to preserve or purchase right of way. Environmental clearance for this project is anticipated in 2023. More information and documentation from the feasibility study can be found by going to https://www.keepitmovingdallas.com/projects/us-highways/us-380-collin-county-feasibility-study. Since the preliminary feasibility study concluded, development has occurred in the proposed recommended alignment. Until a proposed project undergoes more detailed evaluation and design to receive environmental clearance through the National Environmental Protection Act (NEPA) process, state law does not allow TxDOT to acquire right of way. Cities cannot require developers to dedicate land for a freeway due to reverse condemnation, and although state law gives counties the power to acquire right of way if the proposed project is in the Metropolitan Transportation Plan and their thoroughfare pl

Comment No.	Commenter Name	Date Received	Source	Comment	Response
,,,,,	Nume	Necental		such as solar panel installations, covered porch add ons, etc. Additionally as many of the citizens being displaced purchased these as primary dwellings with full intent to live in them for the next 30 years or more the parties seizing the land will be held responsible for the monetary value in the difference in mortgage rates from their current rate and the new rate if greater. This only sounds to reason since it is no fault of the displaced for having to go into a less than desirable lending market to secure funding for a new primary residence. That is if the displaced has a current mortgage of 2% on a \$300,000 loan and can only secure a mortgage for a new home with a 4% interest rate the invading entities will pay the displaced the difference of 2% interest over the life of the new 30 year mortgage for the seized property calculated and paid in full at time of seizing the property in order to fully pay restitution to the displaced parties.	As Collin County and the US 380 corridor continue to experience rapid development and traffic growth, it is anticipated that development will continue to progress. TxDOT will continue to coordinate with agencies, city, county, developers and the USACE to refine the proposed project and minimize impacts. If right-of-way acquisition is required for your property, the acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures titled "State Purchase of Right of Way" and "Relocation Assistance" are available on the project website. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process.
				Additionally in the event of any home owners not displaced by this plan, for instance, any home owner whose home value will be diminished by having a six lane highway cut through their neighborhood will be given the opportunity for the above mentioned restoration. Contrary to the opinion of the entities who proposed this plan who state in their public forums "the addition of a highway near the homes would only enhance the value of said property" is mistaken. Any person with any common sense knows the exposure to the noise and danger of having a main highway so near to them will most certainly diminish the resale value of the property (Hence the entities may as well be holding you up at gunpoint and robbing you blind). In fact many of the home owners purchased the lots they chose based on the testimony that nothing would be built behind them because it was far away from traffic noise and congestion. However if the entities that are implementing the project truly feel the value will be enhanced by the highway then they wont have problem purchasing any homes in the housing developments affected at full restoration value outlined above and reselling them. If it truly does enhance the value of the homes then they will have no trouble reselling the houses for the price they paid in restoration fees or more since, in their mind, the value of the property will be enhanced.	rt of the environmental review process, TxDOT will conduct a traffic noise analysis to establish existing ine conditions, and potential noise impacts resulting from the construction and operation of the proposed evements. Noise analyses will be conducted in accordance with federal regulations and TxDOT's Guidelines bise Abatement of Roadway Traffic Noise. The analysis will also determine and identify appropriate noise ement measures as necessary. The results of the traffic noise study, including the locations and acteristics of any proposed noise barriers will be presented as part of community workshops prior to final act design. Additional information can be found about this process in TxDOT's Traffic Noise Toolkit, which e accessed at https://www.txdot.gov/business/resources/environmental/compliance-toolkits/traffichtml .
			Furthermore no party who will be affected by the implementation of this project should be subject to having to wait until the entities proposing said project are ready to implement this project in order to be paid restitution for aid property. I'm sure the entities proposing and implementing this plan have never had to go through this from the perspective of the property owner who is being victimized nor do they have any idea of the anxiety and emotional distress this causes. As stated in the public forum meeting the construction of these plans will not begin until 2027. Can you even imagine having to live with that cloud over your head for 4.5 years not knowing what will happen to what most of us would consider to be our largest piece of equity. Not knowing if your house will be demolished in 4.5 years or worse yet having your largest piece of equity devalued while the entities who collude with the federal government to devalue the house by pushing a right away through property that was never supposed to be used for such development. In addition to not knowing the outcome financially you can't make any plan to improve your home let alone determine if you should even bother spending money on certain mid to long term maintenance items. Furthermore why people should have to spend their time and money defending their land and their position against said proposal and project implementation. It's like a justice system has gone wrong and somehow I'm guilty until proven innocent when it's the parties making these plans who should be treated as criminals.		
				Finally, should it become necessary to get an attorney involved, obviously the parties involved in implementing this project should expect to pay any and all attorney fees incurred in mitigating a fair and just resolution in obtaining restitution for the loss of property and / or property value.	

Comment No.	Commenter Name	Date Received	Source	Comment	Response
48	Debbie Copeland	8/16/2022	Email	Good morning Mr. Endres, Well here we are again. This time it's regarding our homestead property, not our business property on Hwy 380. Our property on the maps shows as Lot 408. Evidently Tx Dot has shifted their freeway further to the east to accommodate the housing addition that sprung up at CR 458 and Hwy 380 at the new City Hall. So it now gets the back of our property taking out our stock tank, but not our home which was somewhat great news. However, to our surprise TxDot is rerouting CR 458 beginning at our south property line and going through our entire frontage property. Not only do we lose a lot of our front yard, but now our home will be very close to the road. Too close for comfort! And I also noticed that the right-of-way is coming more on our property side than the vacant property across the road from us. It's not equal from middle of road. There are two options. One of them takes more land in front; the other one takes less in front but more in back. I wasn't excited to know that we will have a huge tall bridge behind us and a wide roadway in the front very close to our front door. Of course I'm sick because we're getting a double whammy! I guess my question is, how will TxDot deal with us? Looking forward to hearing from you. Debbie Copeland	Mr. Stephen Endres, P.E., the TxDOT Project Manager responded to Beverly Fleener via email on Aug. 17, 2022 with the following, "Thank you for your comments. We will add them to our public meeting summary and respond in the summary report. We would acquire your property through our standard acquisition process." Note: The email response can be found in the D1 Comment Forms and Emails Received section of the public meeting summary.

US 380 Princeton Public Hearing From FM 1827 to CR 560

CSJs: 0134-04-036, 0135-03-056, 0135-16-002

Comment Response Matrix

Comment Number	Commenter Name	Date Received	Source	Comment	Response
1	Anthony MacPherson	9/12/2024	Verbal Comment	Sure. Thank you. Anthony MacPherson. I'm at 195 Mark Lane in Princeton, Texas. Thank you for having this public meeting. About adjusting the speed limit is my concern on 380 for the businesses that are between Beauchamp and 4th Street. If I were a business owner there, I would just hope that my patrons/customers can get in and out safely. The speed limit should be slowed down, in my opinion, between that corridor to no more than 40 miles an hour, in my opinion, because it's hard for those businesses to survive with people going 50, 60 miles an hour. A truck behind you, you don't want to turn in, you don't want to turn out. I have a real strong concern about those businesses. Is there anything that we can do to take an analysis of that to see if we can have a slower speed limit between those that corridor there? The safest place to drive into is maybe the Wal-Mart because there's a traffic light there, but the other businesses suffer. That's my comment.	Your comment is noted. To determine a speed limit for a state roadway, city governments and TxDOT conduct traffic and engineering studies according to guidelines outlined in Procedures for Establishing Speed Zones, which can be reviewed online at https://onlinemanuals.txdot.gov/TxDOTOnlineManuals/txdotmanuals/szn/introduction.htm . Cities can request that TxDOT restudy speed zones in order to change speed limits on state roadways.
2	Amy McClellan	9/12/2024	Verbal Comment	That's me, but I have a question, so I'm going to pass.	Your comment is noted.
4	Betty Goff Ashley Wilder	9/12/2024	Verbal Comment Verbal Comment	It may be also a question, but I'll try to make it a comment. My name is Betty Goff at 5101 Emerald Hill Drive in McKinney. We partner with Princeton in our community. And so with the congestion on 380, the concern about our country roads that we use to access our homes are becoming the quality of the road is depleting over time. And so as this wonderful road comes through for 380, I'm just curious about what some clear plans are about how to adjust 1827 and some of the other country roads that lead us to our homes out in the off of the main road. Hi. I'm Ashley Wilder. Thank you for this opportunity to give information to the public. 809 West 12th Street. My comment is that I hope that TxDOT during the right-of-way acquisition process and condemnation process treats landowners fairly with fair and just compensation offers. I represent a couple of landowners on some of the proposed routes, and we just want to see fair offers from TxDOT.	Your comment is noted. TxDOT evaluates conditions of roadways to determine what maintenance is required. Issues can be reported to the TxDOT Collin County Area Office at https://www.txdot.gov/about/contact-us/report-an-issue.html or https://www.txdot.gov/about/contact-us/complaints.html. The TxDOT area office can be contacted at (972) 542-2345 for specific state roadways. Please contact Collin County at engineer@collincountytx.gov or (972) 548-3727 for county roadways. Your comment is noted. Right-of-way acquisition will be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures are available at https://www.txdot.gov/business/right-of-way/landowner-bill-of-rights.html. These materials contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way
					acquisition process. You may also contact the TxDOT Dallas district ROW office at (214) 320-6675 with questions.
5	Jeffrey Neal - NCTCOG	9/12/2024	Paper Comment	Statement of Support US 380 from FM 1827 to CR 560 Submitted on September 12, 2024 by the Regional Transportation Council and the North Central Texas Council of Governments, together serving as the Metropolitan Planning Organization for the Dallas-Fort Worth area I am here this evening representing the Regional Transportation Council and the North Central Texas Council of Governments (NCTCOG), together serving as the Metropolitan Planning Organization for the Dallas-Fort Worth area.	Your comment is noted.

Comment Number	Commenter Name	Date Received	Source	Comment	Response
- Namber	Name	Received		US 380 is a critical transportation corridor to the cities within Collin County, Denton County, and the North Central Texas region. This roadway serves as a principal route for local commuters and provides access to several key highways and transportation facilities. The proposed project would provide a new 8- to 10-lane freeway with frontage roads to help manage congestion and improve east-west mobility, connectivity, safety, and air quality. In addition, US 380 is part of a statewide and national transportation system that connects Greenville to our east to the Texas panhandle to our west and into New Mexico. This project includes shareduse paths to provide bicycle and pedestrian accommodations, as well as reconstruction and widening of the existing US 380 roadway. The recommended improvements to this section of US 380 are consistent with Mobility 2045: The Metropolitan Transportation Plan for North Central Texas – 2022 Update and the Regional Veloweb, which includes bikeways designated for the proposed project. The Regional Transportation Council has significant funding for US 380. Today, the Dallas-Fort Worth area is the fourth-largest metropolitan area in the United States with over eight million people. By 2045, the region is projected to have a population approaching 12 million. Additional roadway capacity will be needed at numerous strategic locations to meet the growing demand from both passenger vehicles and truck freight movements. Because of the regional importance of this project, NCTCOG is willing to provide and assistance in the planning, design, and implementation of this project.	
				Contact: Rebekah Gongora Program Manager (682) 433-0477 rgongora@nctcog.org	
				Jeffrey C. Neal, PTP Senior Projects Manager (817) 608-2345 jneal@nctcog.org	
6	LaShanda Sullivan	9/12/2024	Paper Comment Form	 Due to growth in Collin County – Princeton, please consider name the FM roads. It is very confusing for people who are not local i.e. delivery professional, medical team/semces. Lake Lavon – please make barrier to precent vehicle from parking & fishing off of the Bridge – cause huge Risks of accidents. 	 Your comment is noted. Please contact your city/county representatives to show your support for naming roads and coordinate with TxDOT's local area office. TxDOT can only provide number designations to its roadways, but local city and county representatives may recognize and add signage for additional roadway names. Your comment is noted. TxDOT is committed to safety and will evaluate all safety improvement aspects during final design.
7	Tom Potter	9/12/2024	Paper Comment Form	Repeating disappointment with only ONE east west corridor. The multiple bypasses may improve 380 but will consume funds that could be used on an alternate route. I need a noise barrier after you take my land.	Your comment is noted. The recommended improvements to this section of US 380 are consistent with <i>Mobility 2045: The Metropolitan Transportation Plan for North Central Texas – 2022 Update.</i> The proposed US 380 Princeton project would significantly improve eastwest mobility throughout Collin County and local, rapidly growing cities to meet current and future estimated traffic volumes. The proposed, new location US 380 Princeton project is an alternate route for the

Comment Number	Commenter Name	Date Received	Source	Comment	Response
					existing US 380 roadway to improve mobility. TxDOT takes an active approach in identifying and planning infrastructure for the region, working with stakeholders including NCTCOG, counties and cities to accommodate future growth and anticipated mobility needs across North Texas. Please reference TxDOT's Unified Transportation Plan https://ftp.txdot.gov/pub/txdot/get-involved/tpp/utp/08262024-2025utp.pdf Statewide Transportation Improvement Program https://ftp.txdot.gov/pub/txdot/get-involved/tpp/utp/08262024-2025utp.pdf Statewide Transportation Improvement Program https://www.txdot.gov/projects/planning/stip/stip-2023-2026.html and NCTCOG's Mobility 2045 Plan https://www.nctcog.org/trans/plan/mtp/mobility-2045-2022-update#:~:text=The%20Mobility%202045%20Update%20guides%20the%20spending%20of%20federal%20and for information on planned infrastructure highway projects throughout Collin County and the region. Collin County is also planning for additional connectivity in the area and has a thoroughfare plan located at https://www.collincountytx.gov/Services/Engineering/transportation#:~:text=Transportation.%20As%20one%20of%20the%20fastest%20grow ing%20counties%20im%20the A traffic noise analysis for the proposed US 380 Princeton project was conducted in accordance with TxDOT's (FHWA approved) Guidelines for Analysis and Abatement of Roadway Traffic Noise. Representative receivers are modelled at common outdoor activity areas (typically back patio, front porch, or pool areas). The analysis determined that the proposed project would not result in traffic noise impacts based on the guidelines; therefore, no noise abatement measures are warranted at this location. For more information regarding traffic noise analysis and traffic noise mitigation, please review TxDOT's Traffic Noise Brochure at https://ftp.txdot.gov/pub/txdot-info/env/toolkit/730-01-bro.pdf. Details on the traffic noise analysis can be found in the Traffic Noise Technical Report available for review at the TxDOT Dallas District office.
8	Drenda Strong	9/13/2024	Email	Hello. I went to the last few minutes of the presentation at PHS cafeteria last night. Everything looked good as for detailed info on where my husband and I live. Property # 349 roll 3. McKissick Meadows We saw an entrance/exit coming from the freeway onto McKissick meadows Road. This road is a private road being maintained by the homeowners. We hope there can be other ways to direct heavy traffic away from our private road. Can you help with this? Thank you Drenda Strong 8726585166	Your comment is noted. TxDOT will certainly review and explore options to maintain access to McKissick Meadows Road. TxDOT also might reach out to the property owner to discussion options during detail design in the future.
9	Muhammad Ammaar	9/14/2024	Email	Hey TxDOT, I don't have much insight to give about the upcoming project; however, as someone who has moved to the city of Princeton within the past month, the need for this expansion is seemingly necessary. As the population of	Your comment is noted.

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Number	Name	Received		Princeton increases, traffic is going to be inevitable, but this expansion will increase traffic flow and allow citizens to get to and from their destinations quickly and efficiently.	
				Thanks, Muhammad Ammaar	
10	Kevin Baumgarten	9/15/2024	Email	Stephen – I was looking at the plans for the McKinney 380 termination, the start of the Princeton 380 project, and the Spur 399 termination at 380. I live in the neighborhood directly north of the convergence of these three projects, and I am concerned that the plans all appear to be independent of each other and do not account for the effective overlap or transitions between the projects. I struggle to see how access to my neighborhood will be maintained throughout the project execution, and ultimately how I will get into downtown McKinney for work. I have attempted to stitch the rolls together to get a better picture of how these projects will work together – and am left to believe that the entire neighborhood circled in red will be left with disrupted access to our homes during these 3 projects which could very well be a decade or more of time. Further, even upon completion, access to these homes off of CR330 only appears possible from a west bound frontage road. I would like to understand how we will be able to a) get to and from our home from both the east and the west during these 3 projects, and b) access all of these possible new routes upon completion of the projects. 'A)' is dependent on time phasing of the projects and perhaps more challenging to really understand, but 'b)' should be available to understand, but I cannot find info online showing details of any of the 3 plans that appear to be aligned all 3 of them working together.	east. See schematic roll 13 of 28 on https://www.keepitmovingdallas.com/sites/default/files/docs/APP https://www.keepitmovingdallas.com/sites/default/files/docs/APP https://www.keepitmovingdallas.com/sites/default/files/docs/APP https://www.keepitmovingdallas.com/sites/default/files/docs/APP https://www.keepitmovingdallas.com/sites/default/files/docs/APP https://www.keepitmovingdallas.com/sites/default/files/docs/APP https://www.keepitmovingdallas.com/sites/default/files/docs/APP https://www.keepitmovingdallas.com/sites/default/files/docs/APP https://www.keepitmovingdallas.com/sites/default/files/docs/APP

Comment Number	Commenter Name	Date Received	Source	Comment	Response
				Thanks Kevin Baumgarten	ENDIX%20B%20-%20Design%20Schematic%20- %20Preferred%20Alternative-BLUE.pdf If there are still additional questions regarding access to and from your property, please contact US 380 McKinney, US 380 Princeton and Spur 399 Project Manager Stephen Endres at Stephen.Endres@txdot.gov or (214) 320-4469.
11	Jackson Hurst	9/16/2024	Online Comment Form	I approve and support TxDOT's US 380 Princeton from FM 1827 to CR 560 Project. The aspect that I love about TxDOT's US 380 Princeton from FM 1827 to CR 560 project is that US-380 will be widened from 2 lanes to 4 lanes in each direction with 2 lane one way frontage roads from Collin CR-458 to Collin CR-560. The widening and conversion of US-380 to a freeway will improve safety, reduce congestion, and improve freight mobility between McKinney and Farmersville, TX. I have reviewed the Draft Environmental Assessment for TxDOT's US 380 Princeton from FM 1827 to CR 560 Project and I approve and support the findings and the build alternative in the document.	Your comment is noted.
12	Richard Conklin	9/17/2024	Online Comment Form	This road moving West to East will cut off the northern side of Princeton ISD from the schools, how do you plan to keep access open throughout the project and will the best options for getting to the school be listed and updated through the term of the construction?	Your comment is noted. During detailed design, TxDOT's approach is to maintain access along existing roadways during construction. It is TxDOT's intent to maintain all existing access points on US 380, though there may be temporary disruption during construction. TxDOT will coordinate and communicate traffic control measures, including reroutes and temporary closures, with the public, local city and county officials, Princeton ISD and emergency services prior to and during construction activities. Safe access to and from the high school will be maintained along with maintaining access to businesses and residences throughout construction with appropriate signage directing drivers to access points.
13	Arnold Hight	9/26/2024	Email and Online Comment Form	Hello. I'm submitting my public comment for this catastrophe of a project even though it is clear that the only reason you allow the comments is to satisfy some legal mandate forcing you to allow it and not that you actually read or give any consideration to any comment unless it's from someone who has the power, money, or authority to oppose your desire to push this thing project through. It's very sad that the people of Texas have been Betrayed by literally every stage of government just so the powers that be can satisfy their own desires and egos. The lie here is that the government is here to serve and protect the people. It is clear that the government does not care about the people but only its own self interest as evident by the betrayal of the people by every level of government in order to push this project through and cover up their own failures to do their job and plan properly in the beginning. The people of this community have been betrayed by City, County, State, and Federal government. In fact the local governments have engaged in a conspiracy to steal from the property owners all while the feds are getting a sizable payout for their cooperation. I will admit there does need to be improvements to the traffic in this area but this is not the only or best solution. However if this were the only solution it is astonishing that the local government would make a deal with the Feds to circumvent regulation for protected lands, wildlife, and watersheds in an effort to defraud land owners out of their property value. You plan to spend almost 1 billion dollars on this project but you can't find the decency to do the right thing and budget in funding to compensate land owners for	Your comment is noted. TxDOT's US 380 Feasibility Study through Collin County concluded in 2019 with a recommended alignment. The US 380 Princeton recommended alignment avoided impacts to the United States Army Corps of Engineers (USACE) Wildlife Management Area (WMA). When the US 380 Princeton Project began in 2021, the Princeton Crossroads neighborhood was knowingly developed within the proposed feasibility study alignment. TxDOT developed additional alternatives working with the cities, county and regional partners to meet the purpose and need of the project in this rapidly growing area of Collin County. In weighing the alternatives, TxDOT used a systematic approach to evaluate many aspects and potential impacts of the proposed project. Based on the alternative analyses completed to minimize impacts, the current proposed alignment presented at the public hearing is recommended. Under state and federal law, TxDOT can acquire only the right of way (ROW) needed for a transportation project within the schematic's proposed right-of-way and must offer fair market value for any property acquired. Right-of-way acquisition will be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Brochures are available on the TxDOT right-of-way/landowner-bill-of-rights.html or you may contact the TxDOT Dallas district ROW office at (214) 320-6675 with questions. These materials

Comment	Commenter	Date	Source	Comment	Response
Comment	Commenter	Date Received	Source	the depreciation in their land values. Land owners who many of which have most of their life savings in their homes equity and you just want to take that from them like a bunch of thieves. I would say the government has failed. The way you treat your people and the way you operate is criminal. It is no better than that of communist leader Vladimir Putin. Lets just take a look at the nonsense in your presentation. Travis Campbell. "Understanding how our projects impact communities is important to Texdot". Lie! If that were at all true they would reach out to the people who would be most impacted by these projects and find a way to make it a win, win, win situation for the community, txdot, and the individuals who are negatively impacted by the project. Travis Campbell: "We will continue to work closely with stakeholders, communities, and the public as we move forward". Horse crap. The only "working with communities and the public" is to have thes "public virtual meetings and online events". These events are nothing more than a charade and only completed in an effort to check a box next to a legal mandate to do so. Having an open time for public comment where all comments get filed away with zero consideration and zero attempt to reach out to those affected by their projects. In fact the public comments aren't even posted on a public forum for all the public to see. Instead they are submitted in a private forum and buried in some digital file cabinet so the governing councils can continue the illusion that the government cares one bit about the community. I mean why risk that the public might be made aware of your heinous acts of devaluing private property and thievery. Why if word got out people might realize if they can do it to this small group they can do it to them or to their families and loved ones too! It's really hard to believe how in the presentation you just state that things like how the noise impact would be minimal, 100 year floodplains can just be ignored, minimal right of way would be needed a	contain detailed information to inform you of your rights and provide information about the TxDOT right-of-way acquisition process. In coordination with and input from the cities of Princeton, McKinney and Farmersville, Collin County and adjacent projects, TxDOT evaluated multiple alignment options to minimize impacts. Each alignment was compared using a quantitative and qualitative analysis matrix (number of displacements for current and future developments, design, ROW, etc.) as well as input from stakeholders to minimize impacts. Feedback from the public meeting and ongoing coordination with stakeholders was applied to the project and further refined the alignment to minimize impacts while meeting the purpose and need for the project. At the public meeting, there were concerns about impacts to the Princeton Crossroads Neighborhood. TxDOT applied that feedback by selecting the Option B (Alternative 2) which avoids approximately 80 displacements within the neighborhood. There were also concerns about impacts to the USACE Wildlife Management Area (WMA). TxDOT has been working closely with this agency to mitigate and minimize impacts to potentially inaccessible land. TxDOT follows a structured noise analysis process to determine the need for traffic noise barriers. This includes collecting traffic data, predicting noise levels, and evaluating the feasibility and reasonableness of noise abatement measures. A traffic noise analysis was conducted in accordance with TxDOT's (FHWA approved) Guidelines for Analysis and Abatement of Roadway Traffic Noise. Traffic noise barriers are designed to minimize noise impacts based on standard height and length allowance per benefited receiver to minimize noise. For more information regarding traffic noise analysis and traffic noise mitigation, please review TxDOT's Traffic Noise Brochure at https://ftp.txdot.gov/pub/txdot-info/env/toolkit/730-01-bro.pdf. Details on the traffic noise analysis can be found in the Traffic Noise Technical
				Why if word got out people might realize if they can do it to this small group they can do it to them or to their families and loved ones too! It's really hard to believe how in the presentation you just state that things like how the noise impact would be minimal, 100 year floodplains can just be ignored, minimal right of way would be needed and would have little impact on the properties. Maybe based on the opinion of people who don't live anywhere near this project. Based on the opinion of corrupt officials	barriers are designed to minimize noise impacts based on standard height and length allowance per benefited receiver to minimize noise. For more information regarding traffic noise analysis and traffic noise mitigation, please review TxDOT's Traffic Noise Brochure at https://ftp.txdot.gov/pub/txdot-info/env/toolkit/730-01-bro.pdf . Details on the traffic noise analysis can be found in the Traffic Noise Technical Report available for review at the TxDOT Dallas District office.
				who would lie to their own mother to get what they want. But to people who actually live here (the people you are supposed to represent) it's not minimal, it's quite the opposite. You can't even argue the point because I know if any of you communists had someone planning to build an 8 lane freeway through your backyard you would not consider it at all to be a minimal impact. Perhaps when putting together these project plans if you really wanted to gauge how good it is for the community a good standard would be to look at it as if the project was going to go through your own property, how would that impact you, how would it impact the value of	As noted on the 3D visualization and the 3D static rendering exhibit board, the renderings are not to-scale and were shown for illustration purposes only. Actual views are subject to change. TxDOT will conduct a noise workshop to discuss the proposed traffic noise barriers with adjacent property owners and residents. The workshop will provide information about the noise analysis process, the proposed barrier and allow for community input. Adjacent property owners can vote on the proposed noise barriers.
				your property, and what would be a fair compensation to you as the owner of the property. Instead of just figuring out what the minimal amount of action you would have to do to be in compliance with laws that are biased to the government and washing your hands of any responsibility. For instance the Sound barrier depicted in the rendered video of the proposed Freeway is completely inadequate based on your own standard using the FWHA Traffic Noise Model. The barrier is neither tall enough or	The proposed bridge section at the Princeton Crossroads neighborhood includes a rail designed according to standards set forth in TxDOT's Roadway Design Manual (Traffic Rail Single Slope - TYPE SSTR with a TL-4 crash rating) and includes a traffic noise barrier constructed on top. The rail is a traffic safety device that has met certain criteria in managing heavy vehicle impacts.

Comment	Commenter	Date	Source	Comment	Response
Number	Name	Received		long enough to block the noise from an 8 lane freeway. I don't have to be an engineer to know that it's not effective. All I have to do is read the handbook you noted to be the standard to which you conducted the noise evaluation. "A noise barrier must be tall enough and long enough to block the view of a highway from the area that is to be protected, the "receiver." Noise barriers provide very little benefit for homes on a hillside overlooking a highway or for buildings which rise above the barrier. "Then there is the length issue "To effectively reduce the noise coming around its ends, a barrier should be at least eight times as long as the distance from the home or receiver to the barrier." Your depicted model doesn't comply with either of the basics of design needed to achieve the reduced noise from the freeway.	
				Not only do you not even make an effort to compensate the owners of the properties that you are effectively stealing money from, you implement a shoddy solution with bare minimal efforts in an attempt to make it look like you have the communities best interest at heart. However from the aerial view of the proposed plan you can clearly see that your proposed plan actually goes out of its way in order to curve closer to the residential homes. Had you designed a path so that it curved sooner on the east end of the development it would go through the forest area and could be at least 100 yards further from the residential neighborhood with forest area on either side of the freeway to help dampen any noise from the 8 lane freeway. But no! You as a governing council decided it's better to give more consideration to wildlife habitats (habitats that will be affected and minimized regardless of the path) then actual human lives, their proper value, and their livelihoods.	
				It's not like the people of this community chose to buy a property that was literally feet from an 8 lane freeway and then protest that something had to be done about the noise and diminished value of their property. In fact it is the opposite and it should be abundantly clear to any council planning such a project that steps should be taken to compensate the property owners for the diminished property value or find another path that won't put a freeway in such a close proximity to an entire development of homes. I know that it is common sense for this council to understand that this path comes too close to a residential development. How do I know? Consider the existing highway 380 and the plans approved by the city, county, and state before the princeton crossroads development could break ground. Look how far back from the road the housing developments start. Do you really think that LGI would not have built homes all the way up to the edge of Highway 380 if they could have gotten it approved? Of course they would! The more houses the more money. Even for the government the more houses the more property tax for the county and fees for the city but even then they had the common sense to know that it was not OK to put a residential community so close to a high traffic highway. But now out of desperation and greed all of a sudden the governing councils of this city, county, state, and nation want you to believe that it's no big deal to run an 8 lane freeway right through an entire community's backyard. In fact it is so close to the homes one day there will be an accident and people living in	

Comment	Commenter	Date	Source	Comment	Response
Number	Name	Received		those homes will have a car, truck, or semi in the middle of their house and God forbid anyone is killed from it. November 7th 2000 was the last deathless day on Texas roadways. Here's a clue for all you rocket scientists. If you actually want to improve safety on Texas roadways the very first thing and most cost effective thing you could do is paint the lines on the roads and cubs with reflective paint so that the paths are clear to motorists at night and in bad weather. The second thing you could do is stop handing out driver's licenses like a clown hands out free candy in a parade. Oh but wait, that might hit your bottom line since you would collect far less fees for drivers licenses and registrations if you only issued them to people who had enough common sense and were qualified to drive. Oh and if you really care about public safety and saving peoples lives maybe you should consider not putting a freeway so close to homes that vehicles traveling down that path anywhere from 60 to 80 miles an hour won't have a chance of veering off course and blowing through innocent victims homes destroying their property and taking their lives. Let's be real by your own admission the driving habits of the people of the state of Texas are anything but safe.	
				Best Regards,	
				Arnold Hight	
				In an effort to warn the public I've put together a list of people involved in this project. If they were willing to destroy one small community to further their own agendas they WILL do it to you, your families, your loved ones, and your communities. PRINT THIS LIST of names and keep it with your voters registration card. On election day every year it will help keep you safe. If EVER you see one of these people on a ballot you can rest assured voting any other candidate will give you a much better chance at having someone who represents you and your loved ones best interests for whatever position that is under consideration. It is a list of people who you should NEVER vote for because they clearly don't have you or your family's best interest at heart:	
				Collin County: Collin County Commissioner Duncan Webb	
				Txdot: Travis Campbell, J. Bruce Bugg, Jr., W. Alvin New, Robert C. Vaughn, Alejandro "Alex" G. Meade III, Steven D. Alvis.	
				Princeton: Brianna Chacon, Steve Deffibaugh, Ryan Gerfers, Ben Long, Carolyn David-Graves, Marlo Obera, Bryan Washington, David Kleiber, Michael Mashburn, John Land, Lesia Gronemeier	
				NTOG:CHRIS HILL, VICTORIA JOHNSON, JENNIFER JUSTICE, BILL HEIDEMANN, CLAY JENKINS, TIM O'HARE, BOBBIE MITCHELL, CARA MENDELSOHN, CARLOS FLORES, BOWIE HOGG, TODD LITTLE, KAMERON RABURN, NICK STANLEY, DAVID BRISTOL, T.J. GILMORE, RICK HORNE,	

Comment Commenter Date Number Name Received		Date Received	Source	Comment	Response
				BRANDON J. HUCKABEE, VICTORIA NEAVE CRIADO, MIKE EASTLAND, MICHAEL MORRIS	

Appendix J: Study On Properties Managed by the USACE	Final Environmental Assessment	US 380 Princeton from FM 1827 to CR 560
Appendix J: Study On Properties Managed by the USACE		
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APPENDIX J STUDY ON PROPERTIES MANAGED BY THE USACE

October 2024

APPENDIX - RIGHT-OF-WAY, LAND USE, VISUAL/AESTHETIC IMPACTS, CULTURAL RESOURCES, PROTECTED LANDS, WATER RESOURCES, BIOLOGICAL RESOURCES, HAZARDOUS MATERIALS, TRAFFIC NOISE- Impacts to USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

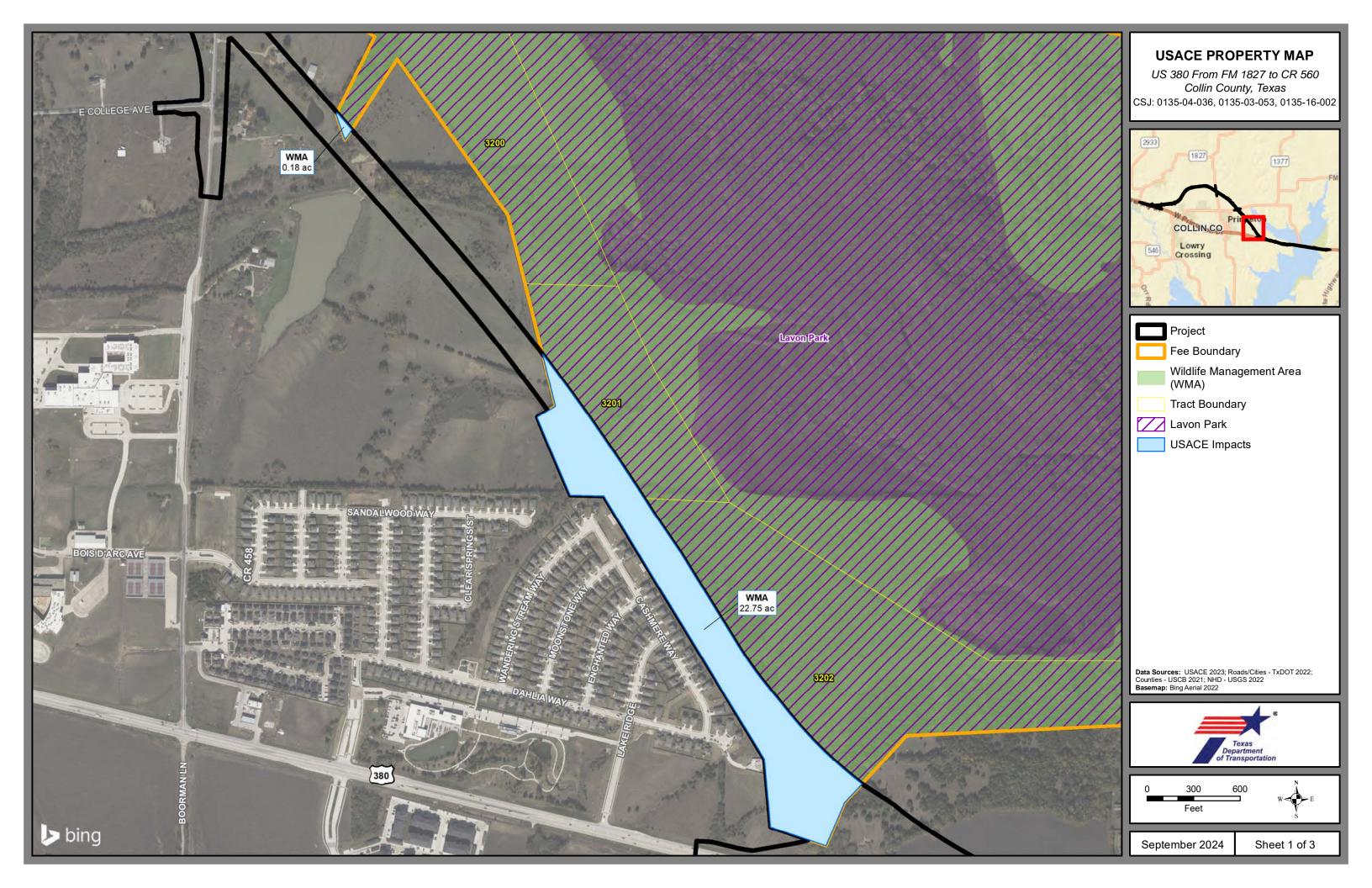
As noted in Section 5.1 and 5.10 of the Final Environmental Assessment (EA), potential impacts to U.S. Army Corps of Engineers (USACE) properties are documented and would be approved through separate Regulatory and Real Estate processes by the USACE–Fort Worth District. Authorization requests developed, reviewed, and submitted by TxDOT, are not part of this EA. However, the USACE–Fort Worth District is a cooperating agency on the US 380 Princeton Project and will use the EA and its appendices as a base document for their review and supplemental analysis of USACE impacts. As part of that analysis, the USACE has requested specific data from TxDOT detailing estimated potential impacts to resources within USACE property boundaries. This appendix describes those impacts to USACE properties from the US 380 Princeton Project. The property summary of impacts for USACE Wildlife Management Area (WMA), Caddo Park, Twin Groves Park, and Lavon Lake property all operated by the USACE, are detailed in **Table Int-1** and **Figure Int1-3**.

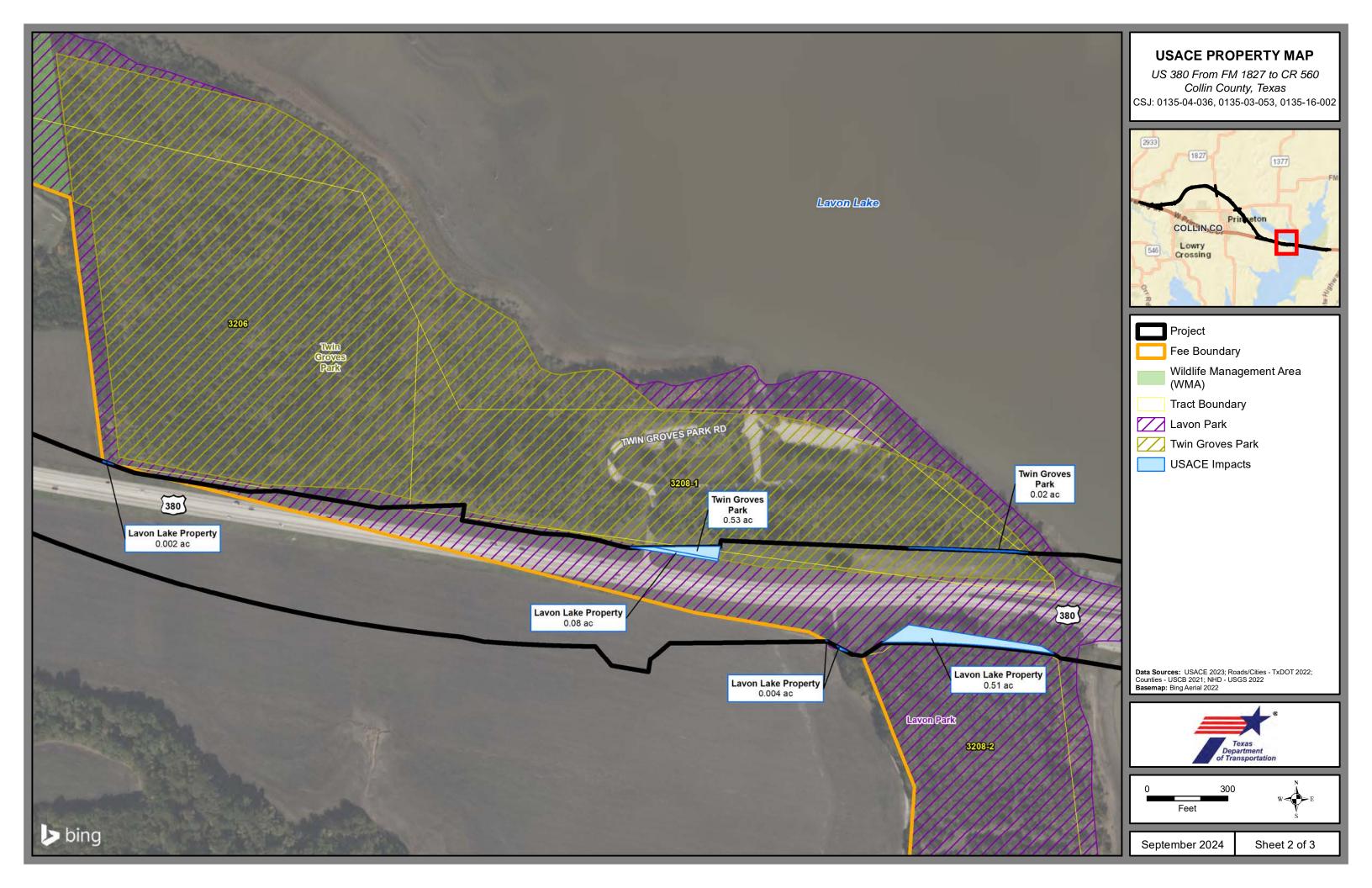
Table Int-1: Summary of USACE Property in Study Area

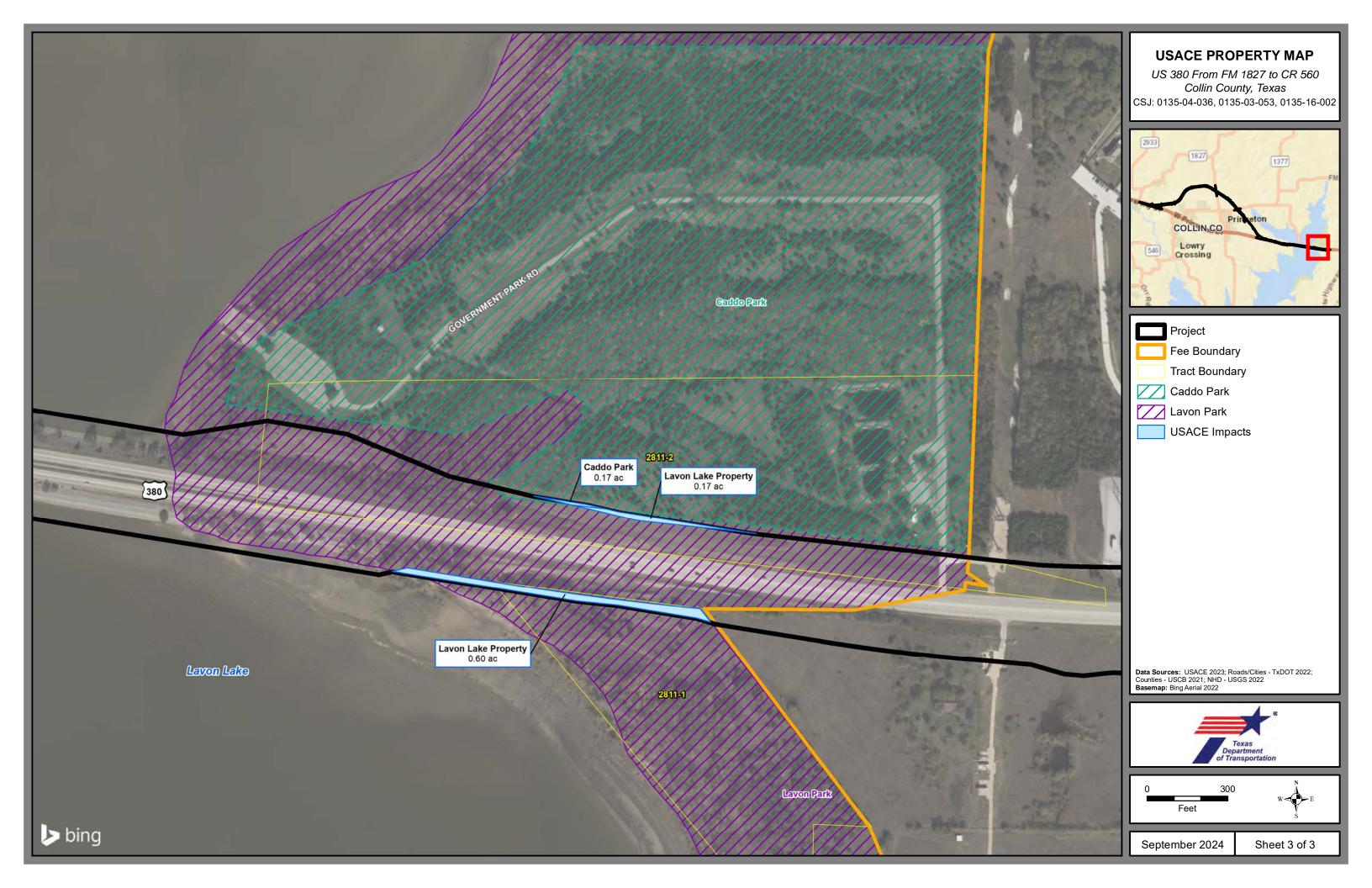
USACE Property Classification	USACE Tract Boundary	Collin County Appraisal Parcel ID#	Proposed ROW Acreage	Proposed Easement
Wildlife Management Area (WMA)	3200, 3201, 3202	1192266, 1192300, 1185327, 1185336, 1181535, 1181535	-	23.00
Lavon Lake Property *	3208-2, 2811-1	1178772, 1178763, 1178736	-	1.36
Twin Groves Park	3206, 3208-1, 3208-2	1181296, 1178772, 1178763	0.02	0.53
Caddo Park	2811-2	1178736, 1197895, 1178745	-	0.17
Total	-	-	0.02	25.06

^{*} The Lavon Lake property does not technically fall under a specific USACE classification category, the acreages are distinct from the classifications listed in the table. Lavon Lake Property includes Low Density Recreation lands and Vegetative Management lands.









RIGHT-OF-WAY/DISPLACEMENTS - USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

The revised land classifications at Lavon Lake, as proposed, would not lead to the displacement of residential or commercial development. The total acreages for USACE Wildlife Management Area (WMA), Caddo Park, Twin Groves Park, and Lavon Lake Property, all operated by the USACE, are detailed in **Table ROW-1**. The proposed right-of-way (ROW) for these areas would require a combined total of approximately 25.08 acres, as specified in the table.

Lavon Lake USACE Wildlife Management Area

To minimize harm to the Lavon Lake WMA, the roadway design for the build alternative through the property only includes proposed US 380 mainlanes with no frontage roads, and the proposed acquisition of easement area for the WMA property has been minimized to the maximum practicable extent. Land to the southwest of build alternative opposite the WMA is the new Princeton Crossroads residential subdivision containing over 300 homes and a community park and playground. Shifting the proposed alignment to the southwest to entirely avoiding the WMA would displace approximately 45 homes and cause severe disruption to the neighborhood.

The build alternative would involve the permanent acquisition of approximately 23.00 acres of permanent easement from the Lavon Lake WMA, publicly owned and operated by USACE. The proposed use would convert wildlife habitat to transportation use in a small portion of the WMA (0.33 percent of the total area), although it would not impair the activities, attributes, or features of the overall WMA to the extent that the public recreational use and enjoyment of the overall property could not continue.

Caddo Park

Owned and operated by USACE, Caddo Park encompasses 515 acres on the east side of Lavon Lake adjacent to US 380. This land was originally designed as a park with special access features for persons with disabilities (USACE 2016). The park includes three fishing ponds, 13 picnic sites, two restrooms, and a four-lane boat ramp. USACE does not charge fees for the public to enter and enjoy the park; the park is closed seasonally from October 1 to March 31 (USACE 2016).

The build alternative would involve the construction of elevated mainlanes, frontage roads, and a new grade separated overpass at Caddo Park Road. The expansion of US 380 would require the use of approximately 0.17 acres of proposed permanent easement from Caddo Park Lavon Lake Historic District along the existing US 380 ROW. The permanent acquisition of land would not affect the activities, attributes, or features that qualify Caddo Park, and the public use and enjoyment of the park would not be impaired. The public boat ramp, fishing ponds, and picnic area, which are the primary amenities at Caddo Park, would not be altered by the proposed project.

Twin Groves Park

Twin Groves Park covers approximately 115 acres and is owned and operated by USACE. The park features two restrooms, a two-lane boat ramp, and two large parking lots. According to the USACE Lavon Lake Master Plan, the park receives little visitation outside of fishing and duck hunting season (USACE 2016). The shallow nature of the lake and shoreline in this area provides favorable conditions for ducks and catfish, and the park is used primarily as an access point for hunting and fishing. USACE does not charge fees for the public to enter and enjoy the park.

The build alternative would involve the construction of elevated mainlanes, frontage roads, and a new grade separated overpass at Twin Groves Park Road. The expansion of US 380 would require the use of approximately 0.02 acres of proposed ROW and 0.53 acres of permanent easement from this public park, which is approximately 0.5 percent of the overall 115-acre property. The public boat ramp, which is the primary amenity at Twin Groves Park, would not be altered by the proposed project. The area to be used north of US 380 is maintained grasses with a few trees, some of which are within the existing state-owned ROW. The proposed use would not impair the activities, attributes, or features of Twin Groves Park.

Lavon Lake Property

Covering a total of 2,468 acres, Lavon Lake designates Low Density Recreation lands for passive activities like fishing, hunting, wildlife viewing, and hiking. Originally classified as large tracts, they were later reclassified as Wildlife Management due to their narrow configuration between the shoreline and the USACE property boundary. Unsuitable for High Density Recreation, Vegetation, or Wildlife Management, these areas, often adjacent to private residences, are commonly used by adjacent landowners. Additionally, 824 acres at Lavon Lake are set aside for Vegetative Management, preserving forest, prairie, and native vegetation. This includes parcels of native prairie grassland, allowing passive recreational activities in these designated areas.

The build alternative would involve the permanent acquisition of approximately 1.36 acres of permanent easement from the Lavon Lake, publicly owned and operated by USACE. The proposed use would convert recreational and wildlife habitat to transportation use in a small portion of the Lavon Lake, although it would not impair the activities, attributes, or features of the overall Lavon Lake to the extent that the public recreational use and enjoyment of the overall property could not continue.

Table ROW-1. Acreages for USACE WMA, Caddo Park, and Twin Groves Park

Land Classification	Proposed ROW Acreage	Proposed Easement
Wildlife Management Area (WMA)	-	23.00
Lavon Lake Property*	-	1.36
Twin Groves Park	0.02	0.53
Caddo Park	-	0.17
Total	0.02	25.06

^{*} The Lavon Lake property does not technically fall under a specific USACE classification category, the acreages are distinct from the classifications listed in the table. Lavon Lake Property includes Low Density Recreation lands and Vegetative Management lands.

LAND USE - USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

USACE regulations mandate the classification of project lands based on their primary management purpose. These categorizations are derived from the 2016 Lavon Lake Master Plan provided by the USACE, outlining the classification of project lands base on their principal management objectives. The regulations outline six categories for classification, which include (USACE 2016):

- 1. Project Operations
- 2. High Density Recreation
- 3. Mitigation
- 4. Environmentally Sensitive Areas
- 5. Multiple Resource Management Lands
- 6. Water Surface

The following paragraphs include details on each land classification, including acreage and allowable uses, with a specific emphasis on the impact acreages significant to the proposed US 380 Princeton project. The total area of the lake and surrounding public lands is approximately 16,606 acres and in addition to the water surface, it includes the following land classifications: High Density Recreation, Low Density Recreation, Wildlife Management, and Vegetation Management (see **Figure LU-1**). To obtain more detailed information, refer to **Table LU-1**, which outlines the impacts associated with Land Use Classification resulting from the proposed US 380 Princeton project (based on the October 20, 2023 schematic). Details on the land use and classification can be found in the 2016 Lavon Lake Master Plan for review provided by the USACE.

Project Operations

The Project Operations classification encompasses lands dedicated to dam operation, project office, and maintenance yards, crucial for fulfilling the authorized flood control purpose. While these lands primarily serve operational needs, limited recreational use, like public fishing access in the stilling basin area, may be permitted. Despite such recreation, the primary classification of Project Operations holds precedence over other uses. This category includes 508 acres specifically managed for operational purposes, and no impacts would result from the US 380 Princeton project on Project Operations.

High Density Recreation

High Density Recreation comprises lands designed for intensive recreational activities for the visiting public, including day use areas, campgrounds, marinas, and associated concession areas. Lessees overseeing recreation development on USACE lands must adhere to policy guidance outlined in USACE regulations at ER 1130-2-550, Chapter 16. Approximately 0.72 acres would be impacted by the proposed US 380 Princeton project.

Multiple Resource Management Lands

This classification comprises four sub-classifications: Low Density Recreation, Wildlife Management, Vegetative Management, and Future/Inactive Recreation Areas. A tract of land may have one or more of these sub-classifications, with the primary sub-classification reflecting the dominant use. Typically, Multiple Resource Management Lands support passive, non-intrusive uses with minimal facilities. Some areas may require basic amenities such as limited parking space, a small boat ramp, and/or primitive sanitary facilities. Lavon Lake has 9,768 acres under this classification. Subsequent paragraphs detail each sub-classification, along with the corresponding acreage and primary uses. Approximately 25.09 acres would be impacted by the proposed US 380 Princeton project.

- 1. Low Density Recreation: These lands support passive public recreational activities like fishing, hunting, wildlife viewing, and hiking. Previously classified as large tracts for low-density recreation, they were reclassified as Wildlife Management during the study process for this Plan. Low Density Recreation lands are typically narrow strips between the shoreline and the USACE property boundary, often adjacent to private residential areas. Due to their narrow configuration and proximity to residential zones, these areas are unsuitable for High Density Recreation, Vegetation, or Wildlife Management. Adjacent landowners commonly utilize these 2,468 acres at Lavon Lake for the listed passive recreation activities. Approximately 0.29 acres would be impacted by the proposed US 380 Princeton project.
- 2. Vegetative Management: These lands are set aside for the preservation of forest, prairie, and other native vegetation. Lavon Lake includes various parcels of native prairie grassland or areas with high potential for restoration to native prairie within this classification. Passive recreational activities, as described earlier, may be permitted in these designated areas. The total acreage under this classification at Lavon Lake is 824 acres. Approximately 1.07 acres would be impacted by the proposed US 380 Princeton project.
- 3. Wildlife Management: This classification pertains to lands primarily managed for the conservation of fish and wildlife habitat. Typically, these lands consist of large contiguous parcels, mainly within the lake's flood pool. Passive recreation activities like natural surface trails, fishing, hunting, and wildlife observation are generally allowed, unless restrictions are needed to protect sensitive species or ensure public safety. Lavon Lake has 6,480 acres designated under this classification. Approximately 23.00 acres would be impacted by the proposed US 380 Princeton project.
- 4. Future/Inactive Recreation Areas: These areas are defined by site characteristics suitable for potential future high-density recreation development or existing high-density recreation areas currently closed. Lavon Lake does not have any designated areas meeting these criteria.

Water Surface

USACE regulations define four water surface sub-categories for safety, resource protection, and project operational features at Lavon Lake:

- 1. Restricted: About 63 acres are off-limits for public access due to safety and project needs, including areas in front of tainter gates and major water supply intakes.
- 2. Designated No-Wake: Spanning 42 acres at 16 boat ramps and 2 marina areas, this category imposes no-wake restrictions for public safety.
- 3. Fish and Wildlife Sanctuary: While Lavon Lake doesn't require a permanent sanctuary, seasonal boating restrictions may apply to protect fish and wildlife.
- 4. Open Recreation: Covering around 21,295 acres, this category allows general recreational boating, with awareness of potential hazards communicated through maps, brochures, or signs. Boating in these areas is at the owner's risk. Approximately 0.01 acres would be impacted by the proposed US 380 Princeton project.

Table LU-1. Impacts of Land Use Classification

Land Use Classification	Acreage
High Density Recreation	0.72
Low Density Recreation	0.29
Uncleared Water Surface	0.01
Vegetative Management	1.07
Wildlife Management	23.00
Total	25.09

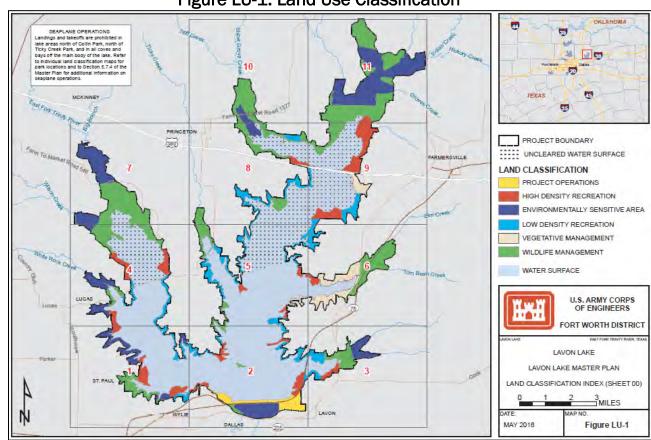


Figure LU-1. Land Use Classification

VISUAL/AESTHETIC IMPACTS - USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

The distribution of land use within the specified area is characterized by varying acreages allocated to different classifications. High Density Recreation occupies 0.72 acres, reflecting a concentrated recreational presence, while Low Density Recreation covers a larger area at 0.29 acres, indicating a more open but less densely populated recreational zone. The presence of Uncleared Water Surface at 0.01 acres highlights the importance of water bodies in the landscape. Vegetative Management, accounting for 1.07 acres, emphasizes the significance of structured vegetation planning. Wildlife Management dominates the classification with a substantial 23.00 acres, underscoring the extensive efforts and areas dedicated to preserving and fostering wildlife habitats. This data serves as a crucial foundation for understanding the spatial distribution and ecological impact of various land uses within the studied area.

In evaluating the proposed project, it is crucial to address potential aesthetic and visual resource impacts that may arise as a result of its implementation. The aesthetic and visual aspects of a project play a significant role in shaping the character of the surrounding environment and can have lasting effects on the community's perception and experience. This section aims to explore the potential impacts on visual and aesthetic resources, considering factors such as landscape, architectural design, and overall visual harmony.

Visual and Aesthetic Qualities of the Area

The visual and aesthetic attributes of the study area encompass a diverse range, including topography, natural elements, vegetation, water features, recreational parks, and the USACE WMA. These features contribute to the overall ambiance experienced by drivers, pedestrians within subdivisions, and residents. The proposed project involves the development of a new roadway and modifications along the existing US 380 roadway, situated within the expansive USACE property. Currently, the study area features views characterized by high-density recreation, meticulous vegetation management, and wildlife management.

USACE Properties and Their Significance

The USACE Properties, Caddo Park, Twin Groves Park, and the USACE WMA at Lavon Lake, hold significant importance in enhancing the visual and aesthetic landscape. Caddo Park, positioned on the eastern side of Lavon Lake, spans 515 acres, offering historical value and amenities such as fishing ponds, picnic sites, restrooms, and a four-lane boat ramp. Twin Groves Park, covering 115 acres west of Lavon Lake Bridge, includes facilities like restrooms, a two-lane boat ramp, and ample parking. The expansive 6,480-acre USACE WMA contributes to the visual richness of Lavon Lake, providing open spaces for pedestrian traffic and supporting diverse recreational activities.

Project's Recognition of Visual and Aesthetic Preservation

The proposed project explicitly recognizes the importance of preserving and enhancing the visual and aesthetic qualities of the USACE Properties. Acknowledging the historical and recreational significance, the project aims for harmonious integration with these natural elements. As the project advances, deliberate efforts will be made to incorporate aesthetic treatments and design concepts that complement the existing visual character, ensuring minimal adverse impacts.

Impacts and Mitigation Measures

While the revised land use classifications from the 2016 Master Plan are not expected to cause significant impacts on Lavon Lake's visual resources, the proposed US 380 Princeton project's right of way introduces potential impacts. However, envisioned modifications, along with regional projects, are anticipated to generate minor beneficial cumulative effects on visual resources.

Anticipated visual impacts arising from the introduction of a new roadway in currently undeveloped land will be carefully managed. The proposed modification to the existing 380 road along Caddo Park, Twin Groves Park, and recreation areas would introduce no changes to the visual affects. Potential noise walls will align with city aesthetics, and landscaping additions will be integrated where feasible along the corridor. Safety lighting, though potentially affecting visual and aesthetic qualities, will undergo a detailed design process, incorporating local, state, and federal requirements. Mitigation measures may include aesthetic enhancements such as landscaping, sustainable practices like wildflower planting, and decorative details to alleviate the severity and enhance the visual appeal of elevated structures, noise barriers, guardrails, and other features.

Commitment to Balanced Development

In essence, the proposed project reflects a commitment to balanced development, acknowledging the need for progress while respecting the intrinsic beauty of Lavon Lake's surroundings. Through careful planning and consideration of aesthetic elements, the project seeks to not only minimize adverse impacts but also contribute positively to the overall visual appeal of this valued public space.

CULTURAL RESOURCES - USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

Evaluation of impacts to cultural resources has been conducted under Section 106 of the National Historic Preservation Act of 1966 (NHPA) in accordance with the Programmatic Agreement (PA) among FHWA, TxDOT, the Texas State Historic Preservation Officer (SHPO), which is formally known as the Texas Historical Commission (THC), and the Advisory Council on Historic Preservation (ACHP), Regarding the Implementation of Transportation Undertakings.

Cultural resources are structures, buildings, archeological/historic sites, districts (a collection of related structures, buildings, and/or archeological sites), cemeteries, and objects. Both federal and state laws require consideration of cultural resources during project planning. At the federal level, NEPA and the NHPA, among others, apply to transportation projects such as this one. In addition, state laws such as the Antiquities Code of Texas (ACT) apply to this project. Compliance with these laws often requires consultation with the THC/SHPO and/or federally recognized tribes to determine the project's effects on cultural resources. Review and coordination of this project followed approved procedures for compliance with federal and state laws.

Archeological Resources

The purpose of the archeological survey is to ensure compliance with Section 106 of the NHPA, as amended, and the ACT. The project design currently includes 34.1 acres within parcels owned by the USACE, which is considered the Area of Potential Effects (APE) for the portion of the archeological investigation conducted for the project that is within USACE parcels. Survey for the larger project area was investigated and reported separately.

Fieldwork for archeological resources (as defined by 36 Code of Federal Regulations [CFR] 800.4) within the 34.1 acres of the USACE-owned parcels was completed between September 5, 2023, and October 20, 2023. The survey was conducted to identify any archeological resources present within the 34.1-acre archeological APE and evaluate those resources for National Register of Historic Places (NRHP) eligibility, as per Section 106 (36 CFR 800), or for designation as State Antiquities Landmarks (SALs) under the ACT and Texas Administrative Code (TAC), Title 13, Chapter 26 (13 TAC 26).

The intensive archeological survey of the 34.1-acre APE within the USACE parcels resulted in no archeological resources being identified that meet eligibility requirements for listing in the NRHP under 36 CFR 60.4 or for designation as a SAL according to 13 TAC 26. The investigation included visual inspection of the 34.1 acres within the USACE parcels, supplemented with the excavation of 66 shovel tests in areas exhibiting intact soils. The archeological investigation was conducted under Texas Antiquities Permit Number 30911, issued November 16, 2022.

Project Setting

Topography and Hydrology

The USACE parcels lie within the United States Geological Survey (USGS) 7.5' quadrangle map of Culleoka, Tex. [3396-123] (Figure CR-1: Project Area Topography). The topography is typically irregular plains dissected by low to moderate gradient streams, ranging from 500 to 600 feet above mean sea level with lower elevations occurring within the stream drainages (Bureau of Economic Geology 2010; Griffith et al 2007). The proposed alignment within the USACE parcels crosses numerous tributaries of Sister Grove Creek, as well as the former meanders of Sister Grove Creek and Pilot Grove Creek currently within Lavon Lake along the eastern limits of the existing US 380 ROW (Figure CR-2: Project Area Hydrology).

Geology

Approximately 58 percent of the USACE parcels are underlain by the Late Cretaceous-age geologic formations of Ozan Formation (Ko), and Wolf City Formation (KwC) (Figure CR-3: Project Area Geology). Residual soils developed on these landforms typically exhibit low potential for containing buried prehistoric sites in good context. The remaining 42 percent consists of Holocene-age alluvial deposits (Qal), mapped within the floodplain of Sister Grove Creek and extending from the western to the eastern banks of Lavon Lake (Barnes 1991). These Qal deposits exhibit the greatest potential for containing deeply buried and intact archeological sites.

Soils

The USACE parcels are mapped as part of the Houston Black-Heiden-Wilson Soils of the Texas Blackland Prairie, formed on nearly level sloping plains dissected by perennial streams and tributaries, exhibiting outcrops of Cretaceous-age calcareous shales (Hanson and Wheeler 1969; NRCS 2023; United States Department of Agriculture 2008) (Figure CR-4: Project Area Soils; Table CR-1). The shale derived clay soils often show significant levels of swelling and shrinking with changes in soil moisture, which can form gilgai structures exhibiting micro-high and micro-low surface topography (Coulombe et al. 1996; Nordt et al. 2004).

Soils exhibiting the greatest potential to contain buried and intact archeological sites make up approximately 5.7 percent of the survey area soils and occur in floodplains and/or terrace/toeslope settings. These soils consist of the Tinn and Lewisville series.

Tinn clay (Tf), 0 to 1 percent slopes frequently flooded, comprise approximately 5.3 percent and exhibit a generalized A-Bss-Bkssy horizon sequence within recent calcareous clayey alluvium. Tinn soils are located within the floodplain of tributaries of Sister Grove Creek. The potential for the presence of intact archeological deposits within shallow (<1 meter) and deep (>1 meter) settings is classified as high (Abbott 2011; TxDOT 2022).

Lewisville silty clay (LeC2), 3 to 5 percent slopes, eroded, comprise approximately 0.4 percent and exhibit a generalized Ap- Bk1-Bk2 horizon sequence within calcareous clayey alluvium derived from mudstone. Lewisville soils are located along the western bank of Lavon Lake. The potential for the presence of intact archeological deposits within shallow (<1 m) settings is classified as moderate and deep (>1 m) settings is classified as high (Abbott 2011; TxDOT 2022).

Upland soils along stream terraces containing Altoga series silty clays comprise approximately 6.1 percent. Altoga (AID2) silty clay, 5 to 8 percent slopes, eroded, exhibits a generalized A-Bk1-Bk2 horizon sequence within calcareous clayey alluvium derived from mudstone. These soils are located adjacent to unnamed tributaries of Sister Grove Creek and adjacent to the western bank of Lavon Lake. The potential for the presence of intact archeological deposits within shallow (<1 meter) deposits is classified as moderate and the potential for the presence of intact archeological deposits within deep (>1 meter) settings is classified as low (Abbott 2011; TxDOT 2022).

Approximately 88.2 percent is mapped as upland soils of the Houston Black, Heiden, and Ferris-Heiden series. Houston Black clay (HoA), 0 to 1 percent slopes, and Houston Black clay (HoB), 1 to 3 percent slopes comprise approximately 42.1 percent and exhibit a generalized Ap-Bkss-Bckss horizon sequence within clayey residuum weathered from calcareous mudstone of upper Cretaceous-age. These soils are nearly level to moderately sloping, located on old alluvial terraces along major streams. The occurrence of slickensides in these soils suggests the presence of highly expandable clays, causing seasonal shrinking and swelling resulting in the formation of gilgai micro-high and micro-low surface topography. Because of these pedogenic processes, the potential for the disarticulation of buried archeological materials is high (Nordt et al. 2004). As a result, the potential for the presence of intact archeological deposits within shallow (<1 meter) and deep (>1 meter) settings is low (Abbott 2011; TxDOT 2022).

Heiden clay (HcC2), 3 to 5 percent slopes, eroded, and Heiden clay (HcD2), 5 to 8 percent slopes, eroded, comprise approximately 33.6 percent and exhibit a generalized A-Bss-Bkss-CBdk horizon sequence within clayey residuum weathered from mudstone. These soils are typically deep and gently sloping. Like the Houston Black soils, the occurrence of slickensides in these soils suggests the presence of highly expandable clays, causing seasonal shrinking and swelling. As a result, the potential for the presence of intact archeological deposits within shallow (<1 meter) and deep (>1 meter) settings is low (Abbott 2011; TxDOT 2022).

Ferris Heiden clay (FeE3), 5 to 12 percent slopes, severely eroded, comprise approximately 12.5 percent and exhibit a generalized H1-H2-H3 horizon sequence residuum weathered from calcareous shale in eagleford shale and taylor marl formations of Cretaceous-age. These soils are deep, well-drained, sloping to strongly sloping. These soils are located along the western extent of Caddo Park adjacent to the bank of Lavon Lake. The potential for the presence of intact archeological deposits within shallow (<1 meter) and deep (>1 meter) settings is classified as low (Abbott 2011; TxDOT 2022).

Table CR-1. Soils of the USACE Parcels

Map Unit Symbol	Soil Mapping Unit	Series Description	Landform Setting	Percent of USACE Parcels	Archeological Potential<1 meter />1 meter
AID2	Altoga silty clay, 5 to 8 percent slopes, eroded	Deep, well drained, calcareous, clayey soils that formed in calcareous clayey alluvium derived from mudstone	Stream terraces	6.1	moderate / low

Map Unit Symbol	Soil Mapping Unit	Series Description	Landform Setting	Percent of USACE Parcels	Archeological Potential<1 meter />1 meter
FeE3	Ferris-Heiden clay, 5 to 12 percent slopes, severely eroded	Deep, well drained, sloping to strongly sloping clays that formed in residuum weathered from calcareous shale of cretaceous age	Uplands / ridges, backslopes, side slopes	12.5	low / low
HcC2	Heiden clay, 3 to 5 percent slopes, eroded	Deep, well drained, clays that formed in clayey residuum weathered from mudstone	Uplands / ridges, backslopes, side slopes	5.5	low / low
HcD2	Heiden clay, 5 to 8 percent slopes, eroded	Deep, well drained, clays that formed in clayey residuum weathered from mudstone	Uplands / ridges, backslopes, side slopes	28.1	low / low
НоА	Houston Black clay, 0 to 1 percent slopes	Deep, well drained, calcareous, clayey soils that formed in clayey residuum weathered from calcareous mudstone of upper cretaceous age	Uplands / plains, summits, interfluves	0.1	low / low
НоВ	Houston Black clay, 1 to 3 percent slopes	Deep, moderately well drained calcareous, clayey soils that formed in clayey residuum weathered from calcareous mudstone of upper cretaceous age	Uplands / ridges, summits, shoulders, interfluves	42.0	low / low
LeC2	Lewisville silty clay, 3 to 5 percent slopes, eroded	Deep, well drained, calcareous, clayey soils that formed in calcareous clayey alluvium derived from mudstone	Stream terraces	0.4	moderate / high
Tf	Tinn clay, 0 to 1 percent slopes, frequently flooded	Deep, calcareous, clayey soils that formed in calcareous clayey alluvium	Flood plains	5.3	high / high

Sources: Abbot 2011; Hansen and Wheeler 1969; NRCS 2023; TxDOT 2022

Vegetation

Vegetation within the USACE parcels and along Lavon Lake is deciduous woodland, floodplain, and riparian hardwood forest. Native vegetation consists of tallgrass prairie of little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), yellow Indiangrass (*Sorghastrum nutans*), and tall dropseed (*Sporobolus asper*). The forests consist of bur oak (*Quercus macrocarpa*), Shumard oak (*Quercus shumardii*), sugar hackberry (*Celtis laevigata*), elm (*Ulmus crassifolia*), ash (*Fraxinus spp.*), eastern cottonwood (*Populus deltoides*), and pecan (*Carya illinoinensis*) (Griffith et al 2007).

Previous Investigations, Known Archeological Sites, and Cemeteries

Background research was conducted to collect general information on the prehistoric and historic resources in the area and to identify the locations and distribution of archeological sites and cemeteries within a study area of 1,000 meters from the 34.1-acre APE, as well as previously conducted cultural resources investigations. The primary reference used to gather the background information is the Texas Archeological Sites Atlas (TASA), maintained by the THC, to determine the presence of properties listed in the NRHP or designated as SALs.

The background review found five previous archeological investigations have taken place within 1,000 meters of the APE between 1952 and 2017. None of the previous surveys were identified within the USACE parcels. According to the TASA, these previous investigations are classified as survey projects (**Figure CR-5**: Archeological Sites, Surveys, and Cemeteries; **Table CR-2**: Previous Archeological Investigations).

Table CR-2. Previous Archeological Investigations within 1,000 meters of the USACE Parcels

Project Type	Year	Texas Antiquities Permit	Agency / Sponsor	Atlas ID Number	Distance (m)
Survey	1952	-	Smithsonian Institution	8500007003	Within boundary of Lavon Lake
Survey	1975	-	US Army Corps of Engineers (USACE)	8500008513	980 m southeast
Survey	1986	-	Soil Conservation Service	8500008517	580 m north
Survey	1987	-	Federal Highway Administration	8400007218	Within existing US 380 ROW
Survey	2017	7990	City of Farmersville / Daniel & Brown, Inc.	8500080400	735 m east

Source: TASA (2023)

The TASA review identified five previously recorded archeological sites within 1,000 meters of the 34.1-acre APE (see **Figure CR-5**; **Table CR-3**: Previously Recorded Archeological Sites). Of these, two are historic and three are prehistoric (TASA 2023). Three of these sites have unknown eligibility for listing in the NRHP or for designation as SALs, and two sites have been determined ineligible for listing in the NRHP or for designation as a SAL. Two of the prehistoric sites (41C0L36 and 41C0L65) have been inundated by the construction of Lavon Lake. One previously recorded site (41C0L56, a prehistoric lithic scatter) is south of Caddo Park. Site 41C0L56 has been previously determined ineligible for listing in the NRHP or for designation as a SAL.

Table CR-3. Previously Recorded Archeological Sites Located within 1,000 meters of the USACE Parcels

Site Number	Cultural Period	Site Type	NRHP Status	Distance (meters)
41COL25	Prehistoric	Prehistoric campsite	Unknown	910 Meters northeast
41COL36	Prehistoric	Sister Grove Creek Site; Wylie Focus pottery site; inundated by Lavon Lake	Unknown	915 Meters south
41COL56	Prehistoric	Prehistoric lithic scatter	Determined Ineligible	South of Caddo Park
41COL65	Prehistoric	Enloe Site; Wylie Focus pit dwelling, artifacts (inundated by Lavon Lake)	Unknown	145 meters south
41COL368	Historic	Early to mid-20 th century artifact scatter	Determined Ineligible	460 meters east

Source: TASA (2023)

The TASA review revealed one cemetery within 1,000 meters of the 34.1-acre APE (see **Figure CR-5**). The Islamic Association of Collin County (IACC) Farmersville Muslim Cemetery, established in 2020 and in operation since March 2021, is approximately 125 meters south of the proposed project ROW. No previously recorded cemeteries were identified on USACE property.

Archeological Survey

The majority of the 34.1-acre APE is located in areas with limited ground disturbances and the potential for intact soils. The USACE parcels 3201 and 3202 (identified by Collin Central Appraisal District [CCAD] as parcels of 1192300, 1185327, 1185336, 1181535, and 1181517) were surveyed using three to six parallel transects no greater than 30 meters apart, varying with the proposed alignment width. The remaining parcels were investigated using non-linear areal survey methods, with all investigations conducted in accordance with the Council of Texas Archeologist's *Intensive Terrestrial Survey Guidelines* (March 30, 2020) (**Figure CR-6**: Areas Surveyed; **Table CR-4**: USACE Parcels Investigated).

Table CR-4. USACE Parcels Investigated

USACE Tract ID	CCAD Property ID Parcel Number	Acreage	Survey Method	Survey Results
3200	1192266	0.2	Pedestrian; STs [N=2]	No cultural materials
3201	1192300	3.8	Pedestrian; STs [N=10]	No cultural materials
3202	1185327	0.3	Pedestrian	No cultural materials
	1185336	6.0	Pedestrian; STs [N=11]	No cultural materials
	1181535	5.0	Pedestrian; STs [N=8]	No cultural materials
	1181517	5.7	Pedestrian; STs [N=12]	No cultural materials
3206	1181296	0.04	Pedestrian; STs [N=1]	No cultural materials
3208-1	1178772 (north) Twin Groves Park	3.3	Pedestrian; STs [N=6]	No cultural materials
3208-2	1178772 (south) Twin Groves Park	0.6	Pedestrian; STs [N=2]	No cultural materials
E-421; 2811-2	1178745 Caddo Park	5.4	Pedestrian; STs [N=11]	No cultural materials
E-420; 2811-1	1178736	3.8	Pedestrian; STs [N=7]	No cultural materials

Shovel tests were conducted in settings having potential for shallowly buried cultural materials, and all exposed ground surfaces were examined for evidence of archeological resources. Shovel tests were 30 centimeters in diameter and excavated to the bottom of Holocene deposits, if possible, not exceeding 80 centimeters in depth. Shovel tests were dug in 20-centimeter levels, and all excavated soil screened through ¼-inch mesh, unless high clay or water content required, they be troweled through. Location, depth, soil strata, and presence/absence of cultural materials was recorded for each shovel test on field forms and the location recorded by a hand-held Trimble Global Positioning System unit. All shovel tests were backfilled upon completion. No cultural materials were identified during the intensive survey. A total of 66 of 70 shovel test locations were excavated within the 34.1-acre APE (Table CR-5: USACE Parcels Shovel Test Data). Four of the 70 proposed shovel test locations were identified in extremely disturbed areas, primarily due to underground utilities.

Table CR-5. USACE Parcels Shovel Test Data

USACE Tract ID Number 3200	CCAD Property ID Parcel Number 1192266	Shovel Test Number ST 1	Depth (centimeters below surface) 0-16 0-30 30-46	Sediment Color (Munsell) 10YR 4/2 10YR 4/2 10YR 3/2	Sediment Texture / Inclusions Silty clay; fill material Clay; roots Clay; 1-2% calcium carbonate; roots	Termination / Cultural Material Compact fill / No cultural materials Subsoil / No cultural materials
3201	1192300	ST 1	0-35 35-45	10YR 7/4 10YR 7/4	Sandy clay Sandy clay loam; 1-2% calcium carbonate	Subsoil / No cultural materials
3201	1192300	ST 2	0-10 10-38	10YR 3/1 10YR 4/1	Sandy clay Clay; 5% calcium carbonate	Subsoil / No cultural materials
3201	1192300	ST 3	0-25 25-40	10YR 3/1 10YR 4/1	Sandy clay Clay; 5% calcium carbonate	Subsoil / No cultural materials
3201	1192300	ST 4	0-13 13-38	2/5Y 4/2 2/5Y 3/1	Sandy clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3201	1192300	ST 5	0-30 32-45	10YR 4/2 10YR 3/1	Clay; 1-2% calcium carbonate Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3201	1192300	ST 6	0-36 36-53	10YR 3/1 10YR 4/2	Clay loam; roots Clay; 1-2% calcium carbonate; roots	Subsoil / No cultural materials
3201	1192300	ST 7	0-38	10YR 3/2	Sandy clay; 1-2% calcium carbonate	Compact clay / No cultural materials
3201	1192300	ST 8	0-32 32-48	10YR 4/2 10YR 3/1	Clay; 1-2% calcium carbonate Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3201	1192300	ST 9	0-14 14-45	10YR 4/1 10YR 3/1	Sandy clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials

USACE Tract ID Number	CCAD Property ID Parcel Number	Shovel Test Number	Depth (centimeters below surface)	Sediment Color (Munsell)	Sediment Texture / Inclusions	Termination / Cultural Material
3201	1192300	ST 10	0-25 25-35	10YR 2/1 10YR 5/3	Sandy clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1185336	ST 11	0-12 12-41 41-51	10YR 6/2 10YR 3/1 10YR 3/2	Silty loam; 5-10% surface gravel Clay Clay; 1-2% calcium carbonate	Subsoil - compact / No cultural materials
3202	1185336	ST 12	0-36 36-53	10YR 4/2 10YR 3/1	Clay; 1-2% calcium carbonate; roots Clay; 1-2% calcium carbonate; roots	Subsoil / No cultural materials
3202	1185336	ST 13	0-27	10YR 3/2	Sandy clay; 1-2% calcium carbonate; roots throughout	Root impasse / No cultural materials
3202	1185336	ST 14	0-28 28-36	10YR 4/2 10YR 3/2	Clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1185336	ST 15	0-45 45-56	10YR 4/1 10YR 3/1	Sandy clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1185336	ST 16	0-50 50-60	10YR 3/2 10YR 4/3	Sandy clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1185336	ST 17	0-32 32-42	10YR 4/2 10YR 5/3	Silty clay loam Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1185336	ST 18	0-35 35-44	10YR 4/2 10YR 6/4	Clay; roots Clay; 1-2% calcium carbonate; roots	Subsoil / No cultural materials
3202	1185336	ST 19	0-28 28-37	10YR 3/2 10YR 4/3	Sandy clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials

USACE Tract ID Number	CCAD Property ID Parcel Number	Shovel Test Number	Depth (centimeters below surface)	Sediment Color (Munsell)	Sediment Texture / Inclusions	Termination / Cultural Material
3202	1185336	ST 20	0-32 32-47	10YR 2/2 10YR 3/1	Clay; roots Clay; 1-2% calcium carbonate; roots	Subsoil / No cultural materials
3202	1185336	ST 21	0-33 33-43	10YR 4/1 10YR 3/1	Sandy clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1181535	ST 22	0-28 28-35	10YR 5/2 10YR 4/3	Silty clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1181535	ST 23	0-25 25-30	10YR 4/2 10YR 4/2	Clay; roots Clay; roots	Subsoil / No cultural materials
3202	1181535	ST 24	0-43 43-53	10YR 3/2 10YR 3/1	Clay; roots Clay; 1-2% calcium carbonate; roots	Subsoil / No cultural materials
3202	1181535	ST 25	0-32 32-44	10YR 3/2 10YR 4/3	Silty clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1181535	ST 26	0-10 10-50 50-56	10YR 4/2 10YR 3/1 10YR 5/2	Clay Clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1181535	ST 27	0-24 24-55	10YR 5/3 10YR 2/1	Sandy clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1181535	ST 28	0-32 32-45	10YR 3/2 10YR 4/3	Silty clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1181535	ST 29	0-40 40-45	10YR 4/2 10YR 5/2	Clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1181517	ST 30	0-42 42-52	10YR 3/2 10YR 4/2	Clay; roots Clay; 1-2% calcium carbonate; roots	Subsoil / No cultural materials

USACE Tract ID Number	CCAD Property ID Parcel Number	Shovel Test Number	Depth (centimeters below surface)	Sediment Color (Munsell)	Sediment Texture / Inclusions	Termination / Cultural Material
3202	1181517	ST 31	0-44 44-59	10YR 3/2 10YR 4/3	Silty clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
3202	1181517	ST 32	0-30 30-45	10YR 4/2 10YR 5/2	Clay; 1-2% calcium carbonate; roots Clay; 1-2% calcium carbonate; roots	Subsoil / No cultural materials
3202	1181517	ST 33	0-38 38-56	10YR 4/3 10YR 2/1	Sandy clay Clay; 2% calcium carbonate	Subsoil / No cultural materials
3202	1181517	ST 34	0-25 25-35	10YR 2/1 10YR 4/3	Silty clay Clay	Subsoil / No cultural materials
3202	1181517	ST 35	0-35 35-50	10YR 4/2 10YR 5/2	Clay; 1-2% calcium carbonate Clay; 1-2% calcium carbonate	Subsoil - compact /No cultural materials
3202	1181517	ST 36	0-25 25-35	10YR 4/1 10YR 2/2	Silty clay Clay	Subsoil / No cultural materials
3202	1181517	ST 37	0-45 45-60	10YR 4/2 10YR 4/3	Silty clay Clay	Subsoil / No cultural materials
3202	1181517	ST 38	0-40 40-56	10YR 3/2 10YR 5/2	Clay Clay	Subsoil - compact / No cultural materials
3202	1181517	ST 39	0-38 38-44	10YR 4/2 10YR 3/2	Silty clay Clay	Subsoil / No cultural materials
3202	1181517	ST 40	0-34 34-54	10YR 3/2 10YR 5/2	Clay Clay	Subsoil - compact / No cultural materials
3202	1181517	ST 41	0-37	10YR 6/3	Clay	Subsoil / No cultural materials
3206	1181296	ST 1	-	-	-	Utility disturbances / No cultural materials
3208-1	1178772 (north) Twin Groves Park	ST 1	0-23	10YR 3/6	Clay; 40% gravel	Gravel impasse / No cultural materials

USACE Tract ID Number	CCAD Property ID Parcel Number	Shovel Test Number	Depth (centimeters below surface)	Sediment Color (Munsell)	Sediment Texture / Inclusions	Termination / Cultural Material
3208-1	1178772 (north) Twin Groves Park	ST 2	-	-	-	Slope; utility disturbances / No cultural materials
3208-1	1178772 (north) Twin Groves Park	ST 3	0-40 40-45	10YR 6/1 10YR 5/1	Silty clay Clay; 2-5% calcium carbonate	Subsoil / No cultural materials
3208-1	1178772 (north) Twin Groves Park	ST 4	0-25 25-40 40-46	10YR 4/2 10YR 3/1 mottled with 10YR 6/6 10YR 6/6	Clay; 20-30% fill material Clay Clay	Subsoil / No cultural materials
3208-1	1178772 (north) Twin Groves Park	ST 5	0-20 20-35 35-45	10YR 4/2 10YR 3/1 mottled with 10YR 6/6 10YR 6/6	Clay; 20-30% fill material Clay Clay	Subsoil / No cultural materials
3208-1	1178772 (north) Twin Groves Park	ST 6	0-22 22-34 34-44	10YR 4/2 10YR 5/3 mottled with 10YR 6/6 10YR 6/6	Clay; 1-2% fill material Clay; 1-2% fill material Clay; <1% calcium carbonate	Subsoil / No cultural materials
3208-2	1178772 (south) Twin Groves Park	ST 7	0-9 9-27	10YR 3/2 10YR 5/3 mottled with 10YR 3/2	Clay; 60-70% fill material Clay; 30-50% fill material	Disturbances / No cultural materials
3208-2	1178772 (south) Twin Groves Park	ST 8	0-20 20-30	10YR 5/2 10YR 6/4	Sandy clay Clay; 2-5% calcium carbonate	Subsoil / No cultural materials
E-421	1178745 Caddo Park (41COL56)	ST 1	0-19 19-53	10YR 4/2 10YR 4/3	Sandy clay Clay; 1-2% calcium carbonate	Disturbances / No cultural materials
2811-2	1178745 Caddo Park (41COL56)	ST 2	0-19 19-46	10YR 5/2 2.5Y 5/2	Clay loam; fill material Clay; 1-2% calcium carbonate	Disturbances / No cultural materials

USACE Tract ID Number	CCAD Property ID Parcel Number	Shovel Test Number	Depth (centimeters below surface)	Sediment Color (Munsell)	Sediment Texture / Inclusions	Termination / Cultural Material
2811-2	1178745 Caddo Park (41COL56)	ST 3	0-23 23-35	10YR 4/2 10YR 4/3	Sandy clay Clay; 1-2% calcium carbonate	Disturbances / No cultural materials
2811-2	1178745 Caddo Park (41COL56)	ST 4	0-44	10YR 5/6 mottled with 10YR 4/2	Clay; fill material; 1-2% calcium carbonate	Disturbances / No cultural materials
2811-2	1178745 Caddo Park (41COL56)	ST 5	0-15 15-49 49-63	10YR 5/2 10YR 4/2 10YR 4/6	Sandy clay Sandy clay loam Clay	Subsoil / No cultural materials
2811-2	1178745 Caddo Park	ST 6	0-33 33-49	10YR 4/2 2.5Y 5/4 mottled with 2.5Y 5/4.1	Clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
2811-2	1178745 Caddo Park	ST 7	0-20	10YR 5/6	Clay; fill material	Disturbances / No cultural materials
2811-2	1178745 Caddo Park	ST 8	0-31 31-40	10YR 4/2 2.5Y 5/4 mottled with 2.5Y 5/4.1	Clay Clay; 1-2% calcium carbonate	Subsoil / No cultural materials
2811-2	1178745 Caddo Park	ST 9	-	-	-	Utility disturbances / No cultural materials
2811-2	1178745 Caddo Park	ST 10	-	-	-	Utility disturbances / No cultural materials
2811-2	1178745 Caddo Park	ST-11	0-8 8-29 29-46	10YR 4/1 10YR 4/2 mottled with 10YR 5/4 10YR 6/6 mottled with 10YR 4/1 and 10YR 8/2	Clay Ioam Clay Clay	Extremely disturbed / No cultural materials
2811-1	1178736	ST 1	0-9 9-52 52-58	10YR 5/2 10YR 3/2 10YR 4/2	Fine sand Silty clay Silty clay; 1-2% calcium carbonate	Subsoil / No cultural materials

USACE Tract ID Number	CCAD Property ID Parcel Number	Shovel Test Number	Depth (centimeters below surface)	Sediment Color (Munsell)	Sediment Texture / Inclusions	Termination / Cultural Material
2811-1	1178736	ST 2	0-10 10-54 54-60	10YR 4/3 10YR 4/2 10YR 3/2	Sandy clay loam; road fill Clay Clay	Subsoil / No cultural materials
2811-1	1178736	ST 3	0-35 35-54	10YR 3/2 10YR 3/1	Clay; Road fill 0- 20 Clay; <1% calcium carbonate	Subsoil / No cultural materials
2811-1	1178736	ST 4	0-15 15-38	10YR 4/3 mottled with 10YR 5/8 10YR 4/2	Clay; 1-2% gravel, road fill Clay; 1-2% road fill; <1% calcium carbonate	Disturbances throughout; heavily compacted / No cultural materials
2811-1	1178736	ST 5	0-25 25-45 45-53	10YR 3/3 10YR 3/2 10YR 4/2	Unconsolidated clay Clay Clay; 1% calcium carbonate	Disturbances throughout / No cultural materials
2811-1	2647430	ST 6	0-19 19-32 32-46	10YR 5/3 10YR 6/2 10YR 6/1 mottled with 10YR 6/6	Clay Clay Hydric clay soils	Subsoil / No cultural materials
2811-1	2647430	ST-7	0-29 29-49	2.5YR 4/2 2.5YR 4/2	Clay loam Clay, 20-30% decomposing bedrock	Subsoil / No cultural materials

Revisit of Site 41COL56

One previously recorded archeological site was revisited during the current investigation of the USACE-owned parcels. Previously identified archeological site 41COL56, a prehistoric lithic scatter, is mapped by the TASA as partially located in an area that is heavily disturbed within, and adjacent to, the existing US 380 ROW. With no site boundary available, the site may extend within the southwestern portion of the USACE-controlled Caddo Park, immediately north of the ROW along the eastern bank of Lavon Lake. The site was previously revisited by Geo-Marine in 2003 and could not be relocated. The THC determined the site as ineligible for inclusion in the NRHP or for designation as an SAL.

The portion of the potential location of site 41COL56 within Caddo Park was visually inspected, supplemented with five shovel tests within the park boundary. The surveyed area is within deciduous woodland and grasses along a steep cutbank adjacent to the existing US 380 ROW,

with ground surface visibility at zero percent at the placement of the shovel tests. A typical shovel test consisted of dark grayish brown (10YR 4/2) sandy clay and grayish brown (10YR 5/2) clay deposits underlain by very dark grayish brown (10YR 3/2) and brown (10YR 4/3) clay B-horizon. All shovel tests were negative for cultural materials. No evidence of the site was identified during survey and the site boundary is currently undetermined. No further investigations are recommended for site 41COL56.

Summary and Recommendations for Archeological Resources

The Principal Investigator and project archeologists conducted an intensive archeological survey of the US 380 Princeton Project between September 5 and October 20, 2023, to identify possible cultural resources within the 34.1-acre APE located on USACE-owned parcels. The investigation included visual inspection of the APE, supplemented with the excavation of 66 of 70 shovel test locations in areas exhibiting intact soils. Four of the 70 proposed shovel test locations were identified in extremely disturbed areas, primarily due to underground utilities. Shovel tests ranged from 16 to 63 centimeters in depth, with an average depth of 44 centimeters before encountering subsoil, fill material, or compacted calcareous hardpan clay soils.

No archeological materials were encountered, and no unrecorded archeological sites were discovered. Based on the results of the investigation, the US 380 Princeton Project would have no effect on archeological sites/historic properties and/or SALs within the 34.1-acre APE. Any future design changes would require additional review and/or investigation.

No deep mechanical prospection (e.g., trackhoe, backhoe) was conducted within the USACE parcels during this phase of the intensive survey. Deep mechanical prospection is recommended to be conducted within high probability areas containing soils exhibiting the greatest potential to contain buried and intact archeological sites where deep impacts will occur. Trenches will be concentrated in areas that are accessible to a mechanical excavator. Ideally, these will be in areas designated as proposed bridge pier locations, in areas determined to have the deepest impact during construction, and areas exhibiting potential to contain intact archeological sites >1 meter in depth.

If any prehistoric or historic human remains or unmarked burials are encountered at any point during construction, the area of the remains should be avoided until a qualified person, as defined by §711.0105(a) under the Texas Health and Safety Code, can determine the status of the remains. Any area determined to contain the intentional burial of the remains is considered a cemetery under current Texas law. Cemeteries are protected under provisions of the Texas Health and Safety Code in Chapters 711-715 (Title 13, § 2, Chapter 22 of the TAC), and in Section 28.03(f) of the Penal Code. All cemeteries are protected and cannot be disturbed. The Texas Penal Code provides that intentional damage or destruction inflicted on a human burial site is a state jail felony. If a cemetery is identified in the Project APE, all work in the area of the discovery must cease, and the THC must be notified by contacting the Archeology Division at (512) 463-6096. Following consultation with the THC, a treatment or avoidance plan would be developed and implemented.

Historic Resources

A historic resources reconnaissance level survey was conducted for the project in compliance with Section 106 of the NHPA, as amended, and in accordance with the PA among the FHWA, TxDOT, the THC/SHPO, and the ACHP. In accordance with the PA the historic resources APE for this project is 150 feet beyond the proposed ROW of the existing transportation corridor and 300 feet beyond the proposed ROW on new location. The historic-age cutoff date for the survey was defined as the letting date for the project minus 45 years to allow for project delays. The letting date for this project is 2027; therefore, the historic-age cutoff date used for the survey is 1982 (2027 minus 45 years = 1982).

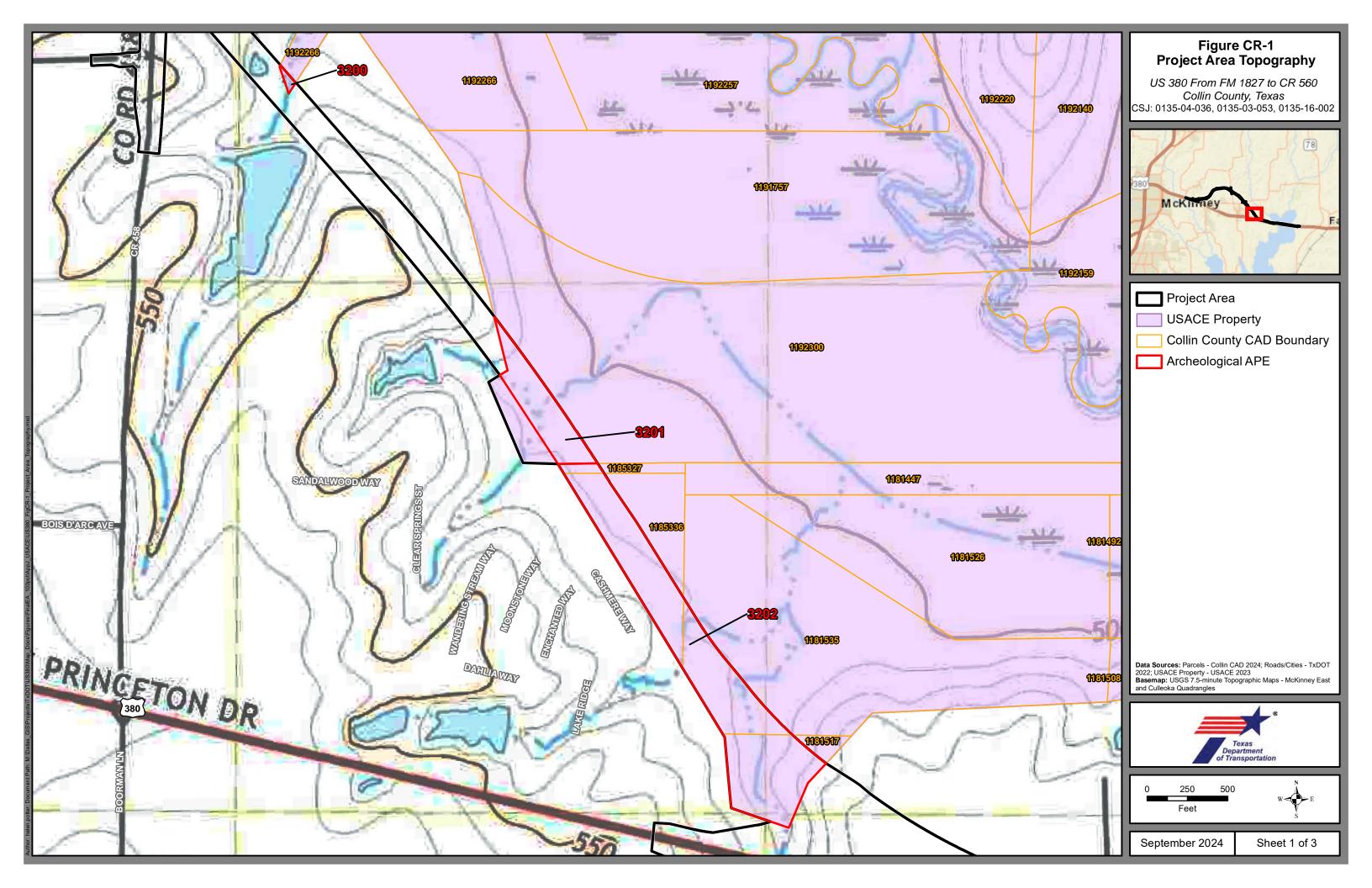
Prior to fieldwork, background research was conducted to identify if historic-age resources are present within the APE. Sources used to identify historic-age resources included topographic maps, historic aerial photography, and CCAD data. The reconnaissance-level field survey for historic-age resources was conducted between November 15, 2022, and November 17, 2022. A total of 72 parcels containing 108 historic-age resources were recorded within the APE. Of these resources one NRHP-eligible historic district, Caddo Park at Lavon Lake (Resource 68), was identified within USACE parcels.

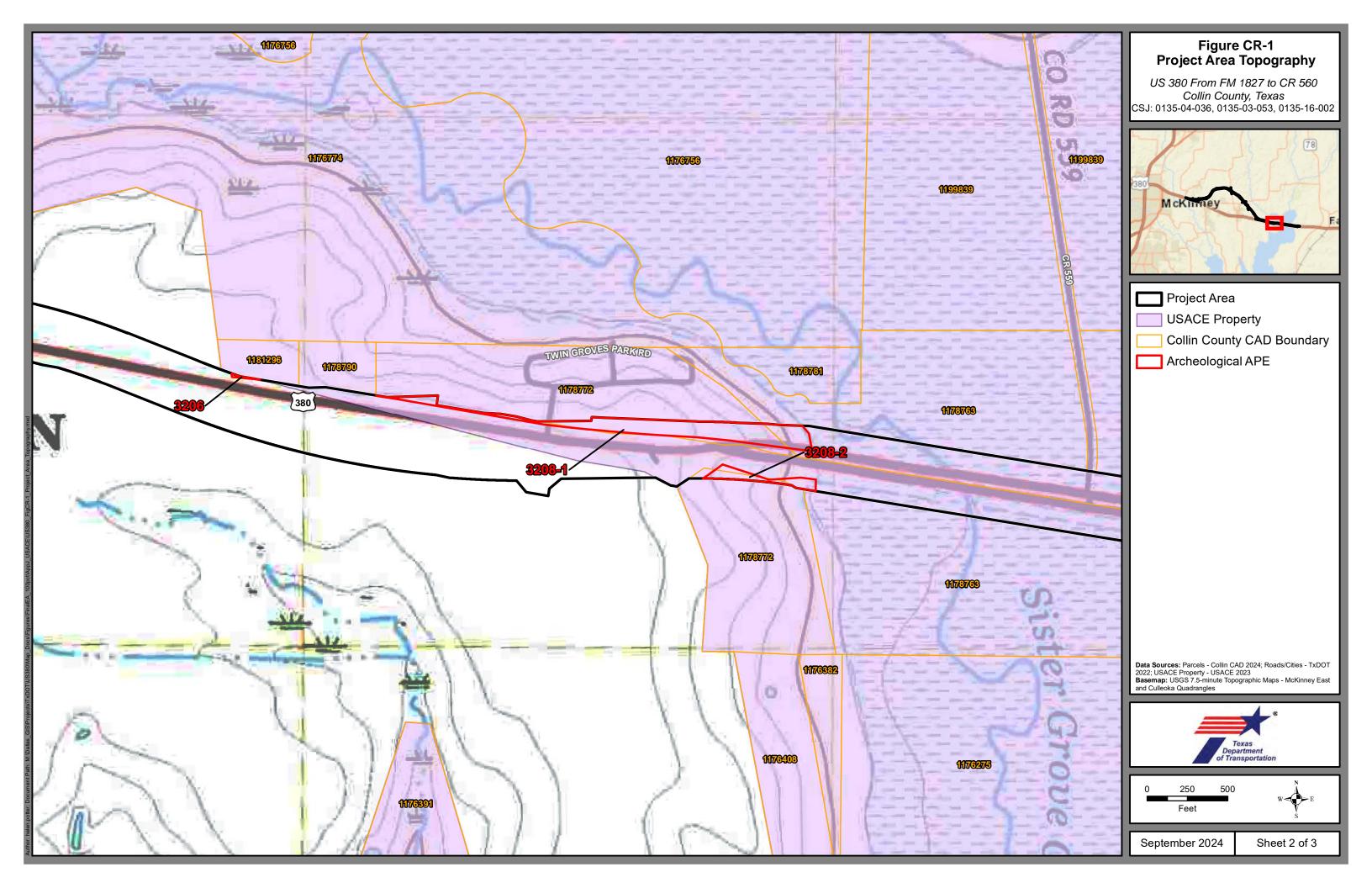
Caddo Park at Lavon Lake (Resource 68) was determined eligible for listing in the NRHP in the 2022 US 380 Farmersville Historic Resources Survey Report (CSJs 0135-05-028, 0135-04-038, 0135-17-002, 0135-06-038) prepared by Smith CRM, LLC, and was identified in that report as Resource 01a through 01dd. The resource was determined NRHP-eligible as a Historic District under Criterion A for Entertainment/Recreation and Criterion C for Design as recognition for its significance in promoting public accessibility. The contributing resources to the historic district are Resources 01a through 01aa (Figure CR-7: Caddo Park Lavon Lake Historic District). Resources 01bb through 01dd are non-contributing resources. No new information was identified during the course of this investigation to dispute the previous determination; therefore, it remains to be that the property is recommended eligible for listing in the NRHP as a Historic District at the state level.

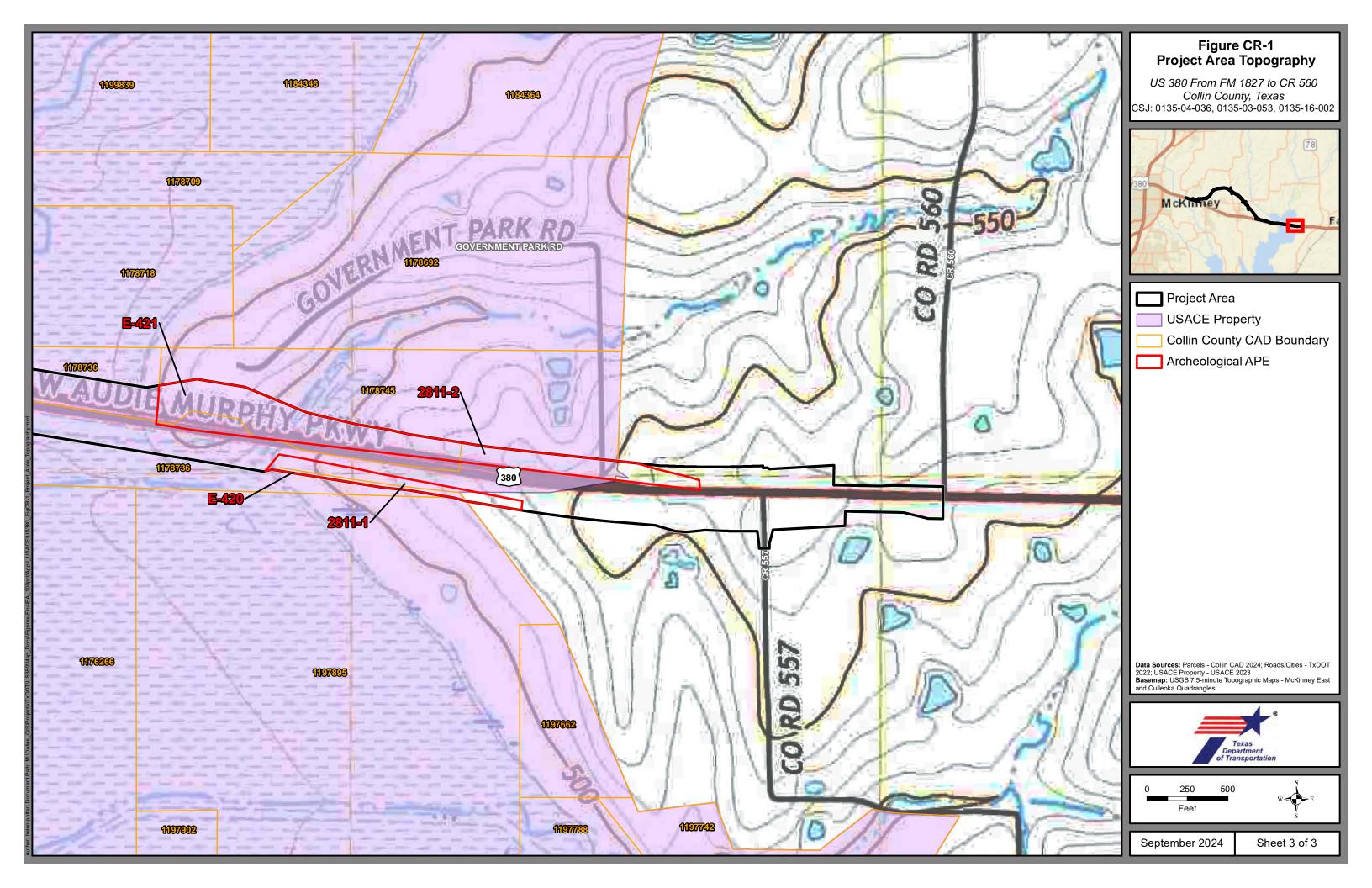
Summary and Recommendations for Historic Resources

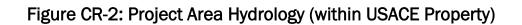
The Caddo Park at Lavon Lake Historic District boundaries encompass approximately 106.6 acres of the Caddo Park's approximate 160 acres. The amount of proposed ROW to be acquired by TxDOT from the historic property has changed from 2.41 acres to 0.21 acres. The proposed project would require approximately 0.56 acres of existing ROW, 3.67 acres of existing USACE easement, and 0.17 acres of proposed ROW from Caddo Park Lavon Lake Historic District (Resource 68) along the existing US 380 ROW. Although the amount of acreage for the proposed ROW has been reduced, the change has increased the extent of the acquisition from approximately 648 feet to approximately 2,083 feet along the southern boundary of the historic district abutting existing TxDOT ROW. The proposed ROW does not contain any contributing resources; however, Resource 01a is within existing ROW and Resource 01b abuts the existing ROW, both are contributing to the historic district. Due to the proposed ROW being in a similar location as the existing ROW, it is recommended that the proposed project will not affect any future use of the park or its amenities and that the proposed project will cause no adverse effect to the Caddo Park at Lavon Lake Historic District. No other historic-age resources were identified within USACE parcels.



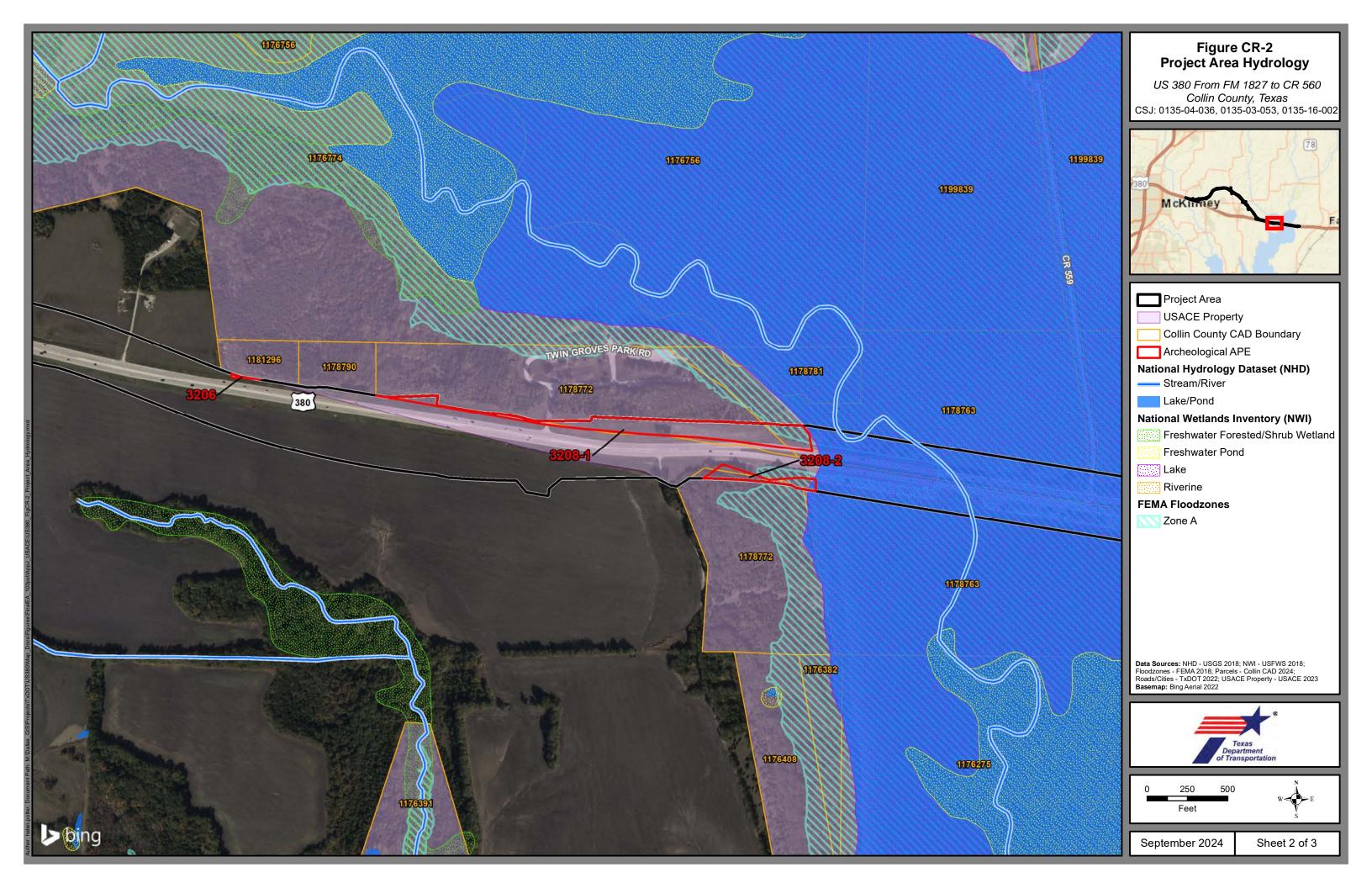


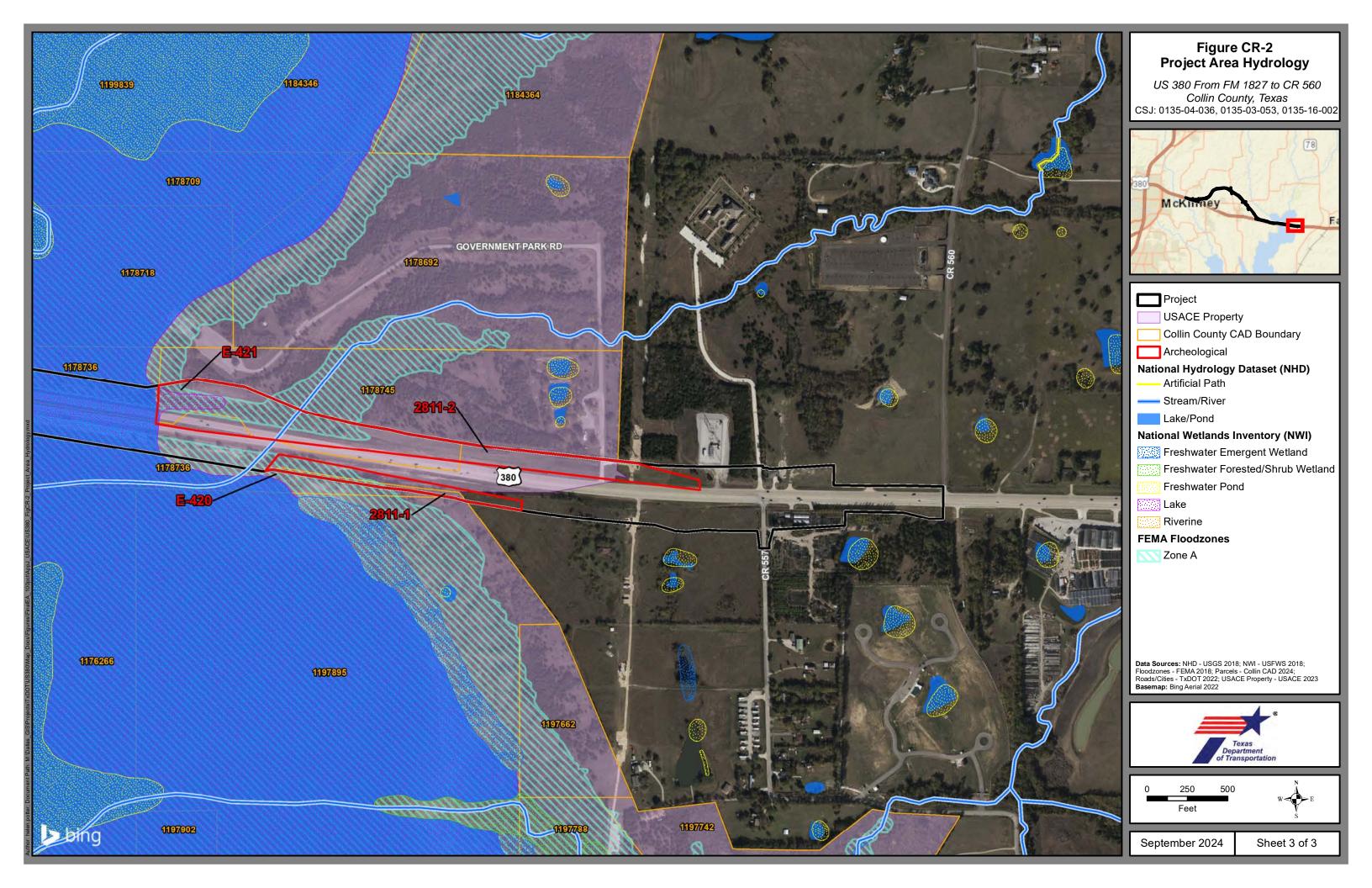




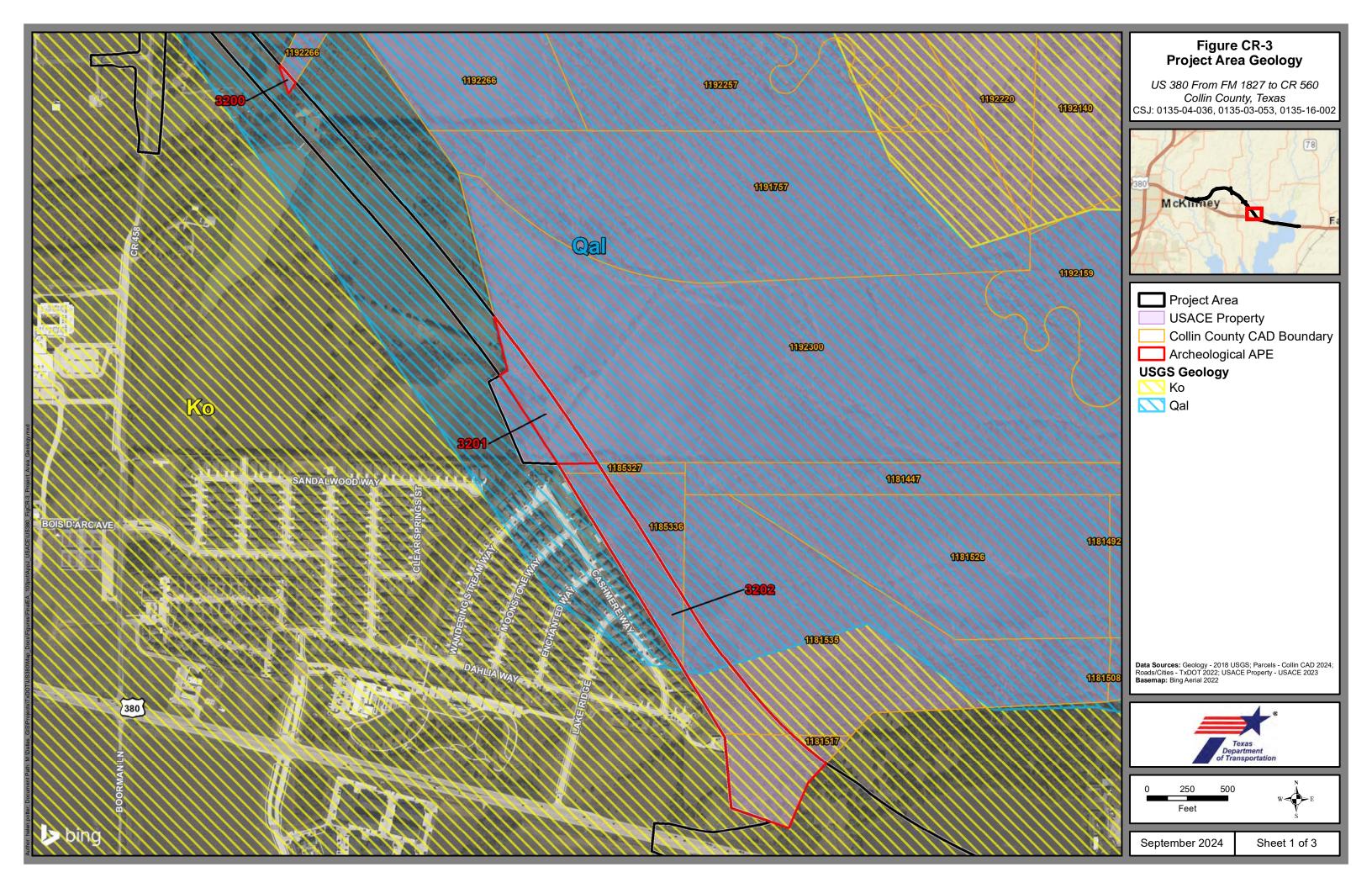


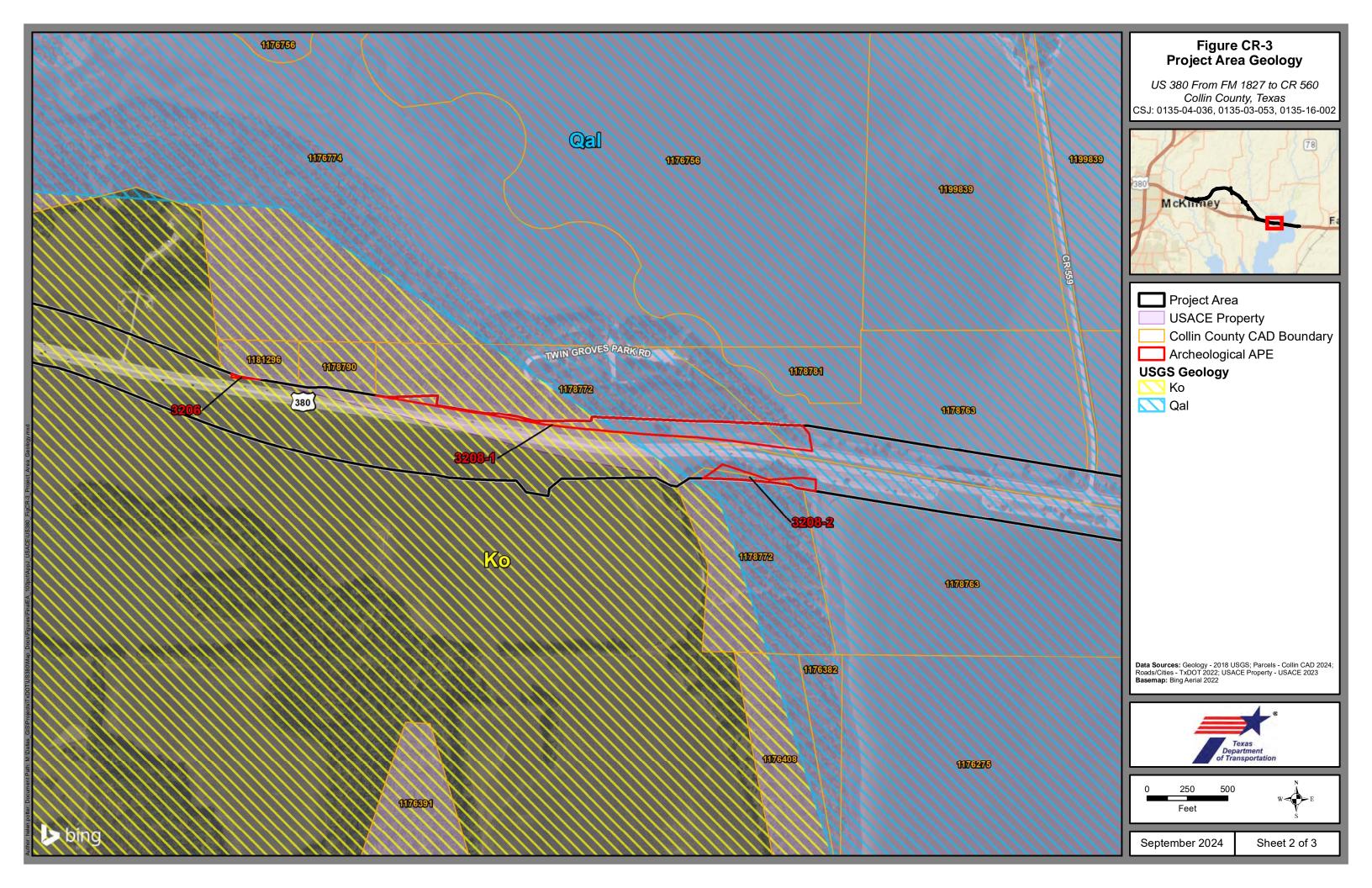






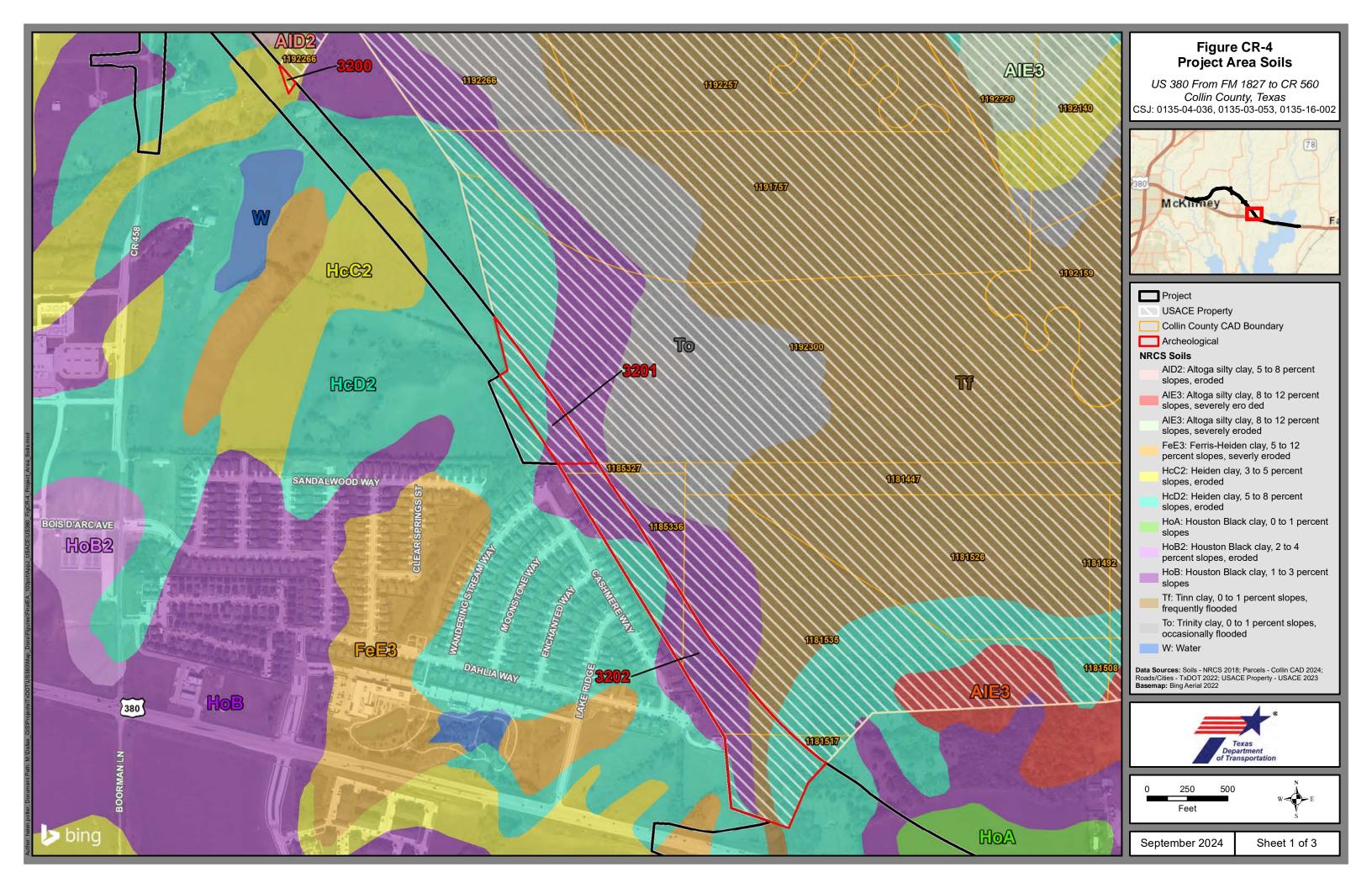


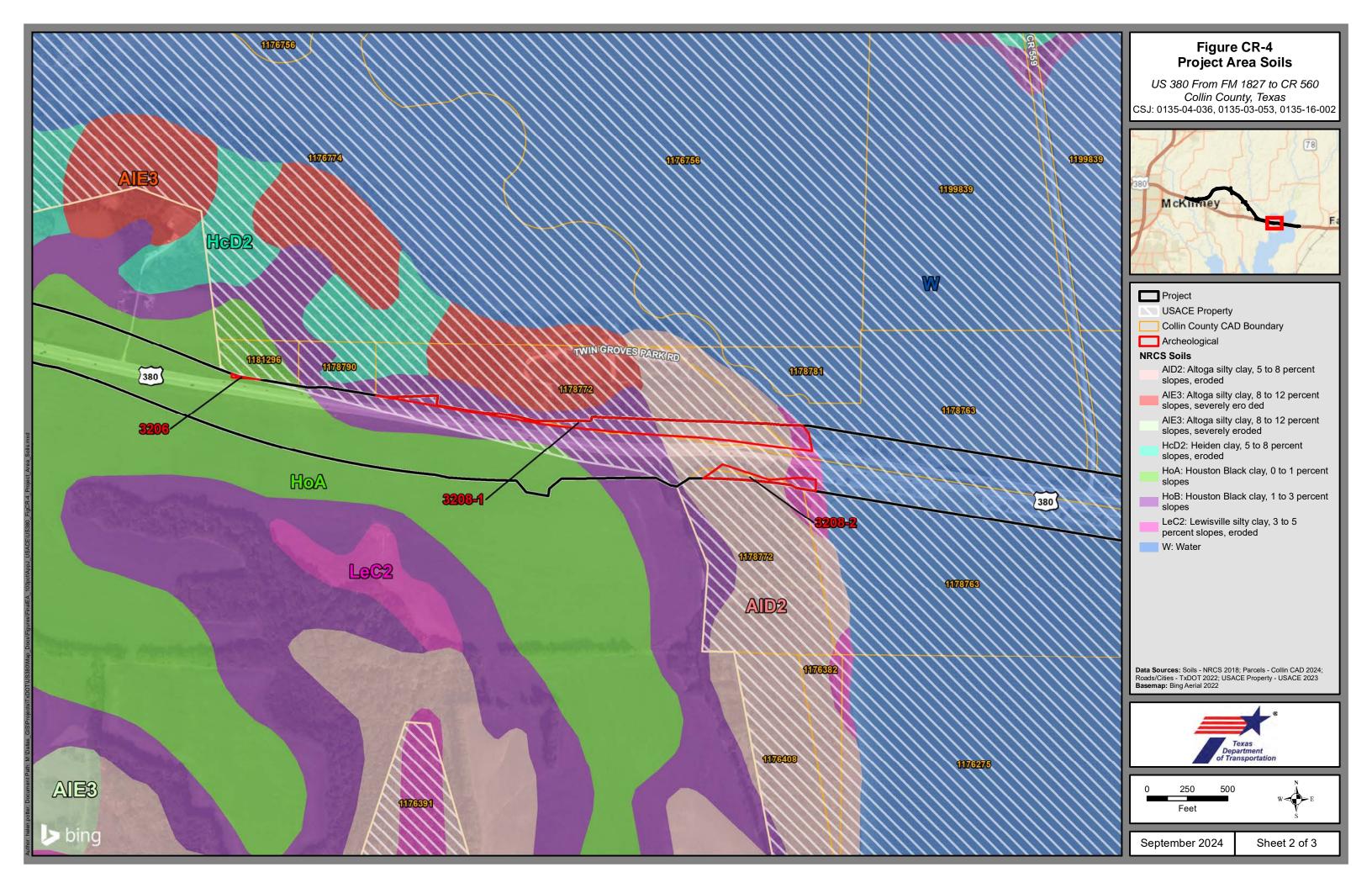












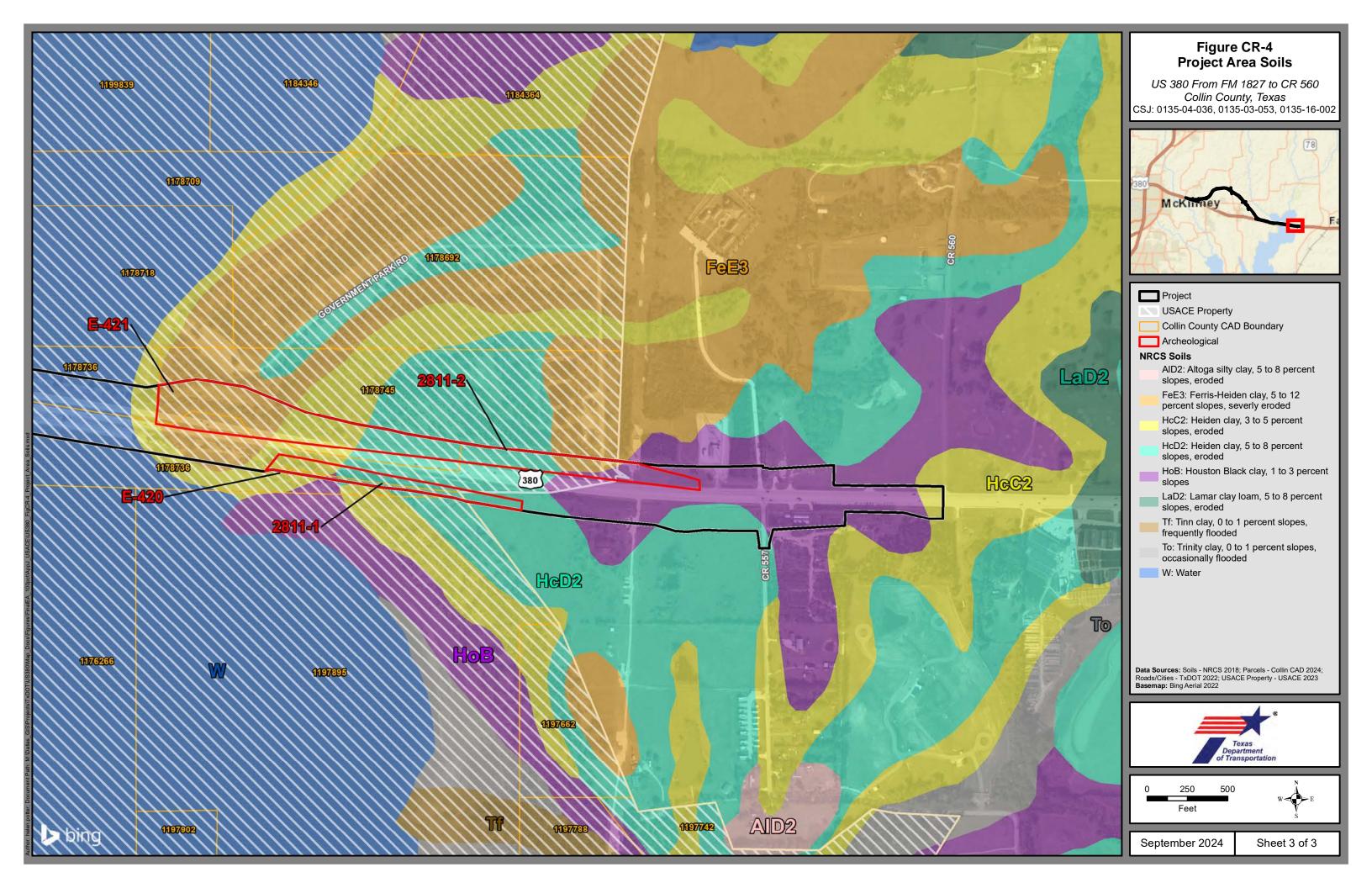
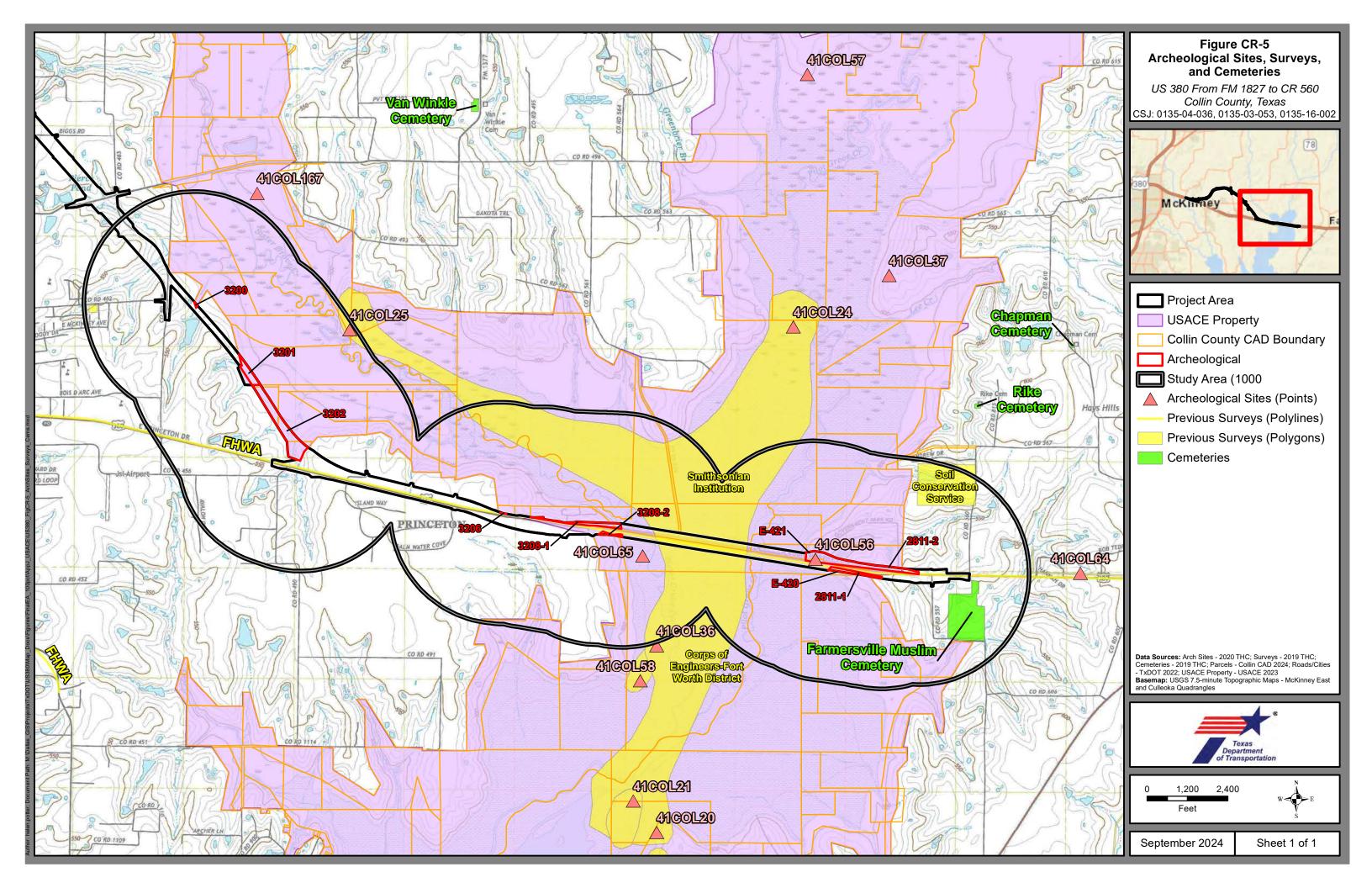
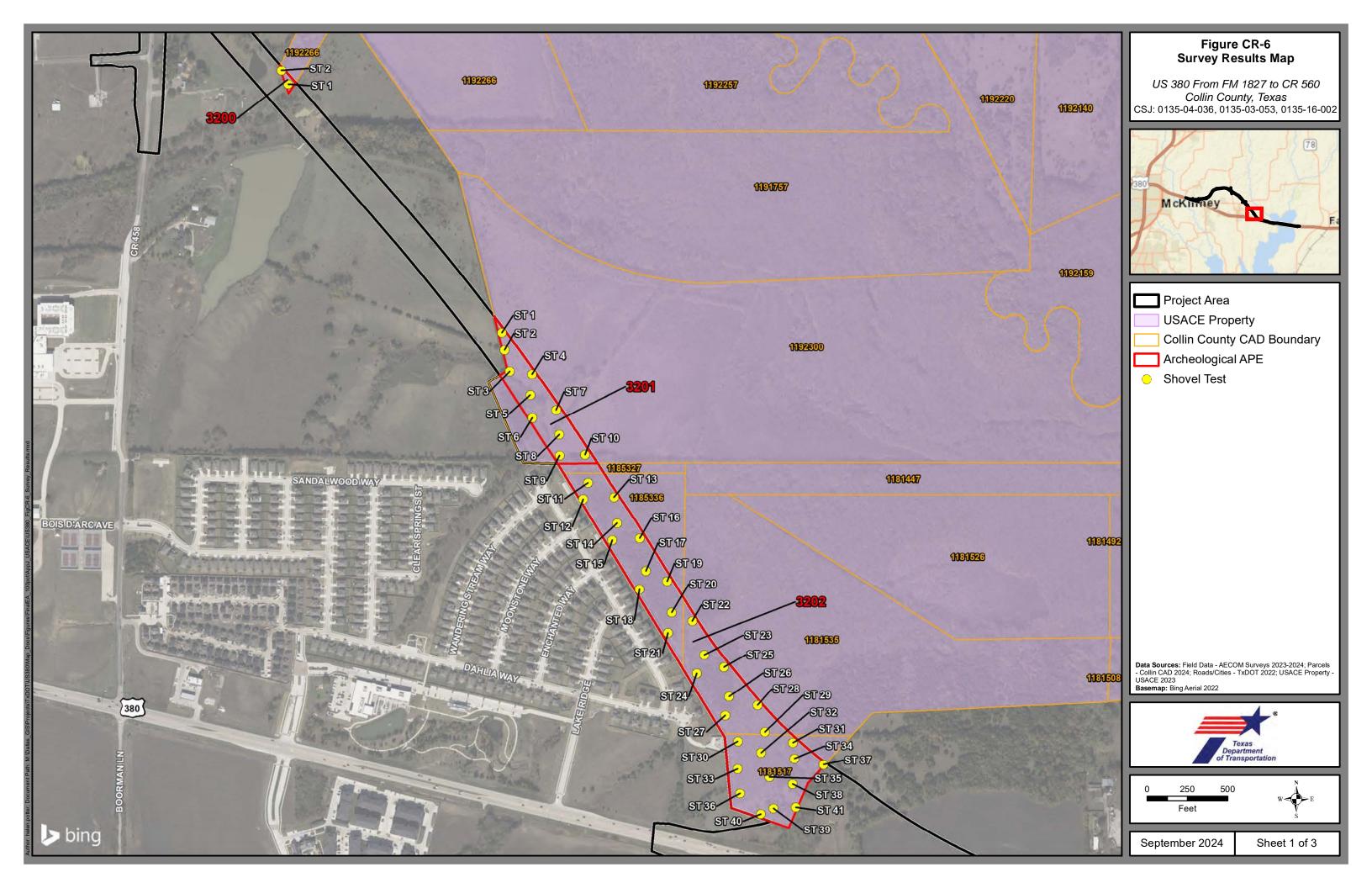


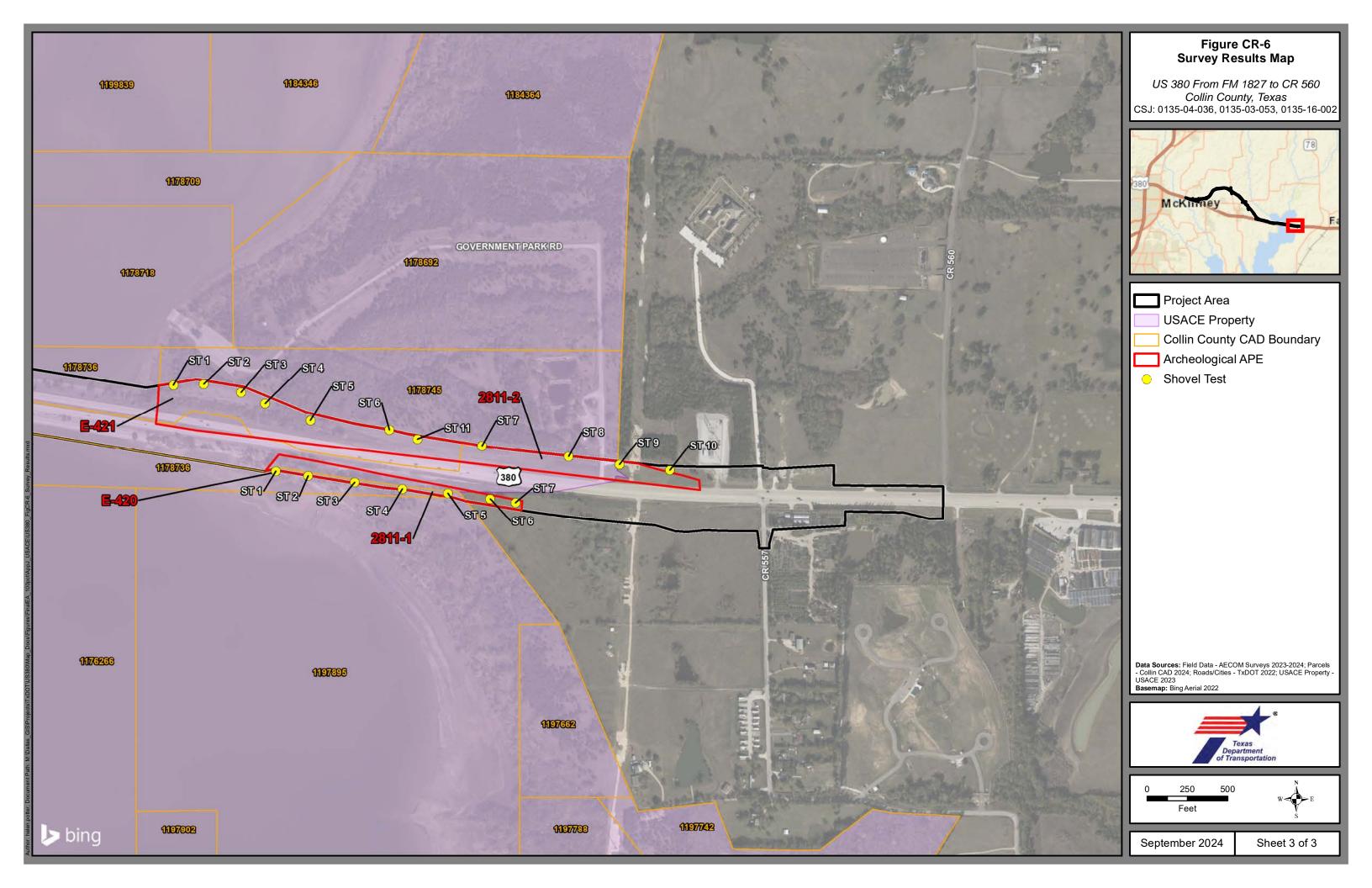
Figure CD 5: Archaelegical Sites, Surveyo, and Compterios (within USACE Proporty)
Figure CR-5: Archeological Sites, Surveys, and Cemeteries (within USACE Property)



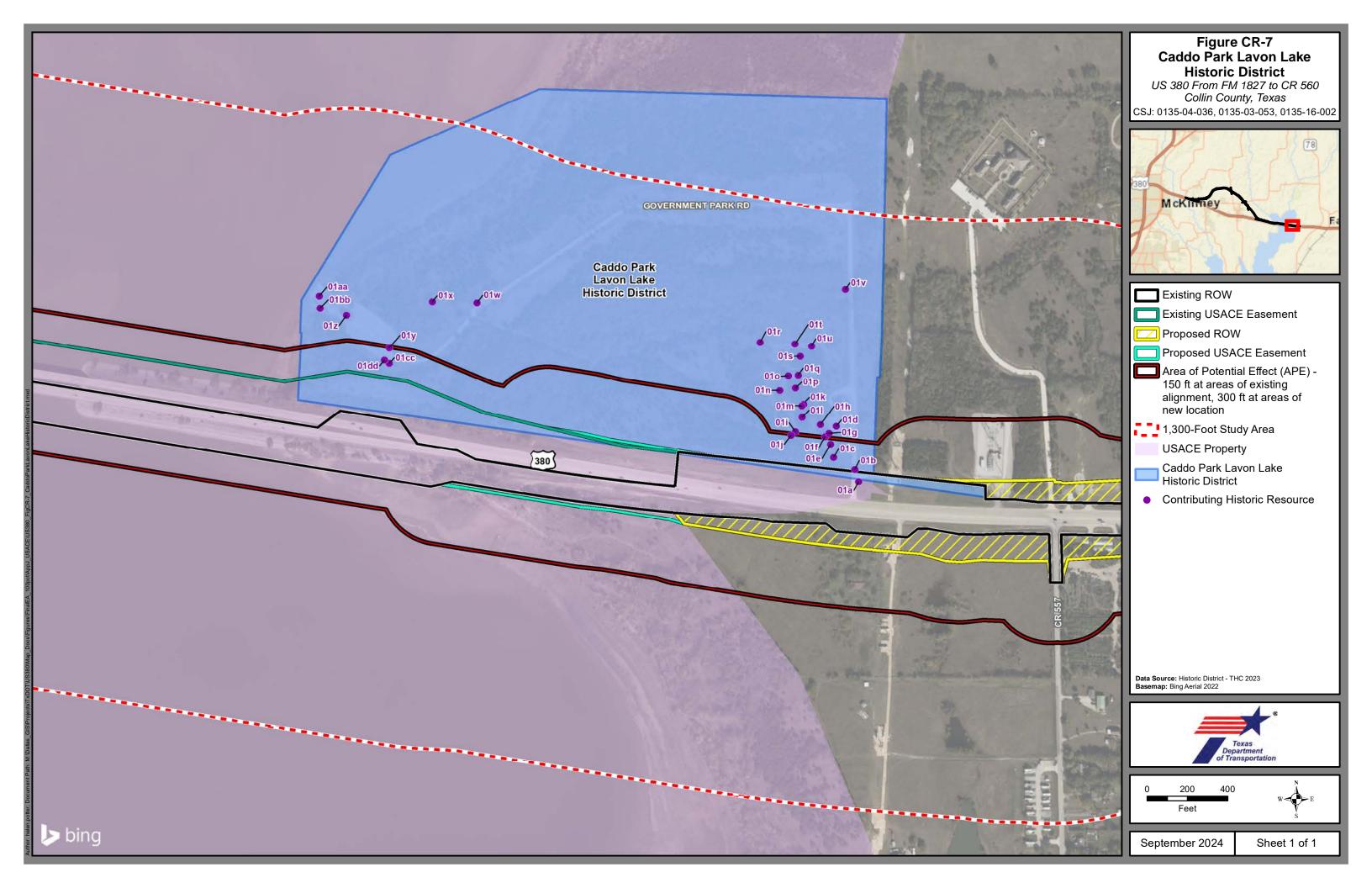












PROTECTED LANDS - USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

Six properties within and adjacent to the US 380 Princeton project area meet the definitions of protected public lands and recreational facilities described in this section. Caddo Park, Twin Groves Park, Wildlife Management Area (WMA), and Lavon Lake Property are operated by USACE and would require a total of approximately 25.06 acres of proposed ROW.

The proposed project would require the use of, or substantially impair the purposes of publicly owned land from a park, recreational area, wildlife and waterfowl refuge lands, or historic sites of national, state, or local significance; therefore, a Section 4(f) evaluation is required. This Section 4(f) evaluation is being prepared to comply with Section 4(f) of the Department of Transportation Act of 1966 (23 USC 138) and FHWA's regulations implementing Section 4(f) (23 CFR Part 774). The Individual Section 4(f) Report is currently being developed for review.

The project would require the use of six Section 4(f) properties:

- 1. Lavon Lake Wildlife Management Area
- 2. Lavon Lake Low Density Recreation Area
- 3. Twin Groves Park
- 4. Caddo Park
- Lavon Lake Vegetative Management Area
- 6. Caddo Park Lavon Lake Historic District

Description of Protect Lands

Lavon Lake Wildlife Management Area

Lavon Lake is a multipurpose reservoir property owned and operated by USACE. The lake and associated federal lands are located within Collin County along the East Fork of the Trinty River approximately 22 miles northeast of Dallas, Texas. The northern extent of the lake lies between the cities of Princeton and Farmersville; US 380 crosses Lavon Lake connecting the two cities as well as points east and west of the lake. The Lavon Lake property, originally constructed in the 1950s, is publicly owned and managed for public recreation, environmental stewardship, flood risk management, and water conservation (USACE 2016). The total area of the lake and surrounding public lands is approximately 16,606 acres and in addition to the water surface, it includes the following land classifications: High Density Recreation, Environmentally Sensitive Areas, Low Density Recreation, Wildlife Management, and Vegetation Management. Each of the individual land classifications within the larger Lavon Lake Section 4(f) property are considered separate Section 4(f) properties for the purposes of this evaluation.

According to the USACE Lavon Lake Master Plan, the WMA at Lavon Lake encompasses approximately 6,480 acres (USACE 2016). The WMA is not contiguous and is typically found along major tributaries to the lake. USACE manages these areas to support native vegetation and native wildlife species. The public uses the WMA for hiking, horseback riding on existing trails, bank fishing, canoeing and kayaking, and hunting (USACE 2016).

Lavon Lake Low Density Recreation Area

The Lavon Lake Low Density Recreation Area to the south of US 380 opposite Twin Groves Park is publicly owned land managed by USACE for public recreation use. Within the larger Lavon Lake property, Low Density Recreation Areas make up 2,468 acres (USACE 2016), approximately 15 percent of the total area. These lands are generally narrow parcels adjacent to private residential areas. The lands are typically open to the public, including adjacent landowners, for pedestrian traffic and are frequently used for access to the shoreline of the lake (USACE 2016).

Twin Groves Park

Operated by USACE, Twin Groves Park covers approximately 115 acres. Twin Groves Park, is directly adjacent to the project near the eastern project limits, west of Lavon Lake Bridge. The park features two restrooms, a two-lane boat ramp and two large parking lots. According to the USACE Lavon Lake Master Plan, the park receives little visitation outside of fishing and duck hunting season (USACE 2016). The shallow nature of the lake and shoreline in this area provides favorable conditions for ducks and catfish, and the park is used primarily as an access point for hunting and fishing. USACE does not charge fees for the public to enter and enjoy the park.

Caddo Park

Operated by USACE, Caddo Park encompasses 515 acres at Lavon Lake. Caddo Park, is directly adjacent to the project near the eastern project limits, east of Lavon Lake Bridge. The park includes 3 fishing ponds, 13 picnic sites, 2 restrooms, and a four-lane boat ramp. Caddo Park was identified as an eligible historic property (Caddo Park Lavon Lake Historic District). The proposed alignment would not displace contributing resource or change the function of the parks.

Lavon Lake Vegetative Management Area

The Lavon Lake Vegetative Management Area to the south of US 380 opposite Caddo Park is publicly owned land managed by USACE for public recreation use. Although no designated public access is provided from US 380 to the USACE property, there is evidence of material laydown within the existing State-owned ROW, and this area is used by the public as an entry point to the eastern shoreline of Lavon Lake. Within the larger Lavon Lake property, Vegetative Management Areas make up 824 acres (USACE 2016), approximately 5 percent of the total area. These lands include two parcels on the east side of the lake intended for prairie restoration efforts. Public use of these lands includes bank fishing and pedestrian access, and hunting is allowed in the area adjacent to US 380 opposite Caddo Park (USACE 2016).

Caddo Park Lavon Lake Historic District

Caddo Park was determined eligible for listing in the NRHP in 2022 as a Historic District under Criterion A for Recreation and Criterion C for Design at the State Level. The historic district boundary consists of 106.6 acres, and the contributing resources associated with the historic district are identified as Resources 01a through 01aa in the US 380 Historical Resources Survey Report (TxDOT 2023b).

Conclusion Regarding Protect Lands

Conclusion Regarding Lavon Lake Wildlife Management Area

The proposed improvements to US 380 would require the permanent incorporation of 23.00 acres of permanent easement from the Lavon Lake WMA, publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would convert wildlife habitat to transportation use in a small portion of the WMA (0.33 percent of the total area), although it would not impair the activities, attributes, or features of the overall WMA to the extent that the public recreational use and enjoyment of the overall property could not continue.

Conclusion Regarding Lavon Lake Low Density Recreation Area

The proposed improvements to US 380 would require the permanent incorporation of 0.29 acres of permanent easement from the Low Density Recreation area publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would not impair the activities, attributes, or features of the Lavon Lake Low Density Recreation Area.

Conclusion Regarding Twin Groves Park

The proposed improvements to US 380 would require the permanent incorporation of 0.02 acres of ROW and 0.53 acres of permanent easement from Twin Groves Park, publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would not impair the activities, attributes, or features of Twin Groves Park.

Conclusion Regarding Caddo Park

The proposed improvements to US 380 would require the permanent incorporation of 0.17 acres of permanent easement from Caddo Park, publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would not impair the activities, attributes, or features of Caddo Park.

Conclusion Regarding Lavon Lake Vegetative Management Area

The proposed improvements to US 380 would require the permanent incorporation of 1.07 acres of permanent easement from the Lavon Lake Vegetative Management Area publicly owned and operated by USACE. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would not impair the activities, attributes, or features of the Lavon Lake Vegetative Management Area.

Conclusion Regarding Caddo Park Lavon Lake Historic District

The proposed improvements to US 380 would require the permanent incorporation of 0.17 acres of permanent easement from the Caddo Park Lavon Lake Historic District. As defined in 23 CFR 774.17, there are no feasible and prudent alternatives to the use, and the proposed project includes all possible planning to minimize harm to the Section 4(f) property. The proposed use would have no adverse effect to the Caddo Park Lavon Lake Historic District.

Section 6(f)

There are no Section 6(f) properties adjacent to the project. The proposed project would not require the conversion of properties funded by the Land and Water Conservation Fund program to a non-outdoor public recreation use; therefore, a Section 6(f) evaluation is not required.

Chapter 26 Texas Parks and Wildlife Code

The proposed project would require the use or acquisition of public land designated and used prior to the arrangement of the project as a park, recreation area, scientific area, wildlife refuge, or historic site; therefore, Chapter 26 of the Texas Parks and Wildlife Code would apply to the proposed project.

WATER RESOURCES - USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

Waters of the U.S.

As discussed in Section 5.10, Waters of the U.S. of the EA, Section 404 of the Clean Water Act (CWA) regulates discharges of dredged or fill material into waters of the U.S. **Tables WR-1 through WR-2** provide details on the features present within the USACE properties and estimated impacts of the proposed project.

Table WR-1 lists the waters that are potentially jurisdictional waters in which regulated activity is anticipated to take place. It also indicates whether the impacts are anticipated to be authorized under Section 404 by a Non-Reporting Nationwide Permit (NWP) (i.e., no preconstruction notification (PCN) required), or if it is anticipated that an NWP with PCN, Individual Standard Permit, Letter of Permission, or Regional General Permit will be required.

Impacts to Waters of the U.S. within the limits of the proposed project would result from both the widening of the existing US 380 roadway and construction on new location.

Desktop review of National Hydrography Data (NHD) and National Wetlands Inventory (NWI) data within the USACE properties was completed in Spring of 2023. Field surveys of water resources of the USACE properties were conducted in August 2023 with USACE personnel present. All accessible water features were mapped (**Figure WR-1**). Additionally, Lavon Lake's desktop delineated boundaries were field verified. During desktop review and subsequent field surveys, it was determined that no wetlands were present within the USACE properties.

The activity will comply with all general and regional conditions applicable to whatever permit is required. Appropriate measures would be taken to maintain normal downstream flows and minimize flooding. Temporary fills will consist of clean materials and will be placed in a manner that would not be eroded by expected high flows. Temporary fills will be removed in their entirety and the affected area returned to preconstruction elevations and revegetated as appropriate. If the project would involve stream modification, stream channel modifications, including bank stabilization, will be limited to the minimum necessary to construct or protect the structure and the immediate vicinity of the project.

Table WR-1. Waters of the U.S. located on USACE Properties¹

Feature Name	Feature Type	Area (Acres)	Length (Linear Feet)	Covered by Non- Reporting Nationwide Permit under Section 404?	Nationwide Permit with Pre-Construction Notification, Individual Standard Permit, Letter of Permission, or Regional General Permit Required under Section 404?
Water 25	Ephemeral Stream	<0.01	100	N/A	N/A
Water 29	Ephemeral Stream	0.03	434	N/A	N/A
Water 30	Intermittent Stream	0.04	630	No	Yes
Water 32	Intermittent Stream	0.04	403	No	Yes
Water 39	Ephemeral Stream	0.08	420	N/A	N/A
Water 40	Ephemeral Stream	0.01	142	N/A	N/A
Water 34	Intermittent Stream	0.06	752	No	Yes
Water 37 Lavon Lake2	Perennial Lake/Pond	25.47	6,857	No	Yes
Water 38	Ephemeral Stream	0.94	1,082	N/A	N/A

Note: Features may begin or continue off USACE property. Lengths within this table define the extent of the feature within the USACE property limits of this Study Area.

Lavon Lake was mapped based on desktop reviewed due to inaccessibility of the shoreline in the field. Limits were visually verified during the August 2023 site visit.

Of the nine water features, the project would impact five (**Table WR-2**). Dewatering for bridge construction would create temporary impacts to two features. Construction of bridge columns and culverts would create permanent impacts to three water features.

Table WR-2. Estimated Stream Impacts on USACE Properties

Classification	Feature Name	Crossing Type	# of Crossings	Temporary Impacts (Linear Feet/Acres)	Permanent Impacts (Linear Feet/Acres)
Ephemeral	Water 38	Bridge Columns	1	-	48/<0.01
	Water 38	Dewatering for Bridge Construction	1	1,034/0.94	-
Intermittent	Water 34	Culvert	1	-	52/0.01
Perennial	Water 37 Lavon Lake	Bridge Columns	1	-	1,344/0.04
	Water 37 Lavon Lake	Dewatering for Bridge Construction	1	5,513/25.43	-
Total				6,547/26.37	1,444/0.05

Rivers and Harbors Act

The proposed project does not include construction activities in or over a navigable Water of the U.S.; therefore, Sections 9 and 10 of the Rivers and Harbors Act of 1899 do not apply.

Clean Water Act Section 303(d)

The USACE properties are not located within five linear miles (not stream miles) of, and is not within the watershed of, or does not drain to an impaired assessment unit under Section 303(d) of the federal CWA (Texas Commission of Environmental Quality [TCEQ] 2022).

Clean Water Act Section 402

Since the Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit (CGP) authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by the policies and procedures that govern the design and construction phases of the project. The Project Development Process Manual and the Plans, Specifications, and Estimates (PS&E) Preparation Manual require a storm water pollution prevention plan (SWP3) be included in the plans of all projects that disturb one or more acres. The Construction Contract Administration Manual requires that the appropriate CGP authorization documents (notice of intent [NOI] or site notice) be completed, posted, and submitted, when required by the CGP, to TCEQ and the municipal separate storm sewer system (MS4) operator. It also requires that projects be inspected to ensure compliance with the CGP.

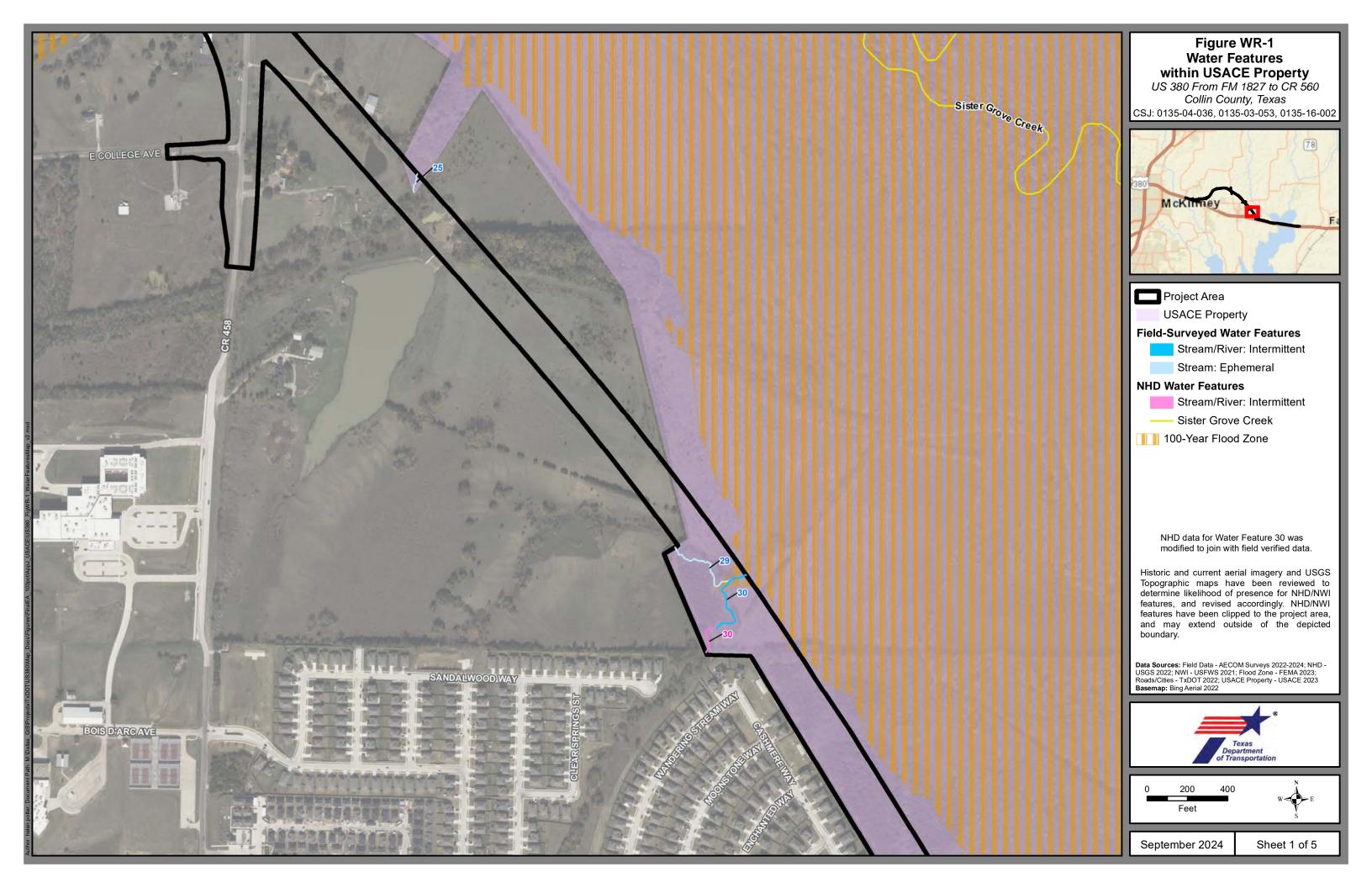
The PS&E Preparation Manual requires that all projects include Standard Specification Item 506 (Temporary Erosion, Sedimentation, and Environmental Controls), and the "Required Specification Checklists" require the current version of Special Provision 506 on all projects that need authorization under the CGP. These documents require the project contractor to comply with the CGP and SWP3, and to complete the appropriate authorization documents.

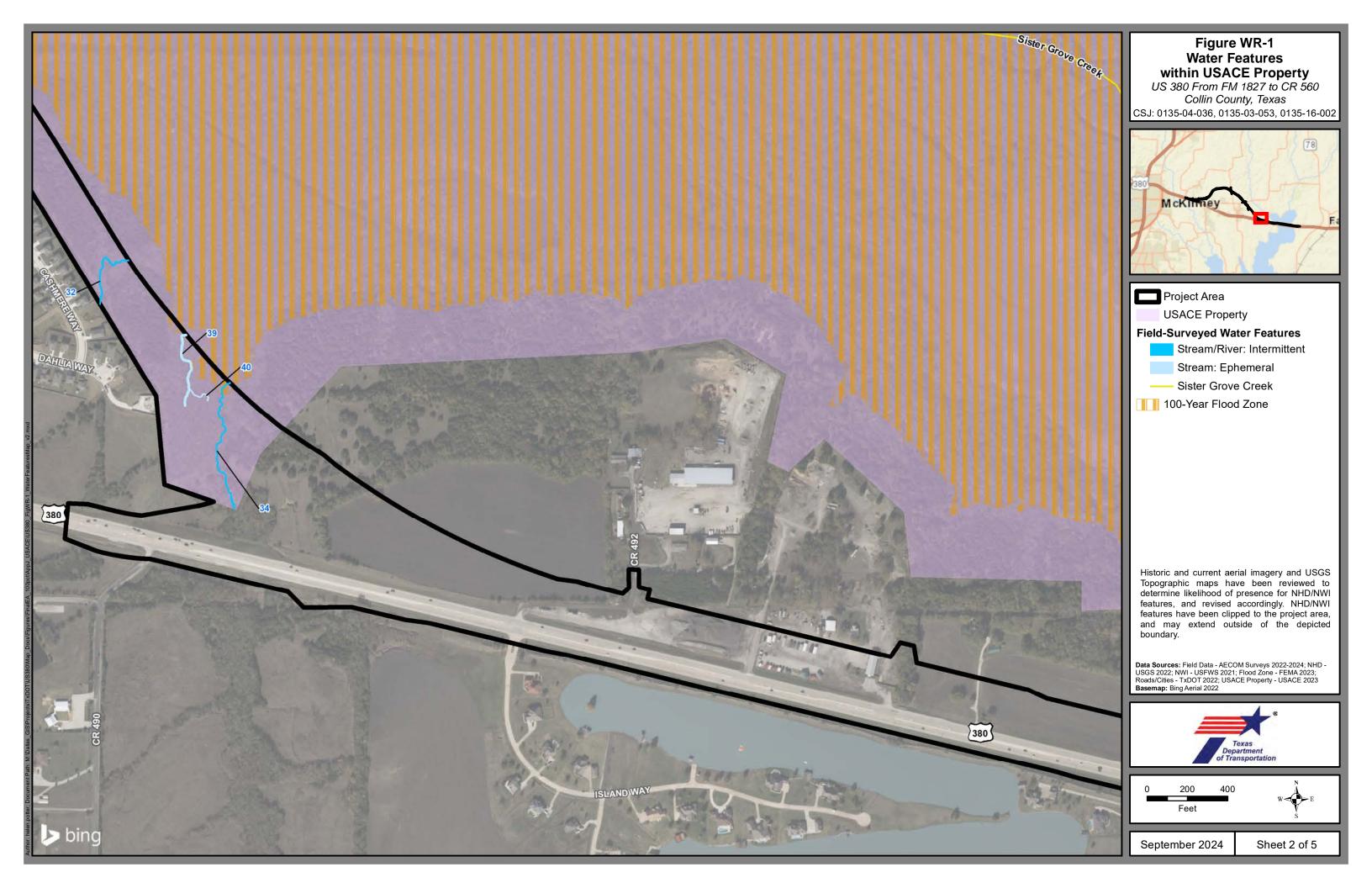
Floodplains

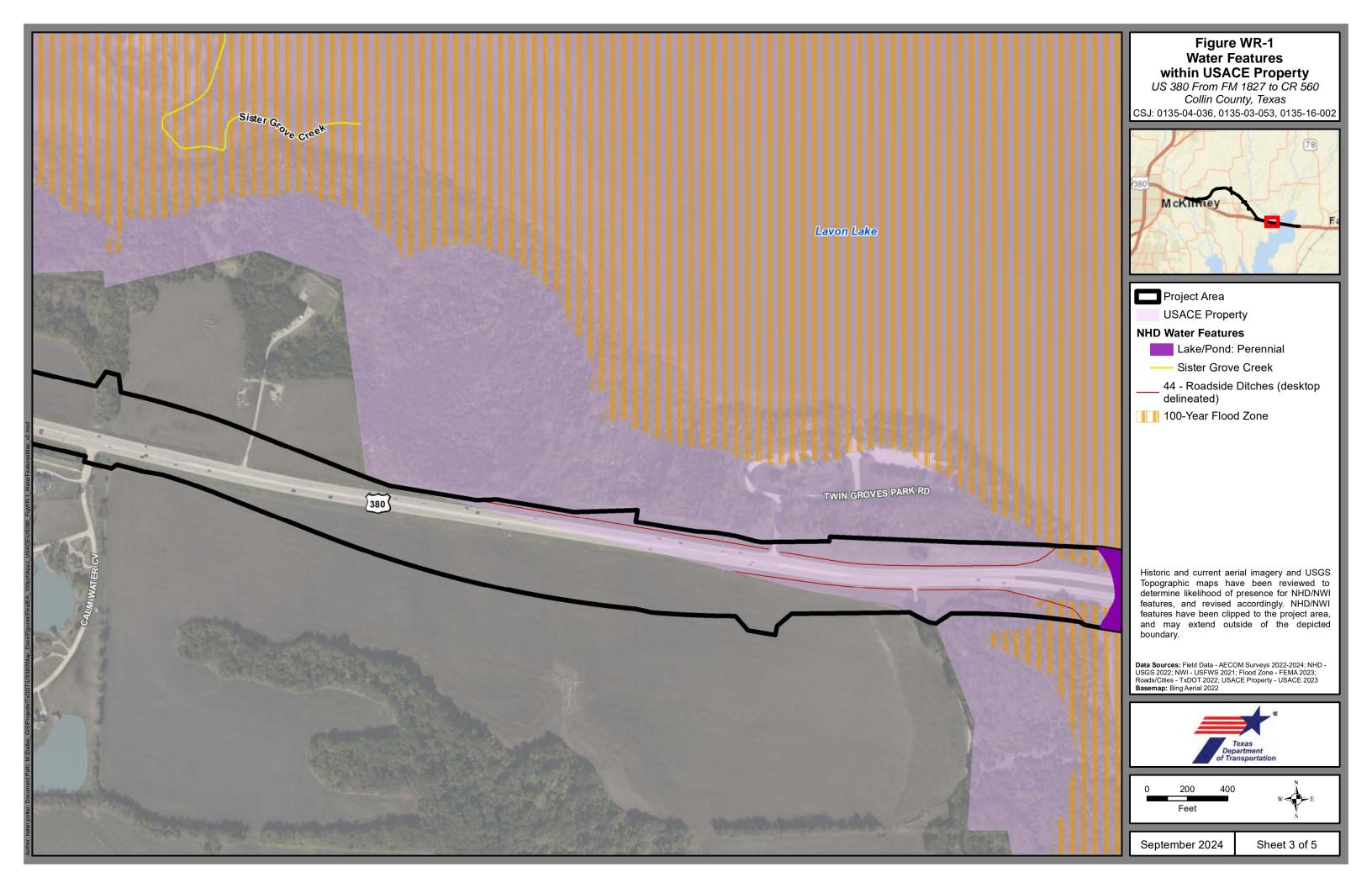
A review of FEMA Flood Insurance Rate Maps (FIRMs) 48085C0315J and 48085C0320J, effective on 6/2/2009, indicated that the project area crosses a flood zone identified as Zone A 100-year flood zone (special flood hazard areas inundated by the 100-year flood with no base flood elevations determined; FEMA 2009).

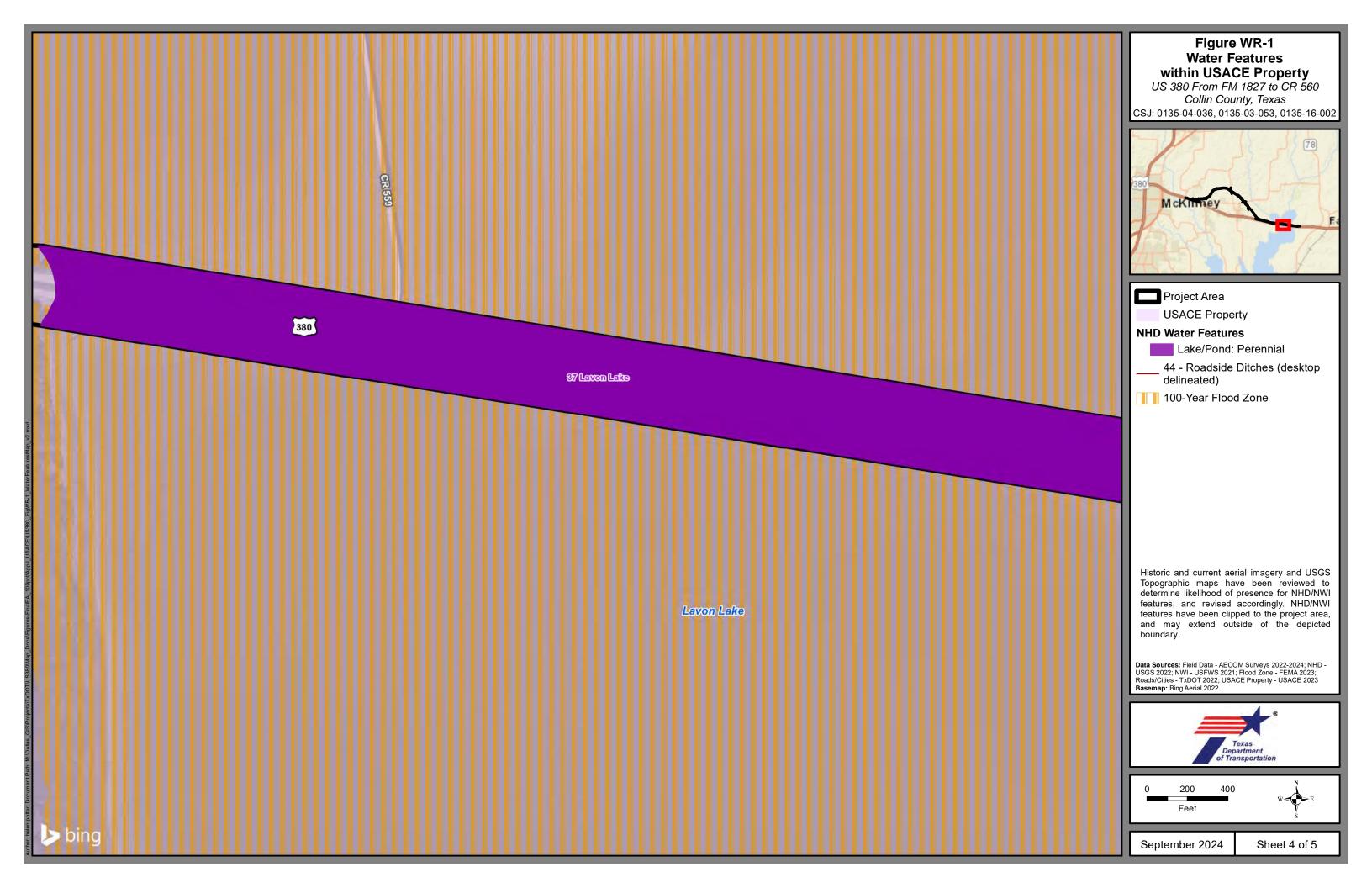
Within the boundaries of the USACE properties, there are 26.70 acres of 100-year floodplains as depicted on **Figure WR-1**. All the USACE sections of roadway are bridged so impacts are minimal.

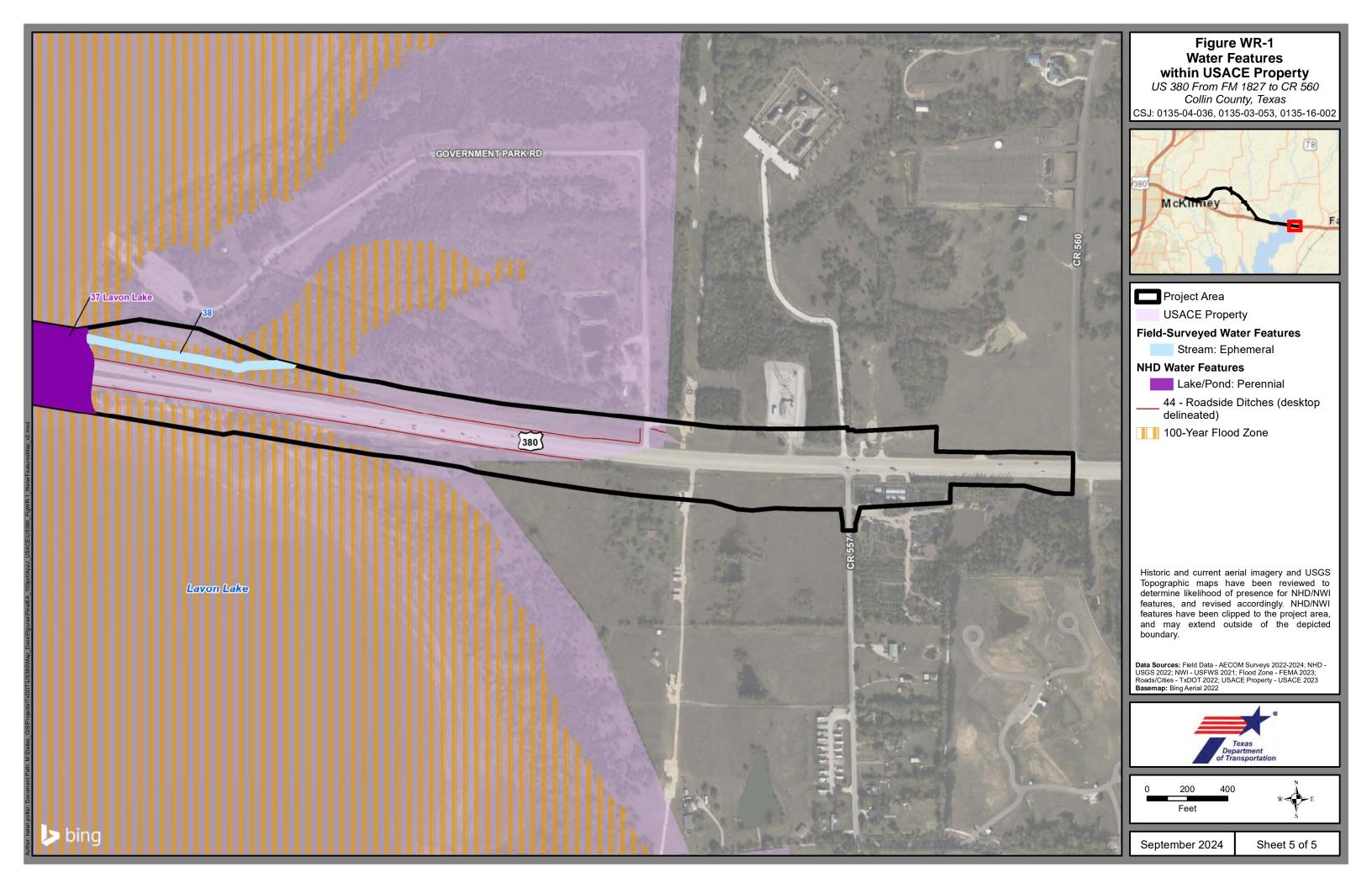
Figure WR-1: Water Features within USACE Property











BIOLOGICAL RESOURCES - USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

As discussed in Section 5.11, Biological Resources of the EA, this section details the desktop-reviewed and field-observed vegetation and wildlife within the USACE properties. This section also discusses the anticipated impacts to such resources.

Developed and undeveloped lands are present within the USACE properties. Developed land includes access roads to parklands (Caddo Park and Twin Groves Park). Undeveloped lands are comprised of woodlands, disturbed prairies, and streams. Field surveys of biological resources of the USACE properties were conducted in August 2023 with USACE personnel present.

Impacts to Vegetation

Within the USACE properties, the proposed project would impact Blackland Prairie: Disturbance or Tame Grassland, Central Texas: Floodplain Hardwood Forest, Central Texas: Riparian Hardwood Forest, Central Texas: Riparian Herbaceous Vegetation, Swamp, Native Invasive: Deciduous Woodland, Urban High Intensity, Urban Low Intensity, and Open Water habitat categories (**Table BR-1**; **Figure BR-1**).

Table BR-1. Impacts to Vegetation on USACE Properties

TPWD EMST Vegetation Type	Existing USACE Easement (Acres)	Proposed USACE Easement (Acres)	Total Acreage
Blackland Prairie: Disturbance or Tame Grassland (207)	0.26	2.78	3.04
Central Texas: Floodplain Hardwood Forest (1804)	<0.01	1.40	1.40
Central Texas: Riparian Hardwood Forest (1904)	0.59	3.47	4.06
Central Texas: Riparian Herbaceous Vegetation (1907)	<0.01	0.72	0.72
Swamp (9004)	<0.01	0.65	0.65
Native Invasive: Deciduous Woodland (9104)	1.32	13.41	14.73
Urban High Intensity (9410)	13.81	<0.01	13.81

TPWD EMST Vegetation Type	Existing USACE Easement (Acres)	Proposed USACE Easement (Acres)	Total Acreage
Urban Low Intensity (9411)	6.63	0.05	6.68
Open Water (9600)	16.26	<0.01	16.26
Total Acreage	38.86	22.49	61.35

Potential impacts to vegetation would be confined to the existing and proposed ROW. Impacts to vegetation will be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project. The removal of native vegetation, particularly mature native trees and shrubs will be avoided to the greatest extent practicable. Seeding and replanting with TxDOT-approved seed mixes containing native species will be used in the revegetation of disturbed areas.

The Texas Natural Diversity Database (TxNDD) data obtained from TPWD in September 2023, were reviewed along with the TPWD Rare, Threatened, and Endangered Species of Texas (RTEST) list for Collin County (TPWD 2023, TPWD 2024). Several records are present between 1.5 miles and 10 miles of the USACE properties. Each of these occurrences would not be impacted by the proposed project on USACE properties.

Federally and State Listed Threatened and Endangered Species

The USFWS Official Species List from the Information for Planning and Consultation (IPaC) was obtained on October 9, 2024, for the proposed project (USFWS 2024) and is included as **Attachment BR-1**. The TPWD Rare, Threatened, and Endangered Species of Texas (RTEST) by County data, accessed on October 8, 2024, was also obtained for the proposed project (TPWD 2024) and is included as **Attachment BR-2**.

The USFWS Official Species List includes eight federally listed threatened, endangered, proposed threatened, proposed endangered, or candidate species that could potentially occur within the USACE properties. These species include the tricolored bat (*Perimyotis subflavus*), Whooping Crane (*Grus Americana*), Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), alligator snapping turtle (*Macrochelys temminckii*), Texas fawnsfoot (*Truncilla macrodon*), Texas heelsplitter (*Potamilus amphichaenus*), and monarch butterfly (*Danaus plexippus*). Though not included on the USFWS Official Species List, the following species are included on TPWD's RTEST list for Collin County: the federally proposed threatened Louisiana pigtoe (*Pleurobema riddellii*) and federally threatened Black Rail (*Laterallus jamaicensis*).

For these federally listed species, either USFWS has not designated critical habitat or, if critical habitat has been designated, there is no critical habitat within the USACE properties. The following discussion of these species also notes which ones are included on TPWD's RTEST list.

It should be noted that these IPaC results are project-wide, however, based on communication with USACE on August 2, 2023, it is anticipated that the Texas heelsplitter would not be present within Lavon Lake or the surrounding USACE properties.

The tricolored bat is included on the USFWS Official Species List as proposed endangered. There is suitable habitat consisting of forest, woodland, and riparian areas in the project area. The tricolored bat has been proposed as a federally endangered species, and consultation with USFWS is not required at this time. However, it is anticipated that this species will receive full listing status prior to project construction. Therefore, TxDOT is moving forward with informal consultation, including a Conference Opinion, with the USFWS.

The Whooping Crane is listed as endangered on the federal and state lists. Within the USACE properties, suitable stopover habitat exists in Lavon Lake. The project area is outside of the breeding and wintering ranges for the species. Any use of potential stopover habitat within the USACE properties would be incidental. The project would have no effect on the Whooping Crane.

The Piping Plover and Red Knot are listed as threatened on the federal and state lists. These species are included in the species list as needing consideration for wind energy projects. There are rocky and sandy shores within the USACE properties surrounding Lavon Lake, providing suitable habitat for these species, primarily for migration to their wintering habitat along Gulf Coast beaches from Florida to Mexico. Any use of potential stopover habitat within the USACE properties would be incidental. The project would have no effect or impact on the Piping Plover or Red Knot.

The alligator snapping turtle is listed as proposed threatened on the federal list and threatened on the state list and can be found in deep perennial water bodies. Suitable habitat for this species is present within the USACE properties within Lavon Lake. The alligator snapping turtle is a federally proposed threatened species, and consultation with USFWS is not required at this time. If the species is listed, effects will be re-evaluated to determine the appropriate course of action, which may include consultation with USFWS. Coordination with TPWD would be required.

The Texas fawnsfoot is listed as threatened on the federal list. The Louisiana pigtoe is listed as federally proposed threatened, but only on the state list for Collin County. The Louisiana pigtoe is also listed as state threatened. The NHD mapped two perennial streams, Sister Grove Creek and Pilot Grove Creek, within the USACE properties. These streams are part of Lavon Lake within the USACE properties, which does not provide suitable habitat as these species do not tolerate impoundments. The proposed project would have no effect or impact to the Texas fawnsfoot or Louisiana pigtoe.

The Texas heelsplitter is listed as proposed endangered on the federal list and threatened on the state list. Lavon Lake is categorized by USFWS as Group 2 - large stream reaches that include designated or proposed Critical Habitat for federally-listed or federally-proposed mussel species, or reaches known to or may be inhabited by federally-listed species. Lavon Lake could provide suitable habitat for the Texas heelsplitter because this species can be found in reservoirs. Freshwater Mussel BMPs, including survey/relocation of native mussels, applies in compliance with USFWS-TPWD Protocol. This species is currently proposed as federally endangered and USFWS consultation is not required at this time. If the species

receives full federal listing status during the life of this project, it will be re-evaluated to determine the appropriate course of action, which may include consultation with USFWS. The proposed project may affect/may impact the Texas heelsplitter.

The monarch butterfly is listed as a candidate species on the federal list and can be found in a variety of habitats within the USACE properties: pastures, open woodlands, and urbanized areas with various nectar plant species. The project may affect the monarch butterfly; however, the monarch butterfly is currently a candidate species and no consultation with USFWS is required at this time. When a listing decision for the species is anticipated, additional coordination may be required. The project should be reevaluated at that time to determine whether further action is required if the species becomes proposed for federal listing. The proposed project may impact the monarch butterfly.

No suitable habitat is present for the Black Rail; therefore, the project would not impact this species.

TPWD's RTEST list included the following species listed only as state threatened: White-faced Ibis (*Plegadis chihi*), Wood Stork (*Mycteria americana*), and Texas horned lizard (*Phrynosoma cornutum*). No suitable habitat is present for the Texas horned lizard; therefore, the project would not impact this species. Potential stopover habitat is present for the White-faced Ibis, and Wood Stork. The USACE properties are outside of the breeding and year-round ranges for these species. Any use of potential stopover habitat within the USACE properties would be incidental. Therefore, the proposed project would have no impact to the White-faced Ibis or Wood Stork.

On February 12, 2021, the Interior Least Tern (Sternula antillarum athalassos) was federally delisted by the USFWS, however, TPWD's RTEST still includes this subspecies as state endangered. No suitable nesting habitat was identified within the project limits and occurrence along Lavon Lake would be considered rare and temporary. Therefore, the project would not impact the Interior Least Tern.

The TPWD RTEST list included an additional 41 species listed as SGCN (see Attachment BR-2). Suitable habitat was identified within the proposed project for the following 29 SGCN species: American bumblebee (Bombus pensylvanicus), Bank Swallow (Riparia riparia), Brewer's Blackbird (Euphagus cyanocephalus), common garter snake (Thamnophis sirtalis). Common Grackle (Quiscalus quiscula), Common Nighthawk (Chordeiles minor), deertoe (Truncilla truncata), eastern box turtle (Terrapene carolina), eastern spotted skunk (Spilogale putorius), green (Sutherland) hawthorn (Crataegus viridus var. glabriuscula), hoary bat (Lasiurus cinereus), lilliput (Toxolasma parvum), Loggerhead Shrike (Lanius Iudovicianus), Louisiana fatmucket (Lampsilis hydiana), mapleleaf (Quadrula quadrula), Mottled Duck (Anas fulvigula), Northern Bobwhite (Colinus virginianus), pimpleback (Cyclonaias pustulosa), pistolgrip (Tritogonia verrucosa), plains spotted skunk (Spilogale interrupta), slender glass lizard (Ophisaurus attenuatus), southern crawfish frog (Lithobates areolatus areolatus), tapered pondhorn (Uniomerus declivis), western box turtle (Terrapene ornata), Willet (Tringa semipalmata), Wilson's Warbler (Cardellina pusilla), Woodhouse's toad (Anaxyrus woodhousii), Yellow Rail (Coturnicops noveboracensis), and Yellow-billed Cuckoo (Coccyzus americanus). Note the Bald Eagle is no longer listed as SGCN, however, was included in analyses as due diligence under the Bald and Golden Eagle Protection Act.

No suitable habitat for the remaining species listed only as SGCN was identified within the project limits. Anticipated impacts to SGCN species with suitable habitat are discussed below.

The presence or evidence of the following wildlife species was observed during field reconnaissance: raccoon tracks, Mourning Dove, Turkey Vulture, Great Blue Heron, redeared slider (*Trachemys scripta elegans*), water moccasin (*Agkistrodon piscivorus*), and leopard frogs (*Rana sphenocephala*). There is suitable habitat present within the USACE properties for federal and state-listed species as well as Species of Greatest Conservation Need (SGCN). At the time of field survey, there was limited water present in any of the ephemeral or intermittent streams mapped for mussels or avian use.

Impacts to Wildlife

The proposed project is the construction of a new location roadway and would result in habitat fragmentation. Some mortality to individual species that are less mobile such as reptiles and amphibians may occur during the initial construction. The constructed roadway would contain a concrete traffic barrier along the main lanes that would restrict wildlife movement. An increase in wildlife mortality would likely occur to wildlife attempting to cross the roadway due to vehicle strikes. The proposed culverts and bridge structures would provide a safer means of crossing the roadway. More mobile species such as mammals and avian species would most likely relocate to suitable surrounding habitats. Wildlife that does currently inhabit adjacent urban development and existing transportation structures (culverts, utility poles, etc.) would be temporarily impacted due to potential structure displacements/relocations and roadway structure reconstruction and relocation. It is likely that some wildlife species would recolonize the available habitat once construction of the proposed project is complete. Therefore, while individuals may be negatively affected, substantial impacts to the overall wildlife are not anticipated.

Impacts to wildlife would be confined to the existing and proposed ROW. Such impacts would include encroachment on habitat, reducing the available inhabitable area for the species discussed which have suitable habitat within the USACE properties. Impacts to wildlife are anticipated to be minimal through minimization of habitat alteration, project design, and use of BMPs. The project contractor is required to preserve native vegetation to the extent practical. The contractor must adhere to Construction Specification Requirements Specs 162, 164, 192, 193, 506, 730, 751, and 752 in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments. Before construction begins, the project contractor will use measures to prevent or discourage birds from building nests on man-made structures within portions of the project area planned for construction, and schedule construction activities outside the typical nesting season.

This project will comply with applicable provisions of the Migratory Bird Treaty Act (MBTA) and Texas Parks and Wildlife Code Title 5, Subtitle B, Chapter 64, Birds.

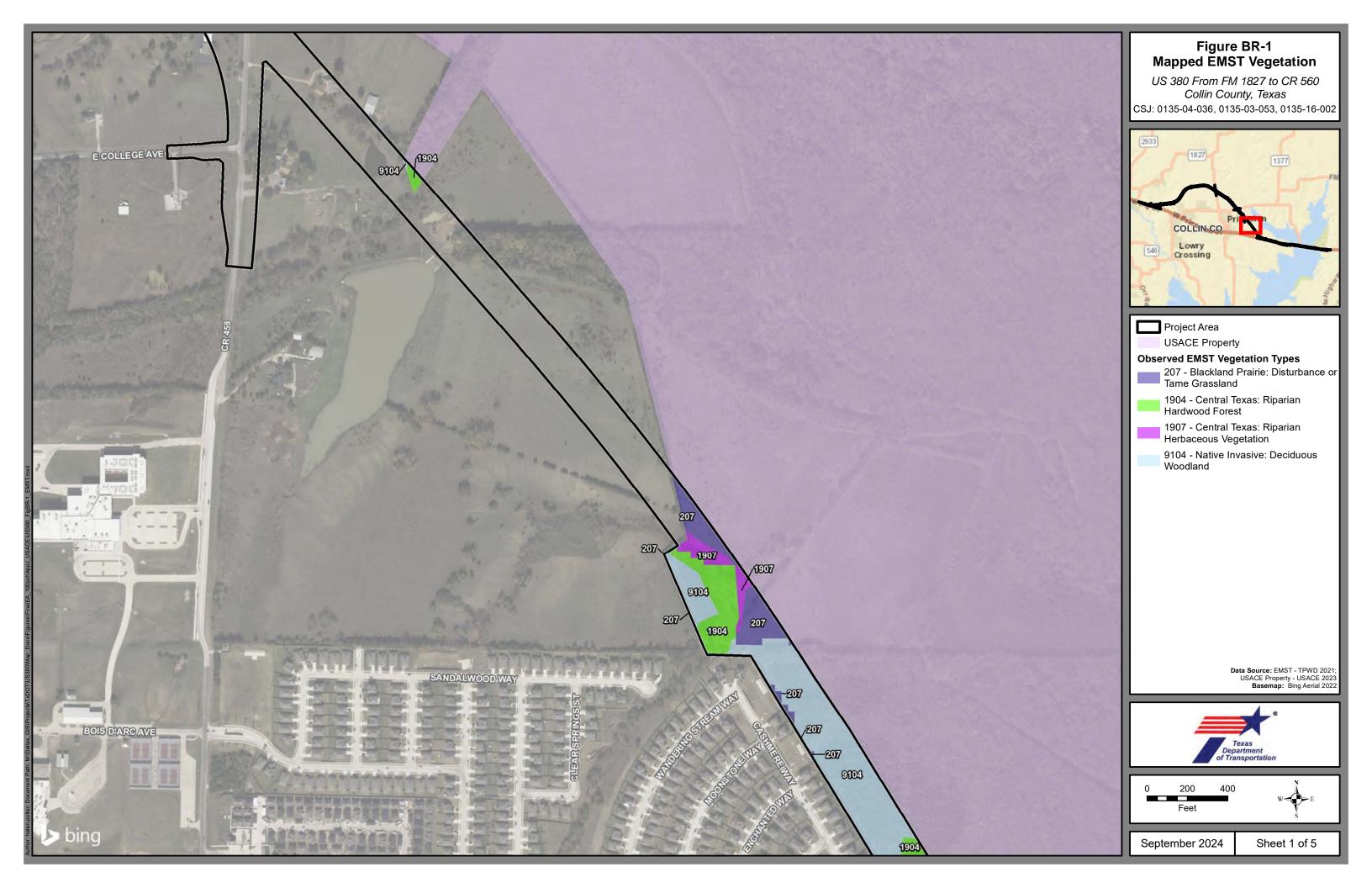
The project is anticipated to require a permit issued under Section 404 of the CWA. Compliance with the Fish and Wildlife Coordination Act will be accomplished by complying with the terms and conditions of the applicable permit.

While the project area does include suitable habitat for the Bald Eagle with forested habitat adjacent to Lavon Lake, field surveys confirmed that the proposed project is not within 660 feet of an active or inactive Bald or Golden Eagle nest. Coordination with the USFWS is not anticipated to be required for the USACE properties.

The following TxDOT BMPs would be implemented per the 2021 Memorandum of Understanding between TxDOT and TPWD for environmental review of transportation projects, including TxDOT Guidance detailing coordination under the 2021 MOU (TPWD 2021), for the proposed project.

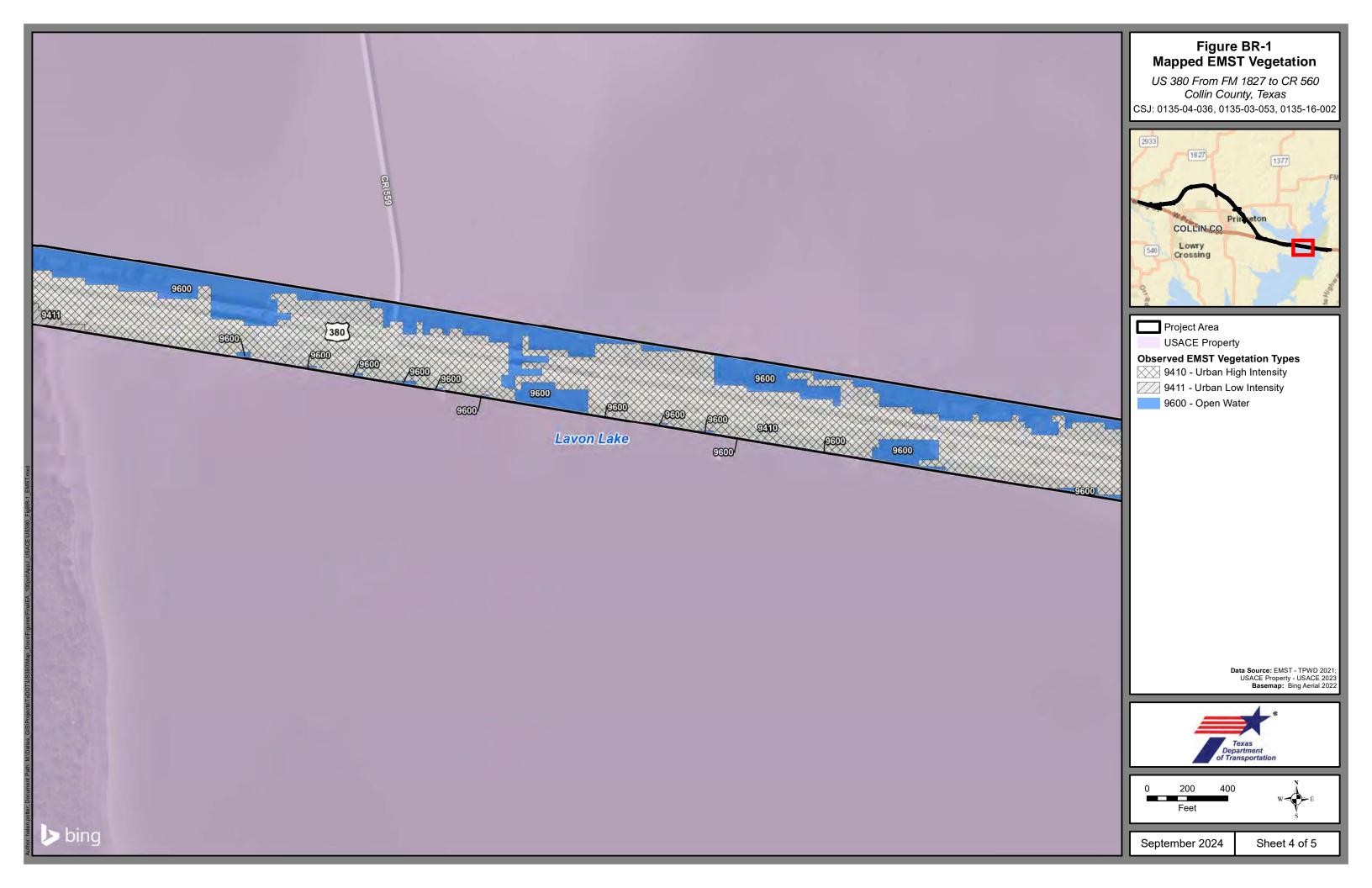
- General Design and Construction BMP
- Vegetation BMP
- Stream Crossing BMP
- Water Quality BMP
- Insect Pollinator BMP
- Freshwater Mussel BMP
- Bird BMP
- Bat BMP
- Terrestrial Amphibian and Reptile BMP
- Aquatic Amphibian and Reptile BMP
- Rare Plant BMP
- Invasive Species BMP

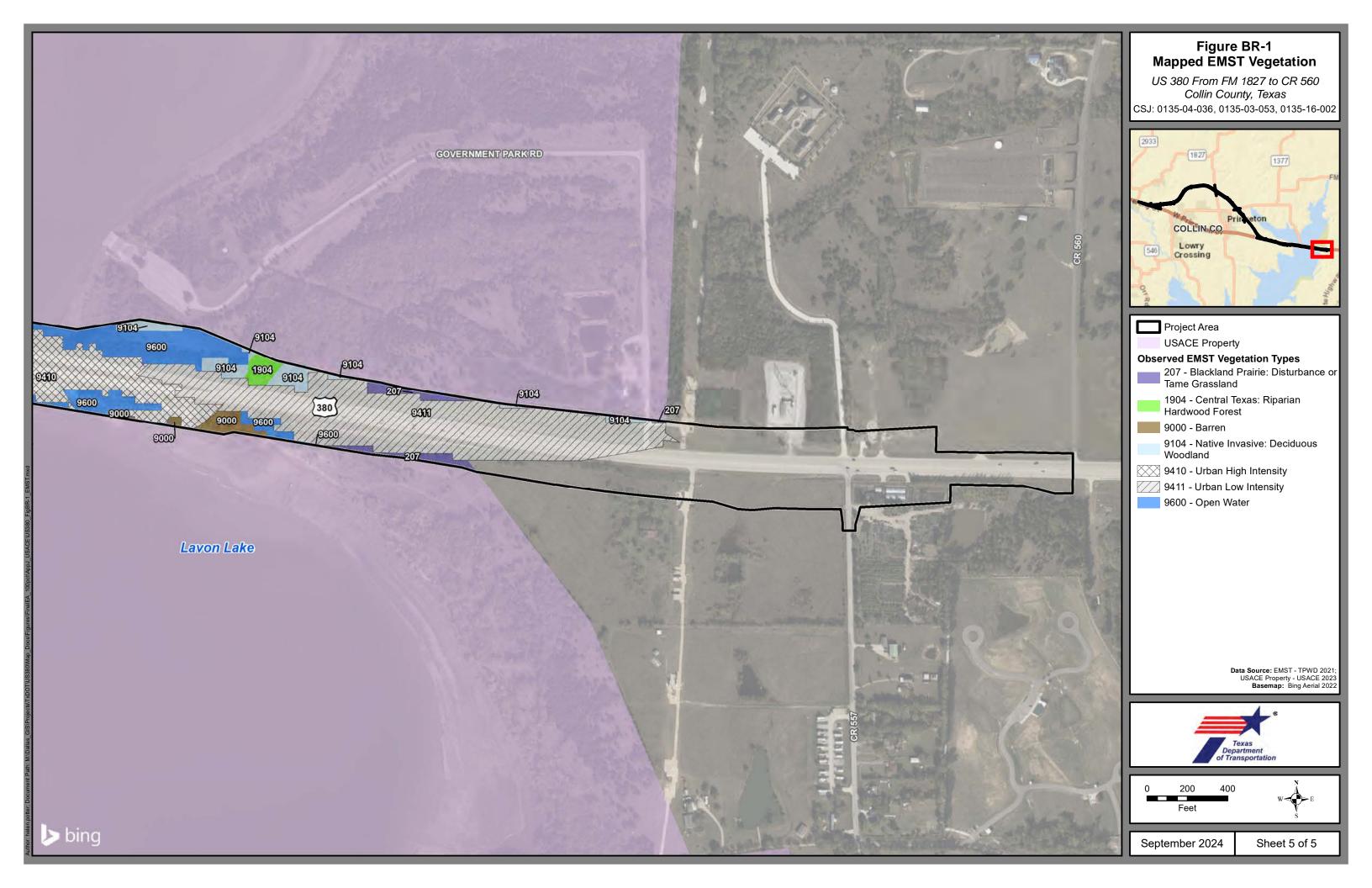
Figure BR-1: Mapped EMST Vegetation











HAZARDOUS MATERIALS - USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

No known hazardous materials have been identified on USACE Properties, which include Caddo Park, Twin Groves Park, and the USACE Wildlife Management Area (WMA) at Lavon Lake with respect to the proposed US 380 Princeton project right-of-way (ROW). The analysis, as outlined in the Hazardous Materials Initial Site Assessment (ISA) report and field inspections, confirms that the proposed ROW does not have any additional effects on hazardous materials. The Hazardous Materials ISA did not identify any potential significant impacts, indicating that the proposed ROW does not introduce any significant effects on hazardous materials within the designated USACE Properties.

TRAFFIC NOISE IMPACTS - USACE Properties

US 380 Princeton EA - FM 1827 to CR 560, Collin County CSJs 0135-04-036, 0135-03-056, and 0135-16-002; Dallas District

The evaluation of traffic noise impacts on CE Properties, particularly Caddo Park, Twin Groves Park, and the USACE WMA at Lavon Lake, highlights the expected effects of the proposed US 380 Princeton project. The projected increase in vehicular activity, especially along the new roadway section passing through the USACE Wildlife Management Area and parks, is anticipated to result in heightened noise levels.

During the construction phase of the US 380 Princeton project, various noise issues attributed to construction-related activities will likely emerge. These activities, such as the operation of heavy machinery, the movement of construction vehicles, and the execution of other construction-related tasks, have the potential to generate noise that could temporarily disturb the ambient environment in and around the USACE Properties. Implementing effective mitigation strategies becomes imperative during this phase to address immediate traffic-related noise concerns and manage the unique challenges posed by construction activities.

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

Beyond the construction phase, once the roadway is completed, additional noise challenges may arise, particularly concerning the existing US 380. The increased traffic flow on this pre-existing route, coupled with the new traffic on the US 380 Princeton project road, may contribute to sustained elevated noise levels. Careful planning and monitoring are essential to implement mitigation measures that address not only the overall traffic-related noise concerns but also the specific noise impacts on the USACE WMA and parks at Lavon Lake.

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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Arlington Ecological Services Field Office 17629 El Camino Real, Suite 211 Houston, TX 77058-3051

Phone: (817) 277-1100 Fax: (817) 277-1129 Email Address: <u>arles@fws.gov</u>

In Reply Refer To: 10/09/2024 14:26:18 UTC

Project Code: 2025-0000208

Project Name: TxDOT_US 380_0135-04-036, etc.

Subject: List of threatened and endangered species that may occur in your proposed project

location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, which may occur within the boundary of your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Project code: 2025-0000208

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under section 7(a)(1) of the Act, Federal agencies are directed to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Under and 7(a)(2) and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether their actions may affect threatened and endangered species and/or designated critical habitat. A Federal action is an activity or program authorized, funded, or carried out, in whole or in part, by a Federal agency (50 CFR 402.02).

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For Federal actions other than major construction activities, the Service suggests that a biological evaluation (similar to a Biological Assessment) be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

After evaluating the potential effects of a proposed action on federally listed species, one of the following determinations should be made by the Federal agency:

- 1. *No effect* the appropriate determination when a project, as proposed, is anticipated to have no effects to listed species or critical habitat. A "no effect" determination does not require section 7 consultation and no coordination or contact with the Service is necessary. However, the action agency should maintain a complete record of their evaluation, including the steps leading to the determination of affect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related information.
- 2. May affect, but is not likely to adversely affect the appropriate determination when a proposed action's anticipated effects to listed species or critical habitat are insignificant, discountable, or completely beneficial. Insignificant effects relate to the size of the impact and should never reach the scale where "take" of a listed species occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects, or expect discountable effects to occur. This determination requires written concurrence from the Service. A biological evaluation or other supporting information justifying this determination should be submitted with a request for written concurrence.
- 3. *May affect, is likely to adversely affect* the appropriate determination if any adverse effect to listed species or critical habitat may occur as a consequence of the proposed action, and

the effect is not discountable or insignificant. This determination requires formal section 7 consultation.

The Service has performed up-front analysis for certain project types and species in your project area. These analyses have been compiled into *determination keys*, which allows an action agency, or its designated non-federal representative, to initiate a streamlined process for determining a proposed project's potential effects on federally listed species. The determination keys can be accessed through IPaC.

Project code: 2025-0000208

The Service recommends that candidate species, proposed species, and proposed critical habitat be addressed should consultation be necessary. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found at: https://www.fws.gov/service/section-7-consultations

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (https://www.fws.gov/library/collections/bald-and-golden-eagle-management). Additionally, wind energy projects should follow the wind energy guidelines (https://www.fws.gov/media/land-based-wind-energy-guidelines) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation. The Federal Aviation Administration (FAA) released specifications for and made mandatory flashing L-810 lights on new towers 150-350 feet AGL, and the elimination of L-810 steady-burning side lights on towers above 350 feet AGL. While the FAA made these changes to reduce the number of migratory bird collisions (by as much as 70%), extinguishing steady-burning side lights also reduces maintenance costs to tower owners. For additional information concerning migratory birds and eagle conservation plans, please contact the Service's Migratory Bird Office at 505-248-7882.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in

the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arlington Ecological Services Field Office 17629 El Camino Real, Suite 211 Houston, TX 77058-3051 (817) 277-1100

PROJECT SUMMARY

Project code: 2025-0000208

Project Code: 2025-0000208

Project Name: TxDOT_US 380_0135-04-036, etc.
Project Type: Road/Hwy - New Construction

Project Description: The U.S. Highway (US) 380 roadway improvements are being proposed

by TxDOT, Dallas District under CSJ numbers 0135-03-056, 0135-16-002, and 0135-04-036. The US 380 project proposes the reconstruction of US 380 on existing and new locations. This review

includes Alternatives 3, 4 and 5.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.16159895,-96.43297945565737,14z



Counties: Collin County, Texas

ENDANGERED SPECIES ACT SPECIES

Project code: 2025-0000208

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Project code: 2025-0000208 10/09/2024 14:26:18 UTC

MAMMALS

NAME STATUS

Tricolored Bat *Perimyotis subflavus*

Proposed Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515

BIRDS

NAME STATUS

Piping Plover Charadrius melodus

Threatened

Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

This species only needs to be considered under the following conditions:

• Wind Energy Projects

Species profile: https://ecos.fws.gov/ecp/species/6039

Rufa Red Knot Calidris canutus rufa

Threatened

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.

This species only needs to be considered under the following conditions:

• Wind Energy Projects

Species profile: https://ecos.fws.gov/ecp/species/1864

Whooping Crane Grus americana

Endangered

Population: Wherever found, except where listed as an experimental population

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/758

REPTILES

NAME STATUS

Alligator Snapping Turtle Macrochelys temminckii

Proposed

No critical habitat has been designated for this species.

Threatened

Species profile: https://ecos.fws.gov/ecp/species/4658

CLAMS

NAME STATUS

Texas Fawnsfoot Truncilla macrodon

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/8965

INSECTS

NAME

Monarch Butterfly Danaus plexippus

Candidate

No critical habitat has been designated for this species.

NAME STATUS

Species profile: https://ecos.fws.gov/ecp/species/9743

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

- 1. The Bald and Golden Eagle Protection Act of 1940.
- 2. The Migratory Birds Treaty Act of 1918.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to <u>Bald Eagle Nesting and Sensitivity to Human Activity</u>

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

https://ecos.fws.gov/ecp/species/1626

Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (

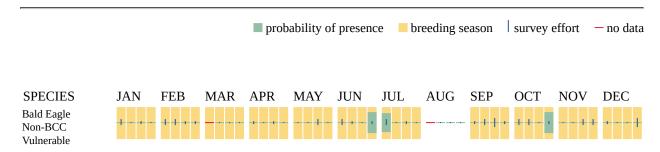
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

BREEDING

Project code: 2025-0000208

- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The Bald and Golden Eagle Protection Act of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere

Project code: 2025-0000208

NAME	BREEDING SEASON
Little Blue Heron <i>Egretta caerulea</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9477	Breeds Mar 10 to Oct 15
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prairie Loggerhead Shrike <i>Lanius ludovicianus excubitorides</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8833	Breeds Feb 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (**•**)

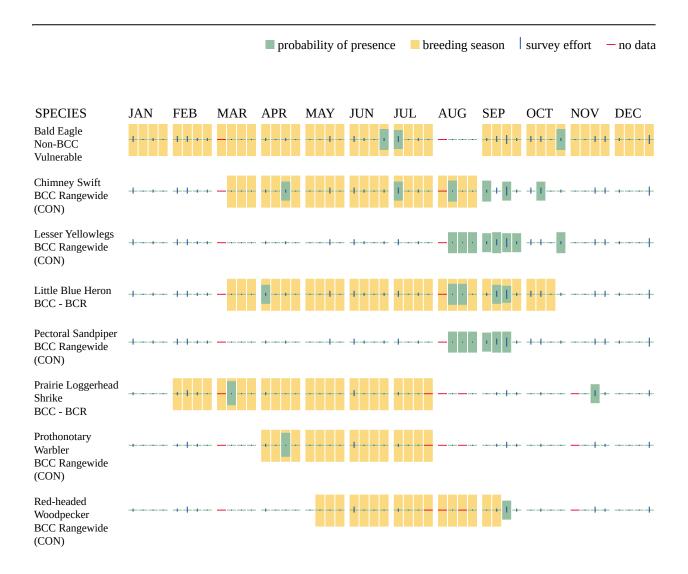
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

Project code: 2025-0000208 10/09/2024 14:26:18 UTC

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of Engineers District</u>.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER POND

- PUBHh
- PUBHx
- PUB/FO5Fh

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1C
- PFO1Ch
- PFO1/UBFh
- PFO1A
- PSS1/EM1A

FRESHWATER EMERGENT WETLAND

- PEM1Ch
- PEM1A
- PEM1C

LAKE

• L1UBHh

RIVERINE

- R4SBC
- R5UBH

Project code: 2025-0000208 10/09/2024 14:26:18 UTC

IPAC USER CONTACT INFORMATION

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Last Update: 8/22/2024

COLLIN COUNTY

AMPHIBIANS

southern crawfish frog Lithobates areolatus areolatus

Terrestrial and aquatic: The terrestial habitat is primarily grassland and can vary from pasture to intact prairie; it can also include small prairies

in the middle of large forested areas. Aquatic habitat is any body of water but preferred habitat is ephemeral wetlands.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G4T4 State Rank: S3

Strecker's chorus frog Pseudacris streckeri

Terrestrial and aquatic: Wooded floodplains and flats, prairies, cultivated fields and marshes. Likes sandy substrates.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

Woodhouse's toad Anaxyrus woodhousii

Terrestrial and aquatic: A wide variety of terrestrial habitats are used by this species, including forests, grasslands, and barrier island sand dunes.

Aquatic habitats are equally varied.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

BIRDS

bald eagle Haliaeetus leucocephalus

Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey,

scavenges, and pirates food from other birds

Federal Status: DL State Status: SGCN: N

Endemic: N Global Rank: G5 State Rank: S3B,S3N

Bank Swallow Riparia riparia

Bank Swallows live in low areas along rivers, streams, ocean coasts, and reservoirs. Their territories usually include vertical cliffs or banks where they nest in colonies of 10 to 2,000 nests. Though in the past Bank Swallows were most commonly found around natural bluffs or eroding streamside banks, they now often nest in human-made sites, such as sand and gravel quarries or road cuts. They forage in open areas and avoid

places with tree cover.

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: S2B,S4N

black rail

Laterallus jamaicensis

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh, sometimes on damp ground, but usually on mat of previous years dead grasses; nest usually hidden in marsh grass or at base of Salicornia

Federal Status: T State Status: T SGCN: Y
Endemic: N Global Rank: G3 State Rank: S2

DISCLAIMER

BIRDS

Brewer's Blackbird Euphagus cyanocephalus

Shrubby and bushy areas (especially near water), riparian woodland, aspen parklands, cultivated lands, marshes, and around human habitation; in

migration and winter also in pastures and fields (AOU 1983).

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

chestnut-collared longspur Calcarius ornatus

Occurs in open shortgrass settings especially in patches with some bare ground. Also occurs in grain sorghum fields and Conservation Reserve

Program lands

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

Common Grackle Quiscalus quiscula

Common Grackles do well in human landscapes, using scattered trees for nesting and open ground for foraging. Typical natural habitats include open woodland, forest edge, grassland, meadows, swamps, marshes, and palmetto hammocks. They are also very common near agricultural fields and feedlots, suburbs, city parks, cemeteries, pine plantations, and hedgerows. Unbroken tracts of forest are the only places where you are unlikely to find Common Grackles.

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: S5B

Common Nighthawk Chordeiles minor

Common Nighthawks nest in both rural and urban habitats including coastal sand dunes and beaches, logged forest, recently burned forest, woodland clearings, prairies, plains, sagebrush, grasslands, open forests, and rock outcrops. They also nest on flat gravel rooftops, though less often as gravel roofs are being replaced by smooth, rubberized roofs that provide an unsuitable surface.

Federal Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: S4B

Franklin's gull Leucophaeus pipixcan

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. This species is only a spring and fall migrant throughout Texas. It does not breed in or near Texas. Winter records are unusual consisting of one or a few individuals at a given site (especially along the Gulf coastline). During migration, these gulls fly during daylight hours but often come down to wetlands, lake shore, or islands to roost for the night.

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: S2N

interior least tern Sternula antillarum athalassos

Sand beaches, flats, bays, inlets, lagoons, islands. Subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony

Federal Status: DL State Status: E SGCN: N
Endemic: N Global Rank: G4T3Q State Rank: S1B

DISCLAIMER

BIRDS

Least Tern Sternula antillarum

Sand beaches, flats, bays, inlets, lagoons, islands, river sandbars and flat gravel rooftops in urban areas.

Federal Status: DL State Status: SGCN: Y

Endemic: N Global Rank: G4 State Rank: S2B

Loggerhead Shrike Lanius ludovicianus

Loggerhead Shrikes inhabit open country with short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. They frequent agricultural fields, pastures, old orchards, riparian areas, desert scrublands, savannas, prairies, golf courses, and cemeteries. Loggerhead Shrikes are often seen along mowed roadsides with access to fence lines and utility poles.

SGCN: Y

State Status:

Global Rank: G4 State Rank: S4B Endemic: N

Mottled Duck Anas fulvigula

Estuaries, ponds, lakes, secondary bays.

Federal Status:

SGCN: Y Federal Status: State Status:

Global Rank: G4 Endemic: N State Rank: S4B

Northern Bobwhite Colinus virginianus

Inhabits a wide variety of vegetation types, particularly early successional stages. Occurs in croplands, grasslands, pastures, fallow fields, grass-

brush rangelands, open pinelands, open mixed pine-hardwood forests, and habitat mosaics (Brennan 1999).

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G4G5 State Rank: S4B

piping plover Charadrius melodus

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Beaches, sandflats, and dunes along Gulf Coast beaches and adjacent offshore islands. Also spoil islands in the Intracoastal Waterway. Based on the November 30, 1992 Section 6 Job No. 9.1, Piping Plover and Snowy Plover Winter Habitat Status Survey, algal flats appear to be the highest quality habitat. Some of the most important aspects of algal flats are their relative inaccessibility and their continuous availability throughout all tidal conditions. Sand flats often appear to be preferred over algal flats when both are available, but large portions of sand flats along the Texas coast are available only during low-very low tides and are often completely unavailable during extreme high tides or strong north winds. Beaches appear to serve as a secondary habitat to the flats associated with the primary bays, lagoons, and inter-island passes. Beaches are rarely used on the southern Texas coast, where bayside habitat is always available, and are abandoned as bayside habitats become available on the central and northern coast. However, beaches are probably a vital habitat along the central and northern coast (i.e. north of Padre Island) during periods of extreme high tides that cover the flats. Optimal site characteristics appear to be large in area, sparsely vegetated, continuously available or in close proximity to secondary habitat, and with limited human disturbance.

Federal Status: T State Status: T SGCN: Y

Endemic: N Global Rank: G3 State Rank: S2N

DISCLAIMER

BIRDS

rufa red knot Calidris canutus rufa

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore. Bolivar Flats in Galveston County, sandy beaches Mustang Island, few on outer coastal and barrier beaches, tidal mudflats and salt marshes.

Federal Status: T State Status: T SGCN: Y

Endemic: N Global Rank: G4T2 State Rank: S2N

Sanderling Calidris alba

Nonbreeding: primarily sandy beaches, less frequently on mud flats and shores of lakes or rivers (AOU 1983) also on exposed reefs (Pratt et al.

1987). Sleeps/loafs on upper beach or on salt pond dike.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S5

Snowy Plover Charadrius nivosus

Algal flats appear to be the highest quality habitat. Some of the most important aspects of algal flats are their relative inaccessibility and their continuous availability throughout all tidal conditions. An optimal site characteristic would be large in size. The size of populations appear to be roughly proportional to the total area of suitable habitat used. Formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast.

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G3 State Rank: S3B

Sprague's pipit Anthus spragueii

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Habitat during migration and in winter consists of pastures and weedy fields (AOU 1983), including grasslands with dense herbaceous vegetation or grassy agricultural fields.

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G3G4 State Rank: S3N

western burrowing owl

Athene cunicularia hypugaea

Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and

roosts in abandoned burrows

Federal Status: State Status: SGCN: N
Endemic: N Global Rank: G4T4 State Rank: S2

white-faced ibis Plegadis chihi

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.

Federal Status: State Status: T SGCN: N

Endemic: N Global Rank: G5 State Rank: S4B

DISCLAIMER

BIRDS

whooping crane Grus americana

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Small ponds, marshes, and flooded grain fields for both roosting and foraging. Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.

Federal Status: E State Status: E SGCN: Y

Endemic: N Global Rank: G1 State Rank: S1S2N

Willet Tringa semipalmata

Marshes, tidal mudflats, beaches, lake margins, mangroves, tidal channels, river mouths, coastal lagoons, sandy or rocky shores, and, less

frequently, open grassland (AOU 1983, Stiles and Skutch 1989).

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: S5B

Wilson's Warbler Cardellina pusilla

Wilson's warblers key in on forests and scrubby areas along streams to fatten up during migration. During the nonbreeding season they use many

types of habitats from lowland thickets near streams to high-elevation cloud forests in Mexico and Central America.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S4

wood stork Mycteria americana

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Prefers to nest in large tracts of baldcypress (Taxodium distichum) or red mangrove (Rhizophora mangle); forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960.

Federal Status: State Status: T SGCN: Y

Endemic: N Global Rank: G4 State Rank: SHB,S3N

Yellow Rail Coturnicops noveboracensis

BREEDING: Emergent wetlands, grass or sedge marshes and wet meadows in freshwater situations. Some breeding territories in these wet meadows contain firm footing and only a few remnant pools of water (Berkey 1991). These areas can range from damp to 38 cm (15 inches) of water but the average depth used for nesting is 8 to 15 cm (3 to 6 inches) (Savaloja 1981). NON-BREEDING: Grain fields in winter and when migrating. Winters in both freshwater and brackish marshes, as well as in dense, deep grass. During fall migration, will use many open habitats, from rice paddies to dry hayfields.

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G4 State Rank: S3N

yellow-billed cuckoo Coccyzus americanus

DISCLAIMER

BIRDS

In Texas, the populations of concern are found breeding in riparian areas in the Trans Pecos (know as part of the Western Distinct Population Segment). It is the Western DPS that is on the U.S. ESA threatened list and includes the Texas counties Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, and Presidio. Riparian woodlands below 6,000' in elevation consisting of cottonwoods and willows are prime habitat. This species is a long-distant migrant that summers in Texas, but winters mainly in South America. Breeding birds of the Trans Pecos populations typically arrive on their breeding grounds possibly in late April but the peak arrival time is in May. Threats to preferred habitat include hydrologic changes that don't promote the regeneration of cottonwoods and willows, plus livestock browsing and trampling of sapling trees in sensitive riparian areas.

Federal Status: T State Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: S4S5B

CRUSTACEANS

No accepted common name Caecidotea bilineata

Spring obligate. Caecidotea bilineata is known only from non-cave groundwater habitats in deposits of Cretaceous age. It is presumably a

phreatobite. Fine scale habitat requirements unknown.

Federal Status: State Status: SGCN: Y
Endemic: Y Global Rank: G2G3 State Rank: S1

Parkhill Prairie crayfish Procambarus steigmani

Burrower in long-grass prairie; all animals were collected with traps, thus there is no knowledge of depths of burrows; herbivore; crepuscular,

nocturnal

Federal Status: State Status: SGCN: Y

Endemic: Y Global Rank: G1G2 State Rank: S1S2

FISH

spotted sucker *Minytrema melanops*

Found primarily in east Texas streams from the Red to the Brazos river basins. An isolated, disjunct population occurs in the Llano River near

Junction downstream to about Mason; this may be an introduced population. Typically in clear creeks with firm substrates.

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: S3

INSECTS

American bumblebee Bombus pensylvanicus

Habitat description is not available at this time.

Federal Status: State Status: SGCN: Y

Endemic: Global Rank: G3G4 State Rank: SNR

DISCLAIMER

MAMMALS

eastern spotted skunk Spilogale putorius

Generalist; open fields prairies, croplands, fence rows, farmyards, forest edges & Degree woodlands. Prefer woodled, brushy areas & Degree woodled, brushy

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G4 State Rank: S1S3

hoary bat Lasiurus cinereus

Hoary bats are highly migratory, high-flying bats that have been noted throughout the state. Females are known to migrate to Mexico in the winter, males tend to remain further north and may stay in Texas year-round. Commonly associated with forests (foliage roosting species) but are found in unforested parts of the state and lowland deserts. Tend to be captured over water and large, open flyways.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G3G4 State Rank: S3

mountain lion Puma concolor

Generalist; found in a wide range of habitats statewide. Found most frequently in rugged mountains & camp; riparian zones.

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: S2S3

plains spotted skunk Spilogale interrupta

Generalist; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass

prairie

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G4 State Rank: S1S3

Seminole bat Lasiurus seminolus

Pine-oak and long-leaf pine in east Texas. Habitats include pine, mixed pine-hardwood, and hardwood forests of uplands and bottomlands, particularly pine-dominated forests, including mature pine and pine-hardwood corridors in managed pine forest landscapes (Menzel et al. 1998, 1999, 2000; Carter et al. 2004; Marks and Marks 2006; Perry and Thill 2007; Perry et al. 2007; Hein et al. 2008; Ammerman et al. 2012).

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

tricolored bat Perimyotis subflavus

Forest, woodland and riparian areas are important. Caves are very important to this species.

Federal Status: PE State Status: SGCN: Y
Endemic: N Global Rank: G3G4 State Rank: S2

MOLLUSKS

Deertoe Truncilla truncata

Reported from streams, rivers, lakes, and reservoirs. In riverine habitats primarily occurs in mainchannel habitats such as riffles or runs with moderate to swift current but may occasionally occur in areas with no current. Typically found in sand, gravel, cobble substrates, but sometimes may occur in firm mud or in crevices among large rocks and boulders (Parmalee and Bogan 1998; Williams et al. 2008).

DISCLAIMER

MOLLUSKS

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

Lilliput Toxolasma parvum

Reported from small streams, where it may penetrate into the headwaters, to large rivers, oxbows, sloughs, lakes, ponds, canals, borrow pits, and reservoirs. Primarily occurs in still to slow currents in mud and sand substrates (Coker et al. 1921; Read 1954; Neck and Metcalf 1988; Williams et al. 2008; Watters et al. 2009).

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

Louisiana Fatmucket Lampsilis hydiana

Reported from streams to rivers, may penetrate into headwaters, oxbows, lakes, canals, and reservoirs. Reported to occur in still to moderate currents in sand, mud, and gravel substrates. In riverine systems it is found primarily in nearshore habitats such as banks, backwaters and oxbows (Howells et al. 1996; Randklev et al. 2013a; Randklev et al. 2014a; Tsakiris and Randklev 2016). It adapts readily to reservoirs and can cope with flow modification stemming from river impoundment (Randklev et al. 2016).

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G4 State Rank: S4

Louisiana pigtoe Pleurobema riddellii

Occurs in small streams to large rivers in slow to moderate currents in substrates of clay, mud, sand, and gravel. Not known from impoundments (Howells 2010f; Randklev et al. 2013b; Troia et al. 2015). [Mussels of Texas 2019]

Federal Status: PT State Status: T SGCN: Y
Endemic: N Global Rank: G1G2 State Rank: S1

Mapleleaf Quadrula quadrula

Reported from streams to rivers, lakes, and reservoirs. In riverine habitats, it may be found in main-channel habitats such as riffles or runs in sand, gravel, and cobble substrates with moderate to swift currents. May also be found in nearshore habitats such as banks and backwaters to include pools in sand or mud substrates with little to no flow. (Williams et al. 2008; Howells 2016; Haag and Cicerello 2016).

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

Pimpleback Cyclonaias pustulosa

Occurs in small streams to large rivers in habitats including riffles and runs with flowing water, also found in nearshore habitats such as banks and backwaters or pools. Can occur in reservoirs but varies based by population. Is often found in substrates comprising of sand, gravel, and cobble but also mud and silt (Howells et al. 1996; Williams et al. 2008; Watters et al. 2009).

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: SNR

Pistolgrip Tritogonia verrucosa

Reported from streams to rivers, lakes, and reservoirs, but considered less tolerant of impoundment (Haag and Cicerello 2016). Can occur in a variety of habitat types but most often found in main channel habitats such as riffles and runs with moderate current and sand, gravel, or cobble substrates (Howells et al. 1996; Williams et al. 2008).

DISCLAIMER

MOLLUSKS

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G4G5 State Rank: S3S4

Tapered Pondhorn Uniomerus declivis

It likely occurs in streams, rivers, oxbows, marshes, swamps, lakes, canals, ponds, and reservoirs in still to moderate currents in mud, sand, or gravel substrates. Also probably occurs in woody debris such as logiams and exposed roots of riparian trees (Williams et al. 2008).

Federal Status: State Status: SGCN: Y

Endemic: N Global Rank: G5 State Rank: SNR

Texas heelsplitter Potamilus amphichaenus

Occurs in small streams to large rivers in standing to slow-flowing water; most common in banks, backwaters and quiet pools; adapts to some reservoirs. Often found in soft substrates such as mud, silt or sand (Howells et al. 1996; Randklev et al. 2017a). [Mussels of Texas 2019]

Federal Status: PE State Status: T SGCN: Y
Endemic: N Global Rank: G1G3 State Rank: S1

REPTILES

alligator snapping turtle Macrochelys temminckii

Aquatic: Perennial water bodies; rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds near running water; sometimes enters

brackish coastal waters. Females emerge to lay eggs close to the waters edge.

Federal Status: PT State Status: T SGCN: Y
Endemic: N Global Rank: G3 State Rank: S2

American alligator Alligator mississippiensis

Aquatic: Coastal marshes; inland natural rivers, swamps and marshes; manmade impoundments.

Federal Status: SAT State Status: SGCN: N
Endemic: N Global Rank: G5 State Rank: S4

common garter snake Thamnophis sirtalis

Terrestrial and aquatic: Habitats used include the grasslands and modified open areas in the vicinity of aquatic features, such as ponds, streams or

marshes. Damp soils and debris for cover are thought to be critical.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S2

eastern box turtle Terrapene carolina

Terrestrial: Eastern box turtles inhabit forests, fields, forest-brush, and forest-field ecotones. In some areas they move seasonally from fields in spring to forest in summer. They commonly enters pools of shallow water in summer. For shelter, they burrow into loose soil, debris, mud, old stump holes, or under leaf litter. They can successfully hibernate in sites that may experience subfreezing temperatures.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

DISCLAIMER

REPTILES

slender glass lizard Ophisaurus attenuatus

Terrestrial: Habitats include open grassland, prairie, woodland edge, open woodland, oak savannas, longleaf pine flatwoods, scrubby areas,

fallow fields, and areas near streams and ponds, often in habitats with sandy soil.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

Texas horned lizard Phrynosoma cornutum

Terrestrial: Open habitats with sparse vegetation, including grass, prairie, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive. Occurs to 6000 feet, but largely limited below the

pinyon-juniper zone on mountains in the Big Bend area.

Federal Status: State Status: T SGCN: Y
Endemic: N Global Rank: G4G5 State Rank: S3

western box turtle Terrapene ornata

Terrestrial: Ornate or western box trutles inhabit prairie grassland, pasture, fields, sandhills, and open woodland. They are essentially terrestrial but sometimes enter slow, shallow streams and creek pools. For shelter, they burrow into soil (e.g., under plants such as yucca) (Converse et al.

2002) or enter burrows made by other species.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5 State Rank: S3

PLANTS

glandular gay-feather Liatris glandulosa

Occurs in herbaceous vegetation on limestone outcrops (Carr 2015). Flowering: July-Oct.

Federal Status: State Status: SGCN: Y
Endemic: Y Global Rank: G3 State Rank: S2

green hawthorn Crataegus viridis var. glabriuscula

In mesic soils of woods or on edge of woods, treeline/fenceline, or thicket. Above\near creeks and draws, in river bottoms. Flowering Mar-Apr;

fruiting May-Oct.

Federal Status: State Status: SGCN: Y
Endemic: N Global Rank: G5T3T4 State Rank: S3