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Draft Environmental Assessment

US 59 Upgrade Shepherd to Cleveland, Lufkin District

From: FM 2914 to 0.65-mile South of SL 573

CSJs 0177-02-057 & 0177-03-099

San Jacinto and Liberty Counties, Texas

April 2019

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

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Acronyms

AADT	Annual Average Daily Traffic
ACS	American Community Survey
APE	Area of Potential Effect
BE	Biological Evaluation
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CFR	Code of Federal Regulations
CGP	Construction General Permit
CMP	Congestion Management Practices
CO	Carbon Monoxide
CWA	Clean Water Act
dBA	Decibel on the A-Weighted Scale
dBA Leq	Traffic Noise Levels
DDA	District Development Authority
DOT	U.S. Department of Transportation
EA	Environmental Assessment
EIS	Environmental impact statement
EO	Executive Order
EPIC	Environmental Permits, Issues, and Commitments
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FM	Farm-to-Market Road
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
ft.	Foot
FWCA	Fish and Wildlife Coordination Act
IH-69	Interstate 69
IP	Individual Permit
IPaC	Information for Planning and Conservation
ISA	Initial Site Assessment
ISTEA	Intermodal Surface Transportation Efficiency Act
LPST	Leaking Petroleum Storage Tank
MBTA	Migratory Bird Treaty Act
mi	Miles
MOA	Memorandum of Agreement
MPH	Miles Per Hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System

MSAT	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NB	Northbound
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NOI	Notice of Intent
NOT	Notice of Termination
NPS	National Park Service
NRCS	Natural Resources Conservation Service
PA	Programmatic Agreement
PEM	Palustrine Emergent Wetland
PFO	Palustrine Forested Wetland
P.L.	Public Law
PM	Particulate Matter
PUB	Palustrine Unconsolidated Bottom
ROW	Right-of-Way
RSA	Resource Study Area
RTP	Regional Transportation Plan
RTHL	Recorded Texas Historical Landmark
SAL	State Antiquities Landmark
SB	Southbound
SL	State Loop
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Office
STIP	Statewide Transportation Improvement Plan
SWPPP	Stormwater Pollution Prevention Plan
TAC	Texas Administrative Code
TAQA	Transportation Air Quality Analysis
TCAP	Texas Conservation Action Plan
TCEQ	Texas Commission on Environmental Quality
THC	Texas Historical Commission
TNM	Traffic Noise Model
TPC	Total Project Cost
TPDES	Texas Pollutant Discharge Elimination System
TPP	Transportation Planning and Programming
TPWD	Texas Parks and Wildlife Department
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
UPRR	Union Pacific Railroad

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U.S.	United States
US	U.S. Highway
USACE	United States Army Corps of Engineers
USCB	United States Census Bureau
USDOl	United States Department of Interior
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
UTP	Unified Transportation Plan
vpd	Vehicles per day

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1. Introduction

The Texas Department of Transportation (TxDOT) proposes to upgrade U.S. Highway 59 (US 59) to interstate standards by providing frontage roads from Farm-to-Market (FM) 2914 to 0.65-mile (mi) south of State Loop (SL) 573 (see **Appendix A**). The total project length is 6.63-mi. The purpose of the environmental assessment (EA) is to study the potential environmental consequences of the proposed project and to determine whether such consequences warrant preparation of an environmental impact statement (EIS). This EA was prepared to comply with both the TxDOT environmental review rules and the National Environmental Policy Act (NEPA). The draft EA will be made available for public review, and TxDOT will consider any comments submitted during the comment period. After the comment period, TxDOT will evaluate all comments and results of the environmental analysis to determine if the proposed project would have any significant adverse effect. If TxDOT determines that there would be no significant adverse effects, it will prepare and sign a Finding of No Significant Impacts (FONSI), which will be made available to the public.

2. Project Description

2.1. Existing Facility

Within the proposed project limits, the existing US 59 includes two 12-foot wide northbound (NB) lanes, and two 12-foot wide southbound (SB) lanes. The existing right-of-way (ROW) is approximately 375-foot wide. From 0.65-mi south of Loop 573 to Ross Avenue the NB and SB lanes are divided by a concrete barrier. From Ross Avenue to the FM 2914 a median begins to emerge between the NB and SB mainlanes. The median varies from 48-foot to 114-foot grassy median. There are existing frontage roads from the southern project terminus that stop at Midway Road approximately 0.5-mi north of Loop 573. There are also frontage roads that begin approximately 0.25-mi south of FM 2914 and travel north. The existing facility is an uncontrolled access highway. Photos of the existing roadway can be found in **Appendix B**.

2.2. Proposed Project

The proposed improvements upgrade the existing US 59 to interstate standards by converting it to a controlled access highway with frontage roads and two mainlanes in each direction. Access to the highway would be through frontage roads with designated entrance and exits ramps. Overpasses are proposed at Red Road and south of the San Jacinto/Liberty County line. Additional bridges would be constructed over several creek crossings. No temporary or permanent easements appear to be required at this time. Total new ROW required is approximately 120 acres. The proposed project would include:

- Construction of four 12-ft mainlanes (two lanes in each direction) with 10-ft inside and 12-ft outside shoulders;
- Ramps consisting of one 14-ft lane with 2-ft inside and 12-ft outside shoulders;

- Construction of NB and SB frontage roads each with two 12-ft travel lanes, 4-ft inside and 8-ft outside shoulders;
- ROW widths for the length of the proposed project vary from 282-ft to 443-ft;
- Safety lighting would be included on the entrance and exit ramps;
- Drainage would be handled through open ditch drainage; storm sewer may be necessary in the Cleveland area but that will be determined in PS&E including proposed detention ponds; and
- Frontage road shoulders would accommodate bicycles and the Liberty County portion of the project will include sidewalks.

The proposed project schematics and typical sections can be found in **Appendix C** and **D** respectively.

23 Code of Federal Regulations (C.F.R.) § 771.111(f)(1) require that federally funded transportation projects have logical termini. Simply stated, this means that a project must have rational beginning and end points. Those end points may not be created simply to avoid proper analysis of environmental impacts. As proposed, the project has logical termini located approximately FM 2914 and 0.65-mi south of SL 573 which tie both termini into the existing US 59 NB and SB frontage roads (see **Appendix A**).

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 C.F.R. § 771.111(f)(2). This means a project must be able to provide benefit by itself, and that the project 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 will provide congestion relief, increase mobility and provide a roadway that meets interstate standards between two traffic generators in Cleveland and Shepherd by adding one-way frontage roads and controlled access travel lanes in each direction. The proposed improvements are a reasonable expenditure that does not require additional transportation improvements at either terminus of the proposed project to function with US 59. The addition of the proposed frontage roads and controlled access meets the project's need and would improve safety and mobility in the project area independent of any other future roadway improvements. Since this 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 C.F.R. § 771.111(f)(3). This means that a project must not dictate or restrict any future roadway alternatives. The construction of the proposed project does not rule out future options for the development of other reasonably foreseeable transportation improvements, including Interstate 69 (I-69). Since the proposed project has independent utility and will not force a future expenditure of funds, no future alternatives would be dictated or restricted by the proposed project.

The proposed project would be funded by a mix of federal and state funds. The project is listed as MPOID 16346 in the Houston-Galveston Area Council Regional Transportation Plan (RTP) and Transportation Improvement Plan (TIP). Project development is authorized in the TxDOT 2019 Unified Transportation Program (UTP) under District Development Authority (DDA) and is listed in the Statewide Transportation Improvement Plan (STIP). The RTP, TIP and UTP pages can be found in **Appendix E**.

3. Purpose and Need

3.1. Need

The proposed project is needed because US 59 Shepherd to Cleveland does not meet current interstate design standards and inadequately performs to meet current and future traffic volumes resulting in reduced mobility.

3.2. Supporting Facts and/or Data

I-69 was authorized by Congress in 1991 in the Intermodal Surface Transportation Efficiency Act (ISTEA). The Texas portion of I-69 represents nearly half of the overall length of the national Interstate as it extends from northeast and east Texas through Houston to the Texas-Mexico border. Within the Lufkin and Beaumont Districts, the I-69 corridor follows US 84 from Louisiana to US 59 in Tenaha and then US 59 from Tenaha to the Liberty/Montgomery County Line. The existing US 59, in the project limits, does not meet current interstate design standards and is an uncontrolled access highway with cross-over traffic turning movements and does not meet design speed criteria.

Traffic in the project area is projected to increase by approximately 54 percent from 2016 to 2043 with truck (medium duty and heavy duty) traffic accounting for 25 percent of the 2043 annual average daily traffic (AADT). The Transportation Planning and Programming (TPP) traffic data can be found in the *Traffic Noise Analysis Technical Report* available from the TxDOT Lufkin District.

The existing US 59 roadway transitions from a 4-lane divided highway section with a barrier, south of State Loop (SL) 573, to a 4-lane divided roadway with a grassy median section, with cross-over points north of SL 573 to south Regency Drive in Shepherd. As such, the existing roadway section does not meet criteria for an interstate freeway facility. The existing US 59 facility does not meet:

- Controlled access criteria for an Interstate Highway System;
- Minimum 70 miles per hour (mph) design speed.

3.3. Purpose

The purpose of the proposed project is to bring US 59 in the project area up to current interstate design standards by making US 59 a controlled access roadway within the project limits and reduce congestion and increase mobility.

4. Alternatives

4.1. Build Alternative

The build alternative consists of converting US 59 from FM 2914 in Shepherd to 0.65-mi south of SL 573 in Cleveland to a controlled access highway by constructing two lane NB and SB frontage roads, two US 59 mainlanes in each direction and grade separations at Red Road and south of the San Jacinto/Liberty County line. The Build Alternative would meet the purpose and need for the proposed project by meeting current interstate design standards via constructing a controlled access facility and removing at-grade intersections. The Build Alternative would also reduce congestion and increase mobility within the project limits.

4.2. No Build Alternative

Under the No Build Alternative, US 59 would remain an uncontrolled roadway with at grade intersections that do not meet interstate design standards; therefore, it would not meet the purpose and need for the project. The build alternative is the preferred alternative. The No Build Alternative is evaluated throughout the EA for comparison purposes.

4.3. Preliminary Alternatives Considered but Eliminated from Further Consideration

Three alternatives; (1) widening to the west with depressed median section; (2) widening equally to both sides and (3) widening to the east were considered but eliminated from further consideration based on an engineering and environmental screening process.

Alternative 1 widening to the west with depressed median section and overpasses at Sherwood and the pipeline

This alternative included two lane NB and SB frontage roads, two NB/SB mainlanes with depressed median and grade separations near a high-pressure gas main crossing and Sherwood Drive. Based on public feedback from the public regarding access issues at Sherwood Drive and concerns with the gas pipeline, this alternative was rejected from further evaluation in the EA.

Alternative 2 widening equally on both sides

This alternative is similar to Alternative 1 with widening to the east and west and a depressed median. There is a Union Pacific Railroad (UPRR) train track on the east side of the proposed project running the length of the entire project area. The UPRR train track would need to be relocated to accommodate a frontage road. This would be unfeasible due to significantly higher ROW costs and this alternative was rejected from further evaluation.

Alternative 3 widening to the east

This alternative is similar to Alternative 1 with widening to the east. There is a Union Pacific Railroad (UPRR) train track on the east side of the proposed project running the length of the entire project area. The UPRR train track would need to be relocated to accommodate mainlanes and frontage roads. This would be unfeasible due to significantly higher ROW costs and this alternative was rejected from further evaluation.

5. Affected Environment and Environmental Consequences

Several technical reports and other documentation were prepared in support of this EA. A list of these reports is presented below in **Table 5-1** and a summary of these reports is included in the respective sections below. The complete technical reports are on file with the TxDOT Lufkin District.

Table 5.1: List of Technical Documents Cited

Technical Reports or Document	Date
Biological Evaluation Form	July 2018
Tier I Site Assessment	July 2018
Water Resources Technical Report	May 2018
Historical Studies Project Coordination Request	September 2017
Historic Resources Survey Report	July 2018
Hazardous Material Initial Site Assessment (ISA) Report	September 2017
Air Quality Technical Memorandum	January 2019
Community Impact Assessment Technical Report	October 2018
Indirect and Cumulative Impact Analysis Technical Report	August 2018
Traffic Noise Analysis Technical Report	March 2019

Source: Project Team, 2017, 2018 and 2019

5.1. Right-of-Way (ROW) / Displacements

The proposed project would require approximately 120 acres of new ROW between the southern and northern project limits. The proposed project would impact approximately 50 parcels.

The Build Alternative would require five single family and eleven business displacements, as reported in the *Community Impacts Assessment Technical Report*. All ROW acquisition would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1979, as amended. TxDOT will provide relocation assistance to all affected property owners. Real estate listings indicate that comparable replacement housing and property is available in the surrounding area of Liberty and San Jacinto counties for relocation of the individuals being displaced.

The No Build Alternative would not require the acquisition of new ROW; therefore, would not result in any residential or commercial displacements.

5.2. Land Use

The proposed project area includes portions of Liberty and San Jacinto counties and the cities of Cleveland and Shepherd. Land use within the project area consists of residential, agricultural, commercial, rural undeveloped, urban, woodland and forest areas (e.g. pine plantation) as well as highway ROW. The proposed project would convert those land uses to transportation use (ROW). The *Tier I Site Assessment Technical Report*, available from the TxDOT Lufkin District, describes the vegetation types and details land uses in the project area.

The No Build Alternative would not directly impact existing land uses.

5.3. Farmlands

The Build Alternative is anticipated to impact approximately 65.6 acres of farmlands; however, as the score on Part IV of the Farmland Protection Policy Act (FPPA) AD-1006 form was less than 60, coordination with Natural Resources Conservation Service (NRCS) is not required. The AD-1006 form can be found in the Biological Evaluation Form.

The No Build Alternative would not impact farmlands.

5.4. Utilities/Emergency Services

There are numerous active underground and overhead utilities located within the project area. The following utility companies provide telecommunications, water and sewer, electric, and natural gas and pipeline services to the surrounding community (see **Appendix C**):

- AT&T – fiber optic lines;
- City of Cleveland and City of Shepherd – water and wastewater utilities;

- Sam Houston Electric Cooperative and Entergy – electric transmission; and
- CenterPoint – natural gas transmission.

The Build Alternative would require utility relocations. It is possible that utilities may choose to relocate within the proposed TxDOT ROW; however, exact locations would not be known until the detailed design phase when coordination with utilities companies is completed.

Emergency services surrounding the proposed project include the Cleveland Volunteer Fire Department, Shepherd Volunteer Fire Department, Cleveland Police Department, and San Jacinto County Sheriff Department. The Build Alternative and No Build Alternative are not anticipated to impact emergency response times and accessibility to emergency services.

5.5. Bicycle and Pedestrian Facilities

No bicycle and pedestrian facilities currently exist in the project area. The proposed project would provide a sidewalk on the outside lane of the frontage road in each direction in the Liberty County portion of the project. Also, frontage road shoulders would accommodate bicycles. Pedestrian accommodations will be provided by the proposed at-grade intersection of side streets intersecting with the proposed frontage roads (pedestrian curb ramps and cross walks).

There are no bicycle and pedestrian facilities in the project area; therefore, no direct impacts would occur as a result of the No Build Alternative.

5.6. Community Impacts

Five single family residential homes (SFR) would be displaced. The SFR impacted are all to the west side of the existing US 59 corridor; however, they are spread out north to south. A review of real estate listing sites zillow.com and trulia.com showed over 30 replacement homes of comparable size and value were available within Shepherd, Cleveland and the surrounding areas.

Eleven business displacements (including two that are not operating) in the study area would involve takings of structures and would impact the businesses in a manner that would prevent them from continuing to operate. However, there is available property nearby for the businesses to relocate. A search of a real estate listing sites loopnet.com, trulia.com, and zillow.com showed available property nearby for any displaced property owner to relocate. The available properties were of comparable size and value to the displaced properties. None of the displaced business serve a specific population.

There are two churches that would be impacted by the proposed project. Iglesia Garcia Divina Church would have a portion of their wooded back lot taken for new ROW, it is not anticipated to interfere with the church's ability to operate as usual. Iglesia Rios De Agua

Viva would be taken as part of new ROW. Both churches serve a specific population, Spanish speakers.

Vehicles currently enter and exit the highway near the south project terminus from NB and SB frontage roads near SL 573. In the other portions of the study area, vehicles access US 59 directly from driveways of properties adjacent to the highway, intersections with side streets and crossovers within the median. The proposed project would construct one-way NB and SB frontage roads along the whole project and create a controlled access freeway with designated entrance and exit ramps that provide access to the highway mainlanes.

Overpasses with turnarounds at Red Road and also at the Liberty and San Jacinto County line would be constructed to accommodate east to west traffic movements. Vehicles exiting near Our Road or Rebel lane would need to travel south to the San Jacinto/Liberty County line to turnaround and head north, this would require up to an additional 5.25-mi of travel. At the posted design speed of 60 mph an additional 5.25-mi would add roughly 5.25 minutes of travel time. The Red Road turnaround would be 0.8-mi from FM 2914 turnaround and 2.62-mi from the Liberty and San Jacinto County Line.

The proposed project would have minimal impacts on community cohesion, community facilities, and vulnerable populations. There would be displacements as a result of the proposed project; however, the displacements would be scattered throughout the study area and not concentrated in any specific, minority, or low-income neighborhood. Additionally, there are other alternatives to the businesses and the church that would be displaced and there are other available properties in and around the study area for displaced property owners to relocate. The proposed project would result in increases to safety and mobility that would outweigh the unsubstantial impacts. Therefore, the changes to community cohesion would not be considered substantial.

The No-Build Alternative would not have adverse impacts on community cohesion and community facilities within the project area. More detail regarding community impacts can be found in the *Community Impacts Assessment Technical Report* available from the TxDOT Lufkin District.

5.6.1. Environmental Justice

According to USCB data, the City of Cleveland is 54 percent minority and one of the four census tracts, CT 7002 has a minority population of 64.7 percent. Two of the four BG CT 7001 BG 01 and CT 7002 BG 01 and 18 of the populated 28 blocks in the study area show a 50 percent or greater minority population (see **Appendix F**). There were no BG or CT with median household incomes below the low-income threshold. There are two neighborhoods with a high minority population, one is near the northern terminus at Regency Drive and the other is near the southern terminus of the project area near Sylvester Road. There were no areas with a high population of elderly, children or people with disabilities.

The Build Alternative would result in displacements and access changes. However, there would be no difference in anticipated impacts from displacements or access changes to environmental justice versus other populations. Only one displacement, Pine Forest Hotel would occur in an area with a more than 50 percent minority or low-income population. The rest of the displacements would occur in areas without a high minority population.

The Build Alternative is not expected to have disproportionately high impacts to minority and/or low-income population and is consistent with Executive Order (EO) 12898 and Department of Transportation (DOT) Order 5610.2(a). Mitigation specific to environmental justice is not necessary.

The No Build Alternative would not cause disproportionately high and adverse impacts on minority or low-income populations.

5.6.2. *Limited English Proficiency*

English is the predominate language spoken in all the CT. There are limited English proficiency populations in each of the four BG with Spanish being the predominate language. There was a public meeting held on September 2016, notices were published in both English and Spanish, and a Spanish speaking translator attended both meetings to accommodate any non-English speaking attendees. Prior to releasing the final EA, one public hearing is anticipated. The notice for the public hearing will be advertised in English and Spanish as will all public meeting materials. Additionally, anyone requesting other languages will be accommodated.

5.7. **Visual/Aesthetics Impacts**

Aerial imagery and field visits were used to assess visual and aesthetics impacts within the project area. Section 136 of the Federal Aid Highway Act of 1970 (Public Law [P.L.] 91-605) requires consideration of aesthetic values in the highway planning process. Aesthetic values would be emphasized with this proposed project. Generally, the existing visual quality of the project area is moderate to high with visual and aesthetic resources including forested areas, woodland areas, residential housing, and highway ROW leaving the existing landscape generally fragmented. The primary viewers would include motorists and single-family residents.

The Build Alternative would result in the construction of new elevated structures and roadway in a rural setting; therefore, visual and aesthetics impacts are anticipated. It is the policy of TxDOT to build visually pleasing roads, coupling beauty with their functional capability. The proposed project would require lighting and could include the use of high mast or safety lighting. The specific type of roadway lighting will be determined during the detailed design phase.

During construction, the contractor would be directed to locate staging areas away from visually sensitive areas where practicable and where land is available. Construction activities would be limited to daylight hours to eliminate the need to use high-wattage lighting sources to operate during night-time hours to the maximum extent practicable. Reseeding/revegetation would take place in areas disturbed during construction.

The No Build Alternative would not impact the existing visual and aesthetic quality of the project area.

5.8. Cultural Resources

5.8.1. Archeology

TxDOT performed a desktop-based study of available background information, which indicated that further field investigation is warranted. Due to the level of disturbance associated with the survey activities and limited access, TxDOT, has committed to conducting the required archeological survey to evaluate project impacts under Section 106 of the National Historic Preservation Act (NHPA) when ownership of the property is obtained by the State. No construction in the proposed new right of way may occur without archeological clearance by ENV-Archeology Studies Program.

Tribal coordination was initiated on 14 May 2018 with Federally Recognized Tribes with an interest in the proposed project area. Three responses were received within the 30-day review period. No issues or objections were received. In the event that inadvertent discoveries of human remains or 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 provisions of the PA (2005) and Memorandum of Understanding between TxDOT and THC.

5.8.2. Historic Properties

TxDOT historians reviewed the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and TxDOT files and found no historically significant resources previously documented within the area of potential effects (APE). The TxDOT Section 106 Programmatic Agreement defines the APE for this project as 150' from the ROW where new ROW is required, and current ROW where no new ROW is required.

Based on the Historic Resources Survey Report (HRSR), attached, TxDOT determined there are 12 properties containing 23 historic-age resources (built prior to 1977) in the APE. Property types consist of commercial, residential, agricultural, and recreational (see **Appendix F**). TxDOT ENV historians determined that the properties are common designs that lack architectural merit, are not works of a master, and have no known historic associations with important events or persons, and are therefore not eligible for NRHP listing under Criterion A, B, or C.

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 MOU, TxDOT historians, on August 10, 2018, determined that there are no historic, non-archeological properties in the APE. In compliance with the Antiquities Code of Texas and the MOU, TxDOT historians determined project activities have no potential for adverse effects. Individual project coordination with SHPO is not required.

The Build Alternative and No Build Alternative would not alter or change any historic properties. No mitigation is necessary.

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

Section 4(f) of the U.S. Department of Transportation Act of 1966 requires consideration of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development.

Section 6(f) of the Land and Water Conservation Fund Act requires that recreational facilities receiving U. S. Department of Interior (USDOI) funding from the Land and Water Conservation Fund Act as allocated by Texas Parks and Wildlife Department (TPWD) may not be converted to non-recreational uses unless approval is received from TPWD and the National Park Service (NPS).

There are no Section 4(f) or Section 6(f) properties present in the project area; therefore, no impacts are anticipated from either the Build Alternative or No Build Alternative.

5.10. Water Resources

The *Water Resources Technical Report*, available from the TxDOT Lufkin District, details a total of 48 water features in the project area that would likely be impacted. All features were identified as potentially jurisdictional waters of the United States (U.S.), including a perennial stream (Tarkington Bayou), six ephemeral streams, 31 palustrine emergent wetlands (PEM), five palustrine forested wetlands (PFO), and five ponds (see **Appendix F**). Project features and best management practices (BMP) would be used to minimize impacts to waters (i.e. spanning with bridges to maximum extent practicable, see section **5.10.2**). All project features and BMP will be further evaluated in the detailed design phase.

5.10.1. Clean Water Act Section 404

The proposed project would impact 0.388 acres of potentially jurisdictional streams and 0.52 acres of palustrine unconsolidated bottom wetlands (PUB), 4.177 acres of palustrine emergent (PEM) wetlands and 2.331 acres of palustrine forested wetlands (PFO). It is anticipated that the proposed project would require a USACE Individual Permit (IP) for impacts to jurisdictional waters in the proposed project area. TxDOT will coordinate with the USACE–Galveston District during the detailed design of the Build Alternative to obtain the

necessary permits and determine required mitigation. The Build Alternative would require mitigation for any potential to jurisdictional waters of the U.S.

The proposed project demonstrates compliance with 404(b)(1) guidelines. Other alternatives, the east widening and widening equally both sides, would require the relocation of the UPRR thus increasing the project footprint (i.e. likely increased cost and increased impacts to waters of the U.S.).

The No Build Alternative would not impact potentially jurisdictional waters of the U.S.

5.10.2. Clean Water Act Section 401

A USACE Section 404 permit will be required for the proposed project, and construction activities would require compliance with the State of Texas Water Quality Certification Program. The proposed project would be covered under Tier II and require the use of BMPs approved by TCEQ for Tier II projects. The proposed project would be in compliance with conditions set by TCEQ for projects authorized by certain nationwide permits.

The Build Alternative would not sustainably impact water quality within the proposed project area. Compliance with Section 401 of the CWA requires the use of BMPs to manage water quality on sites affecting jurisdictional waters. These BMPs would address each of the following categories: (1) erosion control, (2) post-construction total suspended solids (TSS) control, and (3) sedimentation control. Water quality BMPs that would be implemented include:

- Approved temporary vegetation
- Blankets/matting or mulch filter berms
- Vegetated filter strips
- Silt fence, sand bag, and/or compost filter berms and socks.

The No Build Alternative would not impact water quality within the proposed project beyond potential impacts resulting from the continued operation and maintenance of the existing US 59.

5.10.3. Executive Order 11990 Wetlands

EO 11990 Protection of Wetlands (issued 1977) requires federal agencies to minimize the destruction or modification of wetlands. Coordination with the USACE would be required prior to impacting any wetlands. In accordance with EO 11990, no practicable alternatives were identified that would avoid impacts to wetlands. Other alternatives, the east widening and widening equally both sides, would require the relocation of the UPRR thus increasing the project footprint (i.e. likely increased cost and increased impacts to waters of the U.S.).

Additionally, the project includes all practicable measures to minimize harm to wetlands - using bridges to span wetlands and waters, minimize ROW, and maintain locations of existing side roads to maximum extent practicable.

The No Build Alternative would not impact wetlands within the project area.

5.10.4. Rivers and Harbors Act

This project would not involve work in or over a navigable water of the U.S.; therefore, Sections 9 and 10 of the Rivers and Harbors Act and the General Bridge Act of 1946 do not apply (USACE 2012) to the Build Alternative or the No Build Alternative.

5.10.5. Clean Water Act Section 303(d)

The State of Texas is required, under Sections 303(d) of the federal CWA, to prepare biennial statewide water quality assessments that identify the status of use attainment for waterbodies, and to identify waterbodies for which effluent limitations are not stringent enough to implement water quality standards. Based on the assessments, there are eight unique crossings in the proposed project ROW. These waterbodies are not listed as impaired on the 2014 Texas Section 303(d) List (TCEQ 2014).

Per the 2014 Texas Section 303(d) List, the proposed project is within 5 linear miles of the East Fork of the San Jacinto River, segment ID 1003_02 which was listed as an impaired assessment unit for bacteria in 2006 (TCEQ 2014) (see Appendix F). Segment ID 1003_02 (East Fork of the San Jacinto) is located within the Whiskey Branch-East Fork San Jacinto River watershed. Coordination with TCEQ is required for projects that are located within 5 linear miles of, are within the watershed of, and drains to, an impaired assessment unit under Section 303(d) of the federal Clean Water Act. Although the proposed project is within 5 linear miles of an impaired assessment unit, the project is located within the Upper Tarkington Bayou watershed which is not within the watershed of an impaired assessment unit and it does not drain to an impaired assessment unit. Therefore, coordination with TCEQ was not required.

It is not anticipated that the Build Alternative or No Build Alternative would impact Section 303(d) stream segments.

5.10.6. Clean Water Act Section 402

Since TPDES 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 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 Special Provision 506-003 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.

5.10.7. Floodplains

The project is located within Federal Emergency Management Agency (FEMA)-designated map panels 48291C0130C, 48291C0025C, and 48407C0375C, all effective 05/02/2008. According to Flood Insurance Rate Maps (FIRM) of San Jacinto County and Liberty County, a portion of the proposed project is located within the 100-year floodplain. Areas within the 100-year floodplain are located mainly in San Jacinto County and extend south from near the north end of the project to approximately the San Jacinto County and Liberty County line (FEMA 2015).

This project is subject to and will comply with federal Executive Order 11988 on Floodplain Management. The department implements this Executive Order on a programmatic basis through its Hydraulic Design Manual. Design of this project will be conducted in accordance with the department’s Hydraulic Design Manual. Adherence to the TxDOT Hydraulic Design Manual ensures that this project will not result in a “significant encroachment” as defined by FHWA’s rules implementing Executive Order 11988 at 23 CFR 650.105(q).

5.10.8. Wild and Scenic Rivers

There are no wild and scenic rivers located within the project area.

5.10.9. Coastal Barrier Resources

The proposed project is not located within the Coast Barrier Resource System.

5.10.10. Coastal Zone Management

The proposed project is not located outside the Texas Coastal Management Program Boundary; therefore, a consistency determination would not be required.

5.10.11. Edwards Aquifer

The proposed project is not located within any contributing, recharge, or transition zones of the Edwards Aquifer. Therefore, an Edwards Aquifer Protection Plan would not be required.

5.10.12. *International Boundary and Water Commission*

The proposed project is located outside of the jurisdiction of the International Boundary and Water Commission; therefore, coordination would not be required.

5.10.13. *Drinking Water Systems*

A search was made for water wells in and adjacent to the proposed project area. A review of the Texas Commission on Environmental Quality (TCEQ) and TWDB records revealed multiple water wells adjacent to or within the proposed ROW (TWDB 2013). Three public and 14 private water wells were identified within a one-mile approximate radius of the proposed project area. Of these 17 wells, only two are located within the proposed project ROW.

The proposed project would include implementation of a stormwater management plan and BMPs to prevent stormwater runoff from entering groundwater aquifers at wellheads.

The No Build Alternative would not impact water wells.

5.11. **Biological Resources**

5.11.1. *Texas Parks and Wildlife Coordination*

TxDOT initiated coordination with TPWD in July 2018. Based on a review of the documentation, TPWD concluded that per the avoidance and mitigation efforts described, and provided that the project plans do not change, coordination is complete for the proposed project. TPWD coordination documentation can be found in **Appendix E**.

5.11.2. *Impacts to Vegetation*

Field observations showed approximately 5.01 acres of disturbed prairie; 2.01 acres of riparian, 77.98 acres of mixed woodlands and forest; 12.95 acres of floodplain; 0.46 acres of azonal; and 243.63 acres of urban (see **Appendix F**). The following habitat types would be impacted by the proposed project: 5.56 acres of floodplain, which is greater than the 0.5-acre programmatic agreement (PA) threshold; 0.56 acre of riparian, which is greater than the 0.1-acre PA threshold; and 32.51 acres of Mixed Woodland and Forests, which is greater than the 0.5-acre PA threshold.

TxDOT will minimize impacts to native vegetation to the maximum extent practicable (e.g. wetland areas). Impacts to vegetation would be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project. The removal of native vegetation, particularly mature native trees and shrubs would be avoided to the greatest extent practicable. Temporary impacts would occur within grassland vegetation areas as these areas would be restored. Woodland and forested areas would be converted to grassland vegetation; therefore, impacts in these areas would be permanent. Upon completion of earthwork operations, disturbed areas would be restored and reseeded, where feasible, in accordance with TxDOT's Vegetation Management Guidelines and in

compliance with the intent of Executive Order 13112 on Invasive Species and the FHWA Executive Memorandum on Environmentally and Economically Beneficial Landscaping Practices.

No unusual or special vegetation types would be impacted by implementing the Build Alternative. The *Tier I Site Assessment Technical Report*, available from the TxDOT Lufkin District, describes the vegetation types in the proposed project area.

The No Build Alternative would not impact vegetation beyond current impacts as a result of continued maintenance of existing US 59.

5.11.3. Executive Order 13112 on Invasive Species

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

5.11.4. 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. The department implements this Executive Memorandum on a programmatic basis through its Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual.

5.11.5. Impacts to Wildlife

A Biological Evaluation (BE) and Tier I Site Assessment were prepared and include a detailed analysis of biological resources and subsequent data. The proposed project is located within the Pineywoods (Western Gulf Coastal Plains) Ecoregion as described in the 2012 Texas Conservation Action Plan (TCAP).

The Build Alternative would impact wildlife populations as a result of habitat modification, fragmentation, and loss, and operation and maintenance of the new roadway. However, these impacts are not anticipated to be substantial as the existing landscape is generally fragmented and wildlife species adapted to rural, developed areas and assimilated to habitat adjacent to the existing highway would likely re-colonize the available habitat areas after construction. During construction and post construction, BMPs would be implemented including contractor training, erosion and sedimentation controls, and reseeding/revegetating disturbed areas according to TxDOT standards.

The No Build Alternative would not impact wildlife populations beyond current impacts as a result of continued operation and maintenance of the existing US 59 highway.

5.11.6. *Migratory Bird Treaty Act*

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 the department's policy to avoid removal and destruction of active bird nests except through federal or state approved options. In addition, it is the department'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 construction activities outside the typical nesting season.

The Build Alternative and the No Build Alternative would follow the MBTA.

5.11.7. *Fish and Wildlife Coordination Act*

The Fish and Wildlife Coordination Act (FWCA) of 1934 was enacted to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. The act requires federal agencies to consider the effect that water-related projects have on fish and wildlife resources; act to prevent loss or damage to these resources; and provide for the development and improvement of these resources. This project may impact 48 potentially jurisdictional waters of the U.S. including wetlands within the proposed project area.

No practicable alternatives were identified that would avoid impacts. Other alternatives, the east widening and widening equally both sides, would require the relocation of the UPRR thus increasing the project footprint (i.e. likely increased cost and increased impacts).

Additionally, the project includes all practicable measures to minimize harm - using bridges to span wetlands and waters, minimize ROW, and maintain locations of existing side roads to maximum extent practicable.

TxDOT will coordinate with the USACE-Galveston District during the detailed design of the Build Alternative to obtain the necessary permits and determine required mitigation to Coordination has begun with USFWS to address impacts. These impacts would be addressed and managed through the USACE 404 permitting process.

5.11.8. *Bald and Golden Eagle Protection Act of 2007*

The Bald and Golden Eagle Protection Act (BGEPA) of 2007 prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles, including their parts, nests or eggs. No suitable habitat for these species is present in the project area.

The Build Alternative and the No Build Alternative would not impact bald or golden eagles.

5.11.9. *Magnuson-Stevens Fishery Conservation Management Act*

The proposed project is not located within a county with tidally-influenced waters; therefore, will not have the potential to affect fisheries.

5.11.10. *Marine Mammal Protection Act*

The proposed project is not located in a coastal county and, therefore, will not have the potential to affect marine mammals.

5.11.11. *Threatened, Endangered and Candidate Species*

The Endangered Species Act (ESA) affords protection for federally-listed threatened and endangered species and, where designated, critical habitat for these species. The U.S. Fish and Wildlife Service (USFWS) maintains a list of federally threatened and endangered species potentially present for each Texas County. The Information for Planning and Conservation tool (IPaC) for the USFWS was accessed October 18, 2017 (as part of the BE and Tier I Site Assessment) and subsequently updated on April 8, 2019. Based on the Liberty and San Jacinto counties list, the IPaC, and site visits conducted in July 2017, there is one federally-listed species with the potential to occur within the proposed project area the endangered Red-cockaded Woodpecker (*Picoides borealis*) (USFWS 2017a; USFWS 2017b). However, suitable habitat is not present in the project area for the Red-cockaded Woodpecker. Due to a lack of older, mature pine trees suitable for cavity trees and extensive clearing and fragmentation of pine dominated woodland habitat, there is no suitable habitat for the species within or adjacent to the proposed project ROW. There is no critical habitat, as designated by the USFWS, located within the proposed project area. The Build Alternative and the No Build Alternative would have no effect on federally listed species.

State-listed threatened and endangered species are protected by state and local laws within Texas (Chapters 67 and 68 of the Texas Parks and Wildlife Code and Sections 65.171 - 65.18 of Title 31 of the Texas Administrative Code). As discussed in the *Tier I Site Assessment Technical Report*, four state-threatened species have the potential to occur within the project area. These species include: Swallow-tailed Kite (*Celanides forficatus*), Rafinesque's big-eared bat (*Corynorhinus rafinesquii*), alligator snapping turtle (*Macrochelys temminckii*), and timber rattlesnake (*Crotalus horridus*). BMPs per the TxDOT-TPWD BMP Programmatic Agreement would be utilized in order to minimize or avoid impacts to these species. See the species impact table in the *Tier I Site Assessment Technical Report* for the species impact table and a list of BMPs to be utilized is available for review at the TxDOT Lufkin District. No state-listed species were observed during the site visits in July 2017.

The Build Alternative is not anticipated to impact state listed threatened and endangered species. The No Build Alternative would not impact state listed threatened and endangered species.

5.12. Air Quality

The proposed project is located in San Jacinto and Liberty Counties. San Jacinto County is in an area in attainment or unclassifiable for all National Ambient Air Quality Standards (NAAQS). However, Liberty County has been designated by the U.S. Environmental Protection Agency (EPA) as a moderate nonattainment area for 2008 ozone NAAQS; therefore, the transportation conformity rules apply.

Liberty County is a member of the Houston-Galveston Area Council (HGAC) metropolitan planning organization (MPO). The proposed action is consistent with the HGAC's financially constrained 2040 Regional Transportation Plan and the HGAC 2019-2022 Transportation Improvement Plan (TIP), as amended, which were initially found to conform to the TCEQ State Implementation Plan (SIP) by FHWA on 9/11/2015 and 9/28/2018, respectively. Copies of the MTP and TIP pages are included in **Appendix E**. All projects in the HGAC TIP that are proposed for federal or state funds were initiated in a manner consistent with federal guidelines in Section 450, of Title 23 CFR and Section 613.200, Subpart B, of Title 49 CFR.

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

Traffic data for the year 2046 is projected to be 49,475 average annual daily traffic (AADT). A prior TxDOT modelling 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 AADT below 140,000. The AADT projections for the project do not exceed 140,000 vehicles per day (vpd) threshold; therefore, a traffic air quality analysis (TAQA) is not required.

A qualitative Mobile Source Air Toxics (MSAT) analysis was prepared following TxDOT's current air quality compliance process and in accordance with TxDOT's May 2017 Environmental Handbook for Air Quality. The analysis concluded that the additional frontage roads contemplated as part of the project alternatives will have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, under each alternative there may be localized areas where ambient concentrations of MSAT could be higher under certain Build Alternatives than the No Build Alternative.

The localized increases in MSAT concentrations would likely be most pronounced along the expanded frontage roads between Midway Road and the Liberty/San Jacinto County line. However, the magnitude and the duration of these potential increases compared to the No Build alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a highway is widened, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT will be lower in

other locations when traffic shifts away from them. However, on a regional basis, 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. For more details, refer to the Air Quality Technical Report available from the TxDOT Lufkin District.

HGAC has determined that a project level congestion mitigation analysis under their congestion management plan is not necessary. Please see attached correspondence with HGAC in Appendix E.

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

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

5.13. Hazardous Materials

The *Hazardous Material Initial Site Assessment (ISA) Report*, available from the TxDOT Lufkin District, included a review of topographic maps, historic aerial photographs, a regulatory database search, and a site visit.

The Geosearch regulatory database search identified five sites in databases. Four of the sites are not anticipated to pose a concern to the project. One site, Zeks Food Mart, is listed on the petroleum storage tank database and is anticipated to pose a concern to the proposed project. The site has an underground storage tank (UST) in the proposed ROW that will have to be removed (see **Appendix F**).

There were three unmapped sites found in the proposed ROW during a site visit; a TEA Energy Service Pipeline Station, a demolished former hotel/potential gas station and a

former equipment repair facility. All three would require additional investigation prior to construction.

The contractor would take appropriate measures to prevent, minimize, and control the spill of fuels, lubricants, and hazardous materials that the contractor brings into the construction staging area.

Based on available historic data, existing land use, and the nature of the proposed project, there are no other hazardous materials concerns anticipated for the Build Alternative or the No Build Alternative.

5.14. Traffic Noise

A traffic noise analysis was conducted in accordance with TxDOT's (Federal Highway Administration [FHWA] approved) 2011 Guidelines for Analysis and Abatement of Roadway Traffic Noise.

Sound from highway traffic is generated primarily from a vehicle's tires, engine and exhaust. It is commonly measured in decibels and is expressed as "dB."

Sound occurs over a wide range of frequencies. However, not all frequencies are detectable by the human ear; therefore, an adjustment is made to the high and low frequencies to approximate the way an average person hears traffic sounds. This adjustment is called A-weighting and is expressed as "dB(A)."

Also, because traffic sound levels are never constant due to the changing number, type and speed of vehicles, a single value is used to represent the average or equivalent sound level and is expressed as "Leq."

The traffic noise analysis typically includes the following elements:

- Identification of land use activity areas that might be impacted by traffic noise.
- Determination of existing noise levels.
- Prediction of future noise levels.
- Identification of possible noise impacts.
- Consideration and evaluation of measures to reduce noise impacts.

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

Absolute criterion—The predicted traffic noise level at a receiver approaches, equals, or exceeds the NAC. "Approach" is defined as 1 dB(A) (A-weighted decibels) below the NAC. For example, a traffic noise impact would occur at a Category B residence if the traffic noise level is predicted to be 66 dB(A) or above.

Relative criterion—The predicted noise level substantially exceeds the existing traffic noise level at a receiver even though the predicted traffic noise level does not approach, equal, or exceed the NAC. “Substantially exceeds” is defined as an increase of more than 10 dB(A). For example, a traffic noise impact would occur at a Category B residence if the existing level is 54 dB(A) and the predicted level is 65 dB(A). This traffic noise level does not exceed the NAC, but it is more than 10 dB(A) greater than it had been.

The FHWA traffic noise modeling software (TNM 2.5) was used to calculate existing and predicted traffic noise levels. Existing and predicted traffic noise levels were modeled at 46 receiver locations (**Table 5.3** and in **Appendix F**) that represent the land use activity areas adjacent to the proposed project that might be impacted by traffic noise and potentially benefit from feasible and reasonable noise abatement.

Table 5.2: Traffic Noise Levels (dBA Leq)

Representative Receiver	NAC Category	NAC Level	Existing 2023	Predicted 2043	Change (±)	Noise Impact	
R-1	Residence	B	67	60	63	+3	No
R-2	Residence	B	67	57	60	+3	No
R-3	Residence	B	67	55	58	+3	No
R-4	Residence	B	67	54	59	+5	No
R-5	Residence	B	67	52	57	+5	No
R-6	Residence	B	67	53	56	+3	No
R-7	Residence	B	67	51	54	+3	No
R-8	Residence	B	67	65	64	-1	No
R-9	Residence	B	67	57	61	+4	No
R-10	Residence	B	67	63	63	0	No
R-11	Residence	B	67	64	63	-1	No
R-12	Residence	B	67	63	63	0	No
R-13	Residence	B	67	64	63	-1	No
R-14	Residence	B	67	53	57	+4	No
R-15	Residence	B	67	58	61	+3	No

	Representative Receiver	NAC Category	NAC Level	Existing 2023	Predicted 2043	Change (±)	Noise Impact
R-16	Residence	B	67	58	61	+3	No
R-17	Cemetery	C	67	59	60	+1	No
R-18	Residence	B	67	60	60	+0	No
R-19	Residence	B	67	61	62	+1	No
R-20	Residence	B	67	51	55	+4	No
R-21	Residence	B	67	60	62	+2	No
R-22	Residence	B	67	60	63	+3	No
R-23	Residence	B	67	61	63	+2	No
R-24	Residence	B	67	61	63	+2	No
R-25	Residence	B	67	60	61	+1	No
R-26	Residence	B	67	61	62	+1	No
R-27	Residence	B	67	60	61	+1	No
R-28	Residence	B	67	63	64	+1	No
R-29	Residence	B	67	60	60	0	No
R-30	Residence	B	67	63	63	0	No
R-31	Residence	B	67	61	62	+1	No
R-32	Residence	B	67	68	67	-1	Yes
R-33	Residence	B	67	65	64	-1	No
R-34	Residence	B	67	65	65	0	No
R-35	Residence	B	67	65	65	0	No
R-36	Restaurant	E	72	66	66	0	No
R-37	Residence	B	67	64	64	0	No
R-38	Church (interior)	D	52	40	40	0	No
R-39	Residence	B	67	63	63	0	No

	Representative Receiver	NAC Category	NAC Level	Existing 2023	Predicted 2043	Change (±)	Noise Impact
R-40	Church (interior)	D	52	41	41	0	No
R-41	Residence	B	67	65	66	+1	Yes
R-42	Residence	B	67	63	63	0	No
R-43	Residence	B	67	66	66	0	Yes
R-44	Residence	B	67	57	57	0	No
R-45	Residence	B	67	57	57	0	No
R-46	Residence	B	67	57	56	-1	No

As indicated in **Table 5.3**, the proposed project would result in a traffic noise impact at three receivers. 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 traffic noise barriers.

Before any noise abatement measure can be proposed for incorporation into the project, it must be both feasible and reasonable. In order to be “feasible”, the abatement measure must be able to reduce the noise level at greater than 50% of impacted, first row receivers by at least 5 dBA; and to be “reasonable”, it must not exceed the cost-effectiveness criterion of \$25,000 for each receiver that would benefit by a reduction of at least 5 dBA and the abatement measure must be able to reduce the noise level for at least one impacted, first row receiver by at least 7 dBA . None of the above abatement measures would be both feasible and reasonable; therefore, no noise abatement measures are proposed for this project. For more details, refer to the *Traffic Noise Analysis Technical Report*, available from the TxDOT Lufkin District.

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 (2043) noise impact contours (**Table 5-4**).

Table 5.3: Predicted Noise Impact Contours

Undeveloped Area	Land Use	Impact Contour	Distance from ROW
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US 59 west side, north of SL573	NAC B and C	66 dB(A)	50 feet from ROW
US 59 west side, north of SL 573	NAC E	71 dB(A)	Within ROW

A copy of this traffic noise analysis will be available to local officials to ensure, to the maximum extent possible, future developments are planned, designed and programmed in a manner that would avoid traffic noise impacts.

On the date of approval of this document (Date of Public Knowledge), FHWA and TxDOT are no longer responsible for providing noise abatement for new development adjacent to the project.

The projected increase in traffic volumes on existing US 59 would likely result in increases to traffic noise levels for adjacent receivers if the No Build Alternative was implemented. If the No Build Alternative was implemented, noise levels for receivers adjacent to US 59 would likely remain similar to existing conditions.

5.15. Induced Growth

The proposed project was evaluated using TxDOT's Induced Growth Impacts Analysis Decision Tree, which serves as an initial step to evaluate whether a proposed project could induce growth and would warrant further analysis. Based on the results, TxDOT determined that an induced growth analysis would not be necessary for the proposed project. The determination for no further analysis was based on the following factors:

- The need of the proposed project does not include economic development, does not serve a specific development.
- Economic development or new opportunities for growth/development are not cited as benefits of the proposed project.
- The project is not adding capacity, it is bringing the facility to interstate standards.
- The area is not experiencing economic growth

Based on the factors listed above it is anticipated that the Build Alternative would not induce growth and no further analysis is warranted. The No Build Alternative is not anticipated to induce development.

5.16. Cumulative Impacts

The proposed project was evaluated using TxDOT's Cumulative Impacts Analysis Decision Tree, which serves as an initial step to evaluate whether a proposed project could have cumulative impacts and would warrant further analysis. Based on the results, TxDOT

determined that a cumulative impacts analysis would not be necessary for the proposed project. The determination for no further analysis was based on the following factors:

- The project would not have substantial direct or indirect impacts on any resource.
- There are not any resources in the project area in poor or declining health.

As a result, it is anticipated that the Build Alternative would not result in cumulative impacts. The No Build Alternative is not anticipated to result in cumulative impacts.

5.17. Construction Phase Impacts

During the construction phase of the proposed project, clearing, grading, and contouring to accommodate the relief route would occur. Temporary lane closures of US 59 may be required, and temporary pavement may be used to accommodate the staging of traffic and to maintain access. All lane closures and delays would return to normal following the completion of construction.

Temporary increases in air pollutant emissions, such as PM (fugitive dust) may occur from site preparation and construction activities. These PM emissions would be minimized by using fugitive dust control measures such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate. In addition, an increase in MSAT emissions may occur during construction activities from equipment and related vehicles. These emission increases would be expected to return to normal after construction of the proposed project.

During the construction phase of this project, temporary increases in noise may result from construction activities. Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are tolerable. None of the receivers are expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. Provisions would be included in the construction 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. Construction activities would be limited to daylight hours to eliminate the need to use high-wattage lighting sources to operate during nighttime hours to the maximum extent practicable.

6. Agency Coordination

TxDOT has coordinated with the following agencies during the development of this EA:

- TPWD – concluded on November 6, 2018
- Texas Historical Commission (Historic) – concluded on August 21, 2018

- Texas Historical Commission (Archeology) – Ongoing, the archeological survey will be conducted when ownership of the property is obtained by the State.
- Section 106 Tribal Consultation – concluded on May 14, 2018

Additional coordination with the TCEQ and the USACE will be required prior to construction. All agency coordination for this EA can be found in **Appendix G**.

7. Public Involvement

On September 27, 2016 a public meeting was conducted at Shepherd High School, 1 Pirate Lane, Shepherd, TX 7731 from 4:00 to 7:00 p.m. The public meeting was held in an open house format. A total of 75 attendees registered at this meeting, including a newspaper reporter and a total of 16 TxDOT/consultant representatives. A total of six written comments were received during the meeting (see **Appendix H**). Overpass locations were changed as a result of public feedback.

Details of the public meeting and comments received are included in the *Public Meeting Summary Report* available from the TxDOT Lufkin District. Additionally, a public hearing is planned for the proposed project.

8. Post-Environmental Clearance Activities and Contractor Communications

8.1. Post-Environmental Clearance Activities

1. Complete Section 106 investigations and any required coordination - TxDOT is committed to conducting the required archeological survey with backhoe trenches when ownership of the property is obtained by the State.
2. Obtain necessary CWA Section 401, 402, and 404 permits for impacts to jurisdictional waters in the proposed project area.
3. Two sites were identified in the ISA as possible former locations of fuel dispensing facilities. The locations were identified as Unmapped site No. 2 and No. 3 and identified as Former Hotel/Potential Gas Station and Former Equipment Repair Facility. Following purchase of the ROW, a geophysical survey should be conducted to determine if buried underground tanks are present. Based on location of any tanks, they can be removed prior to construction.

8.2. Contractor Communications

1. Fill/dredging activities within waters of the US requires authorization by the USACE under Section 404 of the CWA. Ensure design and construction follows Section 404 permitting that has been obtained. Ensure compliance with Section 401 TCEQ BMPs.
2. Proper maintenance and idling of construction equipment and water sprinkling during construction would be observed to control emissions of PM.

3. If dewatering activities are necessary, TxDOT and or the contractor would coordinate with the TPWD Kills and Spills Team (KAST) to obtain necessary permits
4. A SWPPP, large construction site notice, notice of termination (NOT) and notice of intent (NOI) would be required.
5. The MBTA of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, egg in part or in whole, without a Federal permit issued in accordance within the Act's policies and regulations. In the event that migratory birds are encountered on-site during proposed project construction, adverse impacts on protected birds, active nests, eggs, and/or young would be avoided. The contractor would remove all old migratory bird nests outside of the nesting season from any structure where work will be done. Tree clearing would be done outside of nesting season.
6. TPWD Coordination resulted in the following BMPs being considered during design and construction:
 - Swallow-Tailed Kite, White-faced Ibis, and Wood Stork:
 - Do not disturb, destroy, or remove active nests, including ground-nesting birds, during the nesting season;
 - Avoid the removal of unoccupied, inactive nests;
 - Prevent the establishment of active nests during the nesting season on TxDOT-owned and -operated facilities and structures proposed for replacement or repair; and
 - Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.
 - Plains spotted skunk:
 - Contractors will be advised of potential occurrence in the proposed project area, and to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
 - Timber rattlesnake and alligator snapping turtle:
 - Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, use erosion control blankets or mats that contain no netting or contain loosely woven, natural-fiber netting. Plastic netting should be avoided to the greatest extent practicable.
 - Contractors will be advised of potential occurrence in the proposed project area, and to avoid harming the species if encountered, and to allow the species to leave the project area safely when encountered.
 - Minimize impacts to wetlands and shoreline basking sites.
 - Avoid or minimize removing downed trees, rotting stumps, and leaf litter where feasible.
 - PSLs on state ROW would be located in upland locations.

- Unnamed mayflies and Texas emerald dragonfly
 - For mayflies, BMPs to protect water quality by minimizing erosion and sedimentation, as well as, maintaining native riparian vegetation or replanting with woody vegetation will help protect these aquatic species.
 - For the Texas emerald dragonfly, minimize compaction of saturated soils and disturbance to seepage springs, bogs, and first order streams where larvae occur, and minimize sedimentation in small water bodies.
 - TxDOT will contact TPWD if any species of greatest conservation need (SCGN) plants are observed during construction within the footprint
7. In the event that unanticipated archaeological deposits are encountered during construction, work in the immediate area will cease, and TxDOT archaeological staff will be contacted to initiate post-review discovery procedures.
 8. If any species on the San Jacinto and/or Liberty County threatened and endangered species list is sighted in the proposed project area during construction, stop construction and notify the Area Engineer.
 9. Provisions would be included 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.
 10. Comply with TxDOT's Vegetation Management Guidelines and in compliance with the intent of Executive Order 13112 on Invasive Species and the FHWA Executive Memorandum on Environmentally and Economically Beneficial Landscaping Practices

9. Conclusion

The social, economic, and environmental investigations conducted indicate that the proposed project would not significantly impact the human or natural environments; therefore, the determination of a Finding of No Significant Impact (FONSI) for this proposed project is recommended.

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10. References

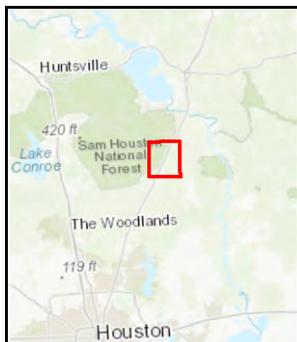
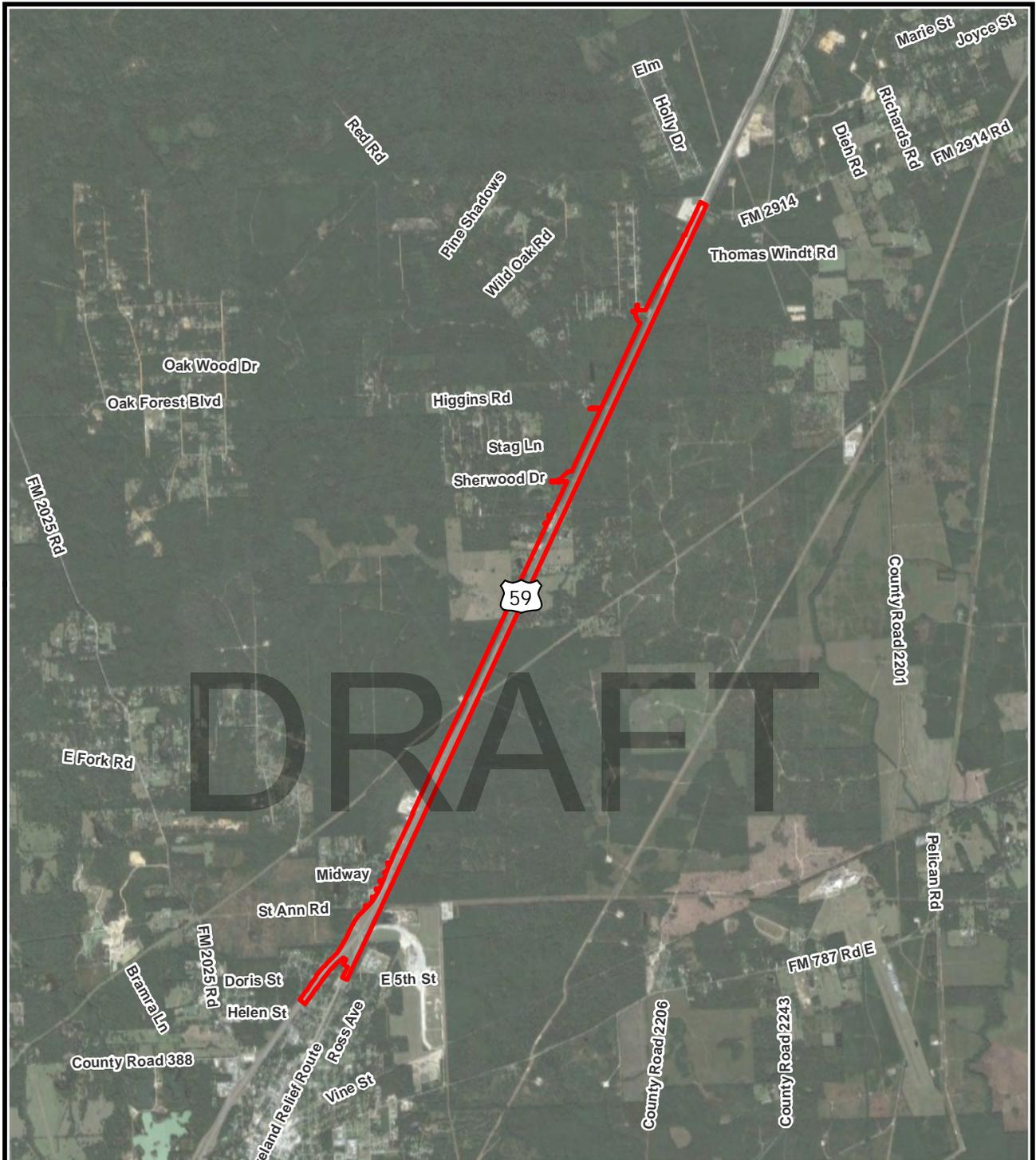
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11. Appendices

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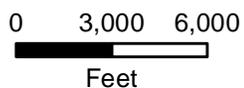
Appendix A
Project Location Map

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Legend

 Project Location



Texas Department of Transportation

PROJECT LOCATION MAP
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

Prepared By: Atkins/voro5913

Scale: 1:72,000

Job No.: 100055068

Date: Apr 20, 2018

Appendix B
Project Photos

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US 59 From FM 2914 to 0.65 mile South of SL 573
Appendix B: Representative Photographs of Proposed Project Area (taken July 2017)



Photograph 1: Wetland 9, a PEM wetland formed in a ditch bottom within an otherwise upland area, facing south (30.385326°, -95.064822°).



Photograph 2: Wetland 9, a PEM wetland formed in a ditch bottom within otherwise upland area, facing north (30.385326°, -95.064822°).

US 59 From FM 2914 to 0.65 mile South of SL 573
Appendix B: Representative Photographs of Proposed Project Area (taken July 2017)



Photograph 3: Wetland 11, a PEM wetland formed in ditch bottom within otherwise upland area. Borrow pit with elevated banks, facing west (30.385243°, -95.065284°).



Photograph 4: Wetland 11, a PEM wetland form in ditch bottom within otherwise upland area. Borrow pit with elevated banks, facing south (30.385243°, -95.065284°).

US 59 From FM 2914 to 0.65 mile South of SL 573
Appendix B: Representative Photographs of Proposed Project Area (taken July 2017)



Photograph 5: Wetland A3-2, a PEM wetland adjacent to off-site jurisdictional waterbody, facing east (30.408726°, -95.051162°).



Photograph 6: Wetland A3-2, a PEM wetland adjacent to off-site jurisdictional waterbody, facing west (30.408726°, -95.051162°).

US 59 From FM 2914 to 0.65 mile South of SL 573
Appendix B: Representative Photographs of Proposed Project Area (taken July 2017)



Photograph 7: Wetland A4, a PEM wetland adjacent to an off-site jurisdictional waterbody, facing south. (30.407914°, -95.052090°)



Photograph 8: Wetland A4, a PEM wetland adjacent to an off-site jurisdictional waterbody, facing north (30.407914°, -95.052090°).

US 59 From FM 2914 to 0.65 mile South of SL 573
Appendix B: Representative Photographs of Proposed Project Area (taken July 2017)



Photograph 9: Wetland A2 is a wetland complex (WET A2-2, and A2-3 pictured) adjacent to an off-site jurisdictional waterbody, facing north (30.415463°, -95.047125°).



Photograph 10: Wetland A2 is a wetland complex (WET A2-2, and A2-3 pictured) adjacent to an off-site jurisdictional waterbody, facing south (30.415463°, -95.047125°).

US 59 From FM 2914 to 0.65 mile South of SL 573
Appendix B: Representative Photographs of Proposed Project Area (taken July 2017)



Photograph 11: Open Water 5, a water body connecting road-side ditches beneath US 59 via box culvert, facing north (30.425407°, -95.041260°).



Photograph 12: Open Water 5, a water body connecting road-side ditches beneath US 59 via box culvert, , facing south (30.425407°, -95.041260°).

US 59 From FM 2914 to 0.65 mile South of SL 573
Appendix B: Representative Photographs of Proposed Project Area (taken July 2017)



Photograph 13: Tarkington Bayou, a potential jurisdictional stream, located on the west side of US 59, facing downstream (30.418571°, -95.045339°).



Photograph 14: Tarkington Bayou, a potential jurisdictional stream, located on the west side of US 59, facing upstream (30.418571°, -95.045339°).

US 59 From FM 2914 to 0.65 mile South of SL 573
Appendix B: Representative Photographs of Proposed Project Area (taken July 2017)



Photograph 15: Wetland 5B, a riparian wetland connected to Tarkington Bayou, located on the east side of US 59, facing east (30.418480°, -95.044617°).



Photograph 16: Wetland 5C, a riparian wetland connected to Tarkington Bayou, facing south (30.418447°, -95.045031°).

US 59 From FM 2914 to 0.65 mile South of SL 573
Appendix B: Representative Photographs of Proposed Project Area (taken July 2017)



Photograph 17: Wetland A9, an isolated PEM wetland in a disturbed area beneath a billboard located on a property with no right of entry, facing west (30.378040°, -95.069444°).



Photograph 18: Wetland A9, an isolated PEM wetland in a disturbed area beneath billboard located on a property with no right of entry, facing west (30.378040°, -95.069444°).

US 59 From FM 2914 to 0.65 mile South of SL 573
Attachment C: Representative Photographs of Proposed Project Area (taken July 2017)
CSJ: 0177-02-057, 0177-03-099



Photograph 1: Typical Urban High Intensity vegetation community within or adjacent to ROW, facing south (30.389710, -95.061967).



Photograph 2: Typical Urban High Intensity vegetation community within or adjacent to ROW, facing west (30.38058, -95.067976).

US 59 From FM 2914 to 0.65 mile South of SL 573
Attachment C: Representative Photographs of Proposed Project Area (taken July 2017)
CSJ: 0177-02-057, 0177-03-099



Photograph 3: Typical Urban Low Intensity vegetation community within or adjacent to the proposed project ROW, facing north (30.38338, -95.066145).



Photograph 4: Typical Urban Low Intensity vegetation community within or adjacent to the proposed project ROW, facing west (30.375136, -95.071358).

US 59 From FM 2914 to 0.65 mile South of SL 573
Attachment C: Representative Photographs of Proposed Project Area (taken July 2017)
CSJ: 0177-02-057, 0177-03-099



Photograph 5: Typical Pineywoods: Typical Longleaf or Loblolly Hardwood Flatwood vegetation community within or adjacent to project ROW, facing east (30.442660, -95.032257).



Photograph 6: Typical Pineywoods: Longleaf or Loblolly Hardwood Flatwood vegetation community within or adjacent to ROW, facing south (30.442660, -95.032257).

US 59 From FM 2914 to 0.65 mile South of SL 573
Attachment C: Representative Photographs of Proposed Project Area (taken July 2017)
CSJ: 0177-02-057, 0177-03-099



Photograph 7: Typical Pinewoods: Bottomland Temporary Flooded Hardwood Forest within or adjacent to project ROW, facing east (30.406291, -95.052652).



Photograph 8: Typical Pinewoods: Bottomland Temporary Flooded Hardwood Forest within or adjacent to project ROW, facing west (30.406291, -95.052652).

US 59 From FM 2914 to 0.65 mile South of SL 573
Attachment C: Representative Photographs of Proposed Project Area (taken July 2017)
CSJ: 0177-02-057, 0177-03-099



Photograph 9: Typical Pinewoods: Disturbed or Tamed Grassland vegetation community within or adjacent to project ROW, facing north (30.408334, -95.052659).



Photograph 10: Typical Pinewoods: Disturbed or Tamed Grassland vegetation community within or adjacent to proposed project ROW, facing south (30.408919, -95.051390).

US 59 From FM 2914 to 0.65 mile South of SL 573
Attachment C: Representative Photographs of Proposed Project Area (taken July 2017)
CSJ: 0177-02-057, 0177-03-099



Photograph 11: Typical Pineywoods: Bottomland Herbaceous Wetland vegetation community within or adjacent to proposed project ROW, facing west (30.406200, -95.052549).



Photograph 12: Typical Pineywoods: Bottomland Herbaceous Wetland vegetation community within or adjacent to proposed project ROW, facing south (30.434274, -95.037671).

US 59 From FM 2914 to 0.65 mile South of SL 573
Attachment C: Representative Photographs of Proposed Project Area (taken July 2017)
CSJ: 0177-02-057, 0177-03-099



Photograph 13: Typical Pineywoods: Small Stream Riparian Herbaceous Wetland community within or adjacent to the proposed project ROW, facing east (30.418499, -95.044719).



Photograph 14: Typical Pineywoods: Small Stream Riparian Herbaceous Wetland vegetation community within or adjacent to the proposed project ROW, facing south (30.418499, -95.044719)

US 59 From FM 2914 to 0.65 mile South of SL 573
Attachment C: Representative Photographs of Proposed Project Area (taken July 2017)
CSJ: 0177-02-057, 0177-03-099



Photograph 15: Typical Pineywoods: Small Stream and Riparian Temporary Flooded Mixed Forest vegetation community within or adjacent to the proposed project ROW, facing west (30.41850, -95.045353).

US 59 From FM 2914 to 0.65 mile South of SL 573
San Jacinto and Liberty Counties, Texas
CSJs: 0177-02-057, 0177-03-099



Photograph 1 – View of Map ID #1 – Champion Travel Plaza. Abandoned facility located 500 feet north of the project area.



Photograph 2 – View of Map ID #2 – Zeks Food Mart/SNS Food Mart. Entire facility is located within proposed right-of-way and contains three 6,000 gallon underground storage tanks.

US 59 From FM 2914 to 0.65 mile South of SL 573
San Jacinto and Liberty Counties, Texas
CSJs: 0177-02-057, 0177-03-099



Photograph 3 – View of Unmapped Site #1 – Pipeline Facility. Site includes high pressure gas lines and associated pipeline equipment within the proposed ROW.



Photograph 4 – View of Unmapped Site #1 – Pipeline Facility. Site includes high pressure gas lines and associated pipeline equipment within the proposed ROW.

US 59 From FM 2914 to 0.65 mile South of SL 573
San Jacinto and Liberty Counties, Texas
CSJs: 0177-02-057, 0177-03-099



Photograph 5 - Unmapped Site #2 - Former hotel/potential gas station site located at 661 US 59 N, Cleveland, TX. Potential USTs within proposed ROW.



Photograph 6 - Unmapped Site #2 - Former hotel/potential gas station site located at 661 US 59 N, Cleveland, TX. Potential USTs within proposed ROW. Unmapped Site #3 in the background.

US 59 From FM 2914 to 0.65 mile South of SL 573
San Jacinto and Liberty Counties, Texas
CSJs: 0177-02-057, 0177-03-099



Location of remaining concrete island shown in Photograph 6.

Photograph 7 - Unmapped Site #2 – Aerial photo of former hotel/potential gas station site prior to demolition.



Photograph 8 – Unmapped Site #3 – Former Equipment Repair Facility located at 633 US 59 N, Cleveland, TX.

US 59 From FM 2914 to 0.65 mile South of SL 573
San Jacinto and Liberty Counties, Texas
CSJs: 0177-02-057, 0177-03-099



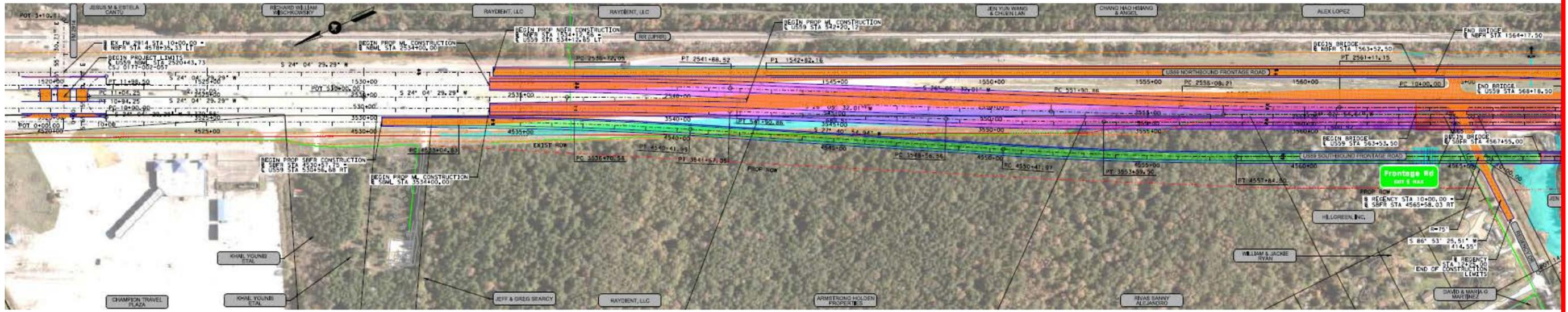
Photograph 9 – Unmapped Site #3 – Former Equipment Repair Facility located at 633 US 59 N, Cleveland, TX.



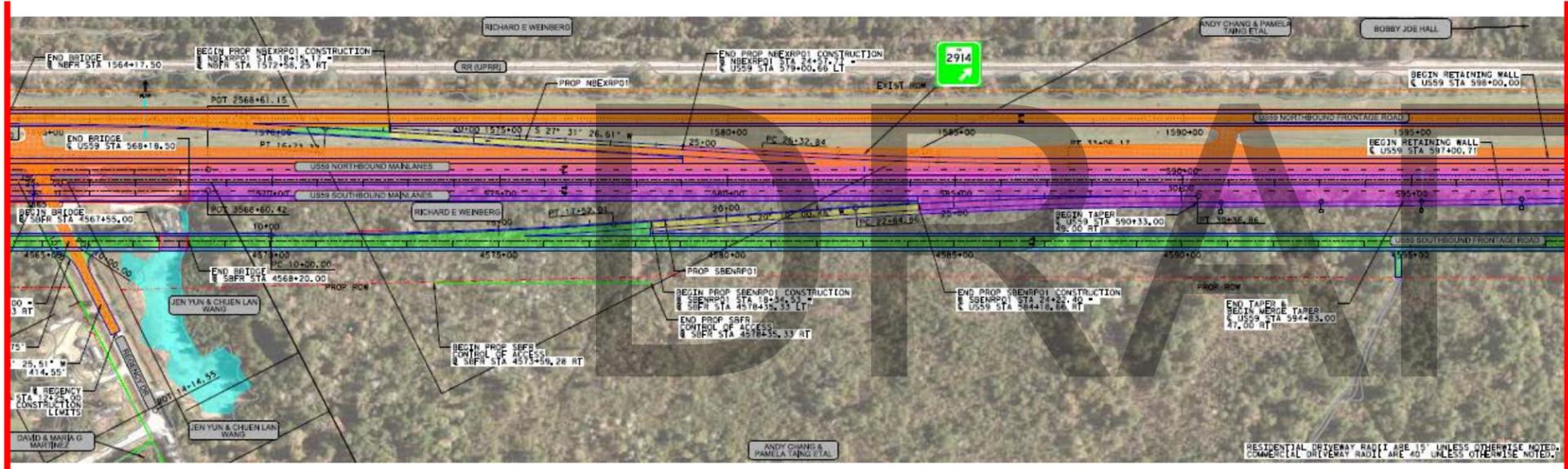
Photograph 10 – Unmapped Site #3 – Aerial of Former Equipment Repair Facility prior to removal of canopy/equipment.

Appendix C
Schematics

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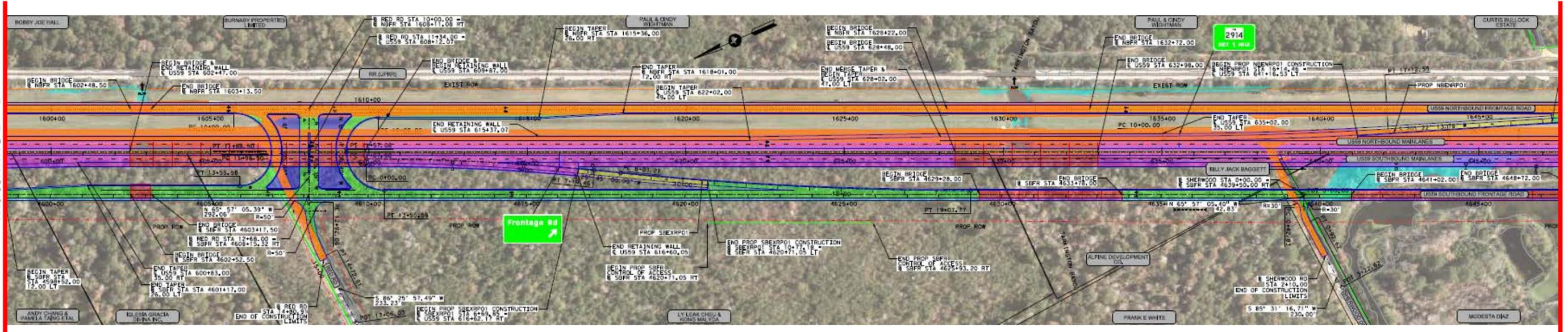
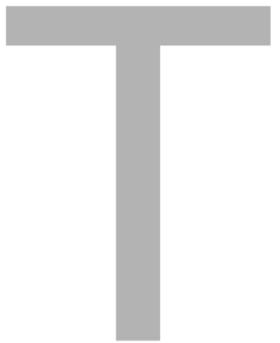


Matchline A - A



Matchline A - A

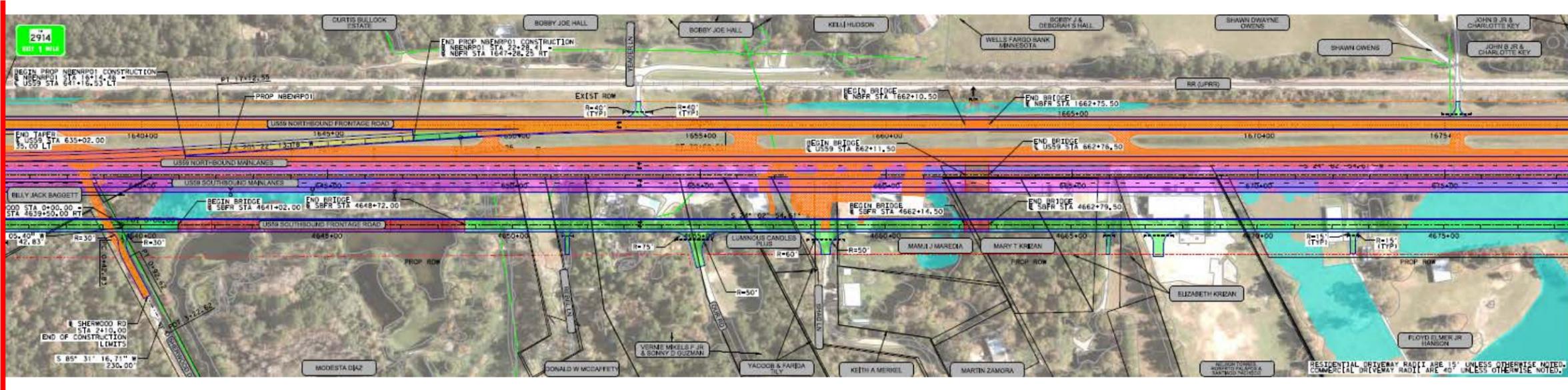
Matchline B - B



Matchline B - B

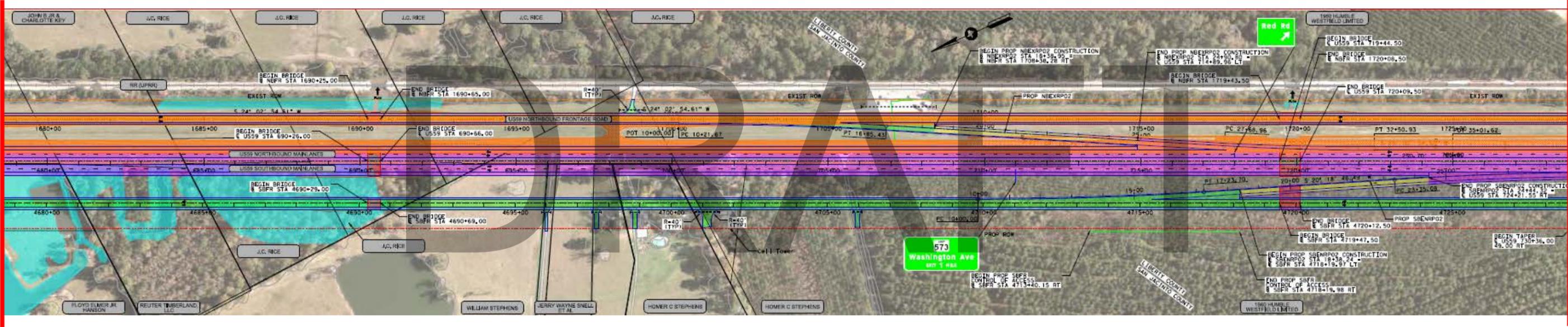
Matchline C - C

Matchline C - C



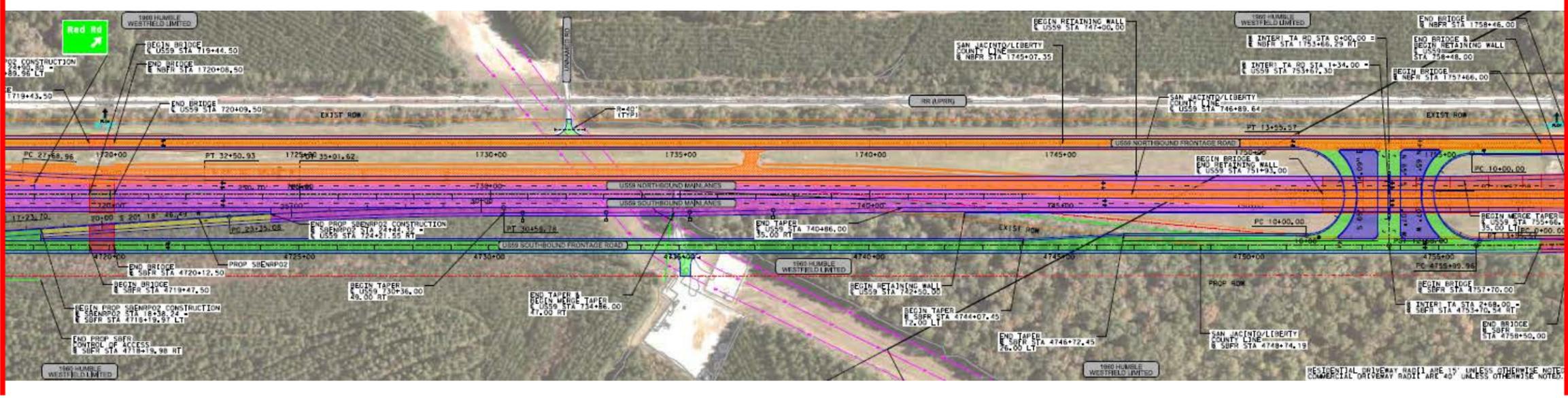
Matchline D - D

Matchline D - D



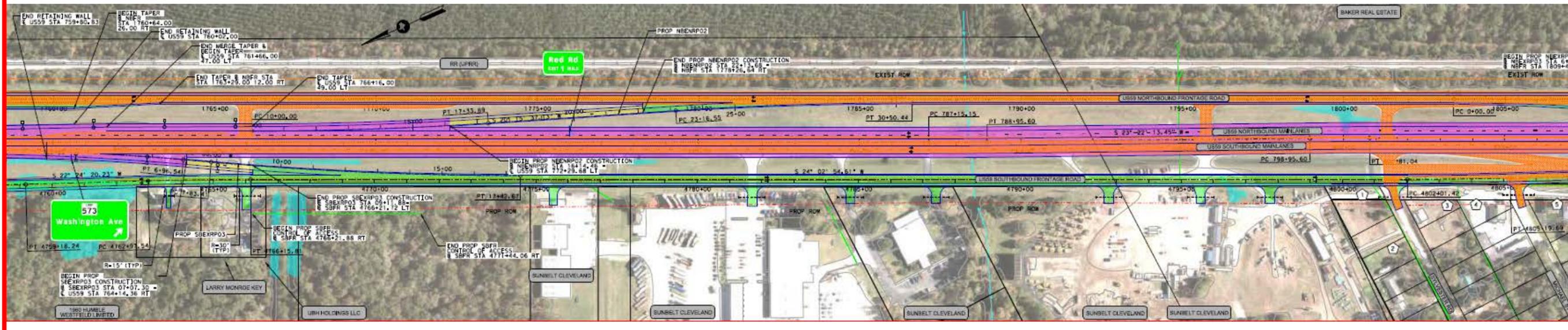
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Matchline E - E



Matchline F - F

Matchline F - F



Matchline G - G

Matchline G - G



Matchline H - H

Matchline H - H



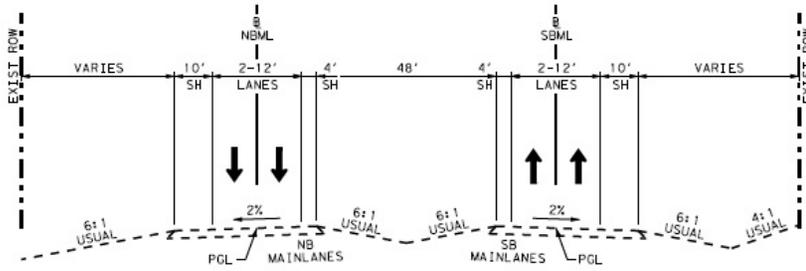
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Appendix D
Typical Sections

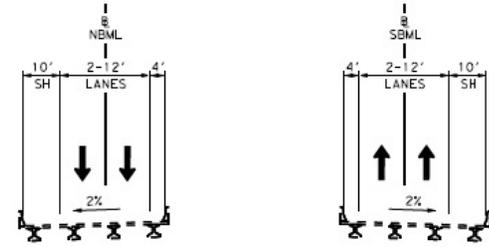
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Appendix D
Typical Sections

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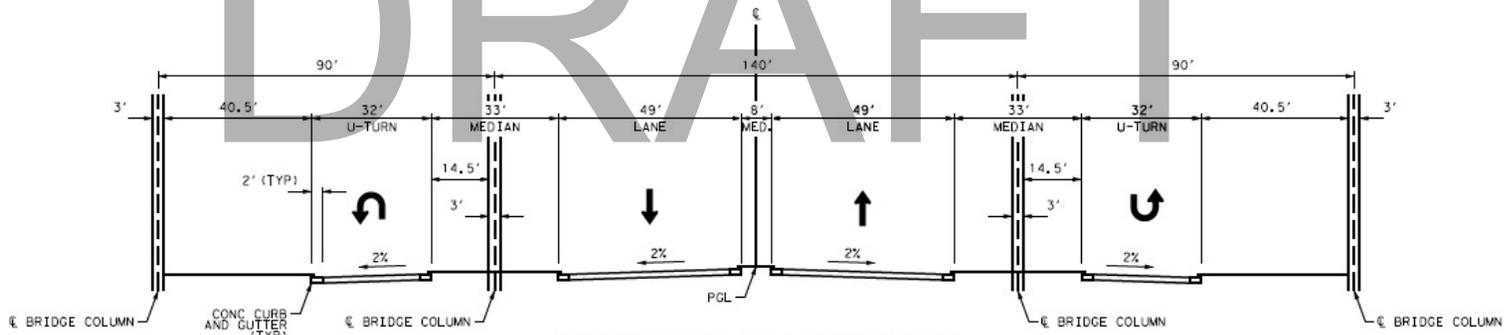


EXISTING US 59 TYPICAL SECTION
 STA 536+53.78 TO STA 823+65.00
 N. T. S.

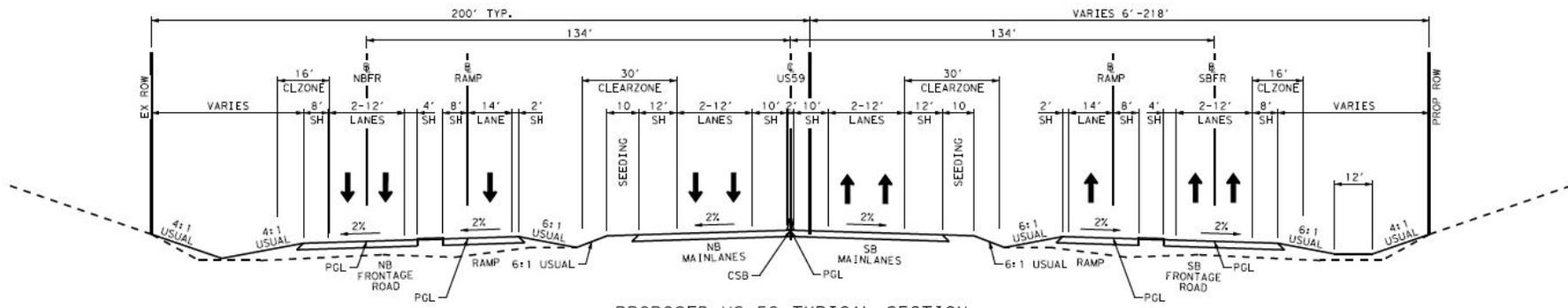


EXISTING US 59 TYPICAL SECTION
 STA 630+04.00 TO STA 630+94.00
 N. T. S.

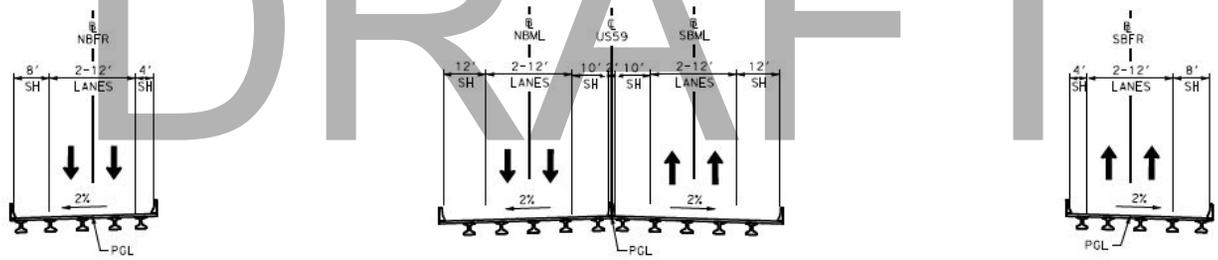
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PROPOSED RED RD & UNNAMED RD
 TYPICAL SECTION
 N. T. S.



PROPOSED US 59 TYPICAL SECTION
N. T. S.



PROPOSED US 59 TYPICAL SECTION
N. T. S.

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Appendix E
Plan and Program Excerpts

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APPENDIX D -- 2040 RTP, PROJECTS UNDERGOING ENVIRONMENTAL ASSESSMENT

MPOID	CSJ	County	Sponsor	Facility	From	To	Description	Length	Fiscal Year	Total Project Cost (M, YOE)
US 290										
11374	0050-08-095	Harris	TXDOT HOUSTON DISTRICT	US 290	S OF TELGE	S OF SH 6	CONSTRUCT DC'S WITH HEMPSTEAD MANAGED LANES	2.2	2033	\$ 64.87
16021	0050-08-900	Harris	TXDOT HOUSTON DISTRICT	US 290	W OF ELDRIDGE PKWY N	W OF FM 529	RESTRIPE TO 12 MAIN LANES WITH AUXILIARY LANES	2.5	2032	\$ 5.60
16022	0050-08-901	Harris	TXDOT HOUSTON DISTRICT	US 290	E OF TELGE RD	W OF ELDRIDGE PKWY N	RESTRIPE TO 10 MAIN LANES WITH AUXILIARY LANES	3.8	2032	\$ 3.10
16023	0050-08-902	Harris	TXDOT HOUSTON DISTRICT	US 290	E OF MUESCHKE RD	E OF TELGE RD	RESTRIPE TO 8 MAIN LANES WITH AUXILIARY LANES	5.2	2032	\$ 8.40
16024	0050-08-903	Harris	TXDOT HOUSTON DISTRICT	US 290	SH 99	E OF MUESCHKE RD	RESTRIPE TO 8 MAIN LANES WITH AUXILIARY LANES	4.5	2032	\$ 4.80
16017	0050-09-900	Harris	TXDOT HOUSTON DISTRICT	US 290	W OF W 34TH ST	IH 610	RESTRIPE TO 10 MAIN LANES WITH AUXILIARY LANES	1.8	2032	\$ 13.80
16018	0050-09-901	Harris	TXDOT HOUSTON DISTRICT	US 290	W OF PINEMONT DR	W OF 34TH ST	RESTRIPE TO 12 MAIN LANES WITH AUXILIARY LANES	2.0	2032	\$ 6.20
16019	0050-09-902	Harris	TXDOT HOUSTON DISTRICT	US 290	E OF LITTLE YORK RD W	W OF PINEMONT DR	RESTRIPE TO 10 MAIN LANES WITH AUXILIARY LANES	4.0	2032	\$ 6.40
16020	0050-09-903	Harris	TXDOT HOUSTON DISTRICT	US 290	W OF FM 529	W OF LITTLE YORK RD W	RESTRIPE TO 10 MAIN LANES WITH AUXILIARY LANES	1.8	2032	\$ 4.80
13867	0912-72-930	Harris	UNSPONSORED (TBD)	US 290	SH 99	IH 610	CONSTRUCT COMMUTER TRANSIT RAIL ALONG HEMPSTEAD ROW (HIGH CAPACITY TRANSIT)(6 STATIONS)	24.0	2023	\$ 1,080.81
US 59N										
16346	0177-03-099	Liberty	TXDOT BEAUMONT DISTRICT	US 59	SAN JACINTO C/L	N END OF CLEVELAND BYPASS	CONVERT MAINLANES TO FREEWAY AND CONSTRUCT TWO 2-LANE FRONTAGE ROADS	1.7	2022	\$ 70.27

Projects shaded in GRAY are exempt from conformity or are not considered regionally significant under H-GAC regional emissions analysis.

CORRIDOR-BASED MAJOR INVESTMENTS

MPOID	CSJ	County	Facility	From	To	Description	Length (mi)	Main Lanes	Frontage Lanes	Fiscal Analysis		Total Project Cost (M, YOE)
										Year	Year	
US 290												
16019	0050-09-902	Harris	US 290	E OF LITTLE YORK RD W	W OF PINEMONT DR	RESTRIPE TO 10 MAIN LANES WITH AUXILIARY LANES	4.0	(11,10)	(4,4)	2032	2035	\$ 6.40
16020	0050-09-903	Harris	US 290	W OF FM 529	W OF LITTLE YORK RD W	RESTRIPE TO 10 MAIN LANES WITH AUXILIARY LANES	1.8	(11,10)	(4,4)	2032	2035	\$ 4.80
1933	0114-12-007	Harris	US 290	FM 2920	BADTKE RD	WIDEN TO 6-LANES WITH AUXILIARY LANES AND DISCONTINUOUS 2-LANE FRONTAGE ROADS	6.5	(4,6)	(4,4)	2015	2017	\$ 59.01
16045	0114-12-008	Harris	US 290	0.191 MI W OF BADTKE RD	0.643 MI E OF BADTKE RD	WIDEN TO 6 MAIN LANES WITH AUXILIARY LANES AND TWO 2-LANE FRONTAGE ROADS (SEGMENT 11)	0.8	(4,6)	(4,4)	2015	2017	\$ 12.72
13867	0912-72-930	Harris	US 290	SH 99	IH 610	CONSTRUCT COMMUTER TRANSIT RAIL ALONG HEMPSTEAD ROW (HIGH CAPACITY TRANSIT)(6 STATIONS)	24.0	n/a	n/a	2023	2025	\$ 1,080.81
US 59N												
223	0177-03-096	Liberty	US 59	S END OF CLEVELAND BY-PASS	MONTGOMERY C/L	RECONSTRUCT AND WIDEN TO 6 MAIN LANES WITH FRONTAGE ROADS	4.3	(4,6)	(0,4)	2019	2025	\$ 141.50
16346	0177-03-099	Liberty	US 59	SAN JACINTO C/L	N END OF CLEVELAND BYPASS	CONVERT MAINLANES TO FREEWAY AND CONSTRUCT TWO 2-LANE FRONTAGE ROADS	1.7	(4,4)	(0,4)	2023	2025	\$ 70.27
10909	0912-00-140	Multiple	IH 69 N	LIBERTY C/L	WHARTON C/L	MULTIMODAL TRANSPORTATION CORRIDOR FEASIBILITY STUDY	94.1	n/a	n/a	2015	EXEMPT	\$ 1.30
188	0177-14-010	Montgomery	LP 494	N OF KINGWOOD DR	HARRIS C/L	RECONSTRUCT AND WIDEN TO 4-LANE DIVIDED URBAN SECTION (FLUSH MEDIAN)	0.9	(2,4)	n/a	2019	NRS (2025)	\$ 29.85
114	0177-15-003	Harris	LP 494	N OF SORTERS-MCCLELLAN RD	MONTGOMERY C/L	RECONSTRUCT AND WIDEN TO 4-LANE DIVIDED URBAN SECTION (RAISED MEDIAN)	0.6	(2,4)	n/a	2019	NRS (2025)	\$ 6.55
10161	0177-05-093	Montgomery	US 59 N	N OF FM 2090	S OF EAST RIVER	CONSTRUCT NEW 2-LANE FRONTAGE ROAD	1.5	(6,6)	(2,4)	2015	NRS (2017)	\$ 8.83

2019 Unified Transportation Program

Beaumont

Project Listing
Page 3 of 4

Liberty County

CSJ **0177-03-096** District **BEAUMONT** COUNTY **LIBERTY** UTP AUTHORITY **Let** TOLL **No** **US 59** Ranking Tier **2**

Limits From **SOUTH END OF CLEVELAND BYPASS**
 Limits To **MONTGOMERY COUNTY LINE**
 Project Description **WIDEN TO 6 MAIN LANES WITH FRONTAGE ROADS**
 Programmed Construction Funding
 Est Const Cost: \$111,200,000

Previously Authorized

Category	Description	Authorized	Other	Total
12	STRATEGIC PRIORITY	\$60,000,000	\$0	\$60,000,000
4	REGIONAL CONNECTIVITY	\$51,200,000	\$0	\$51,200,000
Total		\$111,200,000	\$0	\$111,200,000

CSJ **0177-03-099** District **BEAUMONT** COUNTY **LIBERTY** UTP AUTHORITY **Develop** TOLL **No** **US 59** Ranking Tier **1**

Limits From **SAN JACINTO C/L**
 Limits To **.65 MILE SOUTH OF SL 573**
 Project Description **CONVERT TO 4 LANE FWY W/ FRONTAGE RDS & GRADE SEPARATIONS**
 Programmed Construction Funding
 Est Const Cost: \$47,900,000

Previously Authorized

Category	Description	Authorized	Other	Total
12	STRATEGIC PRIORITY	\$47,900,000	\$0	\$47,900,000
Total		\$47,900,000	\$0	\$47,900,000

CSJ **0028-04-069** District **BEAUMONT** COUNTY **LIBERTY** UTP AUTHORITY **Develop** TOLL **No** **US 90** Ranking Tier **1**

Limits From **FM 160, EAST**
 Limits To **SH 61**
 Project Description **WIDEN & RECONSTRUCT TO 4 LANE DIVIDED RURAL**
 Programmed Construction Funding
 Est Const Cost: \$40,000,000

Previously Authorized

Category	Description	Authorized	Other	Total
4	URBAN CONNECTIVITY	\$40,000,000	\$0	\$40,000,000
Total		\$40,000,000	\$0	\$40,000,000

CSJ **0028-04-077** District **BEAUMONT** COUNTY **LIBERTY** UTP AUTHORITY **Develop** TOLL **No** **US 90** Ranking Tier **1**

Limits From **FM 563**
 Limits To **FM 160**
 Project Description **WIDEN TO 4 LANES WITH CLTL**
 Programmed Construction Funding
 Est Const Cost: \$8,250,000

Previously Authorized

Category	Description	Authorized	Other	Total
4	URBAN CONNECTIVITY	\$8,250,000	\$0	\$8,250,000
Total		\$8,250,000	\$0	\$8,250,000

Orange County

CSJ **0028-14-091** District **BEAUMONT** COUNTY **ORANGE** UTP AUTHORITY **Let** TOLL **No** **IH 10** Ranking Tier **1**

Limits From **0.54 MILES EAST OF FM 3247**
 Limits To **SABINE RIVER BRIDGE**
 Project Description **WIDEN EXISTING MAINLANES FROM 4 TO 6 LANES**
 Programmed Construction Funding
 Est Const Cost: \$50,070,000

Funding Adjustment

Category	Description	Authorized	Other	Total
12	STRATEGIC PRIORITY	\$18,400,000	\$0	\$18,400,000
2U	URBAN CORRIDOR	\$31,670,000	\$0	\$31,670,000
Total		\$50,070,000	\$0	\$50,070,000

Adjustment: *CAT 2 Urban increased \$10M*

2019 Unified Transportation Program

Lufkin

Project Listing
Page 2 of 2

Polk County

CSJ	District	COUNTY	UTP AUTHORITY	TOLL		Ranking Tier
0176-04-056	LUFKIN	POLK	Construct	No	US 59	1
Limits From	3.4 MI N OF US 287					Previously Authorized
Limits To	US 287					
Project Description	CONST 4 LANE FRWY ON WEST SIDE OF CORRIGAN					Est Const Cost: \$88,600,000
Programmed Construction Funding						
Category	Description	Authorized	Other	Total		
4	REGIONAL CONNECTIVITY	\$88,600,000	\$0	\$88,600,000		
Total		\$88,600,000	\$0	\$88,600,000		

CSJ	District	COUNTY	UTP AUTHORITY	TOLL		Ranking Tier
0176-05-104	LUFKIN	POLK	Construct	No	US 59	1
Limits From	US 287					Previously Authorized
Limits To	3.0 MI S OF US 287					
Project Description	CONSTRUCT 4 LANE FRWY ON WEST SIDE OF CORRIGAN					Est Const Cost: \$69,600,000
Programmed Construction Funding						
Category	Description	Authorized	Other	Total		
4	REGIONAL CONNECTIVITY	\$69,600,000	\$0	\$69,600,000		
Total		\$69,600,000	\$0	\$69,600,000		

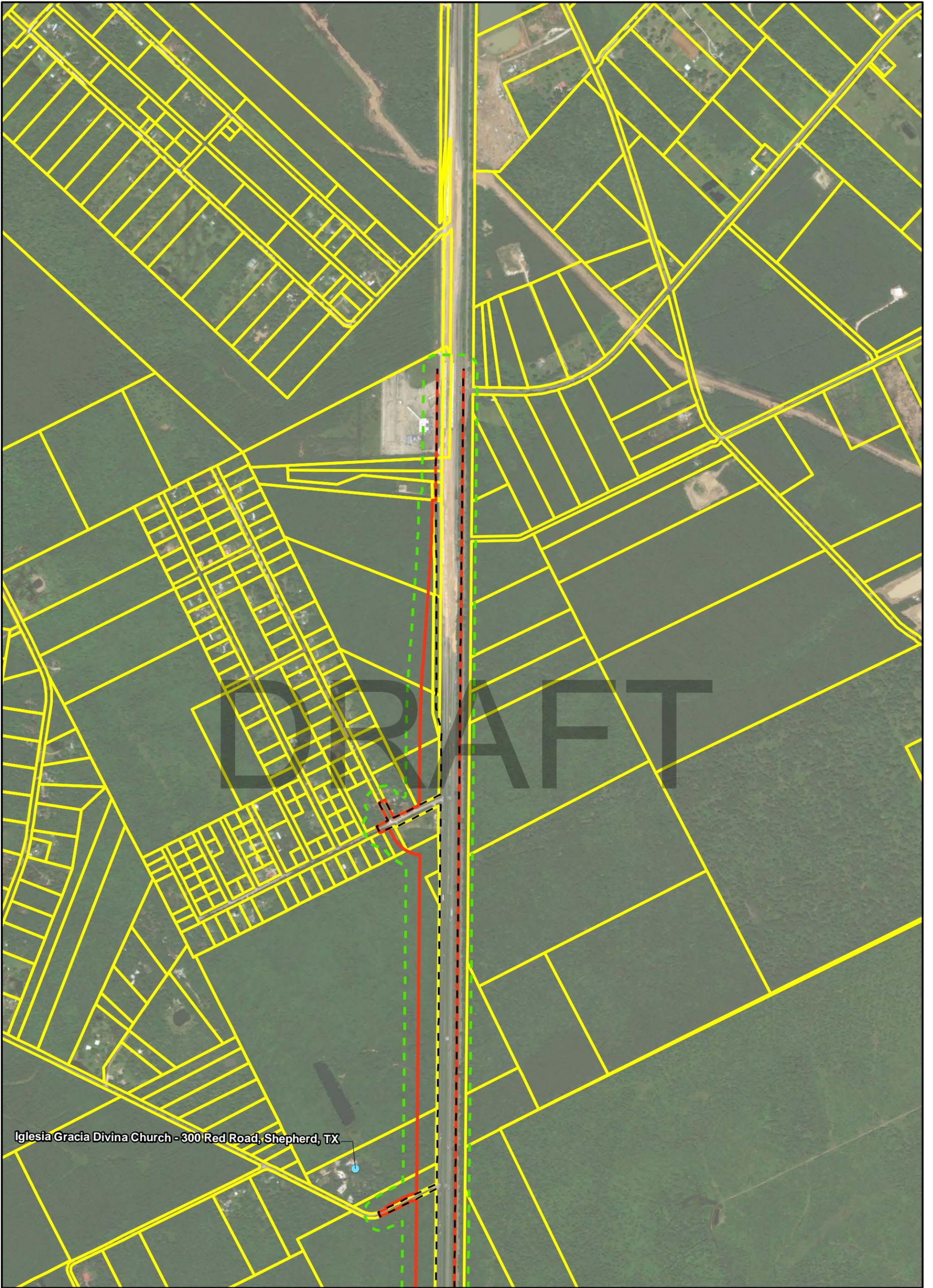
San Jacinto County

CSJ	District	COUNTY	UTP AUTHORITY	TOLL		Ranking Tier
0338-06-011	LUFKIN	SAN JACINTO	Construct	No	SH 105	2
Limits From	MONTGOMERY C/L					Previously Authorized
Limits To	MONTGOMERY C/L					
Project Description	RECONSTRUCT PAVEMENT TO 4 LANE DIVIDED RURAL					Est Const Cost: \$10,000,000
Programmed Construction Funding						
Category	Description	Authorized	Other	Total		
4	URBAN CONNECTIVITY	\$10,000,000	\$0	\$10,000,000		
Total		\$10,000,000	\$0	\$10,000,000		

CSJ	District	COUNTY	UTP AUTHORITY	TOLL		Ranking Tier
0177-02-057	LUFKIN	SAN JACINTO	Develop	No	US 59	1
Limits From	FM 2914					Previously Authorized
Limits To	LIBERTY C/L					
Project Description	CONVERT TO 4 LANE FWY W/ FRONTAGE RDS & GRADE SEPARATIONS					Est Const Cost: \$67,910,000
Programmed Construction Funding						
Category	Description	Authorized	Other	Total		
4	REGIONAL CONNECTIVITY	\$67,910,000	\$0	\$67,910,000		
Total		\$67,910,000	\$0	\$67,910,000		

Appendix F
Resource Specific Maps

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Iglesia Gracia Divina Church - 300 Red Road, Shepherd, TX

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- | | |
|-------------------|---------------|
| --- Existing ROW | Displacement |
| — Proposed ROW | ● Commercial |
| - - - Study Area | ● Other |
| □ Parcel Boundary | ● Residential |

0 500 1,000
Feet



**FIGURE 1
DISPLACEMENTS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099**

Page 1 of 3

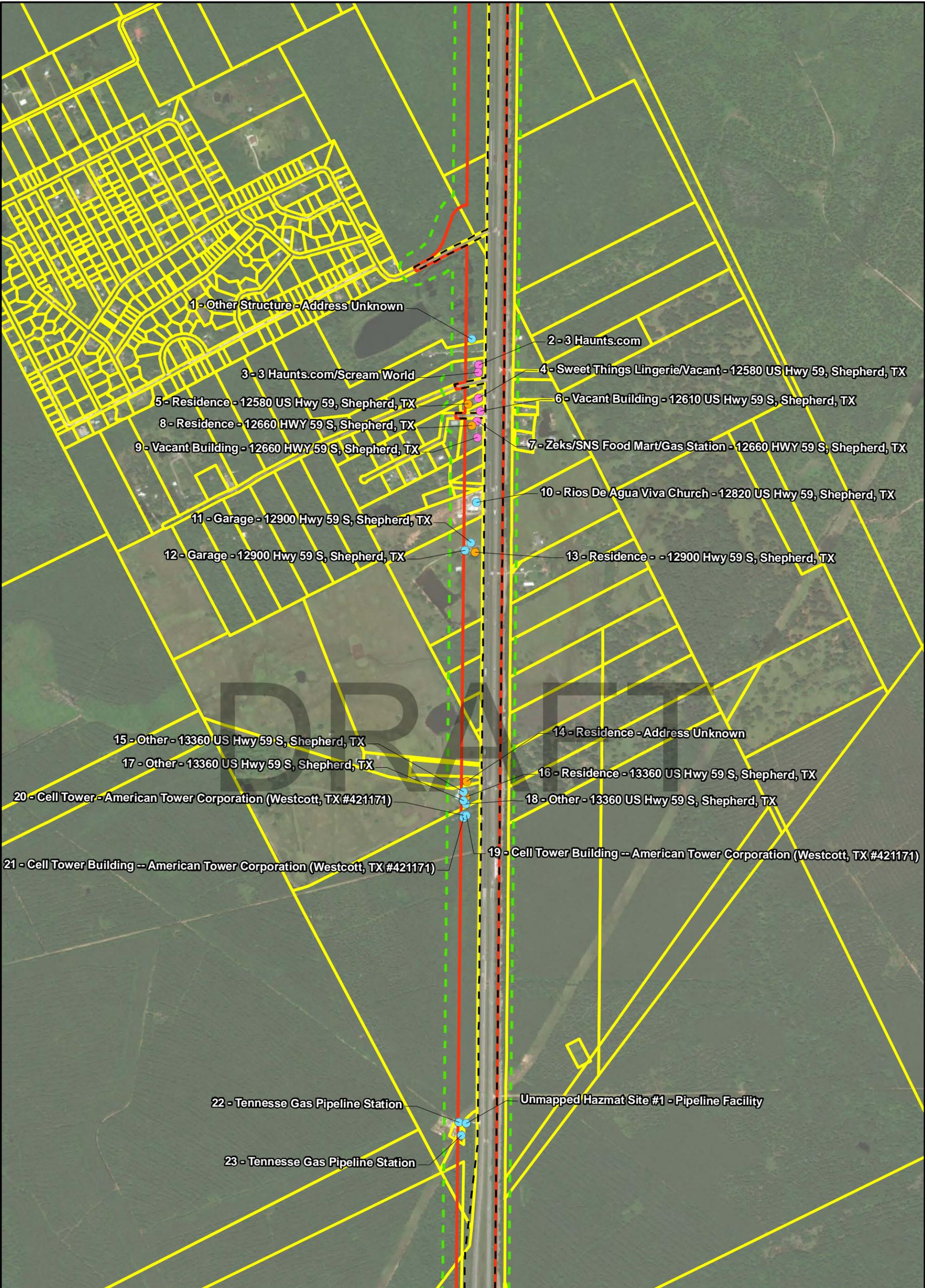
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Scale: 1:12,000

Job No.: 100055068

Date: Apr 20, 2018

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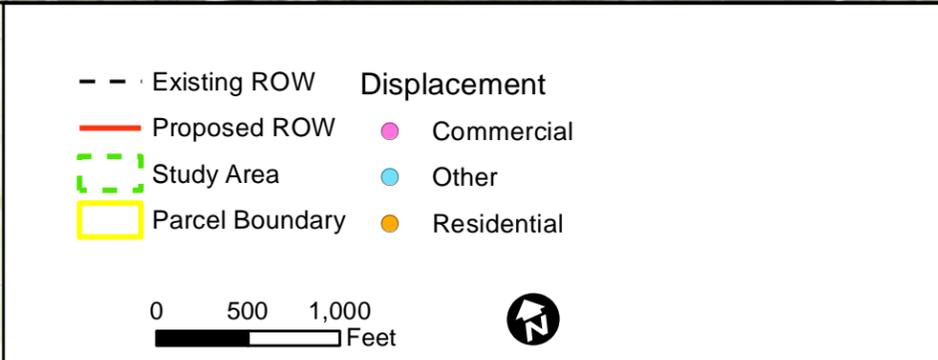
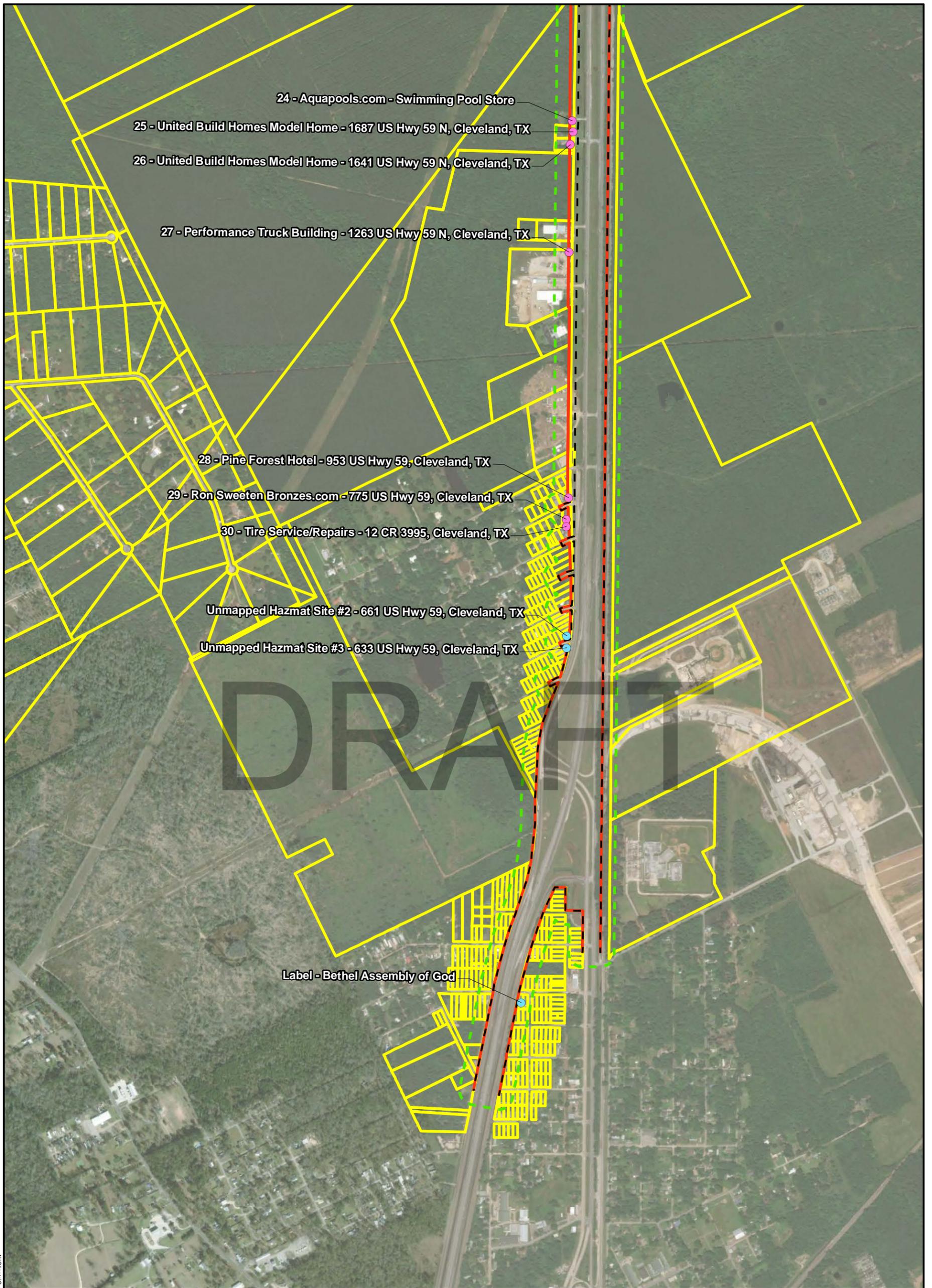
- | | |
|-------------------|---------------|
| --- Existing ROW | Displacement |
| — Proposed ROW | ● Commercial |
| - - - Study Area | ● Other |
| ▭ Parcel Boundary | ● Residential |



**FIGURE 1
DISPLACEMENTS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099**

Prepared By: Atkins/voro5913	Scale: 1:12,000
Job No.: 100055068	Date: Apr 20, 2018

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- | | |
|-------------------|---------------|
| --- Existing ROW | Displacement |
| — Proposed ROW | ● Commercial |
| - - - Study Area | ● Other |
| ▭ Parcel Boundary | ● Residential |

0 500 1,000
Feet



Texas Department of Transportation

**FIGURE 1
DISPLACEMENTS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099**

Page 3 of 3

Prepared By: Atkins/voro5913

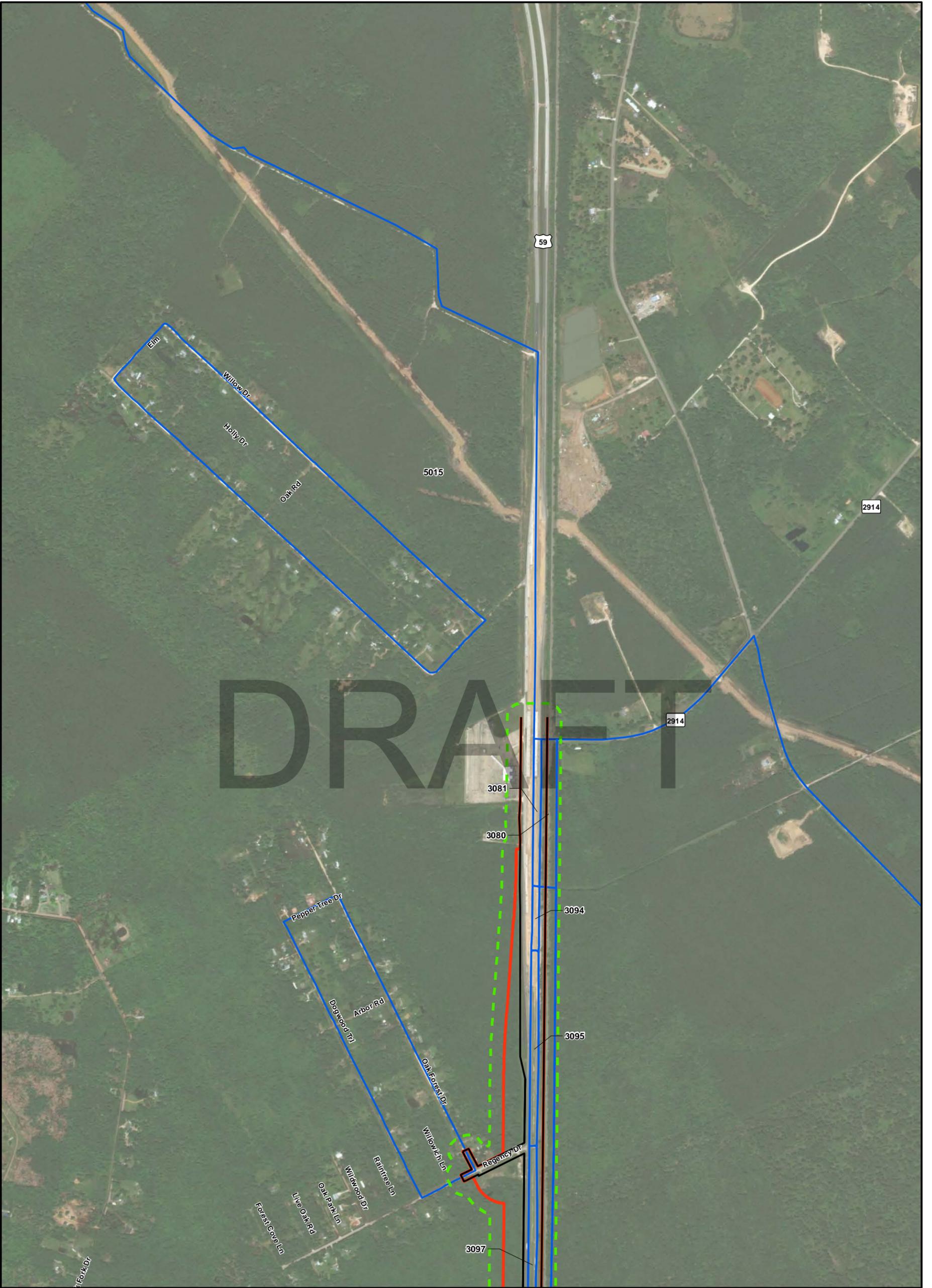
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Job No.: 100055068

Date: Apr 20, 2018

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- Existing ROW
- Proposed ROW
- Study Area
- Census 2010 Block
- Blocks with Minority Population Greater than or Equal to 50%

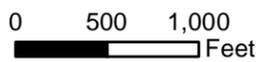


FIGURE 2
MINORITY POPULATION OVER 50 PERCENT BY BLOCK
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

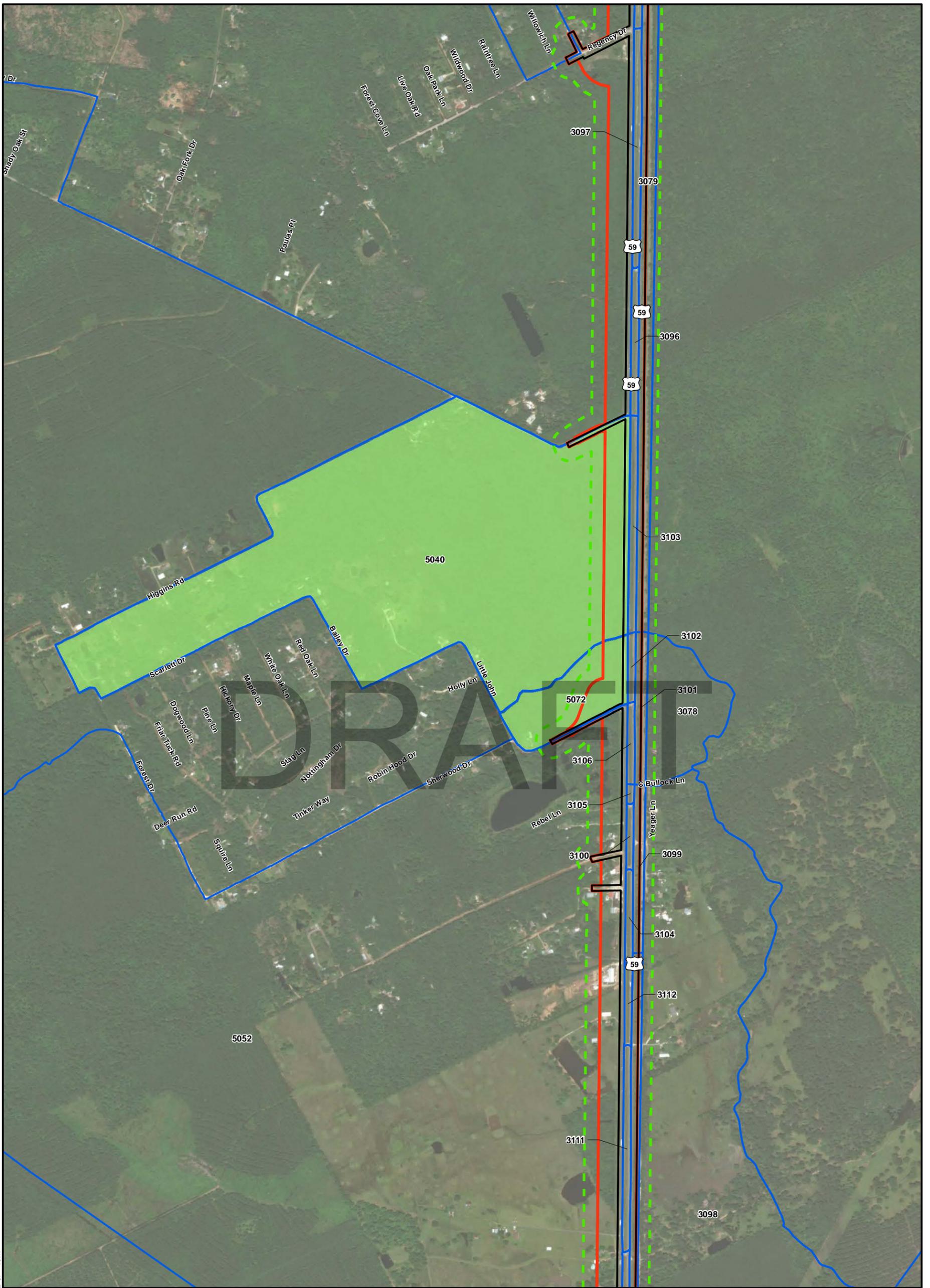
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Date: Apr 20, 2018

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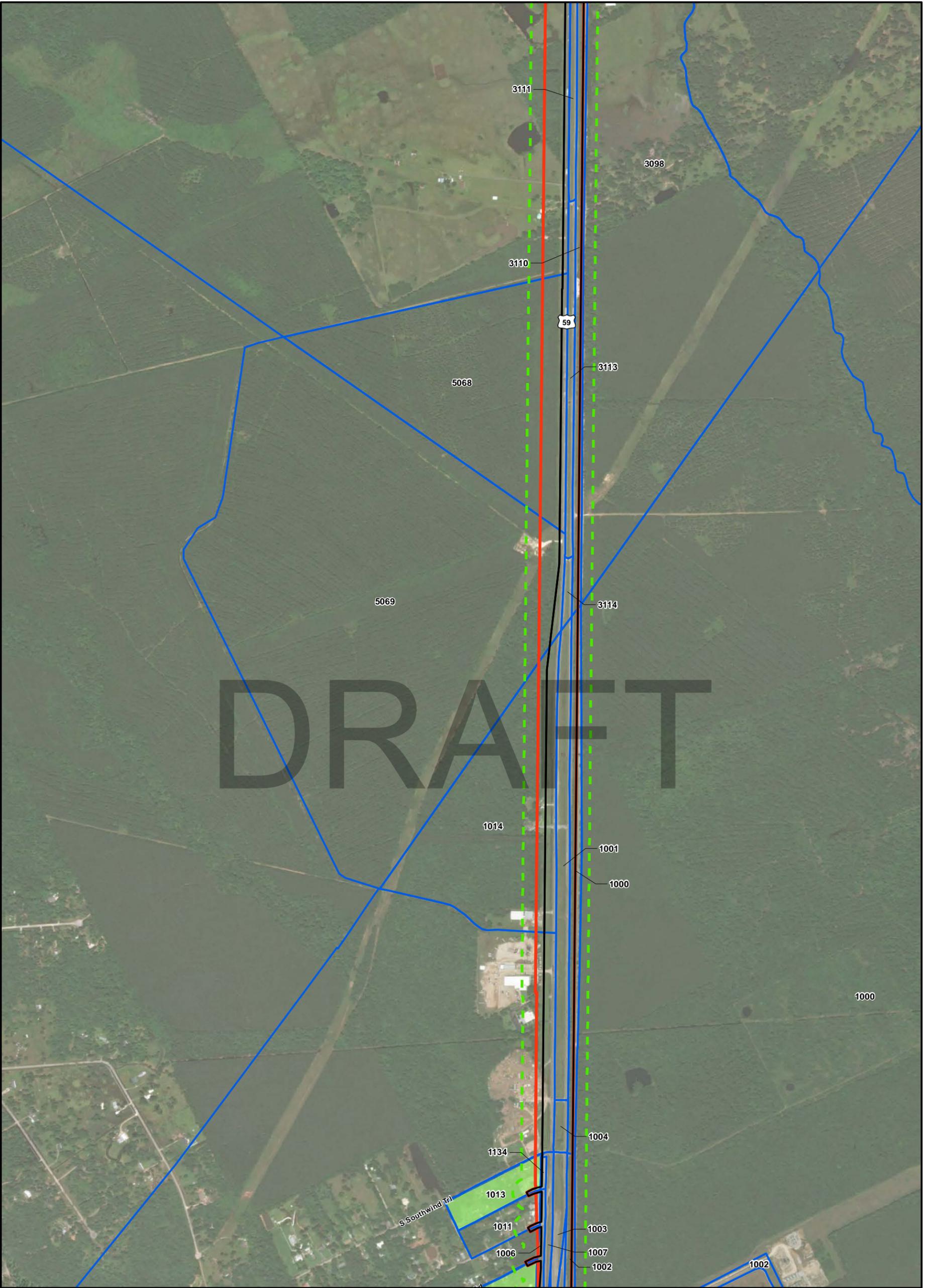


- Existing ROW
- Proposed ROW
- Study Area
- Census 2010 Block
- Blocks with Minority Population Greater than or Equal to 50%

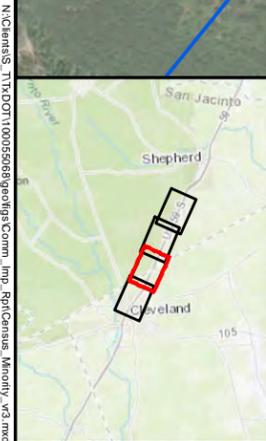


FIGURE 2
MINORITY POPULATION OVER 50 PERCENT BY BLOCK
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099 Page 2 of 4

Prepared By: Atkins/voro5913	Scale: 1:12,000
Job No.: 100055068	Date: Apr 20, 2018



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- Existing ROW
- Proposed ROW
- - - Study Area
- Census 2010 Block
- Blocks with Minority Population Greater than or Equal to 50%

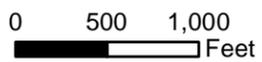


FIGURE 2
MINORITY POPULATION OVER 50 PERCENT BY BLOCK
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

Prepared By: Atkins/voro5913	Scale: 1:12,000
Job No.: 100055068	Date: Apr 20, 2018

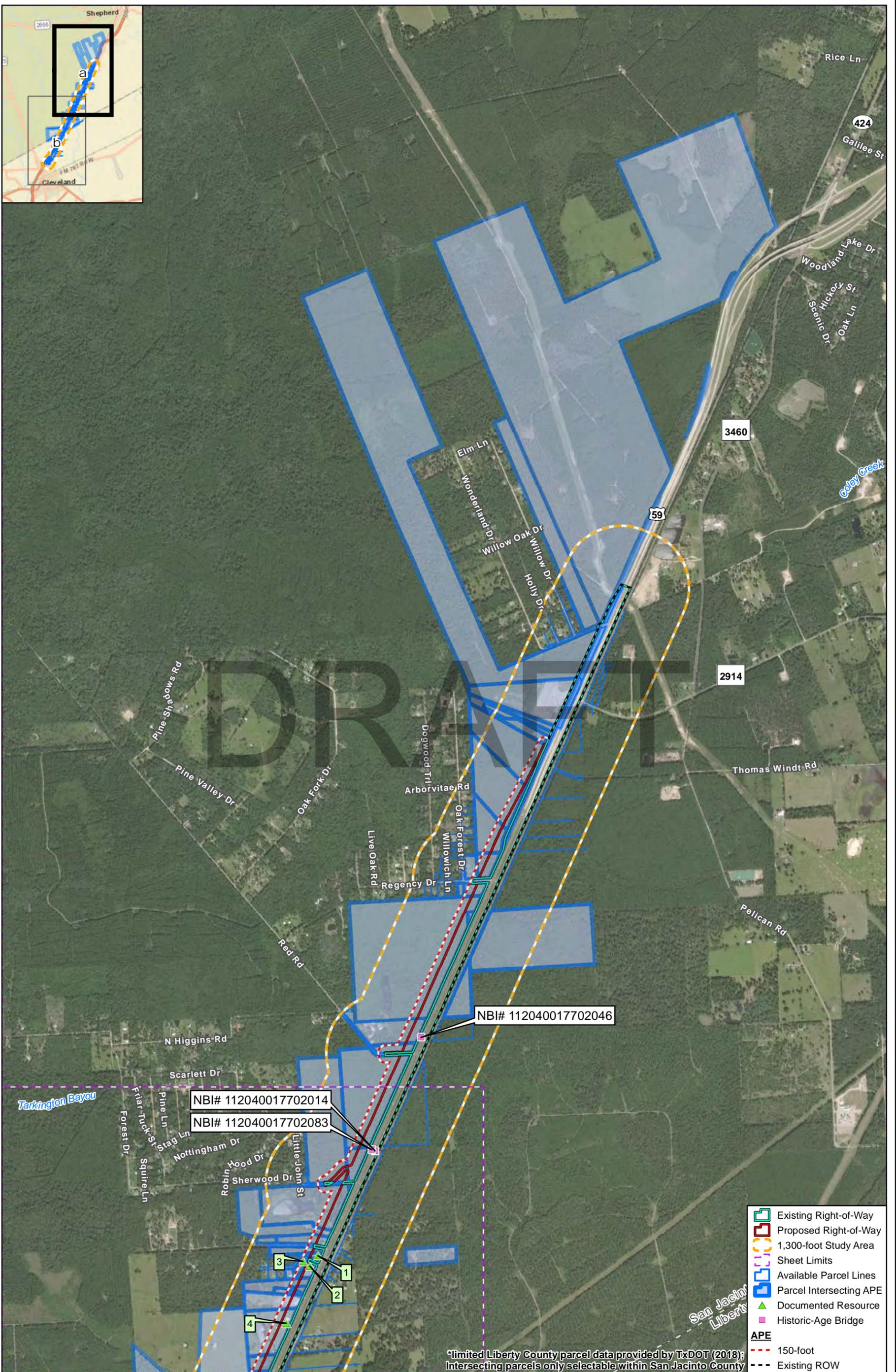


Figure 2a
 Location of APE for Historic Resources
 US 59 from south of FM 2914 to north end of the Cleveland Relief Route

G:\Projects\TXDOT_Historic\US59_Recon\Figure 2_HRSR APE_20180614.mxd

Data Sources: TxDOT (2018), CMEC (2018), SJCAD (2016)
 Aerial Source: DigitalGlobe (2017)
 Prepared for: TxDOT
 CSJ: 0177-02-057, 0177-03-099
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 Scale: 1:24,000
 Date: 6/14/2018

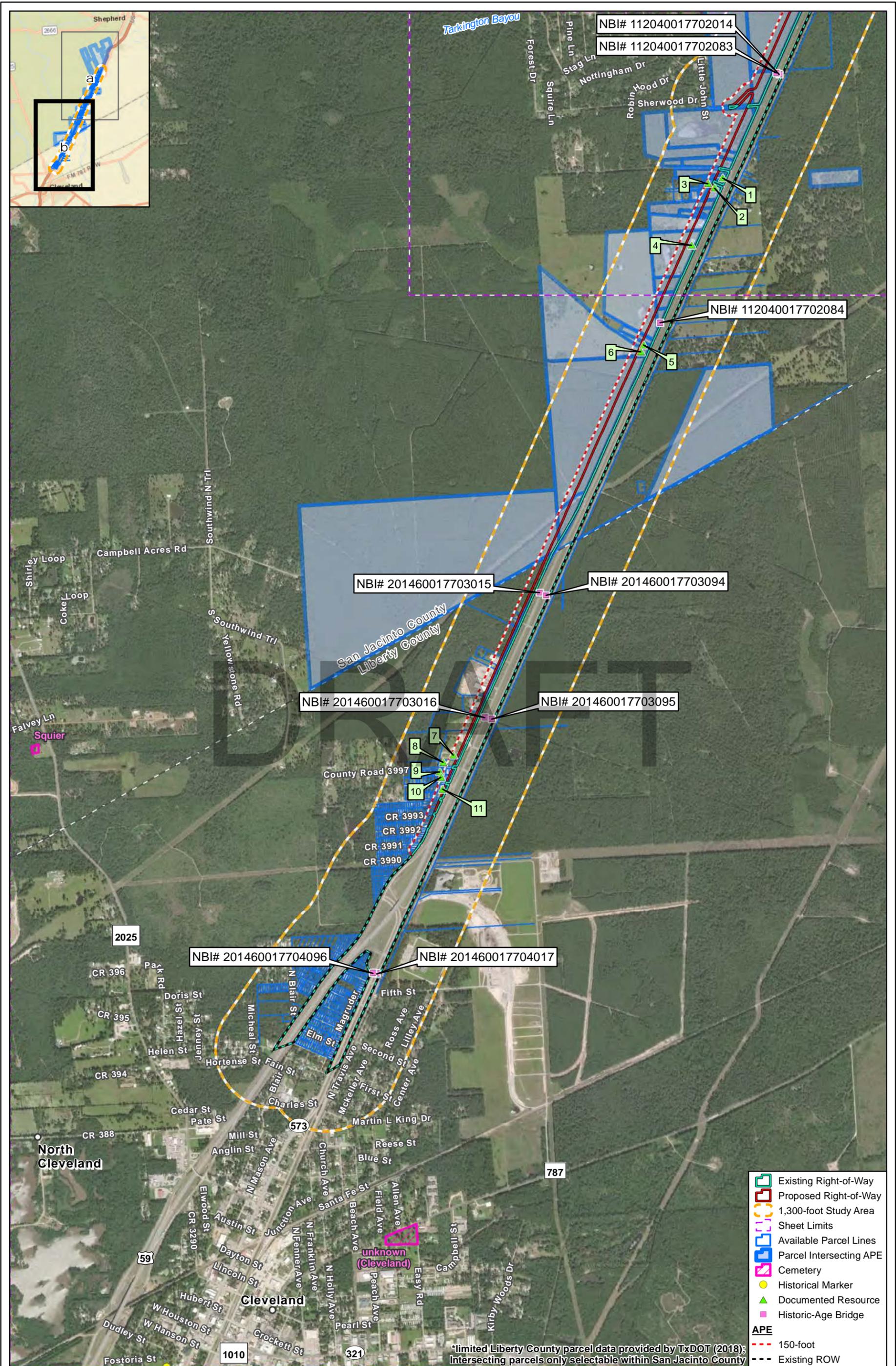


Figure 2b
 Location of APE for Historic Resources
 US 59 from south of FM 2914 to north end of the Cleveland Relief Route

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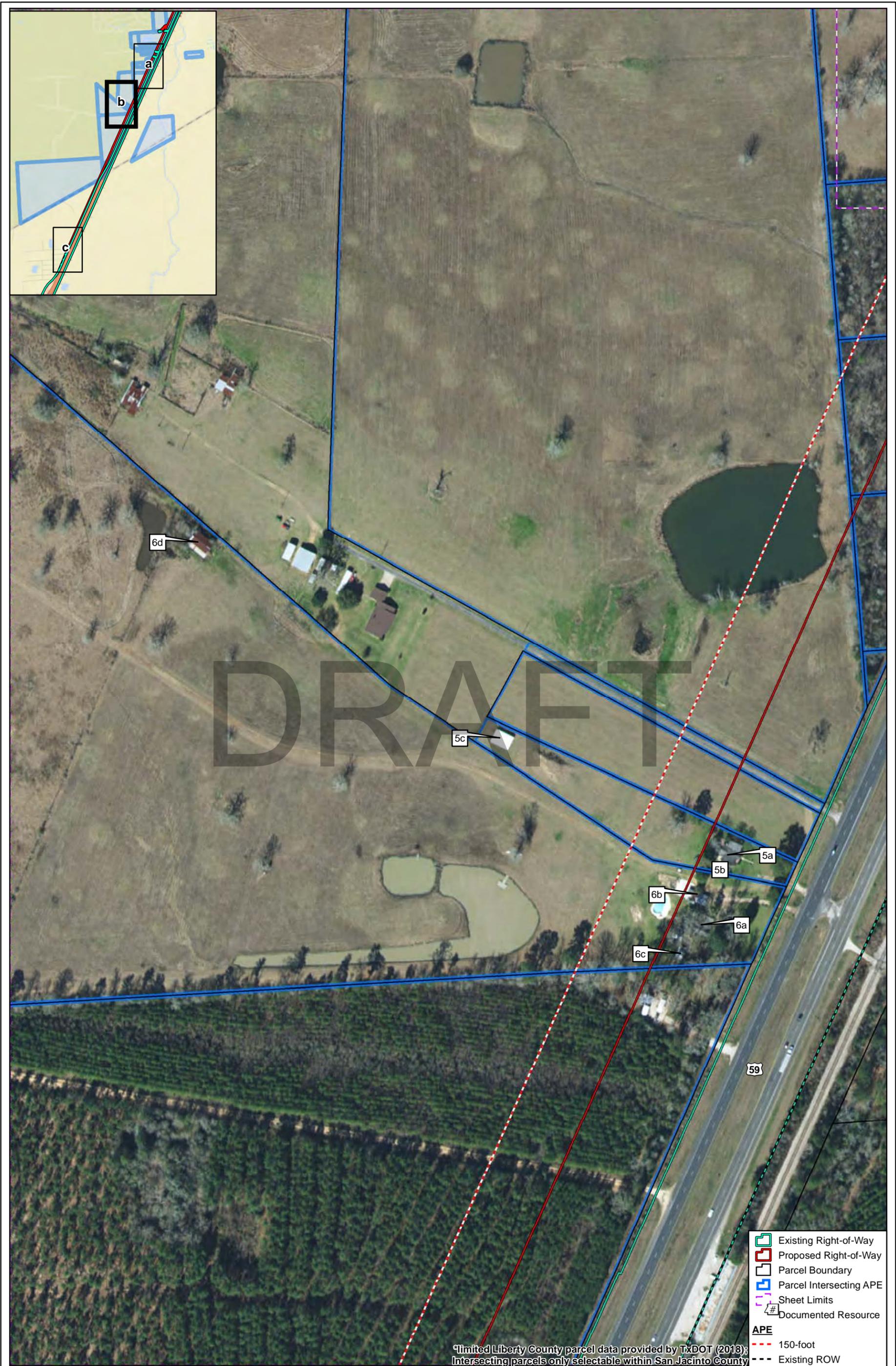


*limited Liberty County parcel data provided by TxDOT (2018);
 Intersecting parcels only selectable within San Jacinto County

Figure 3a
 Results of Historic Resources Survey
 US 59 from south of FM 2914 to north end of the Cleveland Relief Route

Data Sources: CMEC (2018), SJCAD (2016)
 THC (2017), TxDOT (2017, 2018), FHWA (2018)
 Aerial Source: TNRS (2015)

Prepared for: TxDOT
 CSJ: 0177-02-057, 0177-03-099
 Scale: 1:2,400
 Date: 7/6/2018

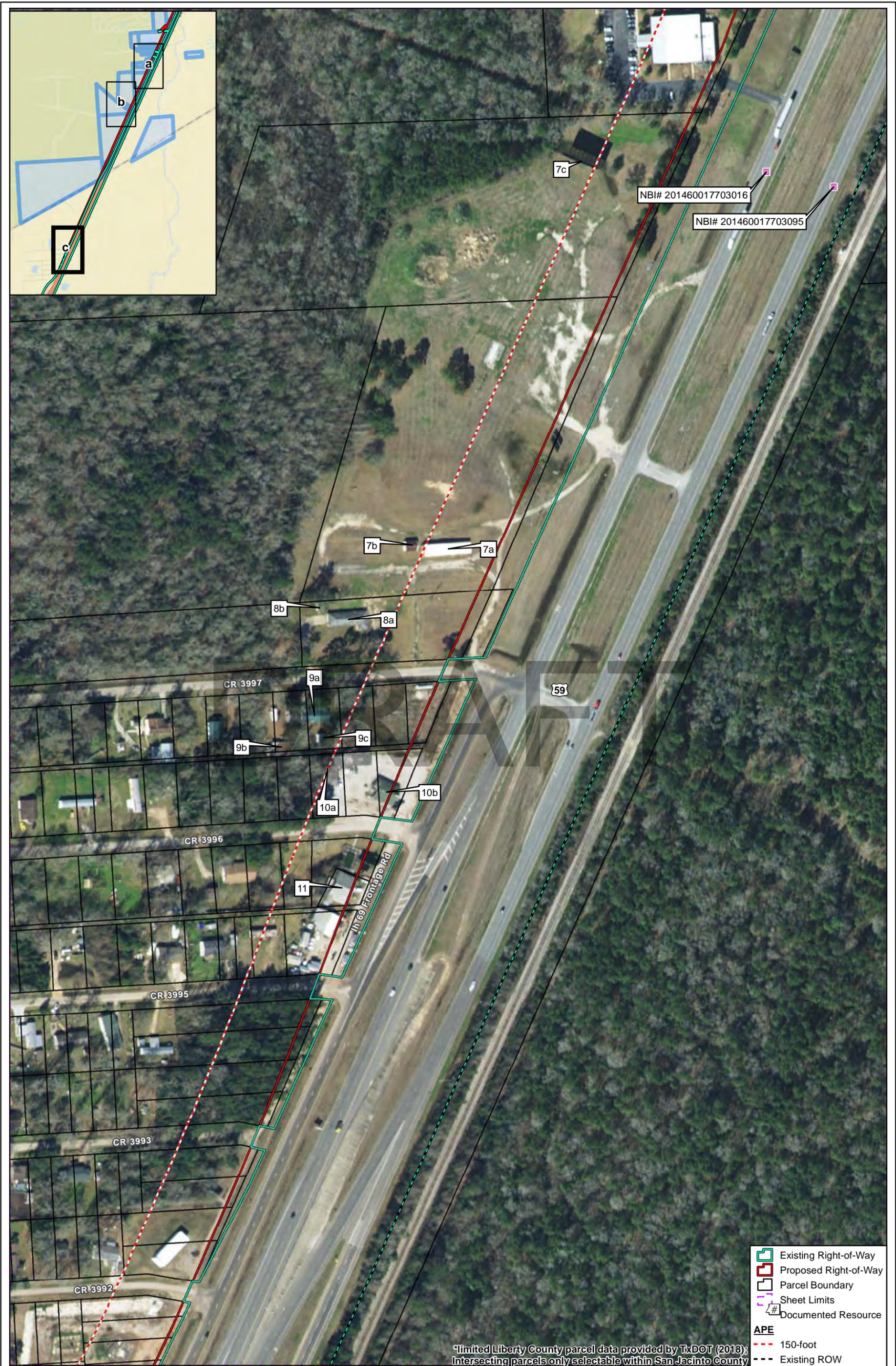


*limited Liberty County parcel data provided by TxDOT (2013);
Intersecting parcels only selectable within San Jacinto County

Figure 3b
Results of Historic Resources Survey
US 59 from south of FM 2914 to north end of the Cleveland Relief Route

Data Sources: CMEC (2018), SJCAD (2016)
THC (2017), TxDOT (2017, 2018), FHWA (2018)
Aerial Source: TNRS (2015)

	0	200 Feet
	0	60 Meters
Prepared for: TxDOT	1 in = 200 feet	
CSJ: 0177-02-057, 0177-03-099	Scale: 1:2,400	
	Date: 7/6/2018	



*limited Liberty County parcel data provided by TxDOT (2013);
Intersecting parcels only selectable within San Jacinto County

Figure 3c
Results of Historic Resources Survey
US 59 from south of FM 2914 to north end of the Cleveland Relief Route

Data Sources: CMEC (2018), SJCAD (2016)
THC (2017), TxDOT (2017, 2018), FHWA (2018)
Aerial Source: TNRS (2015)
Prepared for: TxDOT
Scale: 1:2,400
Date: 7/6/2018
CSJ: 0177-02-057, 0177-03-099



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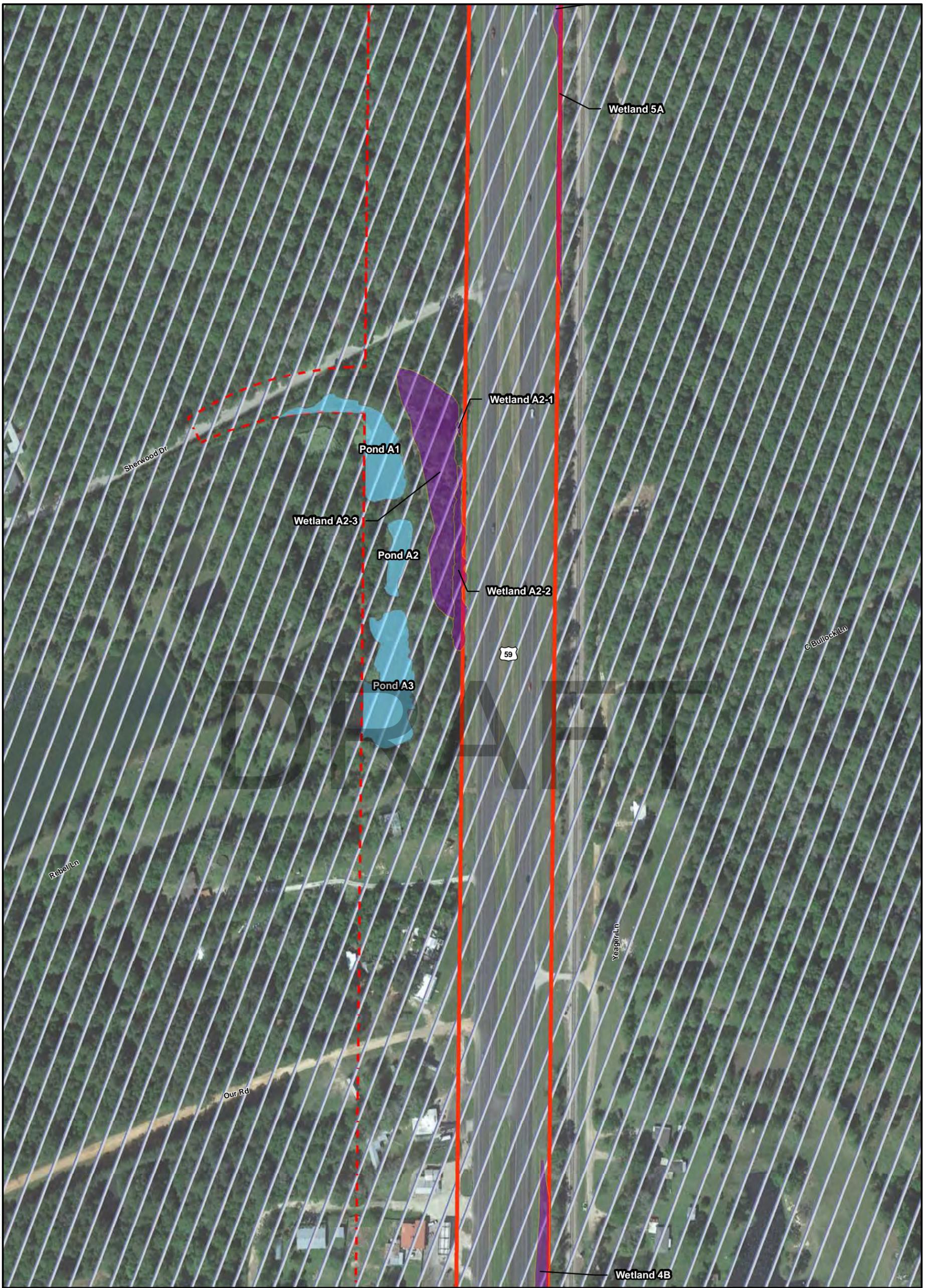


- | | |
|--|---|
|  Stream |  Existing ROW |
|  Wetland |  Proposed ROW |
|  Pond |  100-year floodplain |
|  Open Water | |



0 100 200
Feet

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



- Stream
- Wetland
- Pond
- Open Water
- Existing ROW
- Proposed ROW
- 100-year floodplain



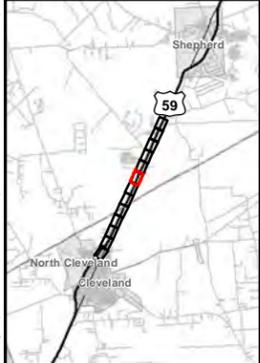
0 100 200
Feet

Source: National Flood Hazard Layer (NFHL), FEMA 2017.

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



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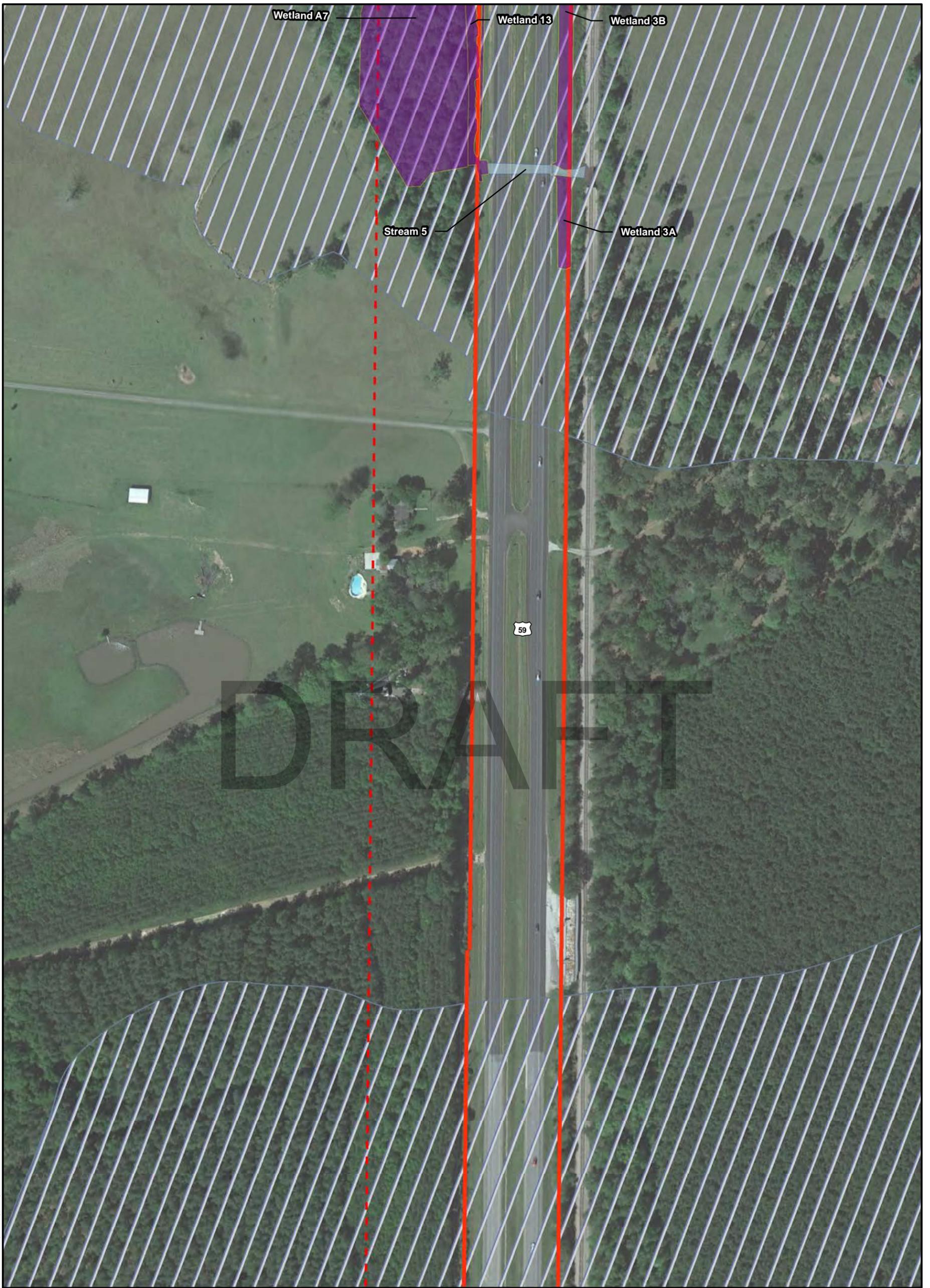


- | | |
|------------|---------------------|
| Stream | Existing ROW |
| Wetland | Proposed ROW |
| Pond | 100-year floodplain |
| Open Water | |



0 100 200 Feet

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



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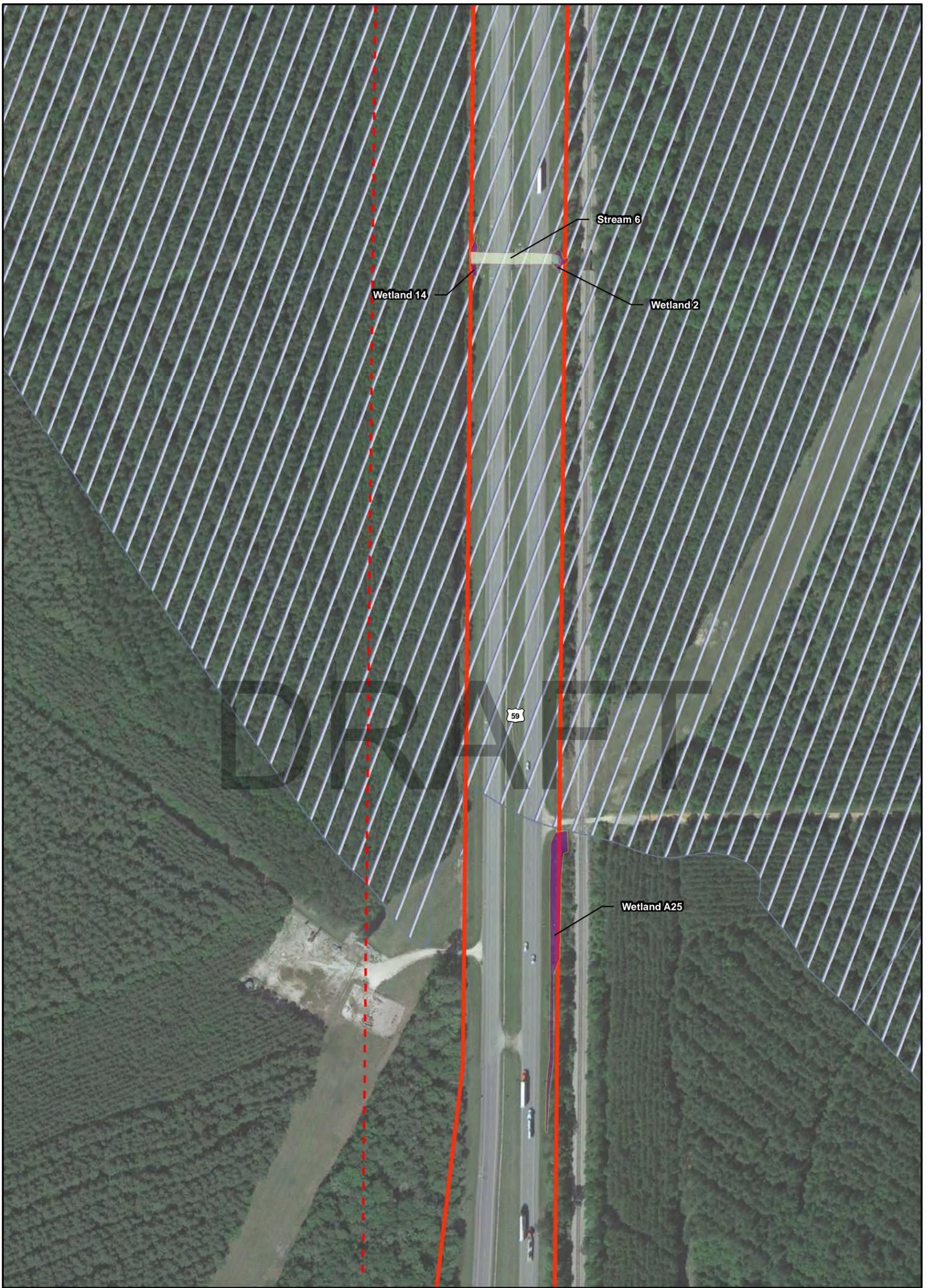
- | | |
|------------|---------------------|
| Stream | Existing ROW |
| Wetland | Proposed ROW |
| Pond | 100-year floodplain |
| Open Water | |



0 100 200 Feet

Source: National Flood Hazard Layer (NFHL), FEMA 2017.

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



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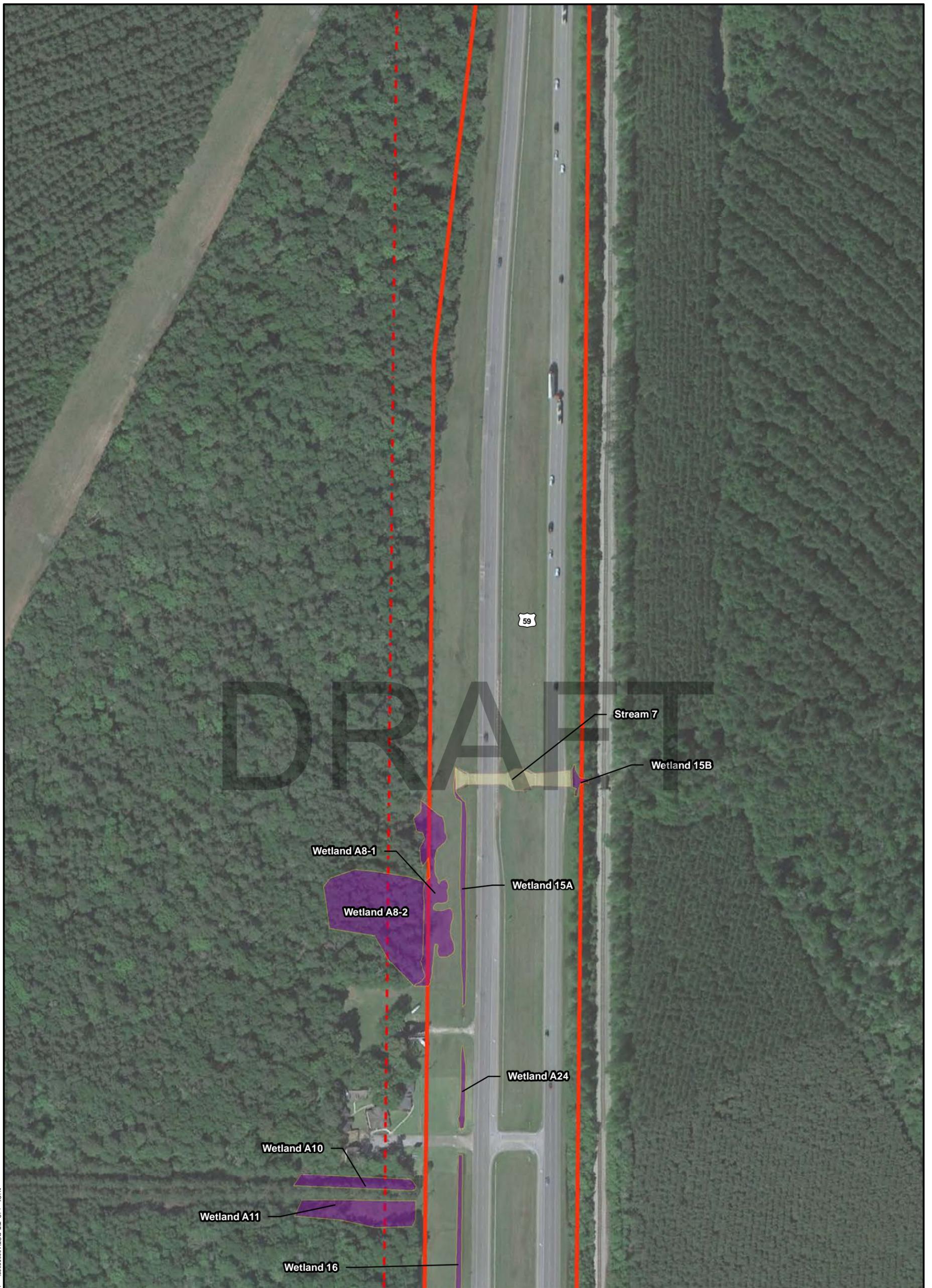


- | | |
|--|---|
|  Stream |  Existing ROW |
|  Wetland |  Proposed ROW |
|  Pond |  100-year floodplain |
|  Open Water | |



0 100 200 Feet

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



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Stream 7

Wetland 15B

Wetland 15A

Wetland A8-1

Wetland A8-2

Wetland A24

Wetland A10

Wetland A11

Wetland 16

59



- Stream
- Wetland
- Pond
- Open Water
- Existing ROW
- Proposed ROW
- 100-year floodplain

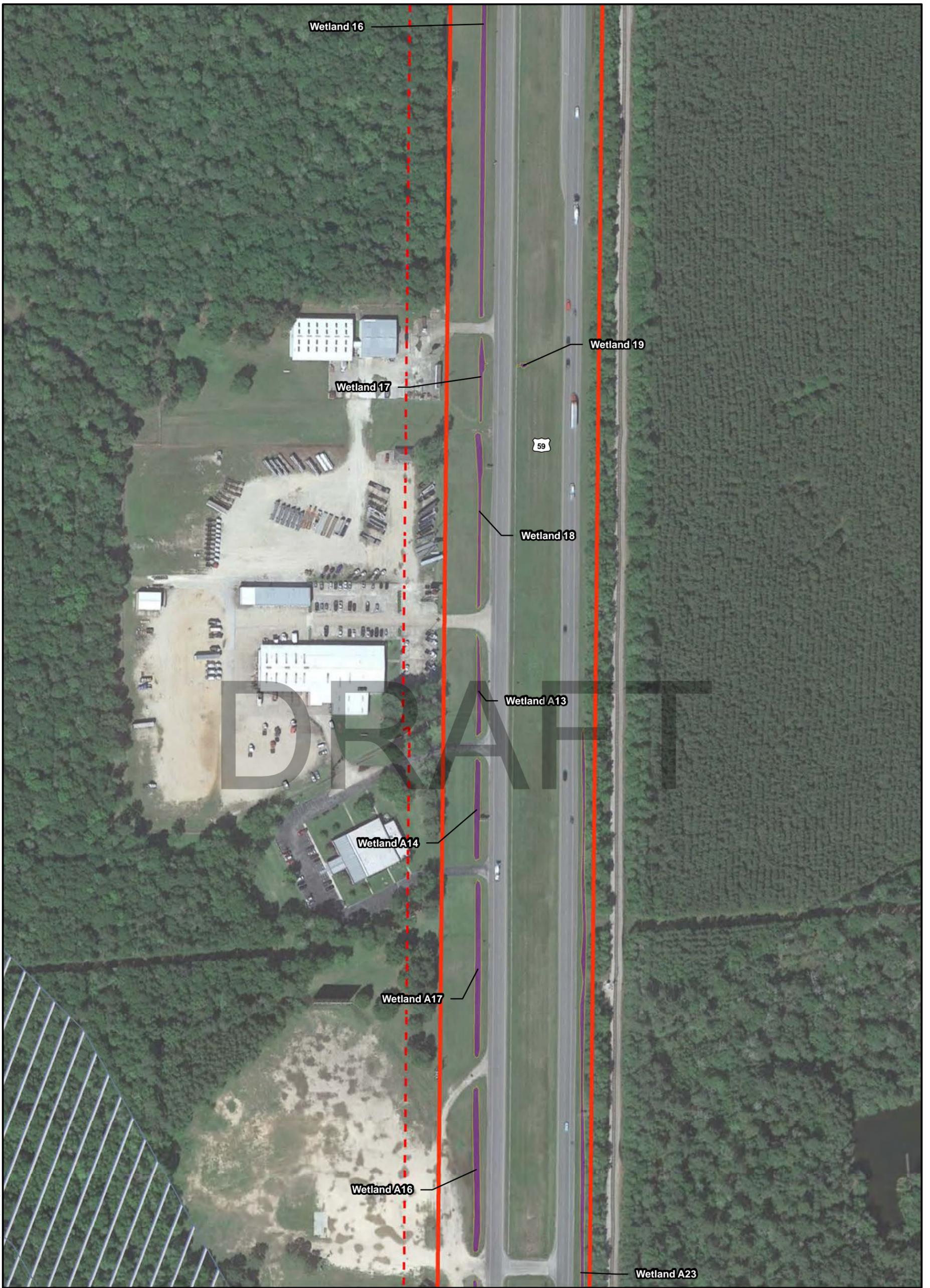


0 100 200 Feet

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

Source: National Flood Hazard Layer (NFHL), FEMA 2017.

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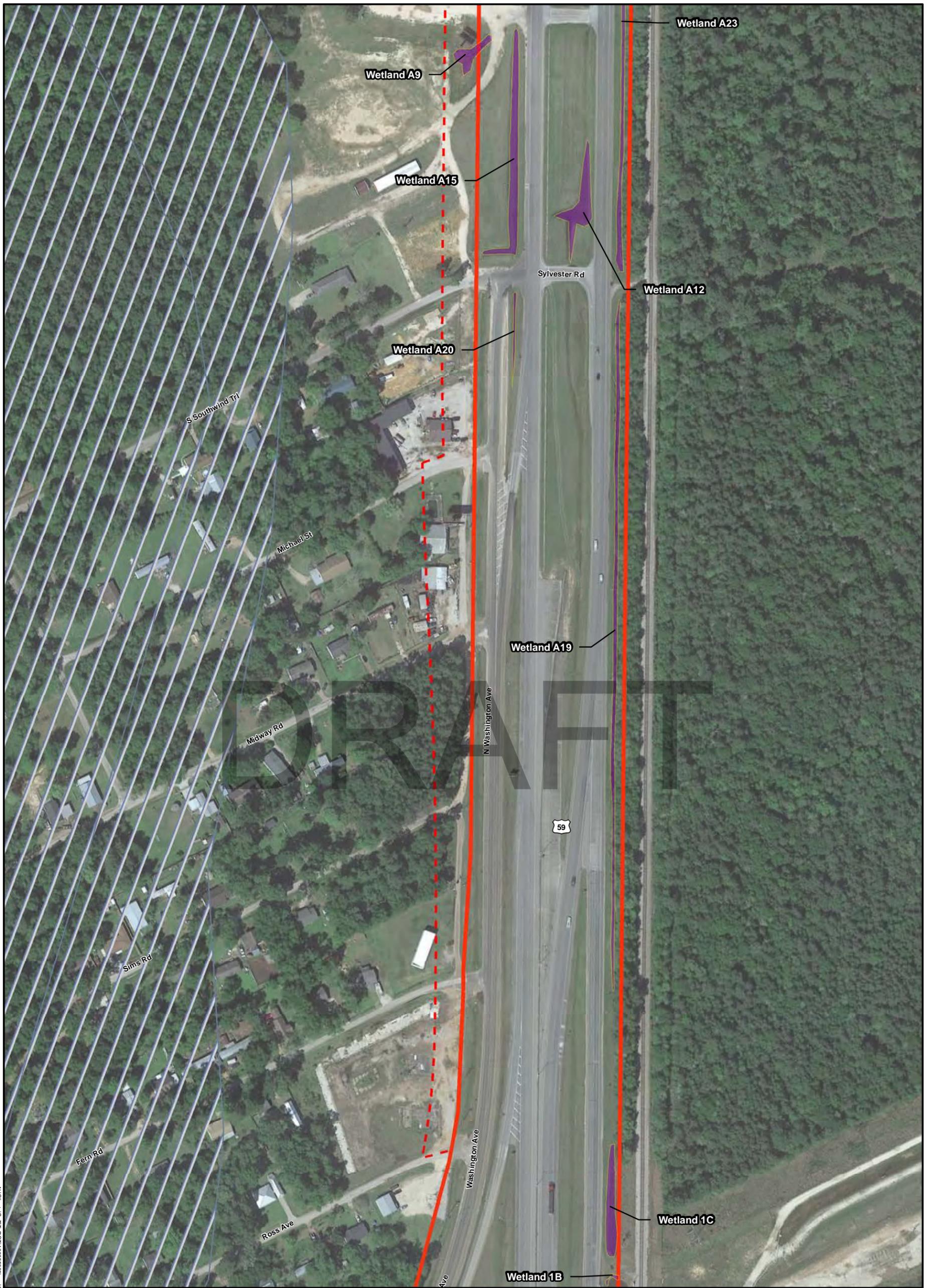
- | | |
|------------|---------------------|
| Stream | Existing ROW |
| Wetland | Proposed ROW |
| Pond | 100-year floodplain |
| Open Water | |



0 100 200 Feet

Source: National Flood Hazard Layer (NFHL), FEMA 2017.

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



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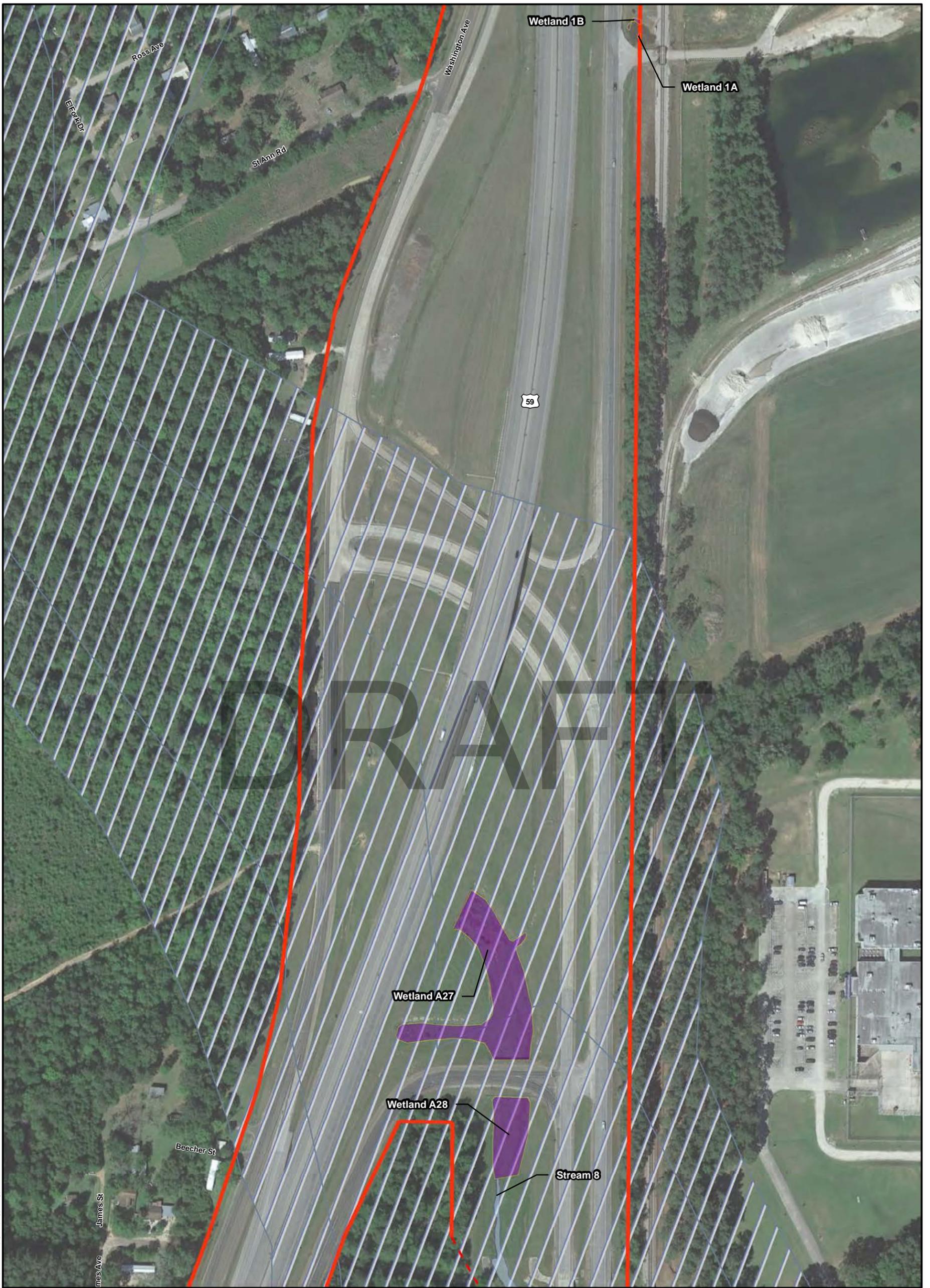
- Stream
- Wetland
- Pond
- Open Water
- Existing ROW
- Proposed ROW
- 100-year floodplain



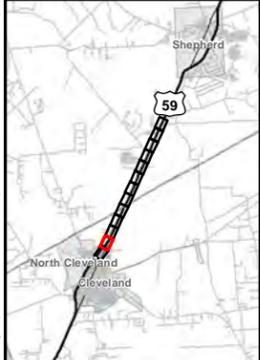
0 100 200 Feet

Source: National Flood Hazard Layer (NFHL), FEMA 2017.

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



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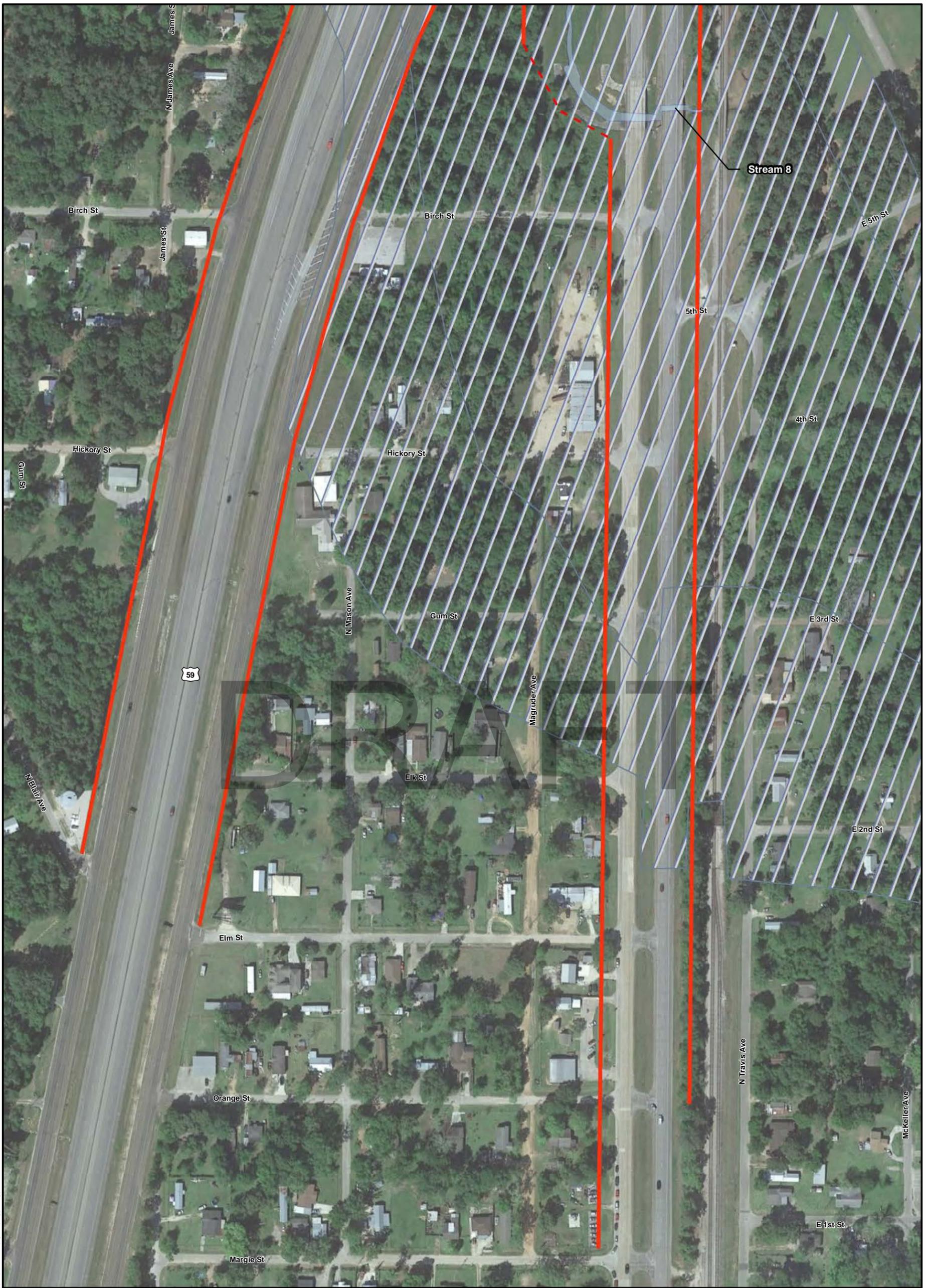


- Stream
- Wetland
- Pond
- Open Water
- Existing ROW
- Proposed ROW
- 100-year floodplain

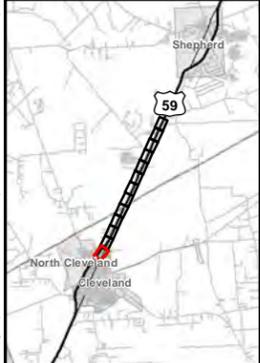


0 100 200 Feet

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



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- Stream
- Wetland
- Pond
- Open Water
- Existing ROW
- Proposed ROW
- 100-year floodplain



0 100 200
Feet

Source: National Flood Hazard Layer (NFHL), FEMA 2017.

FIGURE 4
MAPPED POTENTIAL WATERS OF THE US
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



DRAFT

FM 2914



Figure 5
EMST VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO
CLEVELAND SAN JACINTO & LIBERTY CO
UNTIES, TEXAS CSJ: 0177-02-057,
0177-03-099



DRAFT



Figure 5
EMST VEGETATION TYPES
US 59 UPGRADE - SHEPHERD T O
CLEVELAND SAN JACINTO & LIBERTY CO
UNTIES, TEXAS CSJ: 0177-02-057,
0177-03-099

0 250 500 Feet

DRAFT

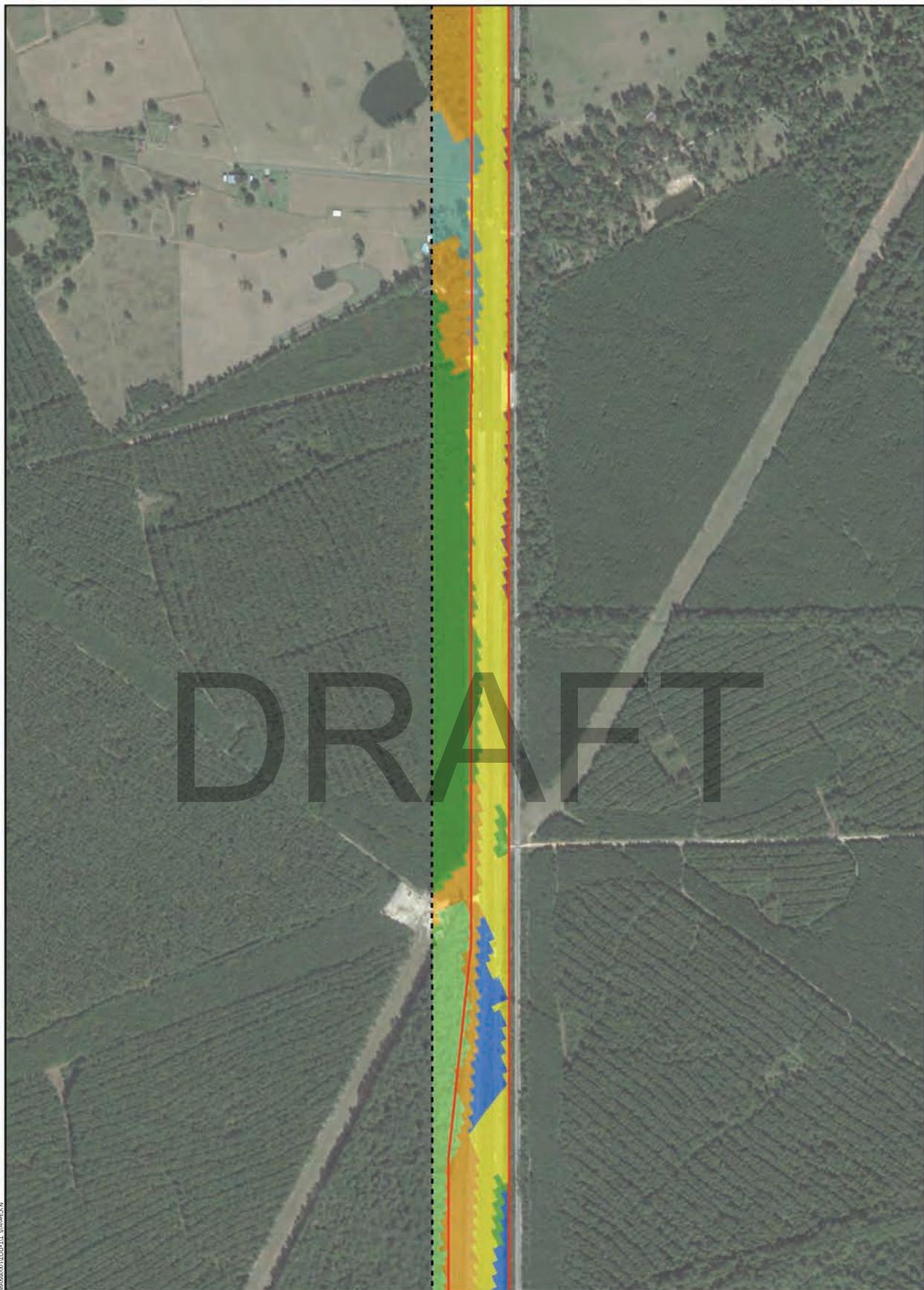


Figure 5
EMST VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO
CLEVELAND SAN JACINTO & LIBERTY CO
UNTIES, TEXAS CSJ: 0177-02-057, 0177-03-099

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Figure 5
EMST VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO
CLEVELAND SAN JACINTO & LIBERTY CO
UNTIES, TEXAS CSJ: 0177-02-057,
0177-03-099

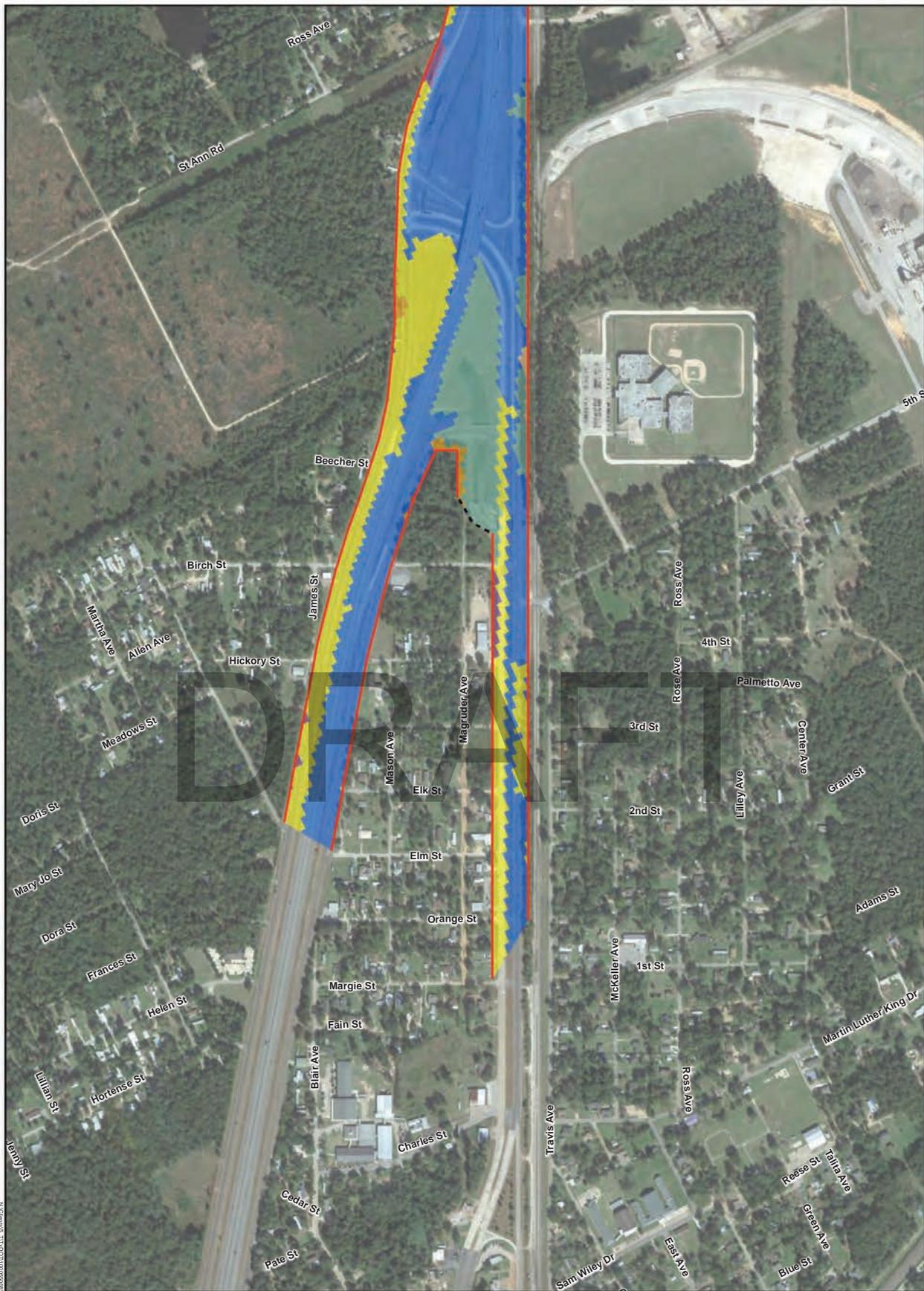


Figure 5
EMST VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO
CLEVELAND SAN JACINTO & LIBERTY CO
UNTIES, TEXAS CSJ: 0177-02-057,
0177-03-099



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FM 2914



- Existing ROW
- - - Proposed ROW
- Pineywoods: Disturbance or Tame Grassland
- Open Water
- Pineywoods: Longleaf or Loblolly Pine Flatwoods or Plantation
- Pineywoods: Bottomland Herbaceous Wetland
- Pineywoods: Bottomland Seasonally Flooded Hardwood Forest
- Pineywoods: Bottomland Temporarily Flooded Hardwood Forest
- Pineywoods: Herbaceous Flatwoods Ponds
- Pineywoods: Longleaf or Loblolly Pine – Hardwood Flatwoods or Plantation
- Pineywoods: Small Stream and Riparian Herbaceous Wetland
- Pineywoods: Small Stream and Riparian Temporarily Flooded Mixed Forest
- Pineywoods: Upland Hardwood Forest
- Urban High Intensity
- Urban Low Intensity

Figure 6
ACTUAL VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

Google, TNRS, Texas Google Imagery Service, 2014, 1:8,000; generated by Atkins, using ArcMap.
 < https://tnrs.org/texas-google-imagery/> (26 October 2017);



DRAFT



Figure 6
ACTUAL VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

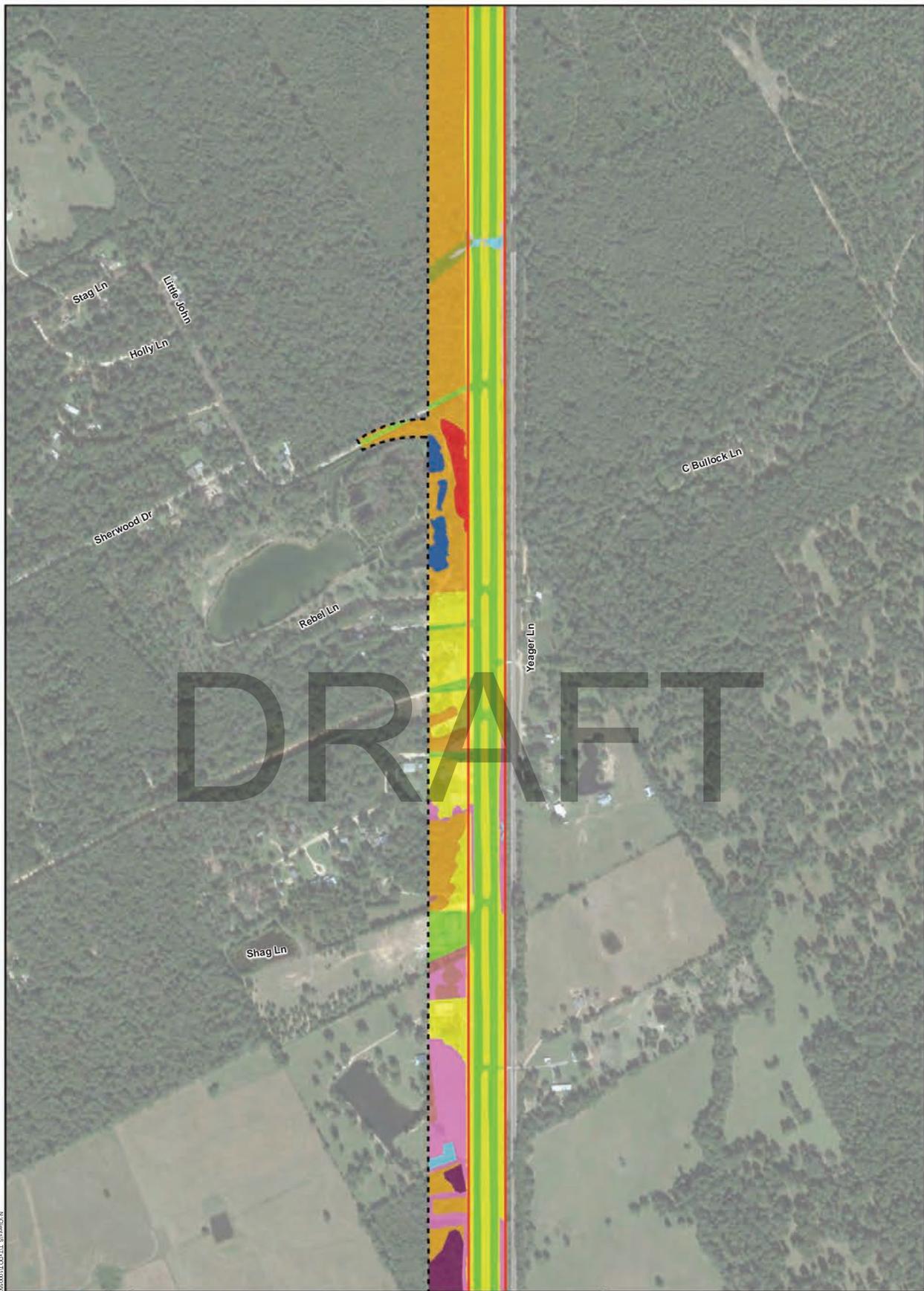


Figure 6
ACTUAL VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

Page 3 of 6

DRAFT



Figure 6
ACTUAL VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

0 250 500 Feet

DRAFT

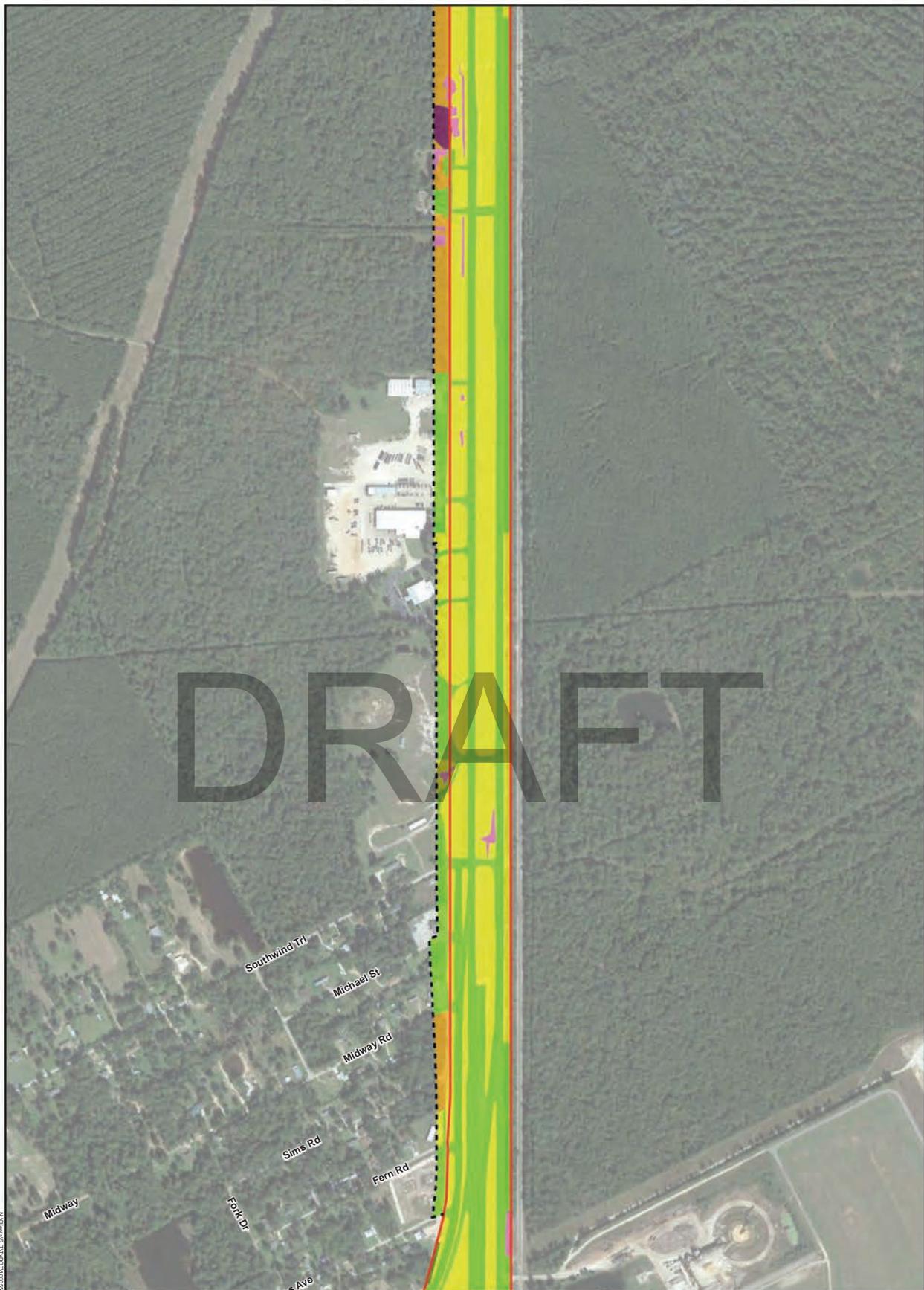


Figure 6
ACTUAL VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

0 250 500 Feet

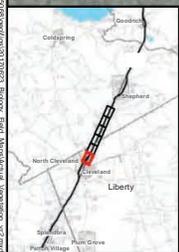
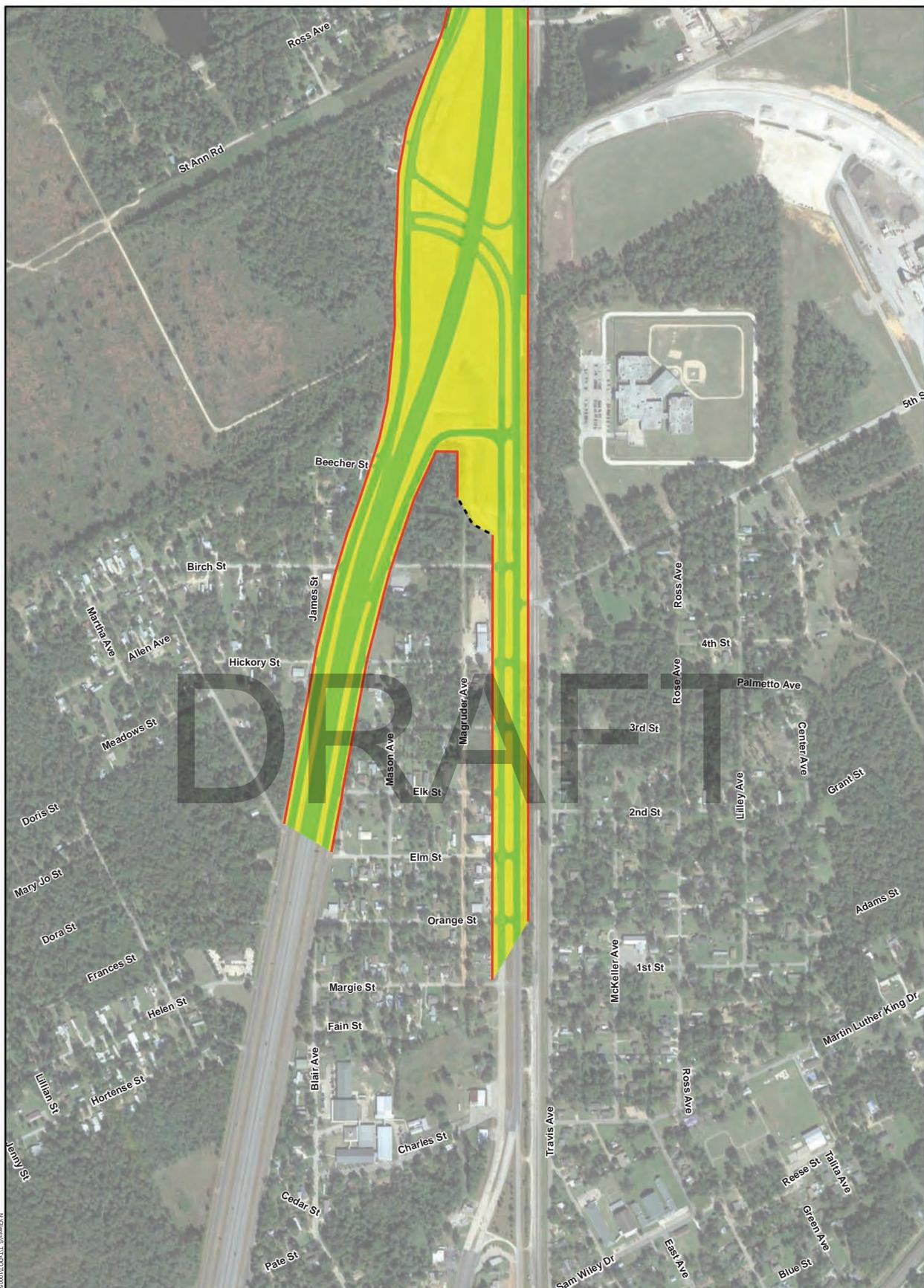
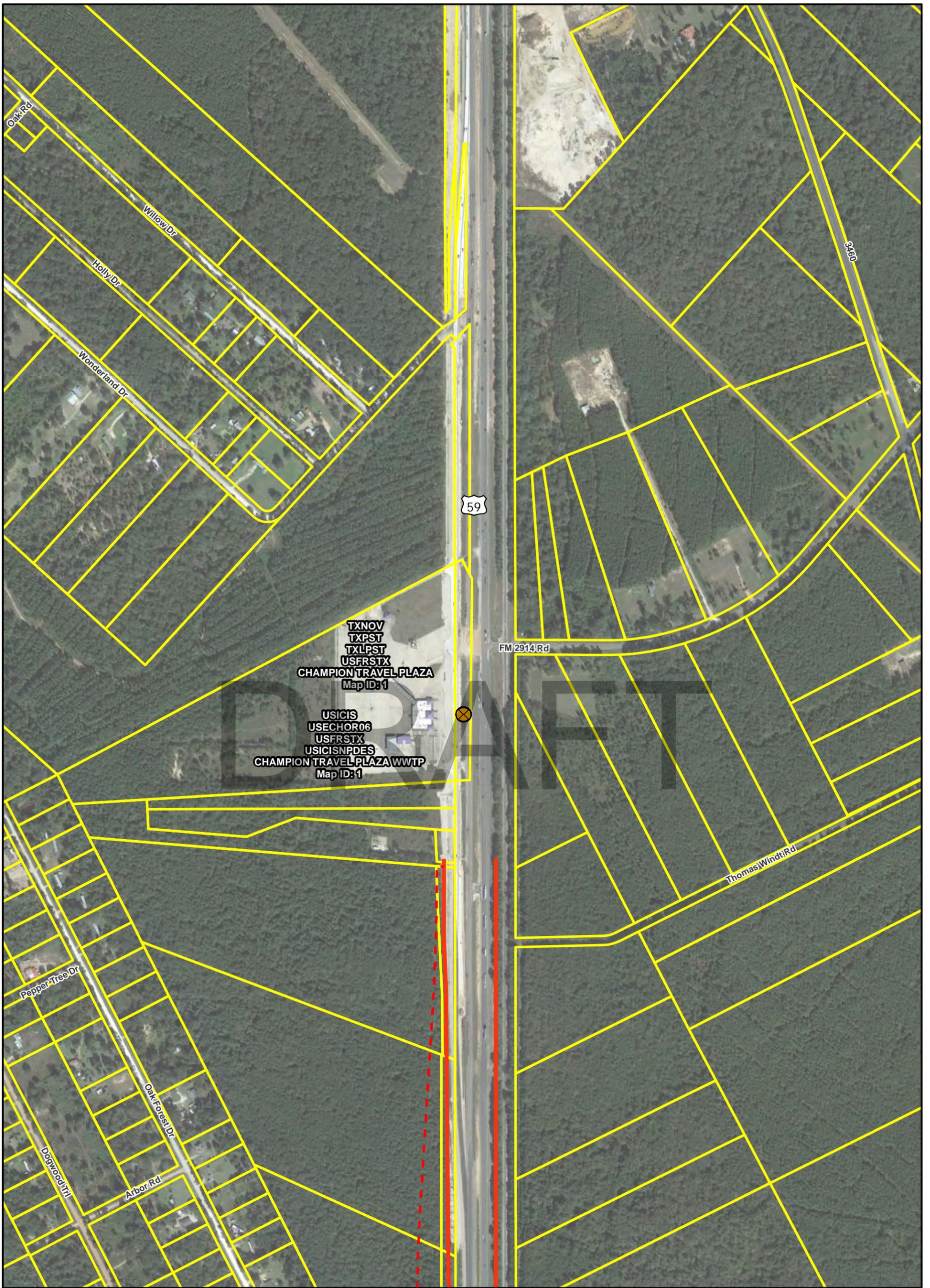


Figure 6
ACTUAL VEGETATION TYPES
US 59 UPGRADE - SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

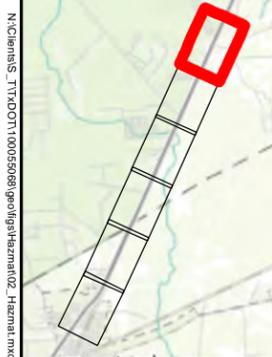
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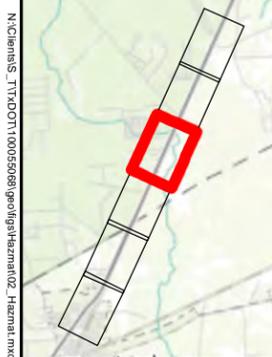


- Existing ROW
- - - Proposed ROW
- Parcel Boundary
- X Recorded Hazmat Site
- X Hazmat Unmapped



FIGURE 7
HAZARDOUS MATERIALS LOCATIONS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099





- Existing ROW
- - - Proposed ROW
- Parcel Boundary
- ⊗ Recorded Hazmat Site
- ⊗ Hazmat Unmapped

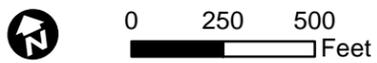
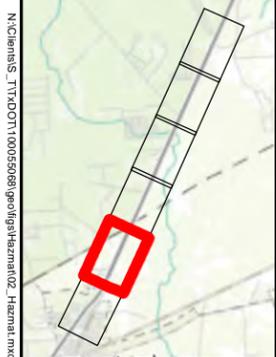
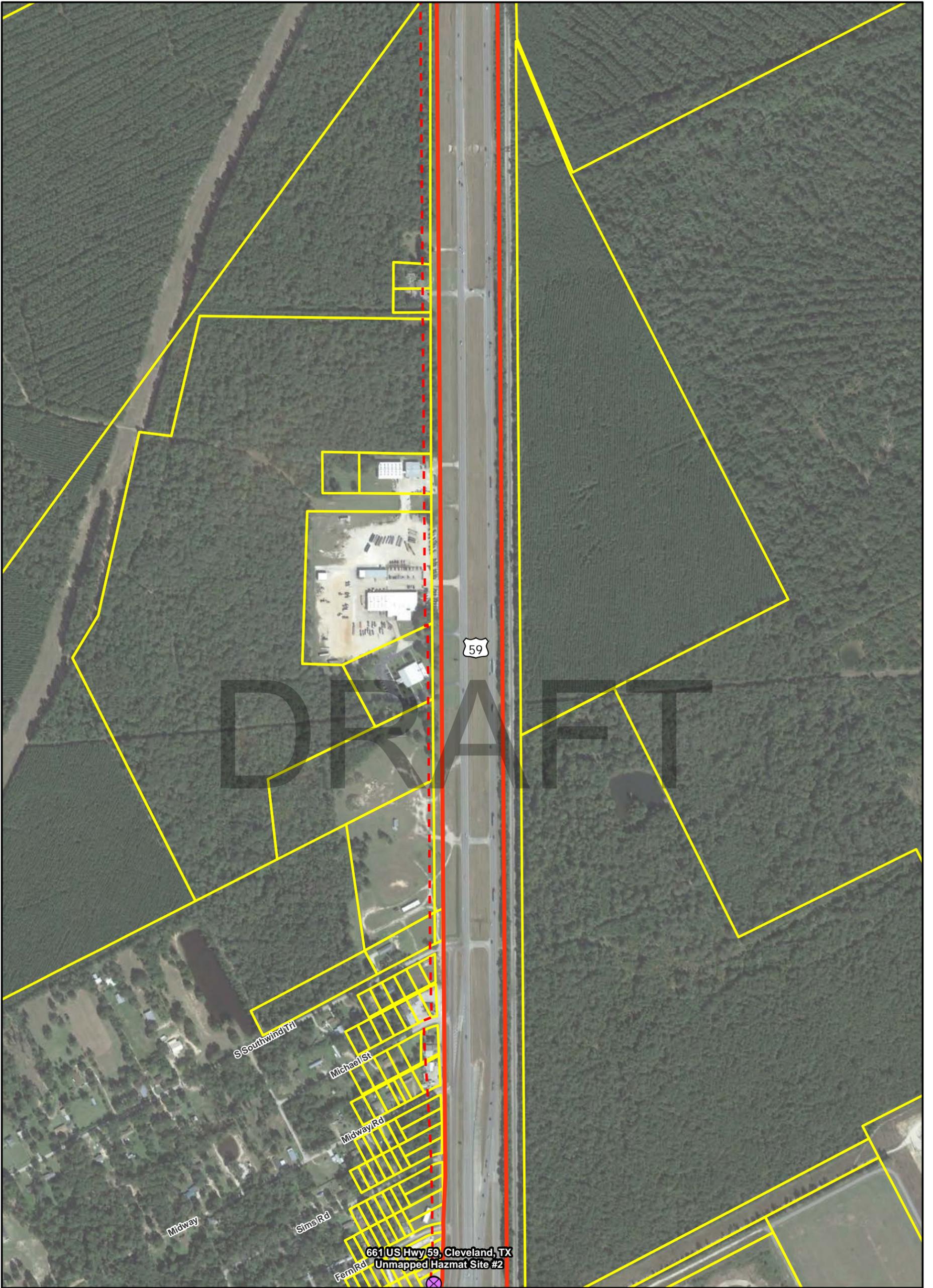


FIGURE 7
HAZARDOUS MATERIALS LOCATIONS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



- Existing ROW
- - - Proposed ROW
- Parcel Boundary
- ⊗ Recorded Hazmat Site
- ⊗ Hazmat Unmapped

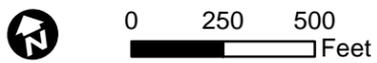
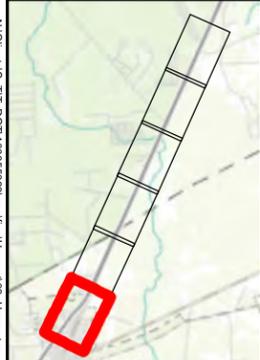
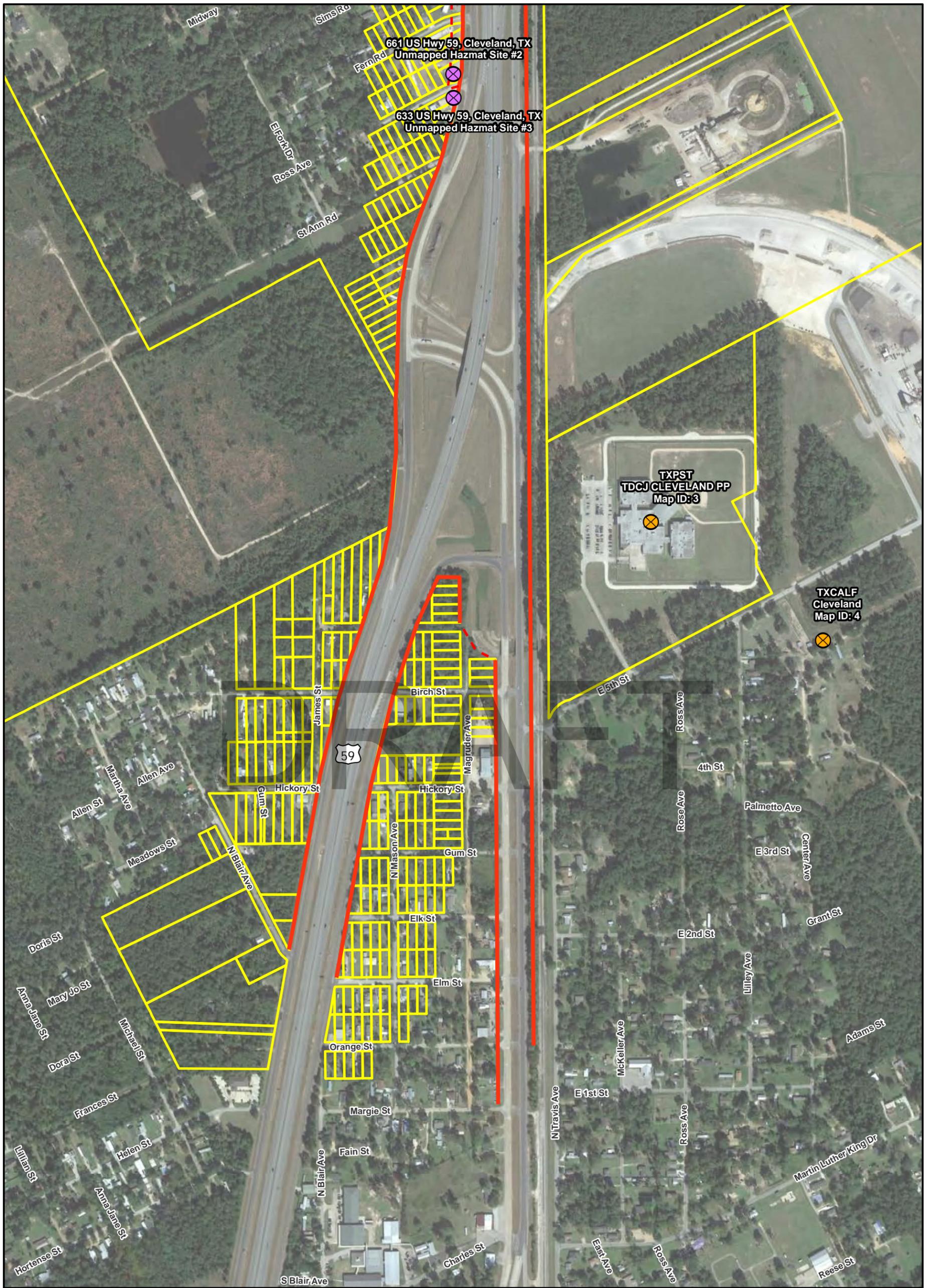


FIGURE 7
HAZARDOUS MATERIALS LOCATIONS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



- Existing ROW
- - - Proposed ROW
- Parcel Boundary
- ⊗ Recorded Hazmat Site
- ⊗ Hazmat Unmapped

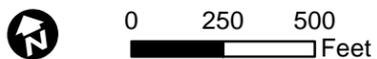
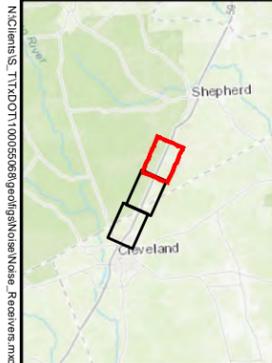
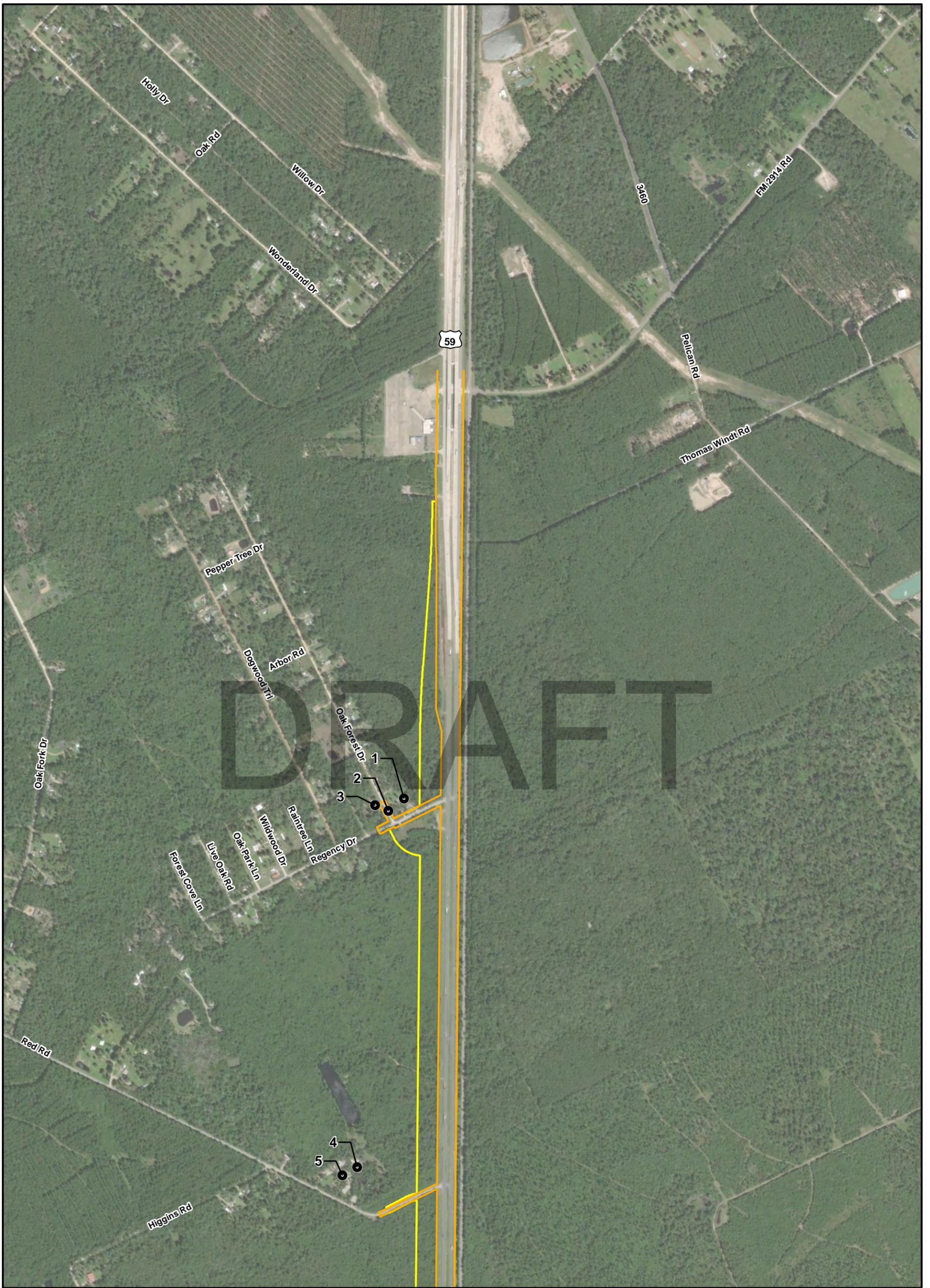


FIGURE 7
HAZARDOUS MATERIALS LOCATIONS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



- Impacted Noise Receiver
- Non-Impacted Noise Receiver
- Existing ROW
- Proposed ROW

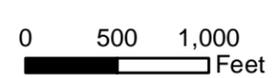
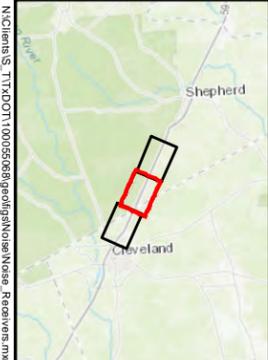


Figure 8
TRAFFIC NOISE RECEIVER LOCATIONS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099



- Impacted Noise Receiver
- Non-Impacted Noise Receiver
- Existing ROW
- Proposed ROW

0 500 1,000
Feet



Texas Department of Transportation

Figure 8
TRAFFIC NOISE RECEIVER LOCATIONS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

Page 2 of 3

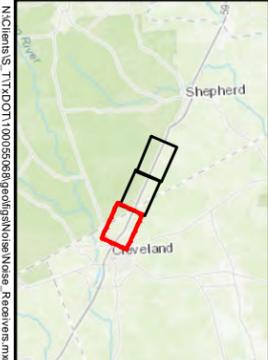
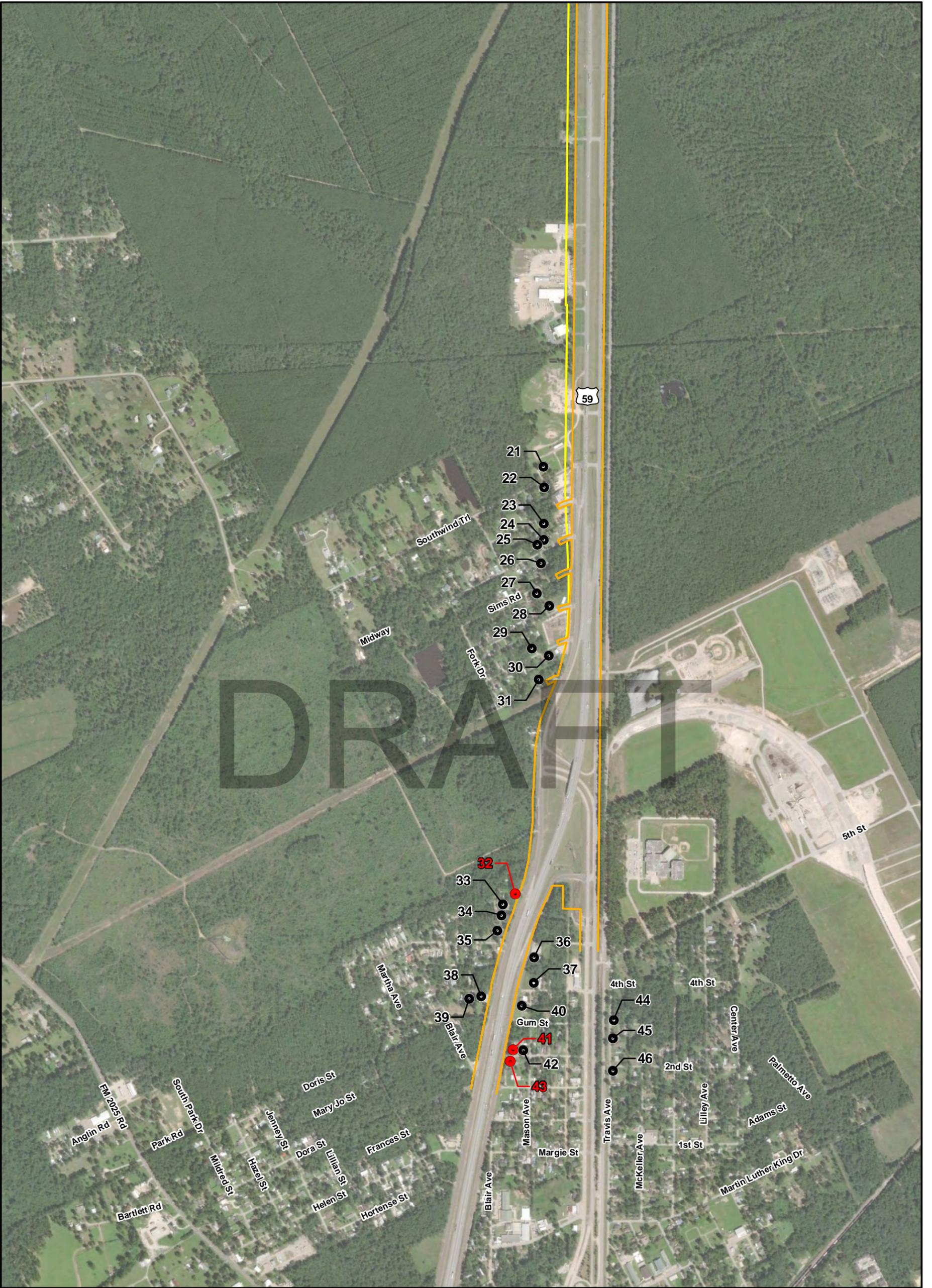
Prepared By: Atkins/VORO5913

Scale: 1:12,000

Job No.: 100055068

Date: Feb 21, 2019

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- Impacted Noise Receiver
- Non-Impacted Noise Receiver
- Existing ROW
- Proposed ROW

0 500 1,000
 Feet



Figure 8
TRAFFIC NOISE RECEIVER LOCATIONS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO & LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

Page 3 of 3

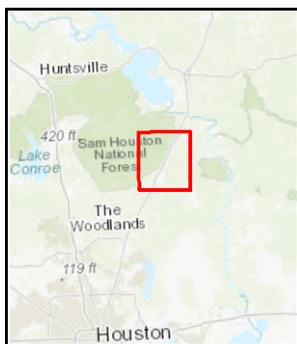
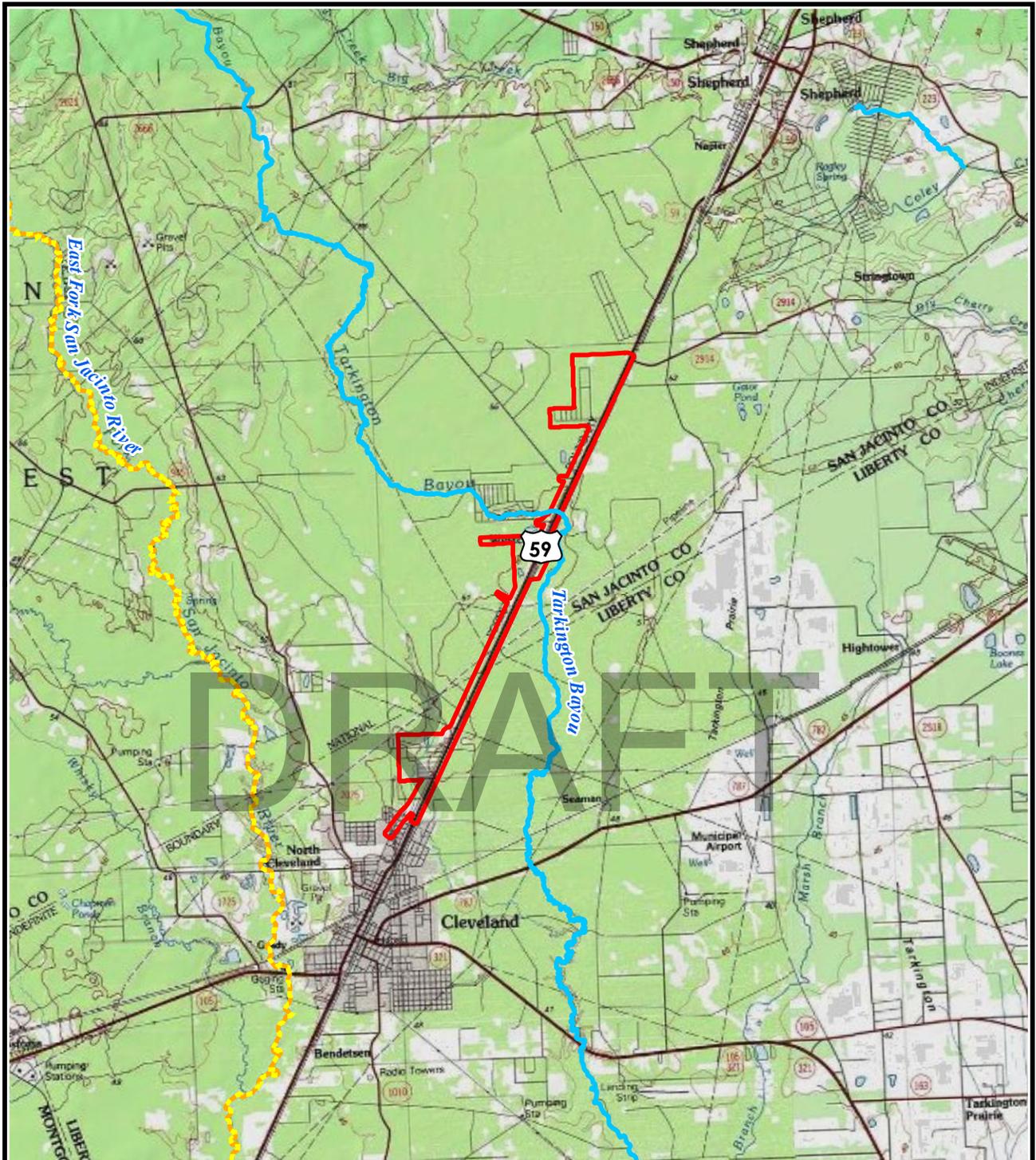
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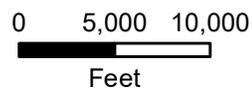
Date: Feb 21, 2019

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Legend

- Stream Segment (TCEQ)
- Impaired Segment (TCEQ)
- Project Location



Texas Department of Transportation

FIGURE 9
303 (D) IMPAIRED ASSESSMENT UNITS
US 59: SHEPHERD TO CLEVELAND
SAN JACINTO AND LIBERTY COUNTIES, TEXAS
CSJ: 0177-02-057, 0177-03-099

Prepared By: Atkins/VORO5913	Scale: 1:120,000
Job No.: 100055068	Date: Apr 08, 2019

USGS The National Map. USGS National Map. March 2015. 1:120,000; generated by Atkins; using ArcMap.
<http://basemap.nationalmap.gov/arcgis/rest/services/USGSTopo/MapServer> (08 April 2019).

Appendix G
Resource Agency Coordination

DRAFT

Sarah Stroman

From: Sarah Stroman
Sent: Monday, May 14, 2018 12:47 PM
To: 'khenry@coushattatribela.org'; 'LLangley@CoushattaTribelA.org';
'kellie@tribaladminsivices.org'; 'Ivy@tribaladminsivices.org'; 'earlii@tunica.org';
'bbordelon@tunica.org'; 'AQhpo@mail.com'; 'chief@alabama-quassarte.org';
'dhill@caddonation.org'; 'ashively@jenachoctaw.org'; 'sno.tcns@gmail.com';
'lbrown@tonkawatribe.com'; 'mallen@tonkawatribe.com';
'Celestine.bryant@actribe.org'; 'martinac@comanchenation.com';
'theodorev@comanchenation.com'
Cc: Laura Cruzada; Nicolle Kord
Subject: Section 106 Consultation, Texas Department of Transportation, CSJ: 0117-02-057; US 59
Widening; Liberty and San Jacinto Counties, Lufkin District
Attachments: 011702057_Consultation_Request_14-May-2018.pdf

Sec. 106 Consultation

MAY 14, 2018

We kindly request your comments regarding a proposed undertaking. Please see the attached info for project details and information. A summary is provided below.

Summary:

Contact:

[Nicolle Kord](#)
512-416-2698

[Laura Cruzada](#)
512-416-2638

<i>Project ID (CSJ), County and TxDOT District</i>	<i>CSJ: 0117-02-057, 0177-03-099; United States Highway (US) 59 from south of FM 2914 to north of Cleveland Relief Route, Highway Widening with Added Lanes; Liberty and San Jacinto Counties, Lufkin District TxDOT</i>
<i>Project Sponsor:</i>	
<i>Short Description:</i>	<i>Highway widening</i>
<i>New Right of Way:</i>	<i>Yes</i>
<i>Depth of Impacts:</i>	<i>2 – 40 ft.</i>
<i>Known Archeological Sites or Properties in project area:</i>	<i>No</i>
<i>Identification Efforts:</i>	<i>Desktop study</i>
<i>Recommendations:</i>	<i>Further field investigation</i>

Sarah G. Stroman

Texas Department of Transportation
Environmental Affairs Division
118 E. Riverside Drive
Austin, Texas 78704

512/416-2608 Office
512/550-9306 Mobile
512/416-2746 Fax

Mailing Address:
125 E. 11th Street
Austin, TX 78701

Sarah.Stroman@txdot.gov

May 14, 2018

RE: CSJ: 0117-02-057, 0177-03-099; United States Highway (US) 59 from south of FM 2914 to north of Cleveland Relief Route, Highway Widening with Added Lanes, Section 106 Consultation; Liberty and San Jacinto Counties, Lufkin District

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

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

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

Undertaking Description

TxDOT's Lufkin District (with the Beaumont District) is proposing to add additional travel lanes and access lanes to the existing US 59 between FM 2914 and the Cleveland Relief Route, in Liberty (Beaumont District) and San Jacinto (Lufkin District) counties, Texas (Exhibit A).

The proposed project would result in an approximate 420-foot-wide controlled-access freeway section with added travel lanes in each direction and entrance and exit ramps around the overpasses (Exhibit B).

Area of Potential Effects

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

- The project limits extend from south of FM 2914 in Shepherd to the north end of the Cleveland Relief Route. The total project length is thus 6.4 miles (33,666 feet).
- The existing right of way is 375 feet in width.
- The latitude and longitude for the end points of the project are:

- Begin latitude: +30.4525 Begin longitude: -95.0264
- End latitude: +30.3585 End longitude: -95.0605
- The existing right of way comprises an area estimated at 290 acres.
- The project requires approximately 93.2 acres of new ROW on the west side of the existing roadway. See Exhibit B.
- The estimated depth of impacts is typically 2 feet with depths to 40 feet where support piers or shafts are required. Storm water and drainage infrastructure may be eight feet below surface. Buried utility relocations are typically seven feet or less.
- For the purposes of this cultural resources review, the APE also includes an additional 50-foot area around the previously-described horizontal dimensions to account for potential alterations to the proposed APE included in the final project design. Consultation would be continued if potential impacts extend beyond this additional area, based on the final design.

Identification Efforts

For this project, TxDOT has conducted a desktop-based study of available background information that indicates further field investigation is warranted.

- The APE occurs in a setting with mapped historic resources.
- The APE occurs in a setting where archeological sites have been recorded.

Findings and Recommendations

Based on the above, TxDOT proposes the following findings and recommendations while archeological sites occur rarely even under favorable circumstances for their presence and preservation, field investigation of the APE to identify potential archeological historic properties (36 CFR 800.16(l)) is warranted to verify that archeological historic properties do not occur within the APE;

- archeological sites in this setting have been recorded, at least on particular landforms, so field investigation of the APE to identify potential archeological historic properties (36 CFR 800.16(l)) is warranted;
- that a zone of 50 feet beyond the horizontal project limits be considered as part of the cultural resources evaluation; and
- if any future changes to the project APE extend beyond the additional 50-foot zone or if archeological deposits are discovered, your Tribe would then be contacted for further consultation.

According to our procedures and agreements currently in place regarding consultation under Section 106 of the National Historic Preservation Act, we are writing to request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed project APE and the area within the above defined buffer. Any comments you may have on the TxDOT findings and recommendations should also be provided. Please provide your comments within 30

days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible. If you do not object that the proposed findings and recommendations are appropriate, please sign below to indicate your concurrence. In the event that further work discloses the presence of archeological deposits, we will contact your Tribe to continue consultation.

Thank you for your attention to this matter. If you have questions, please contact Laura Cruzada at 512/416-2638 (email: Laura.Cruzada@txdot.gov) or Nicolle Kord at 512/416-2698 (email: Nicolle.Kord@txdot.gov). When replying to this correspondence by US Mail, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely,



Scott Pletka, Deputy Section Director
Environmental Affairs Division

DRAFT

Concurrence by:

Date:

Enclosure

cc w/ enclosure: ENV-ARCH ECOS



Exhibit B-1

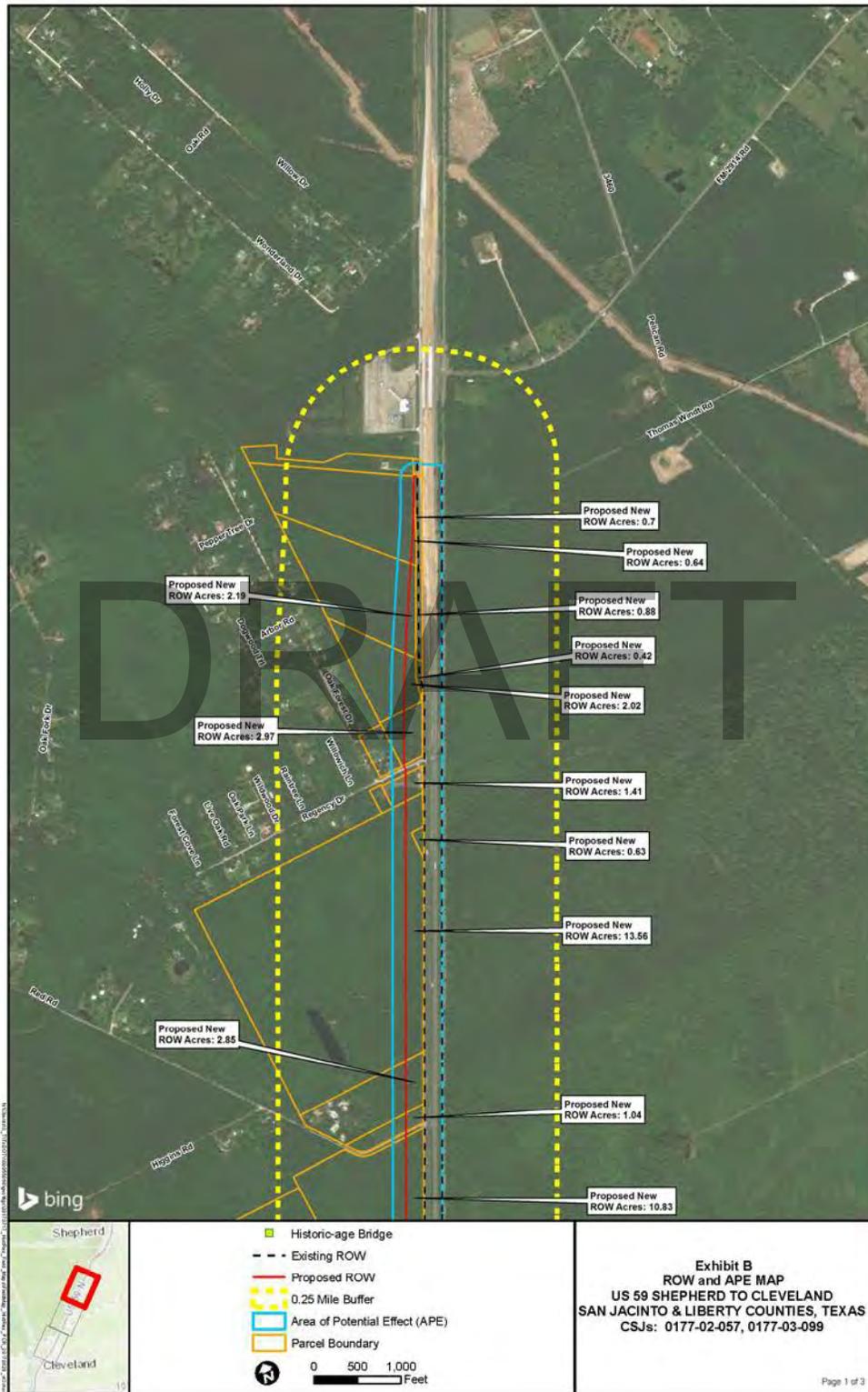


Exhibit B-2

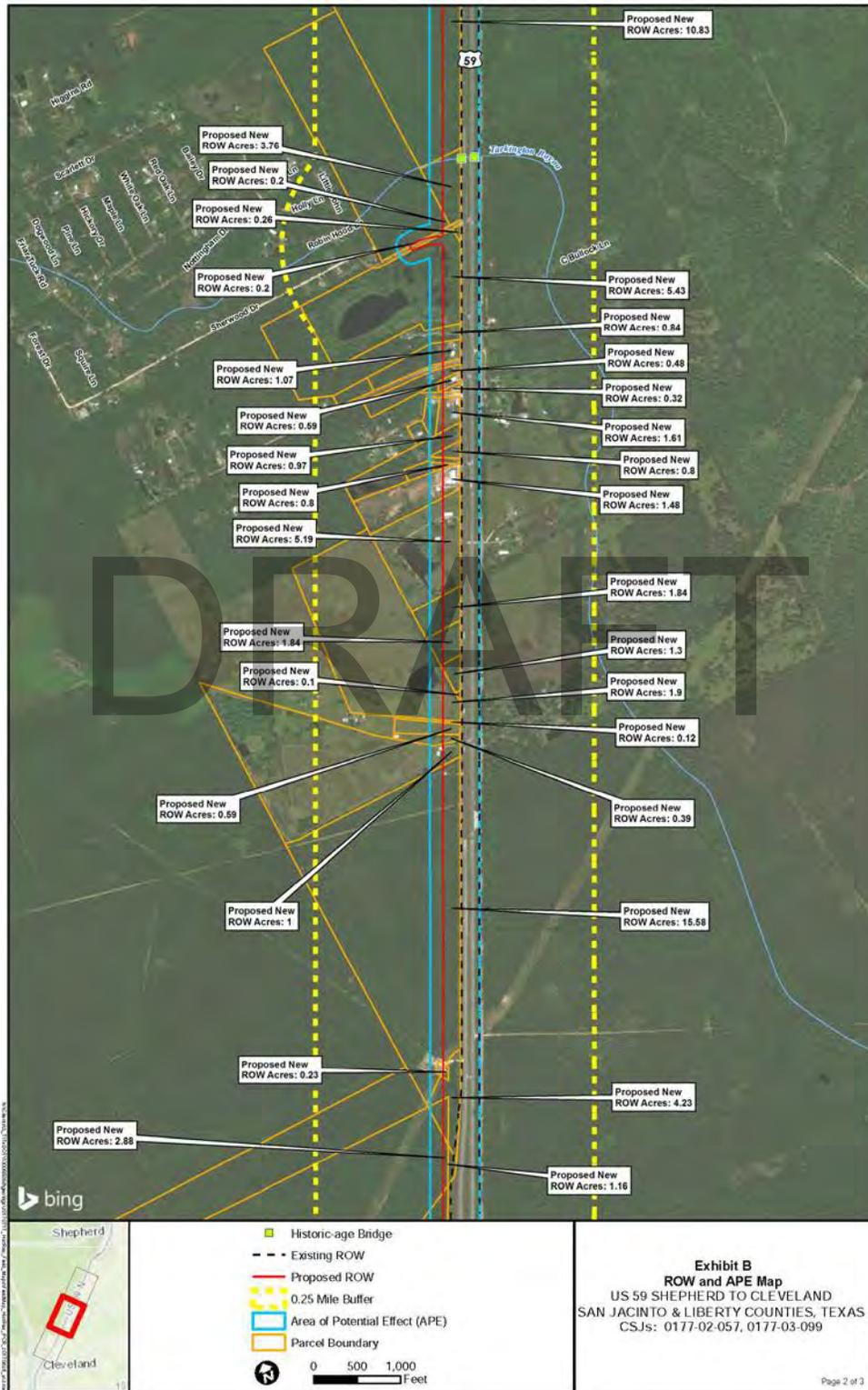
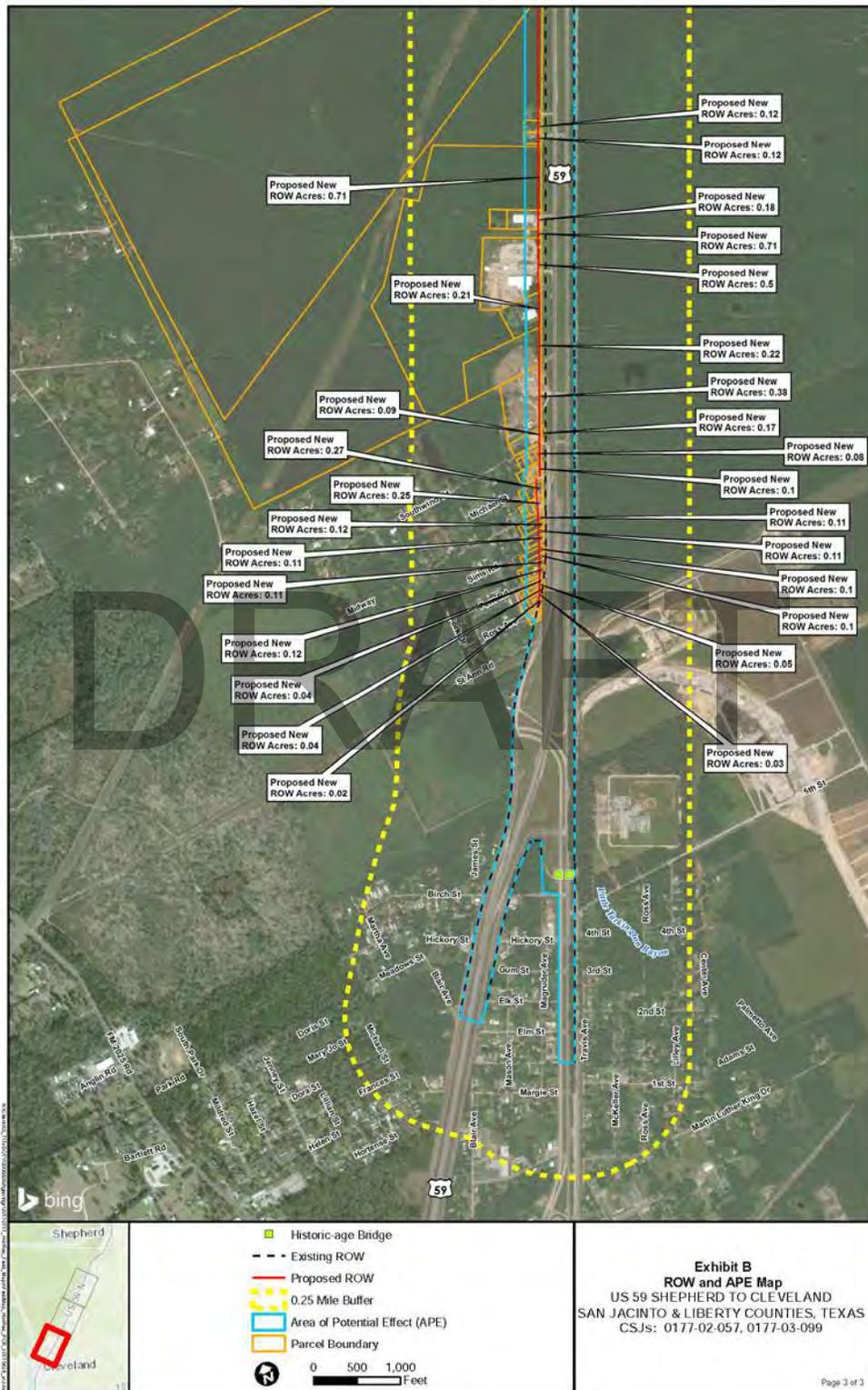


Exhibit B-3





Caddo Nation of Oklahoma

Post Office Box 487 • Binger, Oklahoma 73009 • 405-656-2344 • Fax 405-656-2892

May 15, 2018

Company: Texas Department of Transportation
Description: CSJ: 0117-02-057, 0177-03-099, US Hwy 59 from south of FM 2914 to north of Cleveland Relief Route, highway widening with added lanes.
County: Liberty, San Jacinto Counties
State: Texas
Point of Contact: Laura Cruzada, (512)416-2638, laura.cruzada@txdot.gov , Nicolle Kord, (512)416-2698, nicolle.kord@txdot.gov

Dear Ms. Cruzada,

The Caddo Nation of Oklahoma Cultural Preservation Department received correspondence regarding the above project. Our office is committed to protecting sites important to the Caddo Nation tribal heritage, culture, and religion. Furthermore, we are particularly concerned with archaeological sites that may contain human burials or remains, as associated funerary objects.

As described in our correspondence we received from your office and upon research of our database(s) and files we find that the Caddo people occupied this area either prehistorically or historically. However the location of the project does not appear to endanger cultural or religious sites of interest to the Caddo Nation. Please continue with the project as planned. However, should this project inadvertently uncover an archaeological site or object(s), we request that you halt all construction and ground disturbance activities and immediately contact the appropriate federal or state agencies, as well as our office.

We appreciate your cooperation in contacting the Caddo Nation of Oklahoma in order to conduct proper consultation. Should you have any questions, feel free to contact our office at 405-656-2344 ext. 2068.

Sincerely,

Derek Hill

Cultural Preservation Department

Caddo Nation of Oklahoma

P.O. Box 487

Binger, OK 73009

dhill@caddonation.org



Kiowa Tribe
Office of Historic Preservation
P.O. Box 50
Carnegie, OK 73015

May 22, 2018

Scott Pletka,
Deputy Section Director
Cultural Resources Management Section
Environmental Affairs Division
Texas Department of Transportation
125 East 11th Street
Austin, TX. 78701-2483

RE: Section 106 Consultation and Review for proposed CSJ: 0117-02-057, 0177-03-099; US Hwy 59 south of FM 2914 to north Cleveland Relief Route, Highway Widening with Added Lanes in Lufkin, Liberty and San Jacinto Counties, TX

Dear Mr. Pletka,

The Kiowa Tribe Office of Historic Preservation has received the information and materials requested for our Section 106 Review and Consultation. Section 106 of the National Historic Preservation Act of 1966 (NHPA), and 36 CFR Part 800 requires consultation with the Kiowa Tribe.

Given the information provided, you are hereby notified that the proposal project location should have minimal potential to adversely affect any known Archaeological, Historical, or Sacred Kiowa sites. Therefore, in accordance with 36 CFR 800.4(d) (1), you may proceed with your proposed project. However, please be advised undiscovered properties may be encountered and must be immediately reported to the Kiowa Tribe Office of Historic Preservation under both the NHPA and NAGPRA regulations.

This information is provided to assist you in complying with 36 CFR Part 800 for Section 106 Consultation procedures. Please retain this correspondence to show compliance. Should you have any questions, please do not hesitate to contact me at kellie@tribaladminsivices.org. Thank you for your time and consideration.

Sincerely,

Kellie J. Lewis
Acting Tribal Historic Preservation Officer (THPO)

Phone: (405) 435-1650

Kellie J. Lewis
Acting Tribal Historic Preservation Officer (THPO)
kellie@tribaladminsivices.org

Complex: (580) 654-2300

Sarah Stroman

From: Laura Cruzada
Sent: Monday, June 04, 2018 9:13 AM
To: Sarah Stroman
Subject: FW: 0119-02-057; US 59 Widening; Liberty and San Jacinto Counties, Lufkin District

Laura Cruzada
512-416-2638
laura.cruzada@txdot.gov
Public Involvement Specialist & Tribal Liaison
Environmental Affairs Division
Cultural Resources Management

From: Kassie Henry [<mailto:khenry@CoushattaTribelA.org>]
Sent: Monday, June 04, 2018 9:04 AM
To: Laura Cruzada
Subject: CSJ: 0119-02-057; US 59 Widening; Liberty and San Jacinto Counties, Lufkin District

Ms. Cruzada,
Thank you for requesting our 106/EA determination. Based on the information provided, I do not believe that this project will have a negative impact on any archaeological, historic or cultural resources of the Coushatta people. Accordingly, we do not wish to consult further on this project. If any inadvertent discoveries are made in the course of this project, we expect to be contacted immediately and reserve the right to consult with you at that time.
Aliilamo (thank you),

Kassie Dawsey
Section 106 Coordinator
Coushatta Tribe of Louisiana
P.O. Box 10
Elton, LA 70532
337-584-1560

DRAFT

NOTICE: This e-mail message and all attachments are intended only for the person or entity to which it is addressed and may be proprietary, confidential, privileged and/or otherwise protected from improper or erroneous disclosure. If you are not the sender's intended recipient, you are not authorized to intercept, read, print, retain, copy, forward, or disseminate this message. If you have erroneously received this communication, please notify the sender immediately and destroy all copies of this message (electronic, paper, or otherwise). No opinion expressed or implied by the sender necessarily constitutes the opinion of the company or its affiliates. Thank You.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Texas Coastal Ecological Services Field Office
17629 El Camino Real #211
Houston, TX 77058

Phone: (281) 286-8282 Fax: (281) 488-5882
<http://www.fws.gov/southwest/es/TexasCoastal/>
http://www.fws.gov/southwest/es/ES_Lists_Main2.html

In Reply Refer To:

October 18, 2017

Consultation Code: 02ETTX00-2018-SLI-0108

Event Code: 02ETTX00-2018-E-00226

Project Name: US 59 Upgrade

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The U.S. Fish and Wildlife Service (Service) field offices in Clear Lake, Tx, and Corpus Christi, Tx, have combined administratively to form the Texas Coastal Ecological Services Field Office. A map of the Texas Coastal Ecological Services Field Office area of responsibility can be found at: <http://www.fws.gov/southwest/es/TexasCoastal/Map.html>. All project related correspondence should be sent to the field office responsible for the area in which your project occurs. For projects located in southeast Texas please write to: Field Supervisor; U.S. Fish and Wildlife Service; 17629 El Camino Real Ste. 211; Houston, Texas 77058. For projects located in southern Texas please write to: Field Supervisor; U.S. Fish and Wildlife Service; P.O. Box 81468; Corpus Christi, Texas 78468-1468. For projects located in six counties in southern Texas (Cameron, Hidalgo, Starr, Webb, Willacy, and Zapata) please write: Santa Ana NWR, ATTN: Ecological Services Sub Office, 3325 Green Jay Road, Alamo, Texas 78516.

The enclosed species list identifies federally threatened, endangered, and proposed to be listed species; designated critical habitat; and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project.

New information from updated surveys, changes in the abundance and distribution of species, changes in habitat conditions, or other factors could change the list. 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. The Service recommends that verification be completed by visiting the ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation for updates to species list and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Candidate species have no protection under the Act but are included for consideration because they could be listed prior to the completion of your project. The other species information should help you determine if suitable habitat for these listed species exists in any of the proposed project areas or if project activities may affect species on-site, off-site, and/or result in "take" of a federally listed species.

"Take" is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. In addition to the direct take of an individual animal, habitat destruction or modification can be considered take, regardless of whether it has been formally designated as critical habitat, if the activity results in the death or injury of wildlife by removing essential habitat components or significantly alters essential behavior patterns, including breeding, feeding, or sheltering.

Section 7

Section 7 of the Act requires that all Federal agencies consult with the Service to ensure that actions authorized, funded or carried out by such agencies do not jeopardize the continued existence of any listed threatened or endangered species or adversely modify or destroy critical habitat of such species. It is the responsibility of the Federal action agency to determine if the proposed project may affect threatened or endangered species. If a "may affect" determination is made, the Federal agency shall initiate the section 7 consultation process by writing to the office that has responsibility for the area in which your project occurs.

Is not likely to adversely affect - the project may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial. Certain avoidance and minimization measures may need to be implemented in order to reach this level of effects. The Federal agency or the designated non-Federal representative should seek written concurrence from the Service that adverse effects have been eliminated. Be sure to include all of the information and documentation used to reach your decision with your request for concurrence. The Service must have this documentation before issuing a concurrence.

Is likely to adversely affect - adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial. If the overall effect of the proposed action is beneficial to the listed species but also is likely to cause some adverse effects to individuals of that species, then the proposed action "is likely to adversely affect" the listed species. An "is likely to adversely affect" determination requires the Federal action agency to initiate formal section 7 consultation with this office.

No effect - the proposed action will not affect federally listed species or critical habitat (i.e., suitable habitat for the species occurring in the project county is not present in or adjacent to the action area). No further coordination or contact with the Service is necessary. However, if the project changes or additional information on the distribution of listed or proposed species becomes available, the project should be reanalyzed for effects not previously considered.

Regardless of your determination, the Service recommends that you maintain a complete record

of the evaluation, including steps leading to the determination of affect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related articles.

Please be advised that while a Federal agency may designate a non-Federal representative to conduct informal consultations with the Service, assess project effects, or prepare a biological assessment, the Federal agency must notify the Service in writing of such a designation. The Federal agency shall also independently review and evaluate the scope and contents of a biological assessment prepared by their designated non-Federal representative before that document is submitted to the Service.

The Service's Consultation Handbook is available online to assist you with further information on definitions, process, and fulfilling Act requirements for your projects at:

http://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf

Section 10

If there is no federal involvement and the proposed project is being funded or carried out by private interests and/or non-federal government agencies, and the project as proposed may affect listed species, a section 10(a)(1)(B) permit is recommended. The Habitat Conservation Planning Handbook is available at:

http://www.fws.gov/endangered/esa-library/pdf/HCP_Handbook.pdf

Service Response

Please note that the Service strives to respond to requests for project review within 30 days of receipt, however, this time period is not mandated by regulation. Responses may be delayed due to workload and lack of staff. Failure to meet the 30-day timeframe does not constitute a concurrence from the Service that the proposed project will not have impacts to threatened and endangered species.

Proposed Species and/or Proposed Critical Habitat

While consultations are required when the proposed action may affect listed species, section 7(a)(4) was added to the ESA to provide a mechanism for identifying and resolving potential conflicts between a proposed action and proposed species or proposed critical habitat at an early planning stage. The action agency should seek concurrence from the Service to assist the action agency in determining effects and to advise the agency on ways to avoid or minimize adverse effect to proposed species or proposed critical habitat.

Candidate Species

Candidate species are species that are being considered for possible addition to the threatened and endangered species list. They currently have no legal protection under the ESA. If you find you have potential project impacts to these species the Service would like to provide technical assistance to help avoid or minimize adverse effects. Addressing potential impacts to these species at this stage could better provide for overall ecosystem health in the local area and avert potential future listing.

Several species of freshwater mussels occur in Texas and four are candidates for listing under the ESA. The Service is also reviewing the status of six other species for potential listing under the ESA. One of the main contributors to mussel die offs is sedimentation, which smothers and suffocates mussels. To reduce sedimentation within rivers, streams, and tributaries crossed by a project, the Service recommends that that you implement the best management practices found at: <http://www.fws.gov/southwest/es/TexasCoastal/FreshwaterMussels.html>.

Candidate Conservation Agreements (CCAs) or Candidate Conservation Agreements with Assurances (CCAAs) are voluntary agreements between the Service and public or private entities to implement conservation measures to address threats to candidate species. Implementing conservation efforts before species are listed increases the likelihood that simpler, flexible, and more cost-effective conservation options are available. A CCAA can provide participants with assurances that if they engage in conservation actions, they will not be required to implement additional conservation measures beyond those in the agreement. For additional information on CCAs/CCAAs please visit the Service's website at <http://www.fws.gov/endangered/what-we-do/cca.html>.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful. Many may nest in trees, brush areas or other suitable habitat. The Service recommends activities requiring vegetation removal or disturbance avoid the peak nesting period of March through August to avoid destruction of individuals or eggs. If project activities must be conducted during this time, we recommend surveying for active nests prior to commencing work. A list of migratory birds may be viewed at <http://www.fws.gov/migratorybirds/regulationspolicies/mbta/mbtandx.html>.

The bald eagle (*Haliaeetus leucocephalus*) was delisted under the Act on August 9, 2007. Both the bald eagle and the golden eagle (*Aquila chrysaetos*) are still protected under the MBTA and BGEPA. The BGEPA affords both eagles protection in addition to that provided by the MBTA, in particular, by making it unlawful to "disturb" eagles. Under the BGEPA, the Service may issue limited permits to incidentally "take" eagles (e.g., injury, interfering with normal breeding, feeding, or sheltering behavior nest abandonment). For more information on bald and golden eagle management guidelines, we recommend you review information provided at <http://www.fws.gov/midwest/eagle/pdf/NationalBaldEagleManagementGuidelines.pdf>.

The construction of overhead power lines creates threats of avian collision and electrocution. The Service recommends the installation of underground rather than overhead power lines whenever possible. For new overhead lines or retrofitting of old lines, we recommend that project developers implement, to the maximum extent practicable, the Avian Power Line Interaction Committee guidelines found at <http://www.aplic.org/>.

Meteorological and communication towers are estimated to kill millions of birds per year. We recommend following the guidance set forth in the Service Interim Guidelines for

Recommendations on Communications Tower Siting, Constructions, Operation and Decommissioning, found online at:

<http://www.fws.gov/habitatconservation/communicationtowers.html>, to minimize the threat of avian mortality at these towers. Monitoring at these towers would provide insight into the effectiveness of the minimization measures. We request the results of any wildlife mortality monitoring at towers associated with this project.

We request that you provide us with the final location and specifications of your proposed towers, as well as the recommendations implemented. A Tower Site Evaluation Form is also available via the above website; we recommend you complete this form and keep it in your files. If meteorological towers are to be constructed, please forward this completed form to our office.

More information concerning sections 7 and 10 of the Act, migratory birds, candidate species, and landowner tools can be found on our website at:

<http://www.fws.gov/southwest/es/TexasCoastal/ProjectReviews.html>.

Wetlands and Wildlife Habitat

Wetlands and riparian zones provide valuable fish and wildlife habitat as well as contribute to food control, water quality enhancement, and groundwater recharge. Wetland and riparian vegetation provides food and cover for wildlife, stabilizes banks and decreases soil erosion. These areas are inherently dynamic and very sensitive to changes caused by such activities as overgrazing, logging, major construction, or earth disturbance. Executive Order 11990 asserts that each agency shall provide leadership and take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial value of wetlands in carrying out the agency's responsibilities. Construction activities near riparian zones should be carefully designed to minimize impacts. If vegetation clearing is needed in these riparian areas, they should be re-vegetated with native wetland and riparian vegetation to prevent erosion or loss of habitat. We recommend minimizing the area of soil scarification and initiating incremental re-establishment of herbaceous vegetation at the proposed work sites. Denuded and/or disturbed areas should be re-vegetated with a mixture of native legumes and grasses. Species commonly used for soil stabilization are listed in the Texas Department of Agriculture's (TDA) Native Tree and Plant Directory, available from TDA at P.O. Box 12847, Austin, Texas 78711. The Service also urges taking precautions to ensure sediment loading does not occur to any receiving streams in the proposed project area. To prevent and/or minimize soil erosion and compaction associated with construction activities, avoid any unnecessary clearing of vegetation, and follow established rights-of-way whenever possible. All machinery and petroleum products should be stored outside the floodplain and/or wetland area during construction to prevent possible contamination of water and soils.

Wetlands and riparian areas are high priority fish and wildlife habitat, serving as important sources of food, cover, and shelter for numerous species of resident and migratory wildlife. Waterfowl and other migratory birds use wetlands and riparian corridors as stopover, feeding, and nesting areas. We strongly recommend that the selected project site not impact wetlands and riparian areas, and be located as far as practical from these areas. Migratory birds tend to concentrate in or near wetlands and riparian areas and use these areas as migratory yways or

corridors. After every effort has been made to avoid impacting wetlands, you anticipate unavoidable wetland impacts will occur; you should contact the appropriate U.S. Army Corps of Engineers office to determine if a permit is necessary prior to commencement of construction activities.

If your project will involve filling, dredging, or trenching of a wetland or riparian area it may require a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (COE). For permitting requirements please contact the U.S. Corps of Engineers, District Engineer, P.O. Box 1229, Galveston, Texas 77553-1229, (409) 766-3002.

Beneficial Landscaping

In accordance with Executive Order 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping (42 C.F.R. 26961), where possible, any landscaping associated with project plans should be limited to seeding and replanting with native species. A mixture of grasses and forbs appropriate to address potential erosion problems and long-term cover should be planted when seed is reasonably available. Although Bermuda grass is listed in seed mixtures, this species and other introduced species should be avoided as much as possible. The Service also recommends the use of native trees, shrubs, and herbaceous species that are adaptable, drought tolerant and conserve water.

State Listed Species

The State of Texas protects certain species. Please contact the Texas Parks and Wildlife Department (Endangered Resources Branch), 4200 Smith School Road, Austin, Texas 78744 (telephone 512/389-8021) for information concerning fish, wildlife, and plants of State concern or visit their website at:

http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/texas_rare_species/listed_species/.

If we can be of further assistance, or if you have any questions about these comments, please contact 281/286-8282 if your project is in southeast Texas, or 361/994-9005, ext. 246, if your project is in southern Texas. Please refer to the Service consultation number listed above in any future correspondence regarding this project.

Attachment(s):

- Official Species List

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:

Texas Coastal Ecological Services Field Office

17629 El Camino Real #211

Houston, TX 77058

(281) 286-8282

DRAFT

Project Summary

Consultation Code: 02ETTX00-2018-SLI-0108

Event Code: 02ETTX00-2018-E-00226

Project Name: US 59 Upgrade

Project Type: TRANSPORTATION

Project Description: Upgrade of US 59 between Cleveland and Shepherd in Liberty and San Jacinto Counties, TX.

Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/30.412600809810904N95.04839822204201W>



Counties: Liberty, TX | San Jacinto, TX

Endangered Species Act Species

There is a total of 4 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 3 of these species should be considered only under certain conditions. 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.

Birds

NAME	STATUS
<p>Least Tern <i>Sterna antillarum</i></p> <p>Population: interior pop. No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Wind related projects within migratory route. <p>Species profile: https://ecos.fws.gov/ecp/species/8505</p>	Endangered
<p>Piping Plover <i>Charadrius melodus</i></p> <p>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 is outside the critical habitat.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Wind related projects within migratory route. <p>Species profile: https://ecos.fws.gov/ecp/species/6039</p>	Threatened
<p>Red Knot <i>Calidris canutus rufa</i></p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Wind related projects within migratory route. <p>Species profile: https://ecos.fws.gov/ecp/species/1864</p>	Threatened
<p>Red-cockaded Woodpecker <i>Picoides borealis</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/7614</p>	Endangered

Critical habitats

There are no critical habitats within your project area under this office's jurisdiction.



MEMO

August 10, 2018

TO: Administrative File
From: Renee Benn

District: Lufkin
County: San Jacinto
CSJ#: 0177-02-057
Highway: US 59/IH 69
Let Date: 2023

Project Limits: FM 2914 to the north end of the Cleveland Relief Route (4 miles)
Project Description: Stipulation IX, Appendix 6. Upgrade to interstate standards by adding frontage roads and controlled access. 93.19 acres of new ROW. No historic, non-archeological properties present.

SUBJECT: Internal review under the Section 106 Programmatic Agreement (Section 106 PA) among the Texas Department of Transportation, Texas State Historic Preservation Officer, Advisory Council on Historic Preservation, and Federal Highway Administration; and the Memorandum of Understanding (MOU) between the Texas Historical Commission and the Texas Department of Transportation

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

Existing Conditions:

The existing US 59 facility includes two 12-foot-wide northbound (NB) lanes, two 12-foot-wide southbound (SB) lanes, and a 114-foot grassy median. The existing right-of-way (ROW) is approximately 375 feet wide.

Proposed Project:

The proposed improvements include an approximately 420-foot-wide controlled access freeway section with two 12-foot-wide NB frontage road lanes, two 12-foot wide SB frontage road lanes, and two 12-foot-wide main lanes in each direction. Controlled access means there will not be direct access to the main lanes. Access to the main lanes is allowed via entrance and exit ramps around the overpasses. The total project length is approximately 4.04 miles. Total new ROW required is approximately 93.19 acres.

Determination of Eligibility:

TxDOT historians reviewed the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and TxDOT files and found no historically significant resources previously documented within the area of potential

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effects (APE). The TxDOT Section 106 Programmatic Agreement defines the APE for this project as 150' from the ROW where new ROW is required, and current ROW where no new ROW is required.

Based on the Historic Resources Survey Report (HRSR), attached, TxDOT determined there are 12 properties containing 23 historic-age resources (built prior to 1977) in the APE. Property types consist of commercial, residential, agricultural, and recreational. TxDOT ENV historians determined that the properties are common designs that lack architectural merit, are not works of a master, and have no known historic associations with important events or persons, and are therefore not eligible for NRHP listing under Criterion A, B, or C.

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 MOU, TxDOT historians determined that there are no historic, non-archeological properties in the APE. In compliance with the Antiquities Code of Texas and the MOU, TxDOT historians determined project activities have no potential for adverse effects. Individual project coordination with SHPO is not required.

Lead Reviewer RNDobrasko for TxDOT 8/13/2018
Rebekah Dobrasko Date

Approved by Bruce Jensen for TxDOT 8.11.18
Bruce Jensen Date

DRAFT

Appendix H
Comment and Response Matrix from Public
Meeting

DRAFT

Comment Response Matrix

Name	Public Comment	TxDOT Reponse
Kelli Hudson	Concern is flooding. I live on Yeager Ln and we flooded twice due to construction already. Flooded within 5 week in March of this year. Everyone on Yeager Ln lost everything we have and are just now beginning to get things back together.	This preliminary design has addressed flooding by adjusting drainage features along the project area. As the project development advances additional analyses will be performed in order to ensure that the project does not increase flood risks.
Debora Hall	Only concern is flooding. Flood twice in 5 weeks due to construction on overpass.	This preliminary design has addressed flooding by adjusting drainage features along the project area. As the project development advances additional analyses will be performed in order to ensure that the project does not increase flood risks.
Nelson Torres	I want early acquisition please. Has over 300 church members. Parcel 24 slide the entrance ramp south.	TxDOT pursues early acquisition when a hardship has been identified. TxDOT will investigate this case and determine if early acquisition is possible.
Shirley and James LuHrell	Move overpass from Sherwood to Red Road. Red Road goes through to 2666. Sherwod goes into a housing addition	TxDOT will take this comment in to consideration.
Paul Wightmax	I am very impressed with the planning proposal and the location of the overpasses. I look forward to more info and its progress.	TxDOT is pleased that you were impressed with the proposed project. As the project development advances the public will be informed if any additional meetings or opportunities to comment will be provided.
Waid Williams	I think the bypass at Sheriwood Dr. need to be moved to US 59 and Red Road due to fact it ties to FM 266 and they can go from there to Coldspring, Cleveland and the back side of Shepherd Hwy 150 and to FM 2222 to Livngston TX.	TxDOT will take this comment in to consideration.