Draft Environmental Assessment

Robert S. Light Boulevard Extension Project
Austin District

Robert S. Light Boulevard (From FM 1626 to RM 967)
CSJ: 0914-33-068
Hays County, Texas
July 2020

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 USC 327 AND A MEMORANDUM OF UNDERSTANDING DATED DECEMBER 9, 2019, AND EXECUTED BY FHWA AND TXDOT.

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List of Acronyms

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
AU	Assessment Unit
Blvd	Boulevard
BMP	Best Management Practices
BSEACD	Barton Springs Edwards Aquifer Conservation District
CAMPO	Capital Area Metropolitan Planning Organization
CGP	Construction General Permit
CMP	Congestion Management Process
CO	Carbon monoxide
CWA	Clean Water Act
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EM	Executive Memorandum
EMST	Ecological Mapping Systems of Texas
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
FM	Farm-to-Market
GA	Geologic Assessment
IH	Interstate Highway
ISA	Initial Site Assessment
LEP	Limited English Proficiency
LESA	Land Evaluation and Site Assessment
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
MSAT	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards

NEPA	National Environmental Policy Act
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
NWP	Nationwide Permit
PA	Programmatic Agreement
PCN	Pre-construction Notification
PM	Particulate matter
RM	Ranch-to-Market
ROW	Right-of-way
RTP	Regional Transportation Plan
SHPO	State Historic Preservation Officer
SWPPP	Storm Water Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
THC	Texas Historical Commission
TIP	Transportation Improvement Program
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WPAP	Water Pollution Abatement Plan

1.0 Introduction

No current roadway effectively connects Farm-to-Market (FM) 1626 and FM 2770 to Interstate Highway (IH)-35 south of the City of Buda in Hays County, Texas. Hays County is currently funding and conducting project development of a proposal to extend Robert S. Light Boulevard (Blvd.) to provide this connectivity and improve mobility. Figure 1, located in Appendix A shows the location of the proposed Robert S. Light Blvd. Extension Project.

The purpose of this Environmental Assessment (EA) is to study the potential environmental consequences of the proposed project and determine whether such consequences warrant the preparation of an Environmental Impact Statement (EIS). This EA is prepared to comply with both Texas Department of Transportation (TxDOT) environmental review rules and the National Environmental Policy Act (NEPA). The draft EA will be made available for public review, and following the required comment period, TxDOT will consider any comments which are submitted. If TxDOT determines that there are no significant adverse effects, it will prepare and sign a Finding of No Significant Impact (FONSI) which will be made available to the public.

2.0 Project Description

2.1 Existing Facility

Robert S. Light Blvd. currently serves as a connector for Ranch-to-Market (RM) 967 to both the northbound and southbound access roads of IH-35 via an overpass. The western terminus of the existing roadway, which occurs at the eastern limit of the project area, includes a non-signalized 3-way intersection at RM 967 (Appendix B, Photo 1). The current configuration of Robert S. Light Blvd. at RM 967 is a four-lane arterial roadway with two 12-foot lanes in each direction and 5-foot shoulders. No bicycle or pedestrian facilities occur along this roadway. Photos and typical sections of the existing facility are included in Appendices B and D, respectively.

2.2 Proposed Facility

The proposed project would provide a new roadway connecting FM 1626 and FM 2770 to the existing portion of Robert S. Light Blvd. at RM 967 in eastern Hays County. The new roadway section would include a divided four-lane facility with two 12-foot lanes in each direction. Ten-foot shoulders would be provided on the outside of the travel lanes, as well as a 72-foot grassy median between the travel lanes.

Dedicated left turn lanes would be added to RM 967 and FM 2770 for northbound vehicles turning left onto Robert S. Light Blvd. In addition, FM 1626 would include a dedicated left turn lane for southbound vehicles turning left into Robert S. Light Blvd. A grade separated overpass would be constructed at the Union Pacific Railroad (UPRR) crossing. The new roadway would be approximately 1.8 miles long, and is proposed to be constructed in two phases. The proposed speed limit is 70 miles-per-hour. The initial construction would include an interim two-lane extension, followed by an ultimate four-lane divided section. Additionally, one water quality pond would be constructed at Mustang Branch. Figure 1, located in Appendix A shows the location of the proposed Robert S. Light Blvd. Extension Project. Project schematics and typical sections can be found in Appendix C and Appendix D, respectively.

Federal regulations require that federally funded transportation projects have logical termini. 23 CFR 771.111(f)(1). Simply stated, this means that a project must have rational beginning and end points. Those end points may not be created simply to avoid proper analysis of environmental impacts. The logical termini for the proposed project are FM 1626 (western end of the project) and RM 967 (eastern end of the project) at Robert S. Light Blvd. FM 1626 is a north-south roadway that provides access from IH-35 in Kyle to IH-35 in Austin. The project limits were selected based on the fact that the construction of this project would independently provide access to three FM roads and a local arterial road. In the project area, RM 967 is a north-south roadway that connects the town center of Buda to IH-35. Both termini are substantial local traffic generators.

Federal regulations require that a project have independent utility and be a reasonable expenditure even if no other transportation improvements are made in the area. 23 CFR 771.111(f)(2). This means a project must be able to provide benefit by itself, and that the project not compel further expenditures to make the project useful. Stated another way, a project must be able to satisfy its purpose and need with no other projects being built. The proposed project would provide an alternate route for local traffic even if no additional projects or traffic improvements are completed in the area. Because the project stands alone, it cannot and does not irretrievably commit federal funds for other future transportation projects.

Federal law prohibits a project from restricting consideration of alternatives for other reasonably foreseeable transportation improvements. 23 CFR 771.111(f)(3). This means that a project must not dictate or restrict any future roadway alternatives. The proposed project would not restrict the consideration of alternatives for other foreseeable

transportation improvements because there are no other foreseeable projects planned within or adjoining the limits of the proposed project.

The extension of Robert S. Light Blvd. would be constructed using a combination of local, state and federal funding. Hays County funding would be used for the design of the project, and a combination of state and federal funding would be used for construction of the roadway. The proposed project is included in the Capital Area Metropolitan Planning Organization (CAMPO) 2040 Plan, and is consistent with the CAMPO Regional Transportation Plan (RTP), as adopted on May 11, 2015. The proposed project is also included in the 2019-2022 Transportation Improvement Program (TIP). Copies of pages from the RTP and TIP showing the project are included in Appendix E. The estimated construction cost for the proposed project as stated in the RTP is $31,900,000. The estimated letting year for construction is not currently known. The completion of construction date is not currently known. Although letting dates and completion dates are unknown at this time, for purposes of this analysis, an estimated construction date of 2022 and a design year of 2045 is assumed.

3.0 Purpose and Need

3.1 Need

Eastern Hays County needs the extension of Robert S. Light Blvd. to improve mobility of the traveling public and freight and reduce traffic congestion.

3.2 Supporting Facts and/or Data

The proposed project is included in the 2013 City of Buda Transportation Master Plan Update (COB, 2013). The extension of Robert S. Light Blvd. to FM 2770, including an overpass at the UPRR, is listed as an "immediate need" in the current plan. The section extending farther to FM 1626 is listed as a "short-term need". Through a series of three public meetings in 2012 to obtain public input on the Buda transportation plan, the Robert S. Light Blvd. extension received the greatest public consensus of all proposed projects to be completed within Buda. The public's highest priority item revealed during scoping was to divert 18-wheel traffic away from downtown. The proposed project is also included as an objective in the Buda 2030 Comprehensive Plan (COB, 2011).

Hays County is one of the fastest growing areas in Texas as well as the nation. According to the *Texas State Data Center*, the population of Hays County has increased 61% since the

year 2000 and is expected to continue to grow by 300% by the year 2040. CAMPO traffic estimates show projected increases between 116% and 264% on area roads by the year 2035. Rapid growth has resulted in a significant increase in the use of local roads by commuter traffic. Currently, large trucks from local cement and asphalt plants continue to utilize these same routes to transport their loads. The existing road system is not designed to safely handle this level of traffic.

3.3 Purpose

The purpose of the Robert S. Light Blvd. Extension Project is to connect FM 1626 and FM 2770 to Robert S. Light Blvd. at RM 967 in order to:

- Provide a safe and efficient alternative route around the City of Buda for commercial trucks and personal vehicles; and
- Provide a direct connection between FM 1626 and IH-35 in order to reduce travel times.

The proposed section of Robert S. Light Blvd. would accommodate the traffic that is re-routed from local roads in areas that are not designed to accommodate a high level of traffic volume. As part of the CAMPO 2040 RTP, the Robert S. Light Blvd. project addresses local and regional growth by meeting current transportation needs and accommodating predicted future growth in Hays County.

4.0 Alternatives

4.1 Build Alternative

The new roadway would redirect large truck traffic around town and away from local streets and provide an alternate travel route south of Buda. The new roadway would create a direct connection from FM 1626 and FM 2770 to IH-35, and would improve local mobility and efficiency. Safety of the traveling public would be improved by providing a modern roadway that meets current design criteria. By providing an alternate truck route, large trucks would be re-routed around Buda, reducing the number of truck and car collisions. Project schematics and typical sections can be found in Appendix C and Appendix D, respectively.

4.2 No-Build Alternative

The No-Build Alternative would result in no new road being constructed to connect FM 1626 and FM 2770 to Robert S. Light Blvd. at RM 967 south of Buda. The roads in this area

would continue to be used as they are currently. Heavier trucks would likely continue to use their existing routes to access IH-35 and other major roadways in the area. Local streets not intended for this use would continue to be damaged by heavy truck traffic. Maintenance of local roads would become increasingly common, causing traffic detours, delays, and additional costs for local government and state agencies.

Traffic congestion and travel times to IH-35 would continue to increase as the population of Hays County grows. The safety level of the traveling public would decline as more vehicles use the existing roads. The No-Build Alternative does not meet the need and purpose as previously described; therefore, the build alternative is the preferred alternative. However, the No-Build Alternative is carried forward in this document as a baseline comparison to the Build Alternative.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

One additional build alternative was considered early in the project planning process which connected FM 2770 to FM 1626 south of the current build alternative. This alternative was eliminated from consideration due to engineering and environmental design constraints and poor connectivity conditions at FM 1626. No other feasible or reasonable alternatives were identified during the planning process.

5.0 Affected Environment and Environmental Consequences

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

- Socioeconomics Technical Report
- Archeological Survey Report
- Historical Resources Survey Report
- Wetlands and Waters of the U.S. Technical Report
- Hazardous Materials Initial Site Assessment
- Biological Evaluation Form and Tier 1 Site Assessment
- Noise Technical Report
- Indirect and Cumulative Impacts Technical Report

- Geologic Field Reconnaissance Technical Memorandum
- Air Quality Technical Report

These technical reports may be inspected and copied upon request at the TxDOT Austin District offices in Austin, Texas.

5.1 Right of Way/Displacements

Approximately 53.8 acres of new right-of-way (ROW) from five parcels would be required for construction of the new section of Robert S. Light Blvd. The new ROW occurs within areas which are either undeveloped or utilized for mining or agricultural purposes. Project schematics included in Appendix C illustrate the required ROW areas. No households, businesses, farm or ranch displacements would occur as a result of this project. No additional easements would be required for the project. Relocation assistance would be provided if any displacements were necessary. ROW acquisition and relocation would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended (Uniform Act). The Uniform Act contains specific requirements that determine the manner in which a government entity acquires private property for public use when federal funds are used for a project. The purpose of this act is to provide a uniform policy for fair and equitable treatment of persons and businesses displaced as a result of federally-assisted programs. Consistent with the U.S. Department of Transportation (DOT) policy as mandated by the Uniform Act, all property owners from whom property is needed are entitled to receive just compensation for their land. Just compensation is based on fair market value of the property. TxDOT would provide information and resources to any affected property owners.

No new ROW would be required and no displacements would occur with the No-Build Alternative.

5.2 Land Use

Based on current aerial photography and project area site visits, land uses in the study area include undeveloped land, mixed-use industrial, agricultural, and scattered residential (Appendix B, Photos 1-8 and Appendix F, Figure 1). The proposed roadway alignment is situated on property owned by nearby cement plants. The properties were used for mining and cement production. There was also limited agricultural use of portions of the project area, including hay and crop production and livestock grazing. Land use in the project area would be converted from undeveloped, mixed-use industrial and agricultural uses to

roadway use. Any induced growth impacts from the proposed action are addressed in Section 5.15.

The No-Build Alternative would not result in any changes to area land use.

5.3 Farmlands

Five areas of prime farmland soil types are mapped within the project area; these include 22.2 acres or 36 percent of the area located within a 100-foot buffer around the project area. On February 23, 2015 the agricultural Land Evaluation and Site Assessment system (LESA) returned a combined score of less than 160 points for the proposed Robert S. Light Extension Project; therefore, the Farmland Protection Policy Act (FPPA) does not apply. Documentation of agency coordination with the Natural Resources Conservation Service (NRCS) and Form CPA-106 are included in Appendix G. In addition, a copy of NRCS Form CPA-106 will be kept on file at the TxDOT Austin District.

The No-Build Alternative would not result in the use of any farmlands.

5.4 Utility Relocation

It is reasonably foreseeable that utilities will have to be relocated as a result of this project. The impacts resulting from removal of any utilities from within existing highway ROW have been considered as part of the project impacts under each of the resource area subheadings within this environmental assessment. Additionally, if utilities will be re-located within highway ROW, then the impacts resulting from re-installation of the utilities within highway ROW has also been considered as part of the project impacts under each of the resource area subheadings within this environmental assessment. To the extent that the owner of any displaced utility determines to re-install the displaced utility at a location outside of highway ROW, such location will be determined by the owner of the utility subject to the rules and policies governing the utility relocation process.

No changes to utilities would occur as a result of the No-Build Alternative.

5.5 Bicycle and Pedestrian Facilities

The proposed project is connecting to an area with no existing bicycle and pedestrian facilities within a primarily rural area. It would incorporate ten-foot shoulders along the entire length of the project to accommodate pedestrian and bicycle travel as defined in the March

11, 2010 *U.S. Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations*.

No new bicycle and pedestrian facilities would be provided with the No-Build Alternative.

5.6 Community Impacts

Specific data used to determine potential community impacts is included in the Socioeconomics Technical Report developed for the Robert S. Light Extension Project. This technical report is available for review at TxDOT Austin District offices.

Potential impacts to community cohesion would be most likely to occur in the area immediately surrounding the proposed project alignment. The proposed new alignment would not bisect any existing residential neighborhoods, nor would access to any businesses, schools, churches or any other community gathering places be affected by the proposed project. No households, businesses, farm or ranch displacements would occur as a result of this project.

An Environmental Justice (EJ) analysis was completed in accordance with EO 12898. EO 12898, "Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations", required Federal agencies to ensure that disproportionately high and adverse human health or environmental effects of proposed Federal projects on minority and low-income communities are identified and addressed. The race and ethnicity of people living in Census block groups within one mile of the proposed project corridor were examined. The two largest racial/ethnic groups within this corridor were white, non-Hispanic or Latino (approximately 50% of the population in the corridor) followed by Hispanic and Latino (approximately 42% of the population in the corridor) (ACS, 2018). Of six total block groups within one mile of the proposed project corridor, two contained a greater than 50 percent minority population. Impacts to minority populations would not be expected to be disproportionate or adverse, compared to the population as a whole.

The 2020 poverty guideline in the 48 contiguous states and the District of Columbia is $26,200 for a family of four (U.S. Department of Health and Human Services, 2020). The most recent data on median family income and the percent of families below the poverty level for Hays County, the cities of Buda and Kyle, and census tracts that encompass the project area is from the 2018 5-Year American Community Survey and is only available to the census tract level. The data indicate that median family income in census tracts near the proposed project corridor is above the national poverty level for a family of four. The average percentage of families below the poverty level within the census tracts encompassing the

project area is about 5.5 percent. These data indicate that there is not a substantial low-income population in the project vicinity.

Because the proposed project would occur entirely within an undeveloped mining and agricultural area, adverse or disproportionate impacts from the proposed project to minority or low-income populations or concentrations of the elderly, children, or persons with disabilities would not occur. These analyses are compliant with the Federal Highway Administration's (FHWA) Title VI program and Executive Order 12898.

The proposed project would reduce travel times, reduce area maintenance costs, improve safety for the travelling public, and provide a safe and efficient alternative route around the City of Buda for commercial trucks and personal vehicles. These attributes would result in positive impacts to the local community and regional economies.

The No-Build Alternative would not reduce travel times or improve safety for the traveling public, and would increase area maintenance costs due to damage caused by heavy truck traffic on local roads.

The proposed project would occur entirely within an undeveloped mining and agricultural area, and no indications of a Limited English Proficiency (LEP) population were present during environmental field investigations. The 2018 5-Year Estimates revealed that 2.9% of households in Tract 109.02 and 3.8% of households in Tract 109.08 are LEP households. Notice of the open house public meeting held on March 20, 2014 was published in the Spanish newspaper *Ahora Si* on February 27, 2014. A Spanish interpreter was also made available at this public meeting. This analysis was compliant with Executive Order 13166.

5.7 Visual/Aesthetics Impacts

The project occurs within an area currently used for mining and agricultural activities. Current sight lines would be impacted by the elevated UPRR crossing and Mustang Branch bridge. Sight lines at these proposed structures are not unique views in the area. Roadway lighting and traffic signals would be installed at each roadway intersection and would be similar to other intersections in the area. No impacts to visual or aesthetic resources would be anticipated from the proposed project.

No visual or aesthetics impacts would occur with the No-Build Alternative.

5.8 Cultural Resources

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

5.8.1 Archeology

An intensive archeological survey was conducted to evaluate the potential for the proposed undertaking to affect archeological resources in the area of potential effects (APE). Three new archeological sites—41HY500, 41HY501, and 41HY502 — were recorded during field investigations. Existing site 41HY201 was reviewed and its boundary was extended to the south. Cultural materials observed during field investigations included both prehistoric and historic-period artifacts, features, and structures. Archeologists observed that the APE has been heavily altered through agricultural and industrial land use. No further work within the APE was recommended based on the results of the archeological survey. The THC concurred with the project findings on December 4, 2015. A consultation request letter was sent to Federally-recognized Tribes with interest in the project area on May 19, 2015. Coordination is attached in Appendix G.

No impacts to archeological historic properties would occur under the No-Build Alternative.

5.8.2 Historic Properties

TxDOT pre-certified historians surveyed the project area APE and produced a Historical Resources Survey Report which identified four historic-age properties built in 1971 or earlier. The report did not recommend any properties as eligible for listing in the National Register of Historic Places (NRHP). The proposed project undertaking would have no effect on historic properties because none are present within the project APE. Concurrence was received from the THC on June, 15, 2018, and is attached in Appendix G.

No impacts to historic properties would occur under the No-Build Alternative.

5.9 Protected Lands

There are no Section 4(f) resources, Section 6(f) resources, or Chapter 26 Parks and Wildlife Code properties present in the project area.

5.10 Water Resources

The proposed project corridor is drained by Mustang Branch and the main channel of Onion Creek within the Colorado River Basin. The proposed Robert S. Light Blvd. would cross Mustang Branch and the adjacent floodplain with an elevated bridge.

The major surface water feature in the project area is Mustang Branch, an intermittent tributary to Onion Creek. In addition, one site listed by the National Wetland Inventory (NWI) as a freshwater pond was determined to be a wetland area situated around a shallow pond along Mustang Branch within the project area (Appendix F, Figure 2). Because Mustang Branch is an intermittent tributary to Onion Creek and the wetland is abutting Mustang Branch, both of these features are potentially jurisdictional waters. The majority of the project area occurs over the Edwards Aquifer (Appendix F, Figure 3). Best management practices (BMPs) will be incorporated to minimize impacts to any wetlands, surface water or groundwater resources for the project, including sediment control fencing, baled hay, rock filter dams and construction exits.

A wetland delineation was performed for the project area and a Wetlands and Waters of the U.S. Impacts Report was produced. The study area for the project includes an area 100 feet wide on either side of the proposed project area. It established that approximately 0.3 acre of stream and 0.8 acre of wetland found in the study area will be determined by the United States Army Corps of Engineers (USACE) to be Waters of the U.S.

There is the potential for erosion and sedimentation during construction activities. Clearing vegetation for the proposed project could increase the potential for erosion and sedimentation into Mustang Branch as well as the main stem of Onion Creek. A large in-stream recharge feature, Antioch Cave, is approximately 1.15 miles downstream of the proposed project (Appendix F, Figure 2).

The Build Alternative would employ BMPs to minimize erosion and water quality impacts. Coverage under a Construction General Permit (CGP) for projects that disturb more than 5 acres would be required. A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented and a notice of intent (NOI) would be required to be submitted to the Texas Commission on Environmental Quality (TCEQ) prior to construction. Additionally, a karst survey was completed and a Water Pollution Abatement Plan (WPAP) would be submitted prior to construction in accordance with the TCEQ's Edwards Aquifer Rules.

No impacts to surface or groundwater resources would occur under the No-Build Alternative.

5.10.1 Clean Water Act Section 404

This project will involve regulated activity in jurisdictional waters and therefore will require authorization under Section 404. The following table shows the waters that are anticipated to be jurisdictional waters in which regulated activity is anticipated to take place. It also indicates whether the impacts are anticipated to be authorized under Section 404 by a non-reporting nationwide permit (i.e., no pre-construction notification required), or if it is anticipated that a nationwide permit with pre-construction notification, individual permit, letter of permission, or regional general permit will be required.

Table 1. Section 404 Impacts

Name of water body	Type of water body	Location of water body	Covered by non-reporting nationwide permit under Section 404? (Y/N)	Nationwide permit with pre-construction notification, individual permit, letter of permission, or regional general permit required under Section 404? (Y/N)
S-1 (Mustang Branch)	Intermittent Stream	Near western project terminus (See Appendix F)	N	Y
W-1	Wetland	Depression along S-1 (Mustang Branch) (See Appendix F)	N	Y

Mustang Branch and the wetland abutting it are potentially jurisdictional Waters of the U.S. within the project area. Schematics show these areas would be spanned by a bridge, thereby limiting impacts as much as practicable. Construction of the proposed project would result in 0.01 acre (52 linear feet) of permanent fill impacts and 0.02 acre of temporary impacts to Mustang Branch (S-1). Additionally, 0.01 acre of permanent fill impacts and 0.03 acre of temporary impacts would occur in wetland (W-1). It is anticipated the placement of permanent and temporary fill material into these areas would be

authorized under Nationwide Permit (NWP) 14, "Linear Transportation Projects." NWP 14 authorizes temporary structures, fills and work in Waters of the U.S. and cannot result in the loss of greater than 0.5 acre of Waters of the U.S. It is anticipated pre-construction notification (PCN) to the USACE would be required prior to commencing the activity due to fill in a wetland (USACE, 2016). To qualify for NWP authorization the project must also comply with the established general and regional conditions applicable to NWP 14.

The Build Alternative is required to cross Mustang Branch within the project area in order to meet its intersection with FM 1626. No practicable alternatives that would have less adverse effects on the aquatic ecosystem within the project area were identified. This determination was made in compliance with the Environmental Protection Agency's (EPA) Section 404(b) (1) Guidelines which are codified at 40 C.F.R. Part 230. The need for an individual permit under Section 404 is not anticipated. If it is later determined that an individual permit under Section 404 is needed, compliance with EPA's Section 404(b)(1) Guidelines will be confirmed prior to submittal of the individual permit application.

No impacts to any Waters of the U.S. would occur under the No-Build Alternative.

5.10.2 Clean Water Act Section 401

For a project that will use a NWP under Section 404 or Section 10, regardless of whether the NWP is non-reporting (i.e., assumed) or reporting (i.e., requires submittal of a PCN), TxDOT complies with Section 401 of the Clean Water Act by implementing TCEQ's conditions for NWPs. For projects that require authorization under Section 404 or Section 10 beyond a NWP, TxDOT complies with Section 401 of the Clean Water Act by including a Tier I or Tier II checklist (depending upon the amount of disturbance/impact) in the individual permit, letter of permission, or regional general permit application that is submitted to the USACE, and then complying with the conditions of the Tier I or Tier II checklist.

No section 404 permit would be required by the No-Build Alternative; therefore no Section 401 action would be necessary.

5.10.3 Executive Order 11990 Wetlands

Executive Order 11990 prohibits new construction in wetlands unless (1) there is no practicable alternative to such construction, and (2) the project includes all practicable measures to minimize harm to wetlands.

A wetland delineation of the project area was performed on April 17, 2014 and the results were included in the Wetlands and Waters of the U.S. Impacts Report. Anticipated impacts to potential Waters of the U.S., including wetlands, include temporary impacts of less than 1/10 acre to open waters or wetlands from temporary access for the construction of bridge columns. As mentioned above, no practicable alternatives that would have less adverse effects on the aquatic ecosystem within the project area were identified, and impacts to wetlands would be covered under NWP 14 with a PCN to the USACE. A PCN would be required for any impacts to wetlands adjacent to Mustang Branch.

No impacts to wetlands would occur under the No-Build Alternative.

5.10.4 Rivers and Harbors Act

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

5.10.5 Clean Water Act Section 303(d)

The project is not located within five linear miles of, within the watershed of, or drains to an impaired assessment unit under Section 303(d) of the federal Clean Water Act (2020 Section 303(d) list consulted June 1, 2020 (TCEQ, 2020)).

No impacts to impaired waters would occur under the No-Build Alternative.

5.10.6 Clean Water Act Section 402

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

The PS&E Preparation Manual requires that all projects include Standard Specification Item 506 (Temporary Erosion, Sedimentation, and Environmental Controls), and the "Required Specification Checklists" require Special Provision 506-003 on all projects that need authorization under the CGP. These documents require the project contractor to comply with the CGP and SWP3, and to complete the appropriate authorization documents.

No earth disturbance would occur under the No-Build Alternative, consequently no CGP would be required.

5.10.7 Floodplains

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps approximately 92.5% of the proposed project area would cross through Zone X (unshaded) floodplain areas (Appendix F, Figure 2). The remaining 7.5% of the project area, which is located along Mustang Branch, occurs within Zone A. Zone A areas are referred to as the base flood or 100-year flood prone areas, and Zone X (unshaded) areas are considered to include areas of minimal flood hazard. The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances. Because Hays County is a participant in the National Flood Insurance Program, coordination with the local Floodplain Administrator would be required for the proposed project.

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

No impacts to floodplain areas would result from the No-Build Alternative.

5.10.8 Wild and Scenic Rivers

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

5.10.9 Coastal Barrier Resources

The Coastal Barrier Resources Act (CBRA) does not apply.

5.10.10 Coastal Zone Management

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

5.10.11 Edwards Aquifer

The study area overlays the recharge, contributing within the transition, and transition zones of the Edwards Aquifer, and is also within the Barton Springs/Edwards Aquifer Conservation District (BSEACD). The Edwards Aquifer is a major aquifer located in the south-central part of Texas, traversing eight counties, including: Williamson, Travis, Hays, Comal, Bexar, Medina, Uvalde, and Kinney. The Edwards Aquifer is primarily composed of partially dissolved limestone in thicknesses ranging from 200 to 600 feet and is highly permeable with sinkholes, caves, surface faults, and fractures. As a result, water levels and spring flows within the Edwards Aquifer respond quickly to rainfall, drought, and pumping.

The Trinity Aquifer underlies the Edwards Aquifer within this area but at a much greater depth (BSEACD, 2017). Groundwater in the study area is of good quality and is primarily utilized for domestic and public water supply purposes (84.5%), with smaller amounts also being utilized for commercial (0.3%), irrigation (6.6%), and industrial uses (8.6%) (BSEACD, 2017). Depth of groundwater of a well located less than 250 feet north of the study area was reported by the U.S. Geological Survey to be 160 feet below the surface (USGS, 2018). Schematics of the proposed project show a maximum build depth for the bridge columns of approximately 60 feet, which would not impact the groundwater table.

A portion of the project is located within the Barton Springs Segment of the Edwards Aquifer. This Segment is bounded to the south by a groundwater divide that shifts between Onion Creek and the Blanco River (Hauwert, 2016). Dye trace studies (Hauwert, 2004) showed that dye injections in the Buda area can flow northward to the Barton Springs complex (Appendix F, Figure 4) where endangered salamanders can be found (e.g., Barton Springs and Austin Blind salamanders). Seven new occurrence records of the Barton Springs salamander were documented in 2018 (Devitt and Nissen, 2018), four of which were documented in Onion Creek drainage within the Contributing Zone. The remaining occurrence records were from the Recharge Zone (one from Little Bear Creek, one from Bear Creek, and one from Barton Creek). The findings discussed by Devitt and Nissen (2018)

suggest there may be a linkage between the Edwards and Trinity Aquifers. The proposed project area is subject to regulation under TCEQ's Edwards Aquifer Rules. The project is subject to the rules governing the recharge zone and the contributing zone and would be coordinated under TxDOT's MOU with TCEQ. The project area includes approximately 0.11 mile (5.9%) of roadway within the Edwards Aquifer recharge zone, 1.2 miles (63.3%) within the transition zone, 0.5 mile (25.6%) within the contributing zone inside the transition zone, and 0.1 mile (5.2%) outside of the Edwards Aquifer area (Appendix F, Figure 3).

A karst survey and a geologic field reconnaissance was completed for the proposed project on June 25, 2014 and a memo of the results was submitted on November 20, 2015. Seven sites were identified, however, no sensitive karst features were identified during the survey. Sensitive karst features are permeable geologic or manmade features located on the recharge or transition zone of the Edwards Aquifer where there is a potential for hydraulic connection between the surface and the Edwards Aquifer and rapid infiltration to the subsurface may occur. No sensitive karst features were identified within the project area (HDR, 2015). Antioch Cave, which is considered a significant recharge feature, is situated along Onion Creek over 1.15 miles north of the project area (Appendix F, Figure 2). Antioch Cave is a large recharge feature within the channel of Onion Creek, approximately 1.15 stream miles downstream of the proposed project. In 1997 the Barton Springs/Edwards Aquifer Conservation District constructed a concrete vault over the entrance to Antioch Cave in the bed of Onion Creek. This structure was designed to prevent entry into the cave of contaminated stormwater by closure of a valve on the vault during storm events. According to the August 2011 Final Report for the Onion Creek Recharge Project, a measured reduction in nitrogen, phosphorus and sediment has been prevented from entering the cave.

The TCEQ has in place the Edwards Aquifer Protection Program which provides guidelines on complying with the Edwards Aquifer Rules, as well as Optional Enhanced Measures that may be adopted to further protect water quality (TCEQ 2013). As mentioned previously, a WPAP and a SWPPP would be completed for the project. Construction on the project would not commence until completion and approval of the WPAP is received from the TCEQ. The WPAP would also detail all temporary and permanent BMPs that would be utilized to ensure protection of water quality in the Edwards Aquifer, following the Edwards Aquifer rules and regulations outlined in Chapter 213 of the Texas Administrative Code (TAC). The code states that BMPs and other mitigation measures must control the discharge of pollution from regulated activities after construction is completed. And, these measures must be designed, constructed, operated, and maintained to ensure that 80% of the incremental increase in

the annual mass loading of total suspended solids (TSS) from the site caused by the activity is removed.

Groundwater impacts during the construction phase of the proposed project could occur if voids connected to the aquifer or containing groundwater are intersected during excavation activities, such as for bridge piers. Schematics of the proposed project show a maximum build depth for the bridge columns of approximately 60 feet. This would not impact the groundwater table which was reported by the USGS to be 160 feet below the surface.

BMPs to minimize impacts by runoff to groundwater resources will be incorporated, including sediment control fencing, baled hay, rock filter dams and construction exits. Permanent BMPs are also implemented to reduce pollution of surface water or stormwater that originates on site or upstream from the site and flows across the project site. Chapter 3 of the TCEQ RG-348 describes in detail 10 permanent BMPs that are appropriate for the Edwards Aquifer Region, along with maintenance guidelines necessary to ensure the long-term performance of the control function as designed.

No impacts to the Edwards Aquifer would occur from the No-Build Alternative.

5.10.12 International Boundary and Water Commission

This project does not cross or encroach upon the floodway of the International Boundary Water Commission (IBWC) right-of-way or an IBWC flood control project.

5.10.13 Drinking Water Systems

A search was made for water wells within and adjacent to the proposed project area. A review of Texas Water Development Board (TWDB) records revealed two wells within the proposed project area or immediate vicinity. There are no source water protection areas located in the proposed project area. Impacts to water wells and source water protection areas as a result of the proposed project are not anticipated.

In accordance with TxDOT's Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (Item 103, Disposal of Wells), any drinking water wells would need to be properly removed and disposed of during construction of the project.

No impacts to drinking water systems would occur from the No-Build Alternative.

5.11 Biological Resources

5.11.1 Texas Parks and Wildlife Coordination

Per Section §2.205 of the Revised Texas Parks and Wildlife Department (TPWD)-TxDOT MOU, a Tier I Site Assessment was completed as part of the Biological Evaluation. The proposed project would disturb areas greater than or equal to the area of disturbance indicated in the Threshold Table PA and would therefore require coordination with TPWD. Coordination with TPWD was completed on December 1, 2015, and is attached in Appendix G.

5.11.2 Impacts to Vegetation

The project area is located on the border between the Edwards Plateau and the Blackland Prairies section of the Gulf Coastal Plains Physiographic Province of Texas. The majority of the project area has been designated as agricultural vegetation type according to the Ecological Mapping Systems of Texas (EMST). Other smaller mapped vegetation units included savannah, woodland and grassland, disturbed prairie, urban and riparian. Efforts during construction would be taken to avoid and minimize disturbance of vegetation and soils. Areas within the existing and proposed ROW, but outside the limits of construction would not be disturbed. All areas disturbed during construction would be revegetated, according to TxDOT specifications, as soon as practicable. In accordance with Executive Order 13112 on Invasive Species, the Executive Memorandum (EM) on Beneficial Landscaping, and the 1999 FHWA guidance on invasive species, only non-invasive species would be planted within the ROW.

Qualified biologists conducted a field investigation of the study area and found the majority of the site is located in areas currently used for agricultural or pasture purposes. These areas include the portion of the project from the eastern limit near Loop 4, west to Mustang Branch. The remaining project area, which occurs west of Mustang Branch, had been heavily disturbed by activities associated with the concrete, sand, and gravel operation that has been in operation since the 1950s. Numerous sand and gravel pits and piles of spoil, by-products of the sand and gravel operations, were located within this area. However, the western portion of the project area did include some relatively undisturbed areas. Vegetation found along hillsides and within open spaces of this area included trees such as mesquite *(Prosopis glandulosa)*, cottonwood *(Populus deltoides)*, cedar elm *(Ulmus crassifolia)*, hackberry *(Celtis occidentalis)*, grass species including silver bluestem

(Bothriochloa saccharoides), johnson grass *(Sorghum halepense)*, and King Ranch bluestem *(Bothriochloa ischaemum var. songarica)* and shrubs and forbs including poverty weed *(Baccharis neglecta)*, goldenrod *(Solidago nemoralis)* and dewberry *(Rubus trivialis)*, among others.

A small dense area of trees situated atop a small hill located near the western terminus of the project included live oak *(Quercus virginiana)*, mesquite, ashe juniper *(Juniperus ashei)* and Texas persimmon *(Diospyros texana)*. Understory species for the hilltop area included agarita *(Berberis trifoliolata)*, zexmenia *(Wedlia texana)*, cutleaf daisy *(Engelmannia peristenia)*, mustang grape and palafoxia *(Palafoxia callosa)*. Riparian areas which occur along Mustang Branch were relatively heavily vegetated compared to the surrounding disturbed areas, and include larger specimens of the previously described tree and brush species along with heavier understory of grasses and forbs.

Table 2, below, shows the vegetation types within the project area, as mapped by the EMST and the acreage within the project area.

Table 2. EMST Project MOU Summary Table

EMST Mapped Type	MOU Mapped Habitat Type (Same as Observed)	Ecosystem Name	MOU Type Threshold Acres	Observed Acres	Threshold Exceeded?
Blackland Prairie: Disturbance or Tame Grassland	Disturbed Prairie	Blackland Prairie	3	1.097	Yes
Native Invasive: Mesquite Shrubland	Disturbed Prairie	Blackland Prairie	3	4.435	Yes
Native Invasive: Mesquite Shrubland	Disturbed Prairie	Edwards Plateau	2	2.914	Yes
Native Invasive: Deciduous Woodland	Disturbed Prairie	Edwards Plateau	2	0.12	Yes
Native Invasive: Deciduous Woodland	Disturbed Prairie	Blackland Prairie	3	1.372	Yes
Edwards Plateau: Oak / Hardwood Slope Forest	Edwards Plateau Savannah, Woodland and Shrubland	Blackland Prairie	1	0.452	Yes

Edwards Plateau: Oak / Hardwood Motte and Woodland	Edwards Plateau Savannah, Woodland and Shrubland	Blackland Prairie	1	1.956	Yes
Edwards Plateau: Savanna Grassland	Edwards Plateau Savannah, Woodland and Shrubland	Blackland Prairie	1	4.906	Yes
Edwards Plateau: Savanna Grassland	Edwards Plateau Savannah, Woodland and Shrubland	Edwards Plateau	3	1.916	No
Row Crops	Agriculture	Blackland Prairie	10	15.801	Yes
Urban High Intensity	Urban	Blackland Prairie	None	0.259	N/A
Urban Low Intensity	Urban	Blackland Prairie	None	1.944	N/A
Urban Low Intensity	Urban	Edwards Plateau	None	0.414	N/A
Edwards Plateau: Riparian Herbaceous Vegetation	Riparian	Edwards Plateau	0.1	0.607	Yes

The proposed project would directly impact the following MOU Type habitats within the Blackland Prairie ecosystem: Disturbed Prairie (6.904 acres); Edwards Plateau Savannah, Woodland and Shrubland (7.314 acres); Agricultural (15.801 acres); and Urban (2.203 acres). The 6.904 acres of Disturbed Prairie is greater than the 3-acre area of disturbance indicated in the Threshold Table PA for Texas Blackland Prairies (TBPR). The 7.314 acres of Edwards Plateau Savannah, Woodland and Shrubland is greater than the 1-acre area of disturbance indicated in the Threshold Table PA. The 15.801 acres of Agricultural MOU Type habitat is greater than the 10-acre area of disturbance indicated in the Threshold Table PA for TBPR. The 1.32 acres of Riparian MOU Type habitat disturbance is greater than the 0.1-acre area of disturbance indicated in the Threshold Table PA for TBPR. Thresholds have not been established for Urban MOU Type habitat.

The proposed project would directly impact the following MOU Type habitats within the Edwards Plateau ecosystem: Edwards Plateau Savannah, Woodland, and Shrubland (1.916 acres); Disturbed Prairie (3.034 acres); Urban (0.414 acre); and Riparian (0.607 acre). The

3.034 acres of Disturbed Prairie MOU Type habitat disturbance is greater than the 2.0-acre area of disturbance indicated in the Threshold Table PA for Edwards Plateau (EDPT). Thresholds have not been established for Urban MOU Type habitats.

No impacts to vegetation would occur from the No-Build Alternative.

5.11.3 Executive Order 13112 on Invasive Species

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

5.11.4 Executive Memorandum on Environmentally and Economically Beneficial Landscaping

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

5.11.5 Impacts to Wildlife

Wildlife species typical to the project area include mammals such as the eastern cottontail (*Sylvilagus floridanus*), white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), and nine-banded armadillo (*Dasypus novemcinctus*) (Schmidly, 2004). Birds common to the area include the wild turkey (*Meleagris galloparvo*), cattle egret (*Bubulcus ibis*), red-tailed hawk (*Buteo jamaicensis*), and northern mockingbird (*Mimus polyglottos*) (Lockwood, 2001). Reptiles and amphibians are represented by the eastern collared lizard (*Crotaphytus collaris collaris*), Texas spiny lizard (*Sceloporus olivaceus*), Texas rat snake (*Elaphe obsolete lindheimeri*), bullfrog (*Rana catesbeiana*), and western diamondback rattlesnake (*Crotalus atrox*) (Dixon, 2000). It would be expected that Mustang Branch, which crosses the project area, would provide habitat for a variety of other animals. These species may also include rare, threatened or endangered species, as discussed in Section 5.11.11. Existing habitat would be removed and replaced with the proposed roadway area. This would be expected to impact some wildlife species directly, during clearing, and with the destruction of habitat. However, there would be similar habitat available in adjacent areas for species to inhabit. The proposed project area has been previously impacted by mining and agricultural uses.

No impacts to wildlife would occur as a result of the No-Build Alternative.

5.11.6 Migratory Bird Protections

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

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

5.11.7 Fish and Wildlife Coordination Act

The project is anticipated to require an individual permit issued by the USACE. Compliance with the Fish and Wildlife Coordination Act will be accomplished through the individual permit application process.

5.11.8 Bald and Golden Eagle Protection Act of 2007

This project is not within 660 feet of an active or inactive Bald or Golden Eagle nest. Therefore, no coordination with USFWS is required.

5.11.9 Magnuson-Stevens Fishery Conservation Management Act

There are no tidally influenced waters in Hays County and the proposed project would not affect essential fish habitat; therefore, The Essential Fish Habitat (EFH)/Magnuson-Stevens Fishery Conservation and Management Act (MSA) does not apply.

5.11.10 Marine Mammal Protection Act

The project area does not contain suitable habitat for marine mammals; therefore, the project is not subject to the requirements of the Marine Mammal Protection Act.

5.11.11 Threatened, Endangered and Candidate Species

Several federal and state listed species occur within Hays County. The USFWS Information for Planning and Consultation (IPaC) data was reviewed for the project area on May 11, 2020. According to the IPaC data, there was no critical habitat for any threatened or endangered species within the project area. The IPaC list revealed 19 threatened, endangered or candidate species within Hays County. The project may affect one federal candidate species (bracted twistflower). It was determined that the project will have no effect on federally listed species due to a lack of suitable habitat within the project area. Additionally, TPWD Rare, Threatened, and Endangered Species of Texas (RTEST) List, which also includes species of greatest conservation need (SGCN), was accessed on May 11, 2020. SGCN are rare native plant or animal species, which have not been afforded federal or state legal protection, but are generally those that are declining or rare and in need of attention to recover or prevent the need to list under state or federal regulation. The TPWD RTEST list revealed 132 rare, threatened, endangered, and SGCN within Hays County. The project may impact 11 state-listed species including SGCN (American bumblebee, eastern spotted skunk, long-tailed weasel, plains spotted skunk, common garter snake, eastern box turtle, plateau spot-tailed earless lizard, slender glass lizard, Texas garter snake, western hognose snake and bracted twistflower). It was determined that the project will have no impact on all other state-listed species due to a lack of suitable habitat within the project area. Table 3 includes the federal and state-listed species, as well as the SGCN which are known to occur in Hays County.

Table 3. Hays County Threatened, Endangered, Candidate and Species of Greatest Conservation Need						
Common Name **Scientific Name**	**Status**		**Preferred Habitat**	**Habitat Present (Y/N)**	**Potential Impact**	**Pertinent Project Information**
	USFWS	**TPWD**				
Amphibians						
Austin blind salamander *Eurycea waterlooensis*	LE	--	Subterranean cavities of the Edwards Aquifer; dependent upon water flow/quality from the Barton Springs segment of the Edwards Aquifer; only known from the outlets of Barton Springs (Sunken Gardens (Old Mill) Spring, Eliza Spring, and Parthenia (Main) Spring which forms Barton Springs Pool).	N	No effect.	This species has designated Critical Habitat at Barton Springs. Although groundwater from the Buda area flows northward to the Barton Springs Complex, stormwater pollution control BMPs over the Edwards Aquifer, as well as optional enhanced measures would be in place to protect water quality in receiving streams. The project would not be expected to affect the flow or quality of water in the Edwards Aquifer, therefore no effect to salamanders or their habitat would occur.
Barton Springs salamander *Eurycea sosorum*	LE	E SGCN	Known from the outlets of Barton Springs and subterranean water-filled caverns. Dependent upon water flow/quality from the	N	No effect.	Although groundwater from the Buda area flows northward to the Barton Springs Complex, stormwater pollution control BMPs over the Edwards Aquifer, as well as optional enhanced

			Barton Springs pool of the Edwards Aquifer.			measures would be in place to protect water quality in receiving streams. The project would not be expected to affect the flow or quality of water in the Edwards Aquifer, therefore no effect to salamanders or their habitat would occur.
Blanco blind salamander *Eurycea robusta*	--	T SGCN	Water-filled subterranean caverns.	N	No impact.	The project would not be expected to affect the flow or quality of water in the Edwards Aquifer and no subterranean caverns exist within the project area; therefore, there is no suitable habitat for this species.
Blanco River Springs salamander *Eurycea pterophila*	--	SGCN	Springs and caves in the Blanco River drainage.	N	No impact.	The project area is located outside of the Blanco River watershed.
Pedernales River Springs salamander *Eurycea sp. 6*	--	--	Aquatic; springs, streams and caves with rocky or cobble beds. Currently known to inhabit a small area of the Pedernales River watershed.	N	No impact.	The project area is located outside of the Pedernales River watershed.
San Marcos salamander *Eurycea nana*	LT	T SGCN	Headwaters of the San Marcos River downstream to about ½-mile past IH-35.	N	No effect.	The project area is located outside of the San Marcos River watershed.

Strecker's chorus frog *Pseudacris steckeri*	--	-- SGCN	Terrestrial and aquatic; wooded floodplains and flats, prairies, cultivated fields and marshes. Prefers sandy substrates.	N	No impact.	No sandy substrates of wooded floodplains and flats occur. Cultivated fields and wetlands are present, but lack the sandy soil type preferred by this species.
Texas blind salamander *Eurycea rathbuni*	LE	E SGCN	Water-filled subterranean caverns along a six mile stretch of the San Marcos Spring Fault, near San Marcos.	N	No effect.	The project would not directly or indirectly impact subterranean caverns or the associated hydrology along the San Marcos Spring Fault.
Texas salamander *Eurycea neotenes*	--	T SGCN	Aquatic; springs, streams and caves with rocky or cobble beds.	N	No impact.	The project would not directly or indirectly impact subterranean caverns or the associated hydrology along the San Marcos Spring Fault.
Woodhouse's toad *Anaxyrus woodhousii*	--	-- SGCN	Terrestrial and aquatic. Forests, grasslands, and barrier island sand dunes.	N	No impact.	No sandy substrates were identified within the project area.
Arachnids						
No accepted common name *Tartarocreagris grubbsi*	--	-- SGCN	Cave species; extent of habitat not well known.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.
No accepted common name *Texella diplospina*	--	-- SGCN	Cave species; extent of habitat not well known.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.

No accepted common name *Texella grubbsi*	--	-- SGCN	Cave species; extent of habitat not well known.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.
No accepted common name *Texella mulaiki*	--	-- SGCN	Cave species; extent of habitat not well known.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.
No accepted common name *Texella renkesae*	--	-- SGCN	Cave species; extent of habitat not well known.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.
No accepted common name *Cicurina ezelli*	--	-- SGCN	Cave species; extent of habitat not well known.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.
No accepted common name *Cicurina russelli*	--	-- SGCN	Cave species; extent of habitat not well known.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.
No accepted common name *Cicurina ubicki*	--	-- SGCN	Cave species; extent of habitat not well known.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.
Birds						
Bald Eagle *Haliaeetus leucocephalus*	-	- SGCN	Found primarily near rivers and large lakes. Nests in tall trees or on cliffs near water.	N	No impact.	No breeding or wintering habitat is present within the project area. This species is a potential migrant; therefore, any use of the project area would be incidental.

Black-capped Vireo *Vireo atricapilla*	--	-- SGCN	Oak-juniper woodlands with distinctive patchy, two-layered aspect. Shrub and tree layer with open, grassy spaces.	N	No impact.	The vegetation community in the project area lacks the dense understory and midstory structure required for habitat. Due to the recent history of mechanical disturbance of the project area and the low quality habitat, the probability of this species utilizing the right-of-way or adjacent area is very low.
Franklin's gull *Leucophaeus pipixcan*	--	-- SGCN	This species is only a spring and fall migrant throughout Texas. During migration, these gulls fly during daylight hours but often come down to wetlands, lake shore, or islands to roost for the night.	N	No impact.	No extensive marshes are located within the project area; species may occur as a migrant or transient, however, Texas is considered outside of this species known breeding range.
Golden-cheeked Warbler *Setophaga chrysoparia*	LE	E SGCN	Juniper-oak woodlands, required mature Ashe juniper trees.	N	No effect.	Fragmented mature oak/ashe juniper woodlands exist adjacent to the project corridor; therefore, the patches of suitable vegetation are too small to be utilized by this species.
Interior least tern *Sterna antillarum athalassos*	LE	E SGCN	Sand beaches, flats, bays, inlets, lagoons, island. Subspecies is listed only when inland (more than 50 miles from a coastline); nests along	N	No effect.	No sand or gravel bars exist within the project area; therefore there are no suitable nesting habitats for this species. In addition,

			sand and gravel bars within braided streams, rivers; also known to nest on man-made structures.			effects on these species are only considered for wind energy projects.
Mountain Plover *Charadrius montanus*	–	– SGCN	Nests on high plains or shortgrass prairie. Nonbreeding found on shortgrass plains and bare, dirt (plowed) fields.	N	No impact.	There is no suitable nesting or nonbreeding habitat for this species within the project area. This species is a potential migrant; therefore, any use of the project area would be incidental.
Piping Plover *Charadrius melodus*	LT	T SGCN	Beaches, sandflats, and dunes along Gulf Coast beaches and adjacent offshore islands.	N	No effect.	No breeding or wintering habitat is present within the project area. This species is a potential migrant; therefore, any use of the project area would be incidental. In addition, effects on these species are only considered for wind energy projects.
Red knot *Calidris canutus rufa*	LT	–	Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore.	N	No effect.	No breeding or wintering habitat is present within the project area. This species is a potential migrant; therefore, any use of the project area would be incidental. In addition, effects on these species are

						only considered for wind energy projects.
Tropical parula *Setophaga pitiayumi*	--	T SGCN	Semi-tropical evergreen woodland along rivers and resacas. Dense or open woods, undergrowth, brush, trees along river and resaca edges.	N	No impact.	No wooded river corridors exist in the project area. Suitable habitat for this species is not present within the project area.
Western Burrowing Owl *Athene cunicularia hypugaea*	--	-- SGCN	Open grasslands, especially prairie, plains, and savannah, sometimes in open areas such as vacant lots near human habitation or airports.	N	No impact.	The species is a potential migrant; any use of the project area would be incidental.
White-faced ibis *Plegadis chihi*	--	T SGCN	Freshwater marshes, sloughs, and irrigated rice fields. Will attend brackish and saltwater habitats.	N	No impact.	No suitable habitat for this species exists within the project area.
Whooping Crane *Grus Americana*	LE	E SGCN	Potential migrant.	N	No effect.	No breeding, wintering, or preferred stop-over habitat is present within the project area. This species is a potential migrant; therefore, any use of the project area would be incidental.
Wood Stork *Mycteria americana*	--	T SGCN	Mud flats and wetlands. Nests in baldcypress or red mangrove tracts.	N	No impact.	No suitable habitat for this species exists within the project area.

Zone-tailed Hawk *Buteo albonotatus*	--	T SGCN	Arid open country, open deciduous or pine-oak woodland, mesa or mountain country. Often near watercourses.	N	No impact.	No suitable habitat for this species exists within the project area.
Crustaceans						
Balcones Cave amphipod *Stygobromus balconis*	--	-- SGCN	Subaquatic, subterranean obligate.	N	No impact.	No caves are known to be in the project area. Stormwater pollution control BMPs would be in place to protect water quality in receiving streams.
Ezell's Cave amphipod *Stygobromus flagellates*	--	-- SGCN	Known only from artesian wells.	N	No impact.	No artesian wells are known to be in the project area. Stormwater pollution control BMPs would be in place to protect water quality in receiving streams.
No accepted common name *Artesia subterranea*	--	-- SGCN	Subaquatic, subterranean obligate.	N	No impact.	No caves are known to be in the project area. Stormwater pollution control BMPs would be in place to protect water quality in receiving streams.
No accepted common name *Texiweckelia texensis*	--	-- SGCN	Subaquatic, subterranean obligate.	N	No impact.	No caves are known to be in the project area. Stormwater pollution control BMPs would be in place to protect water quality in receiving streams.

No accepted common name *Cyclops cavernarum*	--	--	Subaquatic, subterranean obligate.	N	No impact.	No caves are known to be in the project area. Stormwater pollution control BMPs would be in place to protect water quality in receiving streams.
No accepted common name *Palaemonetes texanus*	--	-- SGCN	Subaquatic, subterranean obligate. Collected in Comal and Hays counties (Middle Guadalupe and San Marcos watersheds).	N	No impact.	The project area is outside of the Middle Guadalupe and San Marcos watersheds.
Peck's cave amphipod *Stygobromus pecki*	LE	--	Lives underground in the Edwards Aquifer; collected at Comal Springs and Hueco Springs.	N	No effect.	The project would not be expected to affect the flow or overall quality of water in the Edwards Aquifer. Stormwater pollution control BMPs would be in place to protect water quality in receiving streams.
Purgatory Cave shrimp *Calathaemon holthuisi*	--	-- SGCN	Subaquatic, subterranean obligate. Last known collection was in San Marcos, Hays Co.	N	No impact.	No caves are known to be in the project area. Stormwater pollution control BMPs would be in place to protect water quality in receiving streams.
Texas troglobitic water slater *Lirceolus smithii*	--	T SGCN	Subaquatic, subterranean obligate.	N	No impact.	No caves are known to be in the project area. Stormwater pollution control BMPs would be in place to protect water quality in receiving streams.
Fishes						

American eel *Anguilla rostrata*	--	-- SGCN	Aquatic habitats include large rivers, streams, tributaries, coastal watersheds, estuaries, bays, and oceans. Habitat generalist found in a broad range of habitat conditions including slow- and fast-flowing waters over many substrate types.	N	No impact.	No suitable habitat for this species exists within the project area.
Fountain darter *Etheostoma fonticola*	LE	E SGCN	Known only from the San Marcos and Comal rivers. Springs and spring-fed streams in dense beds of aquatic plants.	N	No effect.	The project area is located outside of the San Marcos and Comal River watersheds.
Guadalupe bass *Micropterus treculii*	--	-- SGCN	Endemic to perennial streams of the Edward's Plateau region.	N	No impact.	There are no perennial streams in the project area.
Guadalupe darter *Percina apristis*	--	T SGCN	Endemic to Guadalupe River Basin; found in riffles, most common under or around small boulders in main current, prefers moderately turbid water.	N	No impact.	The project area is located outside of the Guadalupe River Basin.
Headwater catfish *Ictalurus lupus*	--	T SGCN	Currently limited to Rio Grande drainage, including Pecos River basin, springs, and sandy and rocky riffles, runs, and pools of clear creeks and small rivers.	N	No impact.	The project area is located outside of the Rio Grande drainage.

Ironcolor shiner *Notropis chalybaeus*	--	-- SGCN	Big Cypress Bayou and Sabine River basins.	N	No impact.	The project area is located outside of the Big Cypress Bayou and Sabine River watersheds.
San Marcos gambusia *Gambusia georgei*	LE	E	Extinct.	N	No effect.	This species is extinct.
Texas shiner *Notropis amabilis*	--	-- SGCN	In Texas, primarily found in Edwards Plateau streams from the San Gabriel River in the east to the Pecos River in the west. Rocky or sandy runs and pools.	N	No impact.	No suitable habitat for this species exists within the project area.
Insects						
A caddisfly *Ochrotrichia capitana*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	Species not known to occur in project area.
A caddisfly *Neotrichia juani*	--	-- SGCN	Specimens were collected from perennial and ephemeral rivers, and small spring-fed streams.	N	No impact.	Species not known to occur in project area.
A caddisfly *Xiphocentron messapus*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	Species not known to occur in project area.
A cave obligate beetle *Rhadine austinica*	--	-- SGCN	A cave obligate.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.

A mayfly *Procloeon distinctum*	--	-- SGCN	Mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation.	N	No impact.	Species not known to occur in project area.
American bumblebee *Bombus pensylvanicus*	--	-- SGCN	Open fields and farmland.	Y	May impact.	Potential habitat for this species could be present on the project area.
Comal Springs diving beetle *Comaldessus stygius*	--	-- SGCN	Known only from the outflows at Comal Springs; aquatic; diving beetles generally inhabit the water column.	N	No impact.	The project area is located outside of the Comal River watershed.
Comal Springs dryopid beetle *Stygoparnus comalensis*	LE	E SGCN	Usually cling to objects in a stream, sometimes found crawling on stream bottoms or along shores. Adults may leave stream and fly about.	N	No effect.	The project area is located outside of the Comal River watershed.
Comal Springs riffle beetle *Heterelmis comalensis*	LE	E SGCN	Comal and San Marcos Springs.	N	No effect.	The project area is located outside of the San Marcos and Comal River watersheds.
Edwards Aquifer diving beetle *Haideoporus texanus*	--	-- SGCN	Habitat poorly known. Known from one artesian well in Hays County.	N	No impact.	Species not known to occur in project area.
No accepted common name *Rhadine insolita*	--	-- SGCN	A cave obligate.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.

No accepted common name *Batrisodes grubbsi*	--	-- SGCN	A cave obligate.	N	No impact.	The project would not directly or indirectly impact caves or subterranean caverns.
No accepted common name *Oxyelophila callista*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	Species not known to occur in project area.
No accepted common name *Plauditus texanus*	--	-- SGCN	Larvae are associated with small to medium limestone cobble and macrophytes in shallow riffles of clear, cool, alkaline streams (P. McCafferty, personal communication, December 2003).	N	No impact.	Species not known to occur in project area.
San Marcos saddle-case caddisfly *Protoptila arca*	--	-- SGCN	Known from an artesian well in Hays County.	N	No impact.	Species not known to occur in project area.
Texas austrotinodes caddisfly *Austrotinodes texensis*	--	-- SGCN	Appears endemic to the karst springs and spring runs of the Edwards Plateau region.	N	No impact.	Species not known to occur in project area.
Mammals						
American badger *Taxidea taxus*	--	-- SGCN	Generalist. Prefers areas with soft soils that sustain ground squirrels for food. When inactive, occupies underground burrow.	N	No impact.	Species not known to occur in project area.
Big brown bat *Eptesicus fuscus*	--	-- SGCN	Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.	N	No impact.	There are no potential roost sites within the project area.

						Big brown bats may feed within the project area.
Big free-tailed bat *Nyctinomops macrotis*	--	-- SGCN	Habitat data sparse but records indicate that species prefers to roost in crevices and cracks in high canyon walls, but will use buildings.	N	No impact.	There are no potential roost sites within the project area. Big free-tailed bats may feed within the project area.
Cave myotis bat *Myotis velifer*	--	-- SGCN	Colonial and cave-dwelling. Also roosts in rock crevices, old buildings, carports, and under bridges.	N	No impact.	There are no potential roost sites within the project area. Cave myotis bats may feed within the project area.
Eastern red bat *Lasiurus borealis*	--	-- SGCN	Found in a variety of habitats in Texas. Usually associated with wooded areas.	N	No impact.	There are no potential roost sites within the project area. Eastern red bats may feed within the project area.
Eastern spotted skunk *Spilogale putorius*	--	-- SGCN	Generalist; open fields prairies, croplands, fence rows, farmyards, forest edges, woodlands. Prefer wooded, brushy areas and tallgrass prairies.	Y	May impact.	Potential habitat for this species could be present on the project area. Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
Hoary bat *Lasiurus cinereus*	--	-- SGCN	Known from montane and riparian woodland in Trans-Pecos, forests and woods in east and central Texas.	N	No impact.	There are no potential roost sites within the project area. Hoary bats may feed within the project area.

Long-tailed weasel *Mustela frenata*	--	-- SGCN	Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges and rocky desert scrub. Usually live close to water.	Y	May impact.	Potential habitat for this species could be present on the project area. Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
Mexican free-tailed bat *Tadarida brasiliensis*	--	-- SGCN	Roosts in buildings in east Texas. Largest maternity roosts are in limestone caves on the Edwards Plateau. Found in all habitats, forest to desert.	N	No impact.	There are no potential roost sites within the project area. Mexican free-tailed bats may feed within the project area.
Mexican long-tongued bat *Choeronycteris mexicana*	--	-- SGCN	Only Texas record is from riparian forest; in general--neotropical nectivorous species roosting in caves, mines, and large crevices found in deep canyons along the Rio Grande ; also found in buildings and often associated with big-eared bats (Plecotus spp.); single TX record from Santa Ana NWR.	N	No impact.	There are no potential roost sites within the project area. Mexican long-tongued bats may feed within the project area.
Mink *Neovison vison*	--	-- SGCN	Intimately associated with water; coastal swamps & marshes, wooded riparian zones, edges of lakes. Prefer floodplains.	N	No impact.	Species not known to occur in project area.
Mountain lion *Puma concolor*	--	-- SGCN	Generalist; found in a wide range of habitats statewide. Found most frequently in	N	No impact.	Species not known to occur in project area.

			rugged mountains & riparian zones.			
Plains spotted skunk *Spilogale putorius interrupta*	--	--	Open fields, prairies, croplands, fence rows, forest edges, woodlands. Prefers wooded, brushy areas and tallgrass prairie.	Y	May impact.	Potential habitat for this species could be present on the project area. Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
Swamp rabbit *Sylvilagus aquaticus*	--	-- SGCN	Primarily found in lowland areas near water including: cypress bogs and marshes, floodplains, creeks and rivers.	N	No impact.	Species not known to occur in project area.
Tricolored bat *Perimyotis subflavus*	--	-- SGCN	Forest, woodland and riparian areas are important. Caves are very important to this species.	N	No impact.	There are no potential roost sites within the project area. Hoary bats may feed within the project area.
Western hog-nosed skunk *Conepatus leuconotus*	--	-- SGCN	Habitats include woodlands, grasslands and deserts to 7200 feet, most common in rugged, rocky canyons.	N	No impact.	Species not known to occur in project area.
Western spotted skunk *Spilogale gracilis*	--	-- SGCN	Brushy canyons, rocky outcrops on hillsides and walls of canyons. In semi-arid brushlands in U.S., in wet tropical forests in Mexico.	N	No impact.	Species not known to occur in project area.

Woodland vole *Microtus pinetorum*	--	-- SGCN	Grassy marshes, swamp edges, old-field/pine woodland ecotones, tallgrass fields, generally sandy soils.	N	No impact.	Species not known to occur in project area.
Mollusks						
False spike mussel *Quadrula mitchelli*	--	T SGCN	Possibly extirpated in Texas. Medium to large rivers with varying substrates.	N	No impact.	No habitat for this species exists in the project area.
Glossy wolfsnail *Euglandina texasiana*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	No habitat for this species exists in the project area.
Golden orb *Quadrula aurea*	--	-- SGCN	Sand and gravel in some location and mud at others. Guadalupe, San Antonio, Lower San Marcos, and Nueces River basins.	N	No effect.	No habitat for this species exists in the project area.
Guadalupe orb *Cyclonaias necki*	--	T	Species' distribution is limited to the Guadalupe River basin. Occurs in both mainstem and tributary habitats. Often found in substrates composed of sand, gravel, and cobble, including mud-silt or gravel-filled cracks in bedrock slabs.	N	No impact.	The project area is outside of the Guadalupe River basin.
No accepted common name *Holospira goldfussi*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	No habitat for this species exists in the project area.
No accepted common name	--	--	Habitat description is not available at this time.	N	No impact.	No habitat for this species exists in the project area.

Millerelix gracilis		SGCN				
No accepted common name *Elimia comalensis*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	No habitat for this species exists in the project area.
No accepted common name *Phreatodrobia conica*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	No habitat for this species exists in the project area.
No accepted common name *Phreatodrobia micra*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	No habitat for this species exists in the project area.
No accepted common name *Phreatodrobia plana*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	No habitat for this species exists in the project area.
No accepted common name *Phreatodrobia punctata*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	No habitat for this species exists in the project area.
No accepted common name *Phreatodrobia rotunda*	--	-- SGCN	Habitat description is not available at this time.	N	No impact.	No habitat for this species exists in the project area.
Texas fatmucket *Lampsilis bracteata*	C	T SGCN	Streams and rivers on sand, mud and gravel substrates. Colorado and Guadalupe River basins.	N	No effect.	No habitat for this species exists in the project area.
Texas Fawnsfoot *Truncilla macrodon*	C	--	Little known; possibly rivers and larger streams, and intolerate of impoundment; flowing rice irrigation canals, possibly sand,	N	No effect.	No habitat for this species exists in the project area.

			gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River Basins.			
Texas pimpleback *Quadrula petrina*	C	T SGCN	Mud, gravel and sand substrates. Generally in places with slow flow rates. Colorado and Guadalupe River basins.	N	No effect.	No habitat for this species exists in the project area.
Reptiles						
Cagle's map turtle *Graptemys caglei*	--	T SGCN	Guadalupe River System. Shallow water with swift to moderate flow and gravel or cobble bottom.	N	No impact.	The project area is located outside of the Guadalupe River watershed.
Common garter snake *Thamnophis sirtalis*	--	--	Terrestrial and aquatic: Habitats used include the grasslands and modified open areas in the vicinity of aquatic features, such as ponds, streams or marshes. Damp soils and debris for cover are thought to be critical.	Y	May impact.	Riparian areas and streams are present within the project area. Utilize Terrestrial Reptile BMPs.
Eastern box turtle *Terrapene carolina*	--	-- SGCN	Terrestrial: Eastern box turtles inhabit forests, fields, forest-brush, and forest-field ecotones.	Y	May impact.	Fields and forest-field habitat is present within the project area. Utilize Terrestrial Reptile BMPs.
Keeled earless lizard *Holbrookia propinqua*	--	-- SGCN	Terrestrial: Habitats include coastal dunes, barrier islands, and other sandy areas (Axtell 1983). Although it occurs well inland, this species is most abundant on coastal dunes,	N	No impact.	No habitat for this species exists in the project area.

			were it seeks shelter in the burrows of small mammals or crabs (Bartlett and Bartlett 1999).			
Plateau spot-tailed earless lizard *Holbrookia lacerata*	--	-- SGCN	Terrestrial: Habitats include moderately open prairie-brushland regions, particularly fairly flat areas free of vegetation or other obstructions (e.g., open meadows, old and new fields, graded roadways, cleared and disturbed areas, prairie savanna, and active agriculture including row crops); also, oak-juniper woodlands and mesquite-prickly pear associations (Axtell 1968, Bartlett and Bartlett 1999).	Y	May impact.	Potential habitat for this species in agricultural areas on the eastern portion of the project area. Utilize Terrestrial Reptile BMPs.
Slender glass lizard *Ophisaurus attenuatus*	--	-- SGCN	Terrestrial: Habitats include open grassland, prairie, woodland edge, open woodland, oak savannas, longleaf pine flatwoods, scrubby areas, fallow fields, and areas near streams and ponds, often in habitats with sandy soil.	Y	May impact.	Potential habitat for this species could be found along Mustang Branch. Utilize Terrestrial Reptile BMPs.
Texas garter snake *Thamnophis sirtalis annectens*	--	-- SGCN	Wet or moist microhabitats are conducive to the species occurrence, but it is not restricted to them.	Y	May impact.	Potential habitat for this species could be found along Mustang Branch. Utilize Terrestrial Reptile BMPs.
Texas horned lizard *Phrynosoma cornutum*	--	T SGCN	Open, arid and semi-arid regions with sparse vegetation. Soil may vary in texture from sandy to rocky.	N	No impact.	No open, arid or semi-arid areas of sparse vegetation exist within the project area; therefore, there is no

						suitable habitat for this species.
Texas map turtle *Graptemys versa*	--	-- SGCN	Aquatic: Primarily a river turtle but can also be found in reservoirs. Can be found in deep and shallow water with sufficient basking sites (emergent rocks and woody debris).	N	No impact.	No rivers are present within the project area.
Western box turtle *Terrapene ornata*	--	-- SGCN	Terrestrial: Ornate or western box trutles inhabit prairie grassland, pasture, fields, sandhills, and open woodland.	N	No impact.	No prairie, grassland, or open woodlands over sandy soil are present within the project area.
Western hognose snake *Heterodon nasicus*	--	-- SGCN	Terrestrial: Shortgrass or mixed grass prairie, with gravel or sandy soils. Often found associated with draws, floodplains, and more mesic habitats within the arid landscape. Frequently occurs in shrub encroached grasslands.	Y	May impact.	Potential habitat for this species could be found along Mustang Branch. Utilize Terrestrial Reptile BMPs.
Plants						
Bigflower cornsalad *Valerianella stenocarpa*	--	-- SGCN	Usually along creekbeds or in vernally moist grassy open areas (Carr 2015).	N	No impact.	Species not known to occur in the project area.
Bracted twistflower *Streptanthus bracteatus*	C	-- SGCN	Shallow, well-drained gravelly clays and clay loams over limestone in oak juniper woodlands and associated openings.	Y	May impact.	Potential habitat for this species occurs on the western portion of the project area.

Buckley tridens *buckleyanus*	--	-- SGCN	Occurs in juniper-oak woodlands on rocky limestone slopes.	N	No impact.	Species not known to occur in the project area.
Canyon mock-orange *Philadelphus texensis var. ernestii*	--	-- SGCN	Usually found growing from honeycomb pits on outcrops of Cretaceous limestone exposed as rimrock along mesic canyons, usually in the shade of mixed evergreen-deciduous canyon woodland.	N	No impact.	Species not known to occur in the project area.
Engelmann's bladderpod *Physaria engelmannii*	--	-- SGCN	Grasslands and calcareous rock outcrops in a band along the eastern edge of the Edwards Plateau, ranging as far north as the Red River.	N	No impact.	Species not known to occur in the project area.
Glass Mountains coral-root *Hexalectris nitida*	--	-- SGCN	Apparently rare in mixed woodlands in canyons in the mountains of Brewster County. More numerous under Ashe juniper in woodlands over limestone on the Edwards Plateau, Callahan Divide, and Lampasas Cutplain.	N	No impact.	Species not known to occur in the project area.
Gravelbar brickellbush *Brickellia dentata*	--	-- SGCN	Restricted to frequently-scoured gravelly alluvial beds in creek and river bottoms.	N	No impact.	Species not known to occur in the project area.
Hall's prairie clover *Dalea hallii*	--	-- SGCN	In grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides.	N	No impact.	Species not known to occur in the project area.
Heller's marbleseed *Onosmodium helleri*	--	--	Occurs in loamy calcaerious soils in oak-juniper woodlands	N	No impact.	Species not known to occur in the project area.

		SGCN	on rocky limestone slopes. Often in mesic areas.			
Hill Country wild-mercury *Argythamnia aphoroides*	–	– SGCN	Mostly in bluestem-grama grasslands associated with plateau live oak woodlands on shallow to moderately deep clays and loams over limestone on rolling uplands.	N	No impact.	Species not known to occur in the project area.
Narrowleaf brickellbush *Brickellia eupatorioides var. gracillima*	–	– SGCN	Moist to dry gravelly alluvial soils along riverbanks, but also on limestone slopes.	N	No impact.	Species not known to occur in the project area.
Net-leaf bundleflower *Desmanthus reticulatus*	–	– SGCN	Mostly on clay prairies of the coastal plain of central and south Texas.	N	No impact.	Species not known to occur in the project area.
Osage Plains false foxglove *Agalinis densiflora*	–	– SGCN	Prairies, dry limestone soils.	N	No impact.	Species not known to occur in the project area.
Plateau loosestrife *Lythrum ovalifolium*	–	– SGCN	Banks and gravelly beds of perennial (or strong intermittent) streams on the Edwards Plateau, Llano Uplift and Lampasas Cutplain.	N	No impact.	Species not known to occur in the project area.
Plateau milkvine *Matelea edwardsensis*	–	– SGCN	Occurs in various types of juniper-oak and oak-juniper woodlands.	N	No impact.	Species not known to occur in the project area.
Scarlet leather-flower *Clematis texensis*	–	–	Usually in oak-juniper woodlands in mesic rocky	N	No impact.	Species not known to occur in the project area.

		SGCN	limestone canyons or along perennial streams.			
Sycamore-leaf snowbell *Styrax platanifolius ssp. Platanifolius*	–	– SGCN	Usually in oak-juniper woodlands on steep rocky banks and ledges along intermittent or perennial streams.	N	No impact.	Species not known to occur in the project area.
Texas amorpha *roemeriana*	–	– SGCN	Juniper-oak woodlands or shrublands on rocky limestone slopes. Sometimes on dry shelves above creeks.	N	No impact.	Species not known to occur in the project area.
Texas barberry *Berberis swaseyi*	–	– SGCN	Shallow calcareous stony clay of uplands grasslands/shrublands over limestone as well as in loamier soils in openly wooded canyons and on creek terraces.	N	No impact.	Species not known to occur in the project area.
Texas claret-cup cactus *Echinocereus coccineus var. paucispinus*	–	– SGCN	Mountains, hills, and mesas, igneous and limestone, oak-juniper-pinyon woodland or juniper woodland on limestone mesas, mostly rocky habitats but also in alluvial basins, grasslands, or among mesquite or other shrubs.	N	No impact.	Species not known to occur in the project area.
Texas fescue *Festuca versuta*	–	– SGCN	Occurs in mesic woodlands on limestone-derived soils on stream terraces and canyon slopes.	N	No impact.	Species not known to occur in the project area.

Texas seymeria *Seymeria texana*	–	– SGCN	Found primarily in grassy openings in juniper-oak woodlands on dry rocky slopes, but sometimes on rock outcrops in shaded canyons.	N	No impact.	Species not known to occur in the project area.
Texas wild-rice *Zizania texana*	LE	E SGCN	Spring-fed river in clear, cool, swift water mostly under 1 meter in depth. Coarse sandy soils.	N	No effect.	No spring fed rivers are present in the project area.
Threeflower penstemon *Penstemon triflorus ssp. triflorus*	–	– SGCN	Occurs sparingly on rock outcrops and in grasslands associated with juniper-oak woodlands (Carr 2015).	N	No impact.	Species not known to occur in the project area.
Tree dodder *Cuscuta exaltata*	–	– SGCN	Parasitic on various Quercus, Juglans, Rhus, Vitis, Ulmus, and Diospyros species as well as other woody plants.	N	No impact.	Species not known to occur in the project area.
Turnip-root scurfpea *Pediomelum cyphocalyx*	–	– SGCN	Grasslands and openings in juniper-oak woodlands on limestone substrates on the Edwards Plateau and in north-central Texas (Carr 2015).	N	No impact.	Species not known to occur in the project area.
Warnock's coral-root *Hexalectris warnockii*	–	–	In leaf litter and humus in oak-juniper woodlands on shaded slopes and intermittent, rocky creekbeds in canyons.	N	No impact.	Species not known to occur in the project area.

Sources: (USFWS, 2020); (IPaC, 2020); (TPWD, 2020)

Status Legend: **LE =** Federally Listed Endangered
LT = Federally Listed Threatened
E = State-Listed Endangered
T = State-Listed Threatened

SGCN = Species of Greatest Conservation Need
NL = Not listed
DL = Delisted
C = Candidate for Listing

No documented occurrences or designated critical habitat for any listed threatened or endangered species occur within the project area. Although confirmed habitat for the golden-cheeked warbler occurs within 0.5 mile of the proposed project, no suitable habitat for any threatened or endangered listed species was observed within the project area during the field survey.

The Austin blind salamander has designated critical habitat at Barton Springs which is approximately 15 miles north of the project area. There is currently no critical habitat identified for the Barton Springs salamander. Groundwater from the Buda area flows northward to the Barton Springs Complex. Indirect effects to aquifer water quality would be addressed through adherence to the TCEQ standards for BMPs over the Edwards Aquifer Recharge Zone, as well as optional enhanced measures to further protect water quality of the Edwards Aquifer. Therefore, no direct effects to the critical habitat at Barton Springs would occur, and any indirect effects caused by a decrease in water quality or quantity would be immeasurable (insignificant) due to the subterranean distance contaminants would have to travel, and would be extremely unlikely to occur (discountable) due to the water quality protection measures proposed for this project. The Least Tern, Piping Plover, and Red Knot are federally-listed species within Hays County, but effects on these species are only considered for wind energy projects.

No impacts to threatened or endangered species would occur with the No-Build Alternative.

5.12 Air Quality

The proposed project is located within Hays County, which is in attainment or unclassifiable for all National Ambient Air Quality Standards (NAAQS); therefore, the transportation conformity rules do not apply. The proposed project is not located within a carbon monoxide (CO) or particulate matter (PM) nonattainment or maintenance area; therefore, a project level hot-spot analysis is not required. Traffic data for the estimated time of completion (ETC) year 2022 and design year 2045 is 3,800 Annual Average Daily Traffic (AADT) vehicles per day and 8,200 vehicles per day, respectively. A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that the CO standard would ever be exceeded as a result of any project with an AADT below 140,000. The AADT projections for the project do not exceed 140,000 vehicles per day; therefore a CO Traffic Air Quality Analysis was not required. A qualitative Mobile Source Air Toxics (MSAT) analysis was completed for the proposed project and is included in the Air Quality Technical Report. The amount of MSAT emitted would be proportional to the vehicles miles travelled (VMT)

assuming that other variables such as fleet mix are the same for each alternative. Because VMT for the No-Build Alternative is higher than for any of the Build Alternatives, higher MSAT levels are not expected from any of the Build Alternatives compared to the No-Build. Under each alternative there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions would occur. However, EPA's vehicle and fuel regulations will bring about significantly lower MSAT levels for the area in the future than today.

The project is located in Hays County within an area that is in attainment or unclassifiable for all NAAQS; therefore, a congestion management process (CMP) analysis is not required.

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

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

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

Under the No-Build Alternative, current air quality trends would be expected to continue.

5.13 Hazardous Materials

An Initial Site Assessment (ISA) was conducted to identify potential hazardous materials in the project area and an ISA form was completed. An analysis of the ISA data indicates that the proposed project would not involve the acquisition of known unresolved contamination where TxDOT could reasonably expect to assume liability for corrective action upon

acquisition or involve known hazardous materials impacts that could be anticipated to adversely affect construction (e.g. cannot be resolved before letting or during construction).

No impacts to hazardous materials would occur from the No-Build Alternative.

5.14 Traffic Noise

A Noise Technical Report was produced for the proposed project. This analysis was accomplished in accordance with TxDOT's (FHWA-approved) *Guidelines for Analysis and Abatement of Roadway Traffic Noise* (2011).

This report revealed that land use activity areas adjacent to the proposed project currently consist of commercial/industrial development (NAC F) and land which is not permitted for development (NAC G). Therefore, there are no receivers that would be impacted by traffic noise and benefit from any feasible and reasonable noise abatement measures.

To avoid noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs must ensure, to the maximum extent possible, no new activities are planned or constructed along or within the predicted noise impact contours (2035 Build Alternative), as shown in Table 4 below.

Table 4. Predicted Noise Impact Contours (2035 Build Alternative)

Roadway Segment	Approximate Width of TXDOT Noise Abatement Criteria (Distance in feet from edge of proposed roadway) 2035 Build Alternative	
	Activity Category B & C	Activity Category E
	Impact Contour Leq(h) 66 dBA	Impact Contour Leq(h) 71 dBA
Robert S. Light Blvd. (FM 1626 to FM 2770)	≈ within ROW	≈ within ROW
Robert S. Light Blvd. (FM 2770 to FM 967)	≈ within ROW	≈ within ROW
Robert S. Light Blvd. (east of FM 967)	≈ 135	≈ 55

A copy of this noise analysis will be made 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.

Any potential receivers would not be expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities would not be expected. Provisions would be included in the plans and specifications requiring 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.

Under the No-Build Alternative, traffic noise levels would be expected to increase with an associated increase in traffic volumes on existing roadways.

5.15 Induced Growth

The project would not be expected to result in induced growth impacts. The estimation of possible impacts was based on a quantitative analysis of available GIS data, a qualitative analysis of planning documents, and population forecasts included in the Indirect and Cumulative Impacts Technical Report. A map showing the study area for this analysis is included in Appendix F, Figure 5.

Property owned by Centex Materials is located adjacent to portions of the proposed project. These parcels are used for the purpose of surface mining of sand and gravel, which is consistent with the past, present and planned future use. Centex Materials currently has full access to these parcels and would not be provided new access by the proposed project. The Centex Materials property is an active surface mine and does not have the potential to be developed during the study timeframe. Parcels owned by Centex Materials are therefore considered undevelopable and no changes are expected to occur.

The proposed project would not make any undeveloped parcels newly accessible, or provide utilities, water, or sewer lines to any undeveloped parcels. The project would not provide new access to any developable lands. The project would alter traffic patterns by reducing travel times and providing an alternate route for local traffic. The proposed project would provide a more direct access route to IH-35 from FM 1626 and FM 967, however due to the lack of developable land along the proposed alignment, and near the projects western limits at FM 1626, the project would not be expected to induce development as a result of improved mobility.

5.16 Cumulative Impacts

The proposed project traverses the recharge, contributing, and transition zones of the Barton Springs segment of the Edwards Aquifer. Portions of the Edwards Aquifer are designated as sole source aquifers as they are the sole source of drinking water for nearly 2 million people in central Texas. The aquifer itself underlies approximately 4,350 square miles within the state. In addition, the aquifer provides habitat for a number of threatened and endangered aquatic and karst species, including the Barton Springs salamander. Regulations to protect water quality within the Edwards Aquifer began on a limited basis in 1970 and evolved over time to cover all construction-related activities with the potential to pollute the aquifer over an eight-county area.

The Resource Study Area (RSA) for the Edwards Aquifer resource is defined as the Edwards Aquifer Recharge, Transition and Contributing zones created by TAC, Title 30, Chapter 213. This RSA was selected because it encompasses the area that most significantly contributes to the overall health of the Edwards Aquifer resource. The project would require approximately 8 acres of vegetation to be converted to impervious cover within the RSA. Future development within the study area is expected to continue to reflect the City of Buda's Future Land Development Plans. Development along IH-35 will likely trend towards commercial development; residential development will likely occur along smaller area roadways where conditions are favorable, with industrial land use remaining the predominant land use adjacent to the proposed project. In combination with past, current and future development, the proposed project would contribute to the ongoing conversion of permeable land cover to impermeable land cover within the Edwards Aquifer recharge zone. No specific future developments were identified within the RSA and therefore the amount of impermeable land is inestimable. The cumulative effects to the Edwards Aquifer would be limited by the Edwards Aquifer Protection Program and the regulatory protection provided by local and regional water quality authorities. The conditions of this resource is anticipated to be maintained or improved through the protection measures and management activities of local, state and federal agencies. Overall cumulative impacts from all sources to the Edwards Aquifer are not substantial and the project contribution to the overall cumulative impacts would be minimal.

5.17 Construction Phase Impacts

The new roadway would be approximately 1.8 miles long and is proposed to be constructed in two phases. The initial construction would include an interim two-lane extension, followed by an ultimate four-lane divided section. The proposed speed limit is 70 miles-per-hour.

Construction Activity Impacts, Traffic Closures and Detours

Construction activities would temporarily affect traffic on FM 1626, FM 2770 and RM 967. A traffic control plan would be developed to minimize traffic disruption. Access to adjacent residences and businesses would remain open through all phases of construction. No detours would be anticipated to be required during the construction of the proposed project. If a detour is determined to be necessary, approval from TxDOT and the City of Buda would be obtained prior to the re-routing of traffic.

Noise

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receptors is expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems

Dust Pollution

During the construction phase of this project, temporary increases in particulate matter (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 PM emissions will be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. Considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be utilized including compliance with applicable regulatory requirements, it is not anticipated that emissions from construction of this project will have a significant impact on air quality in the area.

Air Pollution

The construction phase of the proposed project may generate a temporary increase in MSAT emissions from equipment and related vehicles. The primary MSAT construction related emissions are PM from site preparation and diesel PM from diesel powered construction equipment and vehicles. However, considering the temporary and transient nature of construction related emissions, as well as the mitigation actions to be used, it is not anticipated that emissions from construction of the project would have a significant impact

on air quality in the area. Additional discussion of construction-related air emissions is included in Section 5.12.

Water Quality Impacts

Groundwater impacts during the construction phase of the proposed project could occur if voids connected to the aquifer or containing groundwater are intersected during excavation activities, such as for bridge piers. Schematics of the proposed project show a maximum build depth for the bridge columns of approximately 60 feet. This would not impact the groundwater table which was reported by the USGS to be 160 feet below the surface.

Previously unknown caves and recharge features may be impacted by construction activities. Trenching and boring may create, uncover, or enlarge openings, changing the hydrology and atmospheric conditions of the feature. New or enlarged openings may allow for runoff to enter aquifer conduits with little to no opportunity for pollution attenuation from natural methods such as soil percolation. The accidental discovery of recharge features or other underground voids may require them to be partially or completely plugged, which could lead to their removal from the recharge matrix. A specific karst void discovery protocol would be developed for the project.

The TCEQ has in place the Edwards Aquifer Protection Program which provides guidelines on complying with the Edwards Aquifer Rules, as well as Optional Enhanced Measures that may be adopted to further protect water quality (TCEQ 2013). As mentioned previously, a WPAP and a SWPPP would be completed for the project. Construction on the project would not commence until completion and approval of the WPAP is received from the TCEQ. The WPAP would also detail all temporary and permanent BMPs that would be utilized to ensure protection of water quality in the Edwards Aquifer, following the Edwards Aquifer rules and regulations outlined in Chapter 213 of the TAC. The code states that BMPs and other mitigation measures must control the discharge of pollution from regulated activities after construction is completed. And, these measures must be designed, constructed, operated, and maintained to ensure that 80% of the incremental increase in the annual mass loading of TSS from the site caused by the activity is removed.

BMPs to minimize impacts by runoff to groundwater resources will be incorporated, including sediment control fencing, baled hay, rock filter dams and construction exits. Permanent BMPs are also implemented to reduce pollution of surface water or stormwater that originates on site or upstream from the site and flows across the project site. Chapter 3 of the TCEQ RG-348 describes in detail 10 permanent BMPs that are appropriate for the

Edwards Aquifer Region, along with maintenance guidelines necessary to ensure the long-term performance of the control function as designed.

6.0 Agency Coordination

Coordination with TPWD was completed on December 1, 2015. Coordination is attached in Appendix G.

Coordination was completed with the THC for archeological and historic resources on May 14, 2015 and June 15, 2018, respectively. Coordination for these resources is attached in Appendix G.

Documents presenting coordination with the U.S. Department of Agriculture concerning the FPPA are also included in Appendix G.

7.0 Public Involvement

An open house public meeting was held to provide the public with information associated with the proposed Robert S. Light Blvd. Extension Project, and to solicit public input (Appendix H). The open house was held on March 20, 2014 at Elm Grove Elementary, 801 West FM 1626 Buda, Texas 78610, from 6–8 p.m. Certified letters were mailed on February 27, 2014 to area stakeholders, including those landowners whose property would be affected by the proposed project. These letters invited the stakeholders to attend the open house in order to review the proposed alignments and discuss the proposed project with members of the project team. In addition, notices of the open house were issued in area newspapers on three occasions. In total, six comments were received from attendees at the meeting. Five of these comments were favorable to the project and one was neutral. No changes were made to the proposed project as a result of these comments. Public meeting/public hearing documentation may be inspected and copied upon request at the TxDOT Austin District office.

A public hearing will be held following the approval of the Draft EA. Notice of impending construction would be provided to owners of adjoining property and affected local governments and public officials. This notice may be provided via a sign or signs posted in the ROW, mailed notice, printed notice distributed by hand, or notice via website when the recipient has previously been informed of the relevant website address. This notice would

be provided after the environmental decision but before earthmoving or other activities requiring the use of heavy equipment begin.

8.0 Post-Environmental Clearance Activities and Contractor Communications

8.1 Post-Environmental Clearance Activities

The following is a list of activities that would be performed following environmental clearance.

1. A SWPPP would be prepared and implemented and a NOI would be submitted to the TCEQ prior to construction.
2. A WPAP would be submitted and approval received prior to construction in accordance with the Edwards Aquifer Rules.
3. Coordination with the local Floodplain Administrator would be completed prior to construction.
4. If required, authorization from the USACE for a NWP 14 with PCN for impacts to wetlands would be obtained prior to construction.

8.2 Design/Contractor Communications

The following sections identify environmental permits, issues and commitments that would be required for the implementation of the Build Alternative and would be conveyed to the design or construction contractor.

Construction Management

1. A traffic control plan would be developed to minimize traffic disruption. Access to adjacent residences and businesses would remain open through all phases of construction.
2. If a detour is determined to be necessary, approval from TxDOT and the City of Buda would be obtained prior to the re-routing of traffic.
3. A notice of impending construction would be provided via a sign or signs posted in the ROW, mailed notice, printed notice distributed by hand, or notice via website when the recipient has previously been informed of the relevant website address prior to earthmoving activities.

Archeological Resources

1. In the event that archeological materials are discovered during construction, work in the immediate area shall cease, and the THC/SHPO will be contacted to initiate accidental discovery procedures in accordance with the terms of the PA between the THC, the FHWA, the ACHP, and TxDOT.

Water Quality

1. A SWPPP would be in place prior to the start of construction and would be maintained until the site is stabilized.
2. A NOI stating that a SWPPP has been developed would be filed with the TCEQ prior to the beginning of construction.

Jurisdictional Waters of the U.S. (Section 404 Permitting)

1. If it is determined that placement of temporary fill material into jurisdictional Waters of the U.S. is required during construction, the fill would be authorized by NWP 14, "Linear Transportation Projects", with a PCN if required (USACE, 2016).
2. The activity would comply with all general and regional conditions applicable to NWP 14.

Edwards Aquifer

1. In compliance with the TCEQ Edwards Aquifer Protection Program, a geological field reconnaissance survey was performed and a memo of the results was submitted on November 24, 2015, which will be included as part of the WPAP prior to any construction activities.
2. Construction on the project would not commence until completion and approval of the WPAP is received from the TCEQ.
3. If any karst features are discovered during construction, work in the immediate vicinity would cease and the area would be inspected by qualified personnel prior to continuation of construction activities.

Vegetation and Habitat

1. Efforts during construction would be taken to avoid and minimize disturbance of vegetation and soils.
2. Areas within the existing and proposed ROW, but outside the limits of construction would not be disturbed.
3. All areas disturbed during construction, would be revegetated, according to TxDOT specifications, as soon as it becomes practicable.

4. In accordance with Executive Order 133112 on Invasive Species, the EM on Beneficial Landscaping, and the 1999 FHWA guidance on invasive species, only non-invasive species would be planted within the ROW.

Migratory Birds Protections

1. The Migratory Bird Treaty Act of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole, without a Federal permit issued in accordance within the Act's policies and regulations. The contractor would remove all old migratory bird nests from any structure where work would be done from October 1 to February 14. In addition, the contractor would be prepared to prevent migratory birds from building nest(s) between February 15 and October 1. In the event that migratory birds are encountered on-site during project construction, efforts to avoid adverse impacts on protected birds, active nests, eggs, and/or young would be observed.

Bird BMPs

In addition to complying with the MBTA, the following BMPs should be followed:

1. Prior to construction, perform daytime surveys for nests including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be disturbed.
2. Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season;
3. Avoid the removal of unoccupied, inactive nests, as practicable;
4. Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair;
5. Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.

Terrestrial Reptile BMPs

1. Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting. Plastic netting should be avoided to the extent practicable.
2. For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling.

3. Inform contractors that if reptiles are found on project site allow species to safely leave the project area.
4. Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible.
5. Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

Water Quality BMPs
In addition to BMPs required for a TCEQ SWPPP and/or 401 water quality certification:

1. Minimize the use of equipment in streams and riparian areas during construction. When possible, equipment access should be from banks, bridge decks, or barges.
2. When temporary stream crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.

Hazardous Materials

1. If hazardous materials are unexpectedly encountered during construction, appropriate measures would be taken to assess, contain and remediate the site in accordance with applicable federal, state, and local regulations.
2. The contractor would take appropriate measures to prevent, minimize, and control the spill of fuels, lubricants, and hazardous materials in the construction staging areas.
3. All spills will be cleaned immediately and any contaminated soil will be immediately removed from the site and be disposed of properly.
4. Designated areas will be identified for spoils disposal and materials storage and be protected from inflow or runoff.
5. All materials being removed and/or disposed of by the contractor would be done so in accordance with state and federal laws and by the approval of TxDOT.

9.0 Conclusion

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

10.0 References

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11.0 Appendices

Appendix A – Project Location Map

Appendix 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 – Comment and Response Matrix from Public Meeting/Public Hearing

Appendix A—Project Location Map

Figure 1. Project Location Map

Appendix B—Project Photos

Photo 1. Intersection of Robert S. Light Boulevard and RM 967 facing west

Photo 2: Proposed intersection location at FM 1626 facing east

Photo 3: Typical mining spoil found throughout project area

Photo 4: Project area west of FM 2770 facing south

Photo 5: Proposed alignment facing west at FM 2770

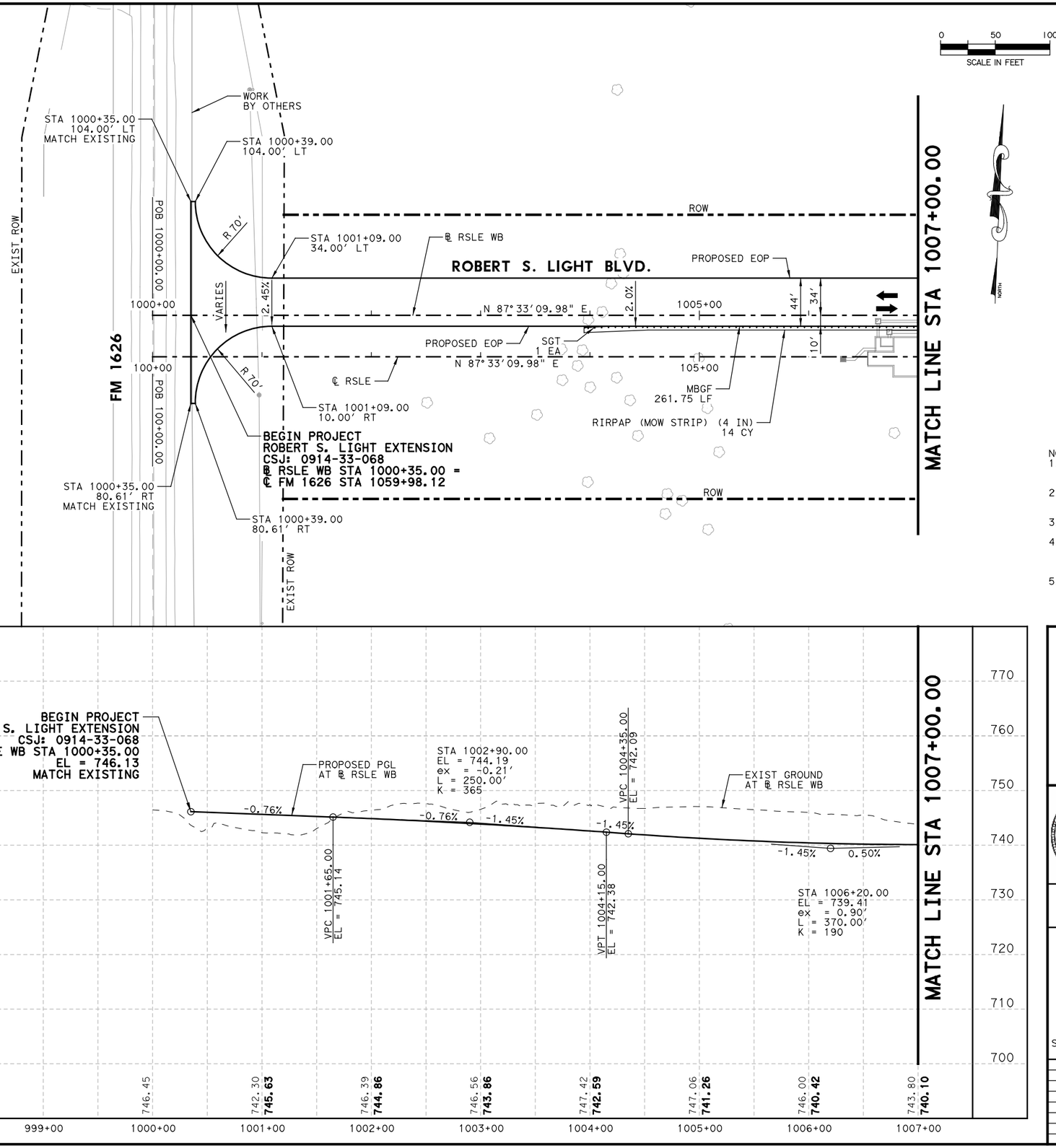
Photo 6: Proposed crossing at BNSF railroad facing west

Photo 7: Mustang Branch near proposed crossing facing south

Photo 8: Mustang Branch near proposed crossing facing north

Appendix C—Schematics

100% PLANS



NOTES:
1. STATIONING BASED ON RSLE WB BASELINE UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT (EOP) UNLESS OTHERWISE NOTED.
3. PGL LOCATION IS AT THE RSLE WB BASELINE.
4. REFER TO "DRIVEWAY SUMMARY" SHEET FOR ADDITIONAL INFORMATION. HMAC DRIVEWAYS TO BE CONSTRUCTED AND PAID SAME AS ROADWAY PAVEMENT.
5. REFER TO "INTERSECTION DETAIL" SHEETS FOR ADDITIONAL INFORMATION.

PRELIMINARY
FOR INTERIM REVIEW ONLY. NOT FOR PERMITTING, BIDDING, OR CONSTRUCTION.
Prepared by or under the Direct Supervision of
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3/28/2016

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Texas Department of Transportation

ROBERT S. LIGHT EXTENSION

ROADWAY PLAN AND PROFILE ROBERT. S. LIGHT EXTENSION

SCALE: 1"=100'-H
1"=20'-V

SHEET 1 OF 11

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
DR	TEXAS	AUS	HAYS	72
CHECK	CONTROL	SECTION	JOB	
BD	0914	33	068,ETC	
CHECK				
GV				

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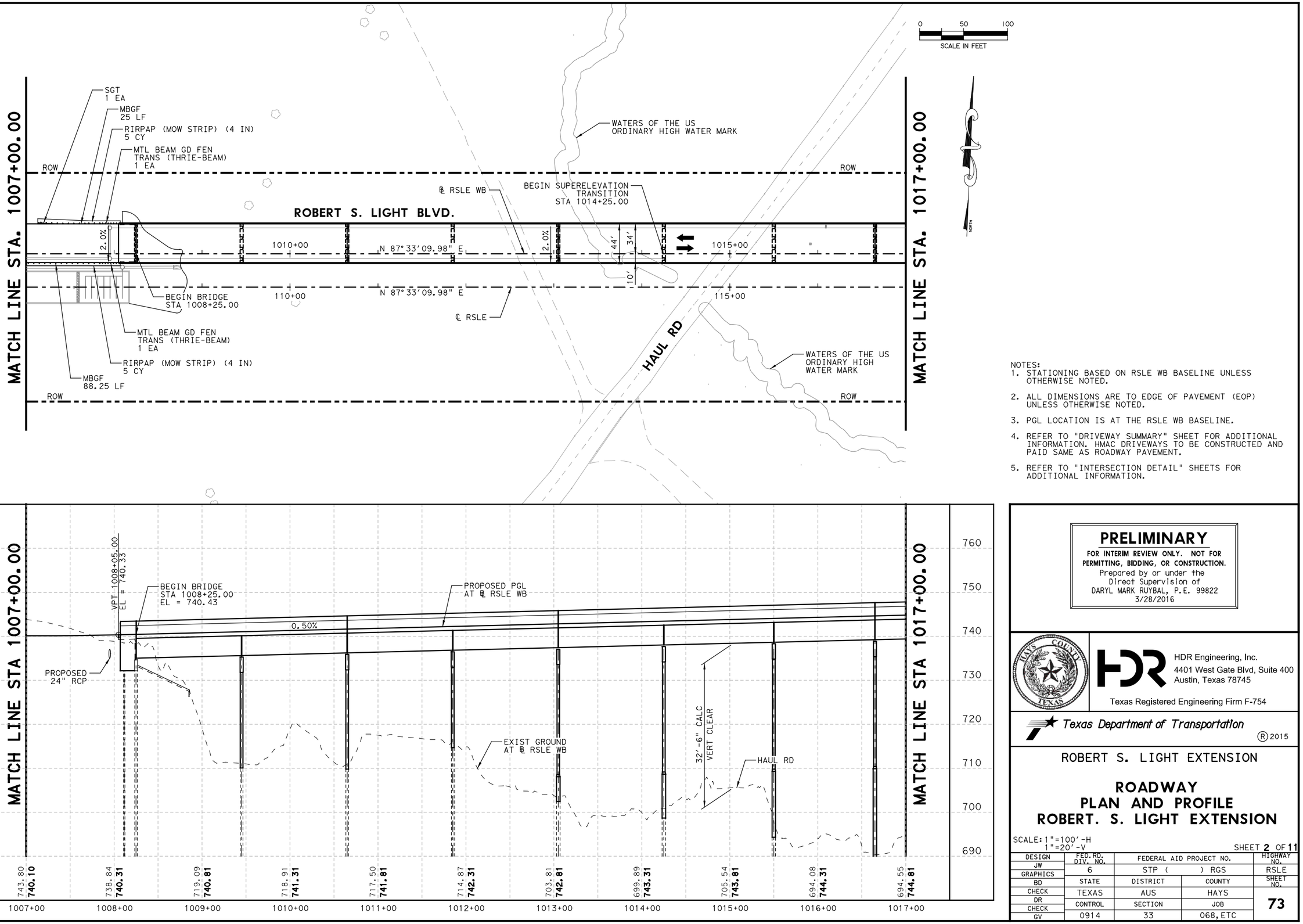
100% PLANS



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ROBERT S. LIGHT EXTENSION

ROADWAY PLAN AND PROFILE ROBERT. S. LIGHT EXTENSION

SCALE: 1"=100'-H
1"=20'-V

SHEET 2 OF 11

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
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CHECK				
GV				

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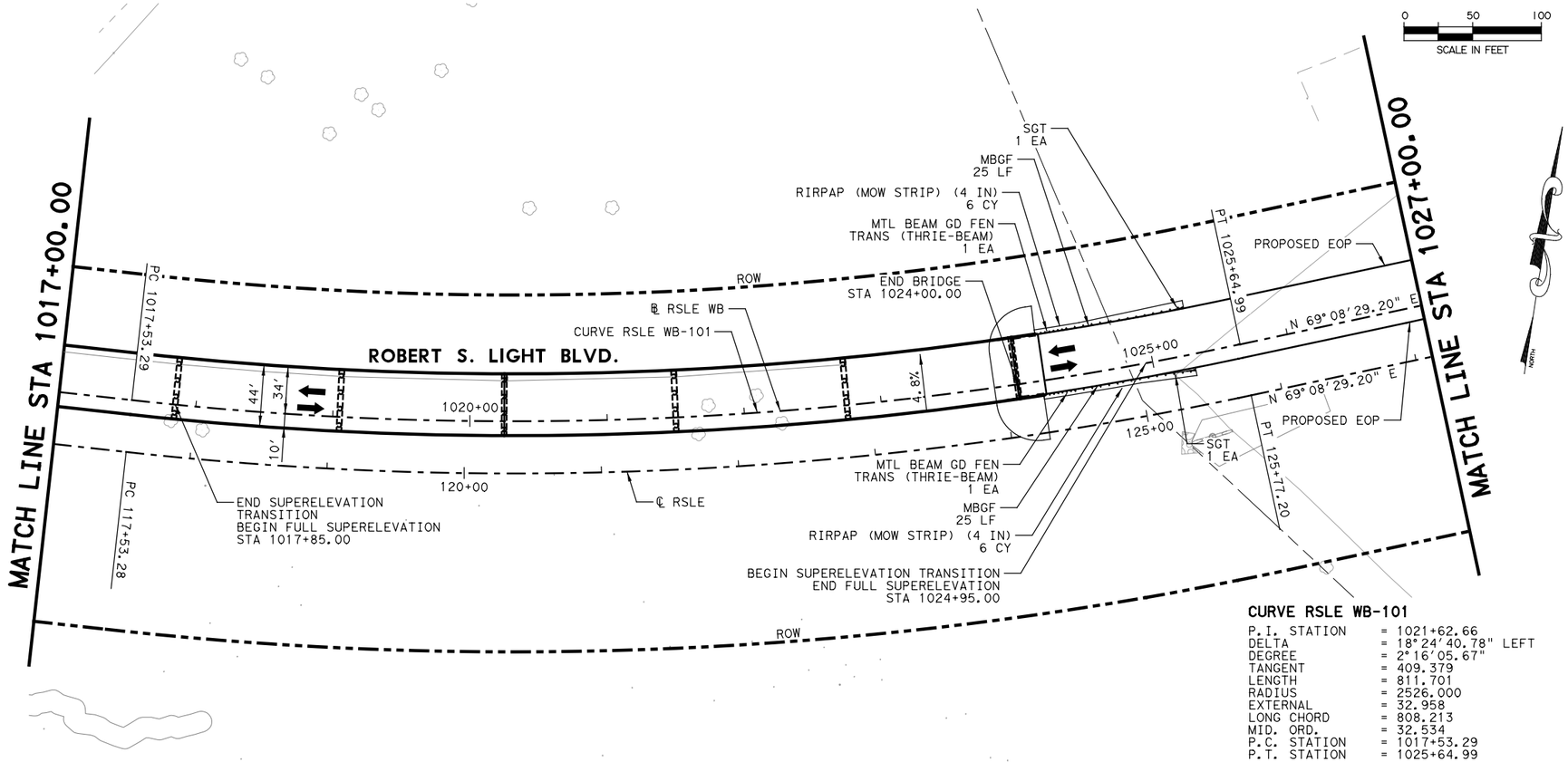
100% PLANS



CURVE RSLE WB-101

P.I. STATION	= 1021+62.66
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DEGREE	= 2°16'05.67"
TANGENT	= 409.379
LENGTH	= 811.701
RADIUS	= 2526.000
EXTERNAL	= 32.958
LONG CHORD	= 808.213
MID. ORD.	= 32.534
P.C. STATION	= 1017+53.29
P.T. STATION	= 1025+64.99

NOTES:
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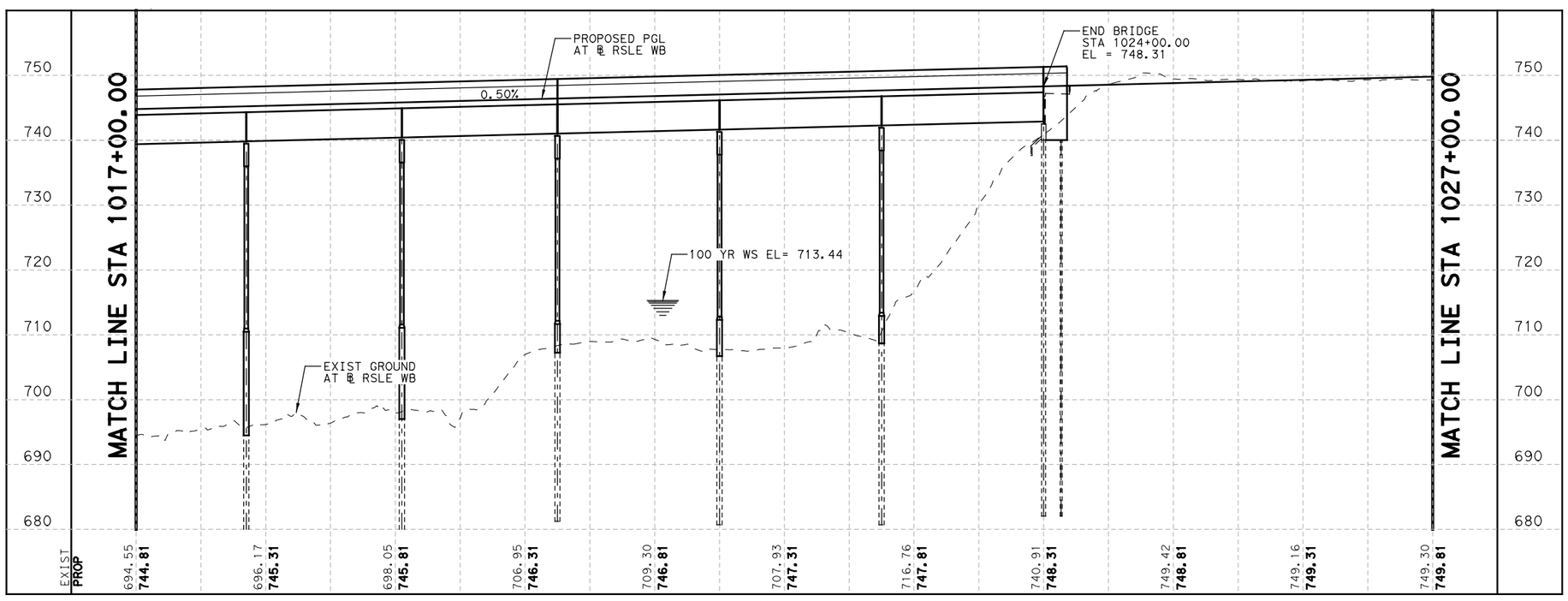
4. REFER TO "DRIVEWAY SUMMARY" SHEET FOR ADDITIONAL INFORMATION. HMAC DRIVEWAYS TO BE CONSTRUCTED AND PAID SAME AS ROADWAY PAVEMENT.
5. REFER TO "INTERSECTION DETAIL" SHEETS FOR ADDITIONAL INFORMATION.



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Prepared by or under the Direct Supervision of
DARYL MARK RUYBAL, P.E. 99822
3/28/2016

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Texas Registered Engineering Firm F-754

Texas Department of Transportation

ROBERT S. LIGHT EXTENSION

ROADWAY
PLAN AND PROFILE
ROBERT. S. LIGHT EXTENSION

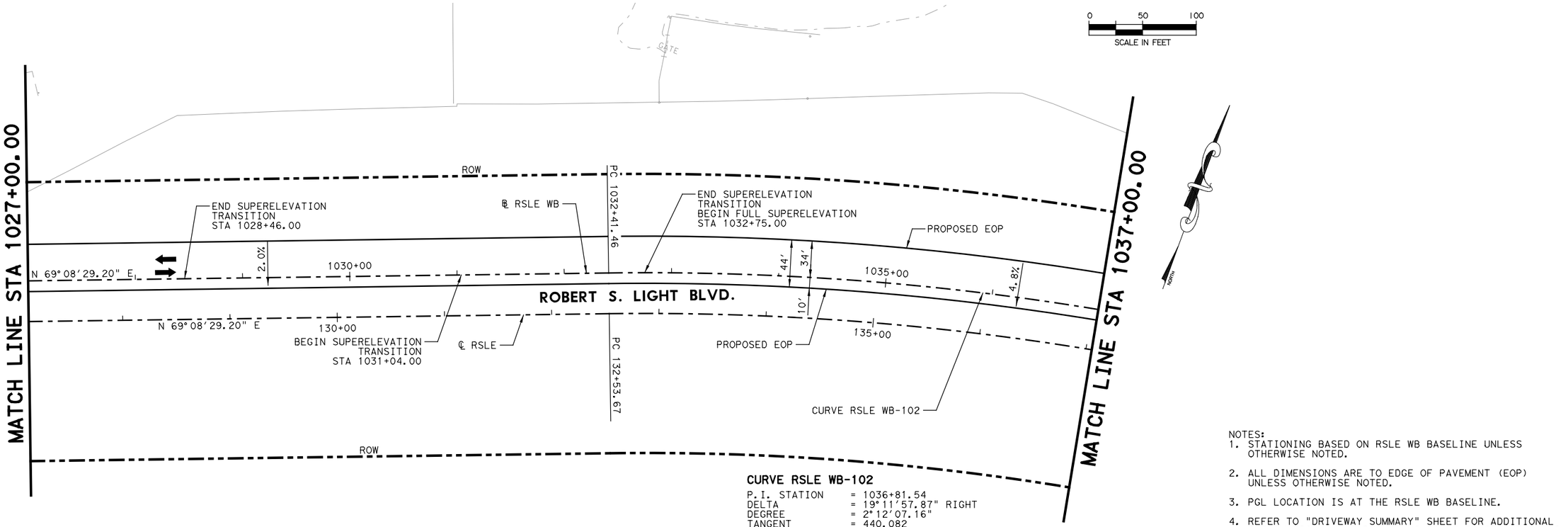
SCALE: 1"=100'-H
1"=20'-V

SHEET 3 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
BD	TEXAS	AUS	HAYS	74
CHECK	CONTROL	SECTION	JOB	
DR	0914	33	068,ETC	
CHECK				
GV				

PLOT DRIVER: TXDOT_PDF_BW.pltcfg PENTABLE: 0000000002l4615.tbl
USER: kberger DATE: 3/28/2016 TIME: 4:22:34 PM SCALE: 1:100
FILE: Hays_County_TexasWay_Co_Trck_Bypass_Proj_Mgmt\V3.00_CADV3.02_Contract_Files\Sheet_Files\Roadway\RSLE-RDWYPP03.dgn

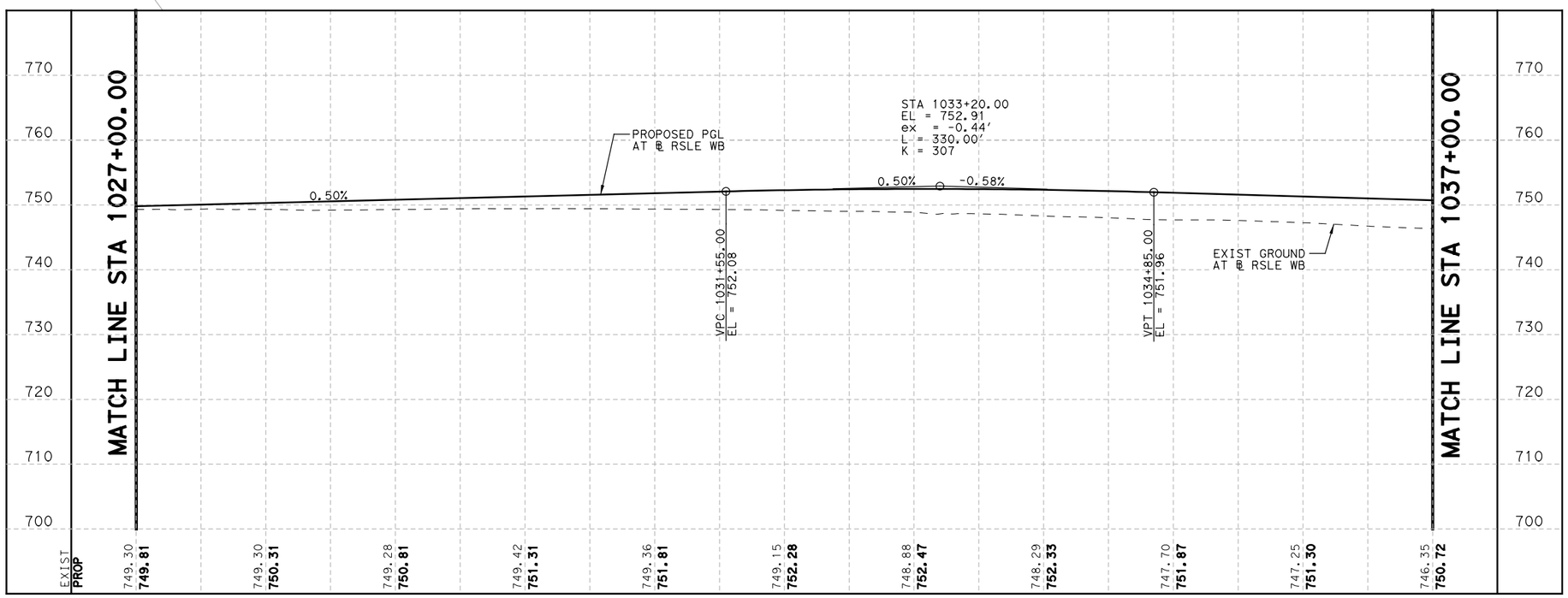
100% PLANS



CURVE RSLE WB-102

P.I. STATION	= 1036+81.54
DELTA	= 19°11'57.87" RIGHT
DEGREE	= 2°12'07.16"
TANGENT	= 440.082
LENGTH	= 871.912
RADIUS	= 2602.000
EXTERNAL	= 36.954
LONG CHORD	= 867.838
MID. ORD.	= 36.436
P.C. STATION	= 1032+41.46
P.T. STATION	= 1041+13.37

NOTES:
1. STATIONING BASED ON RSLE WB BASELINE UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT (EOP) UNLESS OTHERWISE NOTED.
3. PGL LOCATION IS AT THE RSLE WB BASELINE.
4. REFER TO "DRIVEWAY SUMMARY" SHEET FOR ADDITIONAL INFORMATION. HMAC DRIVEWAYS TO BE CONSTRUCTED AND PAID SAME AS ROADWAY PAVEMENT.
5. REFER TO "INTERSECTION DETAIL" SHEETS FOR ADDITIONAL INFORMATION.



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ROBERT S. LIGHT EXTENSION

ROADWAY PLAN AND PROFILE ROBERT. S. LIGHT EXTENSION

SCALE: 1"=100'-H
1"=20'-V

SHEET 4 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
BD	TEXAS	AUS	HAYS	75
CHECK	CONTROL	SECTION	JOB	
DR	0914	33	068,ETC	
CHECK				
GV				

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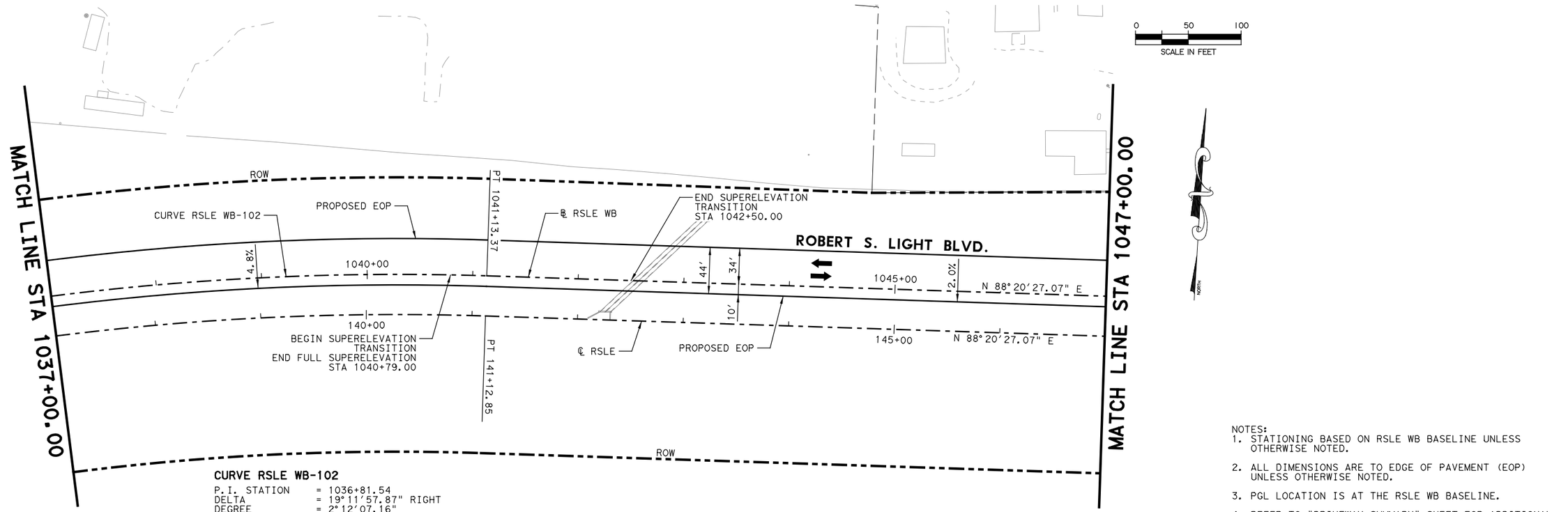
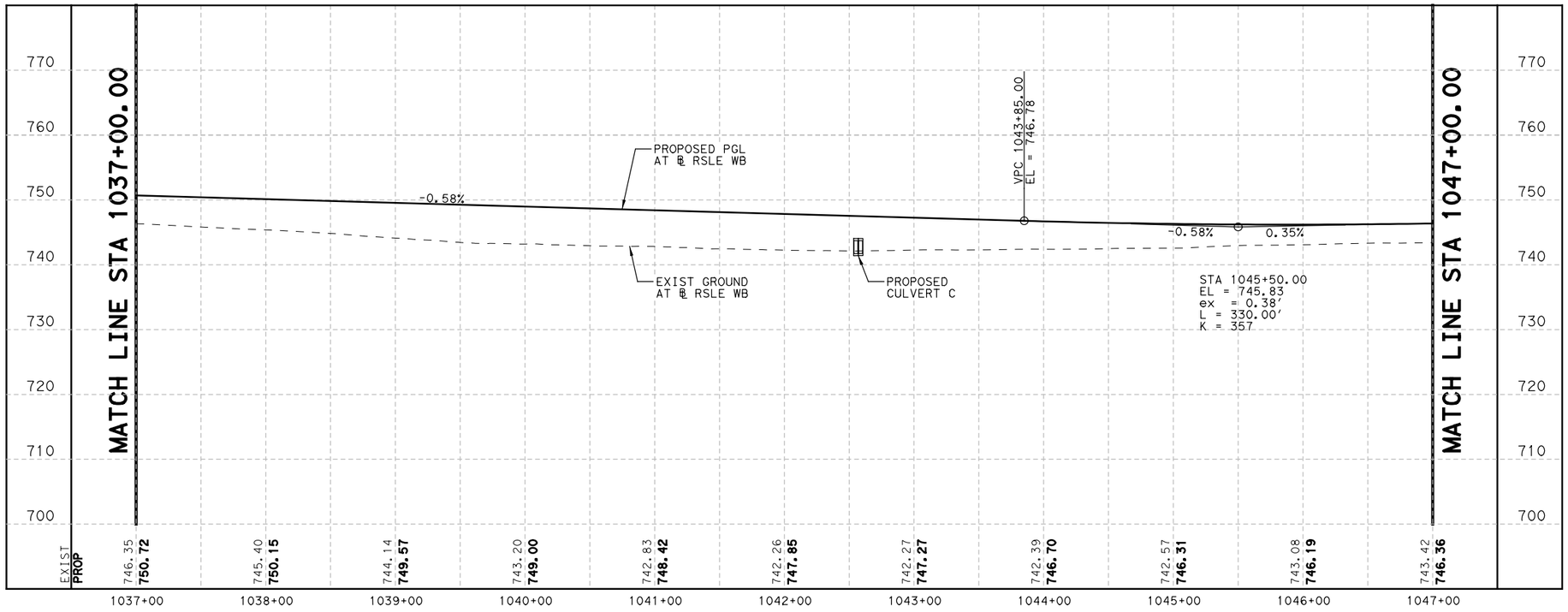
USER: kberger DATE: 3/28/2016 TIME: 4:22:38 PM SCALE: 1:00
FILE: Hays_County_TexasVHay_Co_Trck_Bypass_Proj_Mgmt\V3.00_CADV3.02_Contract_Files\Sheet_Files\Roadway\RSLE-RDWYPP04.dgn

100% PLANS



CURVE RSLE WB-102

P.I. STATION	= 1036+81.54
DELTA	= 19°11'57.87" RIGHT
DEGREE	= 2°12'07.16"
TANGENT	= 440.082
LENGTH	= 871.912
RADIUS	= 2602.000
EXTERNAL	= 36.954
LONG CHORD	= 867.838
MID. ORD.	= 36.436
P.C. STATION	= 1032+41.46
P.T. STATION	= 1041+13.37



NOTES:
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Texas Department of Transportation

ROBERT S. LIGHT EXTENSION

ROADWAY PLAN AND PROFILE ROBERT. S. LIGHT EXTENSION

SCALE: 1"=100'-H
1"=20'-V

SHEET 5 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
BD	TEXAS	AUS	HAYS	76
CHECK	CONTROL	SECTION	JOB	
DR	0914	33	068,ETC	
CHECK				
GV				

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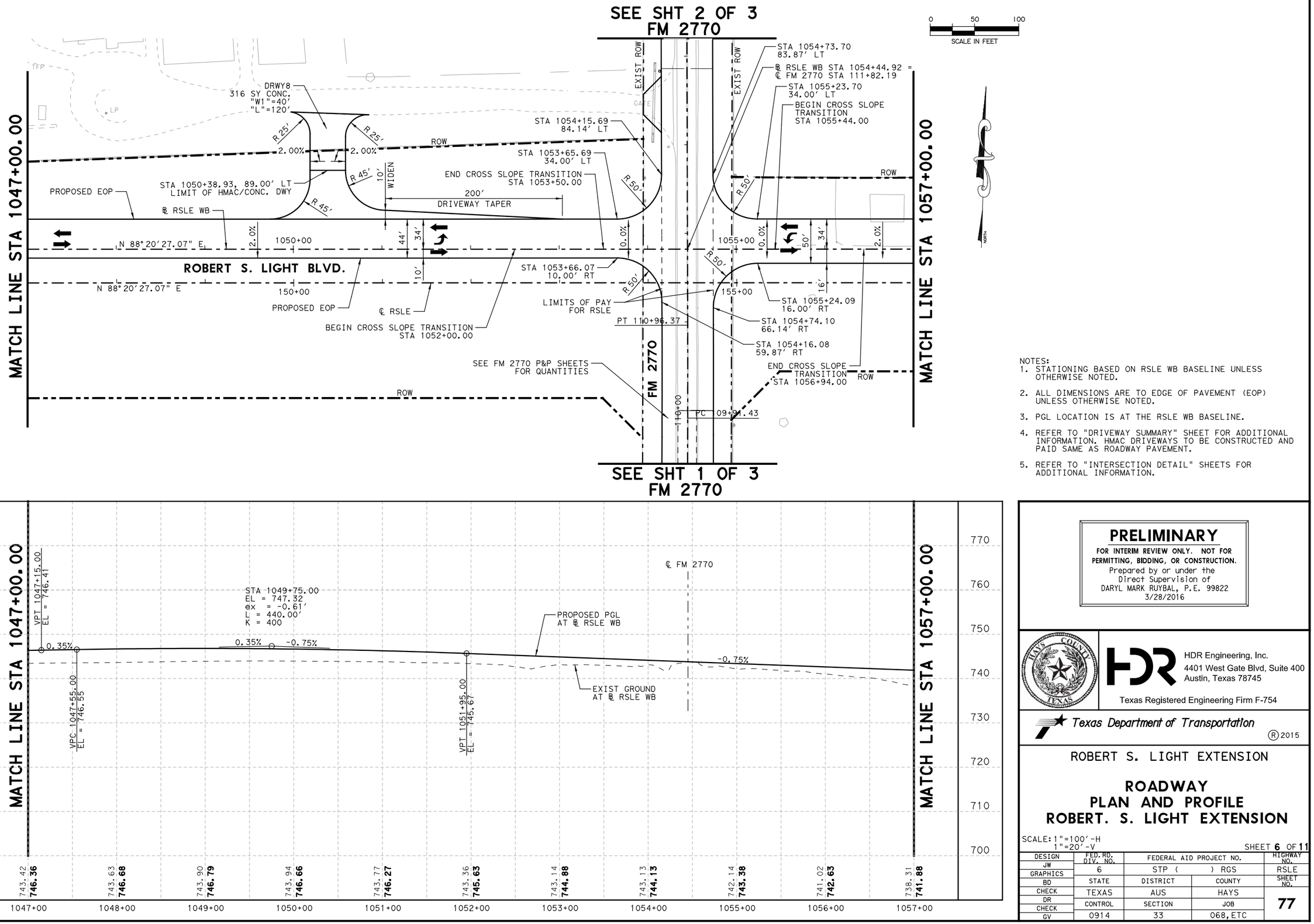
USER: kberger DATE: 3/28/2016 TIME: 4:22:43 PM SCALE: ul00
FILE: Hays_County_Texas\Hay_Co_Trck_Bypass_Proj_Mgmt\V3.00_CADV3.02_Contract_Files\Sheet_Files\Roadway\RSLE-RDWYPP05.dgn

100% PLANS



NOTES:
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2. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT (EOP) UNLESS OTHERWISE NOTED.
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ROBERT S. LIGHT EXTENSION

ROADWAY
PLAN AND PROFILE
ROBERT. S. LIGHT EXTENSION

SCALE: 1"=100'-H
1"=20'-V

SHEET 6 OF 11

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
BD	TEXAS	AUS	HAYS	77
CHECK	CONTROL	SECTION	JOB	
DR	0914	33	068,ETC	
CHECK				
GV				

PLOT DRIVER: TXDOT_PDF_BW.pltcfg PENTABLE: 000000000246l5.tbl
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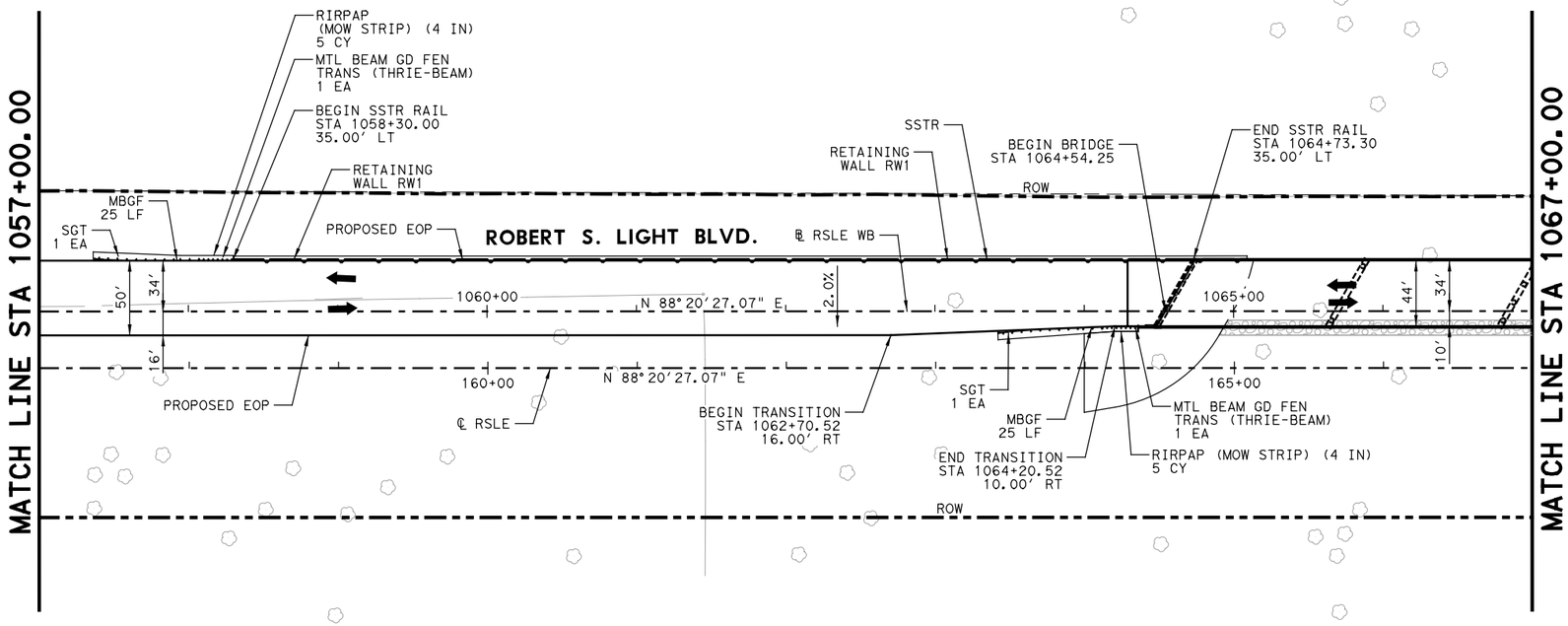
100% PLANS



NOTES:
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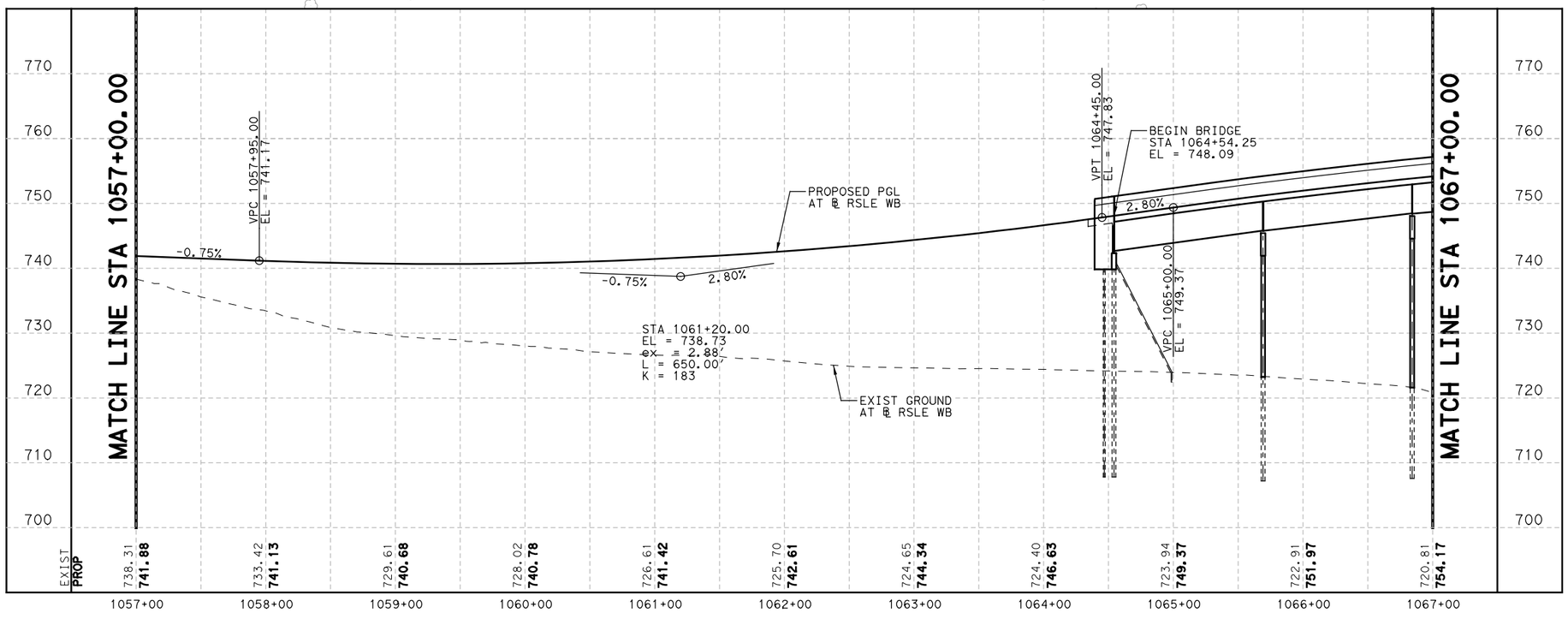

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ROBERT S. LIGHT EXTENSION

ROADWAY PLAN AND PROFILE ROBERT. S. LIGHT EXTENSION

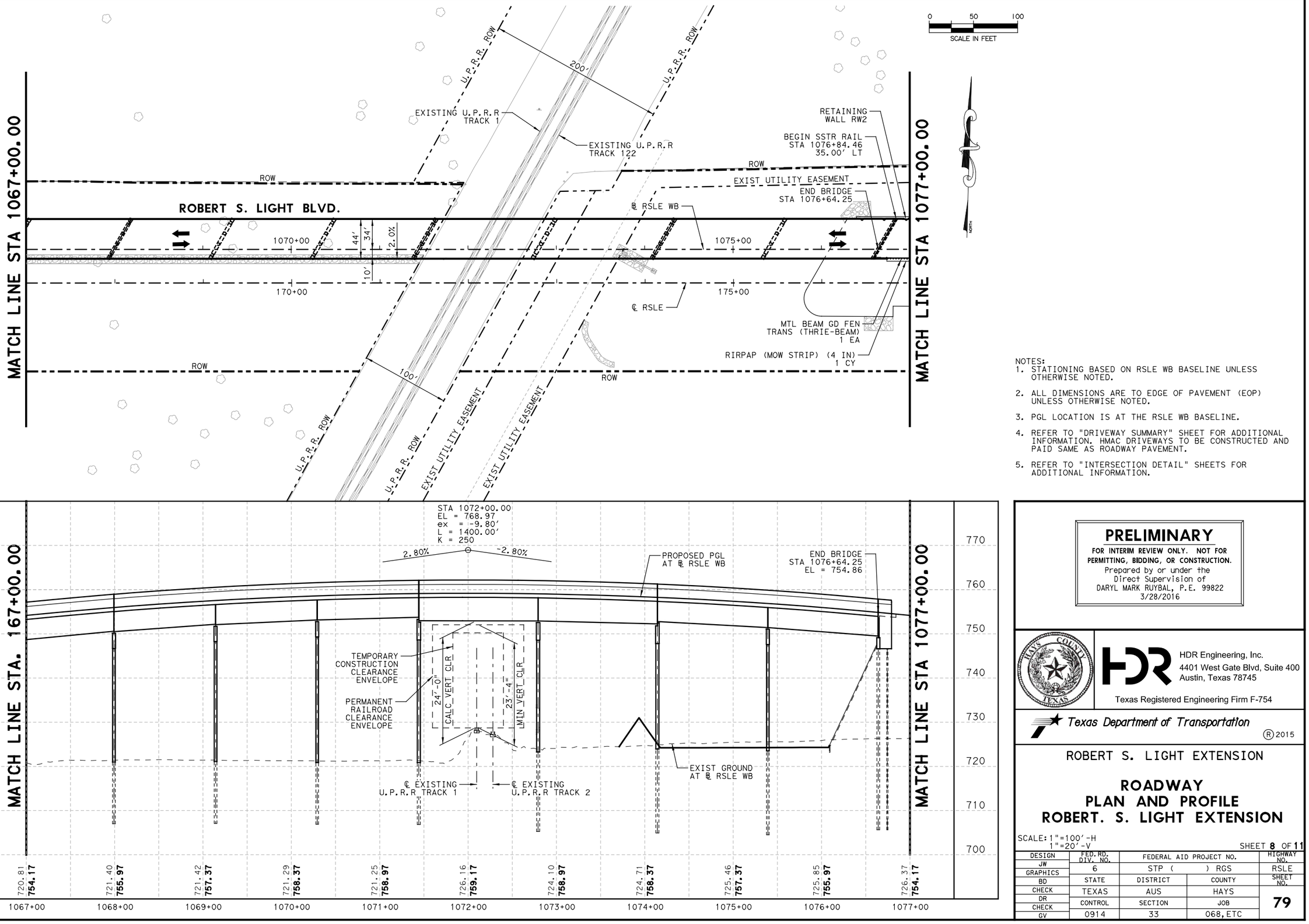
SCALE: 1"=100'-H
1"=20'-V

SHEET 7 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
BD	TEXAS	AUS	HAYS	78
CHECK	CONTROL	SECTION	JOB	
DR	0914	33	068,ETC	
CHECK				
GV				

PLOT DRIVER: TXDOT_PDF_BW.pltcfg PENTABLE: 000000000214615.tbl
USER: kberger DATE: 3/28/2016 TIME: 4:23:00 PM SCALE: 1:100
FILE: Hays_County_TexasVtrg_Co_Trck_Bypass_Proj_MgmtV3.00_CADV3.02_Contract_Files\Sheet_Files\Roadway\RSLE-RDWYPP07.dgn

100% PLANS



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ROBERT S. LIGHT EXTENSION

ROADWAY PLAN AND PROFILE ROBERT. S. LIGHT EXTENSION

SCALE: 1"=100'-H
1"=20'-V

SHEET 8 OF 11

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
BD	TEXAS	AUS	HAYS	79
CHECK	CONTROL	SECTION	JOB	
DR	0914	33	068,ETC	
CHECK				
GV				

PLOT DRIVER: TXDOT_PDF_BW.pltcfg PENTABLE: 0000000002l46l5.tbl
USER: kberger DATE: 3/28/2016 TIME: 4:23:06 PM SCALE: h00
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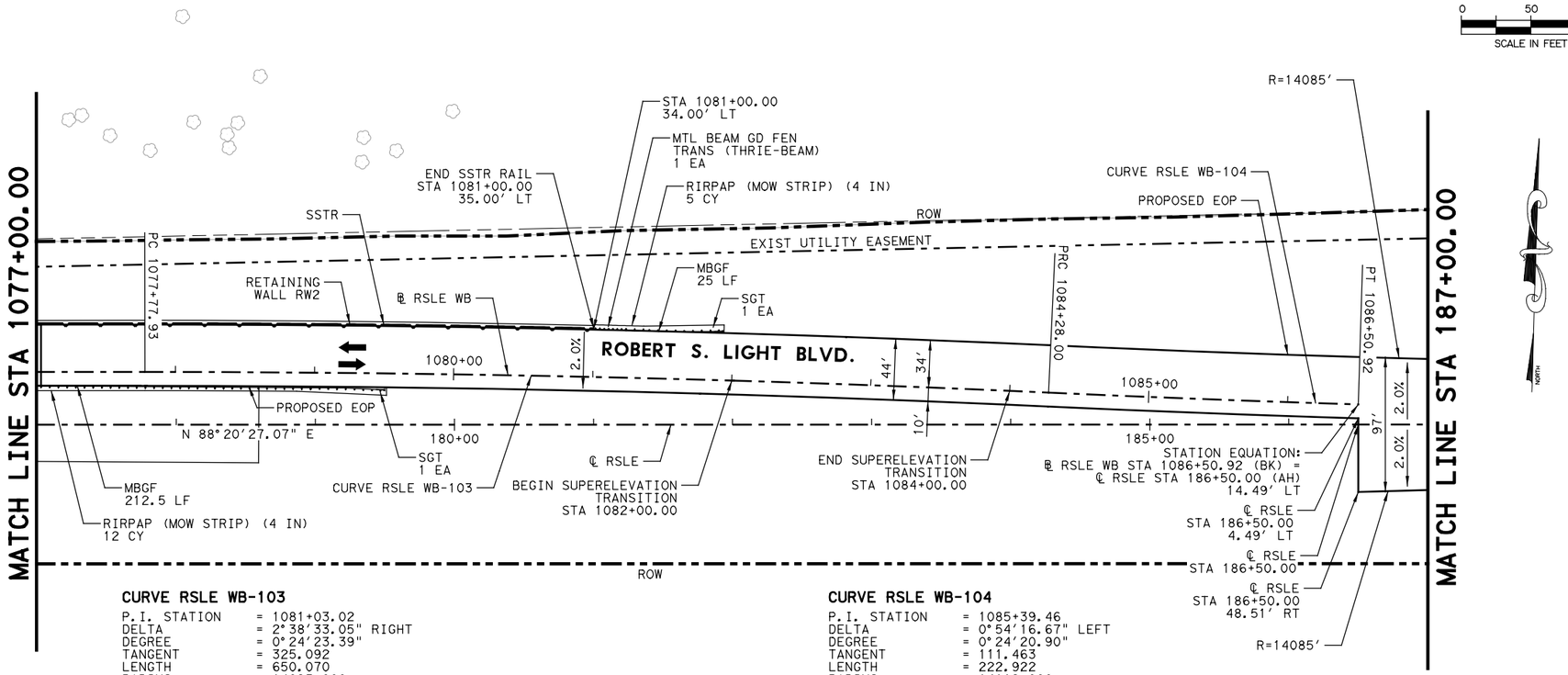
100% PLANS



0 50 100
SCALE IN FEET

NORTH

CURVE RSLE WB-103

P.I. STATION	= 1081+03.02
DELTA	= 2°38'33.05" RIGHT
DEGREE	= 0°24'23.39"
TANGENT	= 325.092
LENGTH	= 650.070
RADIUS	= 14095.000
EXTERNAL	= 3.749
LONG CHORD	= 650.012
MID. ORD.	= 3.748
P.C. STATION	= 1077+77.93
P.R.C. STATION	= 1084+28.00

CURVE RSLE WB-104

P.I. STATION	= 1085+39.46
DELTA	= 0°54'16.67" LEFT
DEGREE	= 0°24'20.90"
TANGENT	= 111.463
LENGTH	= 222.922
RADIUS	= 14119.000
EXTERNAL	= 0.440
LONG CHORD	= 222.920
MID. ORD.	= 0.440
P.R.C. STATION	= 1084+28.00
P.T. STATION	= 1086+50.92

NOTES:
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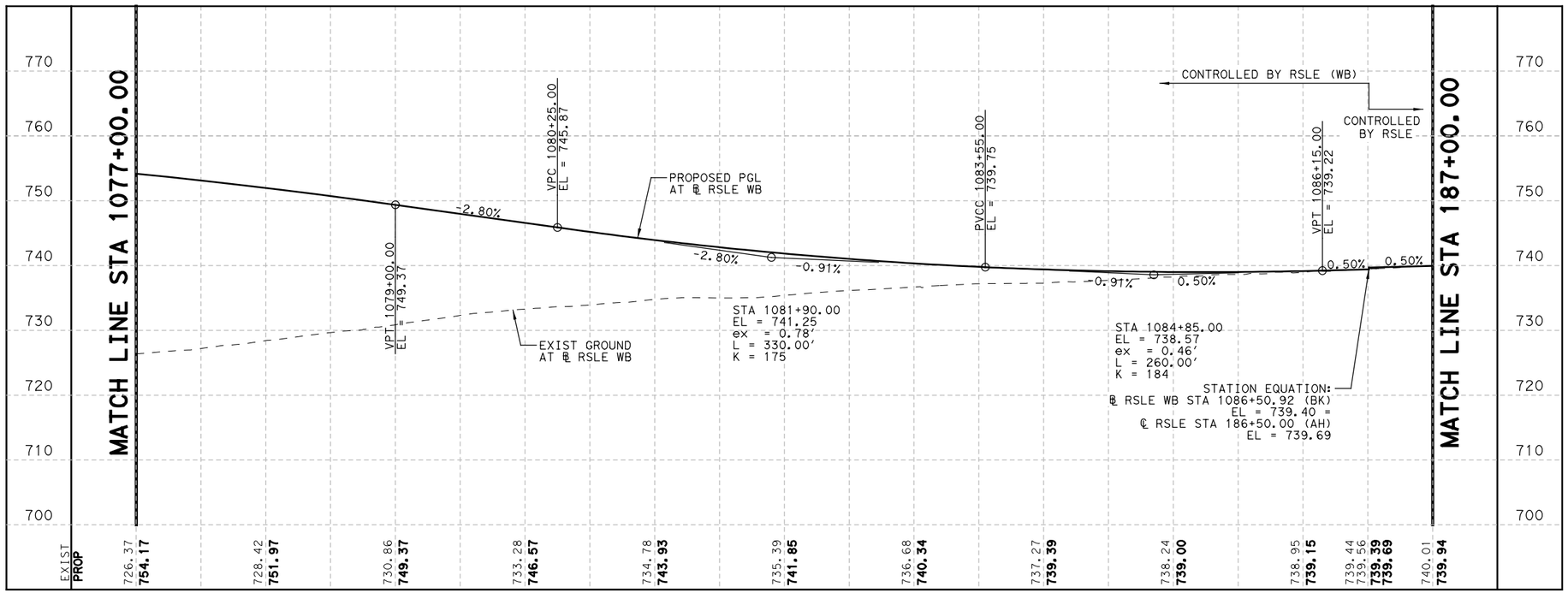

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Texas Department of Transportation
℗2015

ROBERT S. LIGHT EXTENSION

ROADWAY PLAN AND PROFILE ROBERT. S. LIGHT EXTENSION

SCALE: 1"=100'-H
1"=20'-V

SHEET 9 OF 11

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
BD	TEXAS	AUS	HAYS	80
CHECK	CONTROL	SECTION	JOB	
DR	0914	33	068,ETC	
CHECK				
GV				

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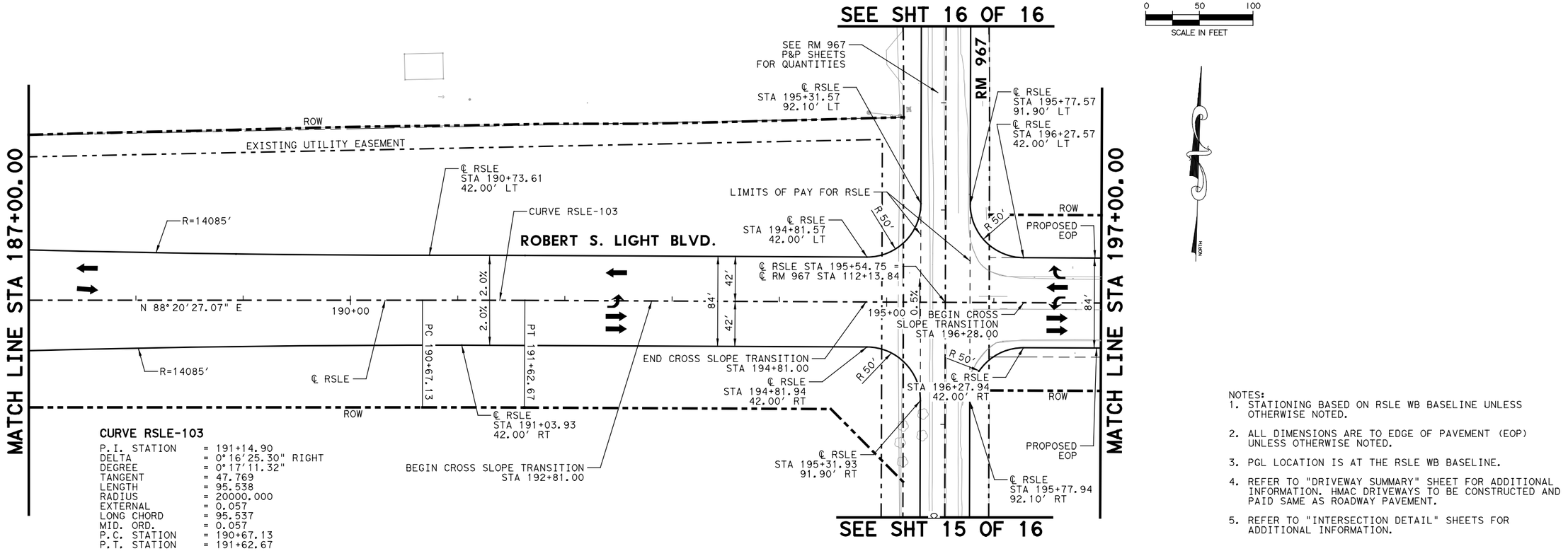
100% PLANS



CURVE RSLE-103

P.I. STATION	= 191+14.90
DELTA	= 0°16'25.30" RIGHT
DEGREE	= 0°17'11.32"
TANGENT	= 47.769
LENGTH	= 95.538
RADIUS	= 20000.000
EXTERNAL	= 0.057
LONG CHORD	= 95.537
MID. ORD.	= 0.057
P.C. STATION	= 190+67.13
P.T. STATION	= 191+62.67

NOTES:
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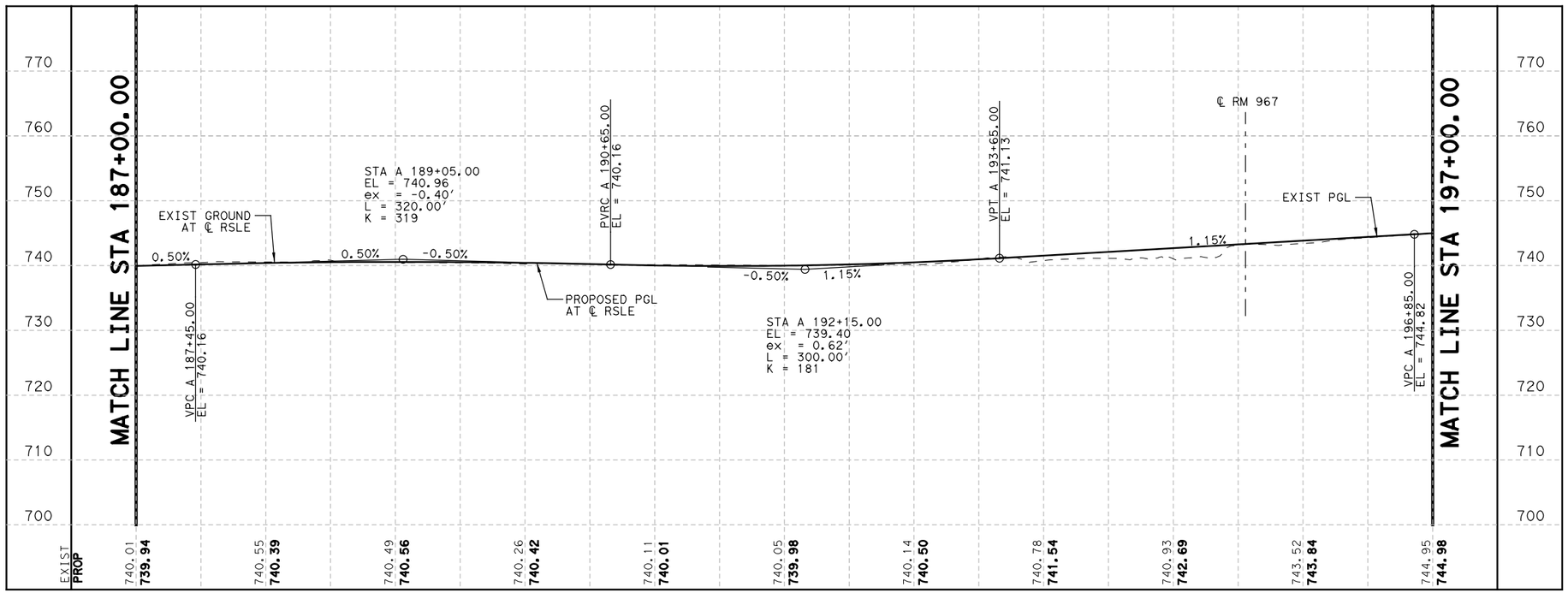

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Texas Department of Transportation ℗2015

ROBERT S. LIGHT EXTENSION

ROADWAY PLAN AND PROFILE ROBERT. S. LIGHT EXTENSION

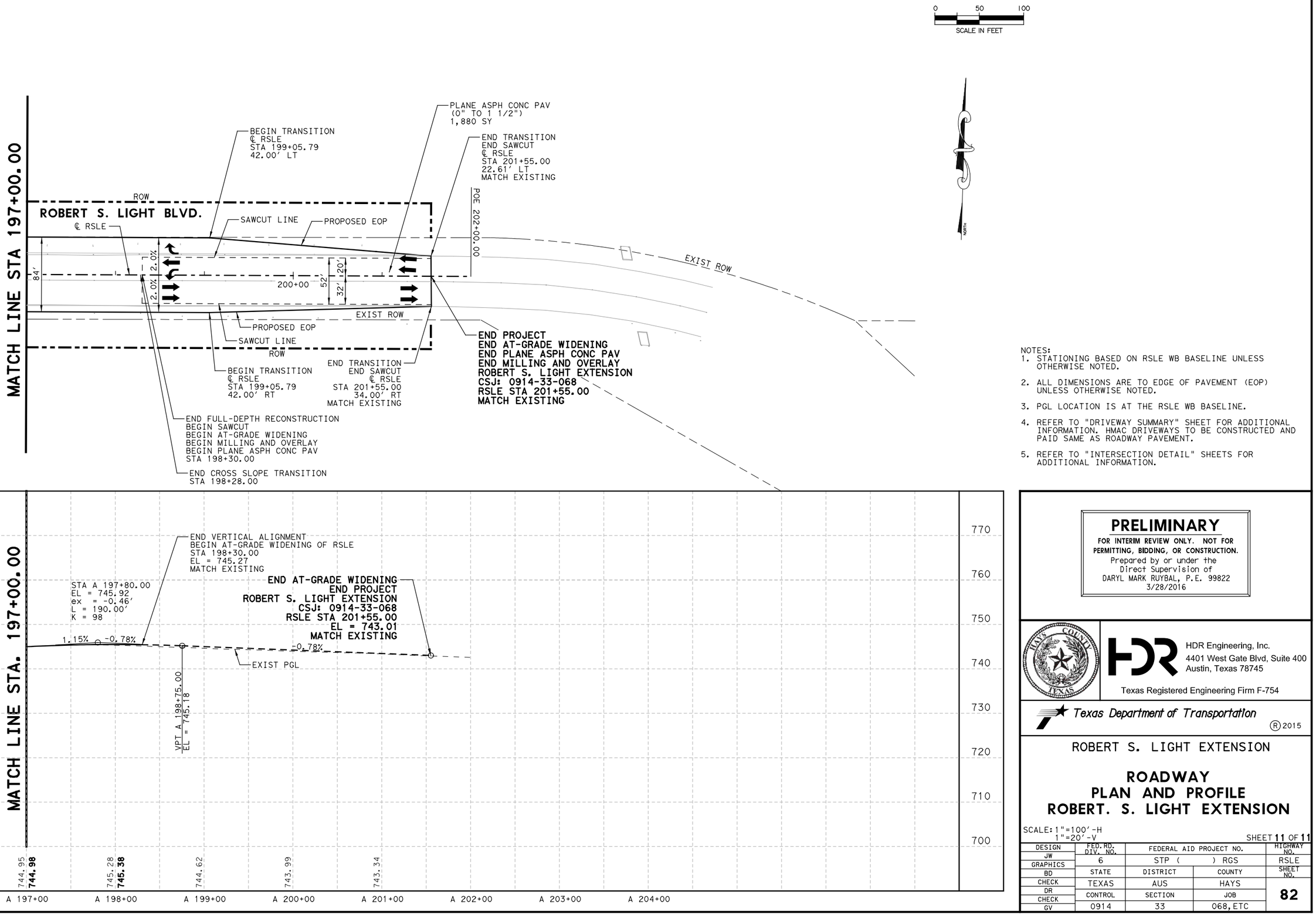
SCALE: 1"=100'-H
1"=20'-V

SHEET 10 OF 11

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
BD	TEXAS	AUS	HAYS	81
CHECK	CONTROL	SECTION	JOB	
DR	0914	33	068,ETC	
CHECK				
GV				

PLOT DRIVER: TXDOT_PDF_BW.pltcfg PENTABLE: 0000000002l46l5.tbl
USER: kberger DATE: 3/28/2016 TIME: 4:23:15 PM SCALE: H:00
FILE: Hays_County_Texas\Hdy_Co_Trck_Bypass_Proj_Mgmt\3.00_CADD\3.02_Contract_Files\Sheet_Files\Roadway\RSLE-RDWYPPI0.dgn

100% PLANS



NOTES:
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ROBERT S. LIGHT EXTENSION

ROADWAY PLAN AND PROFILE ROBERT. S. LIGHT EXTENSION

SCALE: 1"=100'-H
1"=20'-V

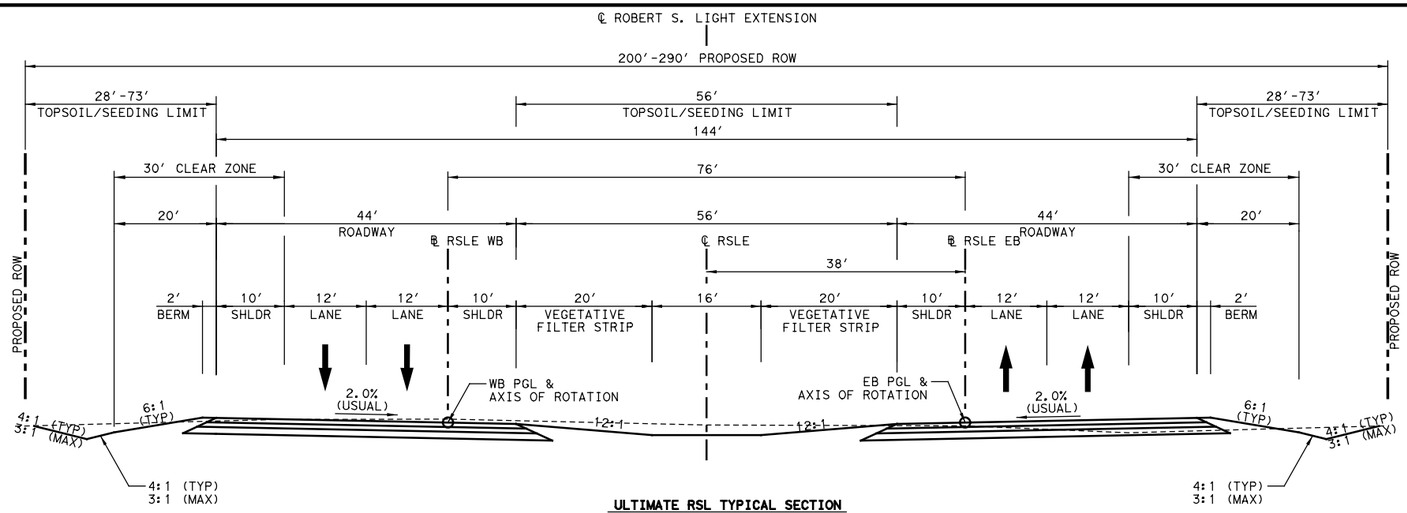
SHEET 11 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
JW	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
BD	TEXAS	AUS	HAYS	82
CHECK	CONTROL	SECTION	JOB	
DR	0914	33	068, ETC	
CHECK				
GV				

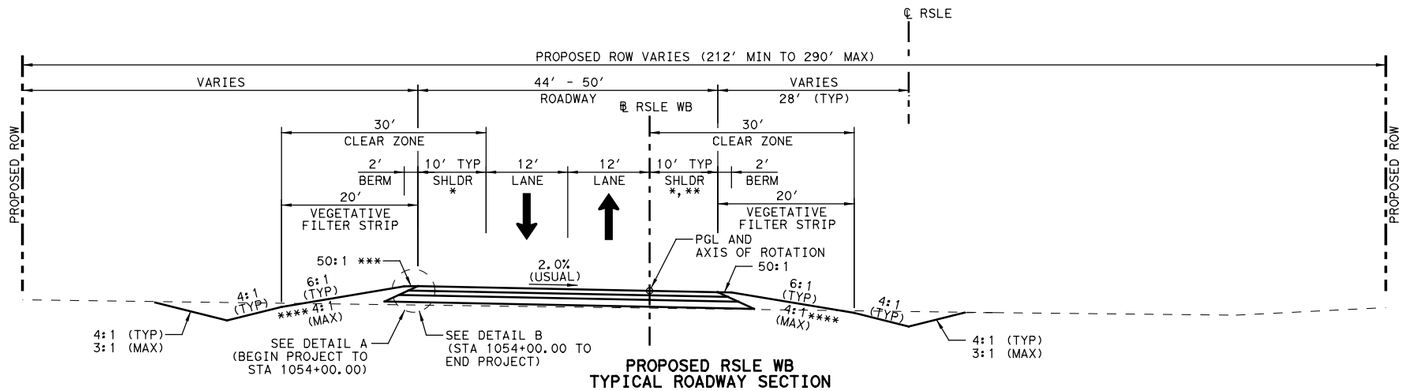
PLOT DRIVER: TXDOT_PDF_BW.pltcfg PENTABLE: 000000002l4615.tbl
USER: kberger DATE: 3/28/2016 TIME: 4:23:19 PM SCALE: 1:100
FILE: Hays_County_TexasVlay_Co_Trck_Bypass_Pro]_Mgmt\V3.00_CADV3.02_Contract_Files\Sheet_Files\Roadway\RSLE-RDWYPPII.dgn

Appendix D—Typical Sections

100% PLANS



ULTIMATE RSL TYPICAL SECTION

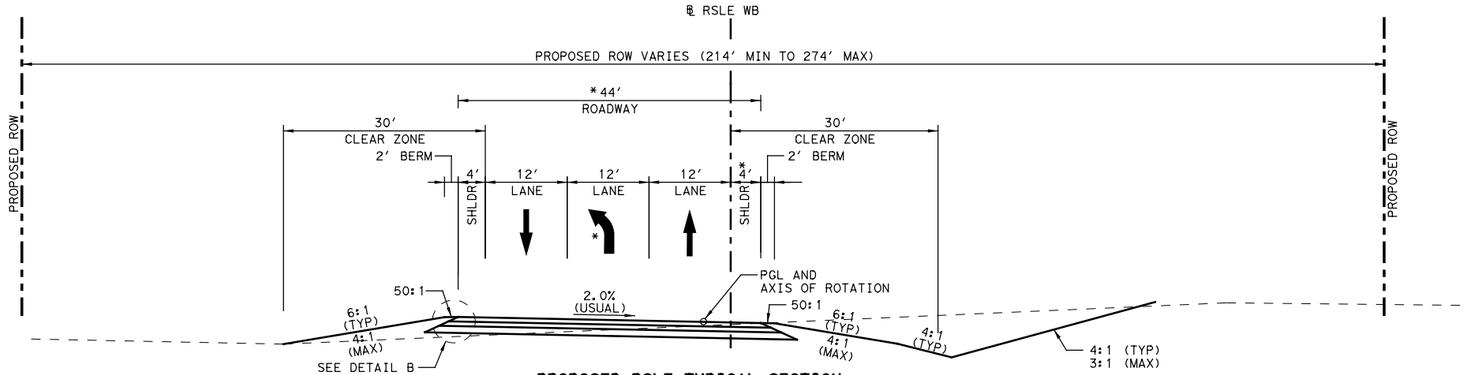


PROPOSED RSLE WB TYPICAL ROADWAY SECTION

STA 1000+35.00 TO STA 1008+25.00
STA 1024+00.00 TO STA 1050+81.00
STA 1058+08.00 TO STA 1064+29.00
STA 1077+03.00 TO STA 1086+51.00

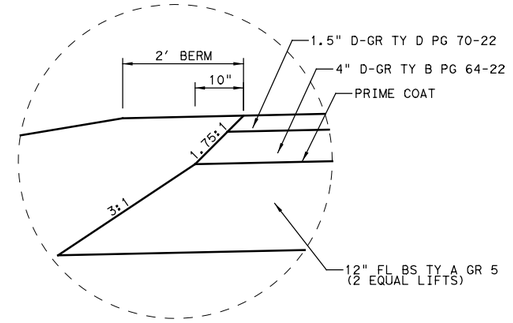
* 4' SHOULDER FROM STA 1049+31.00 TO STA 1050+81.00
** 16' SHOULDER FROM STA 1061+38.00 TO 1064+29.00
*** RETAINING WALL FROM STA 1058+30.00 TO STA 1065+09.00
RETAINING WALL FROM STA 1076+39.61 TO STA 1081+00.00
**** 5:1 MAX FROM STA 1000+35.00 TO STA 1008+25.00 FOR VFS

NOTE:
RSLE WB BRIDGE FROM STA 1008+25.00 TO STA 1024+00.00 AND FROM STA 1064+54.25 TO STA 1076+64.25

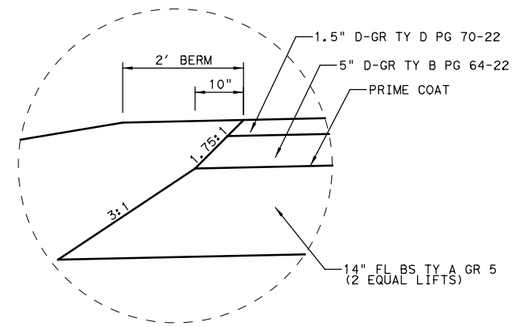


PROPOSED RSLE TYPICAL SECTION

STA 1050+81.00 TO STA 1053+96.00
* STA 1054+93.00 TO STA 1058+08.00
* , 50' ROADWAY, 10' SHOULDER



DETAIL A



DETAIL B

NOTE:
SEE TE(HMAC)-11 STANDARD FOR PAVEMENT EDGES AND TAPERS.
SEE GEOTECHNICAL ENGINEERING REPORT BY PAVETEX ENGINEERING & TESTING, INC. FOR PAVEMENT RECOMMENDATIONS AND GENERAL SUBSURFACE CONDITIONS.

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Prepared by or under the Direct Supervision of
DARYL MARK RUYBAL, P.E. 99822
3/28/2016

HDR Engineering, Inc.
4401 West Gate Blvd, Suite 400
Austin, Texas 78745
Texas Registered Engineering Firm F-754

Texas Department of Transportation

ROBERT S. LIGHT EXTENSION

ROADWAY TYPICAL SECTIONS

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
TG/BP	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
TG	TEXAS	AUS	HAYS	9
CHECK	CONTROL	SECTION	JOB	
SF	0914	33	068,ETC	
CHECK				
BP				

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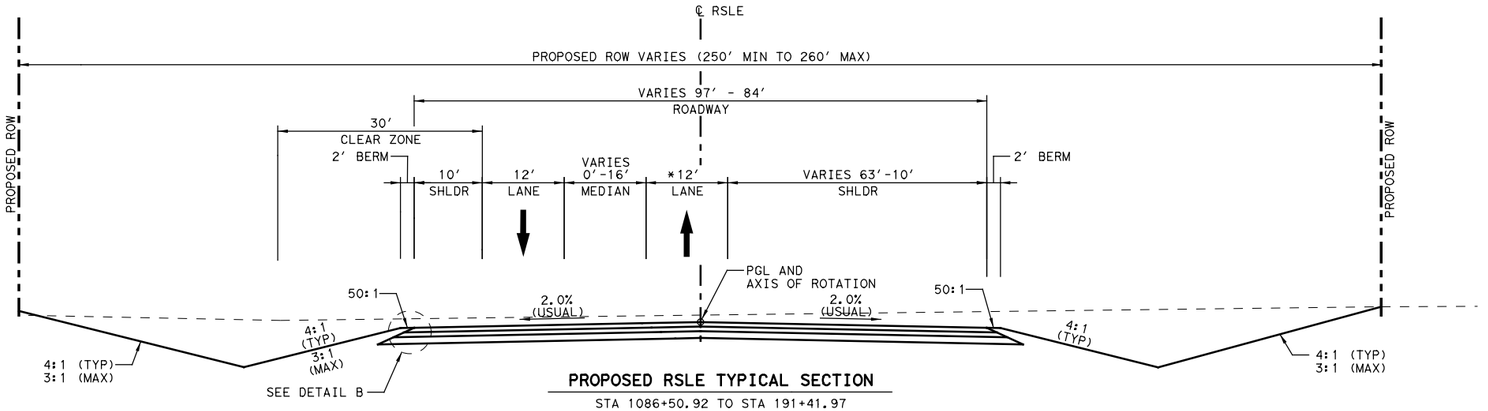
100% PLANS

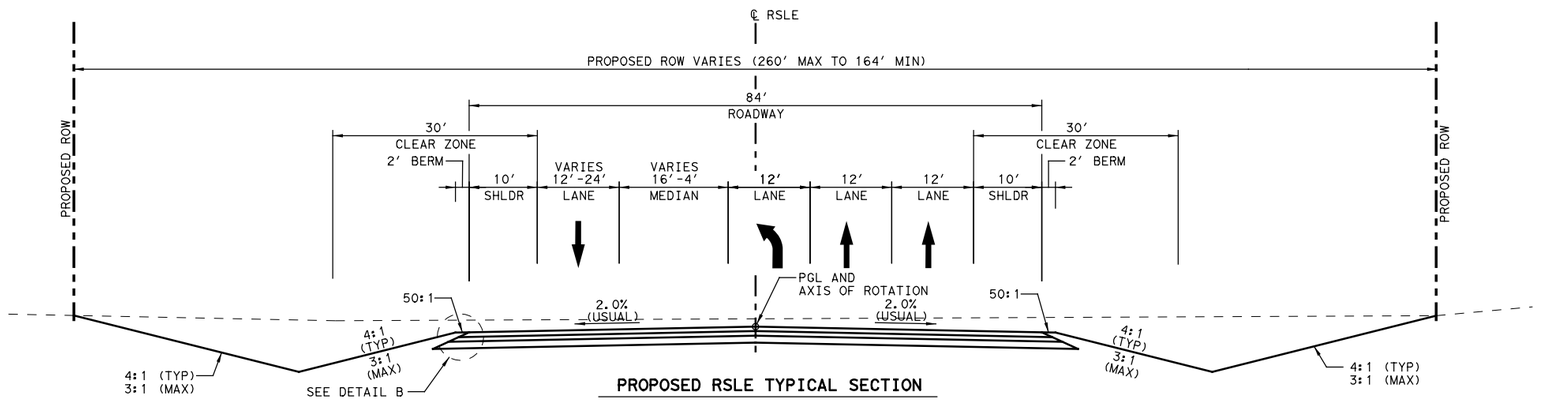


PROPOSED RSLE TYPICAL SECTION

STA 1086+50.92 TO STA 191+41.97

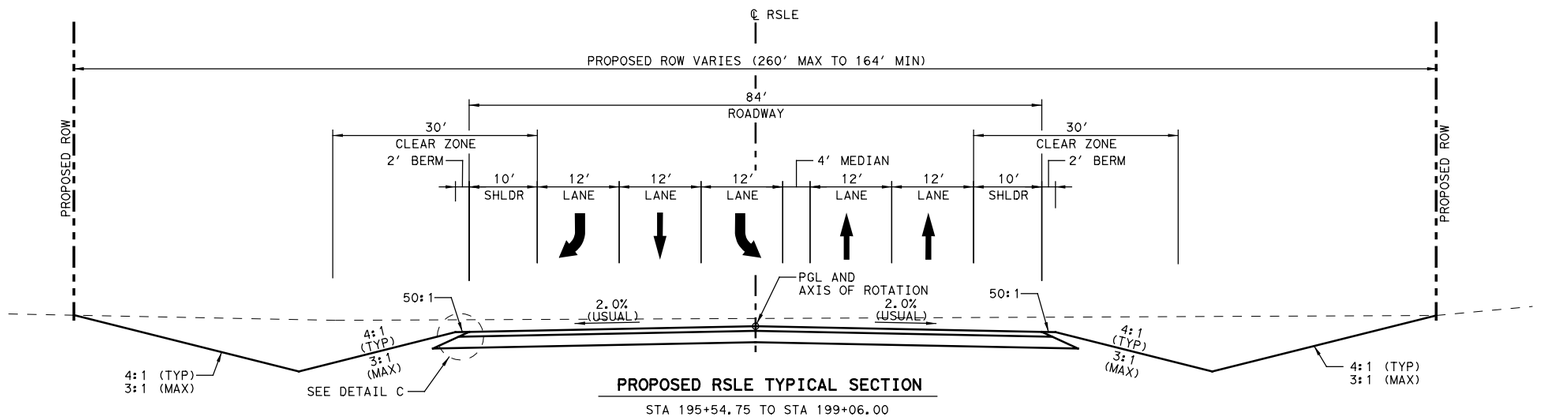
* LANE VARIES FROM 12′ TO 36′ STA 188+99.76 TO STA 191+41.97

STATION EQUATION:
℄ RSLE WB STA 1086+50.92 (BK) =
℄ RSLE STA 186+50.00 (AH)



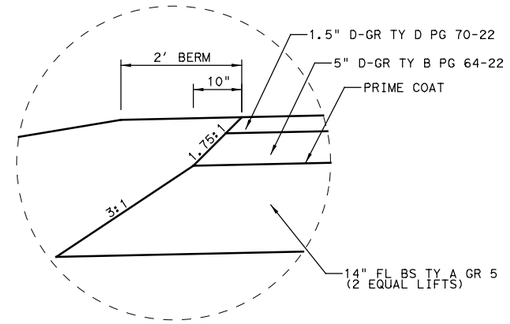
PROPOSED RSLE TYPICAL SECTION

STA 191+41.97 TO STA 195+54.75

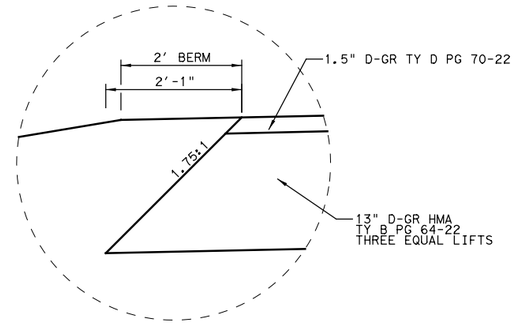


PROPOSED RSLE TYPICAL SECTION

STA 195+54.75 TO STA 199+06.00



DETAIL B



DETAIL C

NOTE:
SEE TE(HMAC)-11 STANDARD FOR PAVEMENT EDGES AND TAPERS.
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Texas Registered Engineering Firm F-754

Texas Department of Transportation

ROBERT S. LIGHT EXTENSION

ROADWAY TYPICAL SECTIONS

SHEET 2 OF 4

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
TG/BP	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
TG	TEXAS	AUS	HAYS	10
CHECK	CONTROL	SECTION	JOB	
SF	0914	33	068,ETC	
CHECK				
BP				

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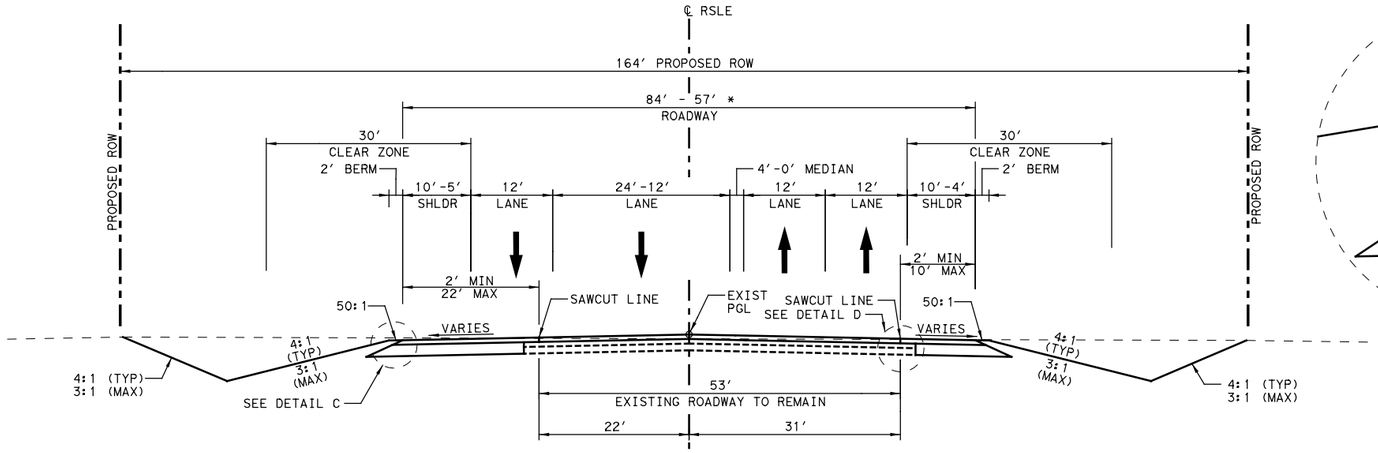
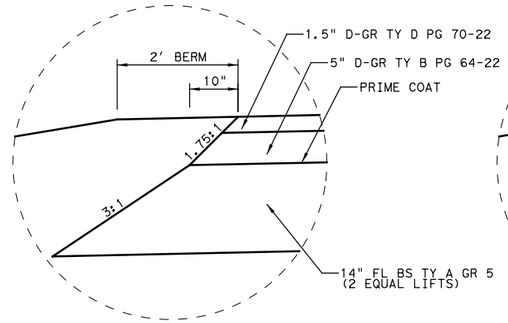
100% PLANS



PROPOSED RSLE TYPICAL SECTION

STA 199+06.00 TO STA 201+55.00
* STA 199+06.00 TO STA 201+55.00 ROAD TRANSITION 84′ TO 57′



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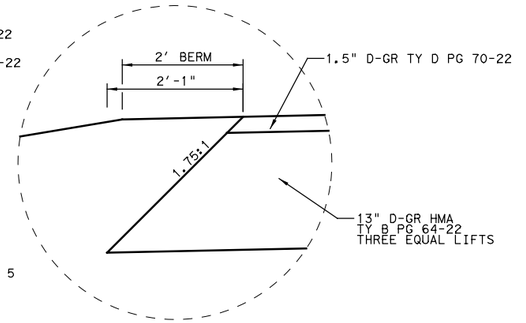
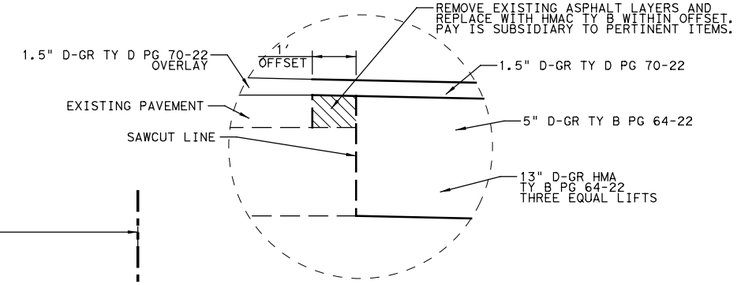
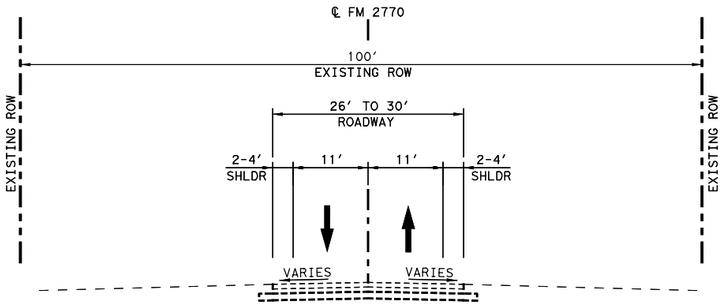


DETAIL C

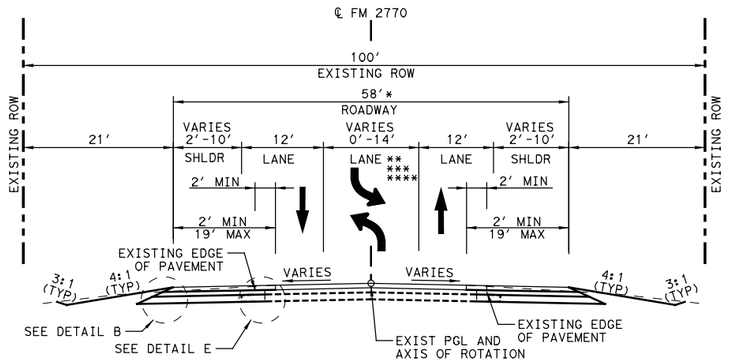


DETAIL D



EXISTING FM 2770 TYPICAL SECTION

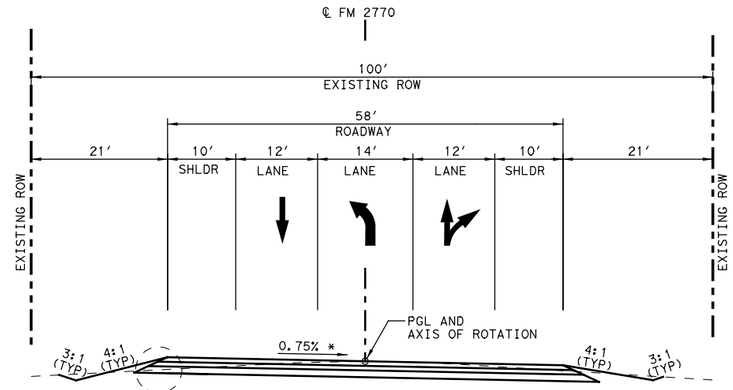
STA 103+50.00 TO STA 128+86.00



PROPOSED FM 2770 WIDENING TYPICAL SECTION

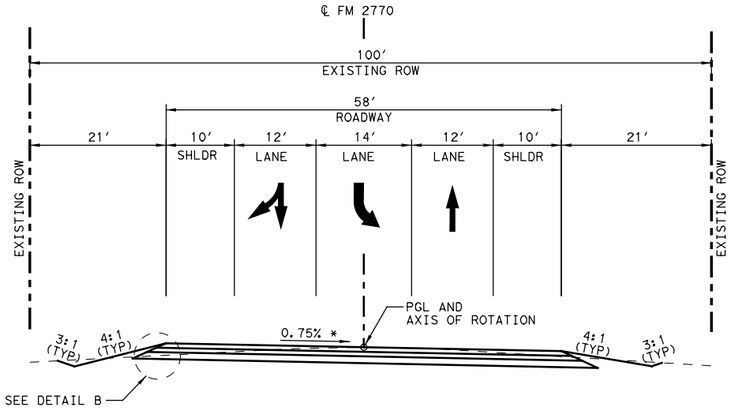
STA 103+50.00 TO STA 110+00.00
STA 114+30.00 TO STA 128+86.00

* STA 103+50.00 TO STA 105+45.00 ROAD TRANSITION 28′ TO 58′
STA 123+75.09 TO STA 128+86.00 ROAD TRANSITION 58′ TO 28′
** LEFT TURN ONLY LANE FROM STA 106+45.00 TO STA 110+00.00
*** 0-14′ MEDIAN AT STATIONS 103+50.00 TO STA 106+45.00
AND STA 116+50.00 TO STA 117+35.00 AND STA 124+15.00
TO STA 126+14.30.
**** TWO-WAY LEFT TURN LANE FROM STA 117+35.00 TO
STA 124+15.00.



PROPOSED FM 2770 TYPICAL SECTION

STA 110+00.00 TO STA 111+50.00
* SEE FM 2770 INTERSECTION LAYOUT FOR ADDITIONAL DETAIL



PROPOSED FM 2770 TYPICAL SECTION

STA 112+40.00 TO STA 116+50.00
* SEE FM 2770 INTERSECTION LAYOUT FOR ADDITIONAL DETAIL

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Texas Registered Engineering Firm F-754

Texas Department of Transportation

ROBERT S. LIGHT EXTENSION

ROADWAY TYPICAL SECTIONS

SHEET 3 OF 4

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
TG/BP	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
TG	TEXAS	AUS	HAYS	11
CHECK	CONTROL	SECTION	JOB	
SF	0914	33	068,ETC	
CHECK				
BP				

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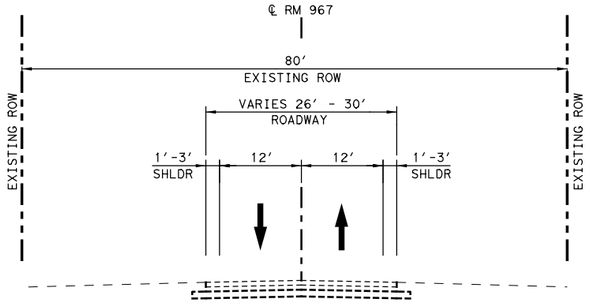
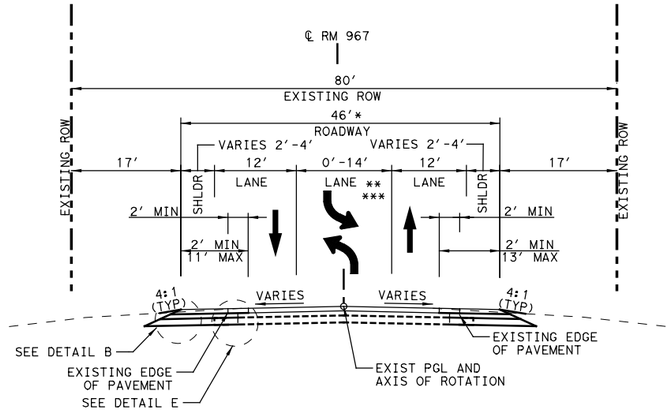
100% PLANS



EXISTING RM 967 TYPICAL SECTION

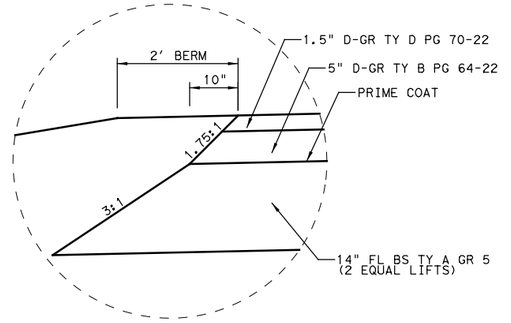
STA 104+50.00 TO STA 120+40.00



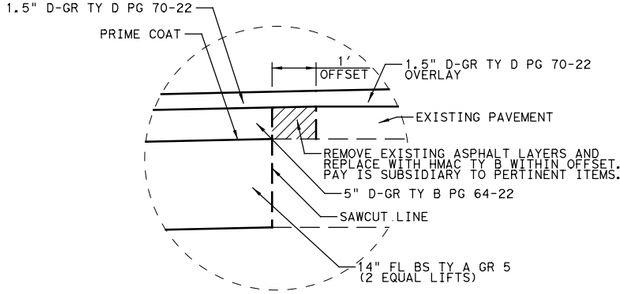
PROPOSED RM 967 WIDENING TYPICAL SECTION

STA 104+50.00 TO STA 110+00.00
STA 116+00.00 TO STA 120+40.00

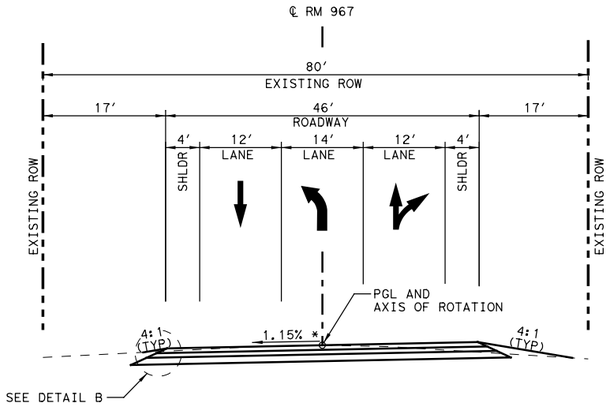
* STA 104+50.00 TO STA 106+43.00 ROAD TRANSITION 28' TO 46'
STA 118+46.00 TO STA 120+40.00 ROAD TRANSITION 46' TO 28'
** LEFT TURN ONLY LANE FROM STA 107+42.00 TO STA 110+00.00
AND FROM STA 116+00.00 TO STA 117+46.00
*** 0-14' MEDIAN AT STATIONS 104+50.00 TO STA 107+41.78
AND STA 117+46.00 TO STA 120+40.00



DETAIL B

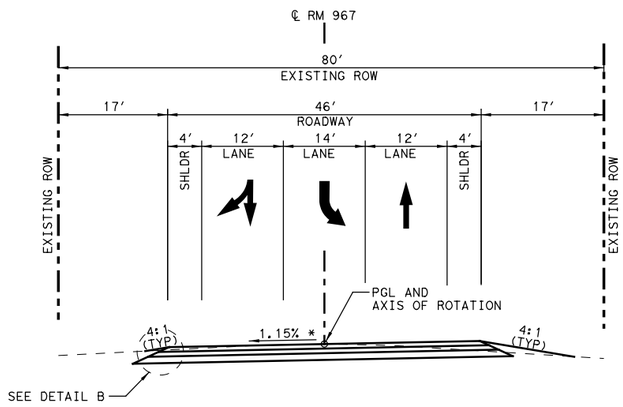


DETAIL E



PROPOSED RM 967 TYPICAL SECTION

STA 110+00.00 TO STA 111+52.00
* SEE RM 967 INTERSECTION LAYOUT FOR ADDITIONAL DETAIL



PROPOSED RM 967 TYPICAL SECTION

STA 112+76.00 TO STA 116+00.00
* SEE RM 967 INTERSECTION LAYOUT FOR ADDITIONAL DETAIL

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Texas Department of Transportation

ROBERT S. LIGHT EXTENSION

ROADWAY TYPICAL SECTIONS

SHEET 4 OF 4

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
TG/BP	6	STP ( ) RGS		RSLE
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
TG	TEXAS	AUS	HAYS	12
CHECK	CONTROL	SECTION	JOB	
SF	0914	33	068,ETC	
CHECK				
BP				

PLOT DRIVER: TXDOT_PDF_BW.pltcfg PENTABLE: 000000002/4615.tbl
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FILE: Hays_County_Texas\Hay_Co_Trck_Bypass_Proj_Mgmt\3.00_CADD\3.02_Contract_Files\Sheet_Files\General\RSLE-TYP04.dgn

Appendix E—Plan and Program Excerpts

Road Projects (continued)

ID	Sponsor	Cosponsor	County	Project	Limits/Location	Description	Let Year	YOE Cost (Millions)	Funding Source
401	Travis		Travis	Puryear Rd	1 mile west of IH 35 - IH 35	New MAD-6	2038	$10.5	Local
402	Georgetown		Williamson	Rabbit Hill / Mays Street Ext	Terra Vista Parkway - Westinghouse	Construct new principal arterial divided	2016	$8.3	Local
403	Round Rock		Williamson	Red Bud Lane	CR 117 - US 79	Reconstruct to a MAD-4 with sidewalks	2030	$18.0	Local
404	Round Rock		Williamson	Red Bud Lane	US 79 - Forest Creek Drive	Reconstruct to a MAD-4 with sidewalks	2035	$17.5	Local
405	Round Rock		Williamson	Red Bud Lane	Forest Creek Drive - Gattis School Road	Reconstruct to a MAD-4 with sidewalks	2035	$17.5	Local
406	Travis		Travis	Reimers Peacock	SH 71 - Hamilton Pool Rd	New 2-lane minor arterial undivided	2019	$10.0	Local
407	San Marcos		Hays	River Ridge Pkwy	Lime Kiln Rd - Post Rd	MAU-2	2025	$10.2	Local
408	San Marcos		Hays	River Ridge Pkwy	Post Rd - IH 35	MAD-4	2025	$8.6	Local
409	San Marcos		Hays	River Road RR Overpass & Road	Wal-Mart - Aquarena Springs Dr	Construct RR overpass to replace existing underpass and construct 4-lane se	2015	$14.0	Local
410	Buda	Hays / TxDOT	Hays	Robert Light Blvd	FM 2770 - Main St/FM 967	New 4-lane divided with railroad overpass	2015	$16.8	Regional
411	Buda	Hays / TxDOT	Hays	Robert Light Blvd	FM 1626 - FM 2770	New 4-lane divided	2018	$27.1	Regional
412	Hays		Hays	Robert S. Light Blvd. Phase 1 Interim	FM 1626 - FM 967	Construct new MAD-2 with RR overpass	2020	$13.1	Local
413	Hays		Hays	Robert S. Light Blvd. Phase 2 Ultimate	FM 1626 - FM 967	MAD-4	2025	$18.8	Local
414	Williamson		Williamson	Ronald Reagan Blvd	at IH 35	Construct new 6-lane Overpass	2040	$23.2	Regional
415	Travis		Travis	Ross Rd	SH 71 - Elroy Rd	Widen to 4 lanes	2038	$29.7	Local
416	Travis		Travis	Ross Rd	Elroy Rd - McAngus	New 2-lane minor arterial divided	2038	$5.5	Local
417	Pflugerville		Travis	Rowe Ln	SH 130 - CR 137	2 lane minor arterial undivided	2017	$1.3	Local
418	Travis		Travis	Rowe Ln	City of Pflugerville - Hodde Ln	Widen to MAD-4	2040	$17.3	Local
419	Travis		Travis	Rowe Ln	Hodde Ln - Decker Ln	New MAD-4 and Widen to MAD-4	2040	$15.2	Local
420	Austin		Travis	Rundberg Ln	FM 1325 - Metric Blvd	New MAD-2	2021	$2.1	Regional
422	Round Rock		Williamson	Sam Bass Rd	Old Settlers Blvd - Creek Bend Blvd	Widen to a MAD-2 with sidewalks	2030	$13.5	Local
423	Round Rock		Williamson	Sam Bass Rd	Creek Bend Blvd - Meadows Drive	Widen to a MAD-2 with sidewalks	2030	$27.0	Local
424	Leander	Williamson	Williamson	San Gabriel Blvd	CR 270 - Ronald Reagan Blvd	Construct 4-lane minor arterial divided - original Williamson County alignment	2018	$9.8	Local
425	Leander	Williamson	Williamson	San Gabriel Pkwy W	Nameless/FM 2243 - Bagdad Rd	Construct 4-lane road with median on a new location.	2014	$41.1	Local

CAMPO 2040 Plan

2019-2022 STIP — **07/2018 Revision: Pending Approval**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
AUSTIN	CAMPO	HAYS	0914-33-074	2019	CS	C,E	OTHER	$ 5,500,000

LIMITS FROM: Moore Street
LIMITS TO: Bishop Street
PROJECT DESCR: Reconstuct Roadway With Multi-Use Path, Sidewalks, And Curb And Gutter
REMARKS: P7
PROJECT HISTORY
PROJECT SPONSOR: City of San Marcos
REVISION DATE: 07/2018
MPO PROJ NUM: 41-00166-00
FUNDING CAT(S): 7

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 507,239
ROW PURCH	$ 0
CONSTR	$ 10,351,829
CONST ENG	$ 506,204
CONTING	$ 116,975
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 430,636
TOTAL CST	$ 11,482,247

COST OF APPROVED PHASES: $ 5,500,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
7	$ 4,400,000	$ 0	$ 0	$ 1,100,000	$ 0	$ 5,500,000
TOTAL	$ 4,400,000	$ 0	$ 0	$ 1,100,000	$ 0	$ 5,500,000

2019-2022 STIP — **07/2018 Revision: Pending Approval**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
AUSTIN	CAMPO	HAYS	0914-33-068	2019	CR	C,E,R	OTHER	$ 8,637,863

LIMITS FROM: RM 967 at Robert S. Light Blvd.
LIMITS TO: FM 1626
PROJECT DESCR: Construct A Single-Lane Two Way Roadway And A Grade-Separated Crossing With The Union Pacific Railroad
REMARKS: P7
PROJECT HISTORY
PROJECT SPONSOR: TxDOT, Hays County
REVISION DATE: 07/2018
MPO PROJ NUM: 41-00165-00
FUNDING CAT(S): 3LC,10,12

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 789,136
ROW PURCH	$ 1
CONSTR	$ 16,104,818
CONST ENG	$ 789,136
CONTING	$ 201,310
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 879,323
TOTAL CST	$ 17,884,401

COST OF APPROVED PHASES: $ 8,637,863

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
10	$ 110,291	$ 27,572	$ 0	$ 0	$ 0	$ 137,863
12	$ 3,640,000	$ 910,000	$ 0	$ 0	$ 0	$ 4,550,000
3LC	$ 0	$ 0	$ 0	$ 3,950,000	$ 0	$ 3,950,000
TOTAL	$ 3,750,291	$ 937,572	$ 0	$ 3,950,000	$ 0	$ 8,637,863

2019-2022 STIP — **07/2018 Revision: Pending Approval**

DISTRICT	MPO	COUNTY	CSJ	TIP FY	HWY	PHASE	CITY	YOE COST
AUSTIN	CAMPO	WILLIAMSON	0914-05-191	2019	VA	C,E	ROUND ROCK	$ 1,449,837

LIMITS FROM: Heritage Trail at Creekside Plaza
LIMITS TO: 1.1 Miles NW Along Brushy Creek
PROJECT DESCR: Construct 10-Ft Wide Shared Use Path In Round Rock With Pedestrian Bridge
REMARKS: P7
PROJECT HISTORY
PROJECT SPONSOR: Williamson County
REVISION DATE: 07/2018
MPO PROJ NUM: 61-00121-00
FUNDING CAT(S): 9TAP

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 72,448
ROW PURCH	$ 0
CONSTR	$ 1,478,550
CONST ENG	$ 72,301
CONTING	$ 16,707
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 61,507
TOTAL CST	$ 1,640,006

COST OF APPROVED PHASES: $ 1,449,837

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
9TAP	$ 826,407	$ 0	$ 0	$ 623,430	$ 0	$ 1,449,837
TOTAL	$ 826,407	$ 0	$ 0	$ 623,430	$ 0	$ 1,449,837

Appendix F—Resource-Specific Maps

Figure 1: Land Use within the Project Area
Figure 2: Waters of the U.S., Floodplains and Wetlands Figure 3: Edwards Aquifer Zones
Figure 4: Mapped flow paths, groundwater basins, and spring locations
Figure 5: Area of Interest for Robert S. Light Project

Figure 1. Land Use within the Project Area

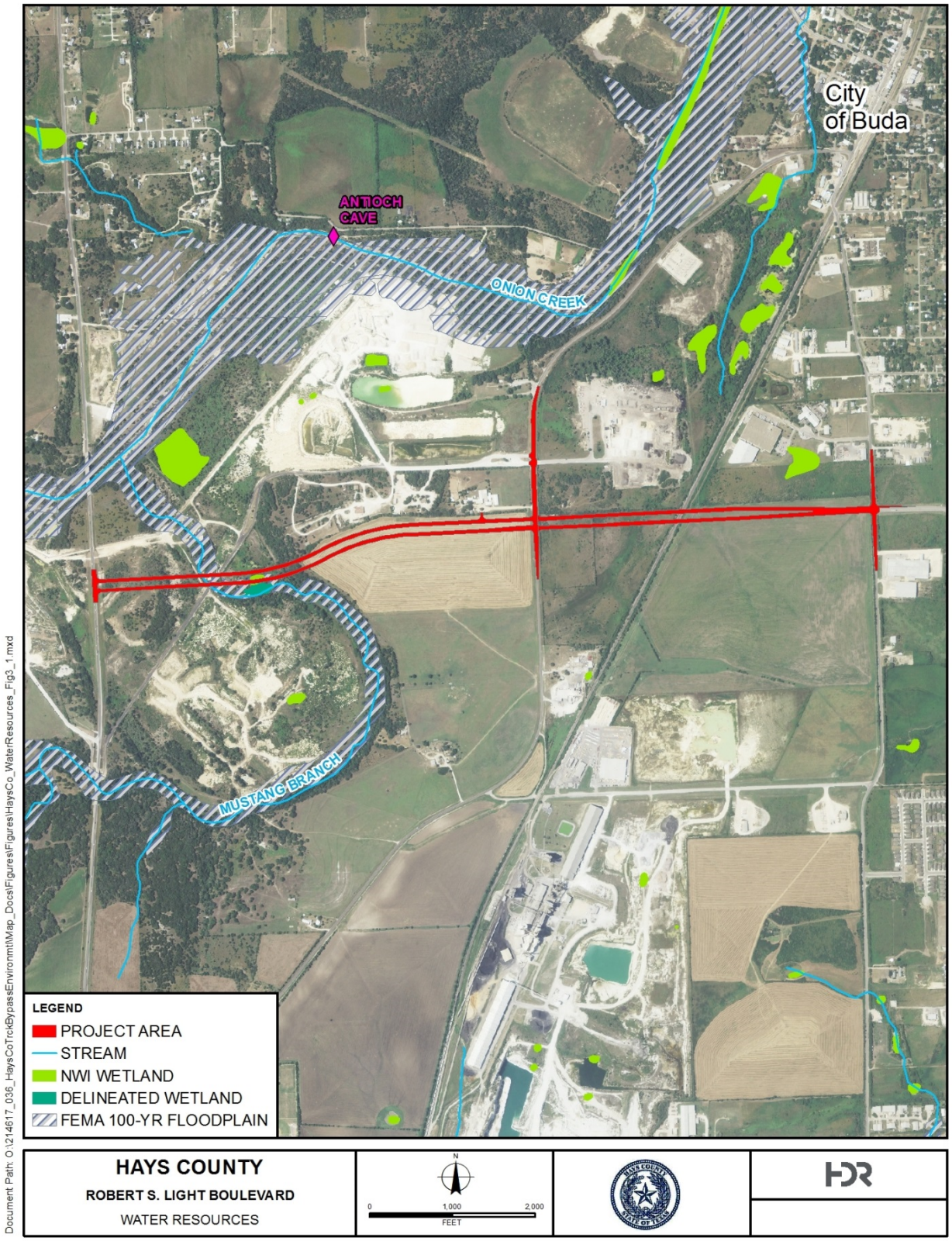


Figure 2. Waters of the U.S., Floodplains and Wetlands

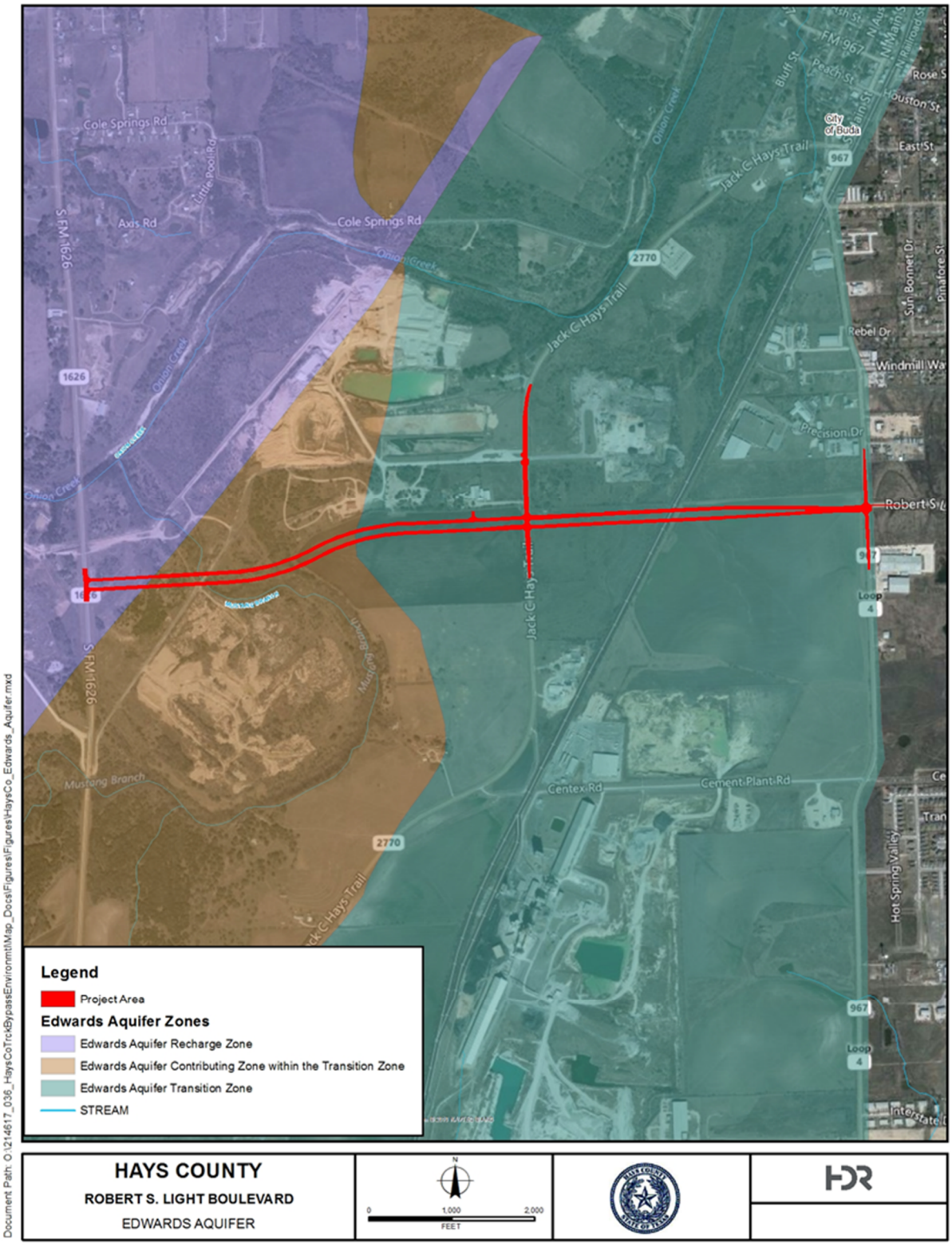


Figure 3. Edwards Aquifer Zones

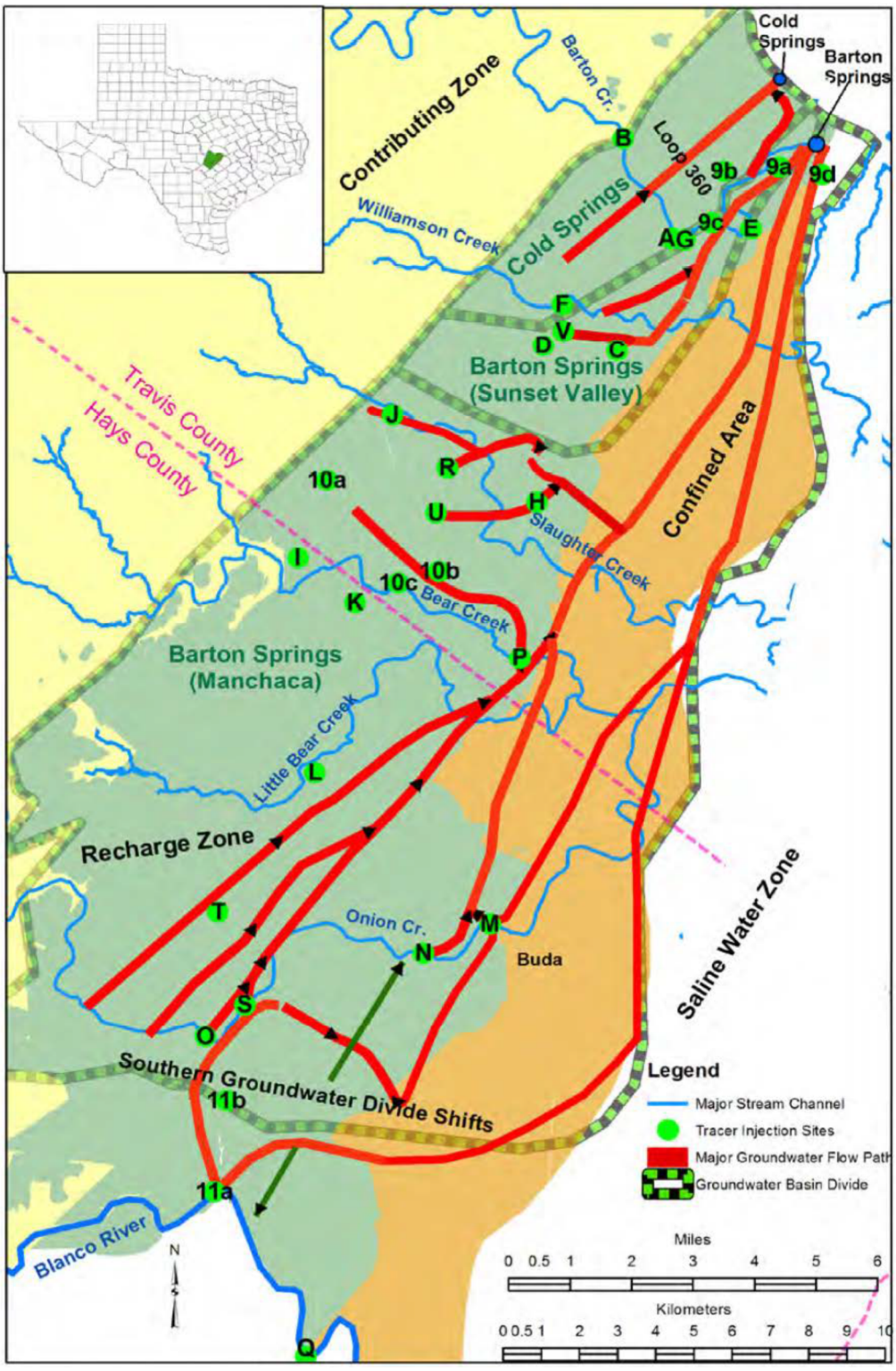


Figure 4. **Mapped flow paths, groundwater basins, and spring locations**

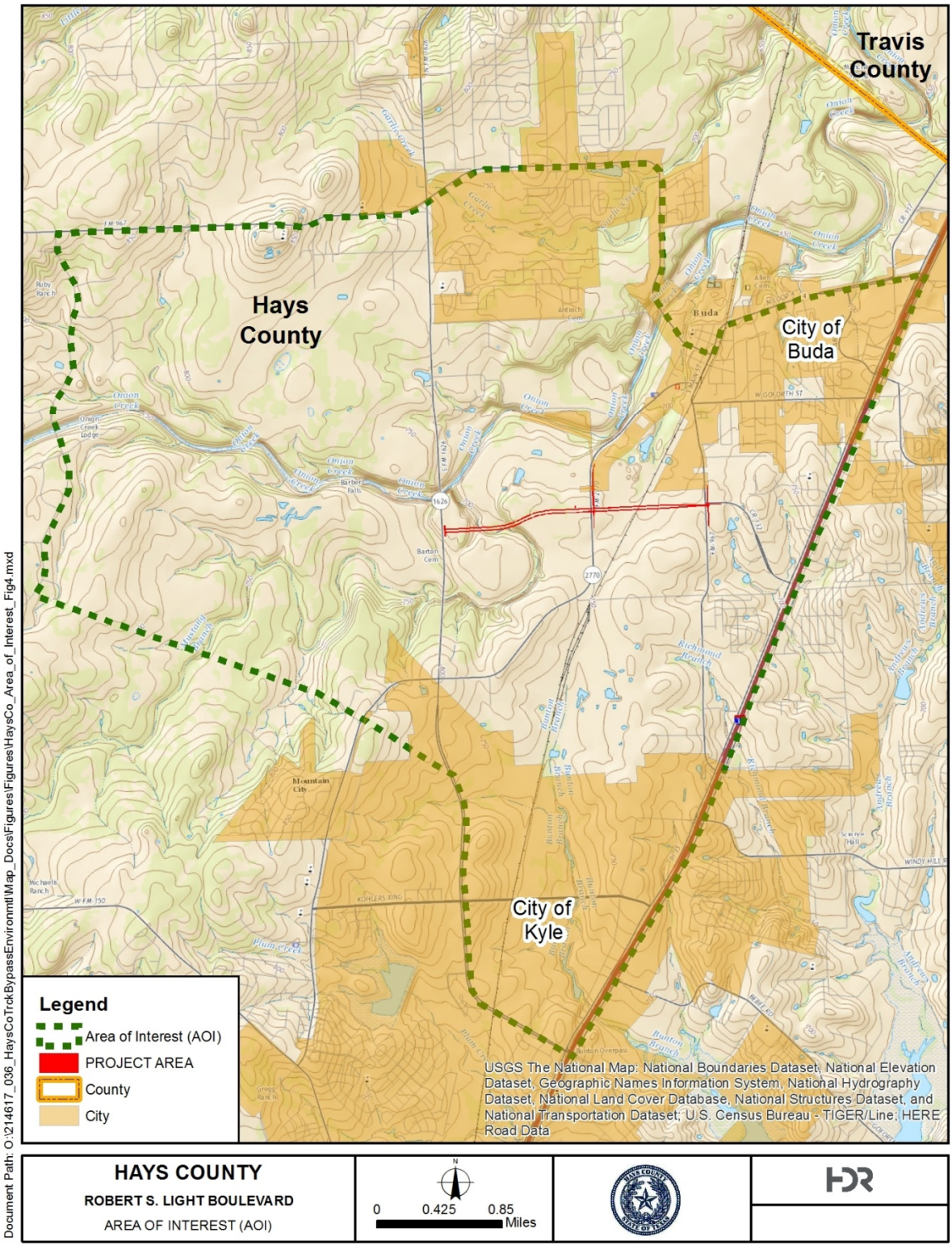


Figure 5. Area of Interest for Robert S. Light Project

Appendix G—Resource Agency Coordination

1. USDA Coordination Letter
2. Farmland Conversion Impact Rating Form
3. THC Concurrence
4. Archeological Survey and NRHP/SAL Testing
5. TPWD Correspondence
6. Tribal Consultation Request Letter

USDA
United States Department of Agriculture

MAR 31 2015

Natural Resources
Conservation Service

State Office

101 S. Main Street
Temple, TX 76501
Voice 254.742.9800
Fax 254.742.9819

March 23, 2015

HDR
4401 West Gate Boulevard
Suite 400
Austin, Texas 78748

Attention: Sara Moren

Subject: LNU-Farmland Protection
Proposed Robert S. Light Extension Project
Hays County, Texas

We have reviewed the information provided in your correspondence dated February 23, 2015 concerning the new roadway in Hays County, Texas. This review is part of the National Environmental Policy Act (NEPA) evaluation for Federal Highway Administration (FHWA). We have evaluated the proposed site as required by the Farmland Protection Policy Act (FPPA).

The proposed project does contain soils classified as Important Farmland Soils. We have completed Parts II, IV, and V of the Farmland Conversion Impact Rating for Corridor Type Projects (CPA-106). The relative value of farmland in Part V should be used in your calculation for Part VII.

To meet reporting requirements of section 1546 of the Act, 7 U.S.C 4207, and for data collection purposes, after your agency has made a final decision on a project in which one or more of the alternative sites contain farmland subject to the FPPA, NRCS is requesting a return copy of the Form CPA-106, which indicates the final decision. We urge you to use accepted erosion control methods during all phases of construction.

If you have any questions, please contact me at (254) 742-9826, Fax (254) 742-9859 or by email at micki.yoder@tx.usda.gov.

for Sincerely,

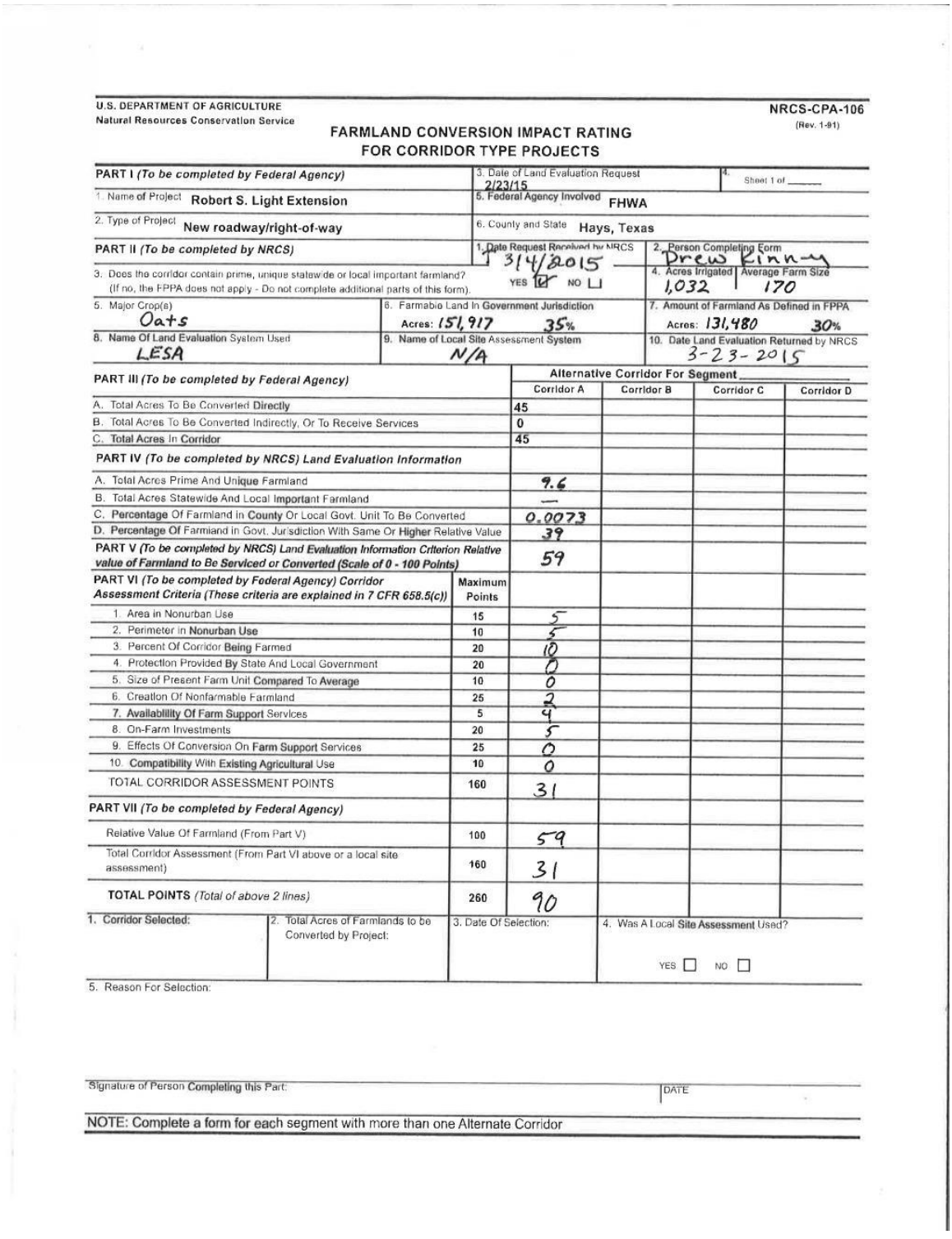
Drew Kinney

Micki Yoder
NRCS Soil Conservationist

Attachment

An Equal Opportunity Provider and Employer

Figure 1. USDA Coordination Letter for Robert S. Light Project



U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 2/23/15	4. Sheet 1 of ____
1. Name of Project **Robert S. Light Extension**	5. Federal Agency Involved **FHWA**	
2. Type of Project **New roadway/right-of-way**	6. County and State **Hays, Texas**	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 3/4/2015	2. Person Completing Form Drew Finney
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☒ NO ☐	4. Acres Irrigated 1,032 | Average Farm Size 170	
5. Major Crop(s) Oats	6. Farmable Land In Government Jurisdiction Acres: 151,917 35%	7. Amount of Farmland As Defined in FPPA Acres: 131,480 30%
8. Name Of Land Evaluation System Used LESA	9. Name of Local Site Assessment System N/A	10. Date Land Evaluation Returned by NRCS 3-23-2015

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	45			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	45			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	9.6			
B. Total Acres Statewide And Local Important Farmland	—			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.0073			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	39			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	59			
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — Maximum Points				
1. Area in Nonurban Use — 15	5			
2. Perimeter in Nonurban Use — 10	5			
3. Percent Of Corridor Being Farmed — 20	10			
4. Protection Provided By State And Local Government — 20	0			
5. Size of Present Farm Unit Compared To Average — 10	0			
6. Creation Of Nonfarmable Farmland — 25	2			
7. Availability Of Farm Support Services — 5	4			
8. On-Farm Investments — 20	5			
9. Effects Of Conversion On Farm Support Services — 25	0			
10. Compatibility With Existing Agricultural Use — 10	0			
TOTAL CORRIDOR ASSESSMENT POINTS — 160	31			
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	59			
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	31			
TOTAL POINTS *(Total of above 2 lines)* — 260	90			

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

Figure 2. Farmland Conversion Impact Rating form provided by USDA for Robert S. Light Project.

Texas Department of Transportation®
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

December 3, 2015

RE: Section 106 and Antiquities Code of Texas Consultation #2: Robert S. Light Blvd. from FM 1626 to RM 967 in Hays County: Austin District: CSJ: 0914-33-068: Final Draft Report: Ama Terra Environmental Inc. Intensive Survey Report
Texas Antiquities Permit No. 7055

Patricia A. Mercado-Allinger
Division of Archeology
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711

Dear Ms. Mercado-Allinger:

In accord with the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer (TSHPO), and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU), as well as the Memorandum of Understanding (MOU) between the Texas State Historic Preservation Officer and TxDOT, we are continuing Section 106 and Antiquities Code of Texas consultation for the proposed undertaking.

The proposed undertaking consists of constructing a new roadway on new location that will be called the Robert S. Light Boulevard (also known as the Buda Bypass). The proposed roadway will be built within a 120-foot Right-of-Way (ROW), extending for a distance of approximately 1.8 miles, and will require approximately 45 acres of new ROW with 14.8 acres of existing ROW where FM 1626, FM 2770, and RM 967 intersect the project. The proposed new roadway will be a divided four-lane facility with two 12-foot lanes in each direction, ten-foot wide shoulders on the outside travel lanes, and a 48-foot grassy median between the travel lanes. Dedicated left turn lanes will be added to FM 2770 and RM 967 for northbound traffic turning left onto Robert S. Light Blvd. Lastly, two bridges will be constructed where the proposed extension project intersects Mustang Branch and the Union Pacific Railroad.

The undertakings area of potential effects (APE) for archeological resources is defined as the footprint of the proposed project to the maximum depth of impact(s) and includes all easements. Thus, the APE for archeological resources will cover a total distance of approximately 1.8 miles, within a typical road width of 120 feet. The APE encompasses 45 acres of proposed new ROW and 14.8 acres of existing ROW for a total of 59.8 acres. The project will be built at grade and therefore the maximum depth of impact would be four feet or less, except where new bridges are proposed, where the depth of impact from the construction of piers could potentially exceed 25 feet below the surface. At these locations, impacts would likely extend below the depth of Holocene-age deposits.

Your office issued Texas Antiquities Permit No. 7055 to Ama Terra Environmental Inc., (ATEI) to conduct an intensive archeological survey of the project area. ATEI completed their initial field investigation in the Spring of 2015 and submitted a draft report. They identified a total of four archeological sites (41HY201, 41HY500, 41HY501 and 41HY502) within the APE. On May 14, 2015, TxDOT coordinated that report with your office in a letter (please see attached). Your office concurred with the following TxDOT recommendations:

1. The portions of 41HY201 and 41HY500 overlapping onto the APE are not contributing elements to either sites eligibility for listing on the National Register of Historic Places (NRHP) and do not warrant designation as State Antiquities Landmarks (SAL).
2. The prehistoric component of 41HY501 overlapping onto the APE is also not a contributing element to the sites eligibility for listing on the NRHP and does not warrant designation as a SAL.
3. Additional work in the form of additional intensive survey is required under Texas Antiquities Permit No. 7055 for both 41HY501 and 41HY502 in the form of up to three cubic meters of hand excavation per site, possible mechanical scraping to search for additional historic features, additional archival/deed research, and informant interviews.
4. ATEI will resubmit a revised report incorporating the results of the previous and additional work and the results of this Section 106/Antiquities Code of Texas consultation.
5. Additional consultation with your office will be conducted once the revised ATEI report is submitted and accepted by TxDOT.

ATEI has completed the prescribed additional field investigations and have submitted a final draft report. Based upon the additional field investigation, in depth artefactual analyses, and extensive archival research, the investigators have determined that minimal evidence exists for pre-twentieth century occupations for either 41HY501 or 41HY502. Based upon these observations and analyses, the investigators have recommended that the portions of 41HY501 and 41HY502 located within the APE are not significant. A copy of the ATEI report is attached for your review.

TxDOT has reviewed the ATEI report and agree with their recommendations. Therefore, in regards to this undertaking, TxDOT seeks your concurrence that the portions of 41HY501 and 41HY502 overlapping onto the APE are do not possess elements that contribute to either sites' eligibility for listing on the NRHP and do not warrant designation as SALs, that the archeological inventory of the APE is complete, for a finding of "no historical properties affected", and no further work or consultation is required. Please signify your concurrence by signing on the signature line provided below. If you have any questions, please contact me at 416-2640. Thank you for your consideration in this matter.

Sincerely,

Jon Budd, TxDOT Staff Archeologist

Concurrence by; _____ Date: 12-4-15
For Mark Wolfe, State Historic Preservation Officer and Executive Director

Attachments

Archeological Survey and NRHP/SAL Testing of Sites along the Robert S. Light Boulevard Extension Project (FM 1626 and FM 2770 and RM 967), Hays County, Texas

by

Julian A. Sitters, Mindy Bonine, and Joel Butler

Principal Investigator: Joel Butler

Revised Draft

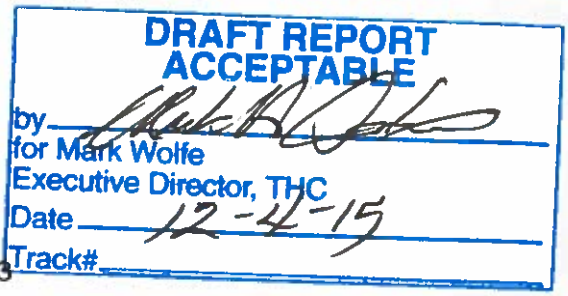
CSJ: 0914-33-068

Antiquities Permit No. 7055

Prepared for

Texas Department of Transportation

Austin District



Technical Report No. 103

by

AmaTerra Environmental, Inc.

Austin, Texas

AmaTerra ENVIRONMENTAL, INC.

November 2015

Texas Department of Transportation

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

May 18, 2018

SECTION 106 REVIEW: DETERMINATION OF NRHP ELIGIBILITY and EFECTS

Hays County (Austin District)
Robert S. Light Boulevard Extension
From: RM 967 to FM 2770 and FM 1626
CSJ: 0914-33-068

Justin Kockritz
History Programs
Texas Historical Commission
Austin, Texas 78711

Mr. Kockritz:

Regulatory Environment and Introduction
The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT. In accordance with 36 CFR 800 and our existing consulting party agreement, this letter initiates Section 106 consultation on eligibility and effect of the proposed undertaking with respect to historic properties located within the project's area of potential effects (APE). As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency.

Introduction
TxDOT's Austin District proposes to construct a new four-lane divided roadway at the above location. Approximately 45 acres of new right-of-way (ROW) would be required. Please see the attached historic resources survey report (HRSR) for a more detailed description and location maps. This letter resumes **consultations** begun with the Hays County Historical Commission (CHC) on August 15, 2016 and represents our response to the CHC's comments. Please see attached survey report, our coordination letter with the CHC, and the CHC's response.

Response to Comments by the Hays CHC
Resource No. 1 Barton Cemetery
TxDOT historians appreciate the information the CHC provided on the history associated with the Barton Cemetery and will draw on it should it be in the APE of future projects. As noted in both our letter to the CHC and the CHC's response, the cemetery is not in this project's APE. [1]

[1] The Barton Cemetery is not in the APE as no work would be done on FM 1626 for this project. Therefore, despite its inclusion in the HRSR, TxDOT Historians are not coordinating the NR eligibility of the cemetery at this time. See figure 2 of the attached survey.

Resource No. 2 and 3

For the purposes of this evaluation, TxDOT historians will accept the premise that the parcel(s) on which non-archeological resource Numbers 2A-H and 3A-J are located are indeed associated with important agricultural events in Hays County under Criterion A. The *Agricultural Theme Study for Central Texas* notes that

> like other kinds of cultural resources being evaluated for NRHP eligibility, agricultural properties do not need to retain all of the aspects of integrity. Rather, they should retain those aspects that are the foundation of significance to a sufficient degree to support an argument for eligibility. For instance, an agricultural property that derives significance under Criterion A as an intact and well-preserved example of a dairying operation from the second quarter of the twentieth century must retain those aspects of integrity to convey significance for its historical associations. Aspects of integrity that rely on more physical-based characteristics, such as integrity of workmanship or materials are *not as important as integrity of association, feeling, and setting*.[2] (emphasis mine)

Complex agricultural properties are best evaluated as potential historic districts, as doing so reinforces

> the idea that an agricultural property is more than just a main house and a nearby grouping of ancillary buildings and structures, the historian should use the National Register classification of a district as the best and most effective way to understand and evaluate agricultural properties for NRHP eligibility. Such an approach forces the historian to consider the associated land that supports agricultural activities and treats the various components of the property as a unified whole.[3]

The period of significance for dairy agriculture in Hays County is 1920-1970 at the local level. As also noted in the theme study,

> mere association with an agricultural trend is not sufficient justification for historic significance. A farm, ranch, or dairying operation must embody the characteristics and qualities that collectively reflect an important historical pattern, theme, or event within the APE or study area.[4]

Thus, as the CHC suggests, it is worthwhile to analyze Resource Numbers 2 and 3 in relationship to the surrounding land and to each other. The 1958 aerial, Figure 3 on page 57 of the attached survey report, shows open agricultural fields to the north, east, southeast, and south. Patchy mature vegetation, similar to that growing along the banks of Onion Creek and its tributaries, was to the west of Number 3. A review of Figure 2, page 56, of the attached survey report and the 1982 aerial, Figure 5, page 59 of the attached survey report, shows that the vegetation, use, boundaries, circulation patterns, and building clusters to the southeast, northeast, north, and west have dramatically, and adversely, changed integrity of setting, feeling, and association to the point that the rural landscape is now industrial. Further, the

---

[2] *Agricultural Theme Study for Central Texas Historic Context*, p. 6-16. See also p. 6-31: "At a minimum, an agricultural property eligible under Criterion A must retain a high degree of integrity of location, setting, feeling, and association. In addition, it should possess sufficient integrity of design, workmanship, and materials for the extant physical features on the property to remain as a visible and tangible link to the past and represent the significant historical agricultural operations that took place on the property."

[3] *Theme Study*, p. 6-29.

[4] *Theme Study*, p. 6-6.

connection of an agricultural road to the south suggested by a discoloration in Figure 3 is no longer present. This later conclusion is reinforced by the growth of woody vegetation between Numbers 2 and 3 from spotty, irregular, and porous into an almost continuous hard vegetative boundary. The hard boundary is a reflection of the reality that the present owners of Numbers 2 and 3 have no need for access to cropland. This current distinction in usage is probably temporary and a consequence of tax laws. This is because, per Hays County Tax Appraisal records, Centex owns the parcel that contains Number 2 and the fields immediately to the south and the land to the west.

Similarly, the domestic and agricultural work zones have also been dramatically and adversely impacted. By 1967, when Figure 4's aerial was taken, Number 2 had become an agricultural work zone including structures like Numbers 2E and 2G. As the CHC suggests, perhaps this was part of dairy's resurgence after the 1950s drought. Figure 4 shows internal roads connecting Numbers 2 and 3 with gardens, sheds, and the far side of the fields to the north. Hints of what was to come, however, can be seen to the east in the domestic work zone surrounding Number 3A – the circa 1920 farmhouse. What was once a loop-shaped driveway became a 0.10 to 0.20 acre open rectangle. Also visible are the first of a series of wings and expansions to a barn located to the north and east of the house. By 2013, modular sheds covered at least 0.80 acres and dominated the domestic work zone to such an extent that it would be barely recognizable to someone who visited in the 1950s.

In sum, the agricultural and domestic work zones represented by Numbers 2 and 3 no longer possess the required integrity of materials, design, workmanship, setting, feeling, and association to convey their agricultural significance.

Resource No. 4

TxDOT Historians note that Figure 3, the May 1958 aerial, shows more than one building present at Number 4 and that only one modest metal covered frame shed remains. On its own the building lacks sufficient distinction to be NRHP eligible and it is unable to convey any associations, feeling, and therefore significance of the building cluster to which it once belonged.

Given the compromised integrity of ID Numbers 2, 3, and 4, Number 4 cannot contribute to an agricultural historic district because of changed circulation and cluster patterns, impacts to integrity of setting, materials, workmanship and design, from industrial-scale metal sheds, industrial facilities. Consequently, Resource Numbers 2, 3, and 4 no longer embody important agricultural patterns, themes, or events.

See more detailed discussions of these resources on pages 9-10 of the attached survey report.

TxDOT historians, however, continued to investigate the potential for an NRHP eligible agricultural district to the south of Resources 2 and 3. TxDOT historians reviewed the 1996 *Historic Resources Survey of Rural Agricultural Properties in County Commissioner's Precinct 2 of Hays County, Texas* on deposit at the Texas Historical Commission (THC). Unfortunately, the THC does not seem to have copies of the associated maps or a complete set of photographs and efforts to locate them at the Public library in San Marcos and in the records of the Hays County Historical Commission were unsuccessful. The survey inventory documents three non-archeological historic-age resources along FM 2770:

Site No.	Description	Date	Preservation Priority
20	Domestic L-Plan	1900	Medium
37	Domestic (moved)	1920	Low
38	Domestic L-Plan (moved)	1920	Low

(See attached copies of the inventories from which this table is excerpted.)

See attached map of structures along FM 2770 that might be the Domestic L-Plans inventoried by the Precinct 2 survey. Historic aerials from 1954 and 1986 reveal that by 1995 no L-Plan from the 1950s, let alone the 1920s, survives in the cluster north Resource 3a. Resource 3a is likely Precinct 2 Survey Site No. 20. The Precinct 2 survey team might have considered the southern candidate as an L-plan, but the aerials suggest something more irregular. In the absence of additional information from the county survey, however, it is not possible to verify what the Precinct 2 survey actually found along FM 2270.

Nevertheless, TxDOT surveyed the building cluster south of Resources 2 and 3 and west of the Centex Plant. See attached aerial (where the cluster is shown as 5a-c), photos, and supplemental images. Resource 5a is a one-story side-entrance frame residence with a steep pitched standing seem metal roof and full front-façade porch. At this location, at least, it dates after 1967, as it is not in Figure 4. It is visible on a 1986 aerial, however. *Perhaps* it is Precinct 2 Survey Site No. 37; the 1920 moved domestic resource. Resource 5b is metal-sided barn that might be a variant of a German bank barn. That said it does not take advantage of the site's sloping topography in the manner associated with bank barns. Additional historic-age resources in the domestic and work zones includes post 1973 concrete and corrugated metal silos (5c) and well as a number of non-historic-age resources such a trailers and sheds. There are ruins of a shed northwest of the cluster. The presence of a relocated domestic resource and numerous non-historic-age resources severely affects the domestic zones' integrity of design, setting, materials, and feeling. More particularly, it creates a false sense of historical development as it conceals the loss of an earlier residence.

Fence lines, gates, animal paths, and plowing patterns visible on the attached historic aerials clearly show circulation and shared use between the fields in Hay Central Appraisal District parcel numbers R11222 and R11214. Please see attached copy of the tax map. These boundaries and circulation patterns are not sufficient to overcome the lost integrity of location, design, materials, workmanship, feeling, and setting created by the relocated residence and non-historic age structures of 5a-c's domestic and agricultural work zones and surrounding pastures.

Determinations of National Register Eligibility

TxDOT historians reviewed the CHC's comments and evaluated the surveyed properties through the application of the Criteria of Eligibility for listing in the National Register of Historic Places and determined that ***none*** of the historic-age resources possess sufficient integrity to convey associations with a significant historical event, or associated with a person of transcendent importance, or embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master. Therefore, all historic-age resources in the APE are determined **not eligible** for listing in the National Register of Historic Places.

Determination of Effects

In accordance with 36 CFR 800.5, TxDOT historians applied the *Criteria of Adverse Effect* and determined that the proposed project poses **no effects** to historic properties given that there are no historic properties present.

Conclusion
In accordance with 36 CFR 800, I hereby request your signed concurrence with TxDOT's findings of eligibility and effect. Please return a signed copy of this correspondence for our files within 30 calendar days. Please communicate any comments or concerns directly to me via mail or email. If we do not hear from you within 30 days of receipt, we will assume your concurrence.

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, the Antiquities Code of Texas, and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.

Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please call me at (512) 416-2600.

Sincerely,

Mark M. Brown
Historic Preservation Specialist
Historical Studies Branch
Environmental Affairs Division

thru: Bruce Jensen, Cultural Resources Section Director.

Rebekah Dobrasko, Lead Reviewer.

CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:
No NRHP Eligible Properties in APE

NAME: Justin Kakuta DATE: 6/15/2018
for Mark Wolfe, State Historic Preservation Officer

cc: Kate Johnson, Chair Hays CHC, Shirley Nichols TxDOT Austin District, ECOS

From: Sue Reilly <Sue.Reilly@tpwd.texas.gov>
Sent: Tuesday, December 1, 2015 3:11 PM
To: Jon Geiselbrecht
Subject: RE: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Jon,

Thanks for all the answers, I appreciate it.

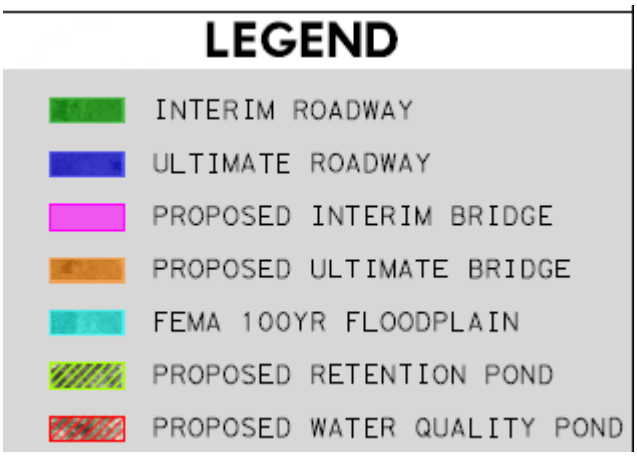
Thank you for submitting the following project for early coordination: Robert S. Light Boulevard from FM 1626 to RM 967 (CSJ 0914-33-068). TPWD appreciates TxDOT's commitment to implement the practices listed in the Biological Evaluation form sent in on May 22, 2015. Based on a review of the documentation, 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 fish and wildlife.

Thank you,

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

From: Jon Geiselbrecht [mailto:Jon.Geiselbrecht@txdot.gov]
Sent: Tuesday, November 24, 2015 12:46 PM
To: Sue Reilly
Subject: RE: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Sue, the pond locations are shown cross-hatched on the schematic. See below. However, I've confirmed that only one water quality pond (at Mustang Branch) will be constructed – the other is for flood detention only and will be dry most of the time. The schematic I sent to you also shows one at Station 141+00-145+00 but that one is no longer proposed. As for landscaping, no plans other than wildflower seeding is proposed. Hope that helps, Jon



-----Original Message-----
From: Sue Reilly [mailto:Sue.Reilly@tpwd.texas.gov]
Sent: Friday, November 20, 2015 4:49 PM
To: Jon Geiselbrecht
Subject: RE: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Jon,

I received the schematic. Thank you for sending it! I have a couple of questions.

I am trying to match up the plans you sent with the schematic. I don't see a detention pond adjacent to Mustang Branch on the schematic. I do see two other ponds, one on the north side of the ROW and one under the bridges at the Union Pacific RR tracks. Is this a third detention pond that isn't on the schematic?

Is there a planting list for the project? For landscaping?

I also notice that the ponds on the schematic are called retention ponds. Will they be wet ponds or dry ponds?

Thank you,

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

-----Original Message-----
From: Jon Geiselbrecht [mailto:Jon.Geiselbrecht@txdot.gov]
Sent: Friday, November 20, 2015 10:25 AM
To: Sue Reilly

Subject: RE: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Sue, there will be two water quality ponds constructed - a vertical sand filter alongside the bridge over Mustang Branch and a detention pond underneath the bridge at Mustang Branch. The plan sheets are attached.
As far as temporary impacts, we will need to construct a temporary crossing across Mustang Branch for the bridge construction. The location of this crossing will be determined once a contractor is selected; however we will direct them to place the temp. crossing outside of the wetland area that was discovered during field investigations. Does that get you what you need? Again, my apologies for the dropping the ball on this one, Jon

-----Original Message-----
From: Jon Geiselbrecht
Sent: Friday, November 20, 2015 9:43 AM
To: 'Sue Reilly'
Subject: RE: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Oh my gosh, the consultant was to send this info to you in August. I completely forgot to follow-up to ensure they did this. I'll get you something today. My apologies! Jon

-----Original Message-----
From: Sue Reilly [mailto:Sue.Reilly@tpwd.texas.gov]
Sent: Thursday, November 19, 2015 2:57 PM
To: Jon Geiselbrecht
Subject: RE: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Hi Jon,

Just wanted to check in to see if there was any more information.

Thank you,

Sue

-----Original Message-----
From: Jon Geiselbrecht [mailto:Jon.Geiselbrecht@txdot.gov]
Sent: Monday, July 20, 2015 10:25 AM
To: Sue Reilly
Subject: RE: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Sue, I haven't forgot about your questions - still waiting on answers from the consultant. I will forward as soon as I know....

-----Original Message-----
From: Sue Reilly [mailto:Sue.Reilly@tpwd.texas.gov]
Sent: Thursday, July 09, 2015 11:55 AM
To: Jon Geiselbrecht
Subject: RE: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Jon,
Sorry for the delay! Two more questions-- Can you tell me or show me where the possible detention pond locations are?
Also, at this time do you know what the temporary impacts will be at the Mustang Branch crossing?

Thank you,
Sue

-----Original Message-----
From: Jon Geiselbrecht [mailto:Jon.Geiselbrecht@txdot.gov]
Sent: Monday, June 15, 2015 2:50 PM
To: Sue Reilly
Subject: RE: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Sue, design details are still being worked out but we will provide permanent stormwater treatment to the 80% removal standard from the CZ/TZ boundary line, west to the end of the project. Treatment would be provided across the entire CZ and RZ portion of the project area. A WPAP with a geologic assessment is required to be reviewed and approved since a portion of it is on the RZ.

The preliminary drainage report that I saw showed possible locations for detention ponds. The BMPs under consideration include vegetated filter strips and a sand filtration pond. Hope that helps, Jon

-----Original Message-----
From: Sue Reilly [mailto:Sue.Reilly@tpwd.texas.gov]
Sent: Friday, June 12, 2015 5:41 PM
To: Jon Geiselbrecht
Subject: FW: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Jon,

I noticed this project is partially in the Edwards Aquifer Recharge Zone, but I don't know if it triggers Edwards Rules. Will TxDOT be implementing BMPs for the Edwards Rule for Robert Light extension? Will there be any detention ponds as part of the project?

Thank you,

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

-----Original Message-----
From: WHAB_TxDOT
Sent: Tuesday, May 26, 2015 10:52 AM
To: Jon Geiselbrecht (Jon.Geiselbrecht@txdot.gov); WHAB_TxDOT
Cc: Sue Reilly
Subject: FW: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

Good morning,

The TPWD Wildlife Habitat Assessment Program has received your request for Early Coordination and has assigned it project ID #34670. The Habitat Assessment Biologist who will complete your project review is copied on this email.

Thank you,
Gloria Garza
Administrative Assistant
Texas Parks and Wildlife Dept
Wildlife Division - Habitat Assessment Program
4200 Smith School Rd
Austin, TX 78744

Office: (512) 389-4571
Fax: (512) 389-4599

gloria.garza@tpwd.texas.gov

-----Original Message-----
From: TxDOT Dropbox [mailto:dropbox@ftp.txdot.gov]
Sent: Friday, May 22, 2015 11:29 AM
To: WHAB_TxDOT
Subject: [Dropbox Service] Jon Geiselbrecht has dropped-off 3 files for you!

This is an automated message sent to you by the Dropbox Service.

Jon Geiselbrecht (jon.geiselbrecht@txdot.gov) has dropped-off 3 files for you.

You can retrieve the drop-off by clicking the following link (or copying and pasting it into your web browser) within 19 days:

"https://ftp.dot.state.tx.us/dropbox/pickup.php?claimID=1ughzjS3G3rfXPR8&claimPasscode=XwgL9bktmjJLojus&emailAddr=whab_txdot%40tpwd.texas.gov"

Full information for the drop-off:

Claim ID: 1ughzjS3G3rfXPR8

Claim Passcode: XwgL9bktmjJLojus
Date of Drop-Off: 2015-05-22 11:28:32-0500

-- Sender --
Name: Jon Geiselbrecht
Organization:
Email Address: jon.geiselbrecht@txdot.gov
IP Address:

-- Uploaded Files --

Name: 20150428-RobertSLight-BioEval.pdf
Content Type: application/pdf
Size: 904.7 KB
Description:

Name: 20150428-RobertSLight-BioEval_Appendices.pdf
Content Type: application/pdf
Size: 1.5 MB
Description:

Name: 20150428-RobertSLight-BioEval_EMST_updated.xlsx
Content Type: application/vnd.openxmlformats-officedocument.spreadsheetml.sheet
Size: 15.6 KB
Description:

Talk. Text. Crash.

[Talk. Text. Crash.]<http://www.txdot.gov/inside-txdot/division/traffic/safety/share-road/distracted.html>

Talk. Text. Crash.

[Talk. Text. Crash.]<http://www.txdot.gov/inside-txdot/division/traffic/safety/share-road/distracted.html>

[#EndTheStreak] <http://www.txdot.gov/inside-txdot/media-center/psas/end-streak.html>

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

May 19, 2015

RE: CSJ: 0914-33-068; Robert S. Light Blvd. from FM 1626 to RM 967, Construct New Roadway, Section 106 Consultation; Hays County, Austin District

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

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

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

Undertaking Description

TxDOT's Austin District is proposing to construct a new roadway on mostly new location to be called Robert S. Light Boulevard (also known as the Buda Bypass), in Hays County, Texas (Please see Exhibit A for the Project Location in Hays County and Figure 1.1 embedded in the archeological survey report attached as Exhibit B for the 7.5 Minute USGS Topographic Quadrangle Project Location).

The proposed roadway will be built within a 120-foot Right-of-Way (ROW), extending for a distance of approximately 1.8 miles, and will require approximately 45 acres of new ROW with 14.8 acres of existing ROW where FM 1626, FM 2770, and RM 967 intersect the project. The proposed new roadway will be a divided four-lane facility with two 12-foot lanes in each direction, ten-foot wide shoulders on the outside travel lanes, and a 48-foot grassy median between the travel lanes. Dedicated left turn lanes will be added to FM 2770 and RM 967 for northbound traffic turning left onto Robert S. Light Blvd. Lastly, two bridges will be constructed where the proposed extension project intersects Mustang Branch and the Union Pacific Railroad.

Area of Potential Effects

The undertakings area of potential effects (APE) for archeological resources is defined as the footprint of the proposed project to the maximum depth of impact(s) and includes all easements. Thus, the APE for archeological resources will cover a total distance of approximately 1.8 miles, within a typical road width of 120 feet. The APE encompasses 45 acres of proposed new ROW and 14.8 acres of existing ROW for a total of 59.8 acres. The project will be built at grade and therefore the maximum depth of impact would be four feet or less, except where new bridges are proposed, where the depth of impact from the construction of piers could potentially exceed 25 feet below the surface. At these locations, impacts would likely extend below the depth of Holocene-age deposits. Current project schematics are attached. There are no new permanent or temporary easements proposed for the undertaking.

For the purposes of this cultural resources review, the APE also includes an additional 50-foot area around the previously-described horizontal dimensions to account for potential alterations to the proposed APE included in the final project design. Consultation would be continued if potential impacts extend beyond this additional area, based on the final design.

Identification Efforts

For this project, an archeological survey has been conducted by Ama Terra Environmental Inc. (ATEI). Their investigation resulted in the identification of four archeological sites (41HY201, 41HY500, 41HY501, and 41HY502) within the APE. 41HY201 is a prehistoric archeological site that was previously recorded north of the current projects western terminus. ATEI expanded the site boundaries south to include a portion of the APE. A total of 16 shovel tests were excavated within the portion of the APE now incorporating the site. Of these 16 shovel tests, five contained cultural materials (a total of eight chert flakes) recorded to no deeper than 40 centimeters below the current ground surface (cmbs). Surficial finds include lithic debitage, one utilized flake, two bifaces, a uniface, and two flake cores. No features, diagnostic artifacts, faunal, or floral remains were observed. The site is bisected from north to south by FM 1626 and east to west by a conveyor belt transporting gravel across the Texas Lehigh Cement Co. property. The area to the east of FM 1626 was previously disturbed through mechanical scraping associated commercial gravel quarrying. As a result, most of the natural ground surface is deflated with shallow deposits and exposed bedrock gravels. To the west of FM 1626, archeologists observed push piles and artificially levelled surfaces. Due to the lack of features, diagnostic artifacts, faunal and floral remains, its poor stratification, and recent alteration due to quarrying and bulldozing activities, 41HY201 has no integrity and retains minimal research value. The investigators have recommended that portion of the site extending into the APE is not significant and does not warrant any further work. TxDOT agrees.

Site 41HY500 is a newly recorded prehistoric open campsite. The site consists of fairly shallowly buried lithic debitage and one fire-cracked rock (FCR) feature. Artifacts are present on both the surface and within the near surface and include lithic debitage, a utilized flake, cores, and bifaces. The FCR feature consists of a concentration of thermally fractured limestone, as well as chert debitage. The feature is eroding downslope towards Mustang Branch. One shovel test was excavated within the feature. The shovel text extended to a depth of approximately 20

cmbs before terminating at calcium carbonate gravels and contained fourteen lithic flakes, one utilized flake, and three pieces of FCR within 20 cm of very dark brown silty loam. A total of 12 shovel tests were excavated within the APE during site delineation and all contained cultural materials. No diagnostic artifacts, faunal, or floral remains were observed. The site has poor stratification with cultural materials limited to the upper 40 cmbs. It has been impacted by both erosion and generations of plowing. The investigators have determined that the archeological constituents of 41HY500 are limited to within 40 centimeters of the current ground surface, lack diagnostic artifacts, and lack faunal and floral remains. Due to these observations, the investigators have recommended that the portion of the site overlapping onto the APE is not significant and does not warrant further work. TxDOT agrees.

Sites 41HY501 and 41HY502 are also newly recorded sites and are predominately historical residence remains. 41HY501 however, possesses a prehistoric component consisting of approximately 20 chert flakes scattered across the ground surface, two flake cores, a tested cobble, one possible scraper, a biface, and one reworked chert projectile point (possibly an Ellis, Ensor, or Edgewood type). A total of nine shovel tests were excavated into the site. However, only one shovel test contained a prehistoric artifact (one chert scraper). Other than the reworked projectile point, no diagnostic artifacts, prehistoric features, prehistoric faunal or floral remains were observed. No prehistoric remains were observed below 20 cmbs. Based upon these observations, the investigators have recommended that the prehistoric portion of site 41HY501 overlapping onto the APE is not significant and does not warrant any further work. TxDOT agrees. There were no prehistoric artifacts or features discovered associated with 41HY502. Please see Exhibit B: A copy of the ATEI report attached for your review.

Findings and Recommendations

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

1. The inventory of the APE is complete.
2. The portions of 41HY201 and 41HY500 overlapping onto the APE are not contributing elements to either sites eligibility for listing on the National Register of Historic Places (NRHP).
3. The prehistoric component of 41HY501 overlapping onto the APE is also not a contributing element to the sites eligibility for listing on the NRHP.
4. That a zone of 50 feet beyond the horizontal project limits be considered as part of the cultural resources evaluation; and if any future changes to the project APE extend beyond the additional 50-foot zone or if archeological deposits are discovered, your Tribe would then be contacted for further consultation.
5. That in regard to prehistoric archeological resources, no further work or consultation is required.

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

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

Thank you for your attention to this matter. If you have questions, please contact Jon Budd (TxDOT Archeologist) at 512/416-2640 (email: jon.budd@txdot.gov) or me at 512/416-2631 (email: Scott.Pletka@txdot.gov). When replying to this correspondence by US Mail, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely,

Scott Pletka, Supervisor
Archeological Studies Branch
Environmental Affairs Division

Concurrence by: _____ Date: _____

Attachments
cc w/attachments: ENV-ARCH ECOS

Re: Section 106 Consultation, National Historic Preservation Act;
Proposed Texas Department of Transportation Project
CSJ: 0914-33-068; Robert S. Light Blvd. from FM 1626 to RM 967, Construct New Roadway,
Hays County, Austin District

Exhibit A

The Project Location Plotted on the Hays County Map

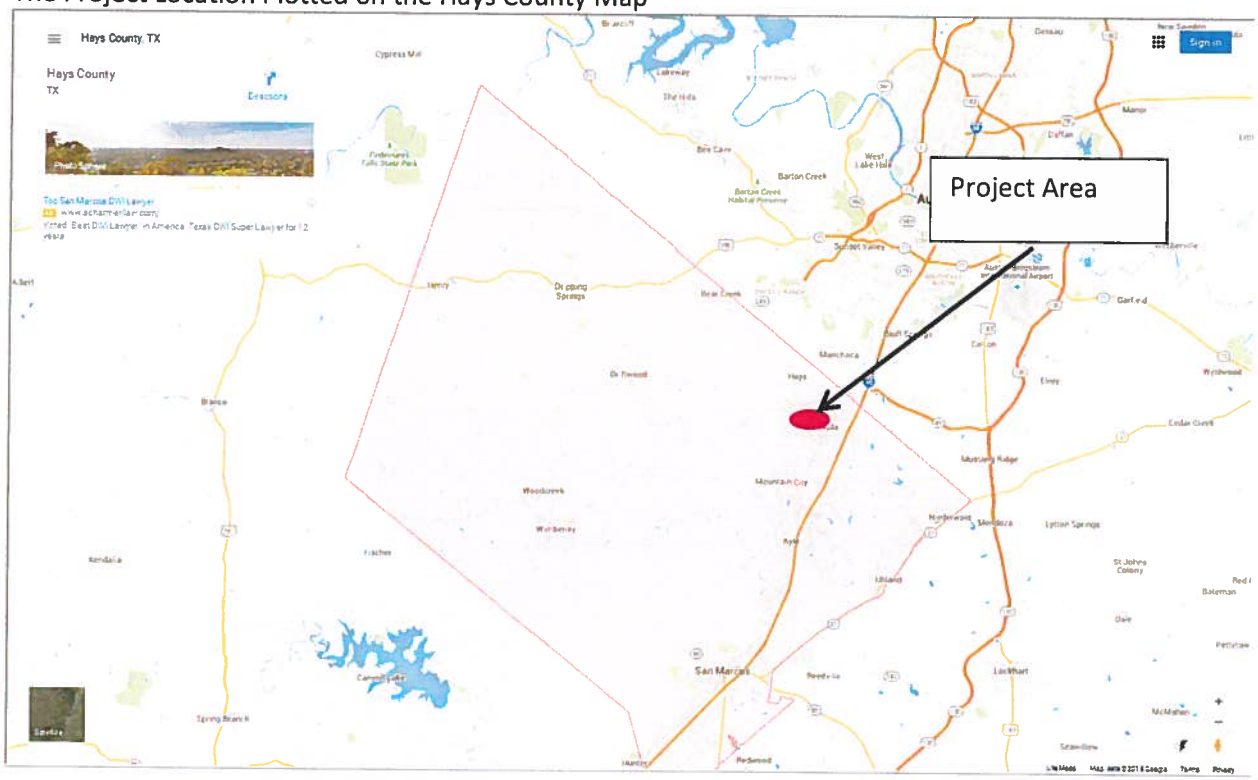


Exhibit B

Archeological Survey of the Robert S. Light Boulevard Extension Project (FM 1626 to FM 2770 and RM 967), Hays County, Texas

Appendix H—Comment and Response Matrix from Public Meeting

Robert S. Light Blvd. From RM 967 to FM 1626 (Buda Truck Bypass)
Open House Public Meeting
Summary and Analysis/Recommendations

District/County: Austin/Hays County
CSJ: 0914-33-068
Open House Public Meeting: An open house public meeting was held to provide the public with information associated with the proposed Robert S. Light Blvd. extension (Buda Truck Bypass), and to solicit public input. This was the first public meeting specifically held for the Buda Truck Bypass, although previous public meetings held by the City of Buda which were dedicated to the completion of city transportation planning documents have included discussions of the proposed project. The proposed project has historically received public support.
The location of the proposed project is in eastern Hays County south of the City of Buda. The new direct route being considered would be approximately 1.8 miles long, and as currently envisioned, connect FM 1626 and FM 2770 to Roberts S. Light Boulevard at RM 967. The roadway would be built in an industrial area that is used by several cement and asphalt companies for mining and plant operations. If constructed, the proposed Buda Truck Bypass would be a four lane divided arterial in its ultimate configuration. The project is proposed to be constructed in two separate phases. Interim construction would build the northern two lanes from FM 1626 to RM 967. Ultimate construction would utilize the two lanes built in the interim phase and construct the remaining two lanes planned for the four lane divided arterial.
Need and Purpose of the Project: Eastern Hays County needs the Buda Truck Bypass to improve personal and freight mobility within the area and to reduce traffic congestion in a safe and reliable way. Hays County is one of the fastest growing areas in Texas as well as the nation. Hays County has grown 61% since the year 2000, and the population is expected to continue to increase 144% by the year 2035. This rapid growth has resulted in a substantial increase in the use of local roads by commuter traffic. In addition to the commuter traffic, trucks from local cement and asphalt plants continue to use these routes to transport loads. The current road system is not designed to safely handle this increased level of traffic.
Notices: Certified letters were mailed on February 27, 2014 to area stakeholders, including those landowners whose property would be affected by the proposed project. These letters invited the stakeholders to attend the planned open house public meeting in order to review the proposed alignments and discuss the proposed project with members of the project team. A copy of this letter as sent is attached. Notices of the planned open house public

meeting were issued in area newspapers, including The Austin American Statesman, Ahora Si', and the Hays County Free Press on three occasions; February 17, 2014, March 10, 2014 and March 13, 2014. A copy of the public notice as it was published is attached.

Public Meeting Date and Place: The open house public meeting was held on March 20, 2014 at Elm Grove Elementary, 801 West FM 1626 Buda, Texas 78610.

Attendance: Total attendance at the public meeting included 26 members of the public and seven government officials. In addition, 10 staff members of the project team representing TxDOT, HDR, GAP Strategies and HNTB were present. A copy of the public meeting sign-in sheet documenting the attendance is attached.

Conducted by: The public meeting was conducted by a project team comprised of staff from TxDOT, HDR, Gap Strategies and HNTB. No formal presentation was given at the meeting. Project team members were available during the meeting to answer questions and explain the purpose and need, proposed alternatives, environmental constraints, and next steps to members of the public which attended.

Exhibits: Plans illustrating the proposed interim and ultimate alignments were made available for viewing and comment during the public meeting. A study area constraints map was also provided during this time.

Written Comments from Landowners: The comment form provided to attendees at the public meeting requested all comments be received or post-marked by April 1, 2014. In total six comments were received from attendees at the meeting. Five of these comments were favorable to the project and one was neutral. The comments received are provided below with responses.

Comment 1: "Please send me a PDF or CAD file of the "square" Hays County proposed Truck Bypass map."

Response: A study area constraints map will be sent to the commenter.

Comment 2: "Makes sense."

Response: Comment noted, thank you for your comment.

Comment 3: "The alignment looks good. The overpasses will be a huge benefit for traffic flow. This project cannot be built fast enough."

Response: Comment noted, thank you for your comment.

Comment 4: "Please save every tree you can! And if you can figure out a way to keep the big trucks out of downtown Buda that would be nice."

Response: Comment noted, thank you for your comment.

Comment 5: "Please Build It!"

Response: Comment noted, thank you for your comment.

Comment 6: 1) "This is a vital project for the North Hays County area. Buda realizes the importance to the entire region. Thanks to the Texas Department of Transportation and Hays County for making this project possible. This will provide a critical transportation route to the west side of Buda. Currently large trucks, in particular gravel trucks, have to navigate through downtown to go west. 2.) This provides a critical method of travel for citizens on the

east-west route. 3.) Economic development opportunities will grow with the access to this area. The bypass adds greatly to the transportation network in this part of Hays and southern Travis County."

Response: Comment noted, thank you for your comment.

Recommendation: The project team will continue public involvement efforts with local municipalities and property owners during the detailed design and construction phases of the proposed project. TxDOT will continue to oversee and manage the public involvement process.