Final Environmental Assessment

FM 2218 (IH 69 to SH 36)

CSJ Number 2093-01-010

Fort Bend County, Texas

March 2018

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

Table of Contents

LIST OF ACRONYMS IV

1.0 INTRODUCTION 1

2.0 PROJECT DESCRIPTION 1

2.1 EXISTING FACILITY 1
2.2 PROPOSED FACILITY 1

3.0 PURPOSE AND NEED 2

3.1 NEED 2
3.2 SUPPORTING FACTS AND/OR DATA 2
3.3 PURPOSE 3

4.0 ALTERNATIVES 3

4.1 BUILD ALTERNATIVE 3
4.2 NO BUILD ALTERNATIVE 4
4.3 PRELIMINARY ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION 4

5.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES 4

5.1 RIGHT-OF-WAY/DISPLACEMENTS 4
5.2 LAND USE 8
5.3 FARMLANDS 8
5.4 UTILITIES/EMERGENCY SERVICES 9
5.5 BICYCLE AND PEDESTRIAN FACILITIES 9
5.6 COMMUNITY IMPACTS 10
5.6.1 Environmental Justice 11
5.6.2 Limited English Proficiency 14
5.7 VISUAL/AESTHETIC IMPACTS 15
5.8 CULTURAL RESOURCES 16
5.8.1 Archaeology 16
5.8.2 Historic Resources 17
5.9 DOT ACT SECTION 4(F), LWCF ACT SECTION 6(F), AND PWC CHAPTER 26 18
5.10 WATER RESOURCES 19
5.10.1 Clean Water Act Section 404 19
5.10.2 Clean Water Act Section 401 20
5.10.3 Executive Order 11990 Wetlands 20
5.10.4 Rivers and Harbors Act 20
5.10.5 Clean Water Act Section 303(d) 20
5.10.6 Clean Water Act Section 402 20
5.10.7 Floodplains 21
5.10.8 Wild and Scenic Rivers 22

5.10.9 Trinity River Corridor Development Certification *22*
5.10.10 Coastal Barrier Resources *22*
5.10.11 Coastal Zone Management *22*
5.10.12 Edwards Aquifer *23*
5.10.13 International Boundary and Water Commission *23*
5.10.14 Drinking Water Systems *23*
5.11 BIOLOGICAL RESOURCES 23
5.11.1 Vegetation *23*
5.11.2 Wildlife *25*
5.11.3 Threatened and Endangered Species *26*
5.12 AIR QUALITY 27
5.13 HAZARDOUS MATERIALS 34
5.14 TRAFFIC NOISE 36
5.15 INDUCED GROWTH 38
5.16 CUMULATIVE IMPACTS 39
5.17 CONSTRUCTION PHASE IMPACTS 39
6.0 AGENCY COORDINATION 40
7.0 PUBLIC INVOLVEMENT 40
8.0 ENVIRONMENTAL PERMITS, ISSUES, AND COMMITMENTS 41
9.0 CONCLUSION 43
REFERENCES 44

List of Tables

Table 1: Population Trends 3
Table 2: Potential Relocations/ Displacements 6
Table 3: Housing Availability by Zip Code 7
Table 4. MLS Commercial Availability 7
Table 5: Soils Identified within the Project Area 8
Table 6: Road Access Changes 11
Table 7: Minority Population by Census Block 12
Table 8: Median Household Income and Poverty Status 13
Table 9: Summary of Acreages 19
Table 10: Floodplains 22
Table 11: Vegetation Impacts 24
Table 12: Congestion Management Process Strategies 34
Table 13: Regulatory Database Sites 35
Table 14: Traffic Noise Levels dB(A) Leq 36
Table 15: Noise Impact Contours 37
Table 16: Environmental Permits, Issues, and Commitments 42

List of Figures

Figure 1: Percent Population by Age Group Who Speak English Less Than "Very Well" 15
Figure 2: FHWA PROJECTED NATIONAL MSAT EMISSION TRENDS 2010-2050 FOR VEHICLES OPERATING ON ROADWAYS USING EPA'S MOVES2014a MODEL 29

Appendices

APPENDIX A: PROJECT LOCATION MAPS
APPENIDIX B: PROJECT PHOTOS
APPENDIX C: SCHEMATICS
APPENDIX D: TYPICAL SECTIONS
APPENDIX E: PLAN AND PROGRAM EXCERPTS
APPENDIX F: RESOURCE SPECIFIC MAPS
APPENDIX G: RESOURCE AGENCY COORDINATION
APPENDIX H: SECTION 4(f) DOCUMENTATION

List of Acronyms

AADT	average annual daily traffic
AASHTO	American Association of State Highway and Transportation
ACS	American Community Survey
ADT	average daily traffic
APE	area of potential effect
BMP	Best Management Practices
BGPA	Bald and Golden Eagle Protection Act
CAA	Clean Air Act
CBRA	Coastal Barrier Resources Act
CEQ	Council on Environmental Quality
CMAQ	Congestion Mitigation and Air Quality
CMP	Coastal Management Program
CO	carbon monoxide
CWA	Clean Water Act
DHHS	U.S. Department of Health and Human Services
EA	Environmental Assessment
EFH	Essential Fish Habitat
EMST	Ecological Mapping System of Texas
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FWCA	Fish and Wildlife Coordination Act
FM	Farm-to-Market Road
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
FY	Fiscal Year
FPPA	Farmland Protection Policy Act
HEI	Health Effects Institute
HGAC	Houston-Galveston Area Council
IBWC	U.S. Section of the International Boundary and Water Commission
IPaC	Information for Planning and Consultation (USFWS)
IRIS	Integrated Risk Information System
LEP	Limited English Proficiency
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act

MOU	Memorandum of Understanding
MSAT	Mobile Source Air Toxics
MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standards
NATA	National Air Toxics Assessment
NDD	Natural Diversity Database
NEPA	National Environmental Policy Act of 1969
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OSHM	Official State Historical Marker
PALM	Potential Archeological Liability Map
PA-TU	Programmatic Agreement Regarding the Implementation of Transportation Undertakings
PM	particulate matter
PWC	Texas Parks and Wildlife Code
RTEST	Rare, Threatened, and Endangered Species of Texas (TPWD)
RTP	Region Transportation Plan
ROW	right-of-way
RRC	Railroad Commission of Texas
RTHL	Recorded Texas Historical Landmarks
SAL	State Archaeological Landmark
SH	State Highway
SHPO	State Historic Preservation Office
SOV	single-occupancy vehicle
STIP	Statewide Transportation Improvement Program
SW3P	Storm Water Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
TERP	Texas Emissions Reduction Plan
THC	Texas Historical Commission
TIP	Transportation Improvement Plan
TMDL	Total Maximum Daily Load
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks & Wildlife Department
TSS	total suspended sediments
TWDB	Texas Water Development Board

TxDOT	Texas Department of Transportation
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
vpd	vehicles per day
WOUS	Waters of the U.S.

1.0 INTRODUCTION

This Environmental Assessment (EA) presents the potential environmental effects of a project proposed by the Texas Department of Transportation (TxDOT) – Houston District to improve approximately 3.7 miles of Farm-to-Market Rd. (FM) 2218 between Interstate (I) 69 and State Highway 36 (SH 36) south of Rosenberg in Fort Bend County (**Appendix A**). This EA presents the need for and purpose of the proposed project, a description of the proposed project, and an interdisciplinary evaluation of the potential effects to the human and natural environment for those issues of concern.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality (CEQ) Regulations (40 CFR §1502.13), FHWA Technical Advisory T6640.8A, and TxDOT guidance documents. 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 (MOU) dated December 16, 2014, and executed by FHWA and TxDOT. A description of the public involvement is provided in Section 7.0.

2.0 PROJECT DESCRIPTION

2.1 Existing Facility

Existing FM 2218 between IH 69 and SH 36 is a two-lane, undivided facility with 12-foot travel lanes and unimproved shoulders. The typical ROW width within the project area is 100 feet, with no bicycle or pedestrian accommodations. A typical section of the existing roadway can be found in **Appendix D**.

2.2 Proposed Facility

The proposed project improvements would consist of widening and reconstructing the existing facility to a four-lane (two lanes in each direction) divided roadway. The proposed roadway would consist of 12-foot inside lane and an outside 15-foot shared-use lane (in each direction), for a total of four lanes. The roadway would include a 15-foot raised median, along with a curb and gutter drainage system. The project also includes 5-foot sidewalks on both sides. Left turns would only be permitted at designated breaks in the median where 12-foot turn lanes are provided. The turn lanes would be controlled (with signals) at major intersections and uncontrolled (without signals) at minor intersections, driveways, and U-turn locations. There are a total of 24 median openings proposed at existing road crossings, certain driveways, and for U-turns. At five proposed U-turn locations, a road bulb-out will be provided to allow large tractor trailers enough room to maneuver. Between Longleaf Drive and SH 36, FM 2218 is proposed to be realigned to provide for a 90-degree, signalled intersection with SH 36 (**Appendix C**). The realignment will result in a 0.2-mile road ending in a cul-de sac.

The typical road section will be constructed within a 120-foot proposed ROW (**Appendix D**). Two 100-foot wide outfall channels (B and C) totalling 4,700 feet are proposed to alleviate drainage within the project area, as well as two detention ponds (A and C). Detention pond A (7.5 acres) is located near the southern terminus of the project, while detention pond C (11.5 acres) is located near the north end of the project, at the outlet of outfall C (**Appendix C**). The logical termini, construction limits, and study limits for the proposed project are IH 69 to SH 36. The proposed project has independent utility, the widening of FM 2218 would not require any additional transportation improvements to complete and would function on its own without further construction of any adjoining segments.

The H-GAC (Houston-Galveston Area Council) adopted the 2040 Regional Transportation Plan (RTP) on January 23, 2015 and the 2017-2020 Transportation Improvement Program (TIP) for the Houston-Galveston Metropolitan Planning Area on May 27, 2016. The U.S. Department of Transportation (USDOT), including the FHWA and Federal Transit Administration (FTA), approved the 2017-2020 Statewide Transportation Improvement Program (STIP) on December 19, 2016.

The proposed project was originally listed in the 2017-2020 STIP as a state-funded project using monies from the passage of Proposition 7. Proposition 7 is a state constitutional amendment dedicating a portion of the general sales and use tax and the motor vehicle sales tax to the general highway fund. The project was assessed to federal NEPA standards in anticipation of securing FHWA funding. And a federal nexus for an anticipated United States Army Corps of Engineers (USACE) permit for impacts to waters of U.S. (WOUS). The source of funding for the proposed project was revised to state and federal funding in the February 2018 STIP revision. The project RTP, TIP, and STIP pages have been included in **Appendix E**. The proposed project would cost an estimated 58,955,274 dollars. Currently, the project is scheduled for a September 2019 let.

3.0 PURPOSE AND NEED

3.1 Need

The project is needed because FM 2218 between IH 69 and SH 36 is inadequate for existing and projected growth in the area. The roadway does not meet current design standards.

3.2 Supporting Facts and/or Data

FM 2218 serves as a major arterial within Fort Bend County, which has experienced a substantial increase in population over the past 20 years. Due to the growth in population, vehicular traffic on local roadways has increased. Currently within the project limits, FM 2218 is utilized most heavily by local residents who reside in the vicinity of the project area; however, FM 2218 experiences increased traffic during peak travel times by commuters who use the roadway to access SH 36 and IH 69. Examining the projected growth within the project vicinity shows that growth is expected to increase by 51 percent in in Fort Bend County over a 10-year period from 2010-2020. The proposed FM 2218 would be classified as an urban roadway. To meet American Association of State Highway and

Transportation (AASHTO) design standards for an urban roadway, raised medians were included in the proposed project. TxDOT policy is to incorporate pedestrian facilities into transportation projects, based on United States Code and the Code of Regulations Title 23-Highway, Title 49-Transportation, and Title 42-The Public Health and Welfare. In addition, Federal Highway Administration (FHWA) policy calls of the design and development of transportation projects to improve bicycling and walking conditions, to address the long-term need for bicyclists and pedestrians to cross corridors and travel along them. Exceptions are allowed under the following conditions: areas where bicyclists and pedestrians are prohibited by law from using the roadway: projects where the cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use; or projects where there is a sparsity of population or other factors to indicate an absence of need. This project does not meet the exceptions to improving bicycling and walking conditions for transportation projects.

Table 1: Population Trends

Area	1990	2000	2010	2020 Projected	2030 Projected*	Percent Change (1990-2000)	Percent Change (2000-2010)	Percent Change (2010-2020)	Percent Change (2020-2030)
Texas	16,986,510	20,851,820	25,145,561	29,510,184	33,628,653	23%	21%	17%	14%
Fort Bend County	225,421	354,452	585,375	881,966	1,095,123	57%	65%	51%	24%

Source: U.S. Census Bureau (1990, 2000, 2010 data) and Texas Water Development Board (TWDB; 2020 and 2030 projected data).

3.3 Purpose

The purpose of the proposed project is to accommodate existing and projected growth, and bring roadway to current design standards between SH 36 and IH 69.

4.0 ALTERNATIVES

4.1 Build Alternative

The Build Alternative consists of widening the existing two-lane undivided roadway to a four-lane divided roadway with a raised grass median within a 120-foot ROW. The road will be widened equally to the east and west; therefore, the new ROW will extend 10 feet from either side of the existing ROW. FM 2218 will also be realigned just south of Longleaf Drive, with the former road ending in a cul-de-sac.

The Build alternative was determined to meet the stated need and purpose of the project because it would reduce congestion by increasing turning movements, and improving access to SH 36 and IH 69. The Build Alternative's design will reduce displacements and avoid impacts to future residential development sites.

4.2 No Build Alternative

The No-Build Alternative would leave the existing facility unimproved. Normal routine maintenance would continue and all other pending, previously authorized actions would proceed as long as they did not require additional travel lanes. The No-Build Alternative would not meet or satisfy the purpose and need of the proposed project since future transportation volume demands would not be met; however, the No-Build Alternative is being carried forward for comparison purposes.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

Two preliminary alternatives were considered that would have widened 20 feet to the west or 20 feet to the east of the existing facility. These alternatives, along with the Build alternative, were presented at the public meeting held on November 15, 2015 (see section 7.0). Among the comments received containing a chosen alternative, a slight majority favored the Build alternative discussed in section 4.1. In addition, it was determined that the preliminary alternatives would result in more displacements and driveway encroachments than the Build alternative, so both were removed from further consideration.

5.0 AFFECTED ENVIRONMENT and ENVIRONMENTAL CONSEQUENCES

The following technical reports and forms were prepared in support of this EA. These topics are addressed in the EA but are covered in greater detail within their respective reports. Copies of these documents are found at the District Office and will be available at future public involvement activities.

- Wetland Delineation Report
- Traffic Noise Technical Report
- Hazardous Materials Initial Site Assessment Report
- Biological Evaluation Form

5.1 Right-of-way/Displacements

The majority of the ROW within the project area consists of multi-use properties including fallow and active agricultural fields, as well as commercial and residential development. The No-Build Alternative would require no additional ROW and no relocations or displacements would occur. The Build Alternative would require approximately 47.9 acres of additional ROW, including land for stormwater and drainage features. The existing ROW along FM 2218 is 100 feet wide and would be widened to 120 feet--requiring 10 feet of additional ROW be acquired on either side of the existing roadway. Since the area acquired for the new ROW will be narrow, potential residential and commercial displacements will be minimized (see **Table 2**). In addition, the ROW for the detention ponds and outfall channels is proposed for currently undeveloped land which will further minimize

potential displacements. There are potentially 163 parcels that will be acquired or partially acquired for the project, not including existing TxDOT ROW.

Partial Acquisition

Partial acquisition will occur in those instances where the project would result in changes to access and loss of frontage or parking to a structure's property or complex, but would not result in the relocation of the business or structures' inhabitants. There is potential that loss of parking for some businesses could result in total displacement. This will be determined through the TxDOT Real Estate Department through the property acquisition process. There are no temporary easements proposed for the project.

Relocation Assistance by TxDOT

TxDOT offers relocation counseling and financial assistance to residences and businesses that are displaced by the acquisition of highway ROW in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646). Once it is determined that a structure must be acquired in order to construct that highway, the property owner and/or tenant is contacted by a relocation counselor who provides information on what benefits for which the owner/tenant is eligible and assists the owner/tenant in applying for those benefits. The relocation counselor will provide transportation to inspect the housing (especially for elderly and handicap persons), and referrals to other agencies that provide assistance for relocated persons.

The relocation counselor also provides a listing of the most current comparable housing, including those currently available on the market and within the financial means of the occupant. This listing would be as close as possible to the dwelling being taken in terms of number of rooms, living space, location, and square footage. The replacement housing has to meet all minimum standards established by the state (decent, safe, and sanitary) and conform to all local building codes.

Depending on the difference in prices of properties that are comparable, financial assistance in the form of a purchase supplement, rental assistance payments, or a down payment on a loan may be offered to the relocatee. No construction would occur in the area immediately adjacent to affected properties until comparable replacement housing has been made available to all relocatees.[1]

In addition to residential relocation assistance, TxDOT also provides assistance to relocated businesses, farms, and nonprofit organizations. These benefits may be in the form of reimbursements for reasonable moving expenses and reestablishment expenses.

[1] TxDOT – Right-of-Way Manual, Volume 3. *Relocation Assistance*.

Potential Relocations/Displacements

A list of residences and businesses that could potentially be relocated/displaced for the project, either through total acquisition or due to the displacement of existing structures or parking, are provided in **Table 2.**

Table 2: Potential Relocations/ Displacements

Map ID #	Reference ID #	Property Address	Acres to be Acquired	Property Type	Business Name/Area Affected
60	R46180	4424 FM 2218	0.08	Commercial	Handy Stop Market Exxon/Pumps, Parking
72	R46200	4606 FM 2218	0.12	Residential	N/A
85	R45760	4832 FM 2218	0.04	Commercial	Duran's Roofing and Remodeling/Parking Lot
86	R45759	4834 FM 2218	0.02	Residential	N/A
98	R181737	5211 FM 2218	0.4	Residential	N/A
156	R46808	6230 FM 2218	0.06	Multi-Family Residential*	N/A
		Total	**0.80**		

Source: Study Team 2016
*Two residences occur on this parcel, one appears to be a duplex

As indicated in **Table 2**, the construction of the proposed project would potentially result in the relocation/displacement of 3 residential parcels in zip code 77469. To assess availability of replacement residential properties within the project area, a search of the Multiple Listing Service (MLS) at www.har.com (July 2016) was conducted. Available residential properties were searched in two zip codes located directly adjacent to the project area (77471 and 77461) and within the same zip code (77469) where the potential displacements would occur. **Table 3** indicates that while an adequate quantity of replacement housing is available within the project vicinity, zip code 77471 provides the most replacement opportunities with a mix of housing prices for the potentially displaced residences. Parts of the project area fall within zip code 77471, so it is very close to those sections of the project area in 77469 and could be a source of more affordable housing in the immediate vicinity.

Table 3: Housing Availability by Zip Code

Price Range	Zip Code			Total
	77469	77471	77461	
$10,000 - $50,000	1	1	0	2
$50,000 - $100,000	0	3	2	5
$100,000 - $150,000	0	2	2	4
$150,000 - $200,000	2	22	3	27
$200,000 - $250,000	1	24	1	26
$250,000 - $300,000	1	27	5	33
$300,000 - $1,000,000	97	27	16	140
Total	102	106	29	237

Source: HAR July 2016 Listings.
Note: All housing units listed contained at least two bedrooms and one full bathroom; vacant residential lots were excluded.

As indicated in **Table 2**, the construction of the proposed project would potentially result in the relocation/displacement of two commercial properties in zip code 77469—a home contractor specializing in roofing and a gas station/convenience store. A search of the MLS at www.commgate.com (July 2016) was conducted. Available commercial properties for sale or lease were searched in the two zip codes located directly adjacent to the project area (77471 and 77461) and within the same zip code (77469) where the potential displacements would occur. The data shown in **Table 4** indicates that sufficient commercial and retail space is available within the project area to provide sufficient and comparable relocation options to displaced property owners.

Table 4. MLS Commercial Availability

Properties	Zip Code		
	77471	77469	77461
Retail for Lease	26	4	0
Retail for Sale	8	3	2
Total	34	7	2

Source: HAR July 2016, Commercial Gateway Listings.

The businesses that have the potential to be displaced do not have any special requirements or require lots that are larger than the standard size available within the project vicinity. The products and services offered by the businesses that may be displaced would be available through other retailers while the displaced businesses relocate. There are no zoning regulations in Fort Bend County; therefore, any property that would be potentially displaced would not be limited by zoning to find an acceptable location to relocate.

5.2 *Land Use*

The proposed project is located within the city of Rosenberg and Fort Bend County. According to H-GAC, land use within 500 meters of the project area is primarily vacant developable (55 percent), residential (19 percent), multiple use/other (12 percent), undevelopable (6%), and parks and open space (4 percent). Approximately 3 percent is commercial, 1 percent is industrial, and 0.7 percent is unknown (**Appendix F, Exhibit 2**).

The No Build Alternative would have no direct effects on land use; however, growth and development would likely continue as population increases. The Build Alternative would require 47.9 acres of additional ROW. The additional ROW would be acquired adjacent to both sides of the existing FM 2218 in strips of land 10 feet in width. The ROW acquired would be converted to transportation use; however, because FM 2218 is an existing corridor land use adjacent to the project area would not substantially change.

5.3 *Farmlands*

Five soil associations underlie the study area according to the *Web Soil Survey of Fort Bend County, Texas (2016)* (**Table 5**). The soil associations include areas of loam, clay loam, and clay, and vary from well drained to poorly drained. All five of the soil associations found in the study area are considered hydric. As shown in **Table 5**, four of the mapped soil types are considered by the Natural Resources Conservation Service (NRCS) to be prime farmland soils, with one only considered prime farmland if drained.

Table 5: Soils Identified within the Project Area

Soils	Drainage Class	Prime Farmland Soils	Hydric Soils
Bacliff clay, 0 to 1 % slopes	Poorly drained	Yes, if drained	Yes
Bernard clay loam, 0 to 1 % slopes	Somewhat poorly drained	Yes	Yes*
Bernard-Edna complex, 0 to 1 % slopes	Somewhat poorly drained	Yes	Yes*
Edna loam, 0 to 1 % slopes	Somewhat poorly drained	No†	Yes*
Lake Charles clay, 0 to 1 % slopes	Moderately well drained	Yes	Yes*

* Only a small percentage (5% or less) of the soil mapping unit is considered hydric
† While not considered prime farmland, this mapping unit is given the 'Farmland of Statewide Importance' designation
Source: NRCS Web Soil Survey and NRCS National Hydric Soils List 2016

<u>Farmland Protection Policy Act</u>

The proposed project would be constructed within existing and proposed TxDOT ROW. The Farmland Protection Policy Act (FPPA) requires that federal agencies identify and take into account the adverse

effects of their programs on the preservation of farmlands; consider alternative actions, as appropriate, that could lessen adverse effects; and ensure that the project is compatible with state and local programs and policies to protect farmlands (7 CFR Part 658). Much of the site has been previously converted to urban and transportation uses.

The No Build Alternative would have no effect on prime farmland, hydric, or statewide important soils. As indicated in **Table 5**, the Build Alternative is underlain by five (5) soil mapping units, three (3) of which are considered prime farmland and one considered prime farmland if drained by the NRCS. The proposed ROW was assessed for prime farmland impacts using the NRCS-CPA-106 in October 2016. The NRCS-CPA-106 form is used to evaluate farmland conversion impacts for corridor type projects, using a numerical score. The proposed project scored a thirteen (13), which is below the 160-point threshold for NRCS coordination. The FPPA states that sites with a rating less than 160 will need no further consideration; therefore, no coordination with the NRCS is required.

5.4 Utilities/Emergency Services

The No Build Alternative would have no effect on utilities or emergency services.

For the Build Alternative, utilities such as electric, telephone, and cable lines will be relocated prior to construction. The Village of Pleak Fire Department is located in the southeast quadrant of the existing intersection of FM 2218 and SH 36. FM 2218 is being realigned in this area and will intersect with SH 36 to the north of its present location. This short section of existing FM 2218 will be renamed and end in a cul-de-sac just south of Longleaf Drive. A connector road is proposed between the renamed road (former FM 2218) and the new alignment of FM 2218 that will allow fire trucks to access FM 2218 without having to exit onto SH 36. Since the median will not allow the Fire Department to make a left turn from the connector road onto FM 2218, a short section of FM 2218 will only be accessible from SH 36; however, the distance between the Department and FM 2218 along SH 36 is short and will not delay response time significantly. The addition of the median will also require U-turns in certain areas to access all properties along FM 2218—including roads and driveways, there are 24 total median openings proposed, 5 of which have 'bulb-outs' for larger vehicles. The 'bulb-out' should allow fire trucks to manuever these turns if necessary. During construction, the station will not be affected as FM 2218 should remain open to avoid delays to fire trucks routed through the project area.

5.5 Bicycle and Pedestrian Facilities

The No Build Alternative would have no effect on bicycle or pedestrian facilities, which are not currently provided along existing FM 2218 in the project area.

For the Build Alternative, the inclusion of bicycle and pedestrian facilities were evaluated in compliance with TxDOT and USDOT policy. Pedestrians will be accommodated through the construction of 5-foot sidewalks on both sides of FM 2218 throughout the project area. In addition,

an outside, shared-use lane would be constructed on both sides of FM 2218 to accommodate bicycles.

5.6 Community Impacts

Community Cohesion

Community cohesion is a term that refers to an aggregate quality of social, economic, and physical attributes that give definition to a geographic area often designated as a neighborhood or community. The FHWA defines cohesion as "those behaviors or perceptual relationships that are shared among residents of a community that cause the community to be identifiable as a discrete, distinctive geographic entity." As such, a cohesive community enables residents to have a sense of belonging to their neighborhood or community and/or a strong attachment to neighbors, groups and institutions as a continual association over time.

As defined in the FHWA Technical Advisory T 6640.8A, changes in community cohesion because of highway construction and improvements may be beneficial or adverse. The No Build Alternative would not affect the existing structure of local communities; however, deterioration of mobility may occur with increased traffic volumes since the road will continue to be used heavily. As a result, future negative effects to community structure may occur from the No Build Alternative.

While FM 2218 is an existing community boundary, the Build Alternative would widen the existing road and add a raised median with dedicated left turns. While the median presents more of a boundary to movement, there are 24 median openings proposed, which averages to approximately 6 every mile along the length of the project. This number should still allow a relatively unrestricted freedom of movement along the FM 2218 corridor.

Overall, the project is not anticipated to have a significant adverse effect on community cohesion, as FM 2218 is an existing facility that already serves as a boundary between neighborhoods and communities.

Access and Travel Patterns

Under the No Build Alternative, there will continue to be no restriction of access along FM 2218 and cars will remain the primary mode of transportation.

While cars will continue to be the primary mode of transportation under the Build Alternative, the proposed 15 ft. raised median will restrict left turns to dedicated left turns at road crossings, certain driveways, or U-turns throughout the project corridor. All existing road crossings and intersections will remain open to left turns across FM 2218 except at Ponderosa Drive, Longleaf Drive, and Meadow Bend Lane (**Table 6**). The farthest someone would have to travel for a U-turn throughout the project corridor is 0.4 mile. Another potential impact of the Build Alternative would be improved cycling and pedestrian mobility due to the addition of shared bike lanes and sidewalks. Mass transportation routes do not serve the area; therefore, public transport will not be impacted.

Table 6: Road Access Changes

Affected Road	Community Description	Proposed Access Changes
Ponderosa Drive; Pleak Rd.; former FM 2218 cul-de-sac	Western Union, Pleak Village Hall and Fire Station, 15-20 homes	No direct access to FM 2218 due to realignment. Take connector road to FM 2218, no restrictions on right turns to travel north. Travel 0.4 mile to make a U-turn to travel south on FM 2218.
Longleaf Drive	Approximately 10 homes	No restrictions on right turns to travel north on FM 2218. Travel 0.3 mile to make a U-turn to travel south on FM 2218.
Meadow Bend Lane	Approximately 30 homes	No restrictions on right turns to travel north on FM 2218. Travel 0.1 mile to make a U-turn to travel south on FM 2218.

In sum, the project will alter vehicular travel patterns and access at those points where a median opening for left turns is absent; the median will necessitate U-turns for ingress and egress from these parcels depending on the direction travelled. With the addition of sidewalks and bicycle lanes, additional modes of travel may become more practicable and increase access along the road for those without a car.

5.6.1 Environmental Justice

Minority Populations

Census block groups are the smallest census data unit for which all parameters needed to conduct an environmental justice assessment are available. However, race and ethnicity is available at the census block level. This data combined with observations from site visits enabled the assessment of community-level racial and ethnic composition.

For this analysis, the census blocks located adjacent the project area were analysed for race/ethnicity and compared to the City of Rosenberg and Fort Bend County. The adjacent census blocks were chosen as the limits of this study because based on the locations of the roadways surrounding the proposed project these blocks would be the most likely to be impacted by the proposed projects. Areas outside this study area are better served by other roadways. The study area limits are IH 69 to the north, SH 36 to the west and south. The adjacent blocks to the east of the FM 2218 extend approximately halfway to the next major roadway to the south (FM 2977). Residents, property owners and patrons within the area outside of the adjacent blocks to the south of FM 2218 would be likely to utilize the nearest roadway to them, which be FM 2977.

Census blocks adjacent to the proposed project were analyzed for race/ethnicity and compared to the City of Rosenberg and Fort Bend County. There is a total of 31 blocks from 1 block group adjacent to the project area; of these, 12 have no recorded population. Of the remaining 19 blocks, there are 18 blocks where 50% or more of residents belong to ethnic or racial minority groups (**Table 7**).

Table 7: Minority Population by Census Block

Geographic Area	Total Pop.	Not Hispanic or Latino						% Hispanic or Latino of Any Race	%Total Minority Pop.
		%Black/ African American	%AIAN*	%Asian	%NHPI*	%Other Race	%Two or More Races		
Blocks within Block Group 2 (Census Tract 6755)									
2007	14	0%	0%	14%	0%	0%	0%	64%	79%
2010	No recorded population								
2011	No recorded population								
2016	4	0%	0%	100%	0%	0%	0%	0%	100%
2018	443	30%	0%	2%	0%	0%	2%	34%	67%
2019	No recorded population								
2020	No recorded population								
2021	No recorded population								
2023	No recorded population								
2024	No recorded population								
2025	No recorded population								
2027	No recorded population								
2029	28	14%	0%	0%	0%	0%	0%	32%	46%
2030	128	0%	1%	0%	0%	0%	0%	70%	70%
2031	No recorded population								
2032	No recorded population								
2033	1109	25%	0%	2%	0%	0%	1%	45%	74%
2044	3	0%	0%	0%	0%	0%	0%	100%	100%
2045	82	1%	0%	0%	0%	0%	1%	51%	54%
2046	14	29%	0%	0%	0%	0%	0%	71%	100%
2047	69	13%	0%	0%	0%	0%	0%	55%	68%
2049	30	63%	0%	0%	0%	0%	0%	27%	90%
2050	135	13%	1%	0%	0%	4%	2%	65%	85%
2051	15	0%	0%	40%	0%	0%	0%	13%	53%
2052	10	50%	0%	0%	0%	0%	0%	0%	50%
2053	184	1%	0%	0%	0%	0%	0%	87%	88%
2054	31	0%	0%	0%	0%	0%	0%	87%	87%
2055	No recorded population								
2056	67	0%	0%	1%	0%	0%	0%	49%	51%
2057	274	2%	0%	0%	0%	0%	0%	70%	72%
2059	17	0%	0%	0%	0%	0%	0%	88%	88%
31 Block Area Total	2657	18%	0%	1%	0	0%	1%	52%	73%
City of Rosenberg	585375	21%	0%	17%	0%	0%	2%	24%	64%
Harris County	30618	13%	0%	1%	0%	0%	1%	60%	75%

Overall, residents who are members of an ethnic or racial minority group compose 73% of the population of the 31 census blocks adjacent to the project area. This represents a larger concentration than is found in Fort Bend County, where ethnic or racial minority individuals are 64% of the population, but a smaller concentration than is found in the City of Rosenberg, where ethnic or racial minority individuals are 75% of the population.

Low-income Populations

Census tracts located within and adjacent to the project area were analyzed using ACS 5-year (2009-2014) estimates for low-income populations and compared to the city of Rosenberg and Fort Bend County. Within the census block group area analyzed, the median income is above the current (2017) poverty guideline for a family of four ($24,600/year), as defined by the DHHS. Within the block group area, the percentage of households under the poverty level is comparable to Fort Bend County and lower than the City of Rosenberg (**Table 8; Appendix F, Exhibit 4**).

Table 8: Median Household Income and Poverty Status

Geographic Area	Total Household*	Median Household Income	Family Households Below Poverty Level	
			Number*	Percent*
Fort Bend County	163,817	$86,407	11,395	7%
Rosenberg	7,927	$44,318	1,385	17%
Block Group Area Census Tract 6755, Block Group 2	1,036	$53,270	85	8%

Source: ACS 5-year estimates (2009-2014)
* Population for whom poverty status has been determined.

EJ Determination

In order to determine if the proposed project would result in "disproportionately high and adverse effects" on a minority or low-income population or deny them benefits of the Build Alternative, several additional factors are also considered:

- Displacements: The proposed project could potentially require 7 displacements (5 residential, 2 commercial), all in Census Tract 6755, Block Group 2. Census Tract 6755, Block Group 2 has a 73% minority population, which is comparable to that in the City of Rosenberg and somewhat higher than Fort Bend County. At the census block level, the potential business displacements occur in blocks with 40-50% minorities and 80-90% minorities. Neither specifically serves minority or low-income populations. The potential residential displacements are located as follows: 1) 3 are within a block where the population is 80-90% minority; 2) 1 is within a block where the population is 50-60% minority; and 3) 1 is within a block where the population is 40-50% minority. All potential displacements occur in an area where the median income is above the poverty guideline for a family of four ($50,000-$99,000/year).

- Transportation Needs: Impacts to access and travel patterns will occur throughout the project corridor and will not be limited to one community, including those with higher minority or low-income populations. Any inconveniences of the roadway being used for access to residences or businesses would be minimized during project construction.
- Exposure to pollution and hazardous materials: There may be short term, localized effects to air quality (i.e. dust) as well as noise levels generated by construction equipment during construction; however, these effects would be temporary and not selectively limited to minority or low-income communities.

While the potential displacements will have an impact on an EJ population with a relatively high percentage of minorities (73%), this number is comparable to the City of Rosenberg, which has a similar minority population (75%). Displacements by block are somewhat concentrated in higher minority areas; however, the overall number of displacements is generally low. The percentage of households below the poverty level in this population is 8%, which is comparable to Fort Bend County (7%) and smaller than the City of Rosenberg (17%); all potential displacements occur in an area where the median income is greater than the poverty guideline.

Access and construction impacts would also be spread throughout the project area and not targeted in a specific community. Because the amount of displacements is low and no other adverse impacts are anticipated for EJ communities in the project area, the proposed project would not have a disproportionately high or adverse impact on minority and/or low-income populations.

5.6.2 Limited English Proficiency

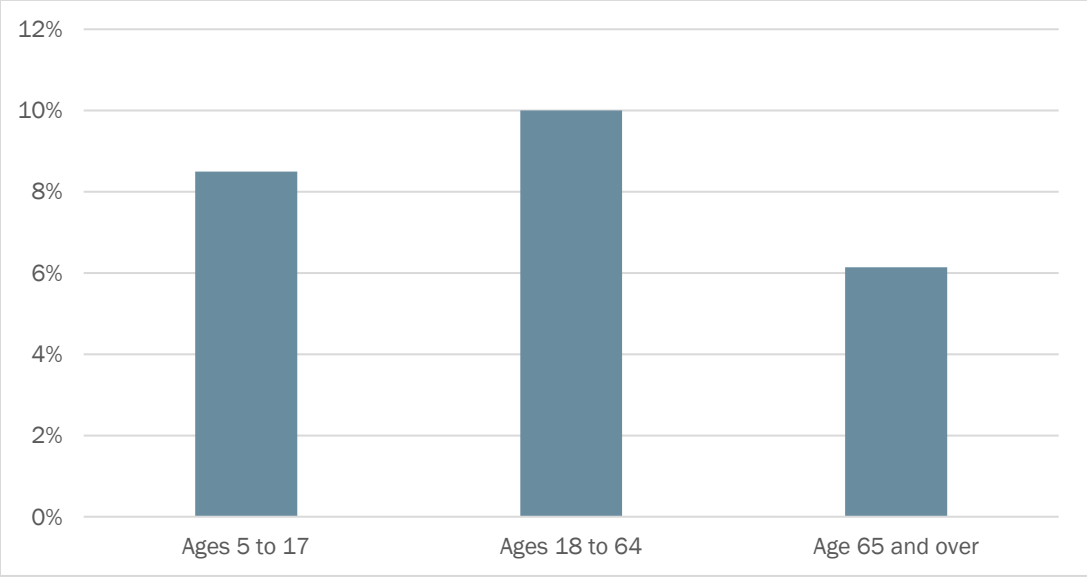
Executive Order 13166, entitled "Improving Access to Services for Persons with Limited English Proficiency (LEP)", mandates that Federal agencies examine the services they provide, identify any need for services to those with LEP, and develop and implement a system to provide those services so LEP persons can have meaningful access to them. It is expected that agency plans will provide for such meaningful access consistent with, and without unduly burdening, the fundamental mission of the agency. Each agency shall also work to ensure that recipients of Federal financial assistance (recipients) provide meaningful access to their LEP applicants and beneficiaries (65 Federal Register 50123, August 16, 2000).

There is one census block group within or adjacent to the project area, which was analyzed to determine the percent of persons who speak English less than 'very well', which is considered LEP.

According to the 2009-2014 ACS 5-year estimates, there are a total of 4,147 people age 5 and over in the single census block group identified. Of these, 391 (9%) speak English less than 'Very Well', with Spanish speakers making up the majority of those considered LEP (363 individuals). The remainder of those who speak English less than 'very well' speak other Indo-European languages, which were not specified. Comparatively, in both Fort Bend County and the city of Rosenberg, LEP

individuals make up 13% of the total population. The age breakdown for LEP persons in the one group area is shown in **Figure 1**.

Figure 1: Percent Population by Age Group Who Speak English Less Than "Very Well"



Source: American Community Survey 2014 5-year Estimate

A public meeting was held on November 17, 2015, which was advertised in a Spanish language paper (La Subasta) and on mailers with a Spanish language translation. The public meeting notice included instructions on requesting an interpreter or other special assistance. A public hearing was held on October 19, 2017 to present the proposed improvements and to receive public comment on the proposed project. The hearing was advertised in a Spanish language paper (*La Subasta)*. The public was given the opportunity to provide verbal and written comments regarding the proposed project. The project information brochure and comment forms provided at public hearing were printed in English and Spanish. In addition, a Spanish speaking translator was present at the public hearing. Given that the predominate language of LEP persons adjacent to the project area is Spanish and outreach has occurred in both English and Spanish, which will continue for future public outreach, it can be concluded that LEP persons have been given the opportunity to be meaningfully involved in the NEPA process.

5.7 Visual/Aesthetic Impacts

Visual and aesthetic qualities of an area include topography, water features, recreational parks, historic features, buildings, bridges, businesses and residences. Existing visual and aesthetic resources in the study area can be viewed by drivers and passengers, residents near the roadway, and visitors of businesses and residences. The existing facility is surrounded by largely rural land use including large areas used for agriculture and grazing. Commercial and industrial facilities can be seen directly adjacent to the road in the southern portion of the existing facility. Suburban and rural residences can be seen sporadically along the entire existing facility. Secondary growth forest is present near the entrance to the Seabourne Creek Sports Complex as well as near the southern portion of the existing facility near the Powerline Road intersection. The view from the existing road

into these areas is largely blocked as the woody vegetation immediately adjacent to the maintained ROW is very dense. Because the proposed project is situated within the flat Gulf coastal plain, visibility is limited and commonly disrupted by man-made structures. The existing facility is unobtrusive because it is at-grade.

The No Build Alternative would have no direct effects on visual or aesthetic qualities; however, increased traffic congestion could lead to impacts on the existing facility or surrounding area. The Build Alternative consists of at-grade facilities. The Build Alternative would not result in a loss of visual or aesthetic quality and would remain similar to the quality of the existing facility.

5.8 Cultural Resources

Cultural resources are structures, buildings, archeological sites, districts (a collection of related structures, buildings, and/or archeological sites), cemeteries and objects. Both federal and state laws require consideration of cultural resources during project planning. At the federal level, NEPA and the National Historic Preservation Act (NHPA) of 1966, among others, apply to transportation projects such as this one. In addition, state laws such as the Antiquities Code of Texas (ACT) apply to these projects. Compliance with these laws requires consultation with the Texas Historical Commission (THC), the Texas State Historic Preservation Office (SHPO), and/or federally-recognized tribes to determine the project's effects on cultural resources. Under Federal and Texas law, cultural resources can be considered eligible for listing on the National Register of Historic Places (NRHP) or as a State Antiquities Landmark (SAL) if they meet criteria outlined in 36 CFR 60.4 or under the Texas Natural Resources Code Title 9, Chapter 191, Subchapter D. Review and coordination of this project followed approved procedures for compliance with federal and state laws.

5.8.1 Archaeology

Background research for this project consisted of an online records search through the Texas Historical Commission's Archeological Sites Atlas (Atlas) and the Potential Archeological Liability Map (PALM) of the Houston District, as well as a review of historic aerial and geologic maps, and current soil surveys. No sites listed or eligible for listing on the NRHP, or as a SAL or Registered Texas Historic Landmark (RTHL) fall within one kilometer (0.62 mile) of the APE (Atlas 2016). One cemetery is found within one kilometer of the APE—the Greenlawn Memorial Park Cemetery is located approximately 100 meters north of the APE and as such will not be directly impacted by the project. Four archeological surveys were conducted within one kilometer of the APE between 1988 and 2005. None of these surveys recorded any archeological sites.

Review of the Atlas, PALM, and historic maps, as well as the presence of Seabourne Creek within the APE and the proximity of the Brazos River to the proposed project suggest a moderate potential for both prehistoric and historic period archeological resources. To that end, an archeological survey was conducted in October 2016. Fieldwork consisted of a thorough pedestrian survey and the manual excavation of 71 shovel tests in areas believed to have the highest potential for containing intact

cultural materials. No archeological materials of any sort were observed on the surface or found in any of the shovel tests. Based on the results of the archeological survey no further work is recommended in any portion of the APE except at two locations which right-of-entry (ROE) was denied to at the time of survey: A) at the southernmost portion of the project area, and particularly in the location of the proposed detention pond; and B) at the property within the northernmost outfall channel adjacent to the roadway where a farm complex was previously located. Survey that includes shovel testing at these locations should be conducted once the ROW has been acquired and prior to construction.

NHPA Section 106 coordination was initiated by TxDOT and will proceed in accordance with the 2005 First Amended Programmatic Agreement Regarding the Implementation of Transportation Undertakings (PA-TU) among the FHWA, TxDOT, the SHPO, and the Advisory Council on Historic Preservation (ACHP), as well as the MOU between the THC and TxDOT. SHPO concurrence was completed on December 15, 2016, the remainder of the archeological survey is deferred until that time that access to the parcels denied ROE. The SHPO concurrence letter has been included in **Appendix H**.

5.8.2 Historic Resources

A review of the NHRP, and the SAL, RTHL, and Official Texas Historical Markers (OTHM) lists indicated that no historically significant resources have been previously documented within the APE or within 1,300 ft. of the APE. It has been determined through consultation with the SHPO that the APE for the proposed project is 150 feet beyond the proposed right-of-way. A site visit was performed by a qualified consulting historian in July 2015, to identify sites containing historic-age (built 1973 or earlier) resources within the project's APE. Sixty-one (61) such sites were identified, though only two (2) were determined eligible for listing in the NRHP in consultation with SHPO: 1) an 1890's farmstead with several outbuildings and a barn (property #38); and 2) a cotton gin (property #61). An approximate 10‐foot strip of new ROW would be acquired from the farmstead parcel. However, the new strip of ROW would not impact the property's integrity of location, design, setting, materials, workmanship, feeling, or association. No ROW would be acquired from the parcel containing the cotton gin, though a detention pond would be constructed within its viewshed.

TxDOT consulted with SHPO regarding the effects to the historic properties in the APE. SHPO concurred with TxDOT that there are no adverse effects to historic properties posed by the project (see **Appendix H**).

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 applies to the following two categories of resources: 1) publicly owned, significant and accessible parks, recreation areas, and wildlife and waterfowl refuges; and 2) significant historic and archeological sites, regardless of whether they are publicly or privately owned. One Section 4(f) resource and one potential 4(f) resource were identified in the project area: 1) Seabourne Creek Park, which is owned by the City of Rosenburg; and 2) A NRHP eligible historic 1890's farmstead in private ownership, which is also subject to requirements under Section 4(f).

The park houses a regional sports complex, which includes baseball and soccer/football fields as well as playground facilities. The park is located on the west side of FM 2218, at Fountains Drive; in acquiring new ROW for the project, TxDOT is proposing to permanently incorporate 1.0 acre of park land fronting FM 2218 to widen the roadway. In agreement with the City of Rosenberg, TxDOT will provide at least a three-lane entry/exit access point into Seabourne Creek Park and will not impact any of the sports facilities on the property. Therefore, impacts to the park from the road project were determined to be de minimis and will not require further analysis. **Appendix H** contains the approved park de minimis checklist, signed on January 18, 2018.

The acquisition of a portion of Seabourne Creek Park for ROW is also considered a 'use' or 'take' of the land under PWC Chapter 26. However, TxDOT has determined that there is no feasible and prudent alternative to the use or taking of Chapter 26 protected land, and the project includes all reasonable planning to minimize harm to the land as a recreation area resulting from the use or taking. PWC 26 requires that a public hearing be held that specifically addresses the proposed 'take' of lands under its jurisdiction. A public hearing was held on October 19, 2017 to present the proposed project and the proposed 'take' of Chapter 26 lands. A notice of the public hearing was given to the city of Rosenberg 30 days prior to the public hearing and a notice of the hearing was published in the *Houston Chronicle*, the *Fort Bend Herald*, and *La Subasta* once a week for three consecutive weeks before the public hearing.

The NRHP eligible 1890's farmstead includes outbuildings and a barn, is privately owned and not open to the public. The farmstead is located on the east side of FM 2218, just south of Powerline Rd; in acquiring new ROW for the project, TxDOT is proposing to permanently incorporate 0.09 acre of the parcel fronting FM 2218 to widen the roadway. No buildings would be affected by the ROW acquisition and the essential character of the property would not change. TxDOT determined and SHPO concurred (see attached correspondence) that this action poses no adverse effect on the historic farmstead and the activity constitutes a de minimis finding under Section 4(f) of the DOT act. **Appendix H** contains the approved historic property de minimis, signed on June 13, 2017

There are no LWCF Act Section 6(f) resources in the project area.

5.10 Water Resources

5.10.1 Clean Water Act Section 404

The No Build Alternative would not affect jurisdictional wetlands or WOUS identified within the subject property. The Build alternative could impact up to 0.10 acre of jurisdictional wetlands and 645 linear feet of jurisdictional stream within the project area (**Table 9; Appendix F Exhibit 5**).

Table 9: Summary of Acreages

Feature Name	Feature Type	Area (acres)	Jurisdictional (acres)	Length (linear ft)	Jurisdictional (linear ft)
Wetland Acres					
Wetland A	PEM	0.07	0.0	NA	NA
Wetland B	PEM	0.10	0.10	NA	NA
Waters of the U.S.					
Stream 1	WOUS	0.08	0.08	121	121
Stream 2	WOUS	0.05	0.05	140	140
Stream 3	WOUS	0.13	0.13	384	384
Total Wetlands		**0.17**	**0.10**	**NA**	**NA**
Total WOUS		**0.26**	**0.26**	**645**	**645**

WOUS = Water of the U.S.
PEM = Palustrine Emergent
NA = Not Applicable

The Build Alternative would require USACE authorization under Section 404 of the CWA prior to the discharge of fill materials into WOUS, including wetlands. The project will likely require a NW 14 permit based on proposed impacts, though the USACE has final discretion over what permit will apply. All appropriate permits would be acquired by TxDOT prior to construction. A review of USACE requirements would be conducted as design plans are finalized. A Section 404 application will be submitted to the USACE-Galveston District and any coordination received by the USACE will be updated in this document upon approval.

In accordance with the provisions of Section 404(b)(1) Guidelines, an applicant must demonstrate that the proposed project has avoided and minimized effects to WOUS to the greatest extent practicable before compensatory mitigation can be proposed. The majority of the proposed project has been aligned within the existing ROW, thus avoiding and minimizing impacts to surrounding areas to the greatest extent practicable. Additionally, no hydrology will be discontinued or severed by the proposed project.

In accordance with Section 404 of the CWA and USACE guidelines, mitigation must be provided for impacts to WOUS, including wetlands. This project is anticipated to impact up to 0.10 acre of wetlands and 645 linear feet of stream. If needed, mitigation credits will be debited at determined by the USACE, as appropriate at available stream and wetland mitigation banks.

5.10.2 Clean Water Act Section 401

The proposed project meets the TCEQ Section 401 Water Quality Certification Tier I (Small Projects) requirements since the project would impact less than three acres of WOUS. TCEQ's recommended BMPs would address erosion control, sedimentation control, and post-construction TSS control. Erosion control would be addressed by installing temporary vegetation and erosion control blankets and matting to disturbed areas. Sedimentation control would be addressed by the installation of silt fences across drainage swales and/or upstream of water bodies to prevent turbid discharges from adversely affecting ambient water quality. Post-construction TSS control would be addressed by planting permanent vegetation to create grass-lined drainage. The ditches would accept roadway runoff as sheet flow and filter it along the front slopes and the bottoms of the ditches. Because TCEQ's recommended BMPs would be implemented to prevent any degradation to water quality as a result of the proposed project, long-term water quality effects are not anticipated.

5.10.3 Executive Order 11990 Wetlands

Executive Order 11990 requires that federally funded projects minimize the 'destruction, loss or degradation' of wetlands, which is similar to the CWA Section 404(b)(1) guidelines. Section 5.10.1 discusses the avoidance and minimization of impacts to wetlands in the project area, which satisfies the requirements of Executive Order 11990.

5.10.4 Rivers and Harbors Act

No waters regulated under the Rivers and Harbors Act are found within the project area. Therefore, neither a Section 9 or 10 permit of the Rivers and Harbors Act is required for this project.

5.10.5 Clean Water Act Section 303(d)

One waterbody that either traverses the project area or is within a 5-mile radius of the project area is listed as impaired on the TCEQ 2014 Section 303(d) List. Big Creek, which lies just under a mile downstream of the project area, does not meet water quality standards for bacteria. Therefore, 303(d) coordination with TCEQ is required. The water quality of wetlands and waters of the State shall be maintained in accordance with all applicable provisions of the Texas Surface Water Quality Standards including the General, Narrative and Numerical Criteria.

5.10.6 Clean Water Act Section 402

CWA Section 402 is the basis for the NPDES program, the permitting of which is administered at the state level. Since the Build Alternative would disturb more than five acres, TxDOT would be

required to comply with the TCEQ - TPDES General Permit for Construction Activity. The proposed project is located within TxDOT's Municipal Separate Storm Sewer System (MS4). A Notice of Intent (NOI) would also need to be filed with the TxDOT-Houston District stating that TxDOT would have a Storm Water Pollution Prevention Plan (SW3P) in place during construction of the proposed project. This SW3P will utilize the temporary control measures as outlined in the Department's manual "Standard Specifications for the Construction of Highways, Streets, and Bridges". Effects would be minimized by avoiding work by construction equipment directly in the stream channels and/or adjacent areas. No long-term water quality impacts are expected.

The contractor would take appropriate measures to prevent, minimize, and control the spill of fuels, lubricants, and hazardous materials in the construction staging area. All materials being removed and/or disposed of by the contractor would be done in accordance to state and federal laws and by the approval of the Project Engineer.

5.10.7 Floodplains

The project corridor was investigated for encroachments into the 100-year floodplain. This information was obtained from the FEMA Flood Insurance Rate Maps (FIRM) for the project area: 48157C0245L and 48157C0400L (effective April 02, 2014). The majority of the project is located outside the 100-year floodplain (see **Appendix F**, **Exhibit 6**). Western portions of both outfall channels, the detention basin, and small portions of the southern portion of the road ROW fall within the floodplain of Seabourne Creek.

The No Build Alternative would not result in further encroachment on the floodplain.

Avoidance of floodplains for the alternative alignment analysis, with the exception of the No Build Alternative, is not possible due to the proposed project crossing an area of the floodplain perpendicularly. Additionally, the proposed project is designed immediately adjacent to, and parallel to the existing FM 2218. The Build Alternative consists of the construction of roadway within the floodplain or on embankments within the floodplain; therefore, impacts to the floodplain will require detention ponds and outfall channels to offset impacts.

The hydraulic design practices for this project would be in accordance with current TxDOT design policy and standards. The hydraulic design of the roadway will be done with the most recent floodplain data available. The final hydraulic design will be done in accordance with the applicable federal, state, and local policies and in accordance with 23 CFR 650.113.

Policy III, in Section 1.3.3 of the HCFCD Policy Criteria and Procedure Manual (adopted October 2004, updated December 2010), states that "public agencies are responsible for not adversely impacting the community, neighbors, future property owners, or HCFCD facilities in terms of flood risks or flood hazards, erosion, and siltation. An adverse impact is an increase in flood risks or flood hazards". The highway facility would permit conveyance of the 100-year flood levels, inundation of the roadway being acceptable, without causing significant damage to the highway, water resources,

or other property. The approximate area of each floodplain occurring within the project area are shown in **Table 10**. Coordination with the local floodplain administrator would be required.

Table 10: Floodplains

Floodplain Type	Approximate Acreage of Floodplain within ROW
Floodway (Floodway in Zone AE)	3.5
100-Year Floodplain	33.4

Note: All calculations were determined within the proposed ROW

5.10.8 Wild and Scenic Rivers

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition. There are no waters designated as Wild and Scenic Rivers within the project area.

5.10.9 Trinity River Corridor Development Certification

The Corridor Development Certificate (CDC) process aims to stabilize flood risk along the Trinity River corridor in north-central Texas. A CDC permit is required to develop land within a specific area of the Trinity floodplain called the Regulatory Zone, which is similar to the 100-year floodplain. The project lies within the Brazos River basin and is therefore not subject to the CDC process.

5.10.10 Coastal Barrier Resources

The Coastal Barrier Resources Act (CBRA) was enacted by Congress in 1982 to discourage development in certain coastal areas that are vulnerable to hurricane damage and that are host to valuable natural resources. The act designated certain undeveloped coastal areas as part of the Coastal Barrier Resources System, and made those areas ineligible for most new federal expenditures and financial assistance. Fort Bend County is not included as one of the counties that needs to demonstrate compliance with the CBRA.

5.10.11 Coastal Zone Management

The proposed project is not located within the Texas Coastal Management Program (CMP) boundary; therefore, the Texas CMP does not apply to the proposed project.

5.10.12 Edwards Aquifer

Fort Bend County is not over the recharge or contributing zones of the Edwards Aquifer; therefore, the project is not subject to regulation under TCEQ's Edwards Aquifer rules.

5.10.13 International Boundary and Water Commission

The project does not encroach upon floodplains of flood control projects or rights-of-way under the jurisdiction of the US Section of the International Boundary and Water Commission (IBWC). Therefore, no license or permit will be required from the IBWC to proceed with this project.

5.10.14 Drinking Water Systems

Per the TWDB Groundwater Data Viewer, there are five (5) private water wells in the project area; four (4) are for domestic use and one (1) was drilled but unused. Based on TCEQ's Source Water Assessment Viewer, there is one public well located at the Handy Stop Grocery and gas station at the intersection of J. Meyer Rd. and FM 2218. These wells should not be physically damaged or replaced during road construction since only a 10-ft. strip of new ROW will be obtained outside existing. Stormwater BMP's used by TxDOT for road construction projects will serve to prevent stormwater runoff from entering groundwater aquifers at wellheads.

5.11 Biological Resources

5.11.1 Vegetation

The project area is located within the EPA's Western Gulf Coastal Plains Level III Ecoregion and the Northern Humid Gulf Coastal Prairie Level IV Ecoregion. The proposed project is primarily located within existing and proposed ROW. The existing ROW consists of existing roadway and maintained roadside grasses, dominated by common introduced herbaceous vegetation and opportunistic weeds. Predominant vegetation found within the maintained ROW include Bermuda grass (*Cynodon dactylon*), annual blue grass (*Poa annua),* toothed medic (*Medicago polymorpha*), and perennial rye grass (*Lolium perenne*).

In addition to existing and proposed ROW, the project consists of urban, agricultural, and riparian communities. Urban areas consist of maintained vegetation such as lawns, landscaping, and business lots. These areas contain much of the same vegetation present within the ROW as well as typical turf grasses such as St. Augustine grass (*Stenotaphrum secundatum*). Agriculture common to Fort Bend County includes cotton, sorghum, beef cattle, and rice. Seasonally fallow agricultural fields within the project area were dominated by annual blue grass (*Poa annua*), chufa (*Cyperus esculentus*), Brazilian vervain (*Verbena incompta*), lesser quaking grass (*Briza minor*), toothed medic, and Bermuda grass. Riparian vegetation identified within the proposed project area was located in and around streams, wetlands, and low areas. Common riparian vegetation within the project area

includes cedar elm (*Ulmus crassifolia*), water oak (*Quercus nigra*), eastern swamp privet (*Forestiera acuminata*), water-locust (*Gleditisia aquatica*), flowering dogwood *(Cornus florida*), and Cherokee sedge (*Carex cherokeensis*).

In accordance with §2.205 (a)(2) of the MOU between the TxDOT and the Texas Parks and Wildlife Department (TPWD), effective September 1, 2013, a Tier I site assessment was performed to identify and map vegetation within the project area using TPWD Ecological Mapping System of Texas (EMST) data and field reconnaissance. An existing condition assessment was performed by a qualified biologist to compare mapped TPWD EMST boundaries with the actual habitat found in the project area. Direct habitat impacts were then calculated using existing conditions. TPWD coordination thresholds were exceeded for Agriculture, Riparian, Urban, and Coastal Grassland Ecological Systems. (**Table 11**).

Table 11: Vegetation Impacts

Ecological System Type	TPWD Mapped Ecological Systems within Project Area (acres)	Existing Condition Ecological Systems Direct Impacts (acres)	Coordination Threshold (acres)	Coordination Required (yes/no)
Agriculture	1.2	39.4	10.0	Yes
Coastal Grassland	44.7	4.1	2.0	Yes
Disturbed Prairie	10.3	0.27	3.0	No
Post Oak Savanna	0.21	0.12	1.0	No
Riparian	14.7	1.9	0.1	Yes
Urban	20.9	46.2	10.0	Yes
Total	92.0	92.0	--	--

<u>Invasive Species/Beneficial Landscaping</u>

Executive Order 13112 was issued to prevent the introduction of invasive species, provide for their control, and minimize their economic, ecological, and human health impacts. Any landscaping plans included with the proposed project would include native species in the seed mixes where practicable according to TxDOT Standard Specifications.

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

5.11.2 Wildlife

The vegetation types located within the project area could support various wildlife species, such as small birds and mammals. Some mammalian species may continue to exist for years in these areas because of their ability to adapt to urban development. Typical mammals that could occur within the study area include Virginia opossum (*Didelphis virginiana*), house mouse (*Mus musculus*), common raccoon (*Procyon lotor*), and hispid cotton rat (*Sigmodon hispidus).*

Birds that could occur within these areas include Cooper's hawk (*Accipiter cooperii*), cattle egret (*Bubulcus ibis*), red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), rock pigeon (*Columba livia*), black vulture (*Coragyps atratus*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), American robin (*Turdus migratorius*) and mourning dove (*Zenaida macroura*).

Reptiles and amphibians common to disturbed or agriculturally dominated areas in southeast Texas include Texas brown snake (*Storeria dekayi*), Texas ratsnake (*Pantherophis obsoletus*), western cottonmouth (*Agkistrodon piscivorus*), little brown skink (*Scincella lateralis*), Gulf Coast toad (*Incilius nebulifer*), Rio Grande chirping frog (*Eleutherodactylus cystignathoides*), and southern leopard frog (*Lithobates sphenocephala*).

Temporary effects to wildlife include the decreased attractiveness of habitat adjacent to the project corridor as well as possible disturbances to normal behavior patterns as a result of construction activities. Given that the project area is largely urbanized and that any existing wildlife habitat is regularly maintained, it is unlikely to permanently impact or cause displacement to wildlife species in the area. Since the project location does not permanently impact wildlife or the habitat described above, compensatory mitigation would not be offered.

<u>Regulatory Coordination</u>

There are five regulations that deal with impacts to wildlife not protected due to rarity (see section 5.11.3). Any commitments necessary to conform with these regulations can be found in **Table 14**.

The Migratory Bird Treaty Act (MBTA) forbids the 'take' of migratory birds and their nests, which also includes during construction. While there is potential for migratory birds to nest within the project area, no nests were found during initial surveys.

The Fish and Wildlife Coordination Act (FWCA) requires consultation with the U.S. Fish and Wildlife Service (USFWS) when "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted . . . or otherwise controlled or modified". Any impacts to WOUS will necessitate a permit from the USACE before project construction, which will satisfy this requirement.

The Bald and Golden Eagle Protection Act (BGPA) forbids 'take' of bald and golden eagle parts, nests, or eggs. The range of the golden eagle does not extend to southeast Texas. There is no nesting or foraging habitat for the bald eagle within the project area or within its immediate vicinity. Therefore, no additional coordination is required for this species.

Two additional laws to be considered include the Magnuson-Stevens Fishery Conservation and Management Act of 1996, which established procedures for identifying Essential Fish Habitat (or, EFH), and the Marine Mammal Protection Act (MMPA). Due to the project's lack of habitat for the species addressed in these laws, no further coordination with resource agencies is required.

5.11.3 Threatened and Endangered Species

Federal and state listed threatened and endangered species for Fort Bend County were determined using the USFWS' Information for Planning and Consultation (IPaC) database and the TPWD's Rare, Threatened, and Endangered Species of Texas (RTEST) database. The TPWD Natural Diversity Database (NDD) was used to determine past and present occurrence information of state and federally listed threatened and endangered species, as well as natural communities deemed unique or vulnerable. These 'element occurrence' records were requested (June 27, 2016) and reviewed to determine those listed species and natural communities documented within a 10-mile radius of the project area. There were 11 occurrences of state or federally listed species and 5 occurrences of vulnerable natural communities within a 10-mile radius of the project area. All of these occurrences were outside a 1.5-mile radius of the project. It should be noted that data from the NDD does not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features within a given project area. TxDOT completed Early Coordination with TPWD on May 2, 2017, documentation of this coordination has been included in Appendix G.

In addition to a database search, a field habitat assessment was completed by a qualified biologist. Based on this assessment, it was determined that suitable habitat may exist for two species listed for Fort Bend County within the existing ROW: Henslow's sparrow (*Ammodramus leucocephalus;* Texas species of concern*)* and Plains spotted skunk (*Spilogale putorius interrupta*; Texas species of concern/under federal review for listing*).* Habitat for both the Henslow's sparrow and Plains spotted skunk is described as weedy or open fields. Because of the acquisition of ROW directly adjacent to the existing facility, the project will have minor impacts to previously disturbed fields. However, these species are mobile and roadside habitat is not considered ideal. No unique, critical, designated, or proposed designated habitat exists in or near the proposed project area.

No additional effects due to fragmentation, loss of connectivity, barrier effects, or edge effects are anticipated. The proposed project would have no effect on any known population or individuals of state and/or federally listed threatened or endangered species. Furthermore, the project would not directly or indirectly effect or diminish the value of any other critical habitat for the survival or recovery of any listed species.

5.12 Air Quality

Project Conformity

This project is located within the Houston-Galveston-Brazoria area that has been designated by EPA as a moderate nonattainment area for the 2008 8-hour Ozone (O3) national ambient air quality standards (NAAQS); therefore, transportation conformity rules apply.

The proposed action is consistent with the H-GAC's financially constrained 2040 RTP and 2017-2020 TIP, as amended, which were initially found to conform to the TCEQ SIP by FHWA and FTA on September 11, 2015 and December 19, 2016, respectively. Copies of the RTP and TIP pages are included in **Appendix E.** All projects in the H-GAC 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.

Traffic Air Quality Analysis

Traffic data for the design year 2040 is 15,800 vehicles per day. A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that a carbon monoxide standard would ever be exceeded as a result of any project with an average annual daily traffic (AADT) below 140,000. The AADT projections for the project do not exceed 140,000 vehicles per day; therefore, a Traffic Air Quality Analysis was not required.

Hot Spot Analysis

The project is not located within a CO/PM10 nonattainment or maintenance area; therefore, a project level hot spot analysis is not required.

Mobile Source Air Toxics (MSAT)

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

Motor Vehicle Emissions Simulator (MOVES)

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

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

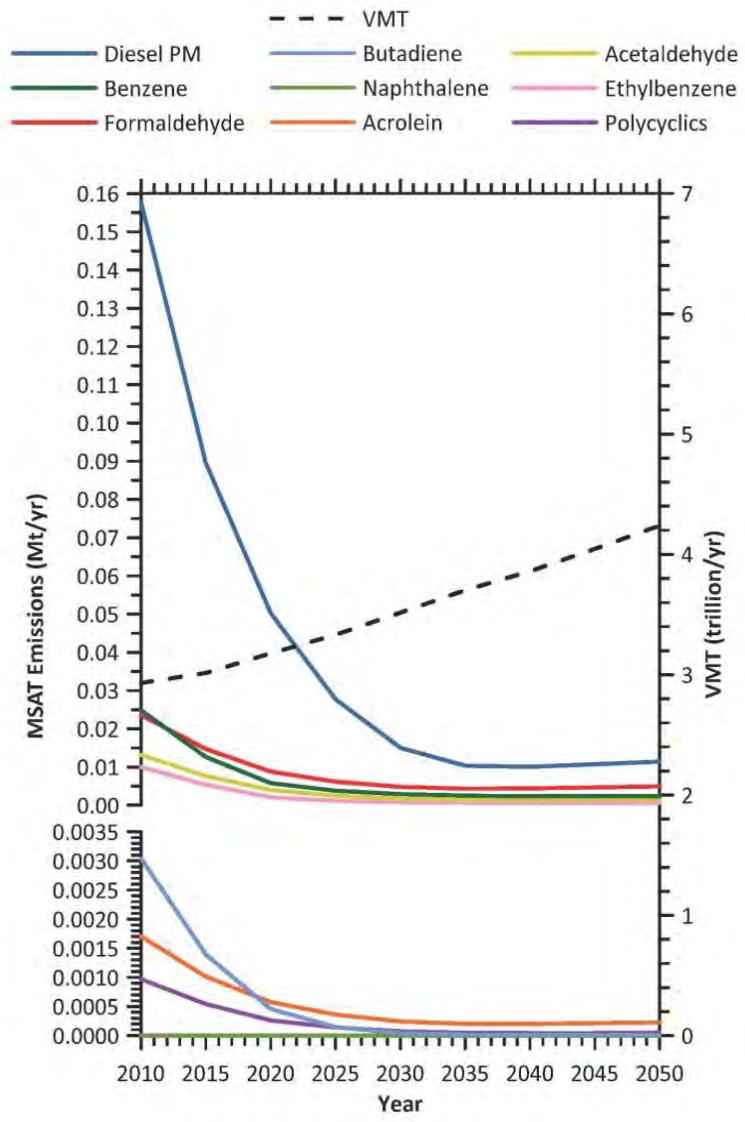
These new standards are all expected to impact MSAT emissions and include Tier 3 emissions and fuel standards starting in 2017 (79 FR 60344), heavy-duty greenhouse gas regulations that phase in during model years 2014-2018 (79 FR 60344), and the second phase of light duty greenhouse gas regulations that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

Since the release of MOVES2014, EPA has released MOVES2014a. In the November 2015 MOVES2014a Questions and Answers Guide

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

Using EPA's MOVES2014a model, as shown in **Figure 2**, FHWA estimates that even if VMT increases by 45 percent from 2010 to 2050 as forecast, a combined reduction of 91 percent in the total annual emissions for the priority MSAT is projected for the same time period.

Figure 2: FHWA PROJECTED NATIONAL MSAT EMISSION TRENDS 2010-2050 FOR VEHICLES OPERATING ON ROADWAYS USING EPA'S MOVES2014a MODEL



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

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

Diesel PM is the dominant component of MSAT emissions, making up 50 to 70 percent of all priority MSAT pollutants by mass, depending on calendar year. Users of MOVES2014a will notice some differences in emissions compared with MOVES2010b. MOVES2014a is based on updated data on some emissions and pollutant processes compared to MOVES2010b, and also reflects the latest

Federal emissions standards in place at the time of its release. In addition, MOVES2014a emissions forecasts are based on lower VMT projections than MOVES2010b, consistent with recent trends suggesting reduced nationwide VMT growth compared to historical trends.

MSAT Research

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

Project Specific MSAT Information

A qualitative analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by FHWA entitled A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives, found at: https://www.fhwa.dot.gov/environment/air_quality/air_toxics/research_and_analysis/mobile_source_air_toxics/msatemissions.cfm.

For each alternative in this document, the amount of MSAT emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for each of the Build Alternatives is slightly higher than that for the No Build Alternative, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the preferred action alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to EPA's MOVES2014 model, emissions of all of the priority MSAT decrease as speed increases. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050 (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016 – http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/index.cfm). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The additional travel lanes contemplated as part of the 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 roadway sections that would be built at the IH 69 intersection. 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.

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

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

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

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). A number of HEI studies are summarized in Appendix D of FHWA's Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents (http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/index.cfm). Among the adverse health effects linked to MSAT compounds at high exposures are; cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI Special Report 16,

https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-review-literature-exposure-and-health-effects) or in the future as vehicle emissions substantially decrease.

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

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

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

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two-step

decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable (https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD59852578000050C9DA/$file/07-1053-1120274.pdf).

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

Congestion Management Process (CMP)

The CMP is a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs. The project was developed from H-GAC's operational CMP, which meets all requirements of 23 CFR 500.109. The CMP was adopted by H-GAC in January of 2015. The region commits to operational improvements and travel demand reduction strategies at two levels of implementation: program level and project level. Program level commitments are inventoried in the regional CMP, which was adopted by H-GAC; they are included in the financially constrained MTP, and future resources are reserved for their implementation.

The CMP element of the plan carries an inventory of all project commitments (including those resulting from major investment studies) that details type of strategy, implementing responsibilities, schedules, and expected costs. At the project's programming stage, travel demand reduction strategies and commitments will be added to the regional TIP or included in the construction plans. The regional TIP provides for programming of these projects at the appropriate time with respect to the single occupancy vehicle (SOV) facility implementation and project-specific elements.

Committed congestion reduction strategies and operational improvements within the study boundary will consist of signalization and intersection improvements, sidewalks, and a shared use lane. Individual projects are listed in Table 12.

Table 12: Congestion Management Process Strategies

Operational Improvements in the Travel Corridor		
Location	Type	Implementation Date
FM 2218: SH 36 to IH 69	Traffic Signal Improvement	2020
FM 2218: SH 36 to IH 69	Construct 5-foot wide sidewalks along the east and west sides of FM 2218	2020
FM 2218: SH 36 to IH 69	Construct 15-foot shared use lane	2020

To reduce congestion and the need for SOV lanes in the region, TxDOT and H-GAC will continue to promote appropriate congestion reduction strategies through the CMAQ program, the CMP, and the MTP. The congestion reduction strategies considered for this project would help alleviate congestion in the SOV study boundary, but would not eliminate it.

Therefore, the proposed project is justified. The CMP analysis for added SOV capacity projects in the TMA is on file and available for review at H-GAC.

5.13 Hazardous Materials

An initial site assessment was conducted to determine the potential for encountering hazardous substances and/or contamination within the vicinity of the proposed project. The preliminary investigation included a review of federal and state databases, historical aerial photographs, and a visual survey of the study area. A visual observation during field reconnaissance was conducted in September 2016 to verify the findings of the regulatory database report and to observe the general environmental conditions at the listed facilities and on properties located immediately adjacent to the proposed project.

The regulatory databases were searched within a one-mile radius of the project corridor in accordance with the American Society for Testing and Materials (ASTM) Standard E 1527-13 and TxDOT standard search radii. The regulatory database listings include only those sites that are known to the regulatory agencies to be contaminated or in the process of evaluation for potential contamination at the time of publication. The database report also shows federal and state regulated sites that could be within the standard search area, but were unplottable due to insufficient address or other locator information. These unplottable sites are called “Orphan Sites” in the regulatory report.

The regulatory database search identified twenty-two (22) sites at eleven (11) locations within the ASTM and TxDOT standard search radii. ROW would be acquired from four (4) locations and acquired adjacent to one (1) location identified in the radius report. These five (5) locations and corresponding regulatory sites are listed in **Table 13** and shown in **Appendix F, Exhibit 7.** The locations of all sites identified and a complete listing of the federal and state regulated sites searched is located in the

radius report on file with TxDOT. No additional facilities were observed within the vicinity of the proposed project during field reconnaissance.

Table 13: Regulatory Database Sites

Map/ Radius Report ID #	Database Listing(s)	Site Name	Status	Facility ID#	Acquiring ROW from Yes/No
1	PST, LPST	Handy Stop Grocery	3 in-use underground PST's; LPST and NOV resolved	PST #22334 LPST #105383	Yes
2	PST	Star Stop 41	3 in-use underground PST's	PST #72098	Yes
3	PST, LPST	IH 69 Fuel Mart	5 in-use underground PST's; LPST resolved	PST #5511 LPST #110738	Yes
6	PST, SEMS	Lane Aviation	4 in-use aboveground tanks for aircraft refuelling; archived SEMS site with no further activity planned	PST #54895	Yes
7	PST	James Construction Group	1 in-use aboveground tank for fleet refueling	PST #85198	No
	PST – Petroleum Storage Tank LPST – Leaking Petroleum Storage Tank SEMS – Superfund Enterprise Management System				

Source: GeoSearch, 2016.

The No Build Alternative would not require the disturbance of soils potentially containing hazardous materials. The probability of encountering hazardous materials would remain the same as if no construction were to occur along FM 2218 within the project area.

The Build Alternative would displace one business with 3 active underground PST's (Radius Report ID # 1), the Handy Stop Grocery. The proposed project would require the removal of these PSTs and associated fuel lines and pumps. The remaining sites with PST's where ROW is being acquired will likely not require their removal.

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

A Phase 1 Environmental Site Assessment (ESA) would be conducted at each site that may cause or already has caused a hazardous materials impact to the environment. Based on the results of the Phase 1 ESA, a plan would be developed to mitigate any impacts.

The proposed project includes the demolition and/or relocation of building structures. The buildings

may contain asbestos or lead paint containing materials. Asbestos and lead paint inspections, specifications, notification, license, accreditation, abatement, and disposal, as applicable, would comply with federal and state regulations. Asbestos issues would be addressed during the ROW acquisition process prior to construction.

Oil/Gas Wells

A review of the Railroad Commission of Texas (RRC) Well Bore database was performed in August 2016 and indicated there are no oil/gas wells located within the project area or within one-mile of the project area; therefore, no impact to oil/gas wells is anticipated from the proposed project.

The potential impacts typically associated with the production of oil and gas include surface soil contamination and Naturally Occurring Radioactive Material (NORM) issues. Elevated NORM issues may be an environmental concern in oil fields, especially where water injection has been used as a secondary recovery technique, or water disposal has occurred. However, no oil/gas wells are located within the project area; therefore, NORM hazards would likely not impact the project. Based on the absence of producing wells within the project area, the proposed project would have a minimal risk of NORM issues.

Petroleum Pipelines

A review of the RRC indicated there are ten (10) petroleum pipelines (8 active, 2 abandoned) located within a 1.0-mile radius of the proposed project. Three petroleum pipelines cross the proposed project area. The approximate location of the pipelines is shown in **Appendix F, Exhibit 7.**

5.14 Traffic Noise

A traffic noise analysis was accomplished in accordance with TxDOT's (FHWA approved) Guidelines for Analysis and Abatement of Roadway Traffic Noise (2011). Existing and predicted traffic noise levels were modeled at receiver locations (**Appendix F, Figure 8A-D**) 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 14: Traffic Noise Levels dB(A) Leq

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2036	Change (+/-)	Noise Impact
R1 – Residential	B	67	67	69	+2	Yes
R2 – Residential	B	67	60	60	0	No
R3 –Residential	B	67	62	62	0	No
R4 – Residential	B	67	59	60	+1	No
R5 – Residential	B	67	62	62	0	No
R6 – Residential	B	67	63	63	0	No
R7 – Residential	B	67	63	63	0	No

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2036	Change (+/-)	Noise Impact
R8 – Church (indoor)	D	52	44	44	0	No
R9 – Residential	B	67	66	65	-1	No
R10 – Residential	B	67	54	56	+2	No
R11 – Residential	B	67	63	63	0	No
R12 – Residential	B	67	63	63	0	No
R13 – Residential	B	67	60	62	+2	No
R14 – Residential	B	67	58	61	+3	No
R15 – Residential	B	67	64	65	+1	No
R16 - Residential	B	67	61	65	+4	No
R17 – Residential	D	67	60	65	+5	No
R18 –Residential	B	67	62	64	+2	No
R19– Church (indoor)	D	52	40	44	+4	No
R20 – Residential	B	67	60	61	+1	No

As indicated in **Table 14**, the proposed project would result in a traffic noise impact and the following noise abatement measures were considered: traffic management, alteration of horizontal and/or vertical alignments, acquisition of undeveloped property to act as a buffer zone and the construction of noise walls. Before any abatement measure can be proposed for incorporation into the project, it must be both feasible and reasonable. In order to be "feasible," the abatement measure must be able to reduce the noise level at greater than 50% of impacted, first row receivers by at least five dB(A); and to be "reasonable," it must not exceed the cost-effectiveness criterion of $25,000 for each receiver that would benefit by a reduction of at least five dB(A) and the abatement measure must be able to reduce the noise level at least one impacted, first row receiver by at least seven dB(A).

R1 - This receiver represents 1 residence located along the east side of FM 228 south Bryan Road. of the IH 10 eastbound frontage road with driveways facing the roadway. A continuous noise wall 245 feet in length and 20 feet in height would not be sufficient to achieve the minimum, feasible reduction of 5 dB(A) or the noise reduction design goal of 7 dB(A).

Table 15: Noise Impact Contours

Land Use	Impact Contour	Distance From Edge of Pavement
NAC Category B&C	66 dB(A)	85 feet
NAC Category E	71 dB(A)	25 feet

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. No extended disruption of normal activities is expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

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

5.15 Induced Growth

The purpose of this chapter is to assess induced growth and other indirect effects related to the proposed project. Indirect effects, as defined by CEQ regulations, are those:

"…effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR 1508.8).

Based on a review of local planning documents, guidance from TxDOT's Indirect Effects Analysis Guidance (July 2016) and the Induced Growth Indirect Impacts Decision Tree (April 2014), it was determined that the proposed project did not require an induced growth analysis because the project is not being constructed to create economic development or to serve a specific development, and the project would not substantially increase access or mobility with the project area.

It is stated that the project is needed because the existing facility cannot accommodate existing and projected growth. The City of Rosenberg 2035 Comprehensive Plan (City Plan) was consulted to determine if the proposed project might influence that growth. The City Plan identifies the northern portion of the project area as the boundary between the Rosenberg Development Reserve and the Greater Rosenberg character areas. According to the City Plan, development in the Rosenberg Development Reserve should not be prioritized until further infill of the Central Rosenberg and Greater Rosenberg character areas (areas north of the proposed project) become unfeasible. Additionally, a large section of the southern portion of the project area sits adjacent to the floodplain of Seabourne Creek. This area is identified as a Conservation Corridor and is promoted for conservation and limited development. The remaining southern portion of the project area is located outside of the City of Rosenberg city limits and extraterritorial jurisdiction and is not discussed in the City Plan. In summary, the land adjacent to the proposed project is not considered ideal for development by the City of Rosenberg.

Regarding access and mobility, FM 2218 is utilized most heavily by local residents who reside in the vicinity of the project area and only experiences increased traffic during peak travel times by commuters who use the roadway to access SH 36 and IH 69. The proposed improvements within the project area would mostly alleviate existing pass through traffic with the ability to handle potential future traffic.

5.16 Cumulative Impacts

As addressed by the CEQ, cumulative impacts are defined as:

...the impact on the environment which results from the incremental impact of the action (project) when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR 1508.7).

TxDOT's Cumulative Impacts Analysis Guidelines (July 2016), Cumulative Impacts Decision Tree (April 2014), and Cumulative Impacts Risk Assessment (April 2014) were utilized to determine if the proposed project required a cumulative impacts analysis. It was determined that the proposed project would not require a Cumulative Impacts Assessment because the project would not have substantial direct or indirect impacts to any resource and no resources within the project area are in poor or declining health.

5.17 Construction Phase Impacts

Short-term construction impacts would occur due to the movement of workers and materials through the area. The temporary disruption of traffic on local roads may also affect residents and businesses in the project vicinity. Construction activities may be allowed at night to minimize the effects of daytime traffic on existing facilities. Coordination between TxDOT and landowners regarding construction scheduling and access to the construction site and ROW would help to minimize such temporary disruptions.

<u>Construction Emissions</u>

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 would be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. The Texas Emissions Reduction Plan (TERP) provides financial incentives to reduce emissions from vehicles and equipment. TxDOT encourages construction contractors to use this and other local and federal

incentive programs to the fullest extent possible to minimize diesel emissions. Information about the TERP program can be found at: http://www.tceq.state.tx.us/implementation/air/terp/.

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

6.0 AGENCY COORDINATION

The proposed project required Early Coordination with the Texas Parks and Wildlife Department. The Early Coordination was completed by TxDOT on May 2, 2017. A USACE Nationwide Permit would be obtained for the proposed project and necessary project coordination with the USACE would take place during the permitting process. The proposed project requires coordination with the Texas Historical Commission (THC); coordination with the THC was initiated by TxDOT during the Project Coordination Request (PCR) process.

The proposed project did not require coordination with the U.S. Fish and Wildlife Service because the proposed project would not affect any federally listed species. Coordination with the NRCS was not required because the proposed project scored below the 160-point coordination threshold for prime farmland impacts on the NRCS-CPS-106 Form.

7.0 PUBLIC INVOLVEMENT

A Public Meeting was held on November 17, 2015, to familiarize local residents and elected officials with the proposed road improvements. TxDOT representatives presented information on preliminary road design, potential impacts to air quality, traffic noise, historical and archeological resources, threatened and endangered species, and wetlands. Fourty-four citizens and five public officials attended the public meeting. By the conclusion of the comment period on December 3, 2015 TxDOT received 22 comments including concerns regarding safety, ROW acquisition, drainage, access and mobility.

A public hearing was held on October 19, 2017 to present the proposed improvements and to receive public comment on the proposed project. The hearing was advertised in the Houston Chronicle (September 19, 2017, September 29, 2017, and October 9, 2017), the Fort Bend Herald (September 19, 2017, September 29, 2017, and October 9, 2017), and La Subasta (September 21, 2017, September 28, 2017, and October 5, 2017). The public was given the opportunity to provide verbal and written comments regarding the proposed project. Representatives from TxDOT and TxDOT's consultant team were available throughout the public hearing to answer questions and further explain project details. A formal presentation was made to present information on the proposed project. A total of 59 people attended the hearing and fourteen members of the public provided comments. Revisions were made to the EA in response to the public's comments. Revisions to the EA include: an expanded explanation of AASTO's design standards as they relate to the project; and

the need for sidewalks based on FHWA standards and TxDOT policy. The results of the public hearing have been made available to the public at the Houston District Office and on the TxDOT Houston District's website.

8.0 ENVIRONMENTAL PERMITS, ISSUES, and COMMITMENTS

As detailed in Section 5.0 of this document, the following environmental permits and approvals will be required for this project:

- Clean Water Act Section 404 Nationwide 14 Permit with a Pre-Construction Notification (USACE)
- Clean Water Act Section 401 Certification (TCEQ)
- TPDES General Permit for Construction Activity (TCEQ)
    - SWP3 and NOI

Table 16: Environmental Permits, Issues, and Commitments

Environmental Issues*	Commitments and Permits
Endangered Species/Wildlife	The following Bird BMPs will be incorporated into the proposed project: • construction shall not disturb, destroy, or remove active nests, including those of ground nesting birds, during the nesting season, • avoid the removal of unoccupied, inactive nest, as practicable, • prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures for replacement or repair, • no collecting, capturing, relocating, or transporting adult birds, eggs, young, or active nests without a permit. The following Plains Spotted Skunk BMPs will be incorporated into the proposed project: • contractors will be advised of potential occurrence in the project area, • avoid harming the species if encountered, • avoid unnecessary impacts to potential dens.
Cultural Resources (Historical/Archeological)	TxDOT will evaluate historic-age properties within the APE to determine NRHP eligibility. After the evaluation, appropriate commitments will be made to protect cultural resources.
THC/SHPO	TxDOT completed coordinating the findings of the report with the Texas State Historic Preservation Officer (SHPO) and the Texas Historical Commission (THC) on June 13, 2017. The documentation of the coordination with SHPO and THC has been included in **Appendix H**.
Noise	NA**
Water Quality	• BMPs for water quality under Section 401 of the Clean Water Act including erosion, sedimentation, and suspended solid controls are to be utilized. • A SWP3 shall be prepared and implemented.303(d) coordination with TCEQ is required. A Notice of Intent will be submitted to TCEQ.

Environmental Issues*	Commitments and Permits
Vegetation	Trees with active bird nests cannot be removed during the nesting season. All woody vegetation is to be inspected for nesting birds prior to removal. Coordination Thresholds were exceeded for Agriculture, Riparian, and Urban Ecological Systems, requiring coordination with TPWD for the proposed project prior to construction.
Beneficial Landscape Practices/Vegetation Management	NA**
Hazardous Materials	ROW would be acquired from four (4) Hazardous Material sites. The proposed project includes the demolition and/or relocation of building structures. The buildings may contain asbestos or lead paint containing materials.
Traffic Control	A traffic control plan is to be implemented prior to construction activities.

*See details regarding Environmental Issues in Section 5.0 Affected Environment & Environmental Consequences. The commitments listed in Table 14 are not intended to be an all-encompassing list of commitments involved in construction.
**Not Applicable

These commitments are specific to TxDOT EPIC sheets to accompany general environmental commitments utilized in every TxDOT construction project.

9.0 CONCLUSION

Based on the information in this EA, TxDOT recommends implementation of the Build Alternative. The engineering, social, economic, and environmental studies conducted thus far indicate that the proposed project would result in no significant effects to the quality of the human or natural environment.

TxDOT recommends that TxDOT's Environmental Affairs' Division find that implementing the Build Alternative would not be a major federal action significantly affecting the quality of the human or natural environment and thus issue a FONSI for this project.

REFERENCES

Federal Highway Administration (FHWA)

1987 Guidance for Preparing and Processing Environmental and Section 4(f) Documents. FHWA Technical Advisory T 6640.8A. October 30.

1998 FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. FHWA Order 6640.23. December 2.

2001 23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise. Retrieved from www.fhwa.dot.gov/hep/23cfr772.htm.

2003 Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process.

2012 Interim Guidance on Air Toxic Analysis in NEPA Documents, December.

2015 GeoSearch. Radius Report Target Property FM 2218 (Richmond Rd.) Job# 159597. Austin, Texas.

Gould, F.W. 1975. The Grasses of Texas. Texas A&M University Press. College Station, Texas.

Gordon, James, USDA-NRCS Soil Scientist. 2008. Farmland Conversion Impact Rating for Corridor Type Projects. Form NRCS-CPA-106.

Gulf of Mexico Fishery Management Council (GMFMC). 1998. Generic Amendment for Addressing Essential Fish Habitat Requirements in the Fishery Management Plans of the Gulf of Mexico. October 1998.

Houston Association of Realtors (HAR)

2016 MLS and Commercial Gateway Listings for the Houston area, July. Retrieved from www.har.com.

Houston-Galveston Area Council (H-GAC)

2010 2035 Regional Growth Forecast, http://censusforecast.h-gac.com/2035Forecast.aspx

2015 2040 Regional Transportation Plan (RTP) for Houston-Galveston Area Council (H-GAC). September.

2015 2040 RTP Conformity Model, September.

2015 2040 RTP Appendix D: Fiscal Constraint and Project Summary Listing, September.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/ [Accessed 21 November 2016].

Texas Commission on Environmental Quality
2014 Texas 303d List and State of Texas Water Quality Inventory Report. Retrieved from www.tceq.state.tx.us.
Surface Water Assessment Viewer, version 3.5. Available online at https://www.tceq.texas.gov/gis/swaview [Accessed 2 December 2016].

Texas Department of Transportation (TxDOT)
2014a Indirect Induced Growth Impacts Tree
2014b Indirect Induced Growth Risk Assessment
2014c Cumulative Impacts Risk Assessment
2014d Cumulative Impacts Decision Tree
2017-2020 Transportation Improvement Program.
2016a Indirect Effects Analysis Guidelines
2016b Cumulative Impacts Analysis Guidelines
2017c 2017-2020 Transportation Improvement Program
2017a Standard Operating Procedure for Preparing Air Quality Statements
2017b Environmental Handbook for Air Quality

Texas Parks and Wildlife Department (TPWD)
2016 Annotated County Lists of Rare Species, Fort Bend County. Retrieved from http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species.p/. Accessed 22 July 2016.

Texas Water Development Board (TWDB)
2015 State Water Plan Population Projections by City.
Water Data Interactive, Groundwater Data Viewer. Available online at http://www.twdb.texas.gov/mapping/index.asp [Accessed 2 December 2016].

Transportation Research Board (TRB)
2000 Highway Capacity Manual.
2002 NCHRP Report 466: Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects.

U.S. Army Corps of Engineers (USACE)
1987 Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. USACE Waterways Experiment Station. Vicksburg, Mississippi. 100 pp. and apps. Environmental Laboratory.

November 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Regional Supplement.

U.S. Census Bureau
2010 Census of Population, Summary File 1
2015 American Community Survey – 5 Year Estimates

U.S. Department of Health and Human Services (DHHS)
2015 The 2015 HHS Poverty Guidelines.

U.S. Department of Transportation (USDOT) and Federal Highway Administration (FHWA)
2004 Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

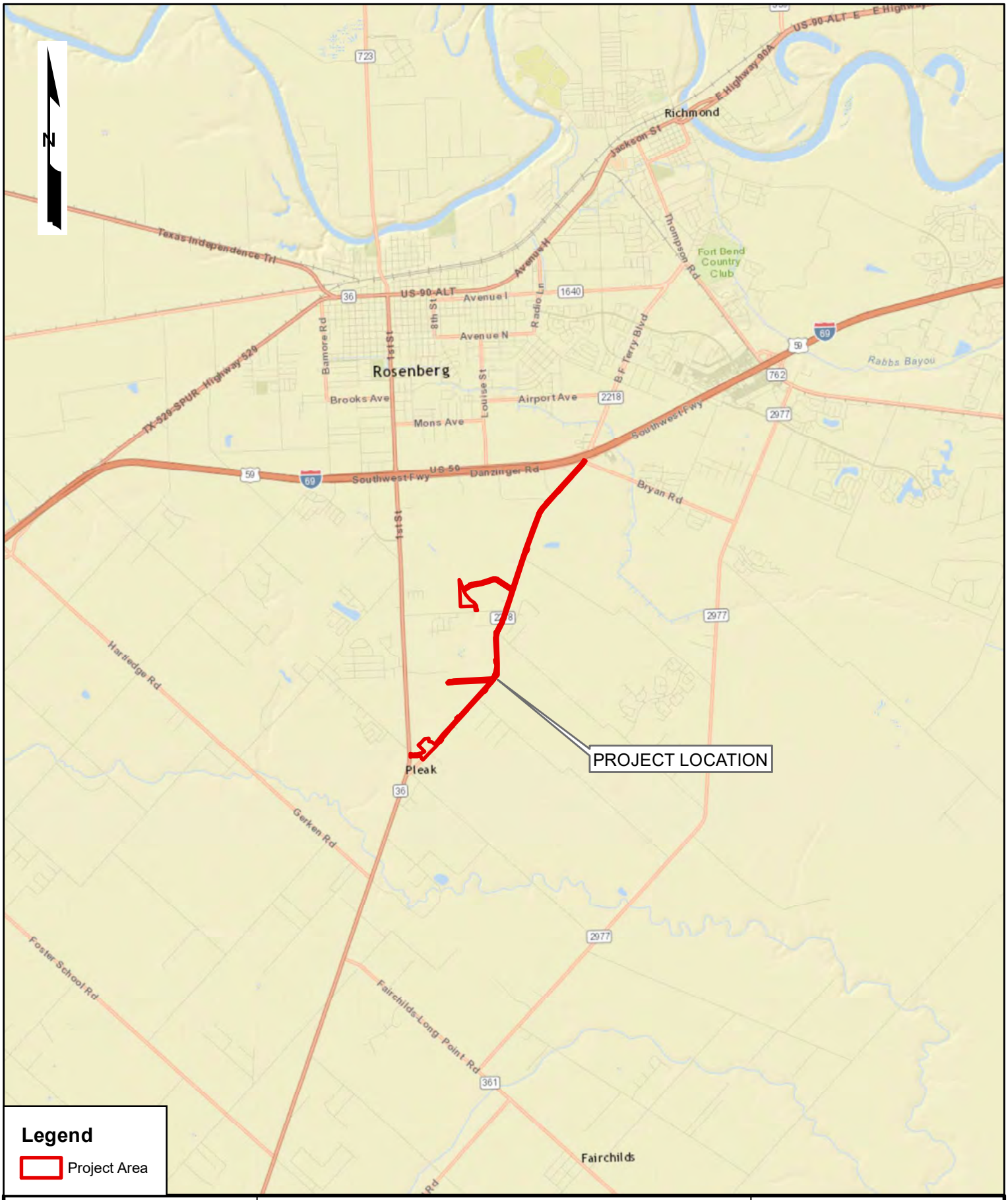
U.S. Environmental Protection Agency (EPA)
2001 Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17229, March 29, 2001).

U.S. Department of Transportation (USDOT), FHWA, Federal Transit Administration (FTA). 2007. Statewide Transportation Planning; Metropolitan Transportation Planning: Final Rule. Federal Register, Vol. 72 No. 30, pp. 7224-7286. February 14.

U.S. Fish and Wildlife Service (USFWS)
2016 Endangered Species List by County for Fort Bend County. Retrieved from http://ecos.fws.gov/tess_public/countySearch!speciesByCountyReport.action?fips=48201 [Accessed July 2016].

APPENDIX A: PROJECT LOCATION MAPS

Exhibit 1: Project Vicinity Map
Exhibit 2: Project Location Map
Exhibit 3: Project Topographic Map



Legend

Project Area

0 0.5 1 Miles

FM2218 (US 59 TO SH 36)

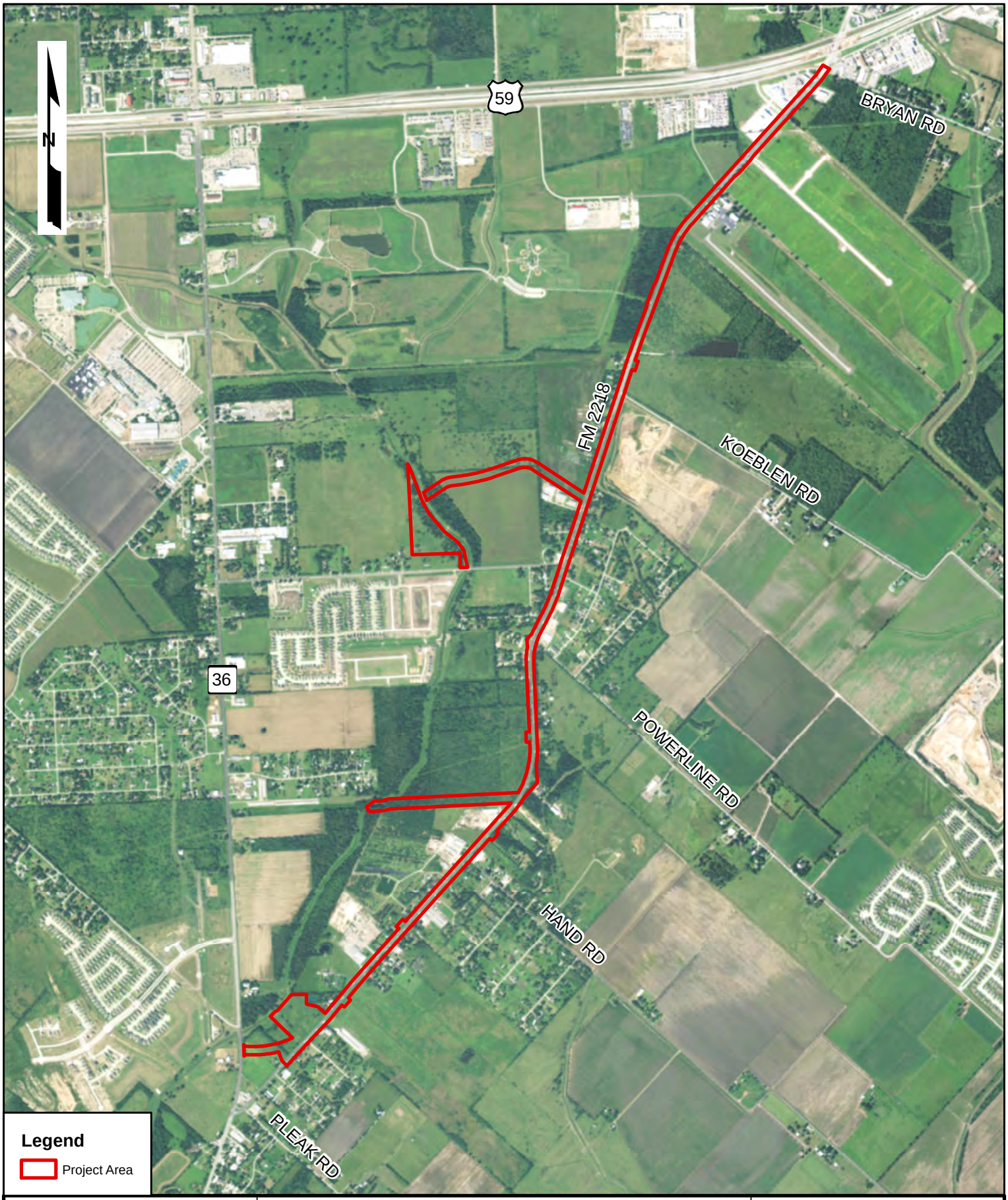
VICINITY MAP

Texas Department of Transportation

APPENDIX A EXHIBIT 1

FORT BEND COUNTY, TEXAS

DATE:
Jan. 2018



0 1,000 2,000 Feet

FM2218 (US 59 TO SH 36)

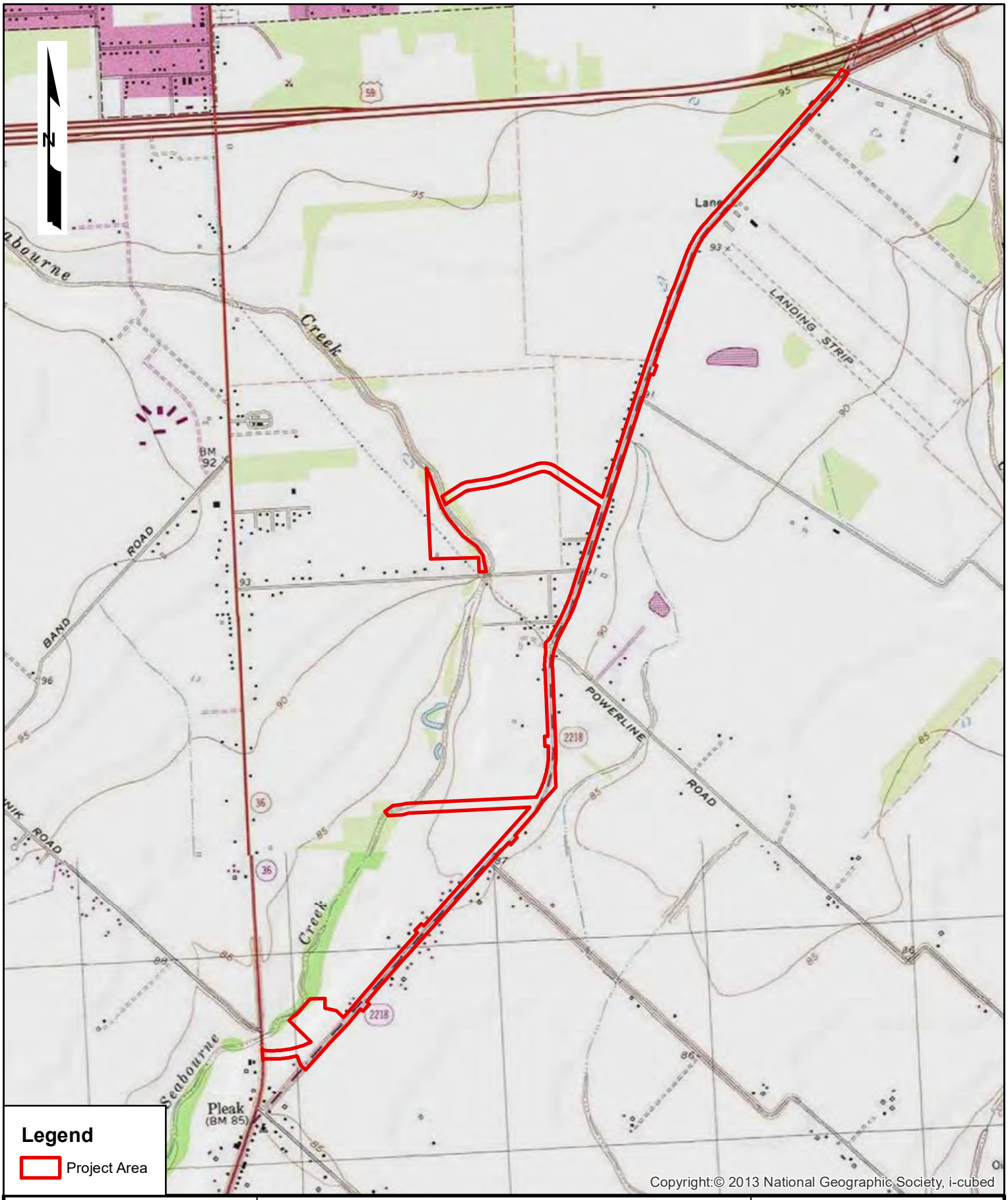
PROJECT LOCATION MAP

Texas Department of Transportation

APPENDIX A EXHIBIT 2

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 1,000 2,000 Feet

FM2218 (US 59 TO SH 36)

USGS TOPOGRAPHIC MAP
(1992)

Texas Department of Transportation

APPENDIX A EXHIBIT 3

FORT BEND COUNTY, TEXAS

DATE:
Jan. 2018

APPENDIX B: PROJECT PHOTOS

Photo 1: Looking northeast towards FM 2218 from the southern end of the project area

Photo 2: Looking north towards FM 2218 from the center of the project area.

Photo 3: Looking north towards FM 2218 and adjacent property, near the northern end of the project area.

Photo 4: Looking north towards FM 2218 and typical roadside vegetation.

Photo 5: Looking south towards Seabourne Creek

Photo 6: Looking south from FM 2218.

Photo 7: Looking east from FM 2218, south of Ponderosa Drive.

Photo 8: Looking east from FM 2218, north of Longleaf Drive.

Photo 9: Looking east from FM 2218, south of Hand Road.

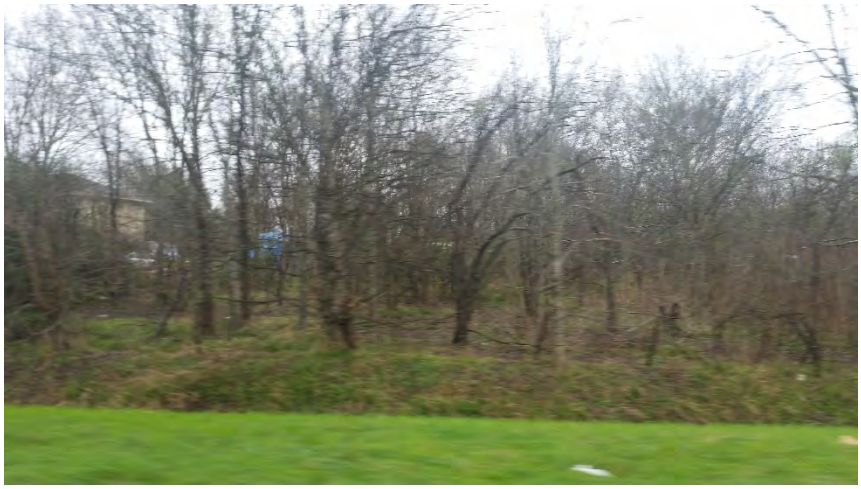


Photo 10: Looking east from FM 2218, north of Hand Road.

Photo 11: Looking east from FM 2218, south of Meadow Bend Lane.

Photo 12: Looking east from FM 2218, north of J Meyer Road.

Photo 13: Looking east from FM 2218, south of the airport.

Photo 14: Looking west from FM 2218, north of Danziger Road.

Photo 15: Looking west from FM 2218, south of Reese Road.

Photo 16: Looking west from FM 2218, south of Danziger Road.

Photo 17: Looking west from FM 2218, north of Reesier Road.

Photo 18: Looking west from FM 2218 north, of Ponderosa Drive.

Photo 19: Looking east towards Stream 1.

Photo 20: Stream 2 looking east towards FM 2218.

Photo 21: Looking towards Stream 3 on the west side of FM 2218.

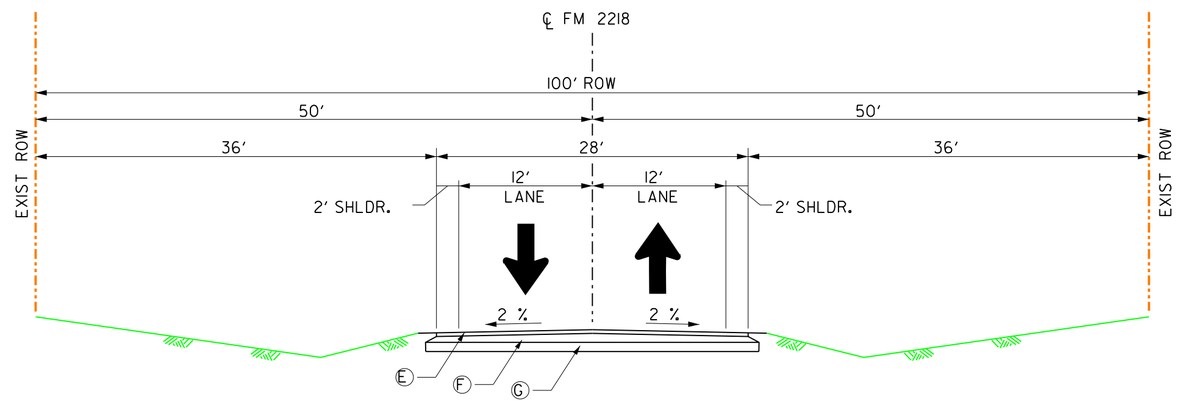
Photo 22: Stream 4 looking south.

Photo 23: Looking towards Wetland A.

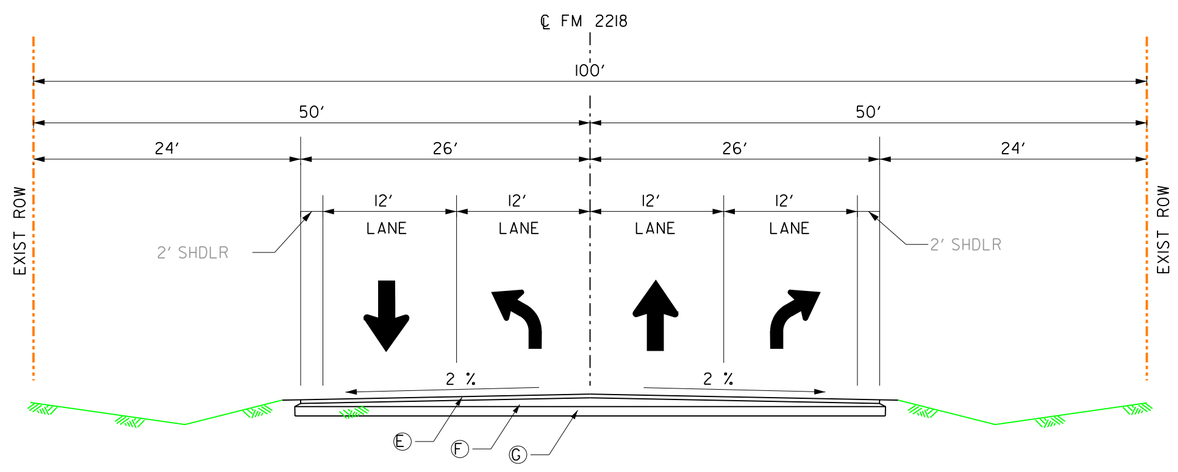
Photo 24: Looking towards Wetland B.

APPENDIX C: SCHEMATICS

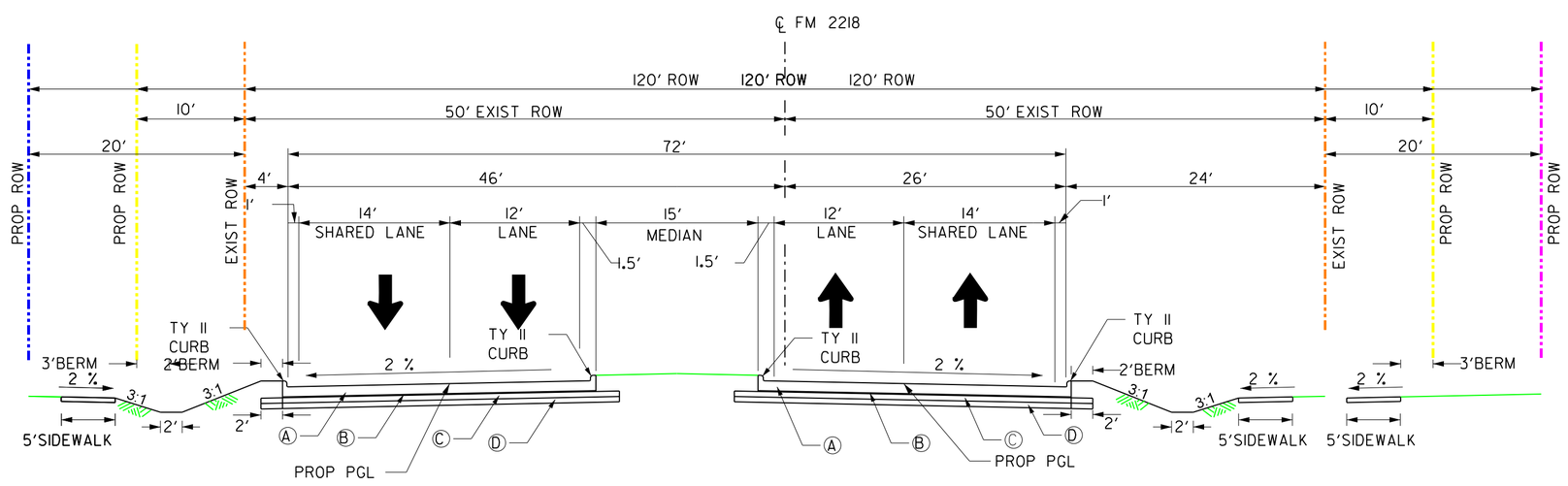
APPENDIX D: TYPICAL SECTIONS



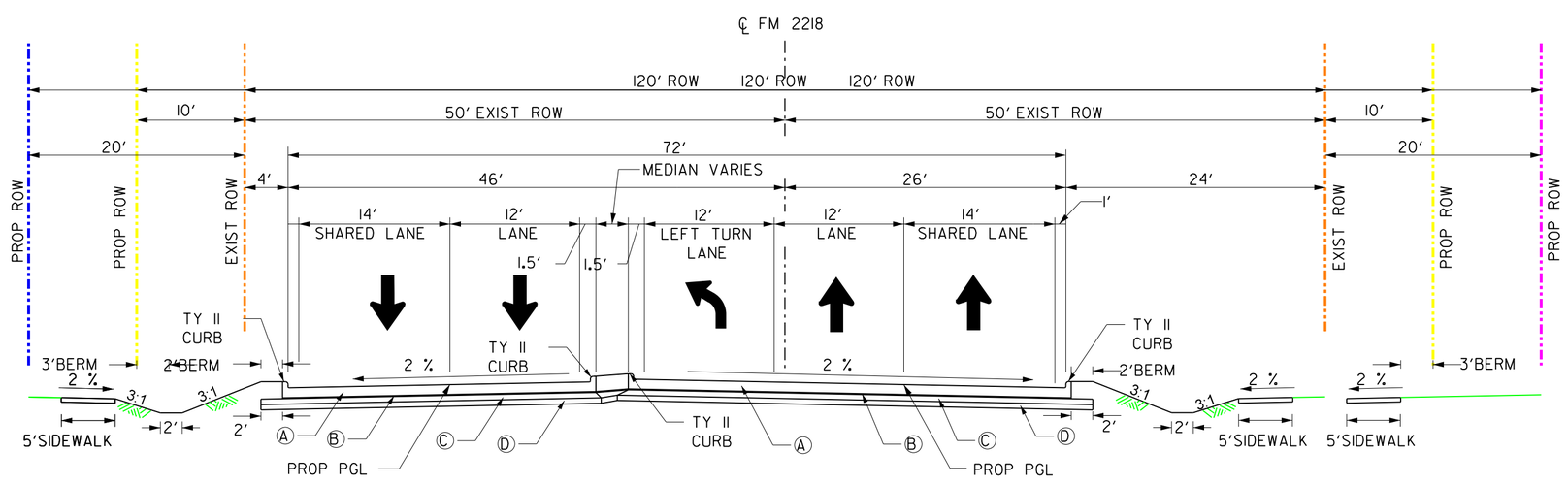
FM 2218 EXISTING TYPICAL SECTION



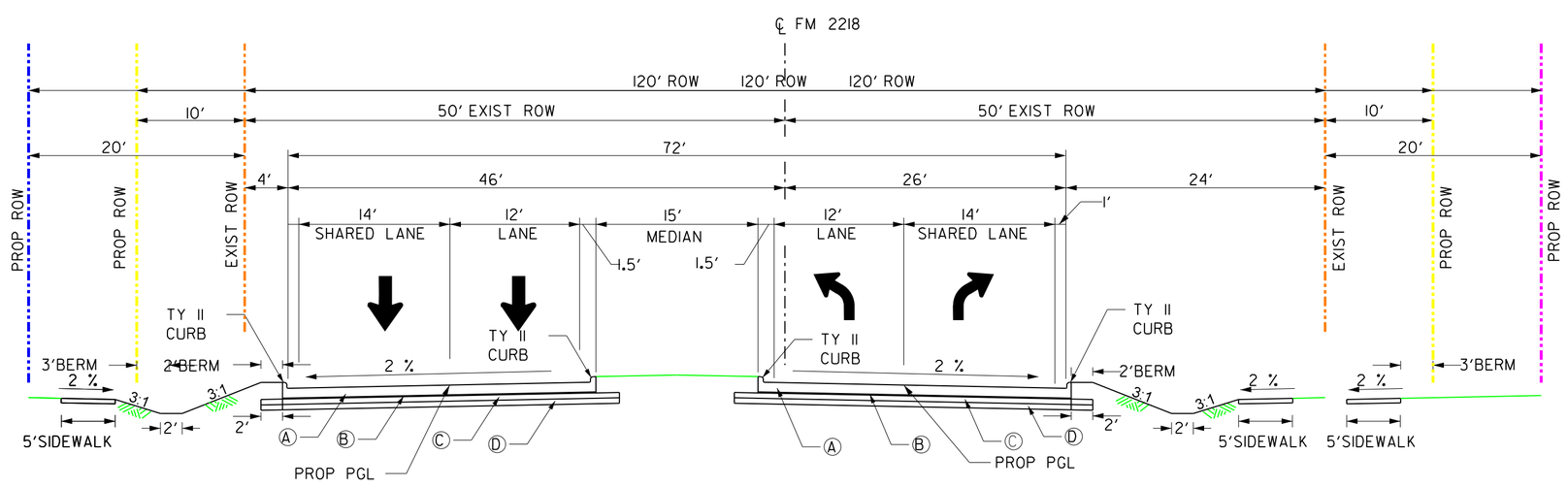
FM 2218 EXISTING TYPICAL SECTION
FROM SH 59 TO TOM GREY ROAD



FM 2218 PROPOSED TYPICAL SECTION



FM 2218 PROPOSED TYPICAL LEFT-TURN LANE SECTION



FM 2218 PROPOSED TYPICAL LEFT-TURN & RIGHT-TURN LANE SECTION

APPENDIX E: PLAN AND PROGRAM EXCERPTS

Texas Department of Transportation

Statewide Transportation Improvement Program

Statewide Transportation Improvement Program

Houston-Galveston MPO

Highway Projects

STIP Portal

Logged in as Tim Wood Log Out

Project Management | Reports | Support

Project Management > Area List > STIPs (M-HOUSTON-GALVESTON) > Revisions () > TIP Instances (Unassigned) > Highway Projects (Unassigned) > Project Details

Color Key: - Business rule violation - Value changed in current session - Different from DCIS or latest approved copy

Data

Statewide: ☐

TIP Revision: None

District: HOUSTON

County: FORT BEND

MPO: HOUSTON-GALVES

Highway: FM 2218

CSJ: 2093 - 01 - 010

TIP FY: 2019

Phase: ☑ Construction ☐ Engineering ☐ Environmental ☐ Engineering ☐ Right-of-Way ☐ Acquisition ☐ Utilities ☐ Transfer

Revision Date: 11/2017

Project Sponsor: TXDOT

MPO Proj Number: 13

MTP Reference:

City: ROSENBERG

NOX (Kg /D): 0.0000

VOC (Kg /D): 0.0000

PM10 (Kg /D): 0.0000

PM2.5 (Kg /D): 0.0000

CO (Lbs /D):

Limits From: US 59

Limits To: SH 36

Project Description: WIDEN FROM 2 LANES TO 4-LANE DIVIDED

P7 Remarks:

Project History: Amendment OCT-2017 - 10/27/17 - Modify Cat-2 funding and reflect potential use of federal funds.

Total Project Cost Information

Prelim Engineering	$1,726,172
ROW Purchase	$15,280,000
Construction Cost	$35,228,000
Const Engineering	$1,409,120
Contingencies	$3,522,400
Indirect Costs	$1,789,582
Bond Financing	$0
Potential Chg Ord	$0
Total Project Cost	$58,955,274
YOE Cost	
Toll	☐
TCM	☐

Authorized Funding by Category/Share

Category	Federal	State	Regional	Local	Local Contributions	Total
2M	$28,182,400	$7,045,600	$0	$0	$0	$35,228,000
Total	$28,182,400	$7,045,600	$0.00	$0.00	$0.00	$35,228,000

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
HOUSTON	HOUSTON-GALVESTON	FORT BEND	2093-01-010	FM 2218	C	ROSENBERG	$ 35,228,000

LIMITS FROM: US 59
LIMITS TO: SH 36
PROJECT SPONSOR: TXDOT
REVISION DATE: 11/2017
MPO PROJ NUM: 13
FUNDING CAT(S):
PROJECT DESCR: WIDEN FROM 2 LANES TO 4-LANE DIVIDED
REMARKS P7:
PROJECT HISTORY: Amendment OCT-2017 - 10/27/17 - Modify Cat-2 funding and reflect potential use of federal funds.

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,726,172
ROW PURCH:	$ 15,280,000
CONST COST:	$ 35,228,000
CONST ENG:	$ 1,409,120
CONTING:	$ 3,522,400
INDIRECT:	$ 1,789,582
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 58,955,274

COST OF APPROVED PHASES $ 35,228,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
2M	$ 28,182,400	$ 7,045,600	$ 0	$ 0	$ 0	$ 35,228,000
TOTAL	$ 28,182,400	$ 7,045,600	$ 0	$ 0	$ 0	$ 35,228,000

TIP History

2017-2020 STIP — **11/2017 Revision: Approved 02/27/2018**

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
HOUSTON	HOUSTON-GALVESTON	FORT BEND	2093-01-010	FM 2218	C	ROSENBERG	$ 35,228,000

LIMITS FROM: US 59
LIMITS TO: SH 36
PROJECT SPONSOR: TXDOT
REVISION DATE: 11/2017
PROJECT DESCR: WIDEN FROM 2 LANES TO 4-LANE DIVIDED
MPO PROJ NUM: 13
FUNDING CAT(S):
REMARKS P7:
PROJECT HISTORY: Amendment OCT-2017 - 10/27/17 - Modify Cat-2 funding and reflect potential use of federal funds.

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,726,172
ROW PURCH:	$ 15,280,000
CONST COST:	$ 35,228,000
CONST ENG:	$ 1,409,120
CONTING:	$ 3,522,400
INDIRECT:	$ 1,789,582
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 58,955,274

COST OF APPROVED PHASES $ 35,228,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
2M	$ 28,182,400	$ 7,045,600	$ 0	$ 0	$ 0	$ 35,228,000
TOTAL	$ 28,182,400	$ 7,045,600	$ 0	$ 0	$ 0	$ 35,228,000

2017-2020 STIP — **07/2016 Revision: Approved 12/19/2016**

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
HOUSTON	HOUSTON-GALVESTON	FORT BEND	2093-01-010	FM 2218	C	ROSENBERG	$ 35,524,000

LIMITS FROM: US 59
LIMITS TO: SH 36
PROJECT SPONSOR: TXDOT
REVISION DATE: 07/2016
PROJECT DESCR: WIDEN FROM 2 LANES TO 4-LANE DIVIDED
MPO PROJ NUM: 13
FUNDING CAT(S): 2M
REMARKS P7:
PROJECT HISTORY:

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,740,676
ROW PURCH:	$ 0
CONST COST:	$ 35,524,000
CONST ENG:	$ 1,420,960
CONTING:	$ 3,552,400
INDIRECT:	$ 1,804,619
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 44,042,655

COST OF APPROVED PHASES $ 35,524,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
2M	$ 0	$ 35,524,000	$ 0	$ 0	$ 0	$ 35,524,000
TOTAL	$ 0	$ 35,524,000	$ 0	$ 0	$ 0	$ 35,524,000

2015-2018 STIP — **11/2015 Revision: Not Approved 01/22/2016**

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
HOUSTON	HOUSTON-GALVESTON	FORT BEND	2093-01-010	FM 2218	C	ROSENBERG	$ 35,524,000

LIMITS FROM: US 59
LIMITS TO: SH 36
PROJECT SPONSOR: TXDOT
REVISION DATE: 11/2015
PROJECT DESCR: WIDEN FROM 2 LANES TO 4-LANE DIVIDED
MPO PROJ NUM: 13
FUNDING CAT(S):
REMARKS P7:
PROJECT HISTORY: Amendment #37 - 11/20/15 - Add to the TIP. Programmed using anticipated Prop 7 funding.

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,740,676
ROW PURCH:	$ 0
CONST COST:	$ 35,524,000
CONST ENG:	$ 1,420,960
CONTING:	$ 3,552,400
INDIRECT:	$ 1,804,619
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 44,042,655

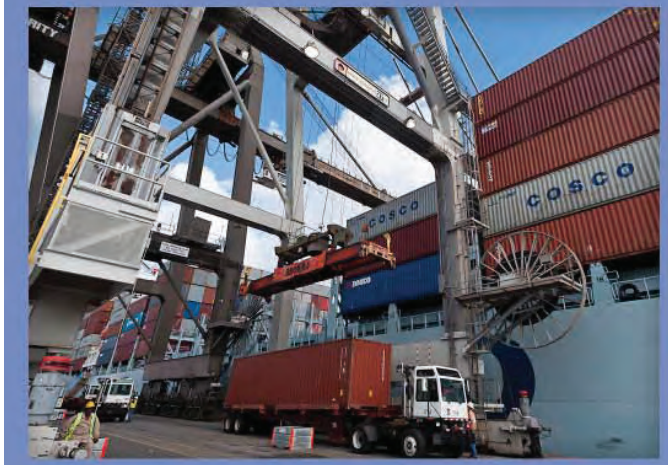
COST OF APPROVED PHASES $ 35,524,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

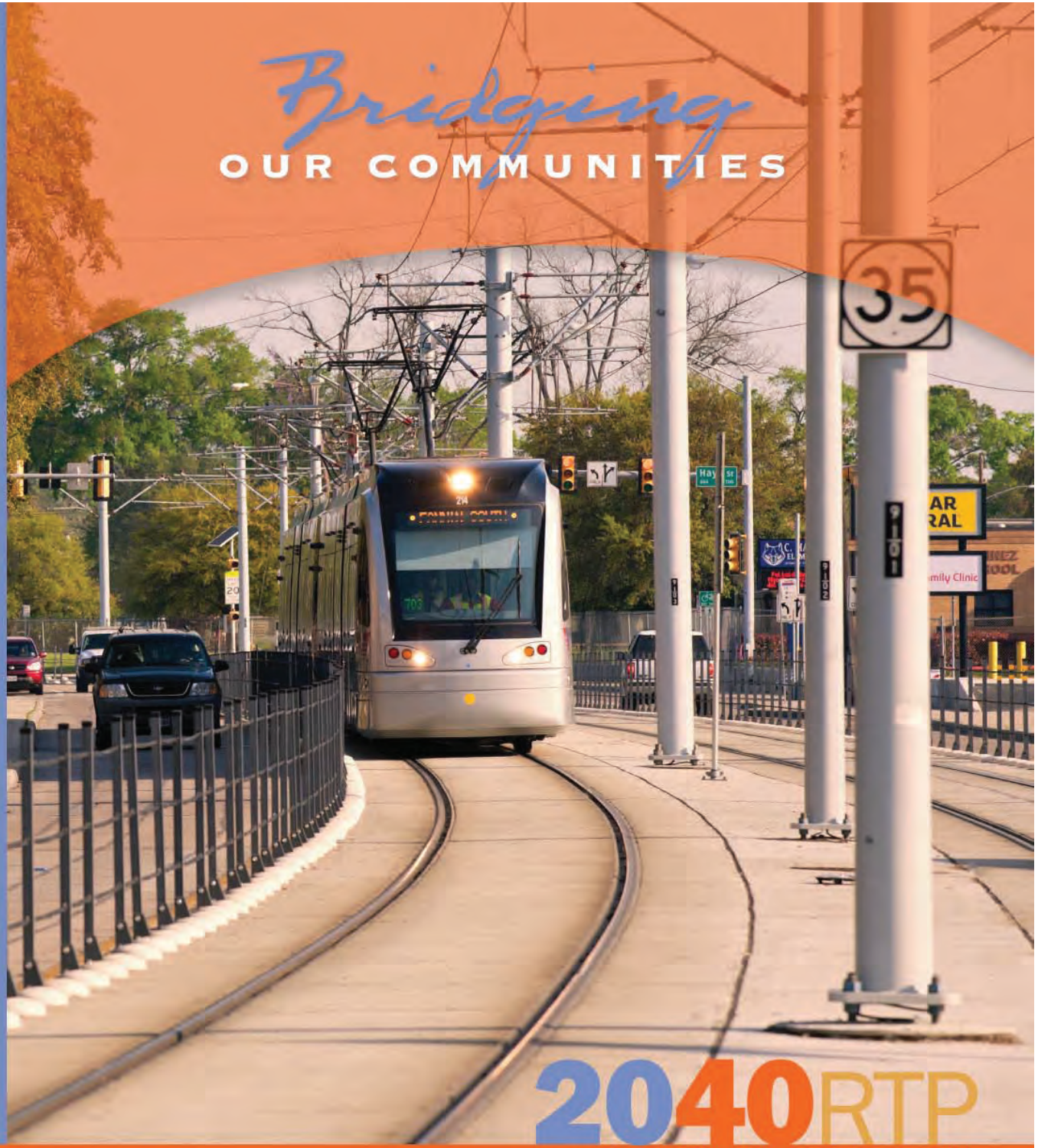
CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
2M	$ 0	$ 35,524,000	$ 0	$ 0	$ 0	$ 35,524,000
TOTAL	$ 0	$ 35,524,000	$ 0	$ 0	$ 0	$ 35,524,000

Comment History

Time	User	Comment	Related Approval
2017/11/29 12:56:50	**Barbara Maley**		**11/2017: Approved**
2016/10/17 15:24:19	**Jose Campos**		**07/2016: Approved**
2016/06/01 20:56:56	**David Wurdlow**	2040 RTP documentation has been updated to reflect a reasonable estimate of Proposition 1 and Proposition 7 funds. See the H-GAC website http//www.h-gac.com/taq/plan/2040TIP Amendment modifies the RTP. Project involves improvements exempt from conformity/regional emissions analysis or to facilities not considered regionally significant under the accepted conformity definition.	
2015/12/18 15:48:01	**Jose Campos**	Not approved. The proposed project reflects the use of Proposition 7 funding, however H-GACs 2040 RTP does not appear to reflect Proposition 7 funding. Additionally, the proposed project does not appear to be included in H-GACs 2040 RTP. Approval of this revision is withheld pending clarification of the proposed projects consistency with H-GACs conforming and fiscally constrained 2040 RTP.	**11/2015: Not Approved**



Bridging OUR COMMUNITIES



2040 RTP

THE HOUSTON-GALVESTON REGIONAL TRANSPORTATION PLAN

Revised March 30, 2016

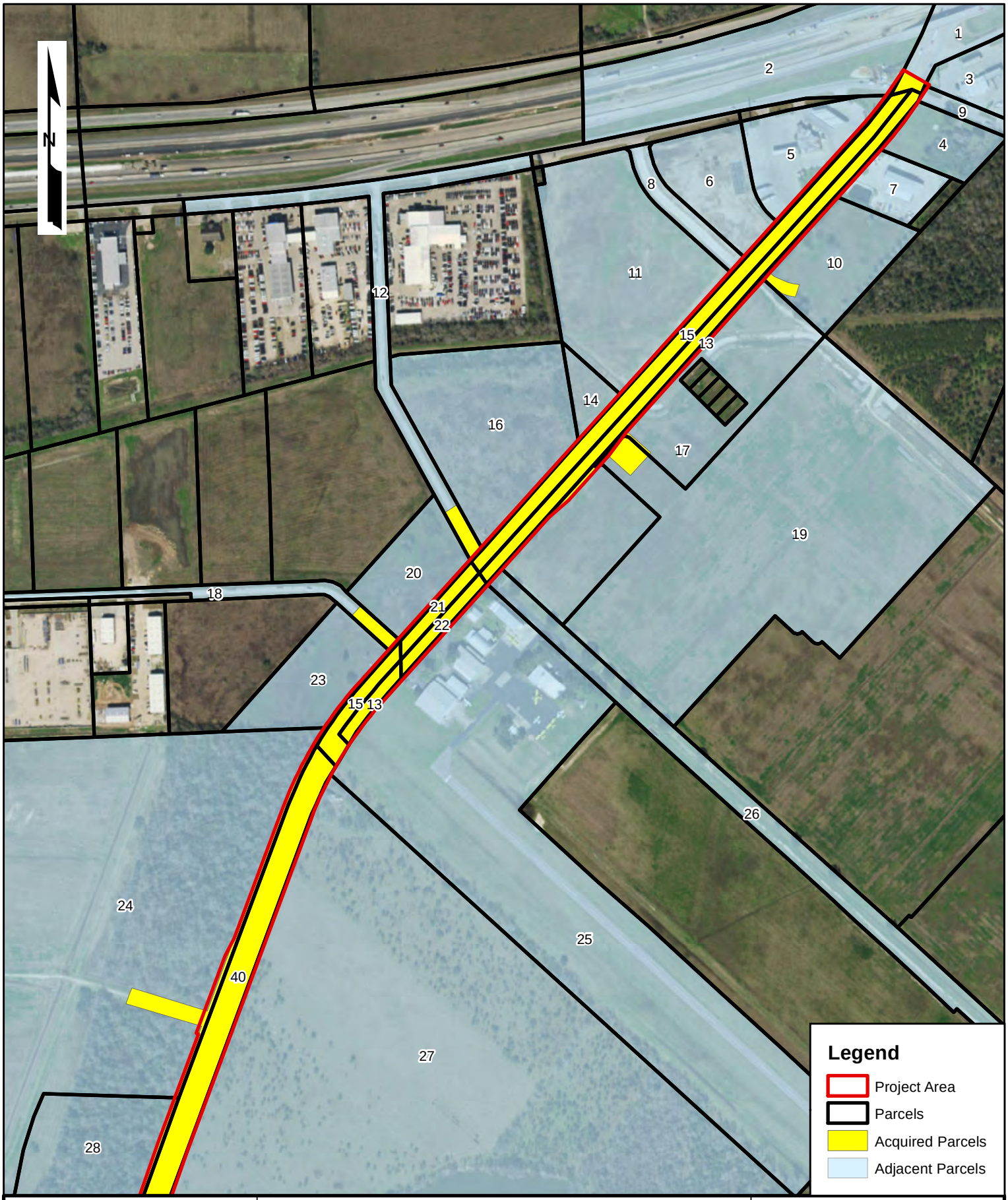
REGIONAL INVESTMENT PROGRAMS, EXEMPT AND NOT REGIONALLY SIGNIFICANT PROJECTS IN FIRST TEN YEARS (FY2015-2025)

MPOID	CSJ	County	Sponsor	Facility	From	To	Description	Fiscal Year	Total Project Cost (M, YOE)
THOROUGHFARE DEVELOPMENT									
17050	0188-10-021	Fort Bend	TXDOT HOUSTON DISTRICT	FM 1463	IH 10	N OF WESTRIDGE CREEK LN	WIDEN FROM 2-LANE TO 4 AND 6-LANE DIVIDED ROADWAY WITH RAISED MEDIAN, INTERSECTION IMPROVEMENTS AND PEDESTRIAN AND BICYCLE ACCOMMODATIONS	2019	$ 47.56
11	0188-10-028	Fort Bend	TXDOT HOUSTON DISTRICT	FM 1463	N OF WESTRIDGE CREEK LN	FM 1093	WIDEN FROM 2-LANE TO 4 AND 6-LANE DIVIDED ROADWAY WITH RAISED MEDIAN, INTERSECTION IMPROVEMENTS AND PEDESTRIAN AND BICYCLE ACCOMMODATIONS	2021	$ 55.09
13	2093-01-010	Fort Bend	TXDOT HOUSTON DISTRICT	FM 2218	US 59	SH 36	WIDEN FROM 2 LANES TO 4-LANE DIVIDED	2019	$ 41.82
980		Fort Bend	CITY OF MISSOURI CITY	FM 2234	US 90A	LEXINGTON BLVD	WIDEN FROM 4 TO 6-LANES UNDIVIDED	2020	$ 11.35
15	2105-01-020	Fort Bend	TXDOT HOUSTON DISTRICT	FM 2234	FORT BEND PARKWAY	FM 521	WIDEN 2 LANES TO 4-LANE DIVIDED RURAL SECTION	2015	$ 25.60
981	0188-09-040	Fort Bend	TXDOT HOUSTON DISTRICT	FM 723	N OF BRAZOS RIVER	FM 1093	WIDEN FROM 2-LANE TO 4-LANE DIVIDED ROADWAY WITH SHOULDERS AND SIDEWALKS	2020	$ 135.10
17068	0188-09-042	Fort Bend	TXDOT HOUSTON DISTRICT	FM 723	AVENUE D	N OF BRAZOS RIVER	WIDEN FROM 2-LANE TO 4-LANE DIVIDED ROADWAY WITH SHOULDERS AND SIDEWALKS	2019	$ 19.40
2381		Fort Bend	FORT BEND COUNTY	GUBBELS RD	AT WATERS LAKE BAYOU		REPLACE BRIDGE	2023	$ .55
14753		Fort Bend	FORT BEND COUNTY	HARLEM RD	SH 99	PLANTATION DR	RECONSTRUCT EXISTING 2-LANE TO 4-LANE CURB & GUTTER WITH OPEN DITCH DRAINAGE.	2015	$ 5.95
15487	0912-34-182	Fort Bend	CITY OF MISSOURI CITY	HURRICANE LN AND LAKE OLYMPIA	FORT BEND PKWY	TRAMMEL-FRESNO RD	CONSTRUCT 2-LANE CONCRETE ROADWAY TO EXISTING INTERCHANGE AT FORT BEND PKWY	2016	$ 5.91
652		Fort Bend	FORT BEND COUNTY	LAKE OLYMPIA	FORT BEND PARKWAY TOLL RD	CHIMNEY ROCK RD	CONSTRUCT 4-LANE UNDIVIDED ROAD	2018	$ 5.80
2387		Fort Bend	FORT BEND COUNTY	OLD NEEDVILLE FAIRCHILD RD	SH 36	FM 361	UPGRADE 2-LANE ROADWAY	2023	$ 5.82
2392		Fort Bend	FORT BEND COUNTY	SAWMILL RD	AT WATERS LAKE BAYOU		REPLACE BRIDGE	2023	$ .18
475		Fort Bend	CITY OF SUGAR LAND	STADIUM DR	N OF OYSTER CREEK	BURNEY RD	CONSTRUCT 4-LANE ROADWAY	2015	$ 17.00
13637		Fort Bend	CITY OF MISSOURI CITY	TEXAS PKWY/FM 2234	LEXINGTON BLVD	CARTWRIGHT RD	WIDEN 4 TO 6-LANES DIVIDED	2020	$ 9.55

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

APPENDIX F: RESOURCE SPECIFIC MAPS

Exhibit 1: ROW Acquisition Map
Exhibit 2: Land Use Map
Exhibit 3: Minority Density Map
Exhibit 4: Median Household Income Map
Exhibit 5: Wetlands and Waters Map
Exhibit 6: FEMA Floodplain Map
Exhibit 7: HAZMAT Map
Exhibit 8: Noise Receptor Map



0 250 500 Feet

FM2218 (US 59 TO SH 36)

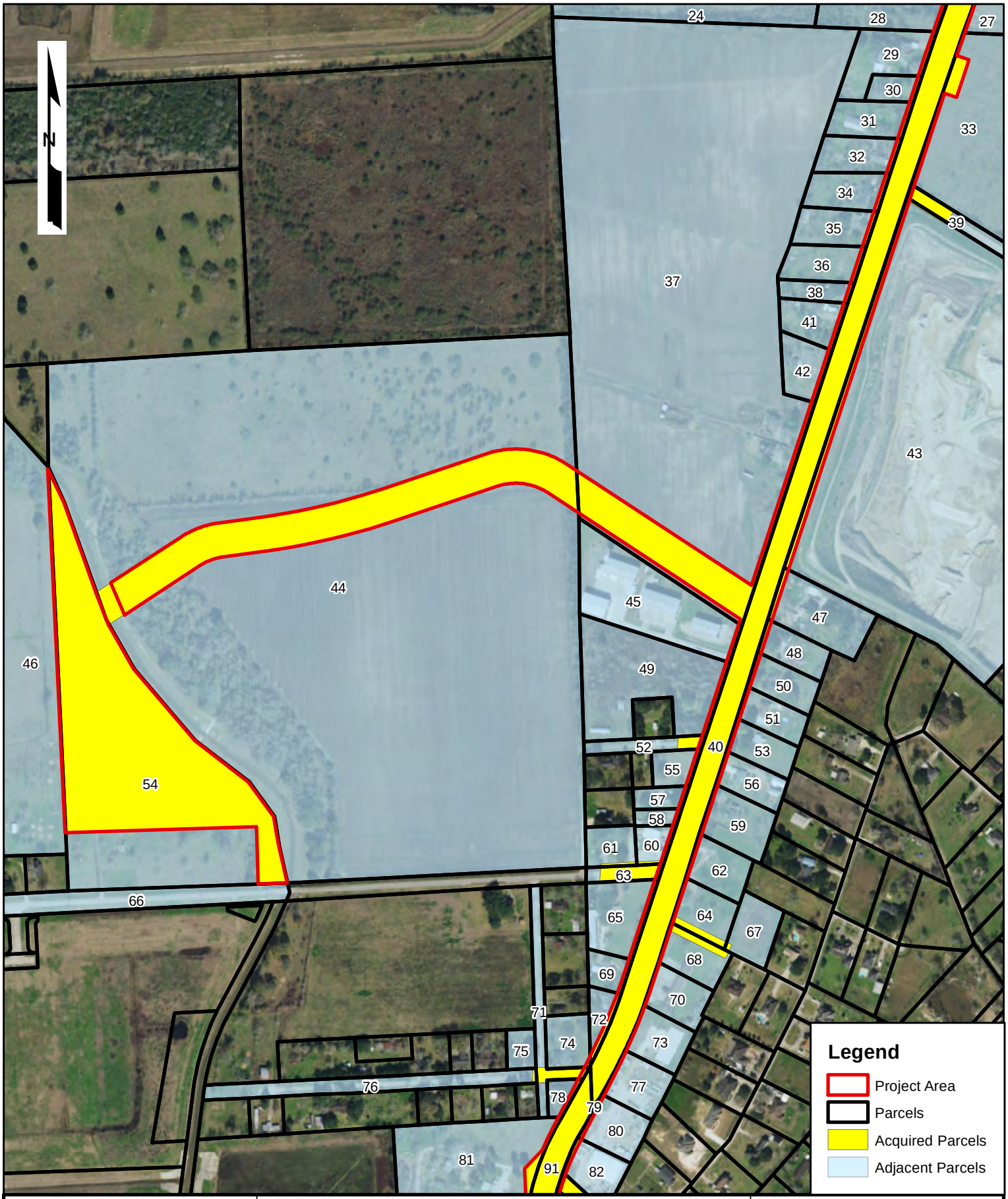
ACQUIRED PROPERTY OWNER MAP

Texas Department of Transportation

EXHIBIT 1A

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 250 500 Feet

FM2218 (US 59 TO SH 36)

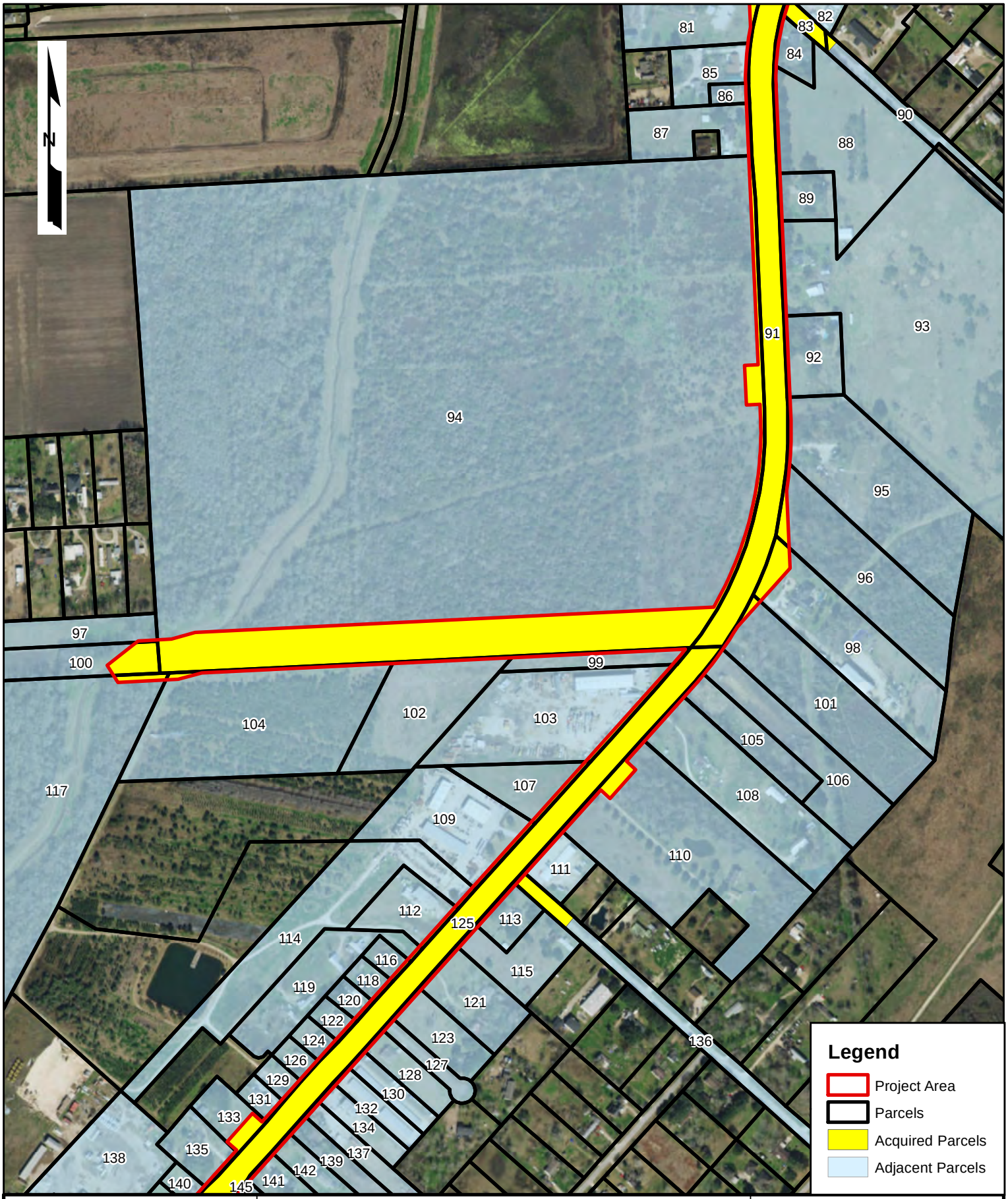
ACQUIRED PROPERTY OWNER MAP

Texas Department of Transportation

EXHIBIT 1B

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 250 500 Feet

FM2218 (US 59 TO SH 36)

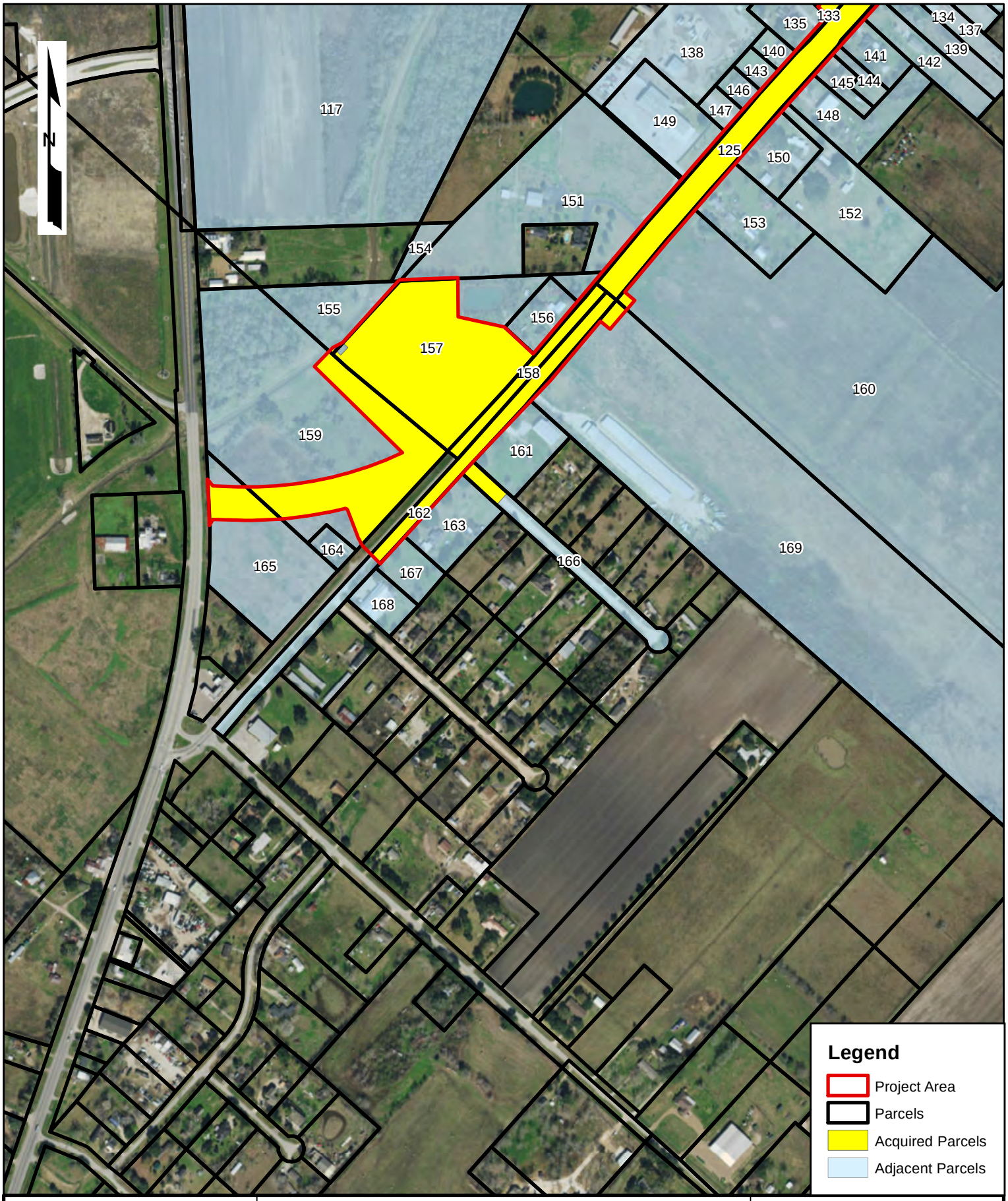
ACQUIRED PROPERTY OWNER MAP

Texas Department of Transportation

EXHIBIT 1C

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 250 500 Feet

FM2218 (US 59 TO SH 36)

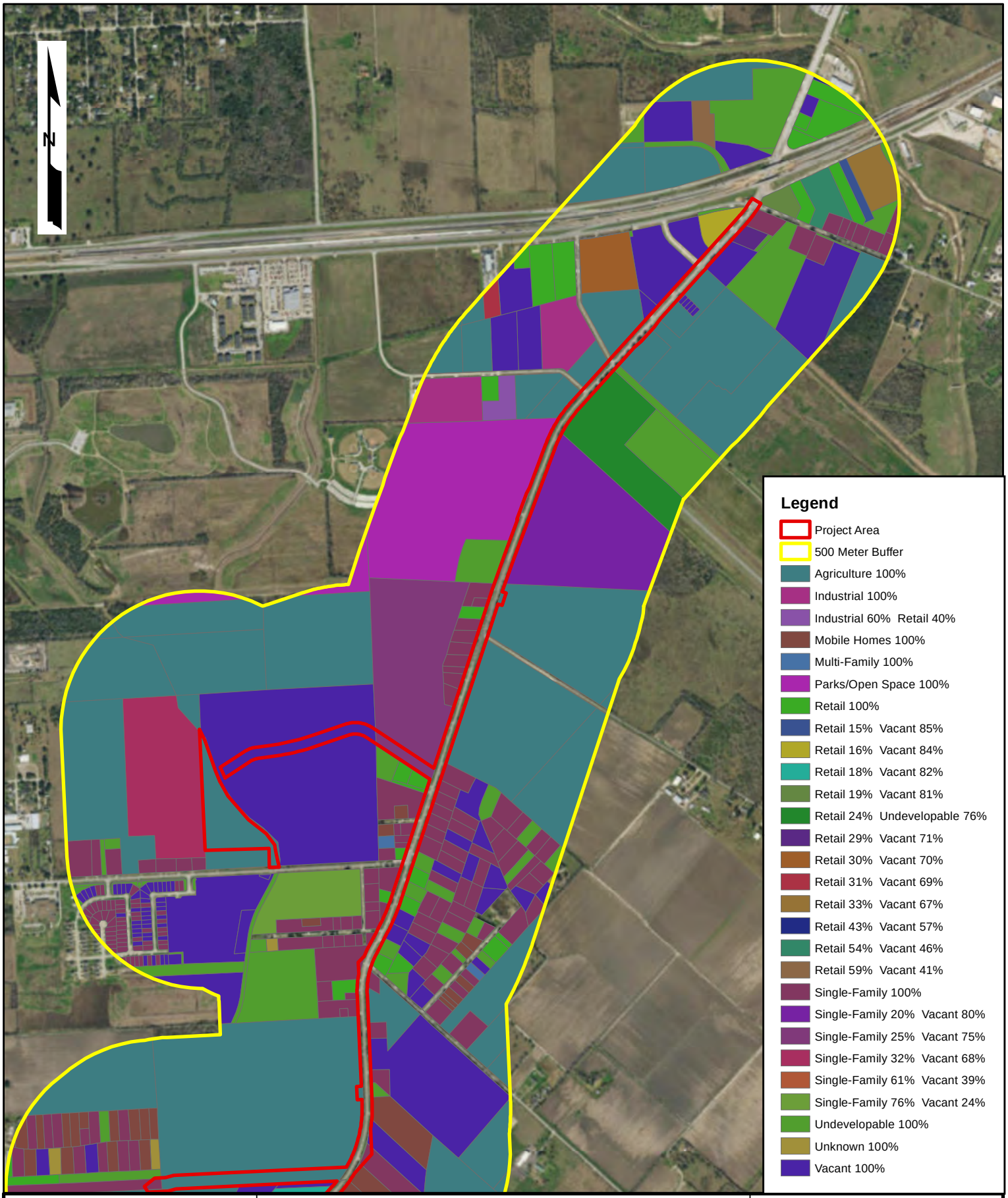
ACQUIRED PROPERTY OWNER MAP

Texas Department of Transportation

EXHIBIT 1C

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 750 1,500 Feet

FM2218 (US 59 TO SH 36)

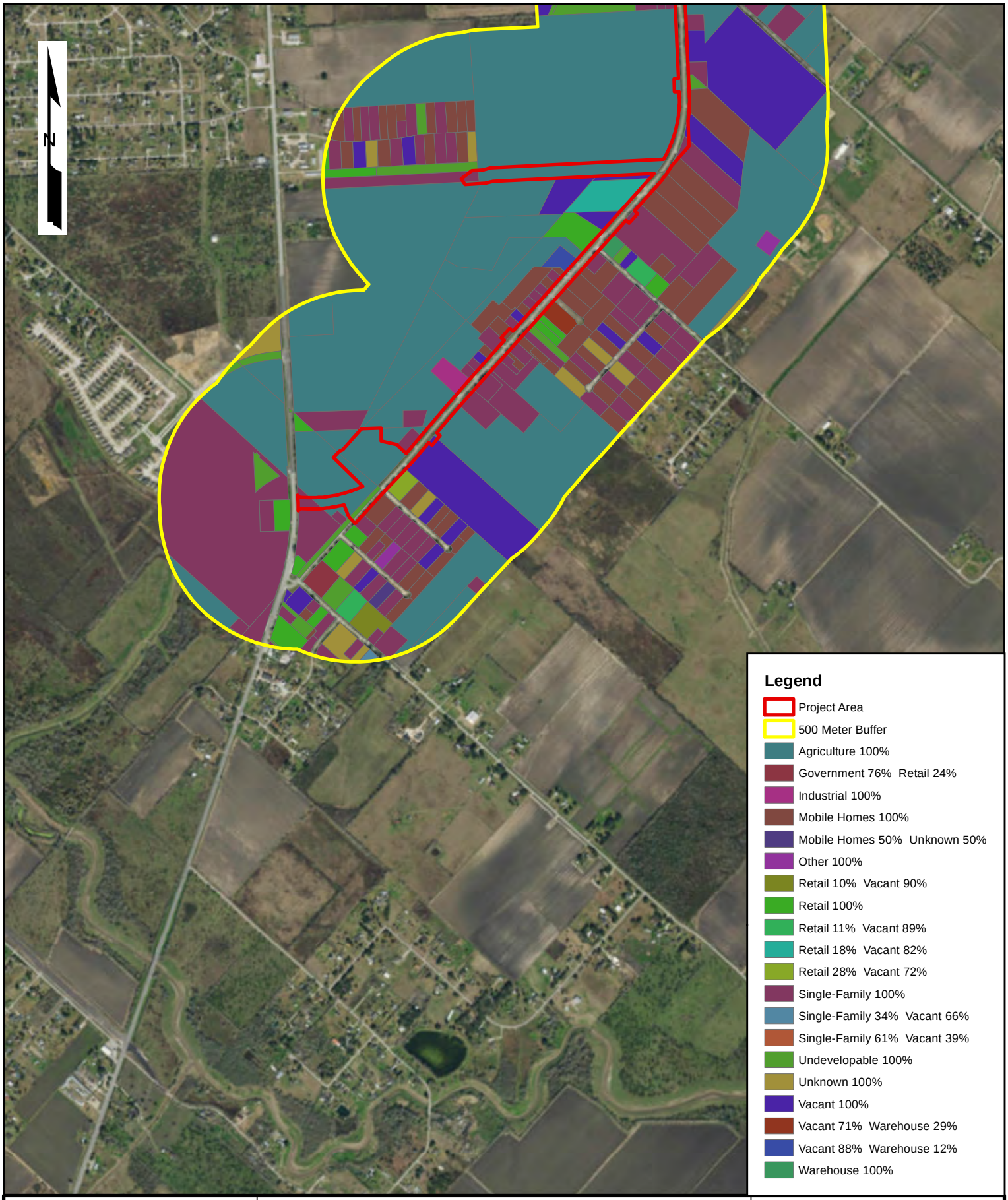
LAND USE MAP - 2015 (500 METER BUFFER)

Texas Department of Transportation

EXHIBIT 2A

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 750 1,500 Feet

FM2218 (US 59 TO SH 36)

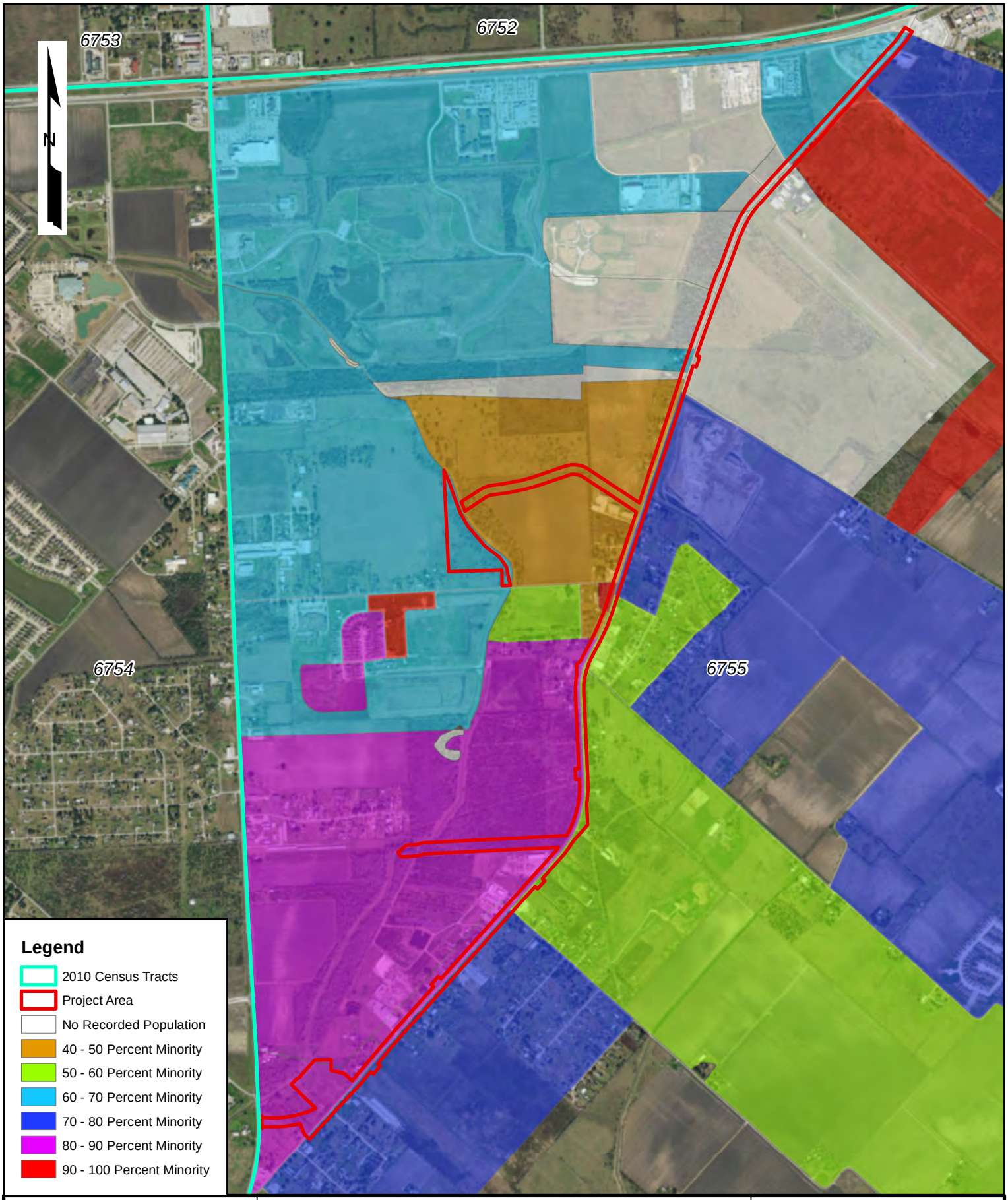
LAND USE MAP - 2015 (500 METER BUFFER)

Texas Department of Transportation

EXHIBIT 2B

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 900 1,800 Feet

FM2218 (US 59 TO SH 36)

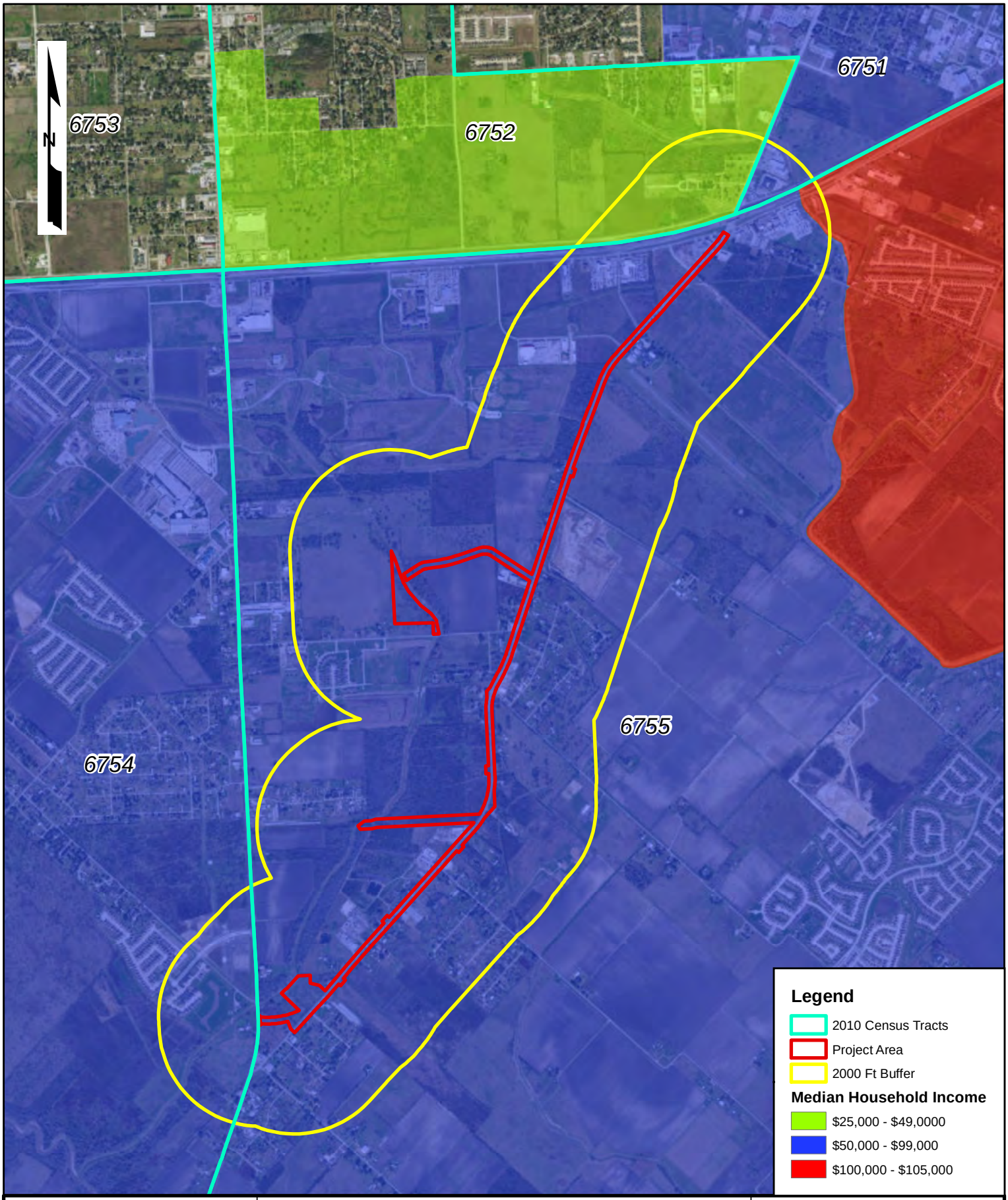
MINORITY DESINTY MAP

Texas Department of Transportation

EXHIBIT 3

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 1,250 2,500 Feet

FM2218 (US 59 TO SH 36)

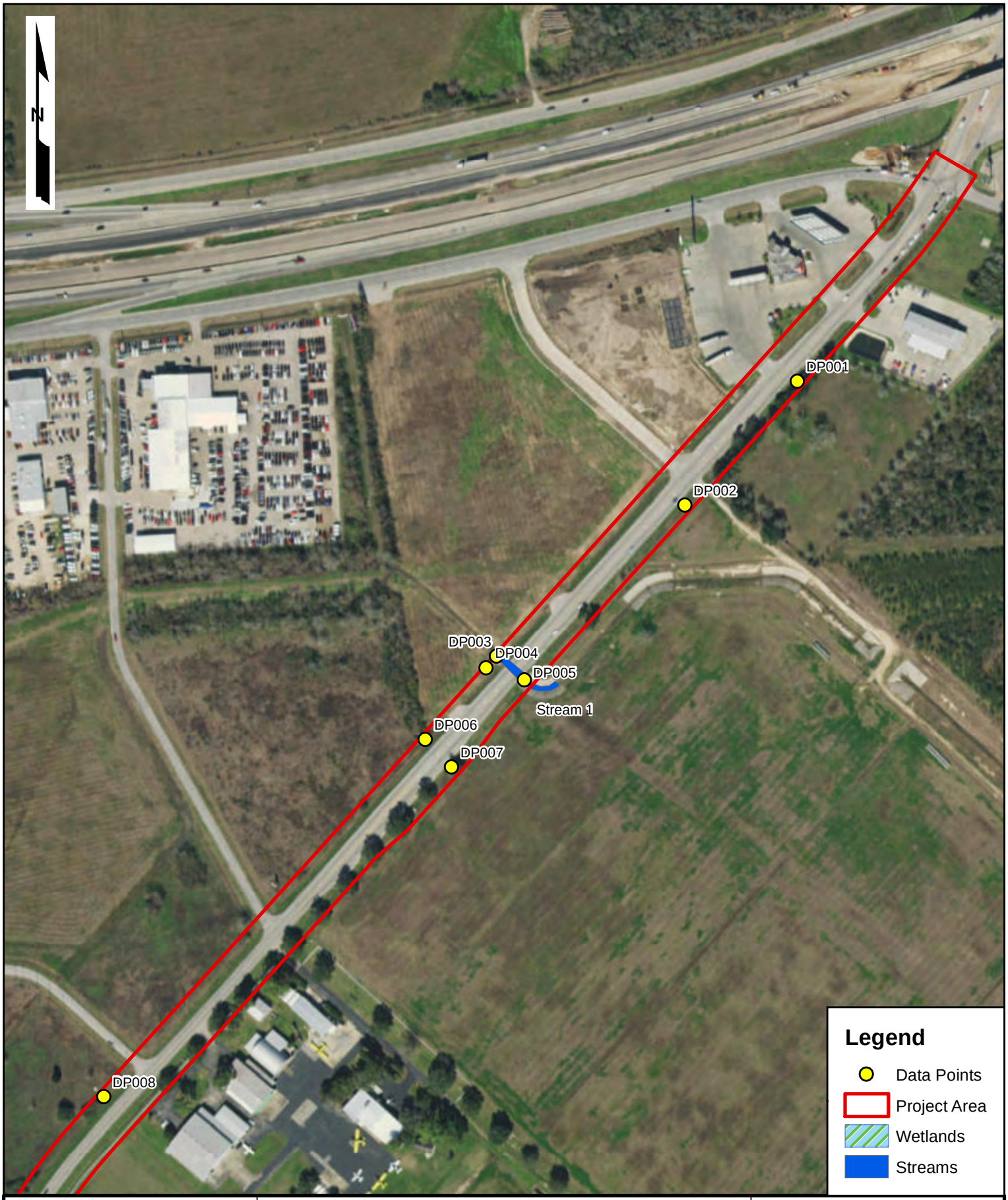
MINORITY DENSITY MAP

Texas Department of Transportation

EXHIBIT 4

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 100 200 400 Feet

FM2218 (US 59 TO SH 36)

WETLAND DELINEATION MAP

Texas Department of Transportation

EXHIBIT 5A

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018

0 100 200 400 Feet

FM2218 (US 59 TO SH 36)

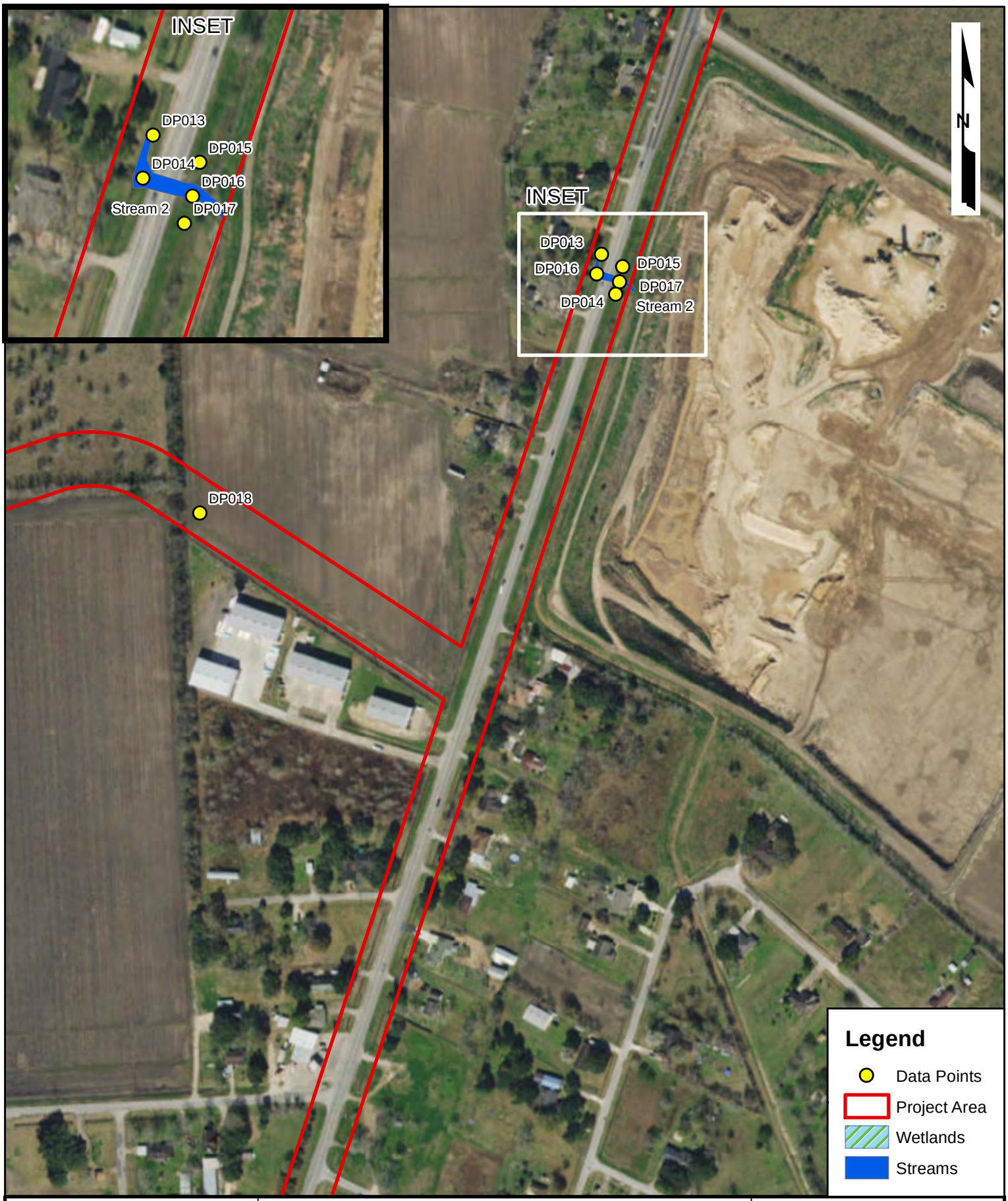
WETLAND DELINEATION MAP

Texas Department of Transportation

EXHIBIT 5B

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 100 200 400 Feet

FM2218 (US 59 TO SH 36)

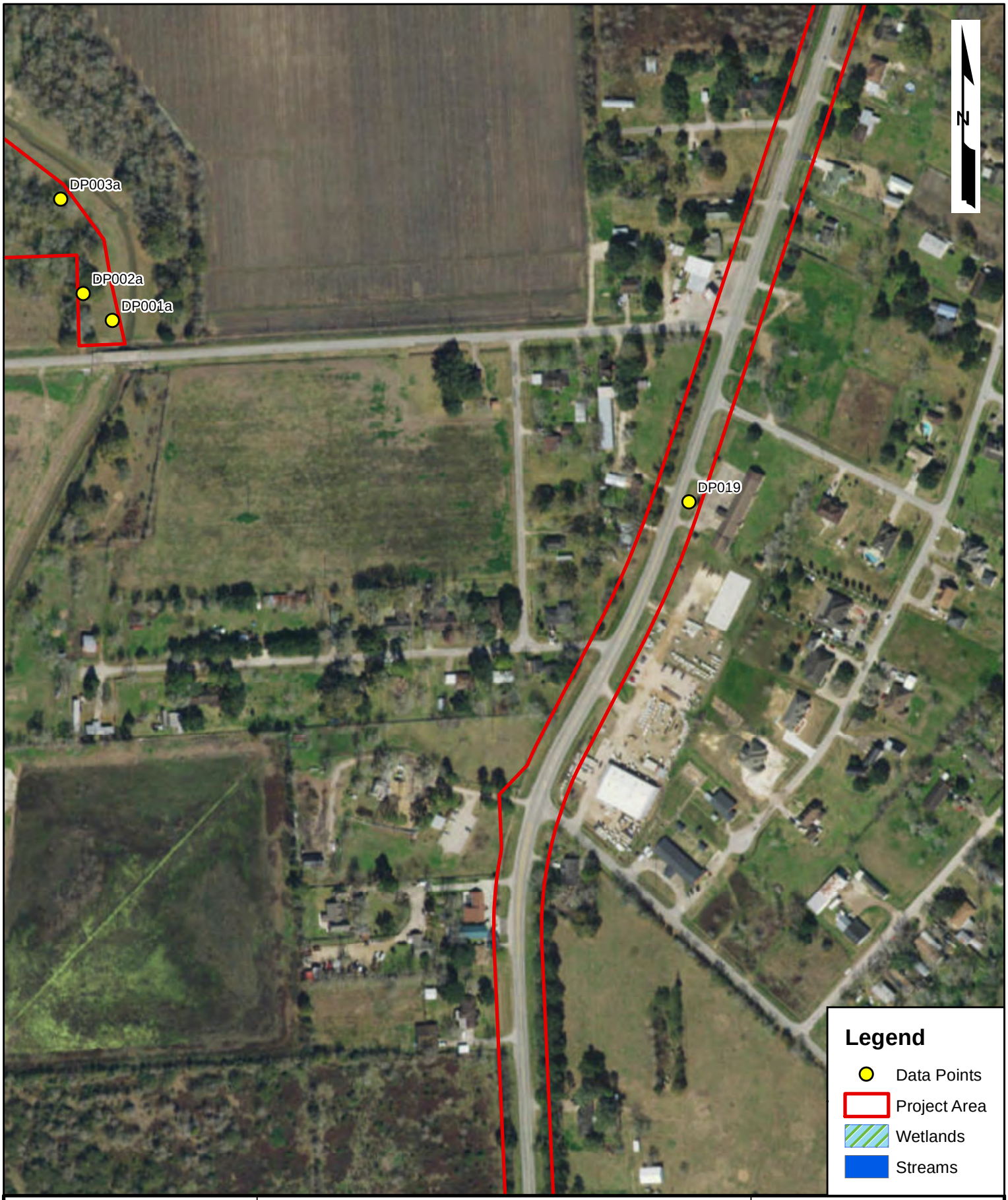
WETLAND DELINEATION MAP

Texas Department of Transportation

EXHIBIT 5C

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 100 200 400 Feet

FM2218 (US 59 TO SH 36)

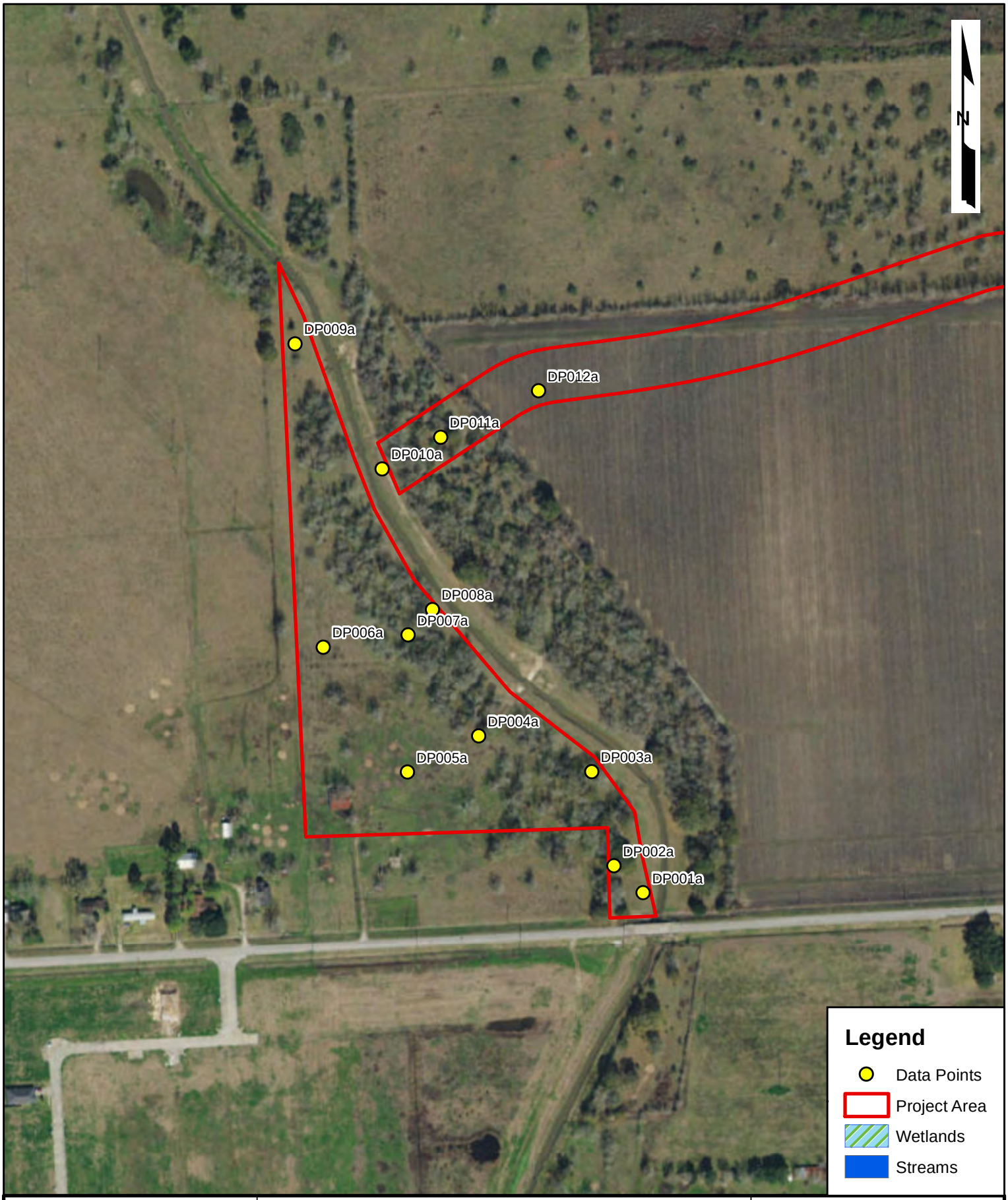
WETLAND DELINEATION MAP

Texas Department of Transportation

EXHIBIT 5D

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 100 200 400 Feet

FM2218 (US 59 TO SH 36)

WETLAND DELINEATION MAP

Texas Department of Transportation

EXHIBIT 5E

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018

0 100 200 400 Feet

FM2218 (US 59 TO SH 36)

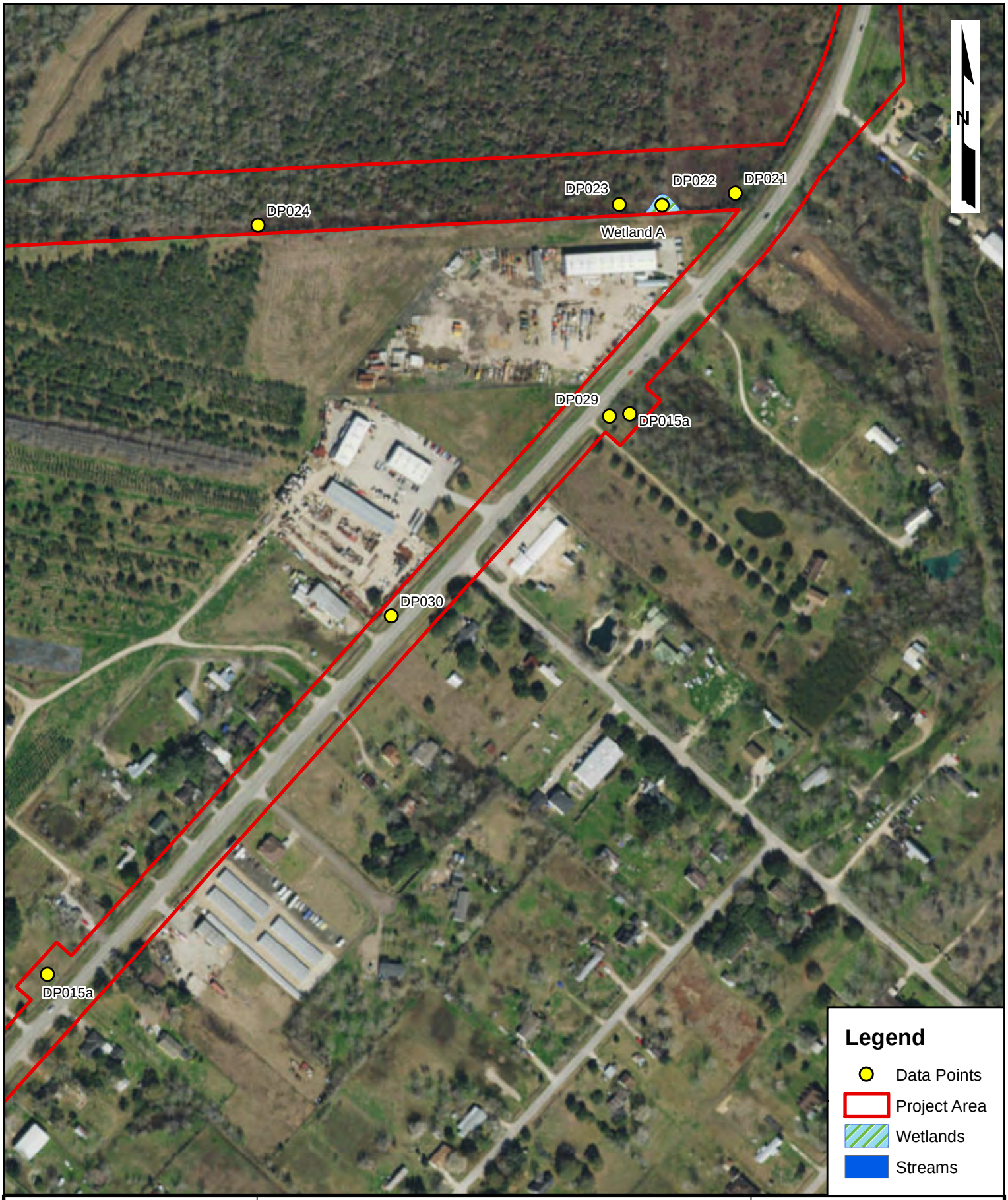
WETLAND DELINEATION MAP

Texas Department of Transportation

EXHIBIT 5F

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 100 200 400 Feet

FM2218 (US 59 TO SH 36)

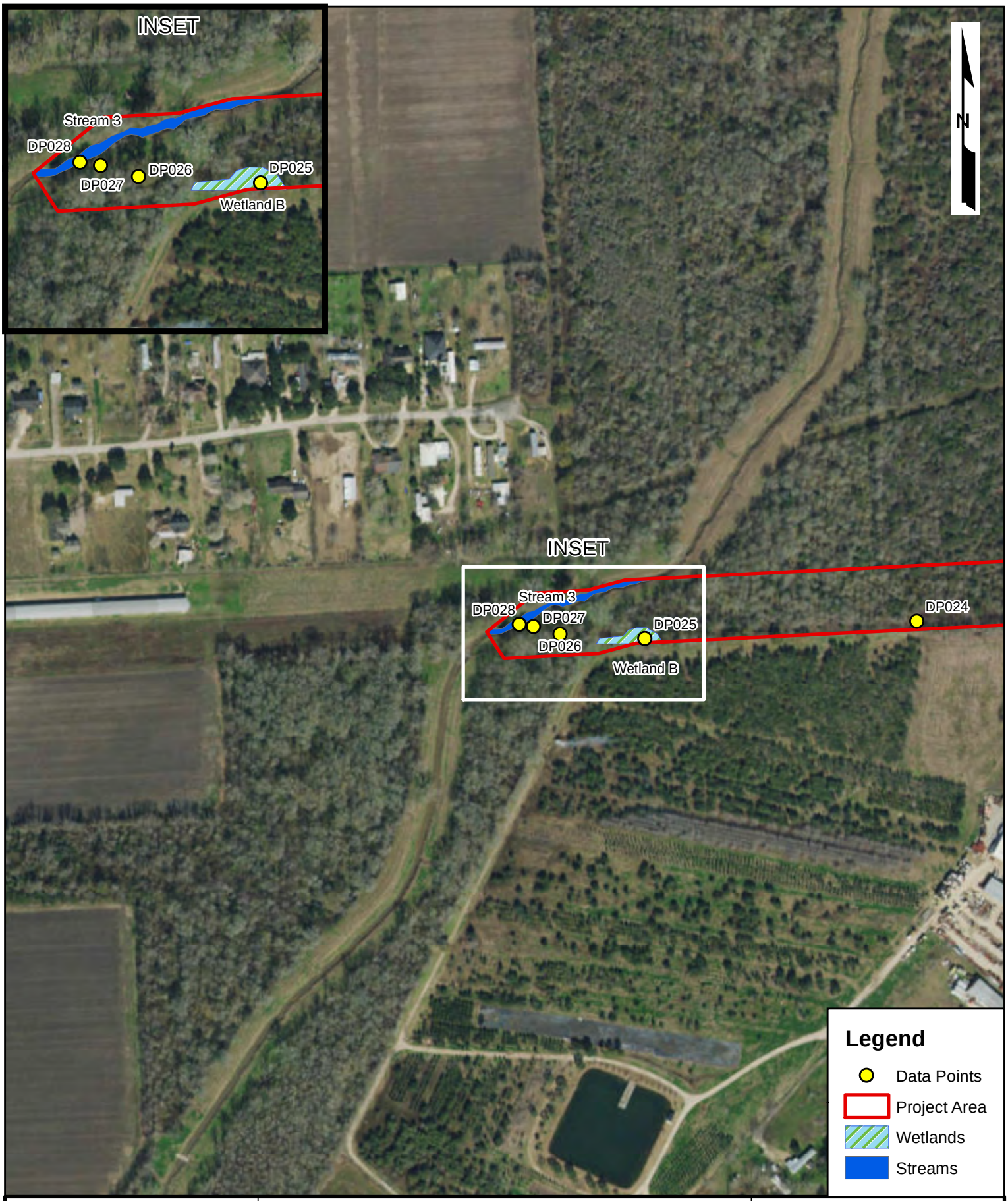
WETLAND DELINEATION MAP

Texas Department of Transportation

EXHIBIT 5G

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 100 200 400 Feet

FM2218 (US 59 TO SH 36)

WETLAND DELINEATION MAP

Texas Department of Transportation

EXHIBIT 5H

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018

0 100 200 400 Feet

FM2218 (US 59 TO SH 36)

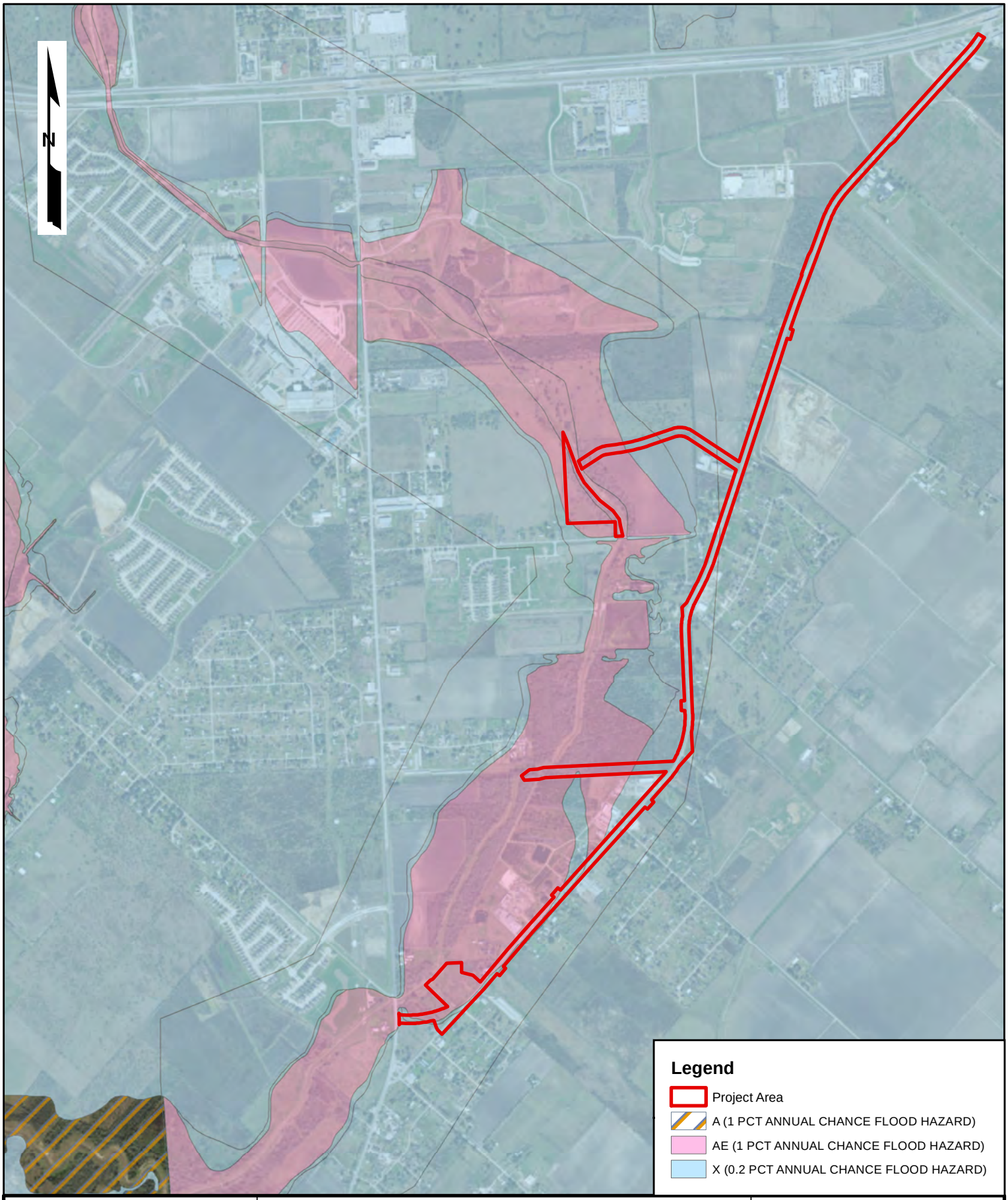
WETLAND DELINEATION MAP

Texas Department of Transportation

EXHIBIT 5I

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 1,000 2,000 Feet

FM2218 (US 59 TO SH 36)

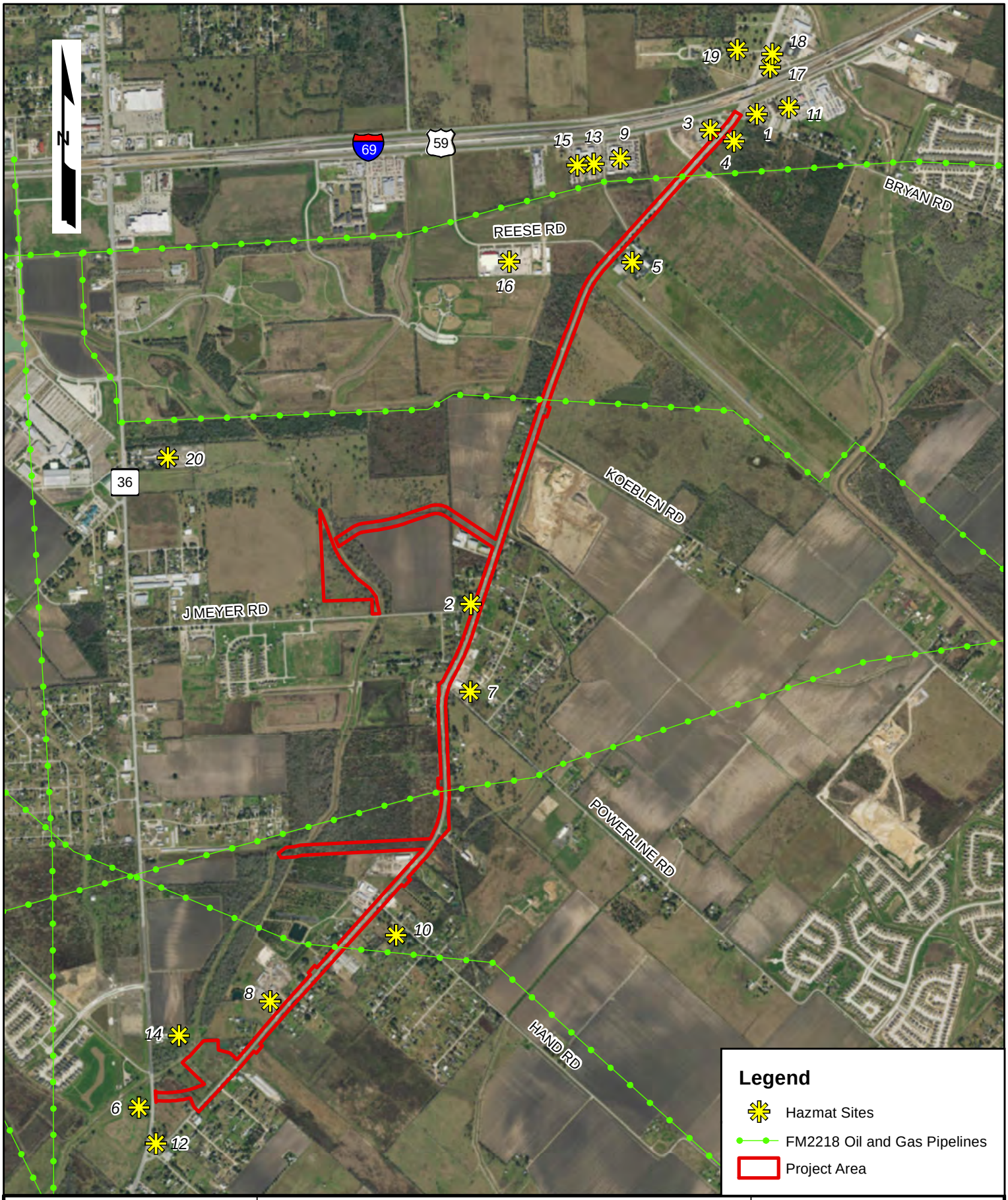
FEMA FLOODPLAIN MAP

Texas Department of Transportation

EXHIBIT 6

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 900 1,800 Feet

FM2218 (US 59 TO SH 36)

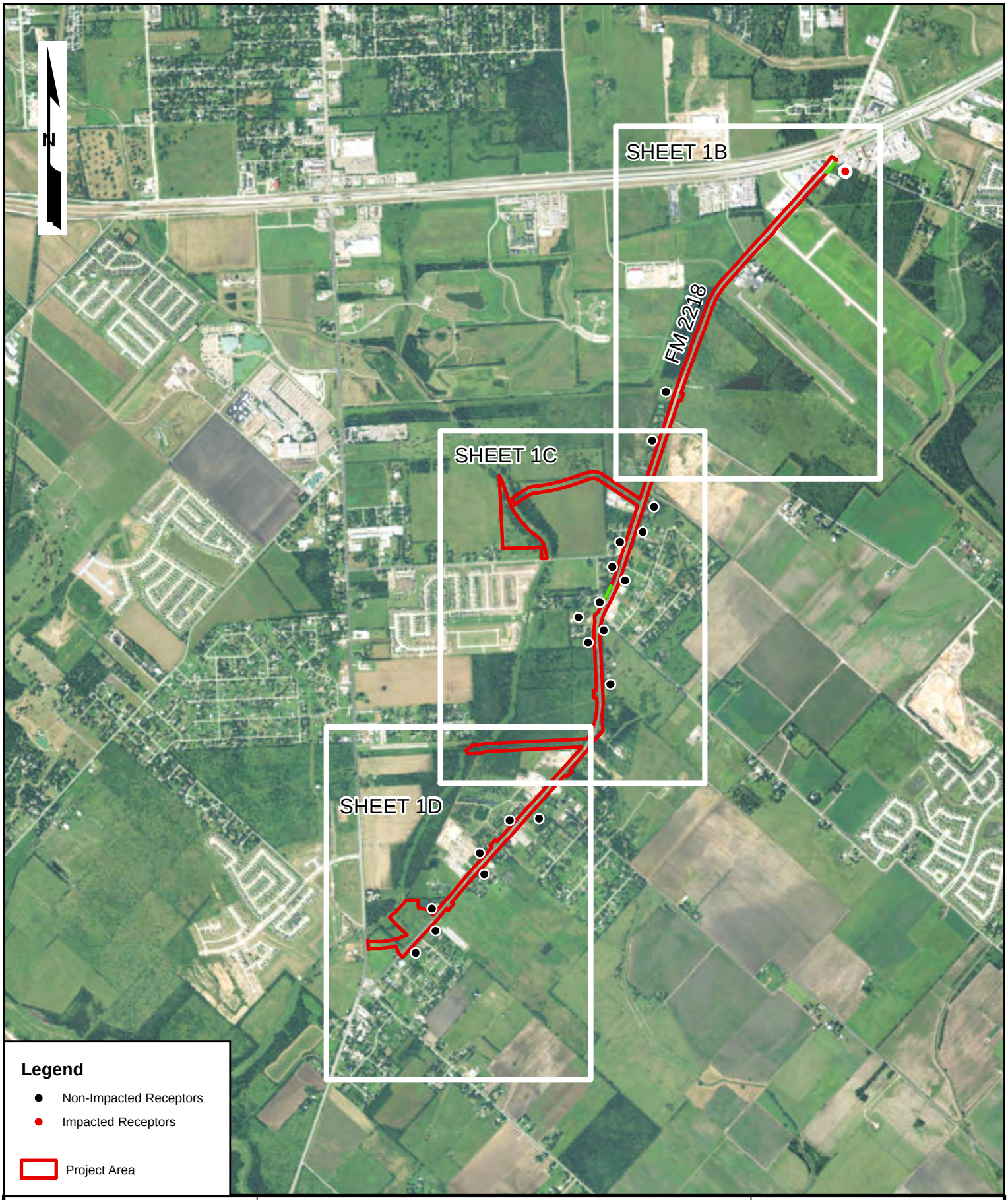
HAZMAT MAP

Texas Department of Transportation

EXHIBIT 7

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 1,250 2,500 Feet

FM2218
Noise Receptor MAP

Texas Department of Transportation

FIGURE 8A

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018

0 350 700 Feet

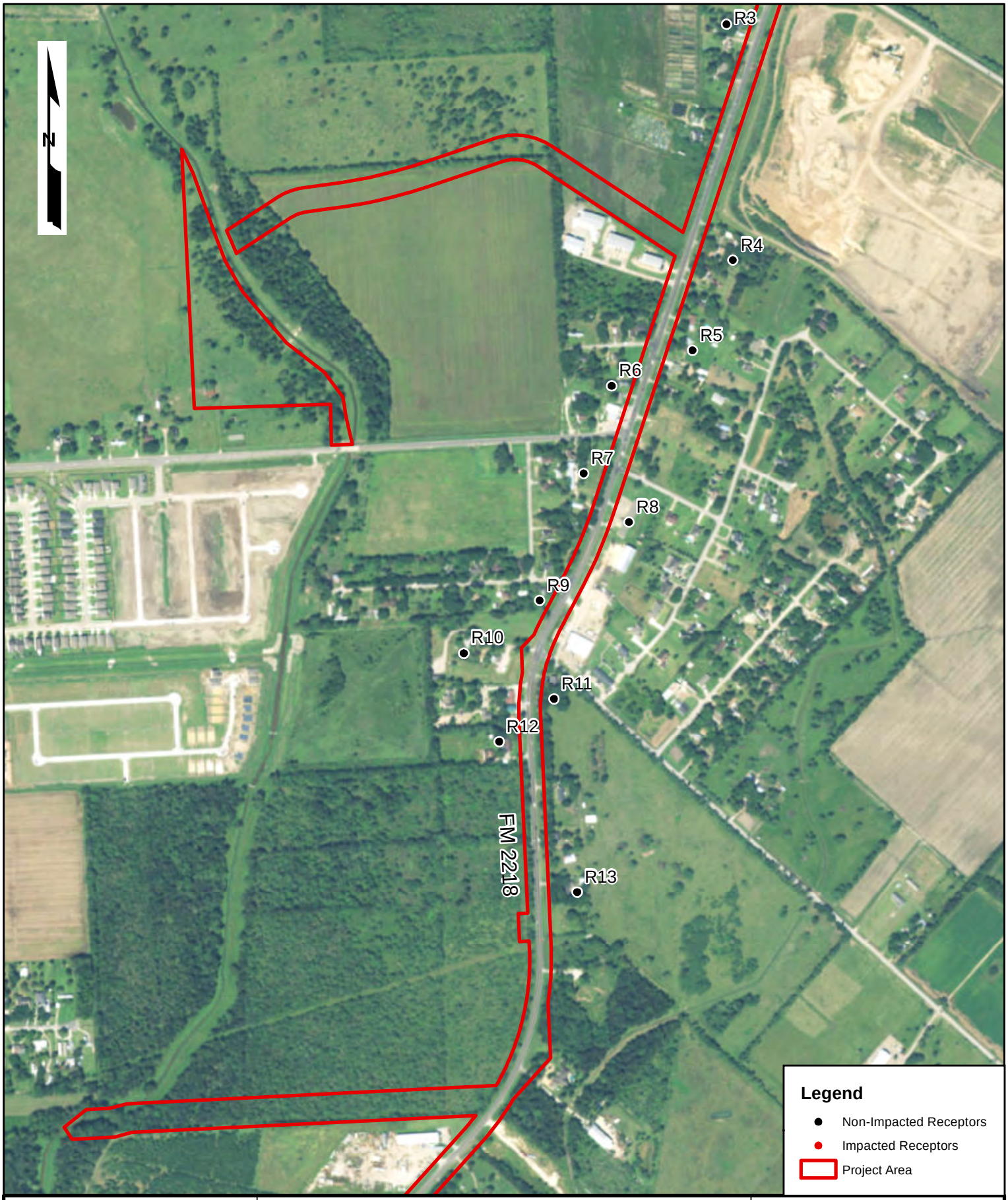
FM2218
NOISE RECEPTOR MAP

Texas Department of Transportation

FIGURE 8B

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018



0 350 700 Feet

FM2218
NOISE RECEPTOR MAP

Texas Department of Transportation

FIGURE 8C

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018

0 350 700 Feet

FM2218
NOISE RECEPTOR MAP

Texas Department of Transportation

FIGURE 8D

FORT BEND COUNTY, TEXAS

DATE:
JAN. 2018

APPENDIX G: RESOURCE AGENCY COORDINATION

From: Sue Reilly
To: Carrington Wright
Cc: Christine Bergren
Subject: RE: FM 2218 (2093-01-010) Update
Date: Tuesday, May 02, 2017 3:46:25 PM

Carrington,

While programmatic approaches to mitigation may be discussed at the Interagency Team, they may certainly be addressed within a district. TxDOT's districts operate fairly independently and seem to have authority to do projects on their own. Certainly doing some work within the project area would be within the district's discretion. With that said, I am going to close the project and move on.

Thank you for submitting the following project for early coordination: FM 2218 in Fort Bend County (CSJ 2093-01-010). TPWD appreciates TxDOT's commitment to implement the practices listed in the Biological Evaluation Form submitted June 14, 2015 and in subsequent documents. Based on a review of the documentation, the avoidance and mitigation efforts described, and provided that project plans do not change, TPWD considers coordination to be complete. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect plants, fish, and wildlife. According to §2.204(g) of the 2013 TxDOT-TPWD MOU, TxDOT agreed to provide TXNDD reporting forms for observations of tracked SGCN (which includes federal- and state-listed species) occurrences within TxDOT project areas. Please keep this mind when completing project due diligence tasks. For TXNDD submission guidelines, please visit the following link:
http://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml

Thank you,

Sue Reilly
Transportation Assessment Liaison
TPWD Wildlife Division
512-389-8021

From: Carrington Wright [mailto:Carrington.Wright@txdot.gov]
Sent: Tuesday, May 02, 2017 9:16 AM
To: Sue Reilly
Cc: Christine Bergren
Subject: RE: FM 2218 (2093-01-010) Update

Hey Sue, thank you for the feedback on bigger-picture impacts of TxDOT activities. I passed your suggestion on to ENV-NRM and my Supervisor, Christine Bergren, for consideration and discussion. It is Christine's understanding that programmatic mitigation approaches are more appropriately discussed at the Interagency Team level instead of individual project coordination. Please let me know if there are any other outstanding coordination issues that need to be addressed on this project.

Carrington Wright | Environmental Specialist
Texas Department of Transportation
7600 Washington Avenue, Houston, TX 77007

P (713) 802-5408

From: Sue Reilly [mailto:Sue.Reilly@tpwd.texas.gov]
Sent: Monday, May 01, 2017 5:24 PM
To: Carrington Wright
Subject: RE: FM 2218 (2093-01-010) Update

Hi Carrington,

Thanks for the updated schematic.

The large number of TxDOT projects in Fort Bend County recently has impacted a large amount of grassland, riparian area, and waterways (water quality). These impacts directly impact animals, plants, and habitat. It would be appropriate for TxDOT to perform restoration or invest in preservation for prairie and riparian habitat in Fort Bend County or within the coastal Brazos River watershed to make up for these impacts to wildlife and habitats. These restoration or preservation projects should be on land that will be conserved in perpetuity, such as a park or on land with a conservation easement. Please let me know if TxDOT is interested in pursuing this kind of project.

Minimizing impacts to riparian areas and grasslands is ideal. For example, the outfall channels and detention ponds for this project directly impact riparian habitat. If practicable, this vegetation type should be replaced in order to maintain the functions of habitat and water quality protection.

Thank you,

Sue Reilly
Transportation Assessment Liaison
TPWD Wildlife Division
512-389-8021

From: Carrington Wright [mailto:Carrington.Wright@txdot.gov]
Sent: Tuesday, April 18, 2017 9:01 AM
To: Sue Reilly
Subject: FM 2218 (2093-01-010) Update

Hey Sue, I was recently assigned this project and I was told that there was outstanding TPWD Early Coordination. I just wanted to check up to see if this was true and if you needed any additional info.

Thanks

Carrington Wright | Environmental Specialist
Texas Department of Transportation
7600 Washington Avenue, Houston, TX 77007
P (713) 802-5408

Rcvd. 5/25/17

Texas Department of Transportation

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

May 25, 2017

SECTION 106 REVIEW: DETERMINATION OF NO ADVERSE EFFECT
SECTION 4(f) REVIEW: NOTIFICATION OF INTENT TO RENDER *DE MINIMIS* SECTION 4(f) FINDING
District: Houston
County: Fort Bend
CSJ#: 2093-01-010
Highway: FM 2218
Project Limits: SH 36 to US 59 (about 4 miles)
Section 4(f) Property: 1890s farmstead

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

Dear Ms. Henderson:

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT. As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency. In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings (December 2015), this letter initiates Section 106 consultation on the effect the proposed undertaking poses for properties eligible for listing on the National Register of Historic Places (NRHP).

Project Description

FM 2218 southeast of the city of Rosenburg currently consists of a 28-foot-wide roadway with two lanes with 2' shoulders and no sidewalk within a 100-foot wide ROW. Open ditches drain the roadway.

The proposed improvements consist of widening and reconstructing the existing undivided facility to a four lane (two lanes in each direction) divided roadway with a 15 - foot wide median and a curb and gutter drainage system. The median proposed along FM 2218 would be a raised grass median with 12' wide left turn lanes at intersections. The turn lanes would be controlled (with signals) at major intersections and uncontrolled (without signals) at minor intersections and driveways. Left turns would not be permitted unless there is a break in the raised grass median. TxDOT proposes to modify the existing FM 2218 intersection with SH 36 to allow for a 90-degree, signaled intersection.

In addition, TxDOT proposes to construct a shared 3' bike lane on each side of the road parallel to FM 2218. The proposed project also calls for 5' sidewalks to be constructed along both sides

of FM 2218 outside of the shared bike lane. Lastly, TxDOT proposes two outfalls and two detention ponds, all of which are located along the western side of FM 2218.

A total of 49.7 acres of new right-of-way (ROW) would be required for the proposed project.

Properties not eligible for NRHP-listing
A review of the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and TxDOT files indicated no historically significant properties previously documented within the area of potential effects (APE). Consultation with the State Historic Preservation Officer (SHPO) determined that the APE for the proposed project is 150' from the proposed ROW.

Based on the Historic Resources Survey Report (HRSR), attached, staff determined that there are 61 historic-age (built prior to 1973) properties in the APE. Most of the properties are single family residences but the APE also contains transportation, religious, commercial and industrial agricultural properties. Except for two of the properties described below, the 59 other historic-age properties in the APE 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 determined not eligible for NRHP listing under Criterion A, B, or C.

NRHP-eligible properties

Property #38
Property #38 is a farmstead consisting of one c. 1890 farmhouse (#38a), one c. 1920 barn (#38b), a c. 1960 garage (#38c), two c. 1925 sheds (#38d & e), a c. 1950 windmill (#38f). The HRSR did not number or make determinations for additional resources on the property such as fencing, fields, paths, etc so we do so in this letter. Fencing (#38g) of various types (wood, wire) and ages on the property is non-contributing since it is utilitarian and often replaced on agricultural properties. Fields (#38h) are currently used for grazing cattle and determined contributing. Footpaths (#38i) also contribute since they appear to date from the historic period.

Property #38 is a rural property which retains integrity in Fort Bend County with outbuildings dating to the historic-period. These types of properties are becoming rare in the area due to development as people move there to commute to nearby Houston. The NRHP-boundary includes the entire current parcel, with a period of significance of 1890-1970 which encompasses all contributing resources on the property and includes the time period for which the property was in active agricultural use.

As a rural historic landscape (see HRSR page 16) property associated with the theme Post-Bellum Agriculture and Tenant Farming (1880-1941), Map I.D. 38 is determined **eligible** under Criterion A for agriculture at the local level of significance. Integrity of setting and feeling are slightly altered by the construction of newer homes flanking the parcel along FM 2218 but overall setting, feeling, and association as a rural agricultural property remain. There is no evidence that the previous owners were particularly historically significant. Therefore, it is determined **not eligible** under Criterion B. The modifications to the resources occurred within the historic period of significance and have not substantially impacted their integrity of design, workmanship, and materials; therefore it is determined **eligible** under Criteria C at the local level of significance.

TxDOT contacted the CHC regarding project impacts and the CHC provided further information about property #38. TxDOT historians also discussed the history of the property and the project impacts with the owner, Mr. Joe Janecka. To summarize the discussions:

The family bought the property in 1950 and continued farming until about 1970. #38e was a tenant house and moved in the historic period (c. 1950) to the property from across the road (FM 2218). There was a much larger farm across the road (as seen on historic aerials) which is gone now. There were several Mexican tenant houses on it. The subject farm has always been a small operation- cotton, corn, and a failed peach orchard. They did take the cotton to the nearby gin (property #61). They also had hogs and cattle. They had about 200 cattle in the 50s through 70s. During that time they rented nearby property for extra land. As the current owner's dad got older they reduced the herd to about 10. Since c. 1970 the property use has been passive grazing land, and the current owner built his current house in 1978 to the south of the barn (not in HRSR, not historic-age). Mr. Janecka's parents "new" house to the north of the property was constructed 1967 and is in the HRSR. Extended family still lives in #38a. Regarding the trees on the property, the Janeckas planted about 900' linear feet of oaks along the front of the property, none of which would be affected by the project. TxDOT would remove two trees in the yard, a planted cedar and an elm tree, during proposed project construction. Mr. Janecka had questions about the project design and ROW retribution rather than historic concerns. He agrees his property is historic and agrees the project is necessary.

Property #61

The HRSR page 2 states that TxDOT determined property #61 eligible under CSJ: 0188-01-016. TxDOT has not coordinated that project with your office because effects to historic properties have not been resolved. However the report for CSJ: 0188-01-016 and this HRSR describe #61 as the Krenek Cotton Gin, opened in 1934 by Wilbur Krenek as a response to the increasing demand for cotton suppliers. The property consists of #61a, the former gin, #61b, a warehouse, and #61c, a former residence for the gin operator. The gin remained a family-owned business until the gin closed in 2001. As a rural community, the economy of nearby Pleak depended on cotton, grain and cattle. The gin was a staple to the local economy, and in fact, the owners of property #38 (above) used this gin for their cotton. Associated with the historic trend of cotton production in Fort Bend County in the 1920s-1940s, the property illustrates the rise of increased cotton production and technological improvements in cotton ginning of the mid-twentieth century. The primary buildings in the complex remain and retain the integrity of feeling, association, location, and setting. For these reasons, the property is determined **NRHP-eligible under Criterion A** for agriculture at the local level for its association with the economy of rural Pleak.

Other than owning the cotton gin from 1934-2001, it is unknown if the Krenek family was significant to Pleak's history during the historic period. Based on this little information, it is determined that Property #61 is **not eligible** under Criterion B. Under Criterion C, the property exhibits numerous integrity issues. Some windows and doors are missing as are the exterior conveyor belts, affecting the integrity of design and materials. Additionally, some buildings located behind the residence on the property have been demolished, which affects the integrity of setting, design, materials, workmanship and feeling. Therefore, it is determined **not eligible** under Criterion C.

Since the resources are on two land parcels, the NRHP-boundary encompasses the surviving contributing buildings of the complex (see Figure 6, HRSR). The period of significance is 1934-1973, encompassing the range of dates that the property remained active, cutting off at the end of the historic-age period though the business continued operating until 2001.

Property #	Name/Location	NRHP Status
38a	Farmhouse, contributing	NRHP-eligible, A & C
38b	Barn, contributing	NRHP-eligible, A & C
38c	Garage, contributing	NRHP-eligible, A & C
38d	Shed, contributing	NRHP-eligible, A & C
38e	Former tenant home, contributing	NRHP-eligible, A & C
38f	Windmill, contributing	NRHP-eligible, A & C
38g	Fencing, non-contributing	NRHP-eligible, A & C
38h	Fields, contributing	NRHP-eligible, A & C
38i	Footpaths, contributing	NRHP-eligible, A & C
61a	Gin, contributing	NRHP-eligible, A
61b	Warehouse, contributing	NRHP-eligible, A
61c	Residence, contributing	NRHP-eligible, A

Determination of Effects

Property #38

Direct Effect: The current parcel boundary is 26.35 acres in size and TxDOT considers this the NRHP-property boundary. TxDOT proposes to acquire a minor amount of ROW measuring approximately 10' wide along the west side of the property (approximately 0.08654 acre or less than one percent) from the farmstead boundary, constituting a *de minimis* use of the historic property. The land in the ROW use consists of non-agricultural vegetation (grass and a few trees). The closest contributing resource to the new ROW line is #38a, which would be approximately 40' away (currently approximately 50' from ROW line). Therefore, these minor changes pose **no adverse effect** as the property would still possess its significance following completion of the project. The proposed project would not adversely affect the property's integrity of location, setting, feeling, association, design, materials or workmanship.

Indirect Effect: Project activities pose minimal potential to cause indirect effects. The widening of an at grade roadway 40 feet away from contributing features of the property would not affect or diminish the qualities and characteristics that contribute to the historic significance of the

farmstead. Visual impacts would not change as the proposed project is at grade. A noise analysis found no noise impact to the property (see HRSR Appendix B).

Cumulative Effect: Project activities pose no foreseeable cumulative adverse effects to the farmstead as the project is relatively minor in scope.

Property #61

The proposed roadway widening and flood control improvements pose **no effect** to the NRHP-eligible Property #61. No new ROW is required from the property. The proposed project would not impact any character defining features or contributing resources of the cotton gin. It would not diminish its integrity of location, setting, design, materials, workmanship, association or feeling through direct impacts or the introduction of indirect visual effects not already present. Property 61 is approximately 218 feet west of the nearest roadway improvements (the property is actually located on SH 36, not FM 2218, but does fall within the APE). The proposed work is at grade. Similarly, the flood control improvements are at or below grade and would not have any visual effect. Thus, there are no indirect or cumulative effects to this NRHP-eligible property.

Determination of *De Minimis* Finding

As part of this coordination, TxDOT determined that the proposed project meets the requirements for a Section 4(f) *de minimis* impact finding under 23 CFR 774. TxDOT based its determination on the fact that the use for the farmstead property (#38) amounts to less than 1% of the property's overall acreage and the project will have **no adverse effect** on the NRHP-listed property. The function of the farmstead will not be impaired, nor will it cease. The work would take place on non-productive land and the closest contributing resource is located at least 40 feet from the proposed new ROW.

Conclusion

In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings (December 2015), I hereby request your signed concurrence with TxDOT's finding of **no adverse effect** to the NRHP-eligible farmstead property (#38). We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the afore-mentioned MOU dated December 16, 2014.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please contact me at (512) 416-2611 or Renee.Benn@txdot.gov.

Sincerely,

Renee Benn, MS

Cc: Bruce Jensen, Cultural Resource Management Section Director: BA

Joe Janecka, property owner

CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:
HISTORIC PROPERTY PRESENT: NRHP-ELIGIBLE FARMSTEAD
NO ADVERSE EFFECT: NRHP-ELIGIBLE FARMSTEAD

NAME: _____ DATE: 13 June 2017
for Mark Wolfe, State Historic Preservation Officer

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

NAME: _____ DATE: 13 June 2017
for Mark Wolfe, State Historic Preservation Officer

Texas Department of Transportation
125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

December 12, 2016

Section 106/Antiquities Code of Texas: Archeological Review (Permit #7802)
Farm-to-Market Road (FM) 2218: United States Highway (US) 59 to State Highway (SH) 36
Houston District; Fort Bend County (**2093-01-010**)

Ms. Patricia A. Mercado-Allinger
Division Director/State Archeologist
Archeology Division
Texas Historical Commission
PO Box 12276
Austin, TX 78711-2276

Dear Ms. Mercado-Allinger:

The proposed project will be undertaken with Federal funding. In accordance with Section 106 (and the First Amended Programmatic Agreement among the Texas Department of Transportation [TxDOT], the Texas State Historical Preservation Officer [TSHPO], the Federal Highway Administration [FHWA], and the Advisory Council on Historic Preservation) and the Antiquities Code of Texas (and the Memorandum of Understanding between the Texas Historical Commission [THC] and TxDOT), this letter initiates consultation for the proposed undertaking.

TxDOT's Houston District is proposing to improve FM 2218 from US 59 to SH 36 in Fort Bend County, Texas. The proposed 3.7 mile long project would improve FM 2218 by widening the existing roadway to a four-lane divided roadway. The proposed improvements would include two 12 foot wide travel lanes in each direction and a 15 foot wide grass median with 12 foot wide left-turn lanes. These improvements would also include 3 foot wide shared use bike lanes on either side of the roadway as well as 5 foot wide paved sidewalks adjacent to the bike lanes, Storm water drainage would be conveyed by curb and gutter, with two outfall channels and two detention ponds on the west side of the roadway. The proposed project improvements would require approximately 49.7 acres of new right-of-way (ROW). The existing ROW (usual) is 100 feet in width. The addition of proposed ROW would widen the ROW by 20 feet. The APE covers a total of 93 acres. The depth of construction impacts is approximately 3 feet usual, and no more than 10 feet maximum for storm water drainage improvements.

For this project, an archeological subcontractor, AmaTerra Environmental, Inc. (AmaTerra), conducted an intensive archeological survey on behalf of TxDOT. Numerous parcels within the APE were denied right-of entry (ROE); the survey included only 58% of the proposed ROW and inventory for archeological resources is incomplete. The intensive survey consisted of pedestrian survey and shovel-testing. Subsurface testing was performed via 71 shovel-tests on proposed ROW. There are no recorded sites within or adjacent to the APE and the inventory did not encounter any prehistoric or historic archeological materials. AmaTerra recommends that no further archeological investigation is needed in the areas previously surveyed or identified as no survey warranted and construction should be allowed to proceed. They further recommend that two areas that were denied ROE still need to have inventory completed, one along the northernmost proposed outfall drainage channel and the other at the southernmost end of the

project area where a detention pond and intersection improvements are proposed. TxDOT agreed with these recommendations. TxDOT requests permission to defer the remainder of the survey until that time that access is acquired and allowing the National Environmental Policy Act process, and property acquisition, to continue. Once access has been acquired, TxDOT would be obligated to complete the intensive survey. No construction may commence in any unsurveyed portion of the APE until the archeological inventory and coordination with your office is completed.

Please find attached for your review and comments the AmaTerra draft survey report; *Archeological Survey, Proposed Improvements to Farm-to-market Road 2218 between United States (US) Highway 59 to State Highway (SH) 36, Fort Bend County, Texas*. If you have no objections to the recommendations and request made or any comments on this report and find it acceptable, please sign below to indicate your concurrence and stamp the draft cover as acceptable.

Thank you for your consideration in this matter. If you have any questions or further need of assistance, please contact Allen Bettis of the TxDOT Archeological Studies Program at (512) 416-2747.

Sincerely,

Allen C. Bettis Jr.
Archeological Studies Program
Environmental Affairs Division

Attachment
cc w/o attachments: Rachel Feit, AmaTerra Environmental, Inc.
Tunisia Hardy, Houston District Office
ACB ECOS

Mark S. Wolfe 12-15-16

Concurrence by: Date:
for Mark S. Wolfe, State Historic Preservation Officer

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.

Archeological Survey for Proposed Improvements to Farm-To-Market Road 2218 between US Highway 59 to SH 36 in Fort Bend County, Texas

by

Katherine Seikel

Principal Investigator:
Rachel J. Feit

CSJ: 2093-01-010

Antiquities Permit No. 7802

Prepared for

Texas Department of Transportation,
Houston District

DRAFT REPORT ACCEPTABLE
by
for Mark Wolfe
Executive Director, THC
Date 12-15-16
Track#

Technical Report No. 186

Prepared by

AmaTerra Environmental, Inc.

Austin, Texas

November 2016

Re: Response to Request for TCEQ Environmental Review

The Texas Commission on Environmental Quality (TCEQ) received a request from the Texas Department of Transportation (TxDOT) regarding the following project: MOU Review - (FM) 2218 Project

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

The Office of Water does not anticipate significant long term environmental impacts from this project as long as construction and waste disposal activities associated with it are completed in accordance with applicable local, state, and federal environmental permits, statutes, and regulations. We recommend that the applicant take necessary steps to ensure that best management practices are used to control runoff from construction sites to prevent detrimental impact to surface and ground water.

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

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

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

Texas Department of Transportation
125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

February 27, 2018

Transmitted Via E-mail

Mrs. Barbara C. Maley, AICP
Env/Tranp Plan Coord & Air Quality Specialist
Barbara.Maley@dot.gov

Re: Request for Project-Level Conformity Determination
Fort Bend County
CSJ 2093-01-010
FM 2218: From US 59 (IH 69) to SH 36

Dear Mrs. Maley:

Attached is the copy of the Transportation Conformity Report Form for your review and concurrence.

A project-level conformity determination is requested from you. Please note that TxDOT is respectfully requesting an expedited turnaround time prior to March 15, 2018. If you have any questions regarding this project, please contact me at (512) 416-2659.

Sincerely,

DocuSigned by:
Timothy Wood
C9CB724D35CE4BD...

Tim Wood
Air Specialist
Environmental Affairs Division

Attachment(s)

Transportation Conformity Report Form

Project Facility Name: FM 2218

MPO Project IDs: 13

Project CSJ Numbers: 2093-01-010

Project Limits

From: US 59 (IH 69)

To: SH 36

Project Sponsor: TxDOT

Project Description[1]: Widen from 2 to 4 lanes divided

Date of anticipated environmental decision/re-evaluation: March 2018

Let Year: 2019

ETC[2] Year: 2020

Conformity Year[3]: N/A - non-regionally significant

Total Project Cost: $58 million

Adding Capacity? ☒ Yes ☐ No

Counties: Fort Bend

Project Classification: ☐ CE ☒ EA ☐ EIS ☐ Re-evaluation

Important Information

A determination of project-level conformity is not permanent. It is recommended that conformity be checked early and often in the project development process, but that this specific form be coordinated within 60 days of the anticipated environmental decision to avoid coordinating the form more than once. The following events would require a project's conformity determination to be reevaluated.

1. Changes to the project's design concept, scope, limit, funding, or estimated time of completion (ETC) year
2. Changes to the project's listing in the MTP, TIP, or STIP related to design concept, scope and limits; funding or ETC year
3. New conformity determinations on the applicable MTP, TIP, or STIP (even if it occurs after the FHWA/FTA project-level conformity determination has been made)

---

[1] Project description, project details, and other project information should include enough detail in order to make a determination of project consistency with the MTP, TIP, STIP, and corresponding transportation conformity determination.

[2] The ETC or estimated time of completion year is the date the entire project as described in the environmental review document will be open to traffic.

[3] If this project is NOT considered regionally significant by the MPO, enter "N/A – non-regionally significant". In addition, note that the conformity year is sometimes referred to as the network year. When a MTP identifies a specific timeframe during which a project will be operational, the last year of that timeframe is the conformity year.

In particular, if there is a planned MTP update/amendment and associated transportation conformity determination expected to be completed on or near the time of project approval, it is recommended that the project sponsor prepare this conformity determination after the plan update/amendment and associated transportation conformity determination is completed, if the update/amendment will affect the project as specified in item 1 above. Consult with ENV air specialist if further assistance is needed.

Instructions

Check the appropriate box for each question, using the most current information available, and be aware that the answers will dictate which questions must be answered for each specific project. Start with Step One, and follow the instructions included in each step, if any additional instructions are provided.

The information displayed between carets, <like this> represents a field that should be customized with project specific information. In the electronic file, these fields are highlighted in grey. Content prompts, like ***Choose an item***, represent dropdown menus, which also must be customized with project specific information.

If the form requires the preparer to "STOP" because something is lacking, then it is recommended that the time it would take to make the necessary changes to the MTP, TIP, or project should be re-evaluated against the project's proposed letting date (i.e., letting date may need to be adjusted).

Step 1: Is this a federal project with a federal lead other than FHWA/FTA?

☐ **Yes – STOP. Transportation conformity does not apply to the project, however, general conformity may apply.**

Consult the ENV air specialist regarding this project and potential general conformity requirements.

☒ No – Continue to Step 2.

Step 2: Is this a FHWA/FTA project[4]?

☒ Yes – Proceed to Step 4.

☐ No – Continue to Step 3.

Step 3: Is this project considered regionally significant[5] in accordance with 40 CFR 93.101 or 30 TAC 114.260(d)(2)(iv)?

☐ Yes – Continue to Step 4.

☐ No **– STOP. In accordance with 40 CFR 93.102(a)(2), a project level transportation conformity determination is not required for non-regionally significant, non-FHWA/FTA projects.**

[4] Note that this includes projects which may not have federal funding but would otherwise require federal approval.

[5] If a project is on the MPO's NON-regionally significant project list, it is not regionally significant. Each MPO may have different criteria for designating a project as regionally significant.

Step 4: Is the project located in a nonattainment or maintenance area[6] for ozone[7], nitrogen dioxide (NO2), carbon monoxide (CO), particulate matter (PM2.5 or PM10)?

☒ Yes – **Transportation conformity rules apply.** The project is located in the EPA designated **Houston Galveston Brazoria** moderate non-attainment[8] area for ozone. Continue to Step 5.

☐ No – **STOP. Transportation conformity does not apply to the project.**

Step 5: Is the project exempt[9] from conformity in accordance with 40 CFR 93.126[10] or 40 CFR 93.128[11]?

☐ Yes – **STOP. Transportation conformity does not apply to the project.** This project falls under the following exemption: ***Choose an item.***

☒ No – Continue to Step 6.

Step 6: Is the project exempt from the regional conformity analysis in accordance with 40 CFR 93.127?

☐ Yes – **The project is exempt from regional conformity requirements.** This project falls under the following exemption: ***Choose an item.*** Proceed to Step 16.

☒ No – Continue to Step 7.

Step 7: Does the project fall within the boundaries[12] of an MPO?

☒ Yes – Proceed to Step 9.

☐ No – Continue to Step 8.

---

[6] If unsure about the nonattainment or maintenance status, it can be checked in multiple locations, including: the EPA Greenbook, the TCEQ website, or the applicable table in the Air Quality toolkit.

[7] Note the 1997 ozone standard was revoked by EPA.

[8] Area classifications can be either maintenance, marginal nonattainment, moderate nonattainment, serious nonattainment, severe nonattainment, or extreme nonattainment

[9] Most added capacity projects will not be exempt, whereas most non-added capacity projects will be exempt.

[10] Ultimately, the interpretation of what projects types meet these exemption criteria is under the purview of the federal lead agency. For example, although it could be interpreted to meet some of the exemption project types, a project changing from general purpose to managed lanes is NOT considered to be exempt from conformity.

[11] Grouped CSJ projects, by rule, must be exempt under these criteria.

[12] i.e., within a Metropolitan Planning Area (MPA)

Step 8: Is the project design concept, scope and limits, conformity analysis year, and funding consistent with an approved[13] regional conformity analysis for an isolated rural area that meets the requirements of 40 CFR 93.109?

☐ Yes – **The project is consistent with an approved regional conformity determination that meets the requirements of 40 CFR 93.109 for isolated rural areas.** Proceed to Step 16.

☐ No **– STOP. The project is not consistent with a regional conformity determination for an isolated rural area. TxDOT will not take final action until the project is consistent with an approved regional conformity determination that meets the requirements of 40 CFR 93.109 for isolated rural areas.**

Do not sign this form. Please ensure that the project is included in and consistent with an approved regional conformity determination then reevaluate the project using this form.

Step 9: Are all of the project phases[14] for the entire project described in the environmental document included in the fiscally constrained portion of the MTP?

☒ Yes – Continue to Step 10.

☐ No **– STOP. The project was not included in the area's regional conformity determination, and, therefore, is not consistent with it.** The MTP needs to be amended to include this project and a new conformity determination needs to be made on the MTP before consistency can be determined for the project, or the project needs to be revised to be consistent with the existing MTP.

Consult with the district TP&D and MPO on how to proceed.

Step 10: Is at least one phase of the project beyond the NEPA study (corridor study) included in either the appropriate year of the conforming TIP[15] or in Appendix D (if will not be let within the timeframe of the TIP)?

☒ Yes – Continue to Step 11.

☐ No **– STOP. The project is not included in the conforming TIP and is therefore not consistent with it.** At least one phase of the project must be added to the conforming TIP before consistency can be determined.

Consult with the district TP&D and MPO on how to proceed.

[13] The consultation partners are responsible for approving regional conformity analyses.

[14] A project phase is a separate portion of a project such as: NEPA study, ROW acquisition, final design, construction, and/or partial construction.

[15] In Texas, a conforming TIP is one that has been included into the STIP, so projects must be in the STIP in order to show that they come from a conforming TIP.

Step 11: Are the current project limits the same[16] or do they fall within the project limits listed in the MTP and STIP?

☒ Yes – Continue to Step 12.

☐ No – **STOP. The project is not consistent with the conforming MTP and TIP**. Either the MTP and TIP, or the project needs to be revised before consistency can be **determined.**

Consult with the district TP&D and MPO on how to proceed.

Step 12: Is the activity being proposed the same as that in the MTP and STIP project description in both type[17] of facility and number[18] of lanes?

☒ Yes – Continue to Step 13.

☐ No – **STOP. The project is not consistent with the conforming MTP and TIP.** Either the MTP and TIP, or the project needs to be revised before consistency can be determined.

Consult with the district TP&D and MPO on how to proceed.

***Step* 13:** Does the project's ETC year fall between its identified conformity year[19] in the MTP and the previous conformity year identified in the MTP?

☐ Yes – Continue to Step 14.

☐ No – **STOP. The project is not consistent with the conforming MTP and TIP.** Either the MTP and TIP or the project needs to be revised before consistency can be determined.

Consult with the district TP&D and MPO on how to proceed.

☒ N/A – This project is non-regionally significant. Continue to Step 14.

Step 14: Is the estimated total project cost or the cost identified in the MTP greater than $1,500,000?

☒ Yes – Proceed to Step 15.

☐ No – Fiscal constraint requirements do not apply. This project is consistent with the currently conforming MTP and TIP. Proceed to Step 16.

---

[16] The limits are considered the same if the logical termini noted in the environmental document fall within the limits of the project noted in the MTP or the logical termini noted in the environmental document are not significantly greater (~1mile) than the limits noted in the MTP due to transition areas for safety or other factors required to be considered when establishing logical termini for environmental document purposes.

[17] The type of activity refers to the type of enhancement, such as: main lanes, frontage roads, HOV lanes, direct connectors, bridge replacement, etc…

[18] The number refers to the amount of each activity type, such as: number of main lanes or number of frontage lanes.

[19] For the purposes of this determination, the term conformity year is synonymous with the network analysis year for the MTP.

Step 15: Does the estimated project cost exceed what is contained in the MTP by more than 50%[20]?

☐ Yes – **STOP. The project is not consistent with the MTP and TIP because it is not fiscally constrained.** Either the MTP and TIP, or the project needs to be revised before consistency can be determined or a case-by-case decision will need to be made by FHWA.

Consult with the district TP&D and MPO on how to proceed.

☒ No – **This project is consistent with the currently conforming MTP and TIP**. Continue to Step 16.

Step 16: Is the project located in either a CO, $PM_{2.5}$, or PM_{10} nonattainment or maintenance area?[21]

☐ Yes – Continue to Step 17.

☒ No – **Hot-spot conformity requirements do not apply.** Proceed to Step 21.

Step 17: Is this a state or local project with NO federal funding and NO federal decision required?

☐ Yes – **Hot-spot conformity requirements do not apply.** Proceed to Step 21.

☐ No – **Hot-spot conformity requirements apply.** Request the local MPO to initiate a consultation call with the Consultation Partners.

Fill out the Hot-Spot Analysis Data for a Consultation Partner Decision Form to present the project data to the Consultation Partners for review prior to the consultation call.

Continue to Step 18.

Step 18: Did the consultation partners determine that this is a project of air quality concern (POAQC)?

☐ Yes – **A hot-spot analysis is required and must be approved by the consultation partners.**

Conduct a hot-spot analysis in accordance with the methodology approved by the consultation partners, and use the applicable EPA hot-spot guidance.

Continue to Step 19.

☐ No – **A hot-spot analysis is not required because the project is not a POAQC. The consultation partners made this determination on <insert date>.**

Proceed to Step 21.

[20] Multiply the MTP cost by 1.5. The current estimated total project cost should not exceed this amount.

[21] Note that this currently only applies to projects in El Paso.

Step 19: Does the approved hot-spot analysis verify that the project will not cause, contribute to, or worsen a violation of applicable CO, $PM_{2.5}$, or PM_{10} NAAQS or that the project will at least improve conditions from that of the no-build alternative?

☐ Yes – **The project is not anticipated to cause, contribute to, or worsen a violation of the applicable NAAQS.** Continue to Step 20.

☐ **No – STOP. The project, as it is currently presented, does not comply with conformity requirements because it is anticipated to cause, contribute to, or worsen a violation of the applicable NAAQS.**

Identify and get consultation partner agreement upon mitigation measures to offset project impacts to air quality. Reevaluate this project using this form once these mitigation measures have been identified and committed to.

Step 20: Have all the agreed upon mitigation measures as well as any applicable SIP control measures received a written commitment?

☐ Yes – Continue to Step 21.

☐ **No – STOP.**

Do not proceed until there are written commitments to implement all the agreed upon mitigation measures and any applicable SIP control measures. Reevaluate this project using this form once these commitments have been made in writing.

☐ N/A because no mitigation is required and there are no applicable SIP control measures which affect this project, Continue to Step 21.

Step 21: The transportation conformity evaluation is complete.

Attach applicable pages of the MTP and TIP, or the STIP, project schematics, typical sections, hot-spot analyses and determinations, and any conformity related public comment and response. Implement the following processing instructions as applicable.

☐ This is a regionally significant State-only project with no FHWA/FTA action required (the answer to Steps 3 is yes); therefore:

Submit this form to the ENV air specialist. If ENV concurs that all project level conformity requirements have been met, ENV shall sign the form below. Coordination with FHWA/FTA is not required.

Retain this form in the project file.

☒ This is a FHWA/FTA non-exempt project (the answer to Steps 2 and 4 is yes, and the answer to Steps 5 and 6 is no); therefore:

Submit this form to the ENV air specialist. After ENV air specialist review, ENV will coordinate this form with FHWA/FTA for a project level conformity determination. If FHWA/FTA agrees that all project level conformity requirements have been met, they shall sign the project level conformity determination line below. A project level conformity determination is not complete and project clearance cannot be given until FHWA/FTA signs this form.

Retain this form and any coordination with FHWA/FTA in the project file.

TxDOT ENV Transportation Conformity Validation Complete:

Project CSJ Numbers: 2093-01-010

Signature DocuSigned by: Timothy Wood C9CB724D35CE4BD...

Name: Timothy Wood

Title: Environmental Specialist

Date: 2/27/2018

FHWA/FTA Determination of the Project-level Conformity:

Signature _____

Name: _____

Title: Air Quality Specialist and Transportation Planning Coordinator

Date: _____

REGIONAL INVESTMENT PROGRAMS, EXEMPT AND NOT REGIONALLY SIGNIFICANT PROJECTS IN FIRST TEN YEARS (FY2015-2025)

MPOID	CSJ	County	Sponsor	Facility	From	To	Description	Fiscal Year	Total Project Cost (M, YOE)
THOROUGHFARE DEVELOPMENT									
17050	0188-10-021	Fort Bend	TXDOT HOUSTON DISTRICT	FM 1463	IH 10	N OF WESTRIDGE CREEK LN	WIDEN FROM 2-LANE TO 4 AND 6-LANE DIVIDED ROADWAY WITH RAISED MEDIAN, INTERSECTION IMPROVEMENTS AND PEDESTRIAN AND BICYCLE ACCOMMODATIONS	2019	$ 47.56
11	0188-10-028	Fort Bend	TXDOT HOUSTON DISTRICT	FM 1463	N OF WESTRIDGE CREEK LN	FM 1093	WIDEN FROM 2-LANE TO 4 AND 6-LANE DIVIDED ROADWAY WITH RAISED MEDIAN, INTERSECTION IMPROVEMENTS AND PEDESTRIAN AND BICYCLE ACCOMMODATIONS	2021	$ 55.09
13	2093-01-010	Fort Bend	TXDOT HOUSTON DISTRICT	FM 2218	US 59	SH 36	WIDEN FROM 2 LANES TO 4-LANE DIVIDED	2019	$ 41.82
980		Fort Bend	CITY OF MISSOURI CITY	FM 2234	US 90A	LEXINGTON BLVD	WIDEN FROM 4 TO 6-LANES UNDIVIDED	2020	$ 11.35
15	2105-01-020	Fort Bend	TXDOT HOUSTON DISTRICT	FM 2234	FORT BEND PARKWAY	FM 521	WIDEN 2 LANES TO 4-LANE DIVIDED RURAL SECTION	2015	$ 25.60
981	0188-09-040	Fort Bend	TXDOT HOUSTON DISTRICT	FM 723	N OF BRAZOS RIVER	FM 1093	WIDEN FROM 2-LANE TO 4-LANE DIVIDED ROADWAY WITH SHOULDERS AND SIDEWALKS	2020	$ 135.10
17068	0188-09-042	Fort Bend	TXDOT HOUSTON DISTRICT	FM 723	AVENUE D	N OF BRAZOS RIVER	WIDEN FROM 2-LANE TO 4-LANE DIVIDED ROADWAY WITH SHOULDERS AND SIDEWALKS	2019	$ 19.40
2381		Fort Bend	FORT BEND COUNTY	GUBBELS RD	AT WATERS LAKE BAYOU		REPLACE BRIDGE	2023	$ .55
14753		Fort Bend	FORT BEND COUNTY	HARLEM RD	SH 99	PLANTATION DR	RECONSTRUCT EXISTING 2-LANE TO 4-LANE CURB & GUTTER WITH OPEN DITCH DRAINAGE.	2015	$ 5.95
15487	0912-34-182	Fort Bend	CITY OF MISSOURI CITY	HURRICANE LN AND LAKE OLYMPIA	FORT BEND PKWY	TRAMMEL-FRESNO RD	CONSTRUCT 2-LANE CONCRETE ROADWAY TO EXISTING INTERCHANGE AT FORT BEND PKWY	2016	$ 5.91
652		Fort Bend	FORT BEND COUNTY	LAKE OLYMPIA	FORT BEND PARKWAY TOLL RD	CHIMNEY ROCK RD	CONSTRUCT 4-LANE UNDIVIDED ROAD	2018	$ 5.80
2387		Fort Bend	FORT BEND COUNTY	OLD NEEDVILLE FAIRCHILD RD	SH 36	FM 361	UPGRADE 2-LANE ROADWAY	2023	$ 5.82
2392		Fort Bend	FORT BEND COUNTY	SAWMILL RD	AT WATERS LAKE BAYOU		REPLACE BRIDGE	2023	$ .18
475		Fort Bend	CITY OF SUGAR LAND	STADIUM DR	N OF OYSTER CREEK	BURNEY RD	CONSTRUCT 4-LANE ROADWAY	2015	$ 17.00
13637		Fort Bend	CITY OF MISSOURI CITY	TEXAS PKWY/FM 2234	LEXINGTON BLVD	CARTWRIGHT RD	WIDEN 4 TO 6-LANES DIVIDED	2020	$ 9.55

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

STIP Portal

Logged in as Tim Wood Log Out

Project Management | Reports | Support

Project Management > Area List > STIPs (M-HOUSTON-GALVESTON) > Revisions () > TIP Instances (Unassigned) > Highway Projects (Unassigned) > Project Details

Color Key: - Business rule violation - Value changed in current session - Different from DCIS or latest approved copy

Data

Statewide

TIP Revision: None

District: HOUSTON

County: FORT BEND

MPO: HOUSTON-GALVES

Highway: FM 2218

CSJ: 2093 - 01 - 010

TIP FY: 2019

Phase: Construction; Engineering; Environmental; Engineering; Right-of-Way; Acquisition; Utilities; Transfer

Revision Date: 11/2017

Project Sponsor: TXDOT

MPO Proj Number: 13

MTP Reference:

City: ROSENBERG

NOX (Kg /D): 0.0000

VOC (Kg /D): 0.0000

PM10 (Kg /D): 0.0000

PM2.5 (Kg /D): 0.0000

CO (Lbs /D):

Limits From: US 59

Limits To: SH 36

Project Description: WIDEN FROM 2 LANES TO 4-LANE DIVIDED

P7 Remarks:

Project History: Amendment OCT-2017 - 10/27/17 - Modify Cat-2 funding and reflect potential use of federal funds.

Total Project Cost Information

Prelim Engineering	$1,726,172
ROW Purchase	$15,280,000
Construction Cost	$35,228,000
Const Engineering	$1,409,120
Contingencies	$3,522,400
Indirect Costs	$1,789,582
Bond Financing	$0
Potential Chg Ord	$0
Total Project Cost	$58,955,274
YOE Cost	
Toll	
TCM	

Authorized Funding by Category/Share

Category	Federal	State	Regional	Local	Local Contributions	Total
2M	$28,182,400	$7,045,600	$0	$0	$0	$35,228,000
Total	$28,182,400	$7,045,600	$0.00	$0.00	$0.00	$35,228,000

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
HOUSTON	HOUSTON-GALVESTON	FORT BEND	2093-01-010	FM 2218	C	ROSENBERG	$ 35,228,000

LIMITS FROM: US 59
LIMITS TO: SH 36
PROJECT SPONSOR: TXDOT
REVISION DATE: 11/2017
MPO PROJ NUM: 13
FUNDING CAT(S):
PROJECT DESCR: WIDEN FROM 2 LANES TO 4-LANE DIVIDED
REMARKS P7:
PROJECT HISTORY: Amendment OCT-2017 - 10/27/17 - Modify Cat-2 funding and reflect potential use of federal funds.

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,726,172
ROW PURCH:	$ 15,280,000
CONST COST:	$ 35,228,000
CONST ENG:	$ 1,409,120
CONTING:	$ 3,522,400
INDIRECT:	$ 1,789,582
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 58,955,274

COST OF APPROVED PHASES $ 35,228,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
2M	$ 28,182,400	$ 7,045,600	$ 0	$ 0	$ 0	$ 35,228,000
TOTAL	$ 28,182,400	$ 7,045,600	$ 0	$ 0	$ 0	$ 35,228,000

TIP History

2017-2020 STIP — **11/2017 Revision: Approved 02/27/2018**

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
HOUSTON	HOUSTON-GALVESTON	FORT BEND	2093-01-010	FM 2218	C	ROSENBERG	$ 35,228,000

LIMITS FROM: US 59
LIMITS TO: SH 36
PROJECT SPONSOR: TXDOT
REVISION DATE: 11/2017
PROJECT DESCR: WIDEN FROM 2 LANES TO 4-LANE DIVIDED
MPO PROJ NUM: 13
FUNDING CAT(S):
REMARKS P7:
PROJECT HISTORY: Amendment OCT-2017 - 10/27/17 - Modify Cat-2 funding and reflect potential use of federal funds.

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,726,172
ROW PURCH:	$ 15,280,000
CONST COST:	$ 35,228,000
CONST ENG:	$ 1,409,120
CONTING:	$ 3,522,400
INDIRECT:	$ 1,789,582
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 58,955,274

COST OF APPROVED PHASES $ 35,228,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
2M	$ 28,182,400	$ 7,045,600	$ 0	$ 0	$ 0	$ 35,228,000
TOTAL	$ 28,182,400	$ 7,045,600	$ 0	$ 0	$ 0	$ 35,228,000

2017-2020 STIP — **07/2016 Revision: Approved 12/19/2016**

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
HOUSTON	HOUSTON-GALVESTON	FORT BEND	2093-01-010	FM 2218	C	ROSENBERG	$ 35,524,000

LIMITS FROM: US 59
LIMITS TO: SH 36
PROJECT SPONSOR: TXDOT
REVISION DATE: 07/2016
PROJECT DESCR: WIDEN FROM 2 LANES TO 4-LANE DIVIDED
MPO PROJ NUM: 13
FUNDING CAT(S): 2M
REMARKS P7:
PROJECT HISTORY:

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,740,676
ROW PURCH:	$ 0
CONST COST:	$ 35,524,000
CONST ENG:	$ 1,420,960
CONTING:	$ 3,552,400
INDIRECT:	$ 1,804,619
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 44,042,655

COST OF APPROVED PHASES $ 35,524,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
2M	$ 0	$ 35,524,000	$ 0	$ 0	$ 0	$ 35,524,000
TOTAL	$ 0	$ 35,524,000	$ 0	$ 0	$ 0	$ 35,524,000

2015-2018 STIP — **11/2015 Revision: Not Approved 01/22/2016**

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
HOUSTON	HOUSTON-GALVESTON	FORT BEND	2093-01-010	FM 2218	C	ROSENBERG	$ 35,524,000

LIMITS FROM: US 59
LIMITS TO: SH 36
PROJECT SPONSOR: TXDOT
REVISION DATE: 11/2015
PROJECT DESCR: WIDEN FROM 2 LANES TO 4-LANE DIVIDED
MPO PROJ NUM: 13
FUNDING CAT(S):
REMARKS P7:
PROJECT HISTORY: Amendment #37 - 11/20/15 - Add to the TIP. Programmed using anticipated Prop 7 funding.

TOTAL PROJECT COST INFORMATION

PRELIM ENG:	$ 1,740,676
ROW PURCH:	$ 0
CONST COST:	$ 35,524,000
CONST ENG:	$ 1,420,960
CONTING:	$ 3,552,400
INDIRECT:	$ 1,804,619
BOND FIN:	$ 0
POT CHG ORD:	$ 0
TOTAL COST:	$ 44,042,655

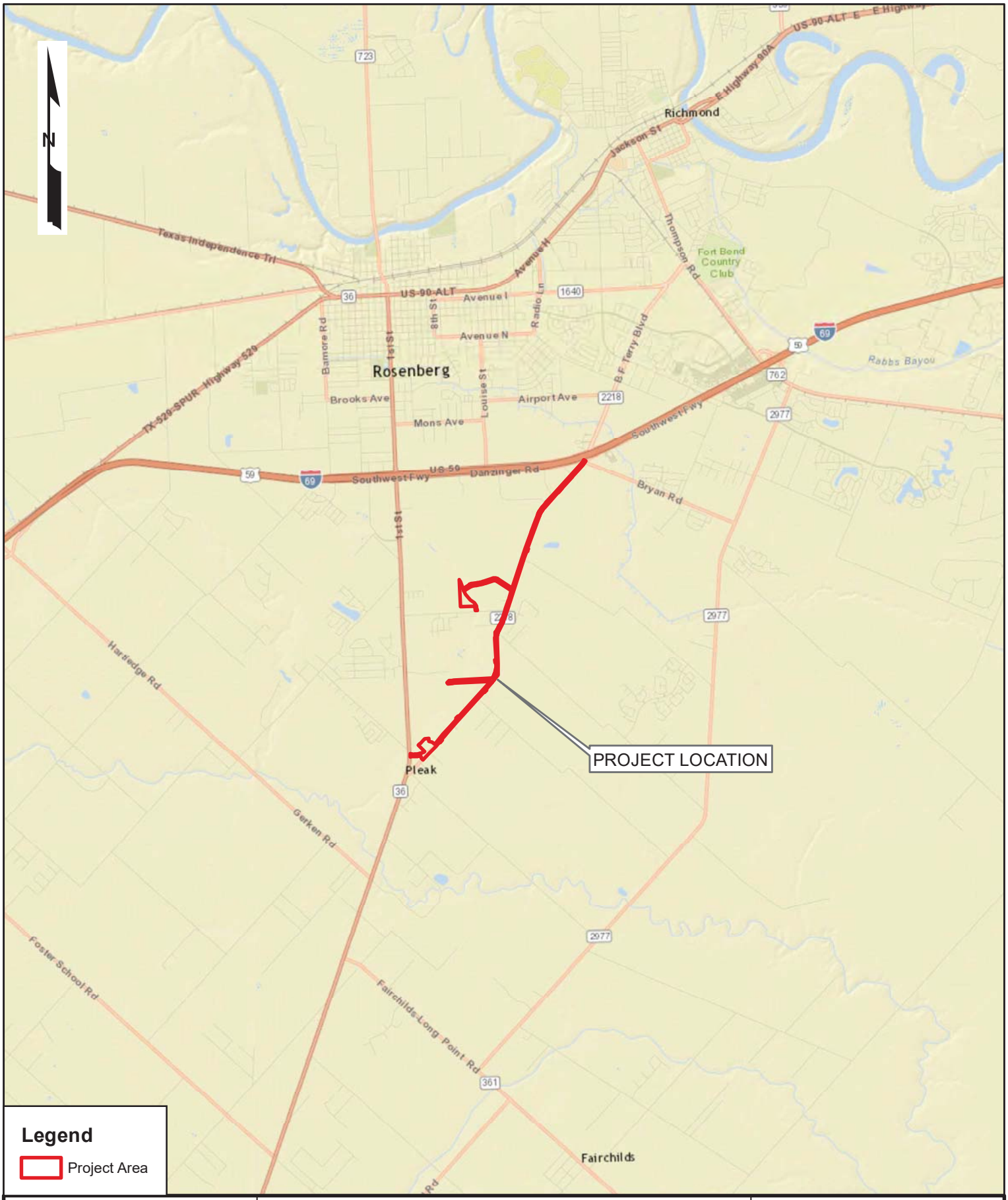
COST OF APPROVED PHASES $ 35,524,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
2M	$ 0	$ 35,524,000	$ 0	$ 0	$ 0	$ 35,524,000
TOTAL	$ 0	$ 35,524,000	$ 0	$ 0	$ 0	$ 35,524,000

Comment History

Time	User	Comment	Related Approval
2017/11/29 12:56:50	**Barbara Maley**		**11/2017: Approved**
2016/10/17 15:24:19	**Jose Campos**		**07/2016: Approved**
2016/06/01 20:56:56	**David Wurdlow**	2040 RTP documentation has been updated to reflect a reasonable estimate of Proposition 1 and Proposition 7 funds. See the H-GAC website http//www.h-gac.com/taq/plan/2040TIP Amendment modifies the RTP. Project involves improvements exempt from conformity/regional emissions analysis or to facilities not considered regionally significant under the accepted conformity definition.	
2015/12/18 15:48:01	**Jose Campos**	Not approved. The proposed project reflects the use of Proposition 7 funding, however H-GACs 2040 RTP does not appear to reflect Proposition 7 funding. Additionally, the proposed project does not appear to be included in H-GACs 2040 RTP. Approval of this revision is withheld pending clarification of the proposed projects consistency with H-GACs conforming and fiscally constrained 2040 RTP.	**11/2015: Not Approved**



0 0.5 1 Miles

FM2218 (US 59 TO SH 36)

VICINITY MAP

Texas Department of Transportation

APPENDIX A EXHIBIT 1

FORT BEND COUNTY, TEXAS

DATE:
Jan. 2018

0 1,000 2,000 Feet

FM2218 (US 59 TO SH 36)

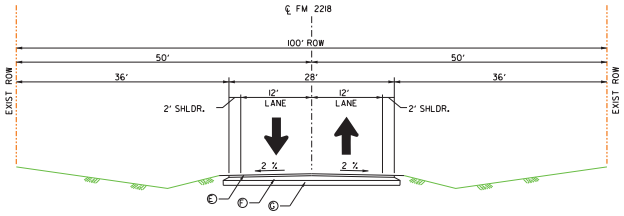
PROJECT LOCATION MAP

Texas Department of Transportation

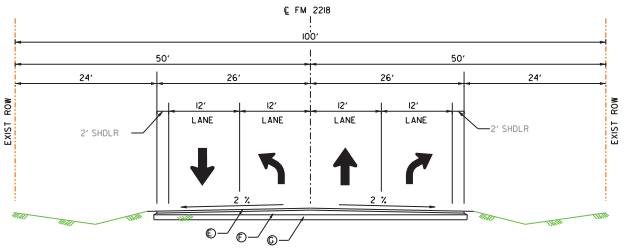
APPENDIX A EXHIBIT 2

FORT BEND COUNTY, TEXAS

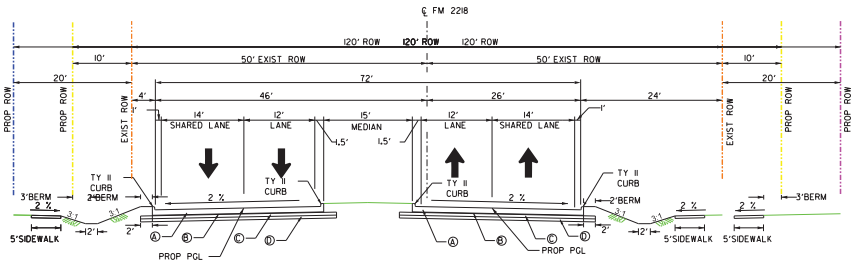
DATE:
JAN. 2018



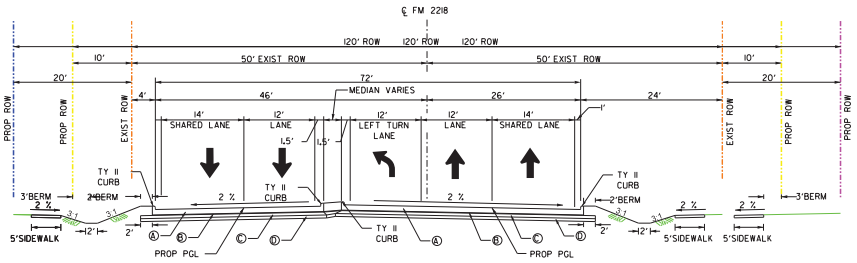
FM 2218 EXISTING TYPICAL SECTION



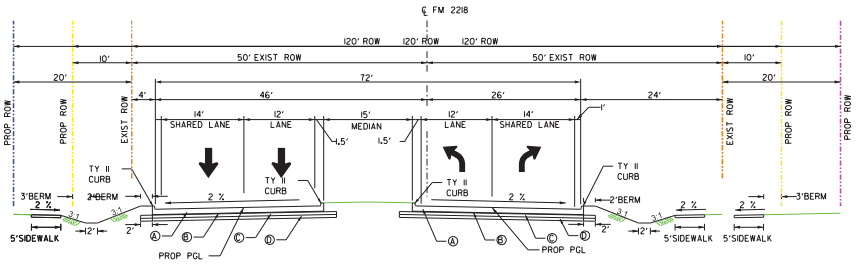
FM 2218 EXISTING TYPICAL SECTION
FROM SH 59 TO TOM GREY ROAD



FM 2218 PROPOSED TYPICAL SECTION



FM 2218 PROPOSED TYPICAL LEFT-TURN LANE SECTION



FM 2218 PROPOSED TYPICAL LEFT-TURN & RIGHT-TURN LANE SECTION

APPENDIX H: SECTION 4(f) and CHAPTER 26 DOCUMENTATION

Checklist for Section 4(f) *De Minimis* for Public Parks, Recreation Lands, Wildlife & Waterfowl Refuges, and Historic Properties

Main CSJ: 2093-01-010
District(s): Houston
County(ies): Fort Bend
Property ID: 1890s farmstead
Property Name: 1890s farmstead

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

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

What Type of Property is Being Evaluated?

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

Section 4(f) Defining Criteria for Historic Properties

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

Establishing Section 4(f) Use of the Property

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

Establishing Section 4(f) *De Minimis* Eligibility

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

Documentation

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

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

TxDOT Approval Signatures

ENV Technical Expert Reviewer Certification

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

ENV Personnel Name _____ Date 6.20.17

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

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

TxDOT-ENV, PD Director or designee _____ Date 6/21/17

Project description- FM 2218, Fort Bend Co

FM 2218 southeast of the city of Rosenburg currently consists of a 28-foot-wide roadway with two lanes with 2' shoulders and no sidewalk within a 100-foot wide ROW. Open ditches drain the roadway.

The proposed improvements consist of widening and reconstructing the existing undivided facility to a four lane (two lanes in each direction) divided roadway with a 15-foot wide median and a curb and gutter drainage system. The median proposed along FM 2218 would be a raised grass median with 12' wide left turn lanes at intersections. The turn lanes would be controlled (with signals) at major intersections and uncontrolled (without signals) at minor intersections and driveways. Left turns would not be permitted unless there is a break in the raised grass median. TxDOT proposes to modify the existing FM 2218 intersection with SH 36 to allow for a 90-degree, signaled intersection.

In addition, TxDOT proposes to construct a shared 3' bike lane on each side of the road parallel to FM 2218. The proposed project also calls for 5' sidewalks to be constructed along both sides of FM 2218 outside of the shared bike lane. Lastly, TxDOT proposes two outfalls and two detention ponds, all of which are located along the western side of FM 2218.

NRHP eligible property

Property #38 is a farmstead consisting of one c. 1890 farmhouse (#38a), one c. 1920 barn (#38b), a c. 1960 garage (#38c), two c. 1925 sheds (#38d & e), a c. 1950 windmill (#38f). Property #38 is a rural property which retains integrity in Fort Bend County with outbuildings dating to the historic-period. The NRHP-boundary includes the entire current parcel, with a period of significance of 1890-1970.

As a rural historic landscape (see HRSR page 16) property associated with the theme Post-Bellum Agriculture and Tenant Farming (1880-1941), Map I.D. 38 is determined eligible under Criterion A for agriculture at the local level of significance and under Criteria C at the local level of significance.

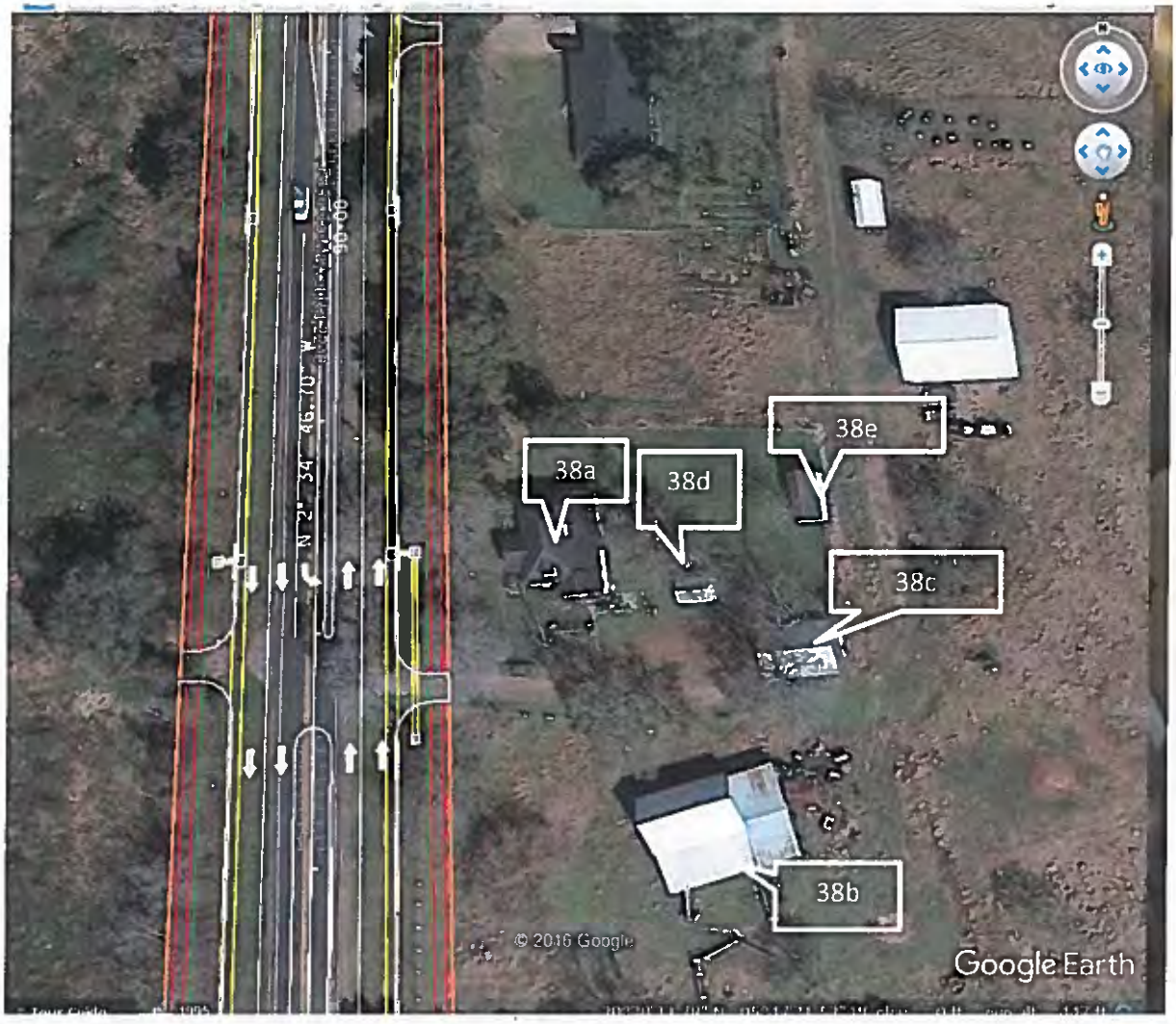
***De Minimis* Impact Finding**

The current farmstead parcel boundary is 26.35 acres in size and TxDOT determined the NRHP-property boundary is the current parcel boundary. TxDOT proposes to acquire a minor amount of ROW measuring approximately 10' wide along the west side of the property (approximately 0.08654 acre or less than one percent) from the farmstead boundary,

constituting a *de minimis* use of the historic property. TxDOT determined that the proposed project meets the requirements for a Section 4(f) *de minimis* impact finding under 23 CFR 774. TxDOT is basing its determination on the fact that the use for Property #38 amounts to less than 1% of the property's overall acreage and the project will have **no adverse effect** on the NRHP-eligible property. The Texas SHPO concurred with this determination and TxDOT notified SHPO of their OWJ role accordingly (see attached correspondence). The function of the farmstead will not be impaired, nor will it cease. TxDOT work would take place on what is currently grass and fenced cattle yard, and the closest NRHP-eligible resource (#38a) is located approximately 40' from the proposed new ROW line. This de minimis finding does not require the traditional second step of including all possible planning to minimize harm because avoidance, minimization, mitigation, or enhancement measures are included as part of this determination.

Property #38, NRHP parcel boundary (in red) overlaid on aerial photo.

Figures 7.1-7.3. Effects photos, Property #38, CSJ: 2093-01-010



Google earth view of property with schematic overlay. Orange is proposed ROW. White/yellow line is current ROW.

Figures 7.1-7.3. Effects photos, Property #38, CSJ: 2093-01-010

View of property looking south. Blue line (and stake) indicates current ROW, red line indicates proposed ROW.

Figures 7.1-7.3. Effects photos, Property #38, CSJ: 2093-01-010

Alternative view of front yard looking NE with red line indicating new ROW line. Blue line indicates current ROW.

Figures 7.1-7.3. Effects photos, Property #38, CSJ: 2093-01-010

View looking north. Red line shows location of approximate new ROW line. Blue line shows current ROW line. Two trees at left (Cedar and Elm) to be removed as part of proposed project. #38a on far right.

Rcvd. 5/25/17

Texas Department of Transportation

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

May 25, 2017

SECTION 106 REVIEW: DETERMINATION OF NO ADVERSE EFFECT
SECTION 4(f) REVIEW: NOTIFICATION OF INTENT TO RENDER *DE MINIMIS* SECTION 4(f) FINDING
District: Houston
County: Fort Bend
CSJ#: 2093-01-010
Highway: FM 2218
Project Limits: SH 36 to US 59 (about 4 miles)
Section 4(f) Property: 1890s farmstead

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

Dear Ms. Henderson:

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT. As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency. In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings (December 2015), this letter initiates Section 106 consultation on the effect the proposed undertaking poses for properties eligible for listing on the National Register of Historic Places (NRHP).

Project Description

FM 2218 southeast of the city of Rosenburg currently consists of a 28-foot-wide roadway with two lanes with 2' shoulders and no sidewalk within a 100-foot wide ROW. Open ditches drain the roadway.

The proposed improvements consist of widening and reconstructing the existing undivided facility to a four lane (two lanes in each direction) divided roadway with a 15 - foot wide median and a curb and gutter drainage system. The median proposed along FM 2218 would be a raised grass median with 12' wide left turn lanes at intersections. The turn lanes would be controlled (with signals) at major intersections and uncontrolled (without signals) at minor intersections and driveways. Left turns would not be permitted unless there is a break in the raised grass median. TxDOT proposes to modify the existing FM 2218 intersection with SH 36 to allow for a 90-degree, signaled intersection.

In addition, TxDOT proposes to construct a shared 3' bike lane on each side of the road parallel to FM 2218. The proposed project also calls for 5' sidewalks to be constructed along both sides

of FM 2218 outside of the shared bike lane. Lastly, TxDOT proposes two outfalls and two detention ponds, all of which are located along the western side of FM 2218.

A total of 49.7 acres of new right-of-way (ROW) would be required for the proposed project.

Properties not eligible for NRHP-listing
A review of the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and TxDOT files indicated no historically significant properties previously documented within the area of potential effects (APE). Consultation with the State Historic Preservation Officer (SHPO) determined that the APE for the proposed project is 150' from the proposed ROW.

Based on the Historic Resources Survey Report (HRSR), attached, staff determined that there are 61 historic-age (built prior to 1973) properties in the APE. Most of the properties are single family residences but the APE also contains transportation, religious, commercial and industrial agricultural properties. Except for two of the properties described below, the 59 other historic-age properties in the APE 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 determined not eligible for NRHP listing under Criterion A, B, or C.

NRHP-eligible properties

Property #38
Property #38 is a farmstead consisting of one c. 1890 farmhouse (#38a), one c. 1920 barn (#38b), a c. 1960 garage (#38c), two c. 1925 sheds (#38d & e), a c. 1950 windmill (#38f). The HRSR did not number or make determinations for additional resources on the property such as fencing, fields, paths, etc so we do so in this letter. Fencing (#38g) of various types (wood, wire) and ages on the property is non-contributing since it is utilitarian and often replaced on agricultural properties. Fields (#38h) are currently used for grazing cattle and determined contributing. Footpaths (#38i) also contribute since they appear to date from the historic period.

Property #38 is a rural property which retains integrity in Fort Bend County with outbuildings dating to the historic-period. These types of properties are becoming rare in the area due to development as people move there to commute to nearby Houston. The NRHP-boundary includes the entire current parcel, with a period of significance of 1890-1970 which encompasses all contributing resources on the property and includes the time period for which the property was in active agricultural use.

As a rural historic landscape (see HRSR page 16) property associated with the theme Post-Bellum Agriculture and Tenant Farming (1880-1941), Map I.D. 38 is determined **eligible** under Criterion A for agriculture at the local level of significance. Integrity of setting and feeling are slightly altered by the construction of newer homes flanking the parcel along FM 2218 but overall setting, feeling, and association as a rural agricultural property remain. There is no evidence that the previous owners were particularly historically significant. Therefore, it is determined **not eligible** under Criterion B. The modifications to the resources occurred within the historic period of significance and have not substantially impacted their integrity of design, workmanship, and materials; therefore it is determined **eligible** under Criteria C at the local level of significance.

TxDOT contacted the CHC regarding project impacts and the CHC provided further information about property #38. TxDOT historians also discussed the history of the property and the project impacts with the owner, Mr. Joe Janecka. To summarize the discussions:

The family bought the property in 1950 and continued farming until about 1970. #38e was a tenant house and moved in the historic period (c. 1950) to the property from across the road (FM 2218). There was a much larger farm across the road (as seen on historic aerials) which is gone now. There were several Mexican tenant houses on it. The subject farm has always been a small operation- cotton, corn, and a failed peach orchard. They did take the cotton to the nearby gin (property #61). They also had hogs and cattle. They had about 200 cattle in the 50s through 70s. During that time they rented nearby property for extra land. As the current owner's dad got older they reduced the herd to about 10. Since c. 1970 the property use has been passive grazing land, and the current owner built his current house in 1978 to the south of the barn (not in HRSR, not historic-age). Mr. Janecka's parents "new" house to the north of the property was constructed 1967 and is in the HRSR. Extended family still lives in #38a. Regarding the trees on the property, the Janeckas planted about 900' linear feet of oaks along the front of the property, none of which would be affected by the project. TxDOT would remove two trees in the yard, a planted cedar and an elm tree, during proposed project construction. Mr. Janecka had questions about the project design and ROW retribution rather than historic concerns. He agrees his property is historic and agrees the project is necessary.

Property #61

The HRSR page 2 states that TxDOT determined property #61 eligible under CSJ: 0188-01-016. TxDOT has not coordinated that project with your office because effects to historic properties have not been resolved. However the report for CSJ: 0188-01-016 and this HRSR describe #61 as the Krenek Cotton Gin, opened in 1934 by Wilbur Krenek as a response to the increasing demand for cotton suppliers. The property consists of #61a, the former gin, #61b, a warehouse, and #61c, a former residence for the gin operator. The gin remained a family-owned business until the gin closed in 2001. As a rural community, the economy of nearby Pleak depended on cotton, grain and cattle. The gin was a staple to the local economy, and in fact, the owners of property #38 (above) used this gin for their cotton. Associated with the historic trend of cotton production in Fort Bend County in the 1920s-1940s, the property illustrates the rise of increased cotton production and technological improvements in cotton ginning of the mid-twentieth century. The primary buildings in the complex remain and retain the integrity of feeling, association, location, and setting. For these reasons, the property is determined **NRHP-eligible under Criterion A** for agriculture at the local level for its association with the economy of rural Pleak.

Other than owning the cotton gin from 1934-2001, it is unknown if the Krenek family was significant to Pleak's history during the historic period. Based on this little information, it is determined that Property #61 is **not eligible** under Criterion B. Under Criterion C, the property exhibits numerous integrity issues. Some windows and doors are missing as are the exterior conveyor belts, affecting the integrity of design and materials. Additionally, some buildings located behind the residence on the property have been demolished, which affects the integrity of setting, design, materials, workmanship and feeling. Therefore, it is determined **not eligible** under Criterion C.

Since the resources are on two land parcels, the NRHP-boundary encompasses the surviving contributing buildings of the complex (see Figure 6, HRSR). The period of significance is 1934-1973, encompassing the range of dates that the property remained active, cutting off at the end of the historic-age period though the business continued operating until 2001.

Property #	Name/Location	NRHP Status
38a	Farmhouse, contributing	NRHP-eligible, A & C
38b	Barn, contributing	NRHP-eligible, A & C
38c	Garage, contributing	NRHP-eligible, A & C
38d	Shed, contributing	NRHP-eligible, A & C
38e	Former tenant home, contributing	NRHP-eligible, A & C
38f	Windmill, contributing	NRHP-eligible, A & C
38g	Fencing, non-contributing	NRHP-eligible, A & C
38h	Fields, contributing	NRHP-eligible, A & C
38i	Footpaths, contributing	NRHP-eligible, A & C
61a	Gin, contributing	NRHP-eligible, A
61b	Warehouse, contributing	NRHP-eligible, A
61c	Residence, contributing	NRHP-eligible, A

Determination of Effects

Property #38

Direct Effect: The current parcel boundary is 26.35 acres in size and TxDOT considers this the NRHP-property boundary. TxDOT proposes to acquire a minor amount of ROW measuring approximately 10' wide along the west side of the property (approximately 0.08654 acre or less than one percent) from the farmstead boundary, constituting a *de minimis* use of the historic property. The land in the ROW use consists of non-agricultural vegetation (grass and a few trees). The closest contributing resource to the new ROW line is #38a, which would be approximately 40' away (currently approximately 50' from ROW line). Therefore, these minor changes pose **no adverse effect** as the property would still possess its significance following completion of the project. The proposed project would not adversely affect the property's integrity of location, setting, feeling, association, design, materials or workmanship.

Indirect Effect: Project activities pose minimal potential to cause indirect effects. The widening of an at grade roadway 40 feet away from contributing features of the property would not affect or diminish the qualities and characteristics that contribute to the historic significance of the

farmstead. Visual impacts would not change as the proposed project is at grade. A noise analysis found no noise impact to the property (see HRSR Appendix B).

Cumulative Effect: Project activities pose no foreseeable cumulative adverse effects to the farmstead as the project is relatively minor in scope.

Property #61

The proposed roadway widening and flood control improvements pose **no effect** to the NRHP-eligible Property #61. No new ROW is required from the property. The proposed project would not impact any character defining features or contributing resources of the cotton gin. It would not diminish its integrity of location, setting, design, materials, workmanship, association or feeling through direct impacts or the introduction of indirect visual effects not already present. Property 61 is approximately 218 feet west of the nearest roadway improvements (the property is actually located on SH 36, not FM 2218, but does fall within the APE). The proposed work is at grade. Similarly, the flood control improvements are at or below grade and would not have any visual effect. Thus, there are no indirect or cumulative effects to this NRHP-eligible property.

Determination of *De Minimis* Finding

As part of this coordination, TxDOT determined that the proposed project meets the requirements for a Section 4(f) *de minimis* impact finding under 23 CFR 774. TxDOT based its determination on the fact that the use for the farmstead property (#38) amounts to less than 1% of the property's overall acreage and the project will have **no adverse effect** on the NRHP-listed property. The function of the farmstead will not be impaired, nor will it cease. The work would take place on non-productive land and the closest contributing resource is located at least 40 feet from the proposed new ROW.

Conclusion

In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings (December 2015), I hereby request your signed concurrence with TxDOT's finding of **no adverse effect** to the NRHP-eligible farmstead property (#38). We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the afore-mentioned MOU dated December 16, 2014.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please contact me at (512) 416-2611 or Renee.Benn@txdot.gov.

Sincerely,

Renee Benn, MS

Cc: Bruce Jensen, Cultural Resource Management Section Director: BJ

Joe Janecka, property owner

CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:
HISTORIC PROPERTY PRESENT: NRHP-ELIGIBLE FARMSTEAD
NO ADVERSE EFFECT: NRHP-ELIGIBLE FARMSTEAD

NAME: _____ DATE: 13 June 2017
for Mark Wolfe, State Historic Preservation Officer

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

NAME: _____ DATE: 13 June 2017
for Mark Wolfe, State Historic Preservation Officer

Checklist for Section 4(f) *De Minimis* for Public Parks, Recreation Lands, Wildlife & Waterfowl Refuges, and Historic Properties

Main CSJ: 2093-01-010
District(s): Houston
County(ies): Fort Bend
Property ID:
Property Name: Seabourne Creek Park Regional Sports Complex

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

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

What Type of Property is Being Evaluated?

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

Section 4(f) Defining Criteria for Parks, Recreation, and Refuge Properties

1. Yes — Is the property publicly owned?
2. Yes — Is the property open to the public (except in certain cases for refuges)?
3. Yes — Is the property's major purpose for park, recreation, or refuge activities?
4. Yes — Is the property significant?

Defining the Property's Significance

Note: Significance is presumed in the absence of a determination with the official with jurisdiction.

1. Yes — Does the property play an important role in meeting the park, recreation, or refuge objectives for the official with jurisdiction?
2. Yes — Is the property's major purpose for park, recreation, or refuge activities?

Establishing Section 4(f) Use of the Property

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

Establishing Section 4(f) *De Minimis* Eligibility

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

2. Yes — Was a public notice and an opportunity for public review and comment provided? *(This requirement can be satisfied in conjunction with other public involvement procedures, such as those for NEPA process)*

3. Yes — Did the Official with Jurisdiction concur that the property was significant and that the proposed project meets ALL conditions of items above?

Documentation

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

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

TxDOT Approval Signatures

District Reviewer Certification

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

Tunisia Smith — Digitally signed by Tunisia Smith DN: cn=Tunisia Smith, o=TxDOT, ou=TxDOT, email=tunisia.smith@txdot.gov, c=US Date: 2018.02.16 15:00:29 -06'00'

District Personnel Name — February 16, 2018 Date

ENV Technical Expert Reviewer Certification

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

Digitally signed by Michael Chavez Date: 2018.02.21 14:41:29 -06'00'

ENV Personnel Name — February 21, 2018 Date

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

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

Bruce Jensen

Digitally signed by Bruce Jensen
DN: cn=Bruce Jensen, o=Texas Department of Transprotation, ou=CRM Section Director, Environmental Affairs, email=bruce.jensen@txdot.gov, c=US
Date: 2018.02.22 13:01:05 -06'00'

February 22, 2018

TxDOT-ENV, CRM Director or designee — Date

TxDOT-ENV, PD Director or designee — Date

Checklist for Section 4(F) De Minimis Attachments

Project Description

The proposed project improvements would consist of widening and reconstructing the existing facility to a four-lane (two lanes in each direction) divided roadway. The proposed roadway would have 12-foot travel lanes with a 15-foot raised grass median and a curb and gutter drainage system. Left turns would only be permitted at designated breaks in the median where 12-foot turn lanes are provided. The turn lanes would be controlled (with signals) at major intersections and uncontrolled (without signals) at minor intersections, driveways, and u-turn locations.

Explanation of how the property will be used.

Seabourne Creek Park, owned by the City of Rosenburg; houses a regional sports complex, which includes baseball and soccer/football fields as well as playground facilities. The park is located on the west side of FM 2218, at Fountains Drive; in acquiring new ROW for the project, TxDOT is proposing to permanently incorporate 1.0 acre of park land fronting FM 2218 to widen the roadway. In agreement with the City of Rosenberg, TxDOT will provide at least a three-lane entry/exit access point into Seabourne Creek Park and will not impact any of the sports facilities on the property.

0 175 350 Feet

FM 2218 (US 59 TO SH 36)

SEABOURNE CREEK PARK IMPACTS MAP

Texas Department of Transportation

FIGURE 1

FORT BEND COUNTY, TEXAS

DATE:
JUNE 2017

Texas Department of Transportation

P.O. BOX 1386, HOUSTON, TEXAS 77251-1386 | 713.802.5000 | WWW.TXDOT.GOV

January 5, 2018

~~Darren McCarthy, Director~~
~~Parks and Recreation, City of Rosenberg~~
~~P.O. Box 32~~
Rosenberg, Texas 77471

John Maresh
City Manager

RE: NOTIFICATION OF INTENT TO PURSUE *DE MINIMIS* TO SECTION 4(f) (23 CRF 774.3(b))
Section 4(f) Property: Seaborne Creek Park Regional Sports Complex
Fort Bend County
FM 2218: From I-69 to SH 36
Control 2093-01-010

Dear Mr. McCarthy:

In accordance with 23 CFR 774.3(b), we are seeking concurrence for the above referenced project, which will be carried out with Federal funds. This letter requests review and consultation concerning the determinations of significance and findings of no adverse effects within the project's area of potential effects (APE). The Texas Department of Transportation (TxDOT) also intends to pursue a Section 4(f) *de minimis*.

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.

Introduction

TxDOT proposes to widen and reconstruct Farm-to-Market (FM) 2218 from Interstate Highway (I) 69 to State Highway (SH) 36 to a four-lane (two lanes in each direction) divided roadway. The proposed roadway would have 12-foot travel lanes with a 15-foot wide raised median and a curb and gutter drainage system. Left turns would only be permitted at designated breaks in the median where 12-foot turn lanes are provided. The turn lanes would be controlled (with signals) at major intersections and uncontrolled (without signals) at minor intersections, driveways, and U-turn locations. The project includes realignment of the SH 36 intersection to a safer, 90-degree configuration with a traffic signal.

Seabourne Creek Park, owned by the City of Rosenberg, houses a regional sports complex, which includes baseball and soccer/football fields as well as playground facilities. The park is located on the west side of FM 2218, at Fountains Drive; in acquiring new right-of-way for the project, TxDOT is proposing to permanently incorporate 1.0 acre of park land fronting FM 2218 to widen the roadway. In agreement with the City of Rosenberg, TxDOT will provide an auxiliary right turn lane, and a left turn bay with center median opening, into Seabourne Creek Park. The proposed improvements will not impact any of the sports facilities on the property.

Determination of No Adverse Effects and Certification of Section 4(f) *De Minimis*

Survey determined that the Seabourne Creek Park Regional Sports Complex on which the *use* will take place has significance under the requirements of 23 CFR 774.3(b). In order to qualify for a Section 4(f) *de minimis*, it was established that the project activities will not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection.

The function of Seabourne Creek Park Regional Sports Complex will not be impaired and its function will not cease. Nor will the project impair the function of the property as a whole. Therefore, these minor changes would have no adverse effect. The property would still possess its significance after the project is complete.

If you feel that TxDOT has met the above requirements and have no additional comments about the project, then please endorse this letter and return it to us by January 12, 2018. This endorsement will signify your concurrence that there is no adverse effect to the above property. Additional information about Section 4(f) requirements can be found on the following website or you may request additional information from TxDOT:
http://environment.fhwa.dot.gov/(S(1vyep545s3wmhuubnvexkmm2))/4f/index.asp

Conclusion

In accordance with 23 CFR 774.3(b), I hereby request your signed concurrence with the finding of no adverse effects. Furthermore, TxDOT determined that the proposed project activities meet the requirements of a *de minimis* finding under Section 4(f).

Thank you for your assistance with the federal review process. If you need further information, please call Tunisia Smith, at (713) 802-5560.

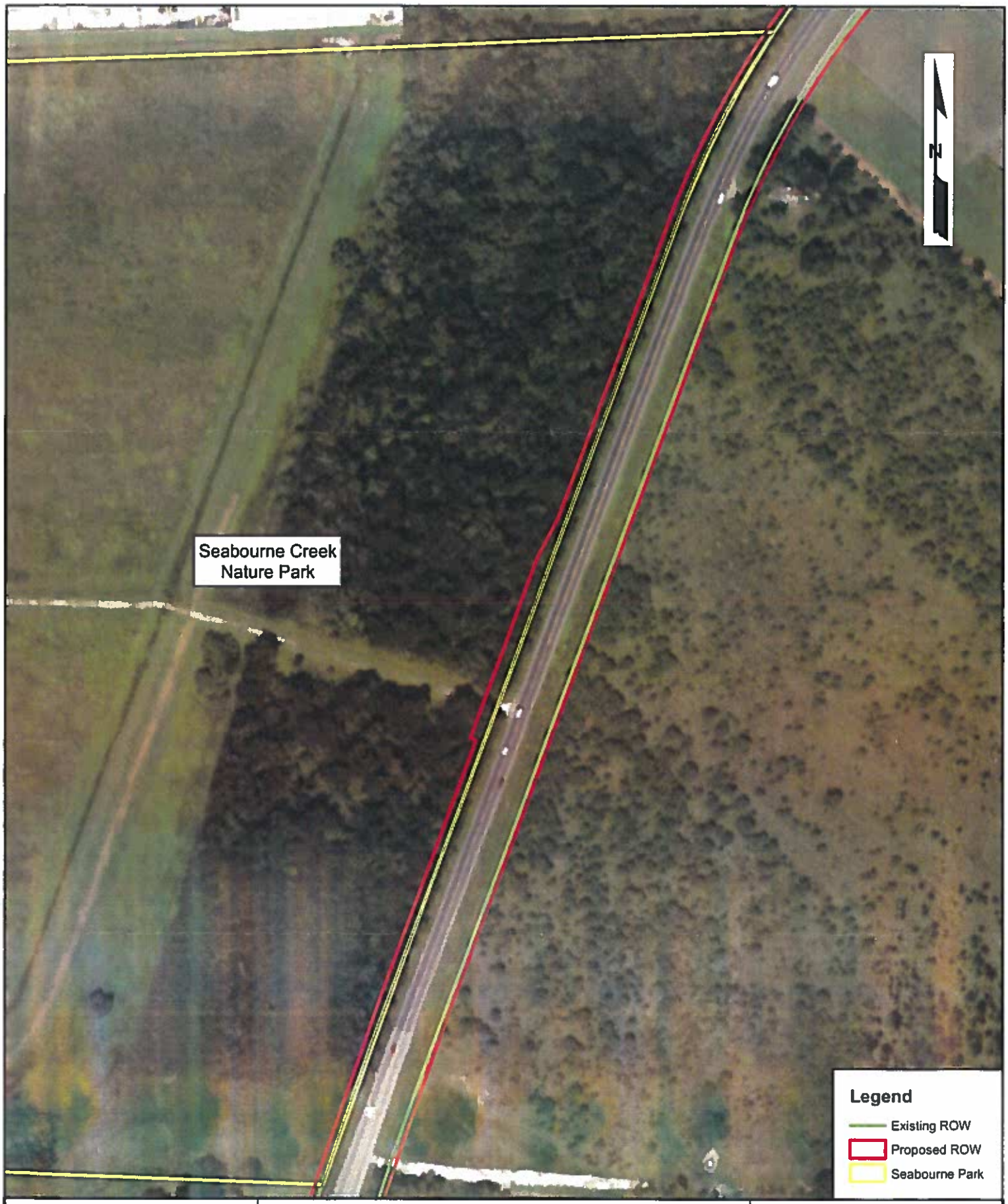
Sincerely,

Pat Henry, P.E.
Director of Project Development
Houston District

Attachment

CONCUR: NO ADVERSE EFFECT
DETERMINATION OF *DE MINIMIS* IMPACT UNDER SECTION 4(f) GUIDELINES

NAME: John Marsh, City Manager DATE: 1-18-2018
Name and Title of Official with Jurisdiction



0 100 200 Feet

FM 2218 (IH 69 TO SH 36)

SEABROURNE CREEK PARK IMPACTS

Texas Department of Transportation

FIGURE 1

FORT BEND COUNTY, TEXAS

DATE:
DEC. 2017