Draft
Environmental Assessment

FM 3349 at US 79, Austin District

Project limits: From CR 404 to CR 395

CSJ Number(s) 3486-01-008, 0204-02-034, 0914-05-211

Williamson County, Texas

September 2021

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

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List of Acronyms

APE	Area of Potential Effects
AADT	Annual Average Daily Traffic
ACHP	Advisory Council on Historic Preservation
BCC	Bridge-Class Culvert
BMP	Best Management Practices
CAAA	Clean Air Act Amendments
CAFE	Corporate Average Fuel Economy
CAMPO	Capital Area Metropolitan Planning Organization
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CCD	Census County Division
CGP	Construction General Permit
CO	Carbon Monoxide
CR	County Road
CSN	Construction Site Notice
DOT	Department of Transportation
EA	Environmental Assessment
EFH	Essential Fish Habitat
EJ	Environmental Justice
EPA	Environmental Protection Agency
EPIC	Environmental Permits, Issues and Commitments
ESA	Endangered Species Act
ETC	Estimated Time of Completion
FHWA	Federal Highway Administration
FM	Farm to Market Road
FONSI	Finding of No Significant Impacts
GHG	Greenhouse Gas
IBWC	International Boundary Water Commission
IBWC	International Boundary and Water Commission
IP	Individual Standard Permit
IPCC	Intergovernmental Panel on Climate Change
IRIS	Integrated Risk Information System
LWCF	Land and Water Conservation Fund
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
MOVES	Motor Vehicle Emissions Simulator
MS4	Municipal Separate Storm Sewer System
MSA	Essential Fish Habitat/Magnuson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standards
NATA	National Air Toxics Assessment

NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NRHP	National Register of Historic Places
NWP	Nationwide Permit
PALM	Potential Archeological Liability Map
PCN	pre-construction notification
PCR	(Historical Studies) Project Coordination Request
PM	Particulate Matter
PS&E	Plans, Specifications, and Estimates
PWC	Parks and Wildlife Code
ROE	Right of Entry
ROW	Right of Way
RRC	Texas Railroad Commission
RTHL	Registered Texas Historic Landmark
RTP	Regional Transportation Improvement Program
SAL	State Antiquities Landmark
SHPO	Texas State Historic Preservation Officer
STIP	Statewide Transportation Improvements Program
SW3P	Storm water Pollution Prevention Plan
TAC	Texas Antiquities Committee
TCEQ	Texas Commission on Environmental Quality
TCMP	Texas Coastal Management Plan
TDM	Traffic Demand Management
TERP	Texas Emissions Reduction Plan
THC	Texas Historical Commission
TMDL	Total Maximum Daily Load
TPDES	Texas Pollutant Discharge Elimination System
TSM	Traffic System Management
TxDOT	Texas Department of Transportation
UPRR	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled
WCAD	Williamson Central Appraisal District

1.0 Introduction

Williamson County and the Texas Department of Transportation (TxDOT) Austin District are proposing to reconstruct and improve the interchange of Farm to Market (FM) Road 3349/County Road (CR) 101 and United States (US) Highway 79, from approximately 0.12 mile north of CR 404 to CR 395, in Williamson County, Texas. Maps showing the project location are included in Appendix A. Photographs of the project location, the existing roadway facilities, and surrounding area are included in Appendix B. The proposed improvements would include widening the existing undivided two-lane FM 3349 and CR 101 facilities into four-lane divided facilities, constructing a grade-separation to elevate FM 3349/CR 101 over US 79 and the Union Pacific Railroad (UPRR) (which is adjacent to and paralleling US 79), and constructing a local access road "jug handle" to provide connectivity between the existing US 79 facility and the proposed FM 3349/CR 101 facility. The proposed improvements would also include construction of bridges over an unnamed tributary of Boggy Creek and an unnamed tributary of Mustang Creek, and detention ponds would be constructed along the improved section of FM 3349/CR 101. Also, as part of the proposed project, a shared use path would be constructed along both the northbound and southbound elevated sections of FM 3349/CR 101. Appendix C provides the project schematic, with existing and proposed typical sections.

The purpose of this Environmental Assessment (EA) is to evaluate the potential environmental consequences of the proposed project and determine whether such consequences warrant preparation of an Environmental Impact Statement (EIS). This EA has been prepared to comply with both TxDOT's environmental review rules and the National Environmental Protection Act (NEPA). This Draft EA will be made available for public review and, following the comment period, TxDOT will consider any comments submitted. If TxDOT determines there are no significant adverse effects, TxDOT will prepare and sign a finding of no significant impacts (FONSI), which will be made available to the public.

2.0 Project Description

2.1 Existing Facility

The existing FM 3349 roadway, from approximately 0.12 mile north of CR 404 to US 79, is a two-lane undivided roadway with one 11-foot southbound travel lane, one 11-foot northbound travel lane, and 1-foot outside shoulders. The existing right of way (ROW) along this section of FM 3349 varies in width from approximately 80 to approximately 100 feet.

The existing CR 101 roadway, from US 79 to approximately 0.25 mile north of US 79, is a two-lane undivided roadway with one 12-foot northbound lane, one 12-foot southbound lane, and outside shoulders varying from one foot to 10 feet. Approximately 500 feet north of US 79, the southbound 10-foot shoulder on CR 101 tapers southward and the pavement widens to accommodate a 12-foot southbound right turn lane, which begins approximately 220 feet north of US 79. The existing CR 101 roadway, from approximately 0.25 mile north of US 79 to CR 395, is a two-lane undivided roadway with one 10-foot northbound travel lane, one 10-foot southbound travel lane, and no shoulders. The existing ROW along CR 101 is approximately 120 feet wide.

The existing US 79 facility, from approximately 0.71 west of FM 3349/CR 101 to approximately 150 feet east of FM 3349/CR 101, is a four-lane divided roadway with two 12-foot eastbound travel lanes, two 12-foot westbound travel lanes, 10-foot outside shoulders, and 4-foot inside shoulders. Directions of travel are separated by a grassy median (approximately 50 feet wide). The Union Pacific Railroad (UPRR) runs

parallel to and south (approximately 60 feet) of US 79 within existing ROW. The combined ROW width of US 79 and UPRR varies within the project area from approximately 330 feet to approximately 380 feet.

Drainage along the existing FM 3349, US 79, and CR 101 facilities is currently accommodated through parallel open grassy ditches. There are six existing cross-drainage culverts within the project area, four of which are bridge-class culverts (BCC). One BCC is in an unnamed tributary to Mustang Creek, on US 79, approximately 500 feet west of FM 3349/CR 101. One culvert is in the unnamed tributary of Mustang Creek, on US 79, approximately 300 feet west of FM 3349/CR 101. One BCC is in the unnamed tributary of Mustang Creek, on FM 3349, approximately 315 feet south of US 79. One BCC is in the unnamed tributary of Boggy Creek, on FM 3349 approximately 1.25 miles south of US 79. One culvert on FM 3349, approximately 780 feet north of CR 132, conveys roadside drainage under the roadway. One BCC is in Boggy Creek, on FM 3349, approximately 1,100 feet north of CR 404.

On the UPRR railway, there is an existing wooden railroad trestle bridge, approximately 280 feet west of FM 3349, carrying the railroad over an unnamed tributary of Mustang Creek.

2.2 Proposed Facility

The proposed project would widen and reconstruct FM 3349, from approximately 0.12 mile north of CR 404 to approximately 0.21 mile south of US 79, into a four-lane divided roadway, with two twelve-foot travel lanes in each direction, 10-foot inside and outside shoulders and 2-foot inside and outside curb and gutter. Directions of travel would be separated by a grassy median, varying in width from approximately 250 feet to approximately 325 feet. Detention ponds would be constructed within the median just north of CR 132, requiring the 325-foot median width. Median breaks and turnaround lanes would be constructed along this section of FM 3349 to accommodate motorists needing to travel in the opposite direction.

FM 3349/CR 101, from approximately 0.21 mile south of US 79 to approximately 0.21 mile north of US 79 would be reconstructed and elevated over US 79 and UPRR by a combination of earth and retaining walls and bridges. This section of the FM 3349/CR 101 facility would have two 12-foot travel lanes in each direction, inside shoulders varying in width from 4 feet to 10 feet, outside shoulders varying in width from 7.5 feet to 13.5 feet, and one-foot inside and outside single slope traffic rails. 14-foot at-grade turnaround lanes, with 6-foot outside shoulders and 4.5-foot inside shoulders would be constructed under the FM 3349/CR 101 bridge, to accommodate motorists needing to travel in the opposite direction before crossing US 79 or UPRR. Ten-foot wide shared-use paths would be constructed along the outside of the northbound and southbound elevated portions of the roadway to safely accommodate pedestrians and bicyclists needing to cross US 79 and UPRR.

CR 101, from approximately 0.21 mile north of US 79 to CR 395 would be reconstructed to match the proposed FM 3349 facility south of US 79. It would include four-lanes with two twelve-foot travel lanes in each direction divided by a grassy median, 10-foot inside and outside shoulders and 2-foot inside and outside curb and gutter. Median width would be approximately 250 feet. Median breaks and turnaround lanes would be constructed along this section of FM 3349 to accommodate motorists needing to travel in the opposite direction.

The proposed project would construct a new local access road “jug handle” between CR 101, approximately 0.42 mile north of US 79, and US 79, approximately 0.48 mile west of FM 3349/CR 101. The jug handle would be a four-lane divided roadway with two 12-foot travel lanes in each direction, a 14-foot flush median, and 10-foot outside shoulders. The length of the jug handle would be approximately 0.65 mile.

The length of the project along FM 3349 and CR 101 would be approximately 2.89 miles. It is anticipated that the project would require approximately 120.8 acres of additional ROW and 20.3 acres of a new permanent drainage easement along the west side of FM 3349 south of US 79. Displacements may consist of three residential displacements, and one commercial displacement. The commercial displacement would be of a business that is already permanently closed and was listed for sale.

Federal regulations require that federally funded transportation projects have logical termini [23 Code of Federal Regulations (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. In accordance with 23 CFR §771.111(f)(1), the logical termini of the project have been identified as the significant local traffic generators that use the intersection of FM 3349/CR 101 and US 79 intersection, which include CR 404 to the south and CR 395 to the north.

Federal regulations require that a project have independent utility and to be a reasonable expenditure even if no other transportation improvements are made in the area [23 CFR §771.111(f)(2)]. This means a project must be able to provide benefit by itself, and that the project does not compel further expenditures to make the project useful. Stated another way, a project must be able to satisfy its purpose and need with no other projects being built. The proposed project can stand on its own without the implementation of other traffic improvements. This project does not irretrievably commit federal funds for other future transportation projects and provides congestion relief and improves safety between CR 404 and CR 395 by constructing a grade separation along FM 3349/CR 101 over US 79 and UPRR; therefore, it has been determined that the project has independent utility.

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 predetermine or preclude future work along FM 3349, CR 101 or US 79, and would not restrict the consideration of future transportation improvements. The proposed project would provide a grade separation and would maintain access to cross streets and abutting properties. The current engineering schematic is included in Appendix C.

The proposed project is being developed to be consistent with TxDOT's 2021-2024 District Statewide Transportation Improvement Program (STIP) (TxDOT, 2021a), the Capital Area Metropolitan Planning Organization (CAMPO)'s 2021-2024 Transportation Improvement Program (TIP) (CAMPO 2020a) and CAMPO's 2045 Regional Transportation Plan (RTP) (CAMPO 2020b). The proposed project, in its current scope, is not yet listed on the STIP, TIP or RTP; however, a request to include the proposed project in the TIP was submitted to CAMPO on July 8, 2021, via CAMPO's online TIP Amendment Application. The TIP amendment and subsequent STIP and RTP amendments are anticipated to occur in the Fall 2021 amendment cycle (see Appendix D - Plan and Program Excerpts).

The estimated total project cost is $84,600,000, including state and local funds. Although the proposed project is currently anticipating state and local funding, the environmental review and documentation is being prepared to federal standards to preserve the possible use of federal funding.

3.0 Purpose and Need

3.1 Need

The proposed project is needed to meet the existing and future population growth and transportation demand on FM 3349/CR 101, and to provide a safe north/south connection across the UPRR and US 79.

3.2 Supporting Facts and/or Data

The following summarizes the data that are currently available to support the Need statement.

3.2.1 Existing and Future Population Growth and Transportation Demand

Population Change (2000 – 2019)

Data was obtained for the City of Hutto, City of Taylor, Taylor Census County Division (CCD), Williamson County, and the State of Texas to illustrate the recorded percent population change from the year 2000 to 2019 per the U.S. Census (U.S. Census Bureau, 2019). All available and most recent population data was collected and shown below in the following tables.

As shown in **Table 1** and **Table 2**, the City of Hutto has experienced rapid growth from 2000-2019. Notably, Williamson County is growing faster than the state of Texas.

Table 1: 2000 and 2010 Population Data

Census Geography	2000 Population	2010 Population	Percent Change
City of Hutto	1,677	14,698	776.4
City of Taylor	13,676	15,191	11.1
Williamson County	249,964	422,697	69.1
Texas	20,851,820	25,145,561	20.6
Source: U.S. Census Bureau, Total Population Table, Assessed July 2020			

Table 2: Hutto and Taylor 2010 and 2019 Population Data

Census Geography	2010 Population	2019 Population	Percent Change
City of Hutto	14,698	27,947	90.1
City of Taylor	15,191	17,383	14.4
Source: U.S. Census Bureau, QuickFacts 2019			

Taylor CCD, a subdivision of Williamson County (Census Reporter, 2021), fully captures the project limits at a larger scale, meaning it shows a smaller amount of area with a greater amount of detail, than Williamson County. Therefore, the data from Taylor CCD more accurately shows the changes occurring in proximity to the project limits. As seen in **Table 3**, the Taylor CCD population is growing more rapidly than Williamson County as a whole. As noted in the tables below, all geographies referenced have had and continue to have substantial population increases.

Table 3: Taylor CCD and Williamson County 2010 and 2018 Population Data

Census Geography	2010 Population	2018 Population	Percent Change
Taylor CCD	50,932	70,914	39.2
Williamson County	422,697	566,719	34.1
Source: U.S. Census Bureau, Total Population Table, Assessed July 2020			

Population Projections (2015 – 2045)

In addition to the substantial population change from 2000 to 2019, population projections to 2045 also depict a growth trend. According to the Capital Area Metropolitan Planning Organization's *CAMPO 2045 Regional Transportation Plan* (CAMPO, 2020) adopted May 2020, the population of Williamson County is projected to be 1,377,000 in 2045. As seen below in **Table 4**, the County's population is projected to increase 192 percent between 2015 and 2045. Projections such as these indicate an urgent need for Williamson County to plan for current and future growth.

Table 4: Williamson County 2015 and 2045 Population and Employment Data Projections

Census Parameter	2015	2045 Projections	Percent Change
Employment	233,484	642,000	177.0
Population	471,403	1,377,000	192.0
Source: CAMPO 2045 Regional Transportation Plan			

According to the Hutto Economic Development Corporation, the projected population of the City of Hutto is estimated to reach 85,000 people in 2040, an increase of 416 percent over 30 years (City of Hutto, 2021).

Roadway Network

Table 5 lists the existing roadways within the project limits and number of existing lanes on each roadway. US 79 provides the main east/west connection between the cities of Hutto and Taylor and FM 3349/CR 101 provides a north/south connection within the County.

Table 5: Existing Roadways within the Project Limits

Roadway Segment	From	To	Number of Lanes
FM 3349	US 79	CR 404	2
US 79	0.71 mi west of FM 3349/CR 101	150 feet east of FM 3349/CR 101	4
CR 101	US 79	CR 395	2
Source: BGE, Inc. Google Earth Interpretation (August 2020)			

Further analysis of the roadways in the vicinity of the proposed project uncovered the lack of grade separated locations present to cross over US 79 and the UPRR. The closest locations to cross the railroad using a grade separation are 3.0 miles to the east via Carlos G Parker Boulevard and 5.6 miles west using SH 130.

Traffic Forecast

The annual average daily traffic (ADDT) counts were reviewed to determine the traffic forecasts for the roadways near the proposed project area. US 79 and FM 3349 show similar trends as the population data. As seen in **Table 6**, all three roadways are expected to increase by 40 percent from 2018 to 2038.

Table 6: Traffic Forecast

Roadway Segment	From	To	2018 AADT Traffic	2038 Estimated Traffic	Percent Increase
FM 3349	US 79	FM 1660	938	1,313	40
US 79	FM 3349	FM 1660	16,454	23,036	40
US 79	FM 3349	Lorax Lane	18,024	25,234	40
Source: TxDOT Statewide Planning Map (August 2020)					

3.2.2 Safety

According to TxDOT statewide crash data for 2020 (TxDOT, 2021b), shown in **Table 7**, divided roadways with four or more lanes (both rural and urban) have generally lower crash rates than undivided roadways. FM 3349/CR 101 between CR 404 and CR 395, is currently a two-lane undivided roadway.

Table 7: 2020 Statewide Crash Data

Road Type	Traffic Crashes per 100 million vehicle miles	
	Rural	Urban
2 lane, 2 way	90.42	184.09
4 or more lanes, divided	52.76	140.68
4 or more lanes, undivided	87.76	271.82

Crash data were obtained through the TxDOT Crash Query System (TxDOT, 2021c) for the FM 3349/CR101 and US 79 intersection and similar intersections in the vicinity of the proposed project for the years 2011-2020. **Table 8** shows the crashes occurring within 500 feet of three similar intersections. Each intersection consists of a rural two-lane undivided roadway intersecting at-grade with US 79 and the UPRR. The number of crashes occurring at the intersection of FM 3349/CR 101 and US 79 over the 10-year period were nearly double those occurring at either CR 132 and US 79 or CR 432 and US 79. The total number of crashes for all three roadways showed a 56-percent increase from the five-year period between 2011 and 2015 to the five-year period between 2016 and 2020.

Table 8: Project Vicinity Crash Data

Roadway (intersecting US 79 and UPRR)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
FM 3349/CR 101	2	1	1	1	4	3	2	1	3	4	22

CR 132	2	2	0	3	0	1	2	2	0	1	13
CR 432	0	2	0	0	0	6	0	1	2	0	11
Total	4	5	1	4	4	10	4	4	5	5	46

3.3 Purpose

The purpose of the FM 3349 at US 79 Project is to meet the transportation demand on FM 3349/CR 101 caused by current and future growth and improve safety and mobility.

4.0 Alternatives

4.1 Build Alternative(s)

The Build Alternative, as described in **Section 2.2**, would be approximately 2.89 miles long and would require approximately 120.8 acres of additional ROW. This alternative would widen and reconstruct FM 3349/CR 101 into four-lane divided facility, provide a grade separation along FM 3349/CR 101 over US 79 and UPRR, and construct a jug handle to accommodate traffic accessing US 79 from FM 3349/CR 101 and vice versa. The alignment would require ROW from the east and west sides of FM 3349 and CR 101, and ROW in the northwest quadrant of the intersection of FM 3349/CR101 and US 79, for the jug handle. The Build Alternative would meet the purpose and need of the project by meeting existing and future population growth and transportation demand and improving safety for north/south traffic.

4.2 No-Build Alternative

Under the No-Build Alternative, FM 3349/CR 101 would not be modified and the jug handle would not be constructed. The No-Build Alternative assumes that no transportation improvements beyond continued maintenance of the facility would occur. This alternative would not improve safety for north/south traffic currently required to cross the UPRR and four lanes of US 79 traffic. This alternative would not meet the existing and predicted traffic demand and population growth. As the No-build alternative would not meet the purpose and need of the project, the Build Alternative is the preferred alternative. The No-Build Alternative will, however, be evaluated throughout this EA for comparison purposes.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

One early alternative considered for the FM 3349/CR 101 at US 79 included a narrower median north of CR 404 before transitioning back to the existing facility. This alternative was eliminated from consideration based on hydraulic requirements and the need for detention ponds within the median.

Another early alternative considered an alignment for the jug handle which connected to US 79 closer to the FM 3349/CR 101 intersection. This alternative was eliminated from consideration to avoid an additional displacement.

5.0 Affected Environment and Environmental Consequences

In support of this EA, the following technical documentation was prepared:

- Species Analysis Form
- Species Analysis Summary Spreadsheet

- Tier I Site Assessment
- Surface Water Analysis Form
- Waters of the U.S Delineation Report
- Section 404/10 Impacts Table
- Air Quality Technical Report
- Traffic Noise Analysis Report
- Archeological Background Study
- Antiquities Permit Application and Scope of Work
- Archeological Survey Report
- Historical Studies Project Coordination Request
- Historical Studies Research Design
- Historical Resources Survey Report
- Farmland Conversion Impact Rating Form
- Community Impact Assessment Technical Report Form
- Hazardous Material Initial Site Assessment Form
- Risk Assessment for Cumulative Impacts
- Risk Assessment for Indirect Impacts

All technical documents prepared for this EA are available for public review at the TxDOT Austin District, office, 7901 N. I-35 Austin, TX 78753, and at Williamson County Road and Bridge Division, 3151 S. E. Inner Loop, Suite B, Georgetown, Texas 78626.

5.1 Right-of-Way/Displacements

The proposed project would require approximately 120.8 acres of additional ROW and 20.3 acres of a new permanent drainage easement along the west side of FM 3349 south of US 79 (Appendix C). Displacements may consist of three residential displacements, and one commercial displacement. The commercial displacement would be of a business that is already permanently closed and was listed for sale (Appendix D: Resource-specific Maps - Displacements Map).

Williamson County and TxDOT would ensure that the needs of all displaced residents, including any disabled, minority, or elderly persons, are considered and accommodated to the extent practicable. Any ROW acquisition would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Additionally, it is anticipated that these residences and/or businesses would be able to find appropriate sites to relocate nearby due to the amount of commercial and residential property available in the project vicinity. Therefore, economic impacts within the community associated with relocations are expected to be minimal.

Table 9 summarizes the anticipated ROW acquisitions and easements by parcel (WCAD ,2021), including potential displacements and associated auxiliary structures.

Table 9. Potential ROW Acquisitions, Easements and Displacements

*Parcel ID**	*Proposed New ROW (acres)*	*Proposed New Easements (acres)*		*Potential Displacements*		
		Temporary	*Permanent*	*Residential*	*Commercial*	*Other Structures*
R019157	*17.23*	*0*	*0*			

Parcel ID*	Proposed New ROW (acres)	Proposed New Easements (acres)		Potential Displacements		
		Temporary	Permanent	Residential	Commercial	Other Structures
R510099	1.01	0	0	1		2
R019153	1.11	0	0			
R565026	2.78	0	0			
R019447	0.07	0	0			
R020311	13.19	0	0			
R532963	0.24	0	0			
R020337	0.92	0	0		1	3
R500155	2.96	0	0			
R020943	6.94	0	7.62			
R432817	10.27	0	0			
R497285	0.88	0	0	1		1
R345752	3.01	0	4.05			
R345751	6.57	0	8.64			
R082165	0.92	0	0			
R346016	1.91	0	0			
R346023	4.12	0	0			
R020700	8.69	0	0			
R020703	4.04	0	0			
R019449	7.49	0	0			
R019460	0.74	0	0	1		
R019459	0.74	0	0			
R019456	1.68	0	0			
R019452	3.23	0	0			
R349685	2.95	0	0			
R586974	4.45	0	0			
R586973	4.05	0	0			
R586972	0.85	0	0			
R586967	0.21	0	0			

*Parcel ID**	*Proposed New ROW (acres)*	*Proposed New Easements (acres)*		*Potential Displacements*		
		Temporary	*Permanent*	*Residential*	*Commercial*	*Other Structures*
R586971	*0.26*	*0*	*0*			
R435566	*0.11*	*0*	*0*			
R019461	*1.35*	*0*	*0*			
R481601	*5.8*	*0*	*0*			
Total:	*120.77*	*0*	*20.31*	*3*	*1*	*6*
**Williamson Central Appraisal District 2020*						

The No Build Alternative would not require any ROW acquisitions or easements and no displacements would occur under the No Build Alternative

5.2 Land Use

Current land use along the proposed project is rural residential properties, farmland, public utilities, and planned commercial developments. Most properties along the proposed project are being actively farmed. One larger commercial development, the RCR Taylor Logistics Park, is currently under construction. The proposed project would not result in substantial land use impacts (Appendix D: Resource-specific Maps - Potentially Affected Parcels Map).

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

5.3 Farmlands

The Farmland Protection Policy Act (FPPA) requires that federal agencies identify and take into account the adverse effects of their actions on the preservation of farmlands; consider alternative actions that could lessen adverse effects, as practicable; and ensure that the project is compatible with state and local programs and policies to protect farmlands (7CFR Part 658). The proposed project would convert farmland subject to the FPPA to a non-agricultural transportation use (Appendix E: Resource-specific Maps - Farmland Conversion Map); therefore, a Farmland Conversion Impact Rating for Corridor Type Projects (NRCS-CPA-106) (BGE, 2021a) was prepared for the proposed project and is available for public review at the TxDOT Austin District office and at the Williamson County Road and Bridge Division. The Corridor Assessment points on form NRCS-CPA-106 totaled 50. Scores of 59 points or less do not warrant further consideration for protection and no alternative sites need to be evaluated.

The No-Build Alternative would not result in the conversion of any farmland into a non-agricultural use.

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 right-of-way 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 right-of-way, then the impacts resulting from re-installation of the utilities within highway right-of-way 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 right-of-way, such location will be determined by the owner of the utility subject to the rules and policies governing the utility relocation process.

The No-Build Alternative would not require any utility relocations.

5.5 Bicycle and Pedestrian Facilities

There are no existing sidewalks or shared-use paths for bicyclists or pedestrians within the project area. The proposed project would construct shared-use paths along both sides of the grade-separated section of the FM 3349/CR 101 facility.

The existing FM 3349/CR 101 facility shoulders as narrow as one-foot wide along the majority of the project area. The proposed project would provide a minimum shoulder width of six-feet, would construct shared-use paths over US 79 and UPRR, and would construct 10-foot shoulders along the proposed jug handle. The proposed project would have a beneficial impact on bicyclists and pedestrians. The wider shoulders and shared-use paths would increase safety, and the shared-use paths would potentially reduce travel times for these modes of transportation.

The No-Build Alternative would not impact nor provide any benefit to bicyclists or pedestrians.

5.6 Community Impacts

A Community Impacts Assessment (BGE, 2021b) was prepared and is available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division. Potential community impacts were considered for a study area encompassing all properties within one mile of FM 3349 and CR 101 between Chandler Road and FM 160 (Appendix E: Resource-specific Maps - Census Geographies ad Community Study Area Map). This area was chosen because households within this area would be most likely affected by changes in travel patterns associated with the proposed project. Due to the rural nature of the area and the lack of commercial business along FM 3349/CR 101 the project is most likely to affect those who live along FM 3349 or CR 101 and regularly travel via US 79 to Taylor or Hutto/the Austin Area. People who do not live along the project area may use FM 3349/CR 101 as a north-south route between Chandler Road and FM 1660; however, they would not be adversely affected by the proposed project.

Since FM 3349/CR 101 is an existing transportation corridor direct adverse impacts to the cohesion or character of communities in the vicinity of the project are not expected.

Due to the construction of a grade-separation over US 79 and UPRR and the addition of the jug handle, some impacts to changes in travel patterns are anticipated. FM 3349/CR 101 traffic accessing US 79 currently must come to a stop and turn directly onto US 79 at an at-grade intersection. The proposed project will require turning traffic to use a local access road jug handle. Travel distances would slightly increase for all turning traffic; however, the maximum anticipated increase in travel distance/time is 1.5 miles/two minutes. People traveling to or from FM 3349 south of US 79 would receive the benefit of not having to stop for the train at UPRR. The proposed project would create permanent changes in travel patterns at the interchange of FM 3349/CR 101 and US 79 for all residents within the study area that use the interchange to access US 79. Differential effects to individual households would primarily be the result of destination (Hutto/Austin Area versus Taylor) rather than where the household is in the study area. No populations would be disproportionately affected by the proposed project.

Seven of the 48 census blocks (USCB, 2019) within the study area would be considered environmental justice (EJ) populations, having a minority population of 50-percent or greater. There were a few residences

with accommodations for disabilities, and some evidence of households below the poverty line. The degree of impacts from changes in travel patterns would depend more on which direction a traveler was turning than from which portion of the project vicinity they originated. No EJ populations would be disproportionately affected by changes in travel patterns (Appendix E: Resource-specific Maps - Environmental Justice Census Geographies Map).

New ROW and easements are proposed from eight Census Blocks, two of which would be considered EJ populations: Census Tract 208.08, Block Group 2, Block 2058; and Census Tract 208.09, Block Group 1, Block 1002. Approximately 5.9 acres would be acquired from Census Tract 208.08, Block Group 2, Block 2058, and Approximately 30.4 acres would be acquired from Census Tract 208.09, Block Group 1, Block 1002. Approximately 20.3 acres of permanent drainage easement would be acquired from Census Tract 208.09, Block Group 1, Block 1002. A total of approximately 56.7 acres of ROW and easements would be acquired from EJ census geographies, approximately 40 percent of the total new ROW and easements needed for the proposed project, and most of that would come from Census Tract 208.09, Block Group 1, Block 1002. Although only two out of eight Census Blocks from which ROW or easements would be acquired are EJ census geographies, the amount of ROW/easements acquired from them should not be interpreted as a disproportionate impact on EJ populations. Census Blocks vary considerably in size and Census Tract 208.08, Block Group 1, Block 1002 is a disproportionately large Census Block (approximately 1,464 acres). It is primarily agricultural fields with relatively few households. ROW and easement acquisitions for the proposed project would not disproportionately impact EJ populations.

Three residential displacements and one commercial displacement are anticipated due to the proposed project (Appendix E: Resource-specific Maps - Displacements Map). These displacements would occur within four separate Census Blocks. One anticipated residential displacement would occur within an EJ population, Census Tract 208.09, Block Group 1, Block 1002. Displacements would not disproportionately impact EJ populations.

The No-Build Alternative would not result in any ROW acquisitions or new easements, nor would it result in any displacements.

5.7 Visual/Aesthetic Impacts

The project vicinity is primarily agricultural and industrial. Properties adjacent to the existing ROW contain row crops (almost entirely corn), scattered residential properties, a City of Hutto elevated storage tank, and construction of the RCR Taylor Logistics Park. Visual and aesthetic aspects of the project area are dominated by agriculture, the existing transportation facilities, the UPRR and rural homes. The proposed project would widen an existing at grade transportation corridor. The at grade portions of the facility would not permanently impact the visual or aesthetic nature of adjacent agricultural properties or the UPRR. Expansion of the roadway would have a permanent visual/aesthetic impact due to the roadway being closer to homes in the area.

The proposed grade-separation at the intersection of US 79 and FM 3349/CR 101 would alter lines of site in the area. The existing features that would likely be obstructed from view include the Hutto elevated storage tank, the UPRR, portions of US 79 and a few roadside signs and billboards.

The overall aesthetics of the area would be shifted slightly, to be dominated more by transportation facilities; however, the aesthetics of the project area would remain largely unchanged. No substantial impacts to the aesthetics of the area are anticipated.

The No-Build Alternative would not directly impact the visual or aesthetic aspects of the project area; however, predicted increases in traffic within the area would not be accommodated and congestion could impact lines of site and noise levels.

5.8 Cultural Resources

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

5.8.1 Archeology

An area of potential effects (APE) for archeological resources was defined for the proposed project as the limits of existing ROW, proposed ROW, proposed easements; any project-specific locations and utility relocations designated by TxDOT. The APE encompasses 213.4 acres (72.3 acres existing ROW and 141.1 acres proposed ROW and easements.

An Archeological Background Study (AmaTerra, 2021a) was conducted for the proposed project. The Background Study included review of the Texas Archeological Sites Atlas maintained by the Texas Historical Commission) (THC, 2021) and the Texas Archeological Research Laboratory (UT, 2021), in order to identify archeological sites, Recorded Texas Historic Landmarks (RTHLs), properties or districts listed or eligible for listing on the Nation Register of Historic Places (NRHP), State Antiquities Landmarks, cemeteries, or other cultural resources that may have been previously recorded within one-kilometer of the APE, as well as previous surveys undertaken to determine archeological potential in the area. Additionally, a review of the TxDOT Austin District Potential Archeological Liability Map (PALM) (TxDOT, 2021d) was undertaken to determine potential for buried prehistoric archeological sites within the APE. The results of the Archeological Background Study indicated that two previously recorded archeological sites (41WM767 and 41WM1422) were partially within the APE, and there was potential for additional unknown archeological sites to occur within the APE. The Archeological Background Study recommended survey of the APE, including shovel testing and backhoe trenching.

In accordance with Section 106, consultation with stake holder Tribes was conducted by TxDOT on May 25, 2021. A 30-day opportunity to comment on the Archeological Background Study and proposed project was afforded, and no comments were received.

The archeological survey was conducted under Texas Antiquities Committee (TAC) Permit 30194. The archeological survey was conducted on June 21-22, 2021, following the Antiquities Permit Application and Scope of Work (AmaTerra, 2021b). Two new archeological sites were recorded (41WM1445 and 41WM1446). Both sites were the locations of early to mid-twentieth century farmsteads and neither were recommended eligible as a State Antiquities Landmark (SAL) or for NRHP listing. Site 41WM1446 was not able to be fully investigated at the time of survey due to the presence of a corn crop that was planted in narrow rows (24-36 inches apart) and was over six feet high. Further investigation and delineation of the site will be required after the corn is harvested. The two other sites (41WM767 and 41WM1422) previously documented within the APE could not be revisited at the time of survey due to denied Right-of-Entry (ROE). The survey included visual inspection of the entire project area from the existing ROW and shovel testing primarily within the proposed new ROW where ROE was granted. At the time of survey ROE was not granted to any parcel for backhoe trenching. A total of 82 shovel tests were excavated within accessible areas of the APE during the survey, which included 61.2 acres of proposed new ROW where ROE was granted. At

the time of survey ROE was denied to all 20.3 acres of proposed permanent easements and 59.6 acres of proposed new ROW. An Archeological Survey Report (AmaTerra, 2021c) was produced documenting the results of the survey.

Based on the results of the survey it is recommended that all proposed ROW and permanent easements where ROE was denied be surveyed after the ROW has been acquired by TxDOT or Williamson County, that backhoe trenching be conducted in areas of higher potential as noted in the PALM, and that sites 41WM767 and 41WM1422 be revisited. Additionally, since site 41WM1446 could not be fully delineated at the time of survey, it is recommended that the area around that site be further investigated to fully delineate the site boundaries after the corn crop has been harvested.

5.8.2 Historic Properties

An APE for historic properties was defined for the proposed project as the existing ROW within the project limits, all properties within 150 feet of proposed ROW and easements along existing transportation corridors, and all properties within 300 feet of proposed ROW and easements along proposed new location roads (i.e., the jug handle).

A review of the Texas Historical Sites Atlas maintained by the THC and historic resources databases maintained by TxDOT was conducted and a Historical Studies Project Coordination Request (PCR) (AmaTerra, 2021d) was completed for the proposed project. TxDOT historians recommended a reconnaissance level historic resources survey. A Historical Studies Research Design (HSRD) (AmaTerra., 2021e) was developed and approved by TxDOT historians. The survey was completed on May 11, 2021to generate a Historic Resources Survey Report (AmaTerra., 2021f).

Ten properties with historic age resources were identified within the APE and evaluated for eligibility for NRHP-listing (Appendix E: Resource-specific Maps - Surveyed Historic Resource Location Map). All historic-age properties identified are associated with the agricultural history of Williamson County. Of those ten properties, two were recommended eligible for NRHP listing. Property No. 01 is a farmstead with twelve historic-age resources, with construction dates spanning 1921 to 1975. Property No. 08 was previously determined eligible by TxDOT historians in May 2011. Property No. 08 is a farmstead with five historic-age resources, with construction dates spanning 1940-1960.

The proposed project would not require ROW or easements from the recommended boundaries of Property No. 01 or the parcel on which it is situated, nor would it introduce visual changes that would impact the property's integrity of location, setting, design, materials, workmanship, feeling, or association. Therefore, the proposed project would not impact the property's ability to convey its significance under the NRHP Criteria. The proposed project would have no direct effect on Property No. 01.

The proposed project would require a narrow strip of ROW from the large parcel of land on which Property No. 08 is situated. However, the limits of proposed ROW are approximately 0.57 miles from the nearest historical resource associated with Property No. 08. The proposed ROW acquisition would not significantly impact the property's ability to function as a working farmstead or its integrity of location, setting, design, materials, workmanship, feeling, or association. Thus, the proposed project would not significantly impact the property's ability to convey its significance under the NRHP Criteria. The proposed project would have no significant direct effect on Property No. 8.

Give the distance between the proposed project and eligible historic properties the proposed project would not result in indirect, cumulative, or reasonably foreseeable effects on either historic property identified within the APE.

The proposed project would have *no adverse effect* on historic properties under Section 106 of the NHPA.

The No -Build Alternative would have no effect on historic properties.

5.9 Protected Lands

5.9.1 U.S. Department of Transportation (DOT) Act, Section 4(f)

Section 4(f) applies to FHWA projects and protects *publicly owned* land from a park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, and *any* land from an historic site of national, state, or local significance.

The proposed ROW acquisition of NRHP-eligible historic property No. 08 constitutes a transportation use of a recommended-eligible property under Section 4(f) and would require a Section 4(f) analysis (Appendix E: Resource-specific Maps - Section 4(f) Protected Property Map). However, as the project is recommended to have no adverse effect on historic properties under Section 106 and the percentage of land required is less than five percent, a finding of de minimis impact is recommended under Section 4(f) analysis.

The No-Build Alternative would have no effect on Section 4(f) protected properties.

5.9.2 Land and Water Conservation Fund (LWCF) Act, Section 6(f)

Section 6(f) protects parks and recreation areas improved by LWCF fund. There are no Section 6(f) properties present in the project area.

5.9.3 Parks and Wildlife Code, Chapter 26

Chapter 26 applies to any project that requires the use or taking of any public land designated and used prior to the arrangement of the project as a park, recreation area, scientific area, wildlife refuge, or historic site. As chapter 26 only applies to public lands, it does not apply to the proposed ROW acquisition of NRHP-eligible historic property No. 08. There are no Chapter 26 properties present in the project area.

5.10 Water Resources

A TxDOT Waters of the U.S. Delineation Report (BGE, 2021c), TxDOT Surface Water Analysis Form (BGE, 2021d), and Section 404/10 Impacts Table (BGE, 2021e) were prepared for the proposed project and submitted to the TxDOT Austin District on June 2, 2021, and are available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division.

5.10.1 Clean Water Act Section 404

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and fill material into jurisdictional waters of the U.S., including wetlands, under Section 404 of the Clean Water Act (CWA). Authorization is required from the USACE for any activity that would result in the discharge of dredged or fill material into waters of the U.S. Regulated activities may be permitted through the USACE via an Individual Standard Permit (IP), Regional General Permit, or Nationwide Permit (NWP).

The proposed project would involve regulated activity in jurisdictional waters and therefore will require authorization under Section 404 (Appendix E: Resource-specific Maps - Section 404/10 Impacts Map Book

and **Observed Water Features Map Book**). **Table 10** shows the potentially jurisdictional waters in which regulated activity is anticipated to take place (BGE Inc., 2021e). It also indicates whether the impacts area anticipated to be authorized under Section 404 by a non-reporting nationwide permit (i.e., no pre-construction notification [PCN] required), or if is anticipated that a nationwide permit with pre-construction notification, individual standard permit, letter of permission, or regional general permit will be required.

Table 10. Jurisdictional Waters in which a Regulated Activity Would Occur.

Name of Water Body	Type of Water Body	Location of Water Body	Covered by Non-reporting Nationwide Permit under Section 404?	Nationwide Permit with Pre-Construction Notification, Individual Standard Permit, Letter of Permission, or Regional Permit Required under Section 404?
Unnamed Tributary of Mustang Creek	Intermittent stream	At the intersection of US 79 and FM 3349/CR 101, south of UPRR, west of FM 3349	Y	N

The need for an individual permit under Section 404 is not anticipated. If it later determined that an individual permit under Section 404 is needed, compliance with the Environmental Protection Agency's (EPA) Section 404 (b)(1) Guidelines will be confirmed prior to submittal of the individual permit application.

The No-Build Alternative would not require regulated activities within any jurisdictional waters.

5.10.2 Clean Water Act Section 401

For projects that require an NWP under Section 404 or Section 10 of the Rivers and Harbors Act regardless of whether the NWP is non-reporting, or requires the submission of a PCN, TxDOT complies with Section 401 of the Clean Water Act by implementing Texas Commission on Environmental Quality (TCEQ) conditions for NWPs. For Projects that require authorization under an Individual Standard Permit under Section 404 or Section 10, TxDOT will coordinate the Section 401 water quality certification with TCEQ. TCEQ will either approve or deny the Section 401 water quality certification or issue a waiver. The TCEQ Section 401 water quality certification decision must be submitted to the USACE before an Individual Standard Permit decision can be made.

5.10.3 Executive Order 11990 Wetlands

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

There are no wetlands within the proposed project area; therefore, there would be no new construction in wetlands.

5.10.4 Rivers and Harbors Act

There are no Navigable Waters within the proposed project area; therefore, the project would not require a permit from the U.S. Coast Guard under Section 9 or Section 10 of the Rivers or Harbors Act.

5.10.5 Clean Water Act Section 303(d)

According to the 2020 Texas Integrated Report - Texas 303(d) List (Category 5) (TCEQ, 2020a), the proposed project is located within five linear miles of, is within the watershed of, and drains to, an impaired assessment unit under Section 303(d) of the CWA (Appendix E: Resource-specific Maps - Water Resources and Soils Map Book). Table 10 shows the impaired assessment units to which runoff from the proposed project would drain.

Table 11. Section 303(d) Impaired Assessment Units Receiving Runoff from the Proposed Project

Watershed	Segment Name	Segment Number	Assessment Unit Number
Turkey Creek-Brushy Creek Watershed	Brushy Creek	1244	1244_03

To date, TCEQ has not identified (through either a total maximum daily load (TMDL) or the review of projects under the TCEQ Memorandum of Understanding (MOU), a need to implement control measures beyond those required by the Texas Pollutant Discharge Elimination System (TPDES) construction general permit (CGP) on road construction projects (Appendix E: Resource-specific Maps - TCEQ Surface Water Quality Map). Therefore, compliance with the project's CGP, along with coordination under the TCEQ MOU for certain transportation projects, collectively meets the need to address impaired waters during the environmental review process. As required by the CGP, the project and associated activities will be implemented, operated, and maintained using best management practices (BMPs) to control the discharge of pollutants from the project site.

The No-Build Alternative would not involve construction activities; therefore, it would not have the potential to contribute a constituent of concern to an impaired 303(d) assessment unit.

5.10.6 Clean Water Act Section 402

Since TPDES CGP authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by the policies and procedures that govern the design and construction phases of the project. The Project Development Process Manual and the Plans, Specifications, and Estimates (PS&E) Preparation Manual (TxDOT, 2017a) require a storm water pollution prevention plan (SWP3) be included in the plans of all projects that disturb one or more acres. The Construction Contract Administration Manual requires that the appropriate CGP authorization documents (notice of intent (NOI) or construction site notice (CSN)) be completed, posted, and submitted, when required by the CGP, to TCEQ and municipal separate storm sewer system (MS4) operator. It also requires that projects be inspected to ensure compliance with the CGP.

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

5.10.7 Floodplains

A portion of the proposed project would occur within the Federal Emergency Management Agency (FEMA) mapped 100-year floodplain (FEMA, 2021) (Appendix E: Resource-specific Maps - Water Resources and Soils Map Book). This project is subject to and will comply with federal Executive Order 11988 on Floodplain Management. TxDOT implements this Executive Order on a programmatic basis through its Hydraulic Design Manual (TxDOT, 2019a). Design of this project will be conducted in accordance with the TxDOT'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).

The No-Build Alternative would not require construction activities within FEMA mapped floodplain.

5.10.8 Wild and Scenic Rivers

The proposed project does not contain a river segment designated as wild or scenic under the federal Wild and Scenic Rivers Act; therefore, the Wild and Scenic Rivers Act does not apply.

5.10.9 Coastal Barrier Resources

The proposed project is not within an area designated as part of the Coastal Barrier Resources System (CBRS); therefore, the Coastal Barrier Resources Act (CBRA) does not apply.

5.10.10 Coastal Zone Management

The proposed project is not within the Texas Coastal Management Program (CMP) coastal zone management boundary. Therefore, a consistency determination is not required.

5.10.11 Edwards Aquifer

The proposed project area is not over the recharge, contributing, or transition zones of the Edwards Aquifer. The TCEQ Edwards Aquifer Rules do not apply.

Coordination with EPA region 6 is not triggered under the Memorandum of Understanding between the Environmental Protection Agency Region 6 and the Texas Department of Transportation Regarding EPA's Review of Projects Potentially Affecting the Edwards Aquifer. The EPA Edwards Aquifer MOU does not apply.

5.10.12 International Boundary and Water Commission

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

5.10.13 Drinking Water Systems

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

5.11 Biological Resources

5.11.1 Texas Parks and Wildlife Coordination

A Species Analysis was performed to assess the potential impact the proposed project would have on Threatened and Endangered Species, Species of Greatest Conservation Need (SGCN), and habitat types, and determine if coordination with the Texas Parks and Wildlife Department (TPWD) would be required. A

TxDOT Species Analysis Form (SWCA 2021a), a Species Analysis Summary (SWCA 2021b), and a Tier I Site Assessment (SWCA 2021c) were prepared and these technical documents, along with supporting documents, are available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division.

The project area is not within range of or does not contain suitable habitat for state-listed threatened or endangered species, and the project would have *no impact* on state-listed species. However, under the terms of the TxDOT – Texas Parks and Wildlife Department (TPWD) MOU (TxDOT, 2018), TPWD coordination is required due to the following conditions:

1. The project area is within range of and contains suitable habitat for thirteen Species of Greatest Conservation Need (SGCN) as identified by the TPWD Annotated County List of Rare Species for Williamson County (TPWD 2021a) , and no BMPs are established for nine of those species in the programmatic agreement (PA) titled "Best Management Practices Programmatic Agreement Between Texas Department of Transportation and Texas Parks and Wildlife under the 2013 MOU 2017 Revision" (TxDOT, 2017b). Table 12 shows the SGCN potentially impacted by the proposed project.
2. The project would include greater than 200 linear feet of stream channel realignment, or other stream bed permanent disturbance.
3. The project has the potential to impact at least 0.10 acre of riparian vegetation.
4. The project has the potential to impact agricultural land in an area greater than the established threshold in the Threshold Table Programmatic Agreement between Texas Department of Transportation and Texas Parks and Wildlife under the 2013 MOU 2017 Revision" (TxDOT, 2021c).

Table 12. SGCN Potentially Impacted by the Proposed Project

Taxon	Common Name	Scientific Name	BMPs Established by PA
Amphibian	Woodhouse's Toad	*Anaxyrus woodhousii*	No
Amphibian	Strecker's chorus frog	*Pseudacris streckeri*	No
Amphibian	southern crawfish frog	*Lithobates areolatus areolatus*	Yes
Bird	chestnut-collard longspur	*Calcarius ornatus*	No
Bird	lark bunting	*Calamospiza melanocorys*	No
Mammal	cave myotis bat	*Myotis velifer*	Yes
Mammal	tricolored bat	*Perimyotis subflavus*	No
Mammal	big free-tailed bat	*Nyctinomops macrotis*	Yes
Mammal	swamp rabbit	*Sylvilagus aquaticus*	No
Mammal	long-tailed weasel	*Mustela frenata*	No
Mammal	eastern spotted skunk	*Spilogale putorius*	No
Mammal	western hog-nosed skunk	*Conepatus leuconotus*	No
Reptile	Texas garter snake	*Thamnophis sirtalis annectens*	Yes

Coordination between TxDOT and TPWD was initiated on July 8, 2021 and TPWD provided project comments on August 20, 2021. TPWD recommended BMPs to be implemented during construction of the proposed project for species not covered by the BMP PA (TxDOT 2017c) and to minimize impacts to vegetation. Appendix E: Resource Agency Coordination includes written coordination correspondence between TxDOT and TPWD, in accordance with the TxDOT-TPWD MOU, and a list of BMPs to be implemented during the proposed project.

The No-Build Alternative would not involve construction activities with the potential to impact SGCN, streams, or habitat requiring TPWD coordination.

5.11.2 Impacts to Vegetation

The EMST was created by TPWD with support from federal, state, and private entities to map vegetation types throughout the state (Appendix E: Resource-specific Maps - TPWD Ecological System Mapping Map). The EMST is a geographic information system (GIS) layer based on NatureServe's Ecological System Classification System (Comer et al. 2003). The EMST mapped vegetation (habitat) types were evaluated by a qualified biologist, informed by the EMST layer and professional judgement, and potential impacts to habitat types were calculated for the proposed project (Appendix E: Resource-specific Maps - TPWD Ecological System Map - Observed). Table 13 provides a summary of the EMST habitat types and total acreages that may be impacted by the proposed project.

Table 13. EMST Habitat Types Potentially Impacted by the Proposed Project

EMST Habitat Type	Area (acres)
Blackland Prairie: Disturbance or Tame Grassland	30.00
Central Texas: Floodplain Deciduous Shrubland	1.54
Central Texas: Floodplain Hardwood Forest	1.71
Central Texas: Floodplain Herbaceous Vegetation	1.16
Central Texas: Riparian Deciduous Shrubland	0.40
Central Texas: Riparian Hardwood Forest	0.67
Central Texas: Riparian Herbaceous Vegetation	1.39
Native Invasive: Deciduous Woodland	3.41
Native Invasive: Mesquite Shrubland	2.34
Row Crops	130.01
Urban	40.8
Total	213.40

Existing ROW is mowed and maintained by TxDOT and Williamson County. Areas outside of existing ROW primarily contain agricultural lands used for row crops, and open rangeland with scattered trees. Small portions of the project area along Boggy Creek and a tributary of Mustang Creek contain riparian vegetation, but this is limited to narrow strips along the creek banks. No special or unique habitat features,

such as hollow trees, caves, or wetlands, were identified within the project area. However, ROE was limited, and special habitat features may occur within areas not accessible at the time of field assessments.

The No-Build Alternative would have no impact on habitat or vegetation types.

5.11.3 Executive Order 13112 on Invasive Species

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

5.11.4 Executive Memorandum on Environmentally and Economically Beneficial Landscaping

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

5.11.5 Impacts to Wildlife

Temporary and permanent impacts to terrestrial and aquatic wildlife are expected during construction activities. Clearing the proposed ROW would cause localized and temporary dispersal impacts, but wildlife would be expected to return to adjacent areas after construction is complete and to the project area once the area is re-vegetated. Additionally, the presence of similar habitats immediately adjacent to the ROW would facilitate the dispersal of mobile species to areas unaffected by the proposed project. The improvements are not expected to permanently alter existing migration or movement corridors of aquatic and terrestrial wildlife, as the proposed project would generally follow the alignment of the existing roadway facility.

Field investigations identified several ephemeral and intermittent streams within the project area that could provide habitat for a wide range of aquatic species. During construction, areas of bare ground could increase the potential for erosion of surface material into water features during storm events. Sedimentation could temporarily degrade water quality by increasing turbidity, suspended solids, and pollutants. Sediment deposition in the water features could potentially cover benthic organisms, resulting in an adverse impact. Turbid water interferes with respiration and filter-feeding behavior of macroinvertebrates as well as reducing fish feeding success due to visual impairment. Turbidity also decreases photosynthesis for primary producers. Species-appropriate BMPs will be implemented per the BMP MOU or as precautionary measures for the proposed project and included on the Environmental Permits, Issues and Commitments (EPIC) sheet. With the implementation of the BMPs, all direct impacts associated with the proposed project would be minimized to the maximum extent possible.

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 TxDOT's policy to avoid removal and destruction of active bird nests, except through federal or state approved options. In addition, it is TxDOT's policy to, where appropriate and practicable:

- Conduct ROW clearing activities outside of the nesting season (approximately October 1 through February 14),

- Prevent nest establishment on structures by various measures, such as netting or other means of interference,
- Remove and dispose of unoccupied nests prior their occupation, and
- Remove and dispose of partially constructed nests before they are established (without eggs or nestlings).

5.11.7 Fish and Wildlife Coordination Act

The proposed project is anticipated to require an NWP issued by the USACE. Compliance with the Fish and Wildlife Coordination Act will be accomplished by complying with the terms and conditions of the NWP.

5.11.8 Bald and Golden Eagle Protection Act of 2007

The proposed project is not within 660 feet of an active or inactive Bald or Golden Eagle nest. Therefore, no coordination with the U.S. Fish and Wildlife Service (USFWS) is required.

5.11.9 Magnuson-Stevens Fishery Conservation Management Act

The proposed project is not within essential fish habitat. The Essential Fish Habitat (EFH)/Magnuson-Stevens Fishery Conservation and Management Act (MSA) does not apply.

5.11.10 Marine Mammal Protection Act

The proposed project is not within or over tidally influenced waters. The project area does not contain suitable habitat for marine mammals.

5.11.11 Threatened, Endangered, and Candidate Species

A Species Analysis Form (SWCA, 2021a), Species Analysis Summary Spreadsheet (SWCA, 2021b), and Tier I (SWCA, 2021c) were prepared to identify the proposed project's potential impacts on state and federally listed threatened, endangered, and candidate species.

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consulting (IPaC) list of federally listed species (USFWS, 2021) and the TPWD Annotated County List of Rare Species for Williamson County (TPWD 2021) were reviewed. Based on analysis, there is no potential habitat for any federal or state listed threatened or endangered species within the project area. It was determined that the proposed project would cause no effect to any federally listed threatened or endangered species; therefore, consultation with USFWS under Section 7 of the Endangered Species Act (ESA) is not required. It was determined that the project may affect one federal candidate species: the monarch butterfly (*Danaus plexippus*). The monarch butterfly is found statewide and inhabits a variety of habitats, including native prairies, pastures, open woodlands and savannas, desert scrub, roadsides, and other habitats with abundant nectar plants, including urbanized areas. The monarch butterfly is a candidate species and has not yet been proposed for federal listing as a threatened or endangered species. Although the project may affect the monarch butterfly, it is not currently listed as threatened or endangered and there is no requirement to consult with USFWS for these effects. If the monarch butterfly is listed as threatened or endangered during the life of this project, project activities will be reevaluated for their impacts to the species and consultation with the USFWS will be initiated if necessary. It was determined that the proposed project would cause no impact to state listed threatened or endangered species; therefore, no permit is required under Texas Administrative Code Title 31 or Texas Parks and Wildlife Code Title 5 Chapter 68.

The No-Build Alternative would not involve construction activities within the project area; thus, it would not have the potential to affect or impact any federal or state listed threatened, endangered, or candidate species.

5.12 Air Quality

An Air Quality Technical Report (PCI, 2021a) was submitted to the TxDOT Austin District in June 2021 and is available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division. The findings of each section of the report are provided below.

5.12.1 Transportation Conformity

The proposed project is located in Williamson County, an area in attainment or unclassifiable for all national ambient air quality standards (NAAQS); therefore, the transportation conformity rules do not apply.

5.12.2 Carbon Monoxide Traffic Air Quality Analysis

Traffic data for the estimated time of completion (ETC) year 2023 and design year 2040 for FM 3349 is 1,000 Annual Average Daily Traffic (AADT) and 1,500 AADT, respectively; and, for the FM 3349 proposed jug handle alignment at US 79 is 1,600 AADT for design year 2040. A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that the carbon monoxide 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 Traffic Air Quality Analysis was not required.

5.12.3 Mobile Source Air Toxics

A qualitative Mobile Source Air Toxics (MSAT) analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by FHWA entitled A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives (Claggett & Miller, 2017).

The vehicle miles traveled (VMT) estimated for the Build Alternative is slightly higher than that for the No Build Alternative because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. The additional travel lanes contemplated as part of the project alternative will have the effect of moving some traffic closer to nearby homes and businesses; therefore, under each alternative there may be localized areas where ambient concentrations of MSAT could be higher under the Build Alternative than the No Build Alternative. The localized increases in MSAT concentrations would likely be most pronounced along the expanded roadway sections further from the existing roadway alignment, and at the proposed jug handle connection from FM 3349 to US 79 on the northwestern portion of the project. However, the magnitude and the duration of these potential increases compared to the No Build alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project specific MSAT health impacts. Also, MSAT will be lower in other locations when traffic shifts away. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region- wide MSAT levels to be significantly lower than today. Additional background information, details, and discussion of the relevant limitations of the analysis are included in the Air Quality Technical Report (PCI, 2021) available at the TxDOT Austin District office and the Williamson County Road and Bridge Division.

5.12.4 Congestion Management Process

The Congestion Management Process (CMP) is a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs. The project is located within Williamson County which is not classified as a nonattainment for ozone or Carbon Monoxide (CO) and is therefore exempt from CMP analysis requirements per Section 6.3 of the TxDOT Air Quality Handbook.

5.12.5 Construction Emissions

During the construction phase of this project, temporary increases in PM and MSAT emissions may occur from construction activities. The primary construction-related emissions of PM are fugitive dust from site preparation, and the primary construction-related emissions of MSAT are diesel particulate matter from diesel powered construction equipment and vehicles. The potential impacts of particulate matter emissions will be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. The Texas Emissions Reduction Plan (TERP) (TCEQ, 2020b) 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 on TCEQ's TERP website (TCEQ, 2020b).

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.

5.13 Hazardous Materials

A Hazardous Materials Initial Site Assessment (ISA) (BGE, 2021f), including a visual survey of the project area and surrounding properties, research of existing and previous land use, and limited review of federal and state regulatory databases/lists was performed for the proposed project (Appendix E: Resource-specific Maps - Hazardous Material ISA Map). The purpose of the ISA is to identify possible hazardous materials within the project area. Section 5.1 of the ISA lists the regulatory records that were reviewed. The regulatory records were searched within the standard search radii of the project area per the American Society for Testing and Materials (ASTM) Standards.

Three registered and mapped hazardous materials sites were identified during the regulatory records search within the appropriate search radii to the project area (Appendix E: Resource-specific Maps - Radius Map). Additionally, the site visit and a review of Texas Railroad Commission (RRC) data identified one refined liquid product (RLP) pipeline along the project corridor.

Map ID 1 represents an active farm on which two above ground petroleum storage tanks were reported. During the site visit no tanks were observed and they have likely been removed. Map ID 2 represents a NPDES permit for a minor discharge of non-potable water, associated with a roadway project along CR 101 north of US 79. Map ID 3 represents a construction notification to remove a PST, scheduled for 2019. At the time of the site visit, active construction was occurring on the property and no tank was observed. It is likely the tank has been removed. One additional non-mapped PST was identified during the database search. Knowledge of its location is limited to somewhere along US 79. Although, the location of the PST is unknown, it is listed as inactive as of 2002, and it has likely been removed.

None of the sites identified during the ISA represent a potential hazardous materials concern for the proposed project. The petroleum storage tanks appear non-extant, and the non-potable water discharge was permitted and fully regulated. If the RLP pipeline requires relocation, it will be coordinated between the utility company and the project sponsor prior to construction.

The Hazardous Materials ISA (BGE, 2021f) is available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division

5.14 Traffic Noise

A traffic noise analysis was prepared in accordance with TxDOT's (FHWA-approved) Traffic Noise Policy (2019). The Traffic Noise Analysis Report (PCI, 2021b), which includes details about the analysis, is available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division.

Existing and predicted traffic noise levels were modeled at representative land use activity areas (receptors) adjacent to the project that might be impacted by traffic noise and would potentially benefit from feasible and reasonable noise abatement. Summary results of the noise impact analyses are shown in **Table 14**.

Table 14. Traffic Nosie Levels dB(A) Leq

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2040	Change (+/-)	Noise Impact (Yes/No)
R-001 Single-Family Residential (Large-Lot)	B	67	45	48	3	No
R-002 Single-Family Residential (Large-Lot)	B	67	59	60	1	No
R-003 Single-Family Residential (Large-Lot)	B	67	56	57	1	No
R-004 Single-Family Residential (Large-Lot)	C	67	45	49	4	No
R-005 Single-Family Residential (Large-Lot)	B	67	43	47	4	No
R-006 Single-Family Residential (Large-Lot)	B	67	36	43	7	No

Modeled noise-sensitive locations were all residential, as no other noise sensitive locations occur within the vicinity of the project area. The traffic noise analysis determined that out of 6 representative receptors, none were predicted to have noise levels that approach or exceed the FHWA noise abatement criteria (NAC) or that substantially exceed the existing noise levels; therefore, the proposed project would not result in traffic noise impacts (**Appendix E: Resource-specific Maps - Noise Analysis Results Map**).

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, that no new activities are planned or constructed along or within the following predicted (2040) noise impact contours (**Table 15**).

Table 15. Noise Contours for Land Use Planning

Land Use	Impact Contour	Distance From Right of Way
NAC category B & C	66 dB(A)	Within the Right of Way
NAC category E	71 dB(A)	Within the Right of Way

A copy of this traffic noise analysis will be available to local officials to assist in future land use planning. 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.

Under the No-Build Alternative, the proposed project would not be constructed. If the No Build Alternative were implemented, traffic noise levels would be expected to increase with an associated future increase in traffic volumes.

The Traffic Noise Analysis (PCI 2021b) is available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division

5.15 Induced Growth

The purpose of the proposed project is to address existing and future traffic demand and population growth, by reducing congestion and improving safety through the construction of a grade-separated interchange. Economic development and growth are increasing in the project area, and the proposed project is intended to address existing and reasonably foreseeable traffic and safety demands. There is land along the project area available for development and/or redevelopment, and growth is expected to increase. The proposed project would add capacity to FM 3349/CR 101 to address increasing traffic congestion. It, however, would not substantially increase mobility or access in the project area. A Risk Assessment for Indirect Impacts was completed (BGE, 2021g); however, no induced growth indirect impacts analysis is required. The Risk Assessment for Indirect Impacts (BGE, 2021g) is available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division

5.16 Cumulative Impacts

The proposed project would not have substantial direct or indirect impacts on any resource, and there are no resources within the project area in poor or declining health. A Risk Assessment for Cumulative Impacts was completed (BGE, 2021h); however, a cumulative impacts analysis is not required. The Risk Assessment for Cumulative Impacts is available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division

5.17 Construction Phase Impacts

Construction of the proposed project may require temporary lane closures. However, these lane closures are expected to be of short duration with no substantial effect on traffic flow on the existing roadways. The project sponsor will work with community members to notify them of closures and limited access.

Other temporary impacts associated with construction activities may include light pollution if construction activities occur at night, impacts associated with physical construction activity, and other traffic disruptions. Temporary impacts due to construction are anticipated to be of short duration but may reoccur for a period of six months to one year.

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.

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

Impacts to SGCN, listed in Table 11 in Section 5.11.11 of this EA, may occur during the construction phase of the proposed project. TPWD approved BMPs would be implemented to minimize potential impacts to SGCN. BMPs to be implemented are included in the Tier I Site Assessment (SWCA 2021c), available for public review at the TxDOT Austin District office and the Williamson County Road and Bridge Division, and in Appendix F: Resource Agency Coordination.

Under the No Build Alternative, no construction would occur; therefore, no construction impacts would be expected.

5.18 Greenhouse Gas Emissions and Climate Change

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

TxDOT has prepared a Statewide On-Road Greenhouse Gas Analysis and Climate Change Assessment technical report (TxDOT, 2021e). The report discloses: 1) an analysis of available data regarding statewide GHG emissions for on-road GHG emissions, 2) TxDOT actions and funding that support reducing GHG emissions, 3) projected climate change effects for the state of Texas and 4) TxDOT's current strategies and plans for addressing the changing climate. A summary of key issues in this technical report is provided below. Please refer to the technical report for more details.

The Earth has gone through many natural changes in climate over time. However, since the industrial revolution began in the 1700s, atmospheric concentration of greenhouse gas (GHG) emissions has continued to climb, primarily due to humans burning fossil fuel (e.g., coal, natural gas, gasoline, oil and/or diesel) to generate electricity, heat and cool buildings, and power industrial processes, vehicles, and equipment. According to the Intergovernmental Panel on Climate Change (IPCC), this increase in GHG emissions is projected to contribute to future changes in climate (Solomon et al., 2007; Stocker et al., 2013).

5.18.1 Statewide On-road GHG

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

5.18.2 Mitigation Measures

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

- Federal engine and fuel controls under the Clean Air Act implemented jointly by EPA and U.S. Department of Transportation (USDOT), which includes CAFE standards;
- "Cash for clunker" programs which remove older, higher-emitting vehicles from roads;
- Traffic system management (TSM) which improves the operational characteristics of the transportation network (e.g., traffic light timing, pre-staged wrecker service to clear accidents faster, or traveler information systems); and
- Travel demand management (TDM) which provides reductions in vehicle miles traveled (VMT) (e.g., transit, rideshare, and bicycle and pedestrian facilities) and requires personal choice decisions.

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

5.18.3 TxDOT and a Changing Climate

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

6.0 Agency Coordination

As discussed in Section 5.11.1, TPWD was provided the Species Analysis Form (SWCA, 2021a), a Species Analysis Summary (SWCA, 2021b), and a Tier I Site Assessment (SWCA, 2021c) for review and comment. TPWD recommended BMPs to be implemented during construction of the proposed project for species not covered by the BMP PA (TxDOT 2017c) and to minimize impacts to vegetation.

Consultation with the THC under Section 106 of the NHPA and the ACT was conducted for the proposed project. For archeological survey to be conducted for the project, an Antiquities Permit was issued by the THC. In addition, The THC was provided the Archeological Background Study (AmaTerra, 2021a), Archeological Survey Report (AmaTerra, 2021c), and Historical Resources Survey Report (AmaTerra, 2021f). The Historical Resources Survey Report identified an historic property on a parcel from which ROW would be acquired, and as part of Section 4(f) requirements, the THC was contacted to concur with a finding that the proposed project would have *no adverse effects* to historic properties. See **Appendix G: Section 4(f) Documentation**.

Under Section 106 requirements, TxDOT consulted with Federally Recognized Tribes, of which the Delaware Nation and the Comanche Nation provided responses. Neither responding Tribe identified concerns with the proposed project. TxDOT also provided the Williamson County Historical Commission (CHC) with the opportunity to comment on the proposed project. The CHC declined to comment. **Appendix F** includes written coordination between TxDOT and the consulted resource agencies.

7.0 Public Involvement

This proposed project is a project that was identified through Williamson County's Southeast Loop Feasibility Study. An Open House was conducted on June 24, 2019 at Hutto ISD Performing Arts Center, 101 FM 685, Hutto, TX. Information for that phase of study can be found at the following web address: https://www.wilco.org/Departments/Infrastructure/Projects/Precinct-4/Southeast-Loop

As a result of this study, this project [3486-01-008] was initiated. Ongoing stakeholder outreach has occurred with affected and adjacent property owners. The public has also been informed in various methods of publication including the County's webpage for this project: https://www.wilco.org/Departments/Infrastructure/Projects/Precinct-4/FM-3349-At-US-79

An Opportunity for a Public Hearing (OPH) will be afforded, following approval for further processing of this EA document.

8.0 Post-Environmental Clearance Activities and Design/Construction Commitments

8.1 Post-Environmental Clearance Activities

Due to ROE limitations, portions of the project area were inaccessible for archeological survey; therefore, archeological survey and additional THC consultation will be completed after full ROW acquisition, prior to construction.

8.2 Design/Construction Commitments

The proposed project would comply with the MBTA by adhering to the measures outlined in section 5.11.6. In addition, BMPs as recommended by TPWD will be implemented during construction in order to minimize potential impacts to rare species, SGCN and important vegetation. **Appendix F** includes the complete list of TPWD recommended BMPs.

9.0 Conclusion

Implementation of the proposed project would not result in a significant impact on the human or natural environment. Therefore, a finding of no significant impact is recommended.

10.0 References

AmaTerra Environmental, LLC. 2021a. *Archeological Background Study*. September 2020. Texas Department of Transportation(TxDOT) Environmental Affairs Division. Environmental Compliance Toolkit. Archeological Sites and Cemeteries Toolkit. Version 3. 410.02.REV. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/toolkit.html. Accessed February 2021.

___. 2021b. *Antiquities Permit Application and Scope of Work.* April 2020. Texas Department of Transportation (TxDOT) Environmental Affairs Division. Environmental Compliance Toolkit. Archeological Sites and Cemeteries Toolkit. Version 4. 410.01.REV. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/toolkit.html. Accessed May 2021.

___2021c. *Archeological Survey Report.* May 2021. Department of Transportation (TxDOT) Environmental Affairs Division. Environmental Compliance Toolkit. Archeological Sites and Cemeteries Toolkit. Version 3 410.02.TEM. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/toolkit.html. Accessed July 2021.

___2021d. *Historical Studies Project Coordination Request (PCR).* August 2019. Texas Department of Transportation (TxDOT) Environmental Affairs Division. Environmental Compliance Toolkit. Historic Resources Toolkit. Version 5. 421.01.PCR. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/historic-resources.html. Accessed February 2021.

___. 2021e. *Historical Studies Research Design.* January 2021. Texas Department of Transportation (TxDOT) Environmental Affairs Division. Environmental Compliance Toolkit. Historic Resources Toolkit. Version 2. 421.01.DS. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/historic-resources.html. Accessed July 2021.

___ 2021f. *Historical Resources Survey Report*. January 2020. Texas Department of Transportation(TxDOT) Environmental Affairs Division. Environmental Compliance Toolkit. Historic Resources Toolkit. Version2. 421.06 Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/historic-resources.html. Accessed June 2021.

BGE Inc. 2021a. *Farmland Conversion Impact Rating for Corridor Type Projects.* June 2021. United States Department of Agriculture (USDA). National Resources Conservation Service (NRCS). Farmland Protection Policy Act (FPPA). NRCS-CPA-106. REV.3-02. Available at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045395.pdf. Accessed June 2021.

___. 2021b. *Community Impacts Assessment Technical Report Form*. December 2020. Texas Department of Transportation (TxDOT) Environmental Affairs Division. Environmental Compliance Toolkit. Community Impacts Assessment Toolkit. Version 2. 710.01.FRM. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/community-impacts.html. Accessed July 2021.

___2019c. *Waters of the U.S. Delineation Report.* December 2019. Texas Department of Transportation Environmental Compliance Toolkit. Natural Resources Toolkit: Water Resources. Version 1. 910.02.TEM. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/natural-resources.html. Accessed June 2021.

___. 2021d. *Surface Water Analysis Form*. July 2021. Texas Department of Transportation Environmental Compliance Toolkit. Natural Resources Toolkit: Water Resources. Version 6. 910.01.FRM. Available at https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/natural-resources.html. Accessed June 2021.

___. 2021e. *Section 404/10 Impacts Table.* July 2021. Texas Department of Transportation Environmental Compliance Toolkit. Natural Resources Toolkit: Water Resources. Version 2. 910.01.GUI. Available at https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/natural-resources.html. Accessed July 2021.

___. 2021f. *Hazardous Materials Initial Site Assessment (ISA) Form*. December 2019. Texas Department of Transportation (TxDOT) Environmental Compliance Toolkit. Hazardous Materials Toolkit. Version 6. 510.02.DS. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/haz-mat.html Accessed February 2021.

___. 2021g. *Risk Assessment for Indirect Impacts Analysis.* April 2014. Texas Department of Transportation (TxDOT) Environmental Compliance Toolkit. Indirect and Cumulative Impacts. Version 3. 720.03.GUI. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/impacts.html . Accessed June 2021.

___. 2021h. *Risk Assessment for Cumulative Impacts Analysis.* April 2014. Texas Department of Transportation (TxDOT) Environmental Compliance Toolkit. Indirect and Cumulative Impacts. Version 3. 720.02.GUI. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/impacts.html. Accessed June 2021.

Capital Area Metropolitan Planning Organization (CAMPO). 2020. *2045 Regional Transportation Plan (RITP)*. Plans and Studies. May 4, 2020. Available at: https://www.campotexas.org/regionaltransportationplans/2045-plan/. Accessed July 2021.

Census Reporter. 2021. *Taylor CCD Williamson County, TX.* Available at: https://censusreporter.org/profiles/06000US4849193845-taylor-ccd-williamson-county-tx/. Accessed April 2021.

City of Hutto. 2021. *Demographics*. April 2021. Available at: http://cms1.revize.com/revize/huttotx/departments/demographics.php. Accessed July 2021.

Claggett, Michael & Miller, Terry L. 2017. *A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives*. June 2017. U.S. Department of Transportation (USDOT). Federal Highway Administration (FHWA). Available at: https://www.fhwa.dot.gov/ENVIRonment/air_quality/air_toxics/research_and_analysis/mobile_source_air_toxics/msatemission4.cfm. Accessed July 2021.

Environmental Protection Agency (EPA). 2014a. *Motor Vehicle Emission Simulator (MOVES2014a).* Available at: https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves#guidance. Accessed July 2021.

___. 2014b. *National Air Toxics Assessment (NATA).* Available at: https://www.epa.gov/national-air-toxics-assessment. Accessed July 2021.

___2020. Integrated Risk Information System (IRIS). Available at https://www.epa.gov/iris. Accessed July 2021.

Federal Emergency Management Agency (FEMA). 2021. *Flood Map Service Center*. Available at: https://msc.fema.gov/portal/home. Accessed June 2021.

PCI. 2021a. *Air Quality Technical Report*. August 202. Texas Department of Transportation (TxDOT) Environmental Compliance Toolkit. Air Quality Toolkit. Version 6. 2010.01.GUI. Available at: https://ftp.txdot.gov/pub/txdot-info/env/toolkit/200-03-gui.pdf. Accessed June 2021

___. 2021b. *Traffic Noise Analysis Report.* December 2019 Texas Department of Transportation Environmental Compliance Toolkit. Traffic Noise Toolkit. Version 1. 730.05. GUI. Available at: https://ftp.txdot.gov/pub/txdot-info/env/toolkit/730-05-gui.pdf. Accessed June 2021.

Solomon et al. 2007. *Climate Change 2007: The Physical Science Basis. Working Group I Contribution to the Fourth Assessment Report of the IPCC.* Cambridge University Press.

Stocker, T.F., et al. 2013. *IPCC, 2013: Climate Change 2013: The Physical Science Basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

SWCA Environmental Consultants. 2021a. *Species Analysis Form*. January 2021. Texas Department of Transportation (TxDOT) Environmental Compliance Toolkit. Natural Resources: State and Federal Protected Species. Version 4. 3003.03.FRM. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/natural-resources.html. Accessed July 2021.

___. 2021b. *Species Analysis Summary Spreadsheet*. May 2021. Texas Department of Transportation (TxDOT) Environmental Compliance Toolkit. Natural Resources: State and Federal Protected Species. Version 4. 300.02.TEM. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/natural-resources.html. Accessed July 2021.

___. 2021c. *Tier I Site Assessment*. December 2019. Texas Department of Transportation (TxDOT) Environmental Compliance Toolkit. Natural Resources: State and Federal Protected Species. Version 4. 3003.02.FRM. Available at: https://ftp.txdot.gov/pub/txdot-info/env/toolkit/300-02-frm.pdf. Accessed July 2021.

Texas Commission on Environmental Quality (TCEQ). 2020a. *2020 Texas 303(d) List (Category 5).* 2020 Texas Integrated Report of Surface Water Quality for the Clean Water Acts Sections 305(b) and 303(d). Available at: https://www.tceq.texas.gov/waterquality/assessment/20twqi/20txir. Accessed June 2021.

___. 2020b. *Texas Emissions Reduction Plan (TERP).* November 2020. Air Quality. Available at: https://www.tceq.texas.gov/airquality/terp. Accessed July 2021.

Texas Department of Transportation (TxDOT). 2017a. *Plans, Specification, and Estimates (PS&E) Preparation Manual*. October 2017. PS&E Preparation. Available at: http://onlinemanuals.txdot.gov/txdotmanuals/pse/index.htm. Accessed June 2021.

___. 2017b. *Best Management Practices Programmatic Agreement Between Texas Department of Transportation and Texas Parks and Wildlife under the 2013 MOU 2017 Revision*. Affairs Division. 300.01.PA. Available at: https://ftp.txdot.gov/pub/txdot-info/env/toolkit/300-01-pa.pdf. Accessed July 2021.

___. 2017c. *Threshold Table Programmatic Agreement between Texas Department of Transportation and Texas Parks and Wildlife under the 2013 MOU 2017 Revision.* May 2017. Environmental Compliance Toolkit. Natural Resources: State and Federal Protected Species. 300.02.PA. Available at: https://ftp.txdot.gov/pub/txdot-info/env/toolkit/300-02-pa.pdf. Accessed July 2021.

___. 2018. *Memorandum of Understanding (MOU): Sole Source Aquifers – Safe Drinking Water Act.* June 2018. Environmental Affairs Division. 900.01.MOU. Available at: https://ftp.dot.state.tx.us/pub/txdot-info/env/toolkit/900-01-mou.pdf. Accessed June 2021.

___. 2019a. Hy*draulic Design Manual*. September 2019. Pipe Design and Durability. Available at: https://www.txdot.gov/inside-txdot/division/bridge/pipe-design.html. Accessed June 2021.

___. 2021a. *2021-2024 District Statewide Transportation Improvement Program*. February 2021. Available at: https://www.txdot.gov/inside-txdot/division/transportation-planning/stips.html. Accessed July 2021.

___. 2021b. 2020 Statewide Traffic Crash Rates. Compiled by TxDOT. Available at: https://ftp.txdot.gov/pub/txdot-info/trf/crash_statistics/2020/02.pdf. Accessed August 11, 2021.

___. 2021c. *TxDOT Crash Query System*. Crash Records Information System (C.R.I.S.). Available at: https://cris.dot.state.tx.us/public/Query/app/home. Accessed July 2021.

___. 2021d. Potential Archaeological Liability Maps. Environmental Compliance Toolkits. Archeological Sites and Cemeteries. Austin. Available at: https://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/toolkit/archeological-map.html. Accessed July 2021.

___. 2021e. 2021. *State-wide On-Road Greenhouse Gas Analysis and Climate Change Assessment Technical Report*. June 2021. Environmental Affairs Division. Version 3. 725.01.RPT. Available at: https://ftp.dot.state.tx.us/pub/txdot-info/env/toolkit/725-01-rpt.pdf. Accessed July 2021.

Texas Historical Commission (THC). 2021. Texas Historical Sites Atlas Map. Available at: https://atlas.thc.texas.gov/Map. Accessed June 2021.

Texas Parks and Wildlife Department (TPWD). 2021a. *Annotated County List of Rare Species – Williamson County*. Available at: https://tpwd.texas.gov/gis/rtest/ . Accessed July 2021

___. 2021b. *Ecological Mapping Systems.* 2021. Available at: https://tpwd.texas.gov/landwater/land/programs/landscape-ecology/ems/. Accessed July 2021.

___. 2021c. *Texas Natural Diversity Database*.2021. Available at: https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/. Accessed July 2021.

United States Census Bureau (USCB). 2019. *Community Facts*. Available at: https://www.census.gov/. Accessed July 2021.

U.S. Fish and Wildlife Service (USFWS). 2021. IPaC Trust Resource Report for Bastrop County, Texas. Available at: https://ecos.fws.gov/ipac/. Accessed August 2021.

Williamson County Appraisal District (WCAD). 2021 *Property Values*. Available at: https://www.wcad.org/. Accessed July 2021.

11.0 Names and Qualifications of Persons Preparing the EA

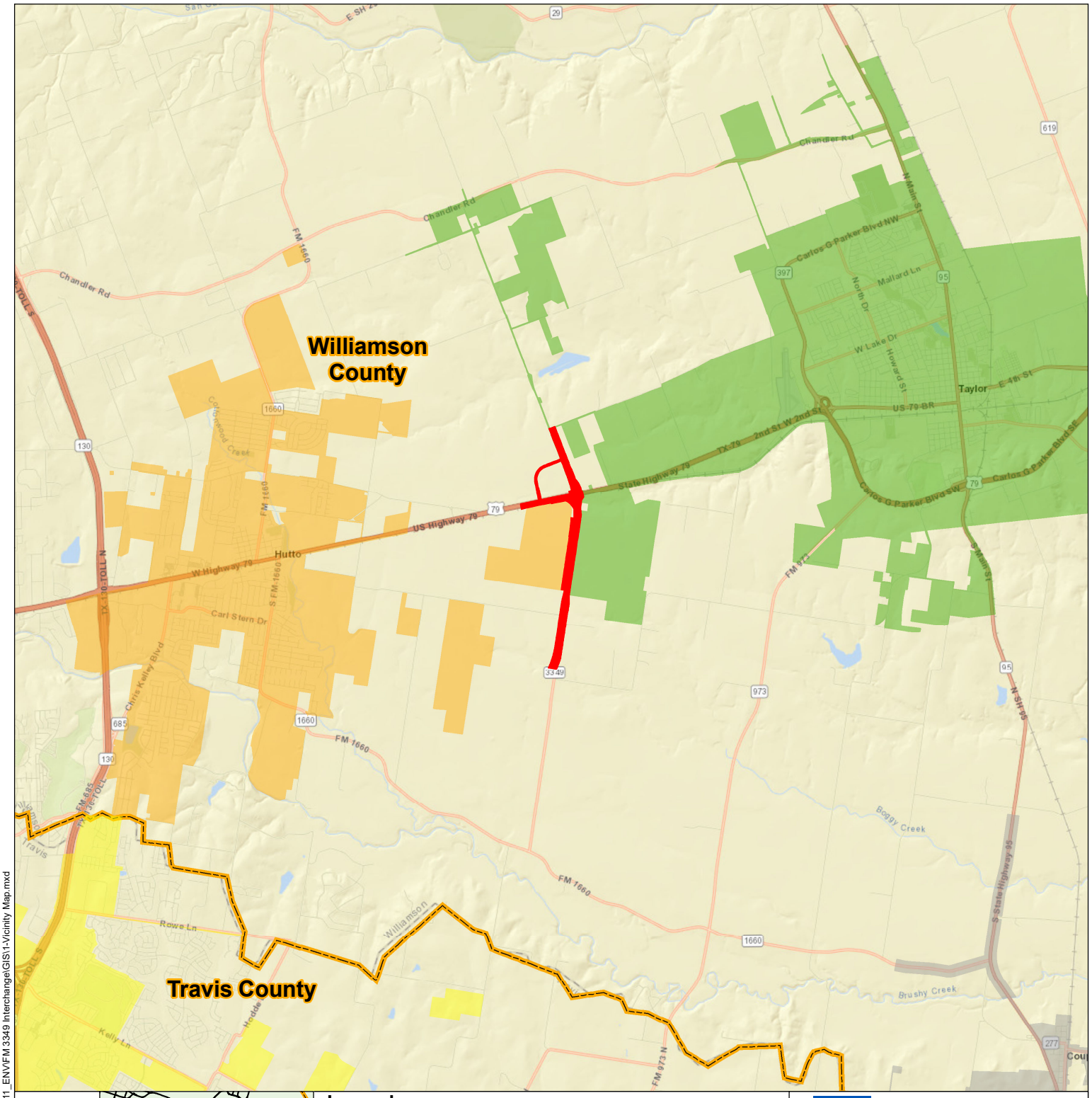
Jeffrey W. Hall, Environmental Project Manager, BGE, Inc., 14 years' experience, BA Archeology.

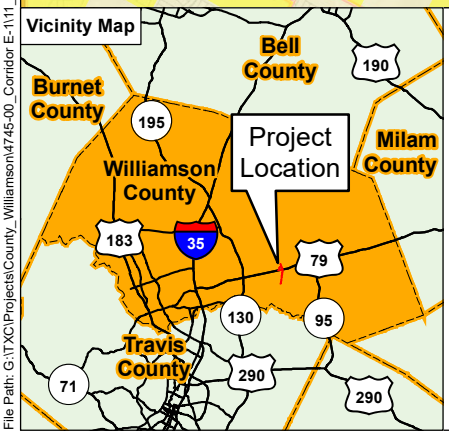
Anna Fash, Environmental Scientist, BGE, Inc., 3 years' experience, BS Biology, BA Environmental Science.

Tricia Mosier, Environmental Services Director, BGE, Inc., 24 years' experience, BS Rangeland and Ecology Management.

12.0 Appendices

Appendix A – Project Location Maps





Legend

- Project Area
- Coupland City Limits
- Hutto City Limits
- Pflugerville City Limits
- Taylor City Limits

0 0.5 1
Miles

BGE, Inc.
101 West Louis Henna Blvd, Suite 400
Austin, TX 78728
Tel: 512-879-0400 Fax: 512-879-0499
www.bgeinc.com

FM 3349 at US 79

Project Vicinity Map

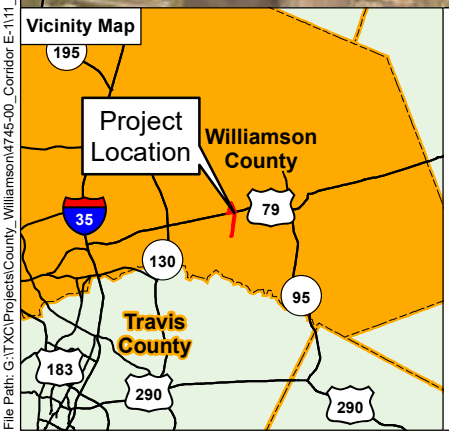
Williamson County, TX
CSJ: 0204-02-034

July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\1-Vicinity Map.mxd

GIS Analyst: smartineau

Data Source: ESRI 2020, Williamson County 2020, Travis County 2020



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Roadway
- Union Pacific Railroad

N

0 900 1,800
Feet

BGE, Inc.
101 West Louis Henna Blvd, Suite 400
Austin, TX 78728
Tel: 512-879-0400 Fax: 512-879-0499
www.bgeinc.com

FM 3349 at US 79

Project Aerial Map

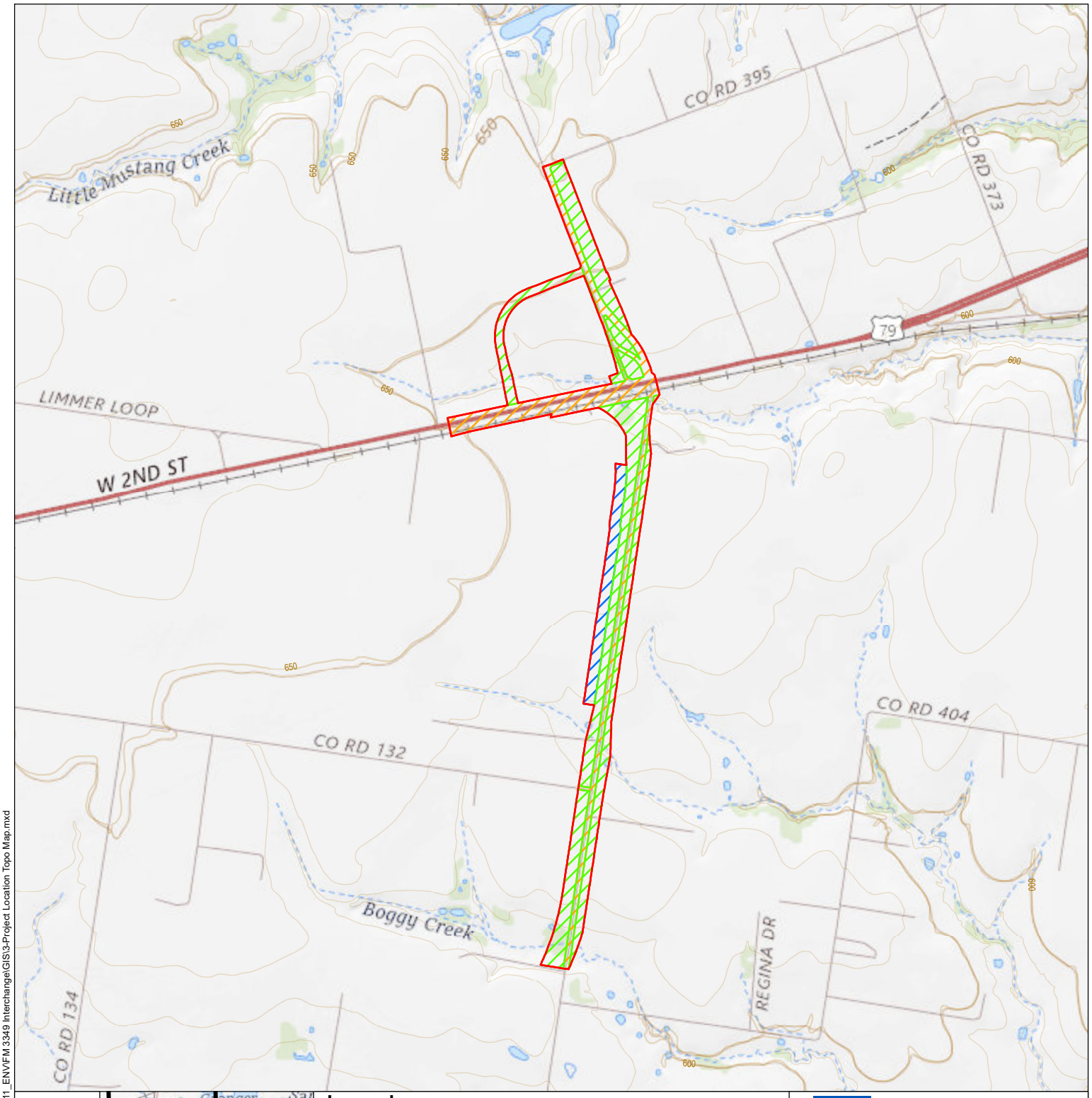
Williamson County, TX
CSJ: 0204-02-034

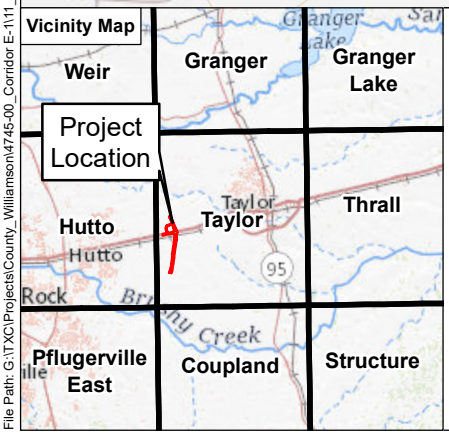
July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\2-Project Location Aerial Map.mxd

GIS Analyst: smartineau

Data Source: Wiliamson County 2018





Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement

0 1,000 2,000
Feet

BGE, Inc.
101 West Louis Henna Blvd, Suite 400
Austin, TX 78728
Tel: 512-879-0400 Fax: 512-879-0499
www.bgeinc.com

FM 3349 at US 79

Project USGS Topographic Map

Williamson County, TX
CSJ: 0204-02-034

July 2021	Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\3-Project Location Topo Map.mxd

GIS Analyst: smartineau

Data Source: USGS The National Map 2018

Appendix B – Project Area Photos

Project Area Photographs

FM 3349 Environmental Assessment
BGE PN: 4745-00

Photograph 1: Facing south, view of CR 101 from northern project boundary.

Photograph 2: Facing north, view of CR 101 from the intersection FM 3349/CR 101 and US 79.

Photographs taken on 5/28/2020, 7/21/2020, 10/21/2020, and 12/16/2020 by BGE, Inc.

FM 3349 Environmental Assessment
BGE PN: 4745-00

Photograph 3: Facing north, view of the intersection FM 3349/CR 101 and US 79.

Photograph 4: Facing south, view of FM 3349 from US 79.

Photographs taken on 5/28/2020, 7/21/2020, 10/21/2020, and 12/16/2020 by BGE, Inc.

Photograph 5: Facing north, view from southern project boundary.

Photograph 6: Facing west, view from eastern project boundary.

Photograph 7: Facing east, view from western project boundary.

Photograph 8: Facing southwest, view of parcel adjacent to existing ROW from FM 3349.

Photograph 9: Facing east, view from FM 3349 of parcels adjacent to existing ROW.

Photograph 10: Facing southeast, view of unnamed tributary of Boggy Creek (ephemeral stream) and unnamed pond on the east side of FM 3349.

Photograph 11: Facing east, view of unnamed tributary of Mustang Creek i(ntermittent stream) on the east side of FM 3349.

Photograph 12: Facing west, view of unnamed tributary of Mustang Creek (intermittent stream) on the north side of US 79.

Photograph 13: Facing north, view of unnamed tributary of Boggy Creek (ephemeral stream) on south side of US 79.

Photograph 14: Facing north, view of homes north of US 79, within the community study area. Many large lot homes are scattered throughout the study area.

Photograph 15: Facing west, view of homes north of 79, within the community study area. Several similar homes are scattered throughout the study area.

Photograph 16: Facing south, view of manufactured homes within the community study area.

Photograph 17: Facing north, view of homes south of US 79, within the community study area.

Photograph 18: Facing west, view of homes in varying degrees of disrepair within the community study area.

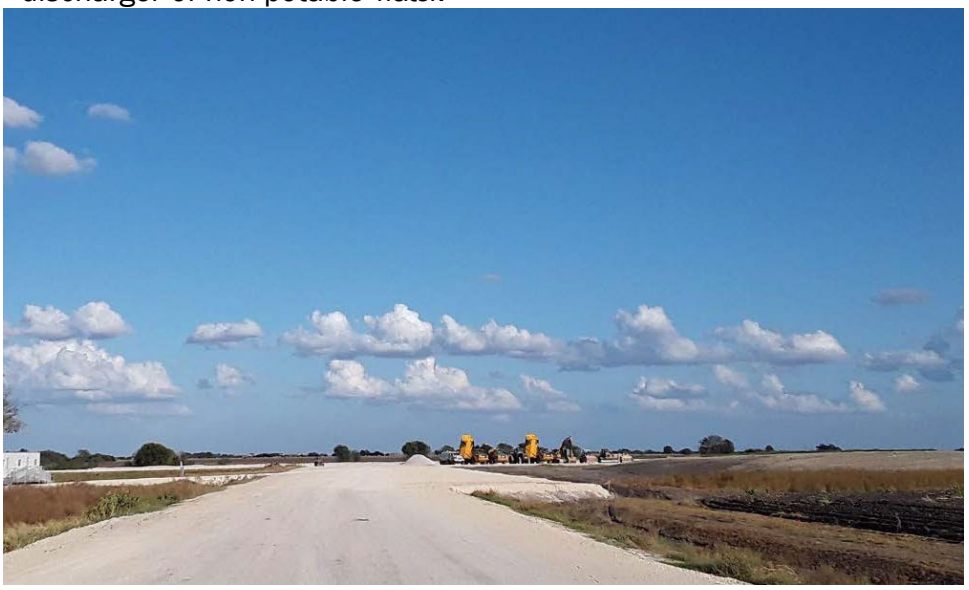
Photograph 19: Facing north., view of homes in varying degrees of disrepair within the community study area.

Photograph 20: Facing east, view of house in the distance, with a ramp installed, within the community study area.

Photograph 21: Facing north., view of house with a ramp installed within the community study area.

Photograph 22: Facing southwest, view of Kruger Farm and Tenant Farm. Two active above ground PSTs. During the site visit, it was determined that neither above ground tank is within or adjacent to the project area.

Photograph 23: Facing north, view of CR 101 at the intersection of US 79 and CR 101. This site was issued a NPDES permit as a minor discharger of non-potable water.



Photograph 24: Facing east, view of RCR Taylor Land. A previously unknown "ghost" petroleum storage tank was identified during the TCEQ regulatory database search. A construction notification was issued for removal of the tank in September 2019. Construction at the site is currently ongoing and it has likely already been removed. No evidence of the “ghost “ tank was observed during the site visit.

Photograph 25: Facing south, view of area within project area and pipeline signage, view of the pipeline running north-south parallel to FM 3349. The transmission line crosses under FM 3349 approximately 1.2 miles south of the intersection with US 79

Photograph 26: Facing west, view of Boggy Creek (intermittent stream) along the west side of FM 3349.

FM 3349 Environmental Assessment
BGE PN: 4745-00

Photograph 27: Facing west, view of two unnamed ponds on the west side of FM 3349.

Photograph 28: Facing east, view of unnamed pond in the foreground, and an unnamed tributary of Boggy Creek (ephemeral stream) in the background on the east side of FM 3349.

Photographs taken on 5/28/2020, 7/21/2020, 10/21/2020, and 12/16/2020 by BGE, Inc.

Photograph 29: Facing northwest, view of an unnamed pond barely visible in background, west side of FM 3349.

Photograph 30: Facing east, view of an unnamed tributary of Mustang Creek (intermittant stream) on the eastern side of FM 3349.

Photograph 31: Facing east, view of unnamed tributary of Mustang Creek (intermittant stream) on the north side of US 79.

Photograph 32: Facing north, view of an unnamed tributary of Mustang Creek on the south side of US 79.

Photograph 33: Facing east, view of an unnamed tributary of Mustang Creek on the north side of US 79.

Appendix C – Schematics and Typical Sections

SHEET 1 OF 4

WILLIAMSON COUNTY

WILLIAMSON COUNTY

PRELIMINARY DESIGN FOR:

FM 3349 at US 79

PSTP

PRECINCT 4

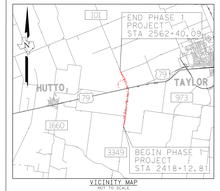
COUNTY: WILLIAMSON
LIMITS:FM 3349 FROM CR 404 TO NORTH OF CR 395
APPROX. LENGTH OF PROJECT = 2.73 MI
APPROX. LENGTH OF BRIDGE = 0.24 MI
FUNCTIONAL CLASSIFICATION = FREEWAY
ROADWAY CLASSIFICATION = RURAL
TERRAIN = ROLLING
MAXIMUM SUPERELEVATION RATE (emax) = 6.0%
FM 3349 AND US 79: TxDOT ROM (APRIL 2018)
COUNTY ROADS: WILLIAMSON COUNTY DCM

DESIGN SPEED CRITERIA

FM 3349 FRONTAGE ROAD:	45 MPH (INTERIM)
COUNTY ROADS:	45 MPH
JUG HANDLE * :	45 MPH

* LOW-SPEED DESIGN CRITERIA

	AADT		TRUCK PERCENTAGE	
	2018	2040		
FM 3349	950	66200	6.7	
US 79	18000	71000	17.2	



VICINITY MAP
NOT TO SCALE

BEARING BASIS: NAD83, TEXAS STATE PLANE, CENTRAL ZONE, US FOOT.

COORDINATES FOR THIS PROJECT ARE SURFACE VALUES BASED ON A COMBINED SURFACE ADJUSTMENT FACTOR OF 1.00012352
VERTICAL DATUM: NAD83, NORTH AMERICA DATUM OF 1983

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF FELIPE S. TUDTUD, P.E. 104836. IT IS NOT INTENDED TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.

0 100 200 300 0 10 20 30

H: 1"=100' V: 1"=10'

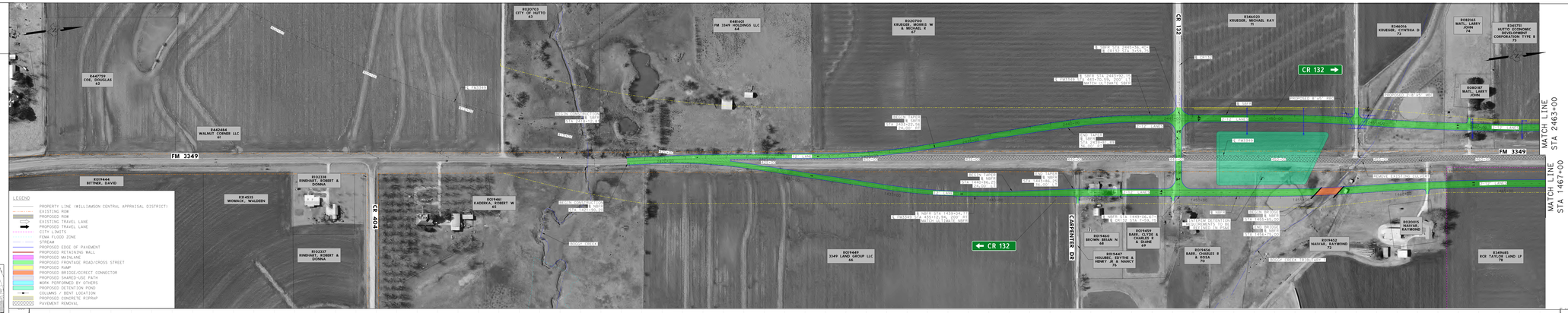
9/10/2020

PRELIMINARY

THIS PRINT IS FURNISHED FOR INFORMATION ONLY. THE PLAN INFORMATION OR OTHER DATA SHOWN HEREON IS SUBJECT TO CHANGE AND MUST NOT BE CONSTRUED AS FINAL.

FM 3349
PHASE 1
INTERIM PROJECT
PLAN AND PROFILE

HDR Engineering Inc.
Texas P.E. Firm Registration No. F-754



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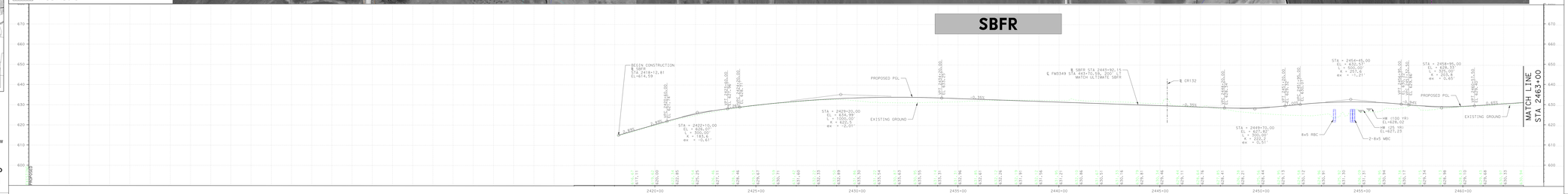

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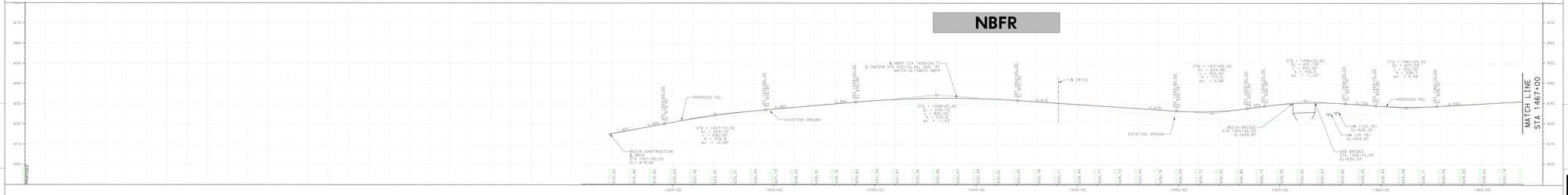


WILLIAMSON COUNTY

WILLIAMSON COUNTY

PRELIMINARY DESIGN FOR:

FM 3349 at US 79

PSTP

PRECINCT 4

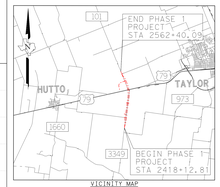
COUNTY: WILLIAMSON
LIMITS:FM 3349 FROM CR 404 TO NORTH OF CR 395
APPROX. LENGTH OF PROJECT = 2.73 MI
APPROX. LENGTH OF BRIDGE = 0.24 MI
FUNCTIONAL CLASSIFICATION = FREEWAY
ROADWAY CLASSIFICATION = RURAL
TERRAIN = ROLLING
MAXIMUM SUPERELEVATION RATE (emax) = 6.0%
FM 3349 AND US 79: TxDOT ROM (APRIL 2018)
COUNTY ROADS: WILLIAMSON COUNTY DCM

DESIGN SPEED CRITERIA

FM 3349 FRONTAGE ROAD:	45 MPH (INTERIM)
COUNTY ROADS:	45 MPH
JUG HANDLE * :	45 MPH

* LOW-SPEED DESIGN CRITERIA

	AADT		TRUCK PERCENTAGE	
	2018	2040		
FM 3349	950	66200	6.7	
US 79	18000	71000	17.2	



VICINITY MAP
NOT TO SCALE

BEARING BASIS: NAD83, TEXAS STATE PLANE, CENTRAL ZONE, US FOOT.

COORDINATES FOR THIS PROJECT ARE SURFACE VALUES BASED ON A COMBINED SURFACE ADJUSTMENT FACTOR OF 1.00012352
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H: 1"=100' V: 1"=10'

9/10/2020

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FM3349
PHASE 1
INTERIM PROJECT
PLAN AND PROFILE

HDR Engineering Inc.
Texas P.E. Firm Registration No. F-754

SHEET 2 OF 4

WILLIAMSON COUNTY

WILLIAMSON COUNTY

PRELIMINARY DESIGN FOR:

FM 3349 at US 79

P322

PRECINCT 4

COUNTY: WILLIAMSON
LIMITS:FM 3349 FROM CR 404 TO NORTH OF CR 395
APPROX. LENGTH OF PROJECT = 2.73 MI
APPROX. LENGTH OF BRIDGE = 0.24 MI
FUNCTIONAL CLASSIFICATION = FREEWAY
FUNCTIONAL CLASSIFICATION = RURAL
TERRAIN = ROLLING
MAXIMUM SUPERELEVATION RATE (emax) = 6.0%
FM 3349 AND US 79: TxDOT ROM (APRIL 2018)
COUNTY ROADS: WILLIAMSON COUNTY DCM

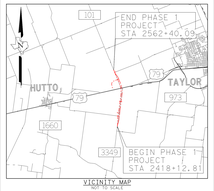
DESIGN SPEED CRITERIA

FM 3349 FRONTAGE ROAD:	45 MPH (INTERIM)
COUNTY ROADS:	45 MPH
JUG HANDLE * :	45 MPH

* LOW-SPEED DESIGN CRITERIA

AADT

	2018	2040	TRUCK PERCENTAGE
FM 3349	950	66200	6.7
US 79	18000	71000	17.2



VICINITY MAP
NOT TO SCALE

BEARING BASIS: NAD83, TEXAS STATE PLANE, CENTRAL ZONE, US FOOT.

COORDINATES FOR THIS PROJECT ARE SURFACE VALUES BASED ON A COMBINED SURFACE ADJUSTMENT FACTOR OF 1.00012352
VERTICAL DATUM: NAD83, NORTH AMERICA DATUM OF 1983

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FELIPE S. TUDTUD — 104836 — LICENSED PROFESSIONAL ENGINEER — STATE OF TEXAS

9/10/2020

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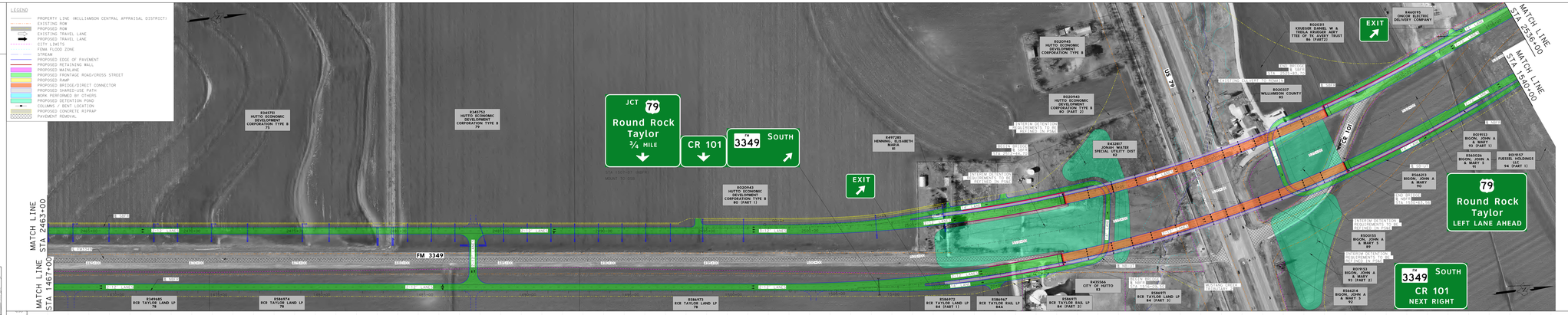
FM 3349
PHASE 1
INTERIM PROJECT
PLAN AND PROFILE

HDR Engineering Inc.
Texas P.E. Firm Registration No. F-754

LEGEND

- PROPERTY LINE (WILLIAMSON CENTRAL APPRAISAL DISTRICT)
- EXISTING ROW
- PROPOSED ROW
- EXISTING TRAVEL LANE
- PROPOSED TRAVEL LANE
- CITY LIMITS
- FEMA FLOOD ZONE
- STREAM
- PROPOSED EDGE OF PAVEMENT
- PROPOSED RETAINING WALL
- PROPOSED MAINLANE
- PROPOSED FRONTAGE ROAD/CROSS STREET
- PROPOSED RAMP
- PROPOSED BRIDGE/DIRECT CONNECTOR
- PROPOSED SHARED-USE PATH
- WORK PERFORMED BY OTHERS
- PROPOSED DETENTION POND
- COLUMNS / BENT LOCATION
- PROPOSED CONCRETE RIPRAP
- PAVEMENT REMOVAL



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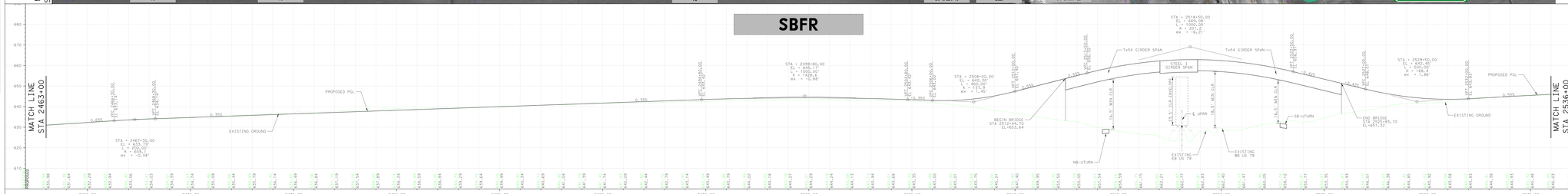

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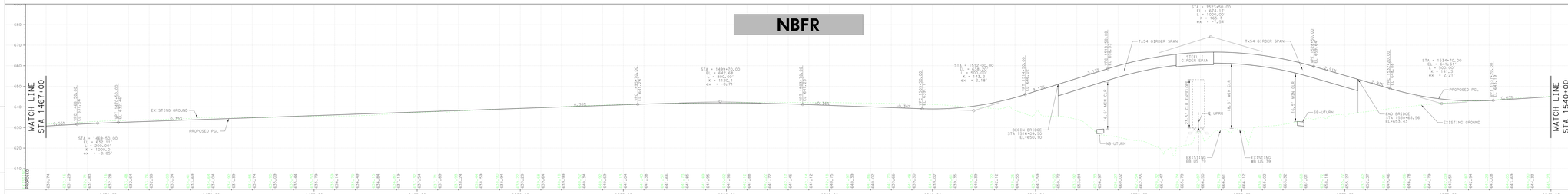

WILLIAMSON COUNTY

WILLIAMSON COUNTY

PRELIMINARY DESIGN FOR:

FM 3349 at US 79

P322

PRECINCT 4

COUNTY: WILLIAMSON
LIMITS:FM 3349 FROM CR 404 TO NORTH OF CR 395
APPROX. LENGTH OF PROJECT = 2.73 MI
APPROX. LENGTH OF BRIDGE = 0.24 MI
FUNCTIONAL CLASSIFICATION = FREEWAY
FUNCTIONAL CLASSIFICATION = RURAL
TERRAIN = ROLLING
MAXIMUM SUPERELEVATION RATE (emax) = 6.0%
FM 3349 AND US 79: TxDOT ROM (APRIL 2018)
COUNTY ROADS: WILLIAMSON COUNTY DCM

DESIGN SPEED CRITERIA

FM 3349 FRONTAGE ROAD:	45 MPH (INTERIM)
COUNTY ROADS:	45 MPH
JUG HANDLE * :	45 MPH

* LOW-SPEED DESIGN CRITERIA

AADT

	2018	2040	TRUCK PERCENTAGE
FM 3349	950	66200	6.7
US 79	18000	71000	17.2

VICINITY MAP
NOT TO SCALE

BEARING BASIS: NAD83, TEXAS STATE PLANE, CENTRAL ZONE, US FOOT.

COORDINATES FOR THIS PROJECT ARE SURFACE VALUES BASED ON A COMBINED SURFACE ADJUSTMENT FACTOR OF 1.00012352
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0 100 200 300 — H: 1"=100'

0 10 20 30 — V: 1"=10'

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9/10/2020

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FM3349
PHASE 1
INTERIM PROJECT
PLAN AND PROFILE

HDR Engineering Inc.
Texas P.E. Firm Registration No. F-754

SHEET 3 OF 4

WILLIAMSON COUNTY
1848

WILLIAMSON COUNTY

PRELIMINARY DESIGN FOR:

FM 3349 at US 79

PSTS

PRECINCT 4

COUNTY: WILLIAMSON
LIMITS:FM 3349 FROM CR 404 TO NORTH OF CR 395
APPROX. LENGTH OF PROJECT = 2.73 MI
APPROX. LENGTH OF BRIDGE = 0.24 MI
FUNCTIONAL CLASSIFICATION = FREEWAY
TERRAIN = ROLLING/MOUNTAIN = RURAL
TERRAIN = ROLLING
MAXIMUM SUPERELEVATION RATE (emax) = 6.0%
FM 3349 AND US 79: TxDOT ROM (APRIL 2018)
COUNTY ROADS: WILLIAMSON COUNTY DCM

DESIGN SPEED CRITERIA

FM 3349 FRONTAGE ROAD:	45 MPH (INTERIM)
COUNTY ROADS:	45 MPH
JUG HANDLE * :	45 MPH

* LOW-SPEED DESIGN CRITERIA

AADT		TRUCK PERCENTAGE	
2015	2040		
FM 3349	950	66200	6.7
US 79	18000	71000	17.2

VICINITY MAP
NOT TO SCALE

BEARING BASIS: NAD83, TEXAS STATE PLANE, CENTRAL ZONE, US FOOT.

COORDINATES FOR THIS PROJECT ARE SURFACE VALUES BASED ON A COMBINED SURFACE ADJUSTMENT FACTOR OF 1.00012052
VERTICAL DATUM: NAD83, NORTH AMERICA DATUM OF 1983

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0 100 200 300 0 10 20 30

H: 1"=100' V: 1"=10'

9/10/2020

PRELIMINARY

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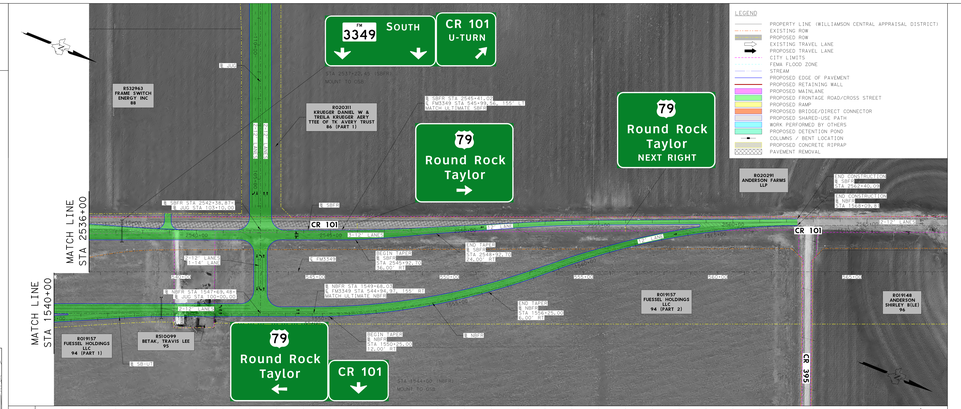
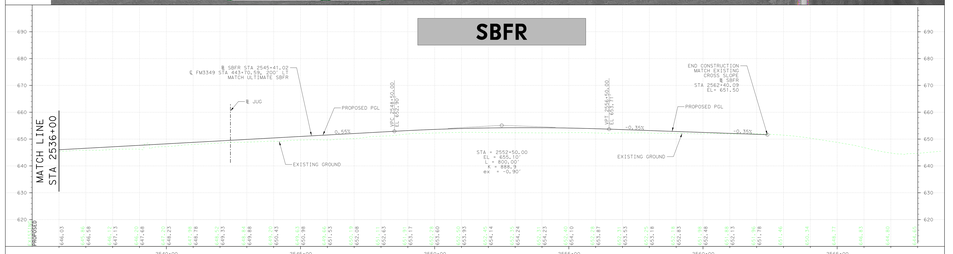
FM 3349
PHASE 1
INTERIM PROJECT
PLAN AND PROFILE

HDR Engineering Inc.
Texas P.E. Firm Registration No. F-754




SBFR
MATCH LINE STA 2536+00
PROPOSED POL
EXISTING GROUND
END CONSTRUCTION MATCH EXISTING CROSS SLOPE @ SBFR STA 2562+40.09 EL= 651.50
STA = 2552+50.00 EL = 650.00 R = 800.0' ex = -0.90
-0.95%
-2.35%
-0.95%
-0.95%
-0.95

SHEET 4 OF 4

WILLIAMSON COUNTY

PRELIMINARY DESIGN FOR:

FM 3349 at US 79

PRECINCT 4

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APPROX. LENGTH OF PROJECT = 2.73 MI
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FUNCTIONAL CLASSIFICATION = RURAL
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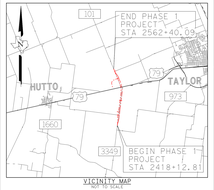
FM 3349 AND US 79: TxDOT ROM (APRIL 2018)
COUNTY ROADS: WILLIAMSON COUNTY DCM

DESIGN SPEED CRITERIA

FM 3349 FRONTAGE ROAD:	45 MPH (INTERIM)
COUNTY ROADS:	45 MPH
JUG HANDLE * :	45 MPH

* LOW-SPEED DESIGN CRITERIA

	AADT		TRUCK PERCENTAGE	
	2018	2040		
FM 3349	950	66200	6.7	
US 79	18000	71000	17.2	



VICINITY MAP
NOT TO SCALE

BEARING BASIS: NAD83, TEXAS STATE PLANE, CENTRAL ZONE, US FOOT.

COORDINATES FOR THIS PROJECT ARE SURFACE VALUES BASED ON A COMBINED SURFACE ADJUSTMENT FACTOR OF 1.00012352
VERTICAL DATUM: NADB3, NORTH AMERICA DATUM OF 1983

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0 100 200 300 0 10 20 30
H: 1"=100' V: 1"=10'

9/10/2020

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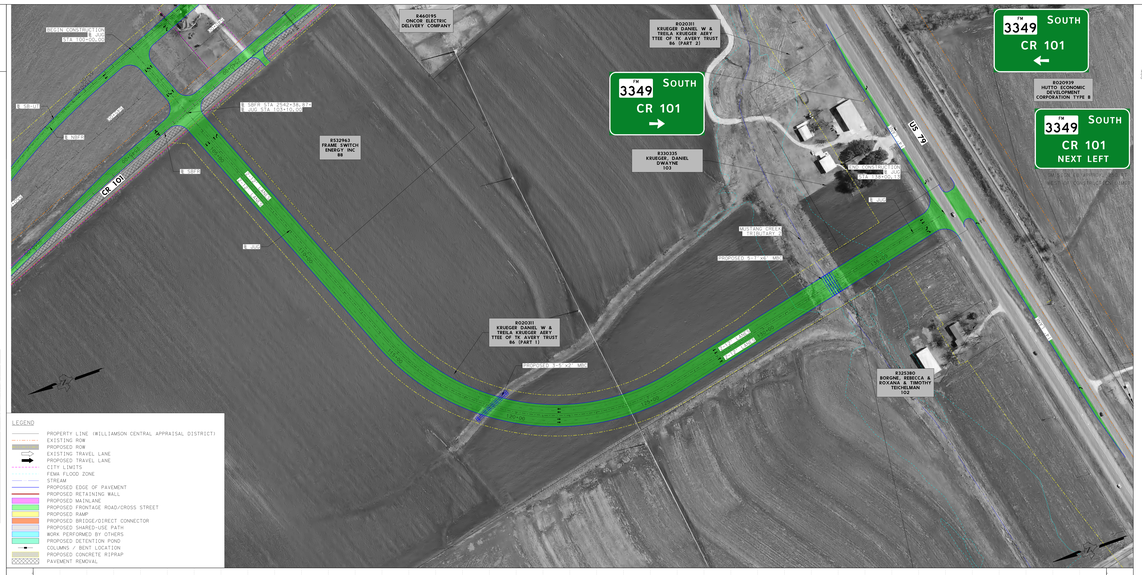
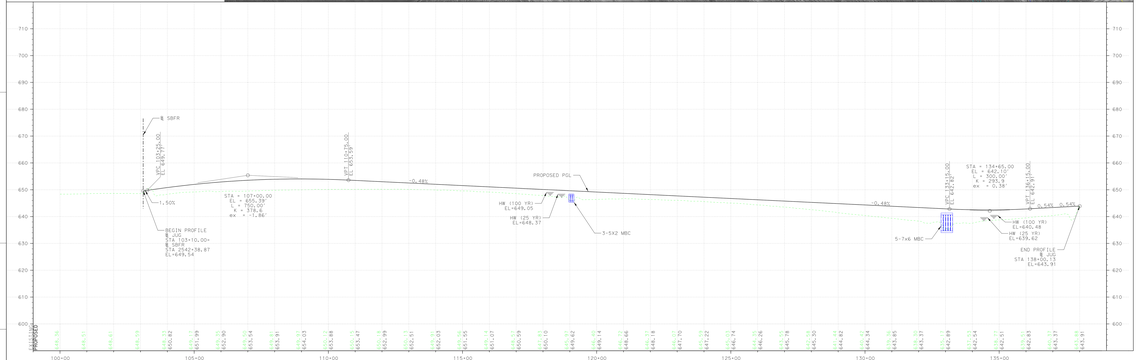
FM 3349
PHASE 1 INTERIM PROJECT-JUG HANDLE PLAN AND PROFILE

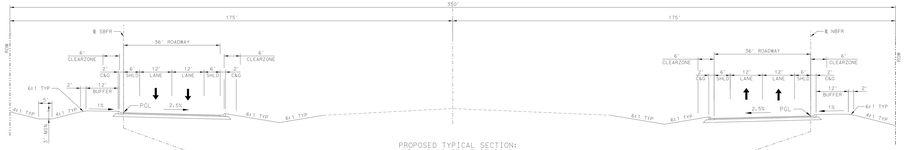
HDR Engineering Inc.
Texas P.E. Firm Registration No. F-754

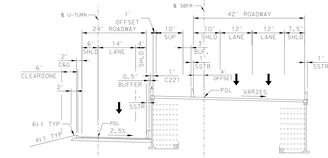


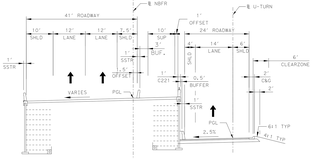
LEGEND

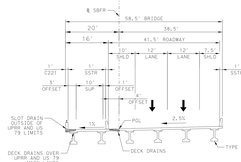
- PROPERTY LINE (WILLIAMSON CENTRAL APPRAISAL DISTRICT)
- EXISTING ROW
- PROPOSED ROW
- EXISTING TRAVEL LANE
- PROPOSED TRAVEL LANE
- CITY LIMITS
- 100-YEAR FLOOD ZONE
- STREAM
- PROPOSED EDGE OF PAVEMENT
- PROPOSED RETAINING WALL
- PROPOSED MAINLANE
- PROPOSED FRONTAGE ROAD/CROSS STREET
- PROPOSED RAMP
- PROPOSED BRIDGE/DIRECT CONNECTOR
- PROPOSED SHARED-USE PATH
- WORK PERFORMED BY OTHERS
- PROPOSED DETENTION POND
- COLUMNS // BENT LOCATION
- PROPOSED CONCRETE RIPRAP
- PAVEMENT REMOVAL

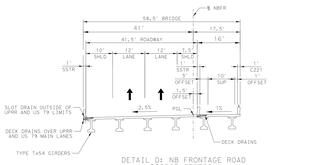


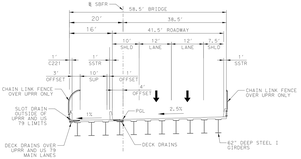


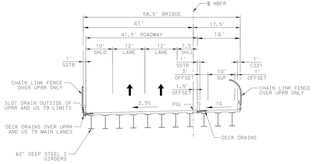


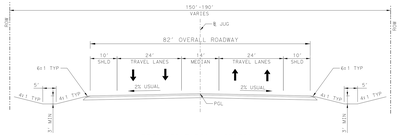


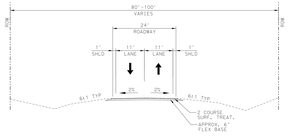












WILLIAMSON COUNTY

PRELIMINARY DESIGN FOR:

FM 3349 at US 79

PRECINCT 4

COUNTY: WILLIAMSON
LIMITS:FM 3349 FROM CR 404 TO NORTH OF CR 395
APPROX. LENGTH OF PROJECT = 2.73 MI
APPROX. LENGTH OF BRIDGE = 0.24 MI
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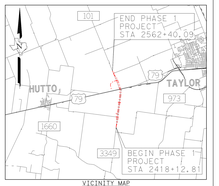
FUNCTIONAL CLASSIFICATION = RURAL
TERRAIN = ROLLING
MAXIMUM SUPERELEVATION RATE (emax) = 6.0%
FM 3349 AND US 79: TxDOT ROM (APRIL 2018)
COUNTY ROADS: WILLIAMSON COUNTY DCM

DESIGN SPEED CRITERIA

FM 3349 FRONTAGE ROAD:	45 MPH (INTERIM)
COUNTY ROADS:	45 MPH
JUG HANDLE * :	45 MPH

* LOW-SPEED DESIGN CRITERIA

	AADT		TRUCK PERCENTAGE	
	2018	2040		
FM 3349	950	66200	6.7	
US 79	18000	71000	17.2	



VICINITY MAP
NOT TO SCALE

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0 100 200 300 0 10 20 30
H: 1"=100' V: 1"=10'

9/10/2020

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PHASE 1 INTERIM PROJECT-JUG HANDLE PLAN AND PROFILE

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Texas P.E. Firm Registration No. F-754

Appendix D – Plan and Program Excerpts

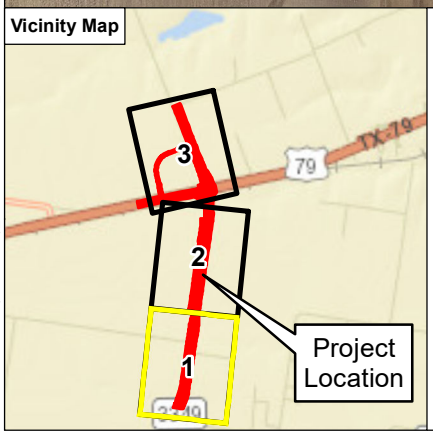
No transportation plan or program excerpts listing the proposed project are currently available.

The proposed project is being developed to be consistent with TxDOT's 2021-2024 STIP, CAMPO's 2021-2024 TIP, and CAMPO's 2045 RTP.

The project will be included in the STIP, TIP and RTP following the Fall 2021 amendment cycle.

Appendix E – Resource-specific Maps

Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Potentially Affected Parcels
- Roadway

0 300 600
Feet

Page 1

BGE, Inc.
101 West Louis Henna Blvd, Suite 400
Austin, TX 78728
Tel: 512-879-0400 Fax: 512-879-0499
www.bgeinc.com

FM 3349 at US 79

Potentially Affected Parcels Map Book

Williamson County, TX
CSJ: 0204-02-034

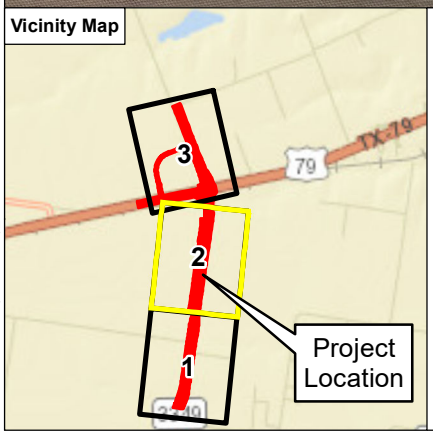
July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\9-Affected Parcels Map.mxd

GIS Analyst: afash

Data Source: FEMA 2019, NHD 2020, NRCS 2020, TxDOT 2019, WCAD 2019

Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Potentially Affected Parcels
- Roadway
- Union Pacific Railroad

N

0 300 600
Feet

Page 2

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FM 3349 at US 79

Potentially Affected Parcels Map Book

Williamson County, TX
CSJ: 0204-02-034

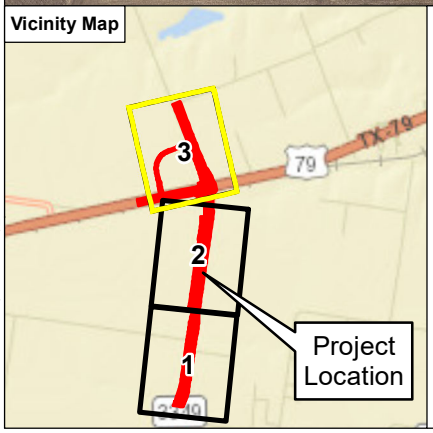
July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-I-111_ENV\FM 3349 Interchange\GIS\9-Affected Parcels Map.mxd

GIS Analyst: afash

Data Source: FEMA 2019, NHD 2020, NRCS 2020, TxDOT 2019, WCAD 2019

Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Potentially Affected Parcels
- Roadway
- Union Pacific Railroad

0 300 600
Feet

Page 3

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FM 3349 at US 79

Potentially Affected Parcels Map Book

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July 2021 | Proj. No: 4705-03

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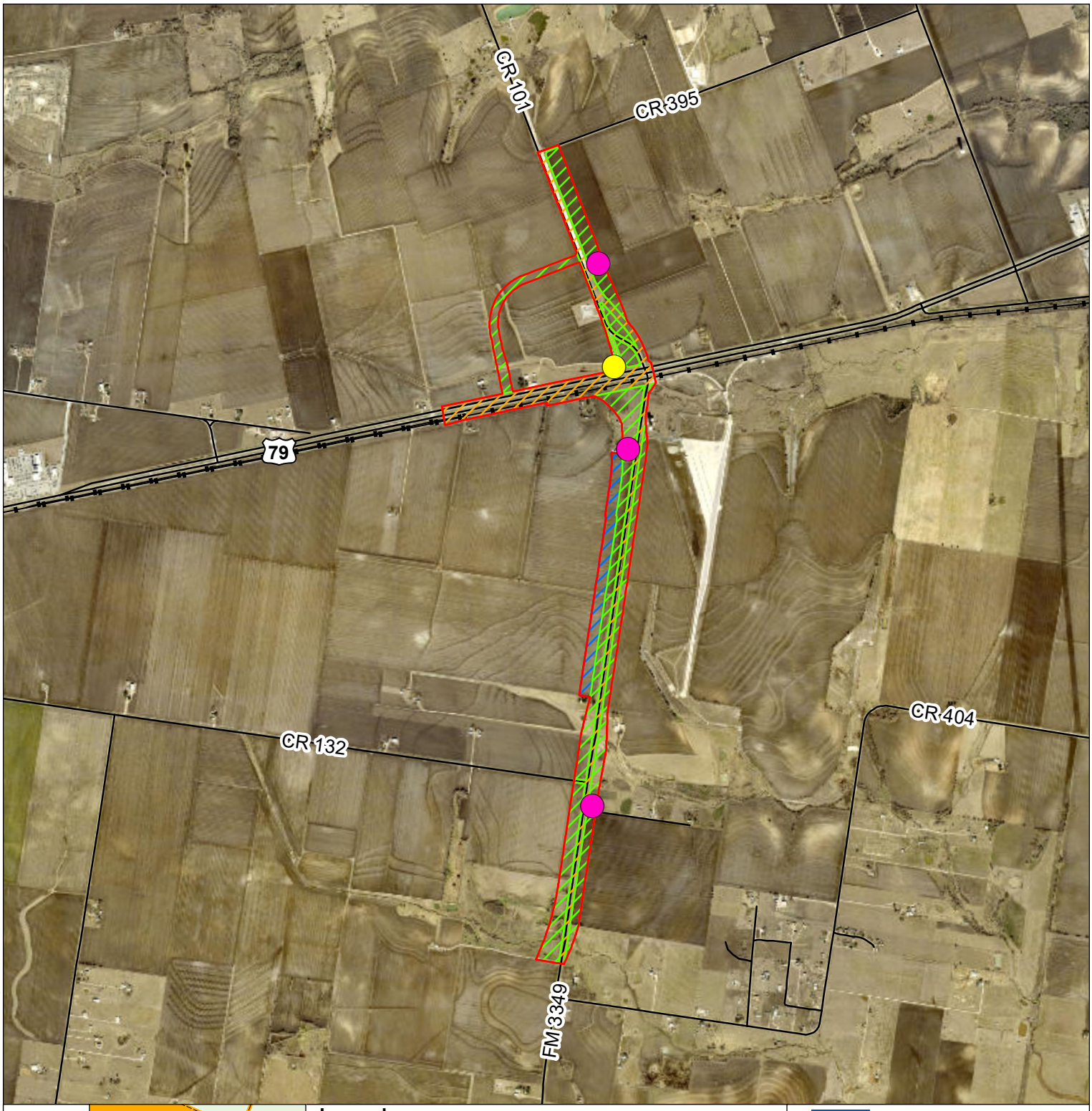
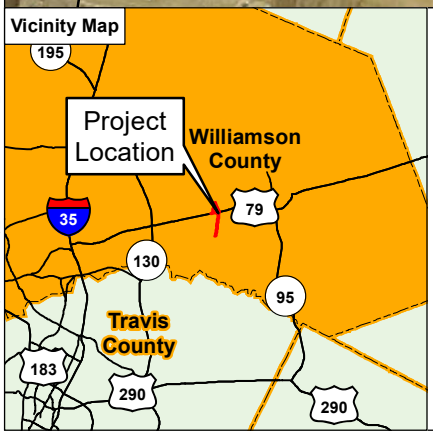
GIS Analyst: afash

Data Source: FEMA 2019, NHD 2020, NRCS 2020, TxDOT 2019, WCAD 2019





Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Roadway
- Union Pacific Railroad
- Residential Displacement
- Commercial Displacement

0 1,000 2,000
Feet

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FM 3349 at US 79

Displacements Map

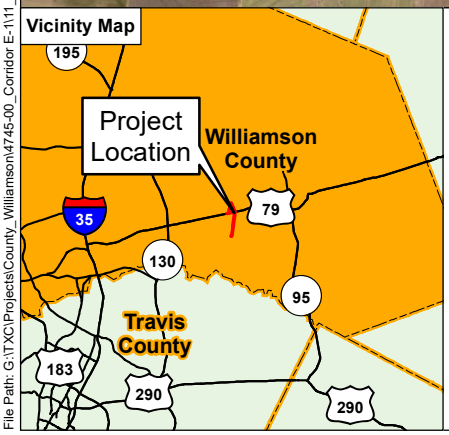
Williamson County, TX
CSJ: 0204-02-034

July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\9- Displacements Map7-2-2021.mxd

GIS Analyst: jhall2

Data Source: Wiliamson County 2021



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Affected Parcel
- Farmland to be Converted
- Roadway
- Union Pacific Railroad

0 800 1,600
Feet

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FM 3349 at US 79

Farmland Conversion Map

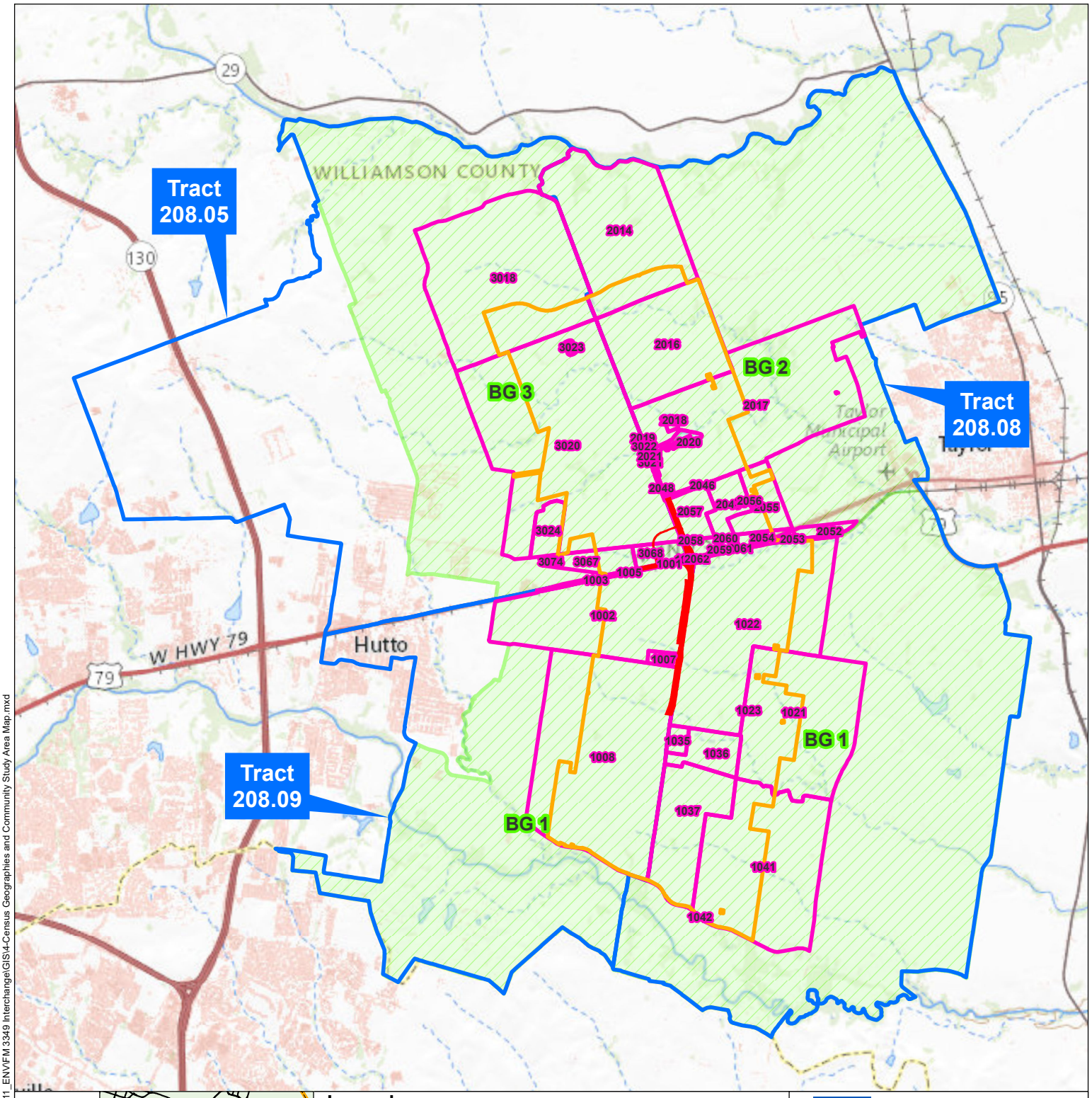
Williamson County, TX
CSJ: 0204-02-034

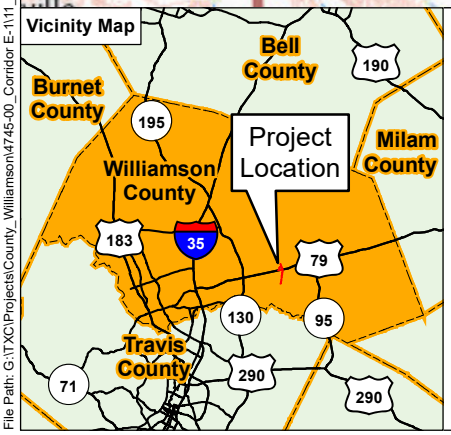
Date: July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\8-Farmland Conversion Map.mxd

GIS Analyst: smartineau

Data Source: Wiliamson County 2018





Legend

- Project Area
- Community Study Area
- Census Block (2010 U.S. Census)
- Block Group (2010 U.S. Census)
- Census Tract (2010 U.S. Census)

0 0.5 1
Miles

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FM 3349 at US 79

Census Geographies and Community Study Area Map

Williamson County, TX

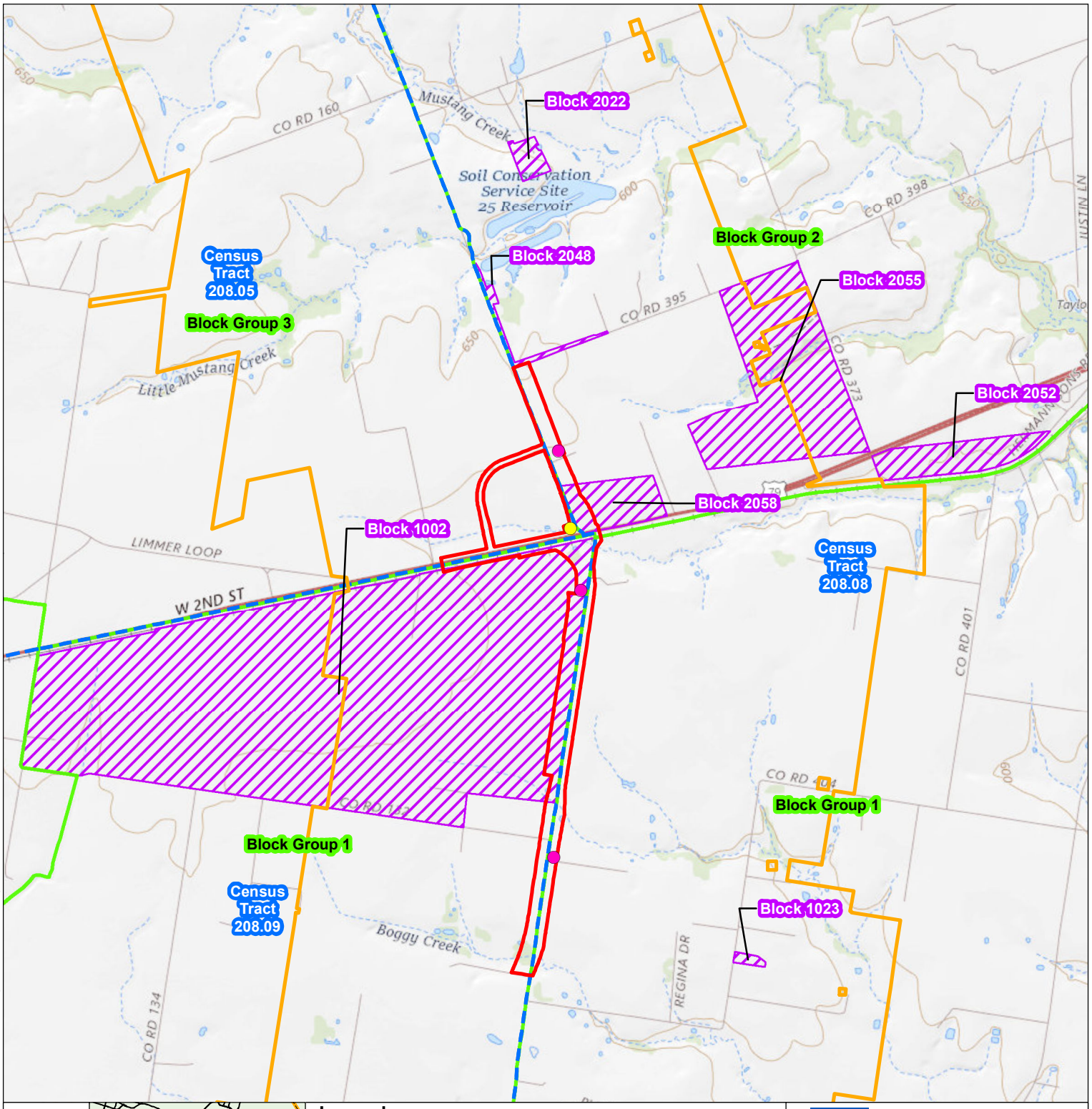
CSJ: 0204-02-034

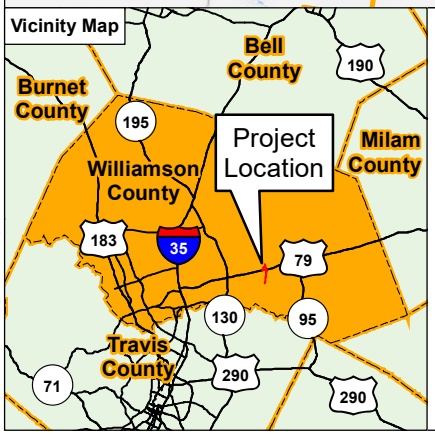
Date: July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\4-Census Geographies and Community Study Area Map.mxd

GIS Analyst: smartineau

Data Source: WCAD 2020, US Census Bureau 2010





Legend

- Community Study Area
- Project Area
- Census Tract (2010 U.S. Census)
- Block Group (2010 U.S. Census)
- EJ Census Block (2010 U.S. Census)
- Residential Displacement
- Commercial Displacement

0 0.25 0.5
Miles

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FM 3349 at US 79

Environmental Justice Census Geographies Map

Williamson County, TX
CSJ: 0204-02-034

Date: July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\EJ Census Geographies.mxd

GIS Analyst: jhall2

Data Source: WCAD 2020, US Census Bureau 2010

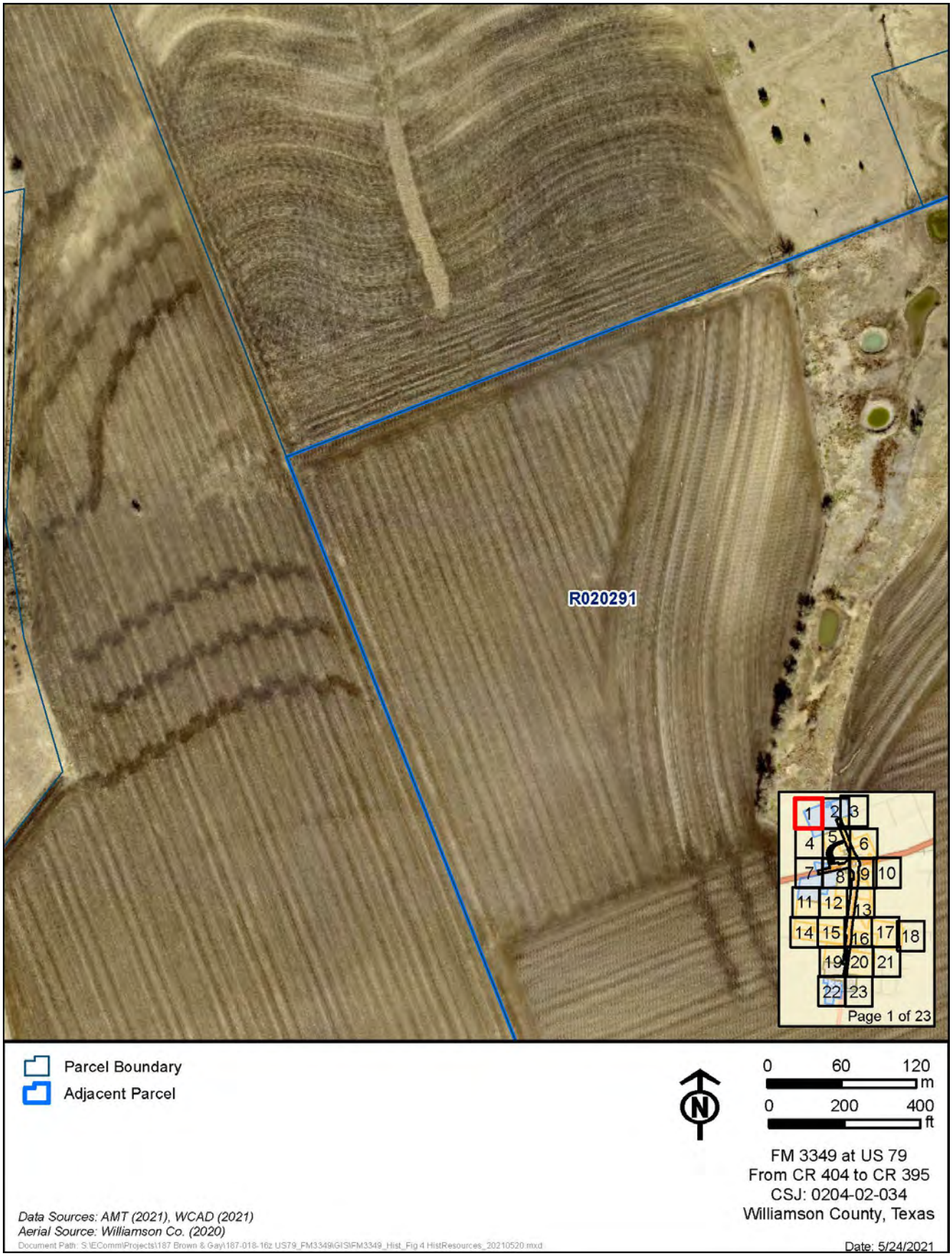


Figure 4a: Surveyed resource location map.

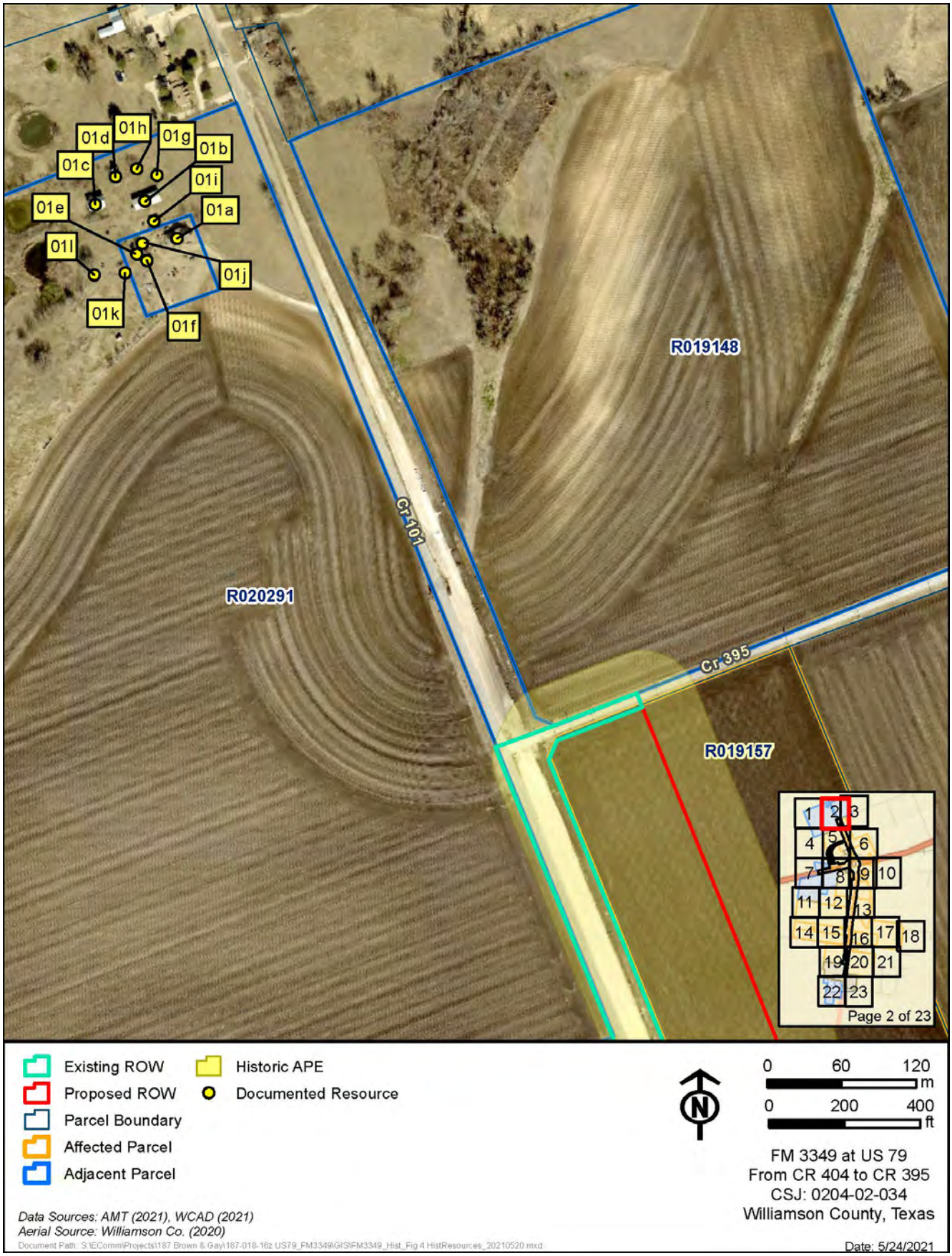


Figure 4b: Surveyed resource location map

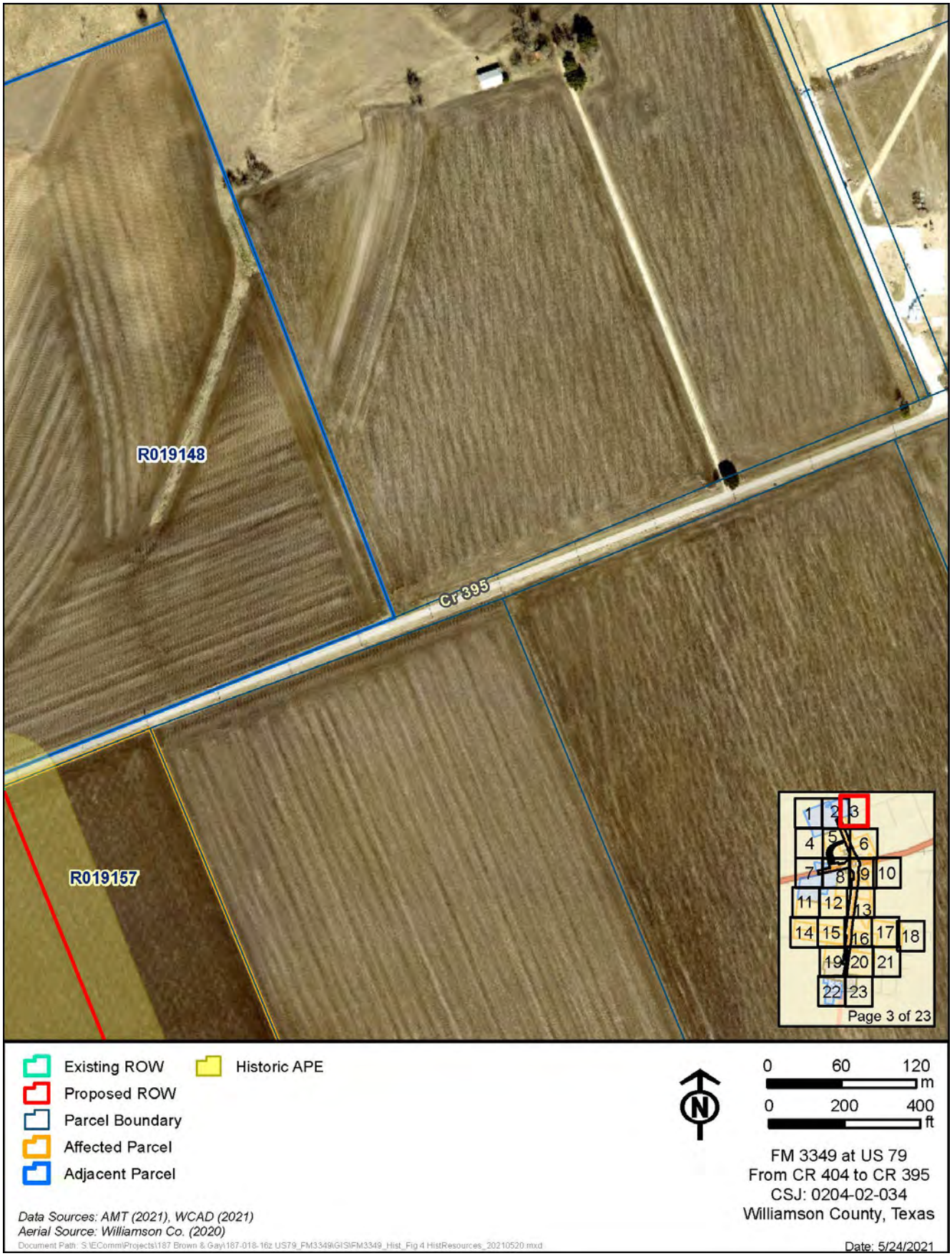


Figure 4c: Surveyed resource location map.

Figure 4d: Surveyed resource location map.

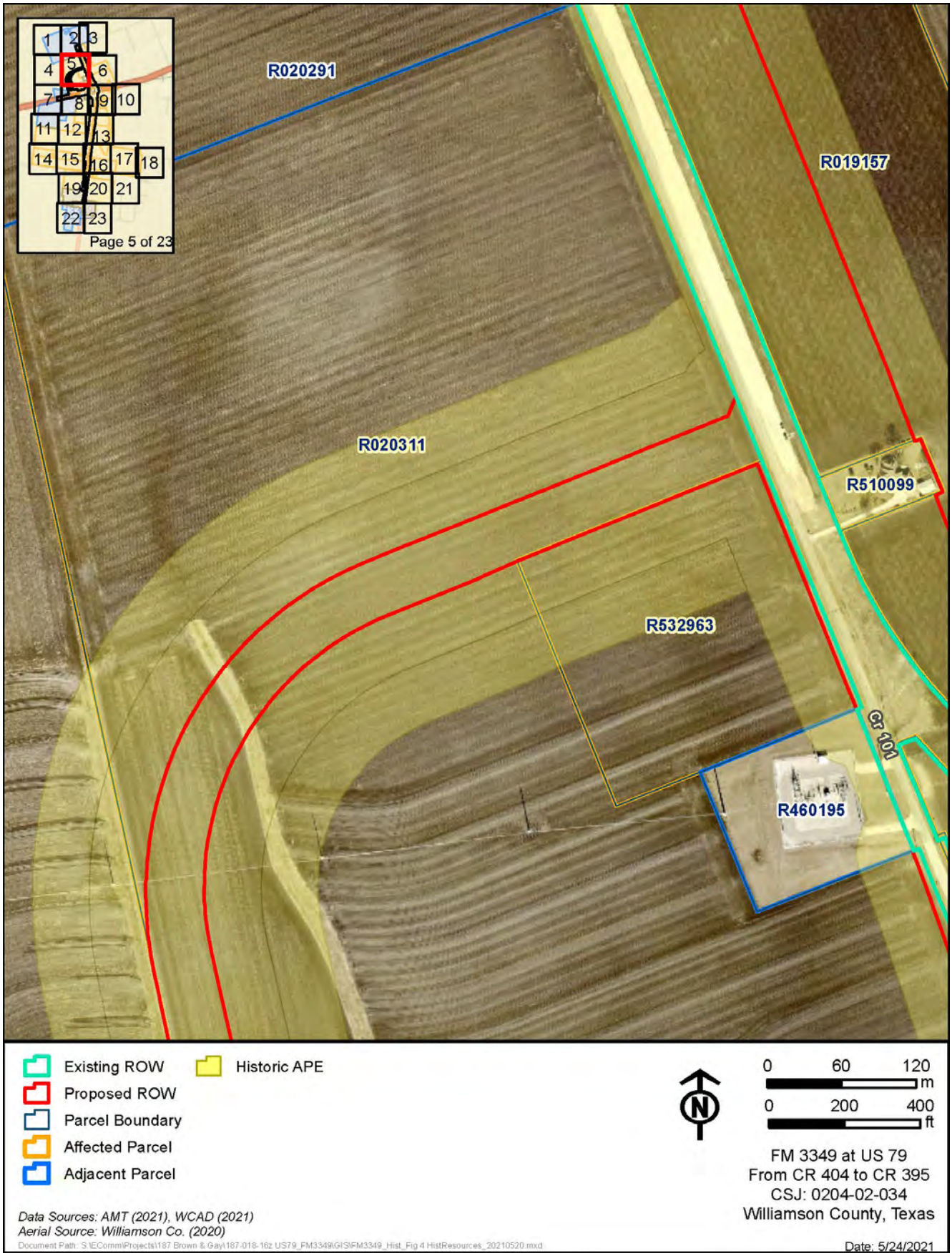


Figure 4e: Surveyed resource location map.

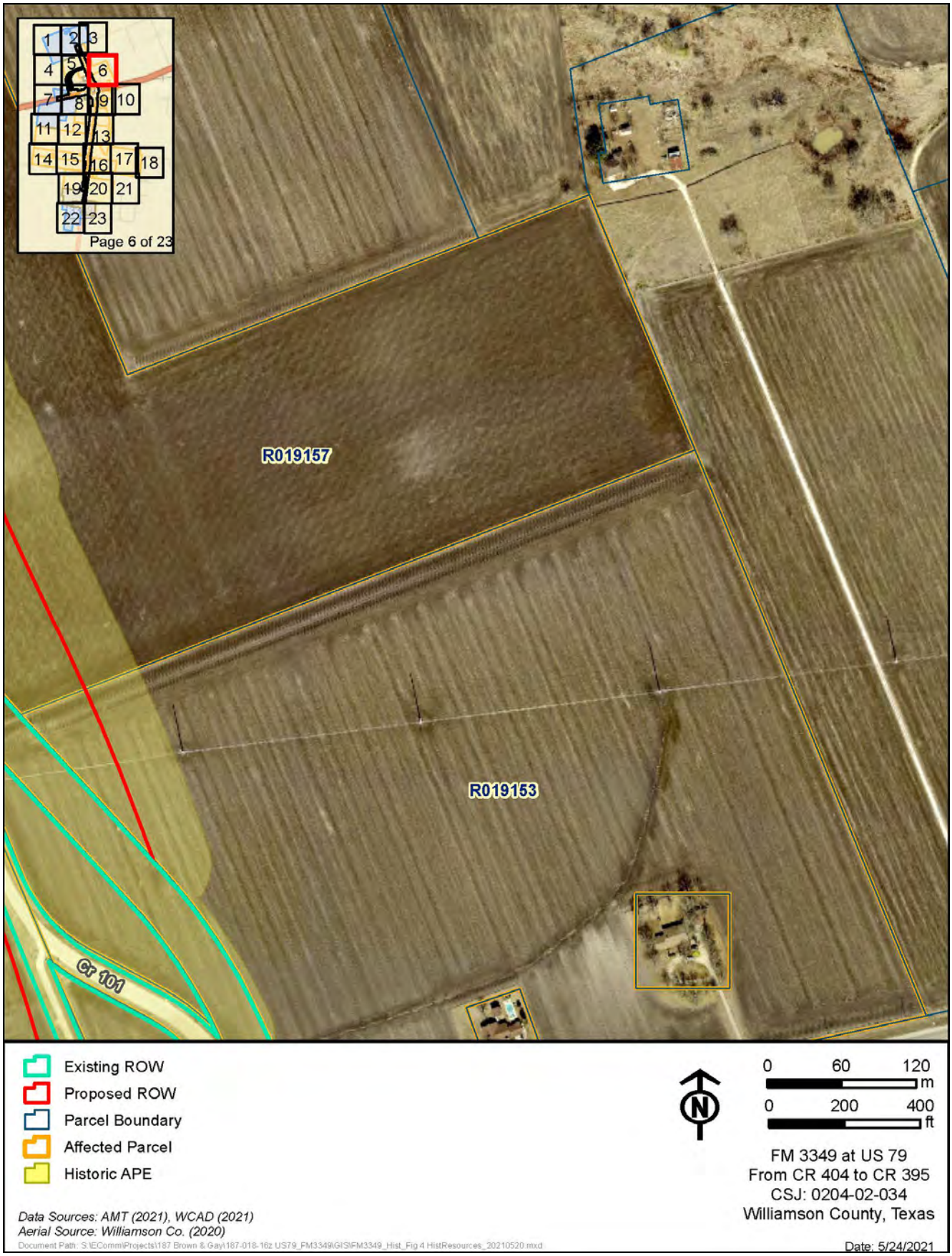


Figure 4f: Surveyed resource location map.

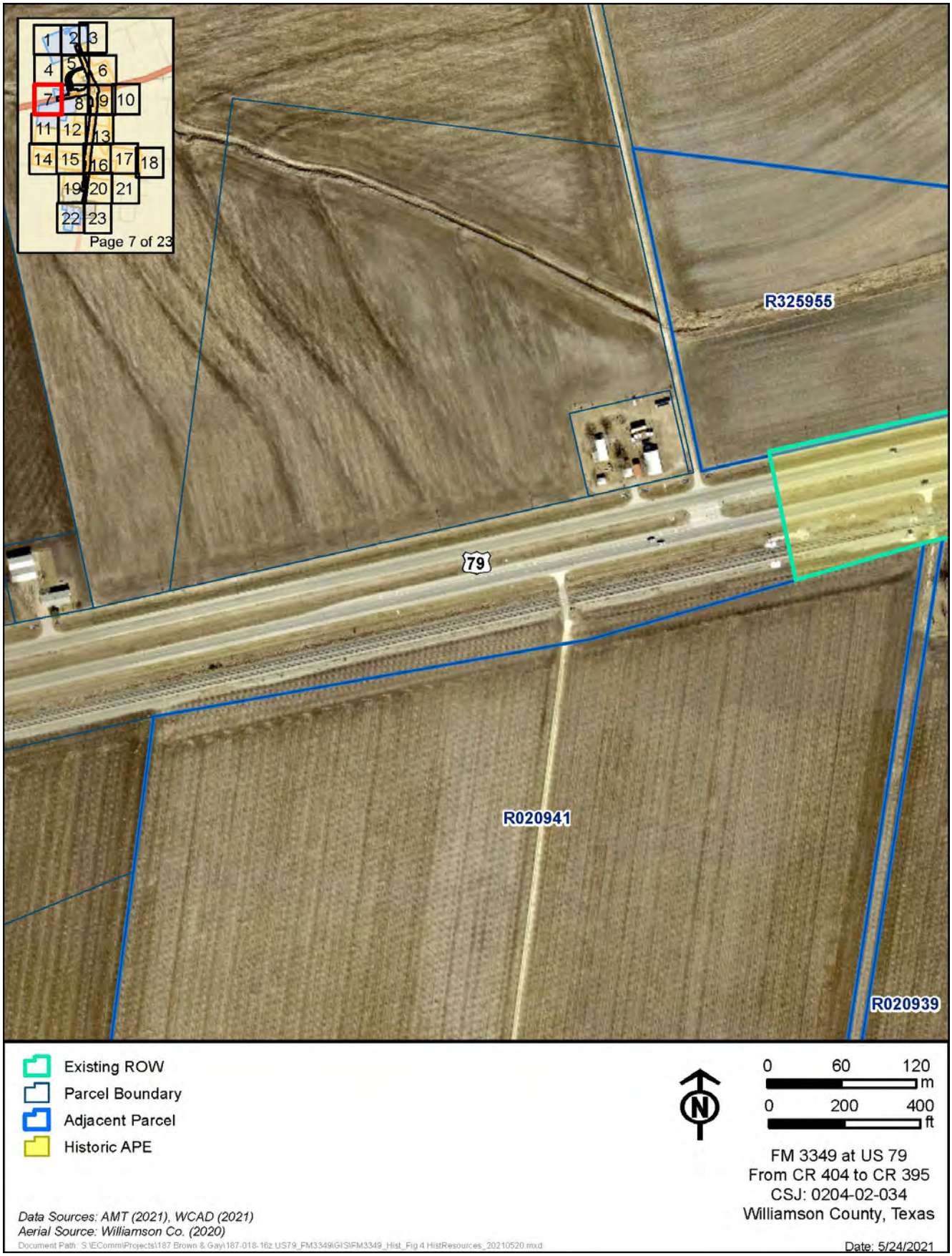


Figure 4g: Surveyed resource location map.

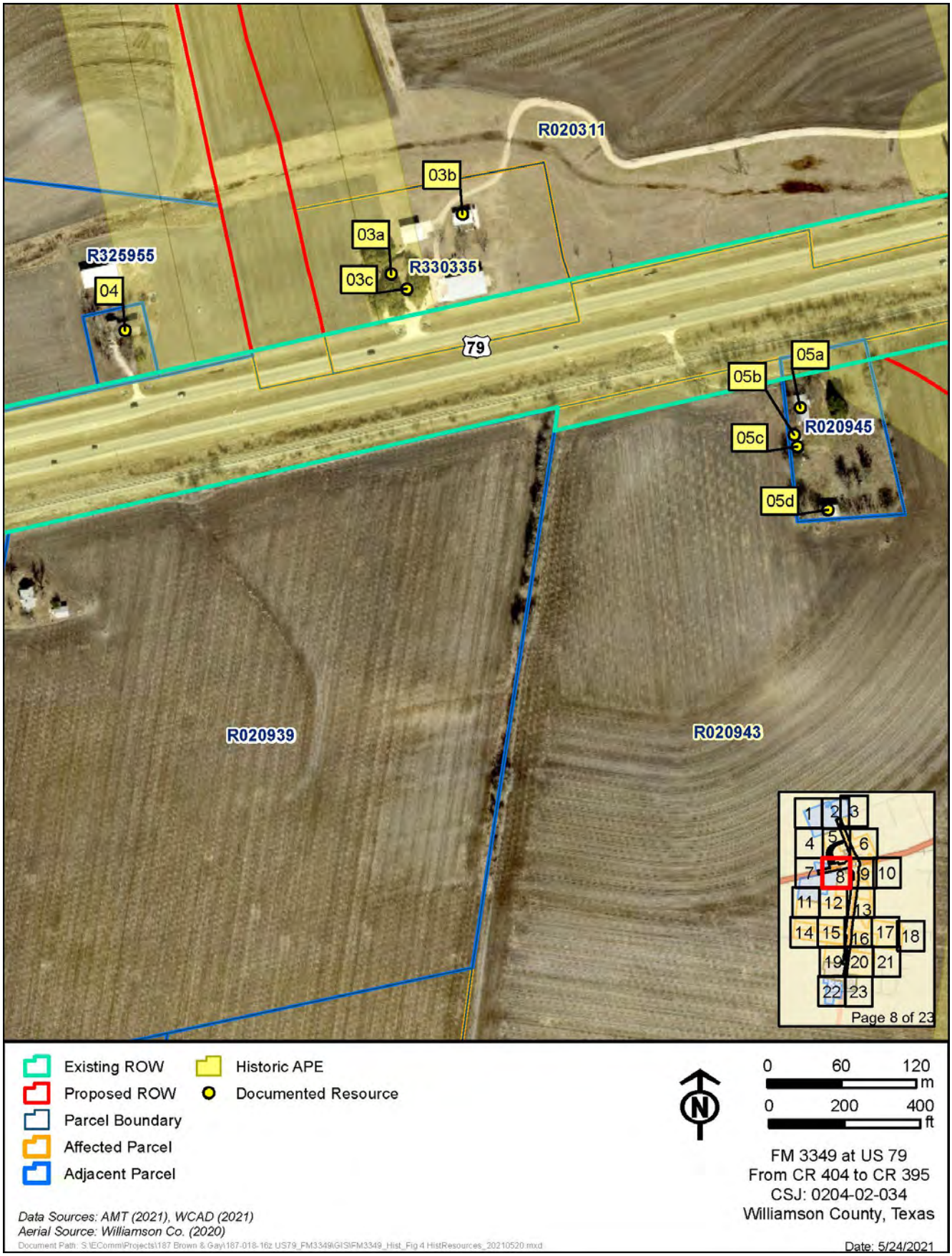


Figure 4h: Surveyed resource location map.

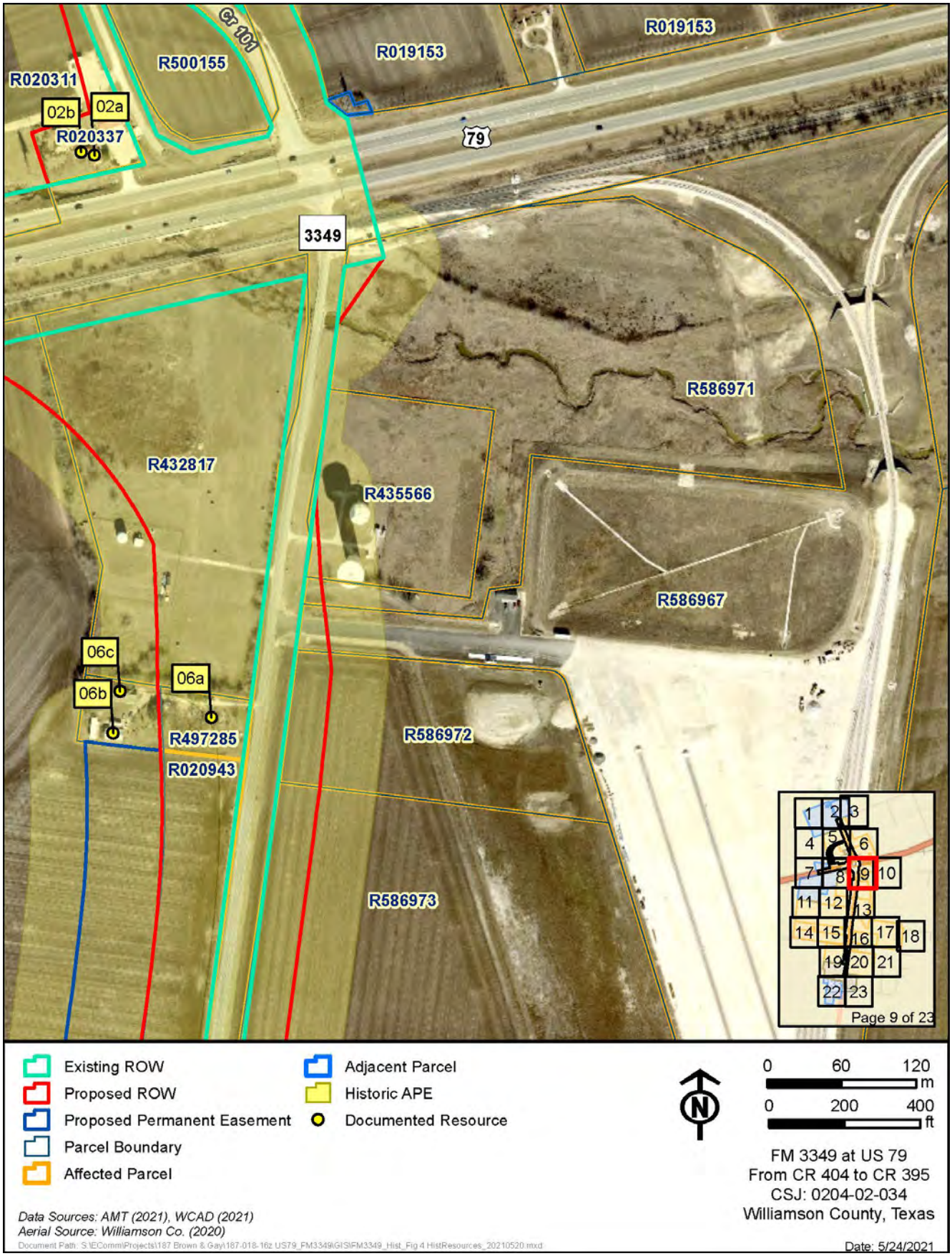


Figure 4i: Surveyed resource location map.

Figure 4j: Surveyed resource location map.

Figure 4k: Surveyed resource location map.

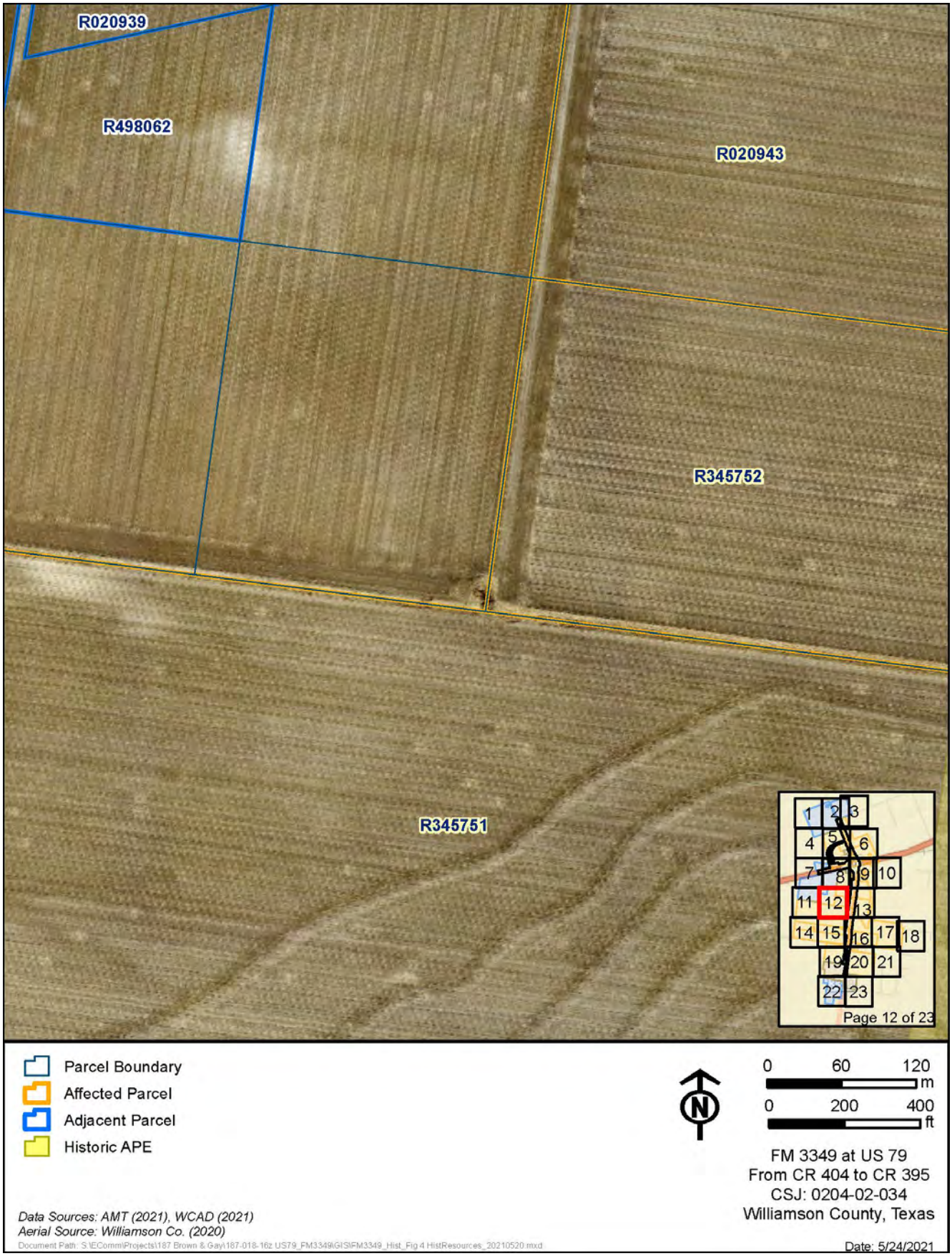


Figure 4l: Surveyed resource location map.

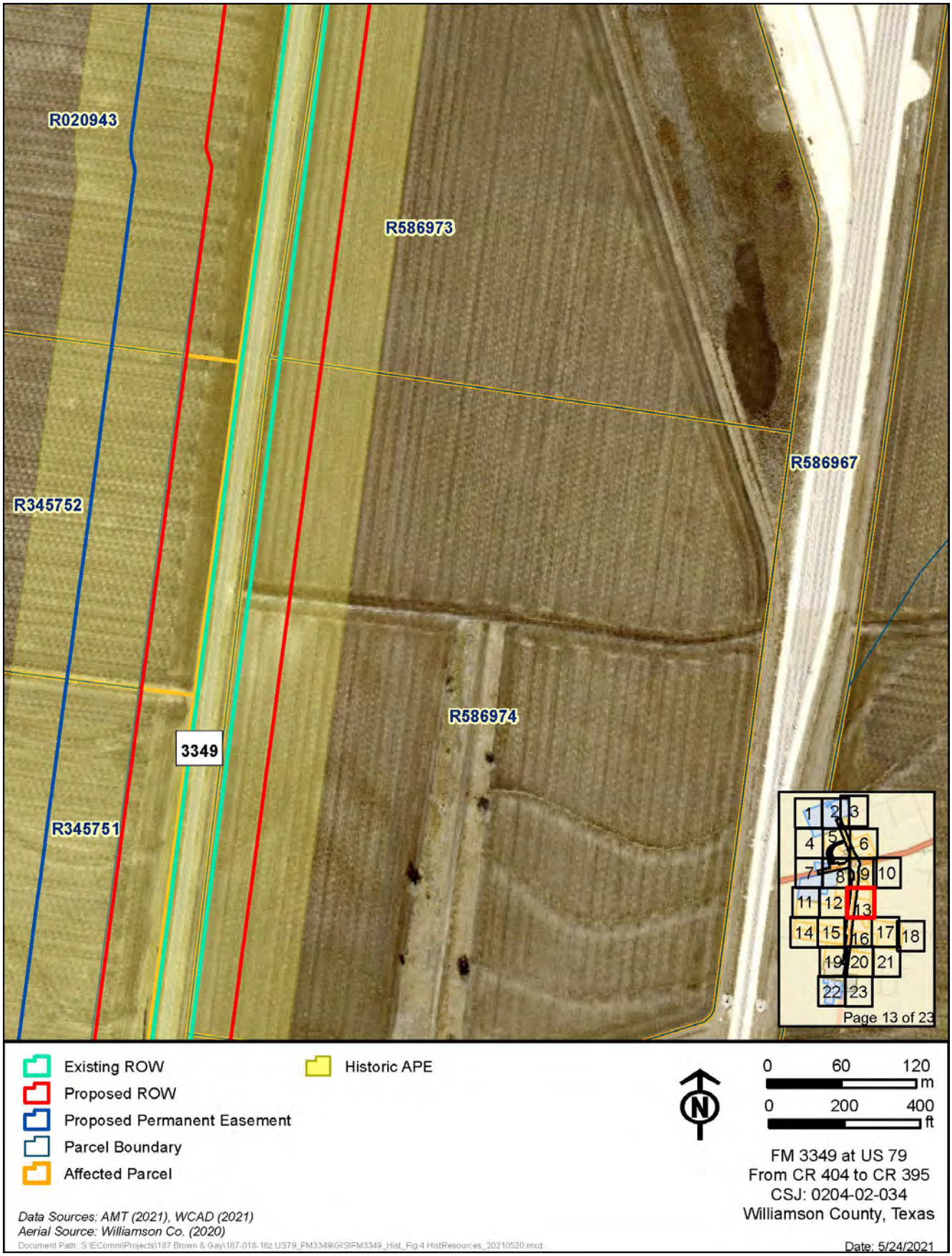


Figure 4m: Surveyed resource location map.

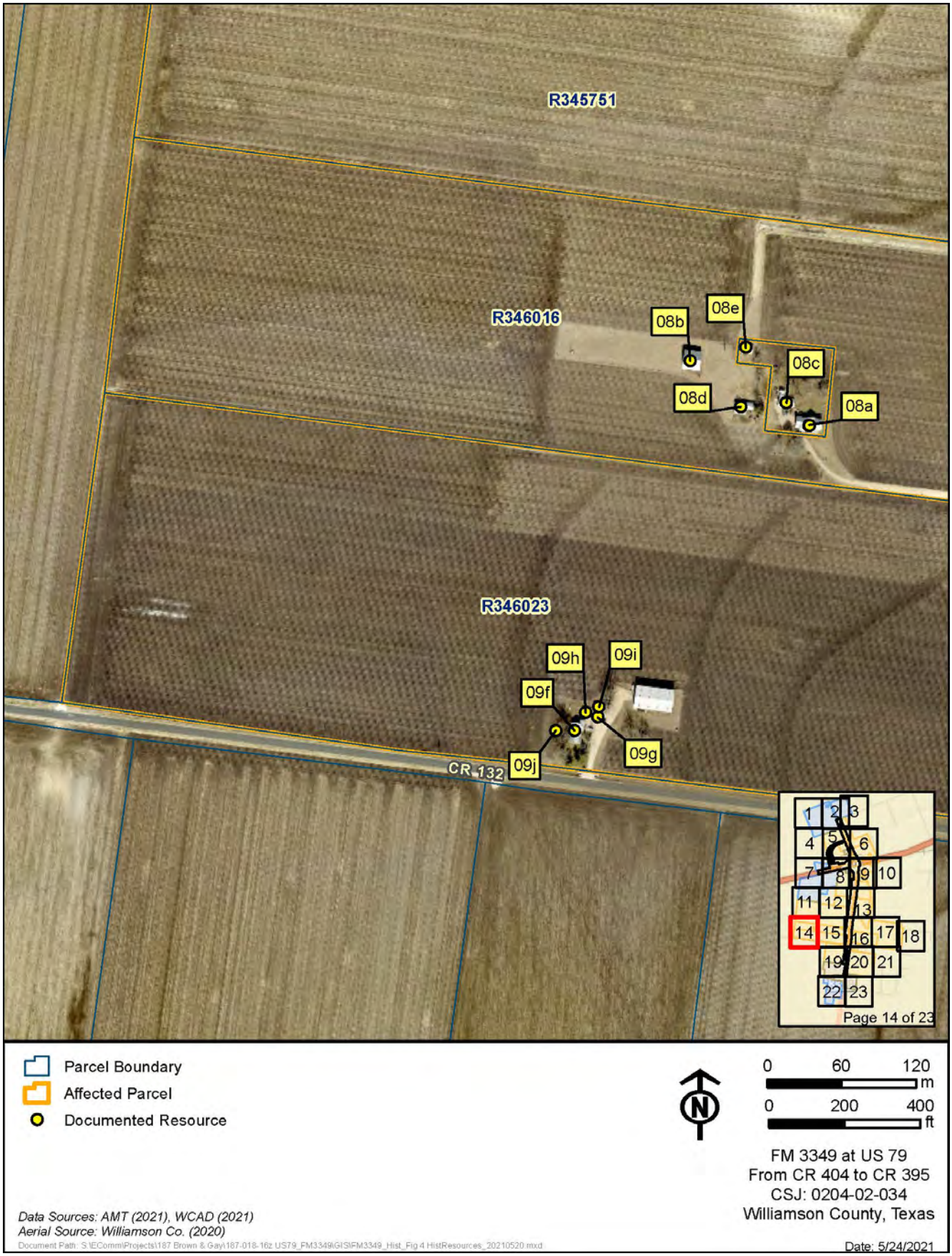


Figure 4n: Surveyed resource location map.

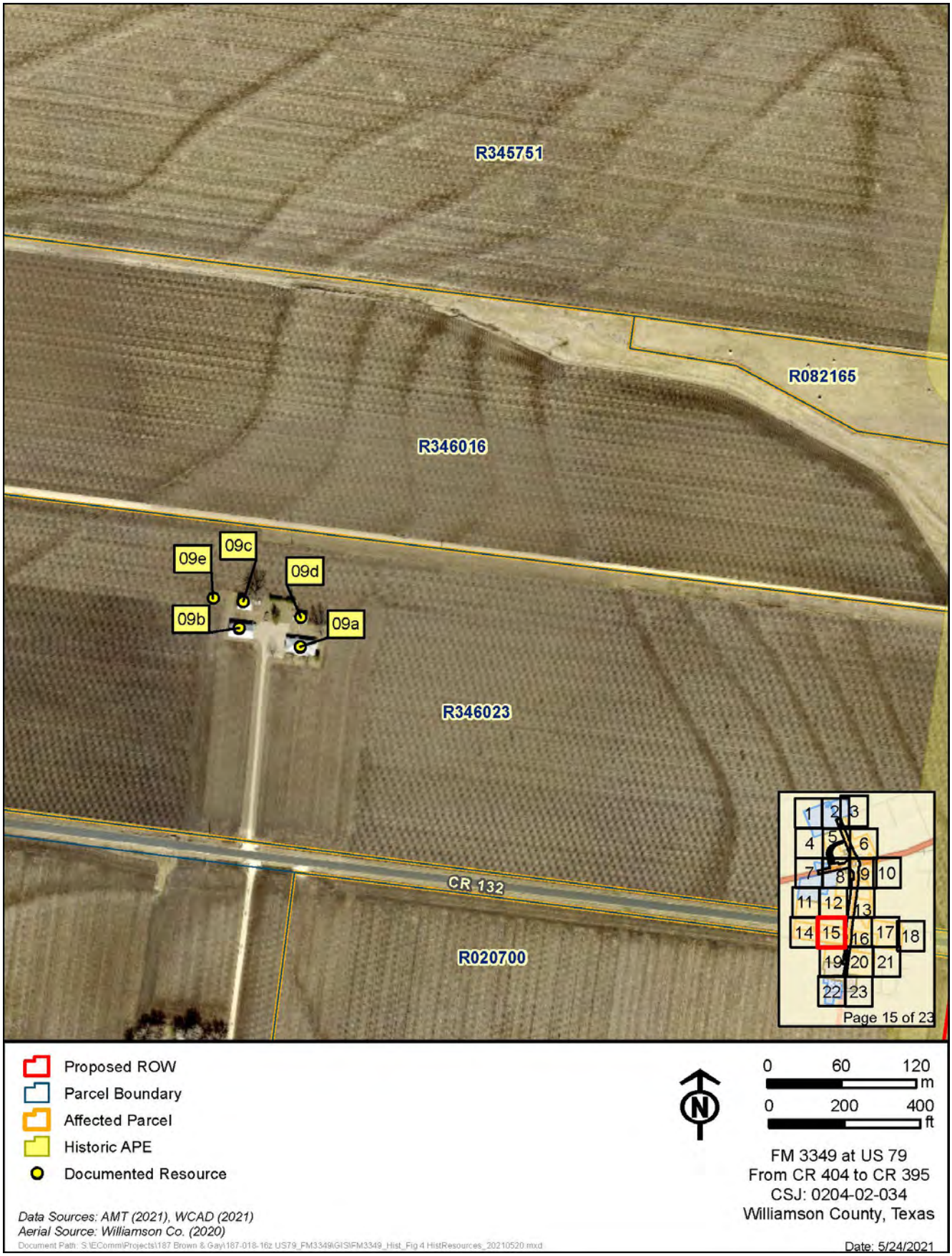


Figure 4o: Surveyed resource location map.

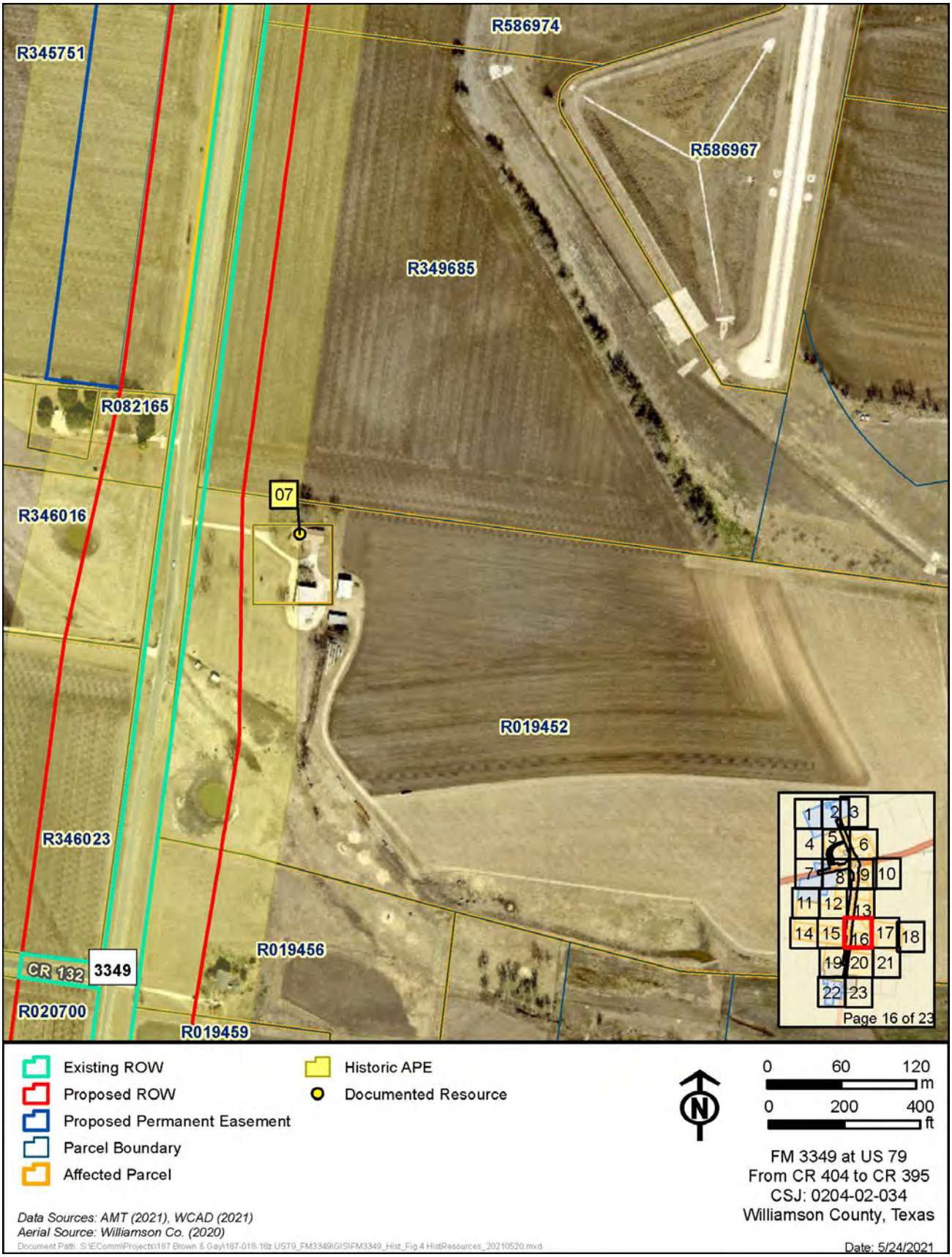


Figure 4p: Surveyed resource location map.

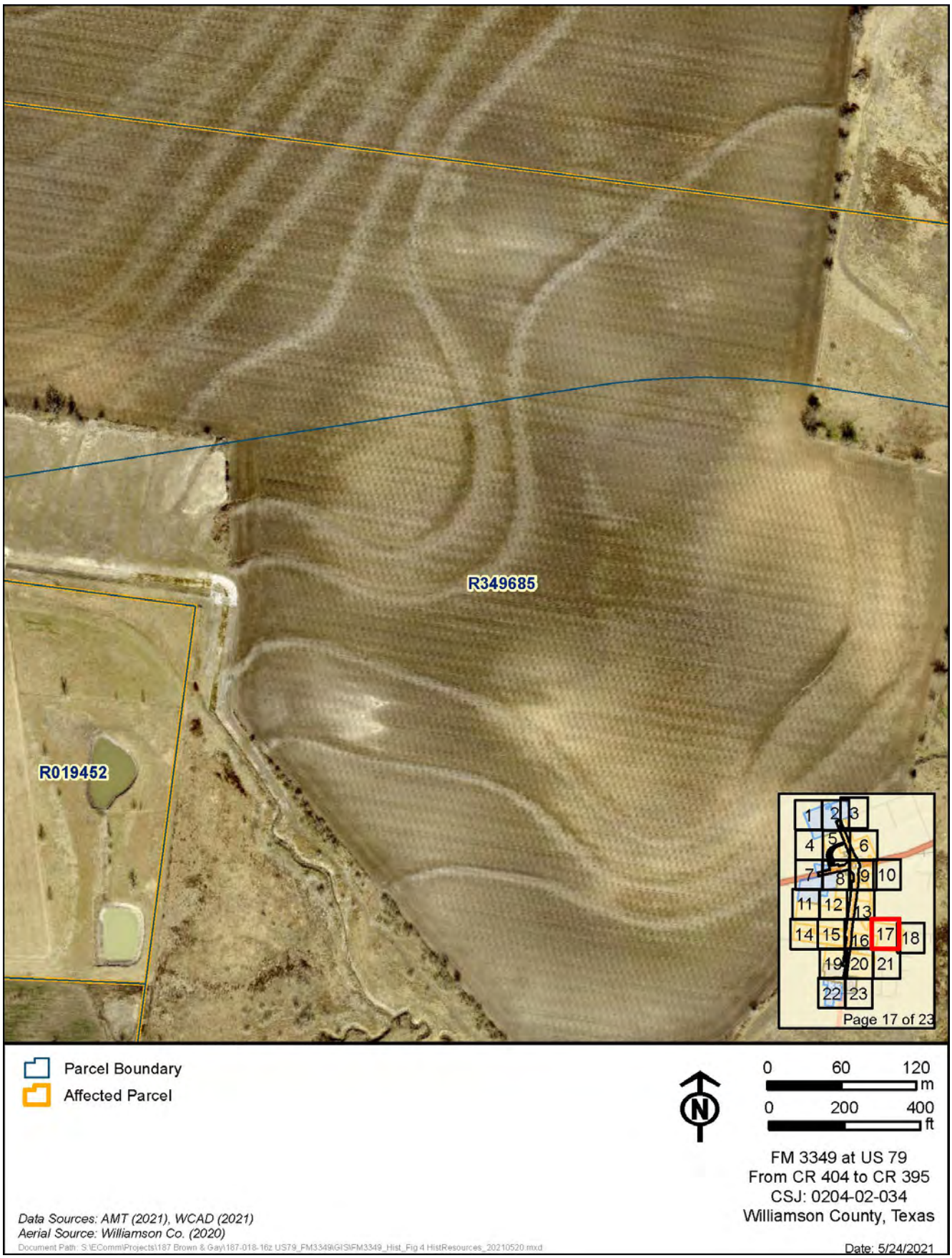


Figure 4q: Surveyed resource location map.

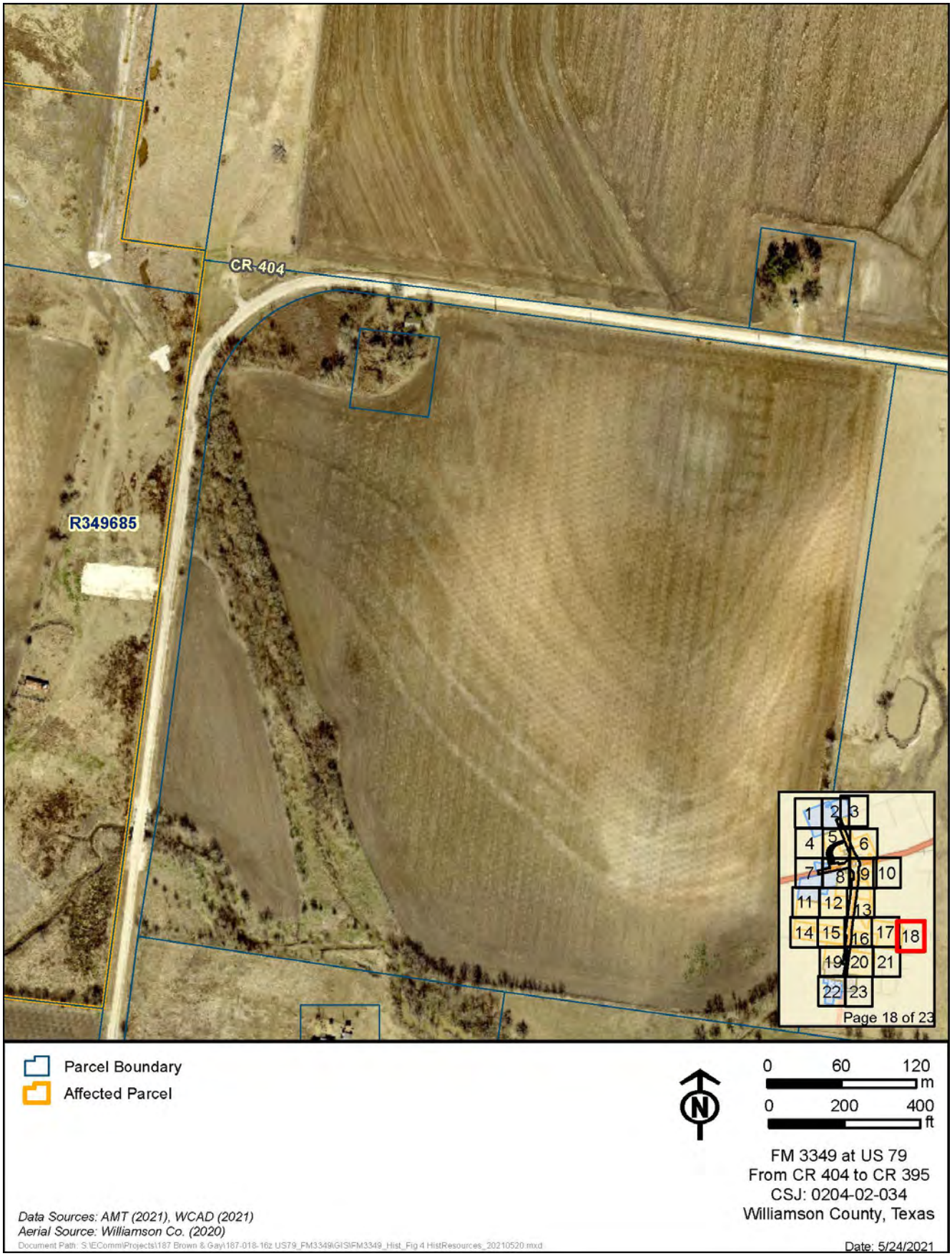


Figure 4r: Surveyed resource location map.

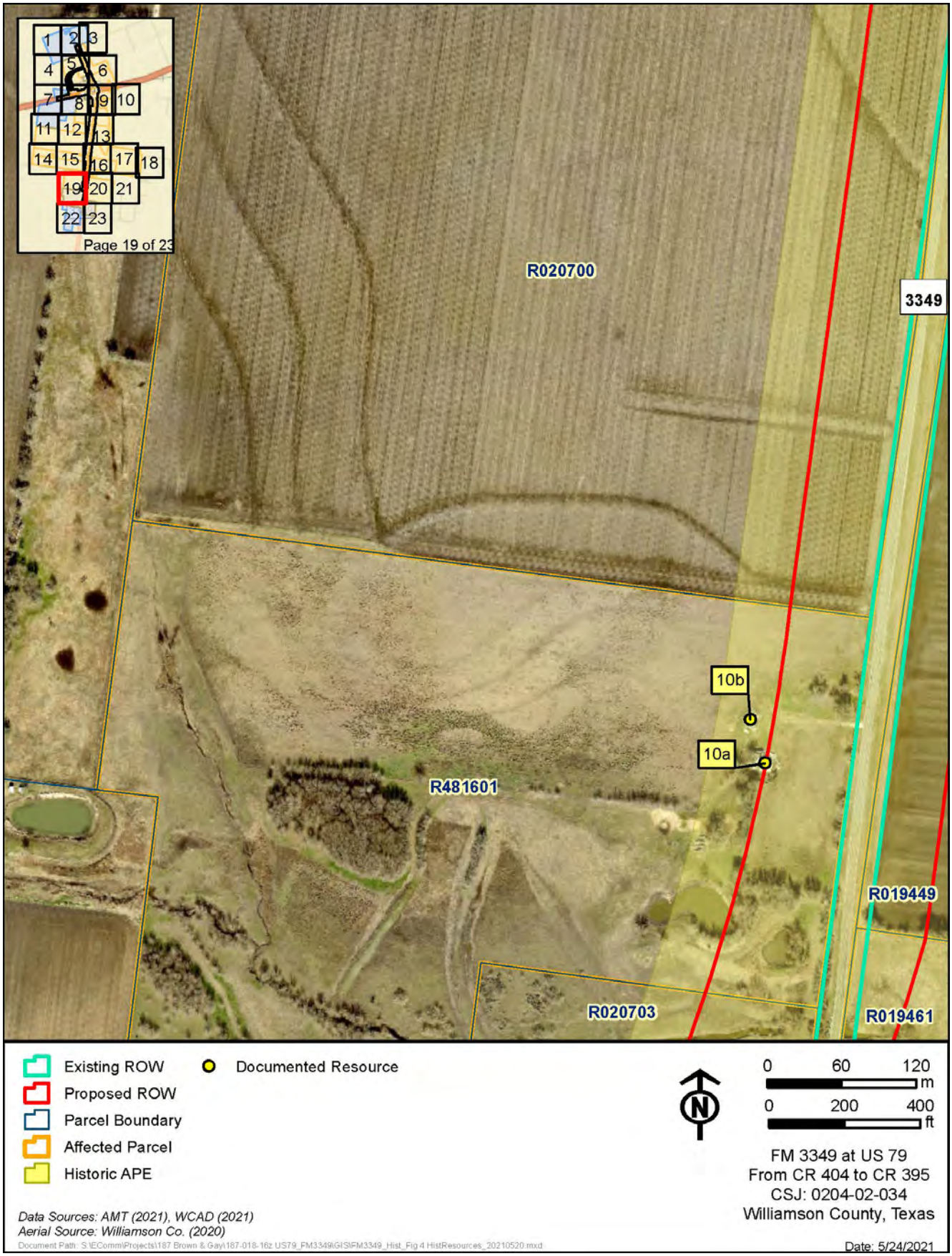


Figure 4s: Surveyed resource location map.

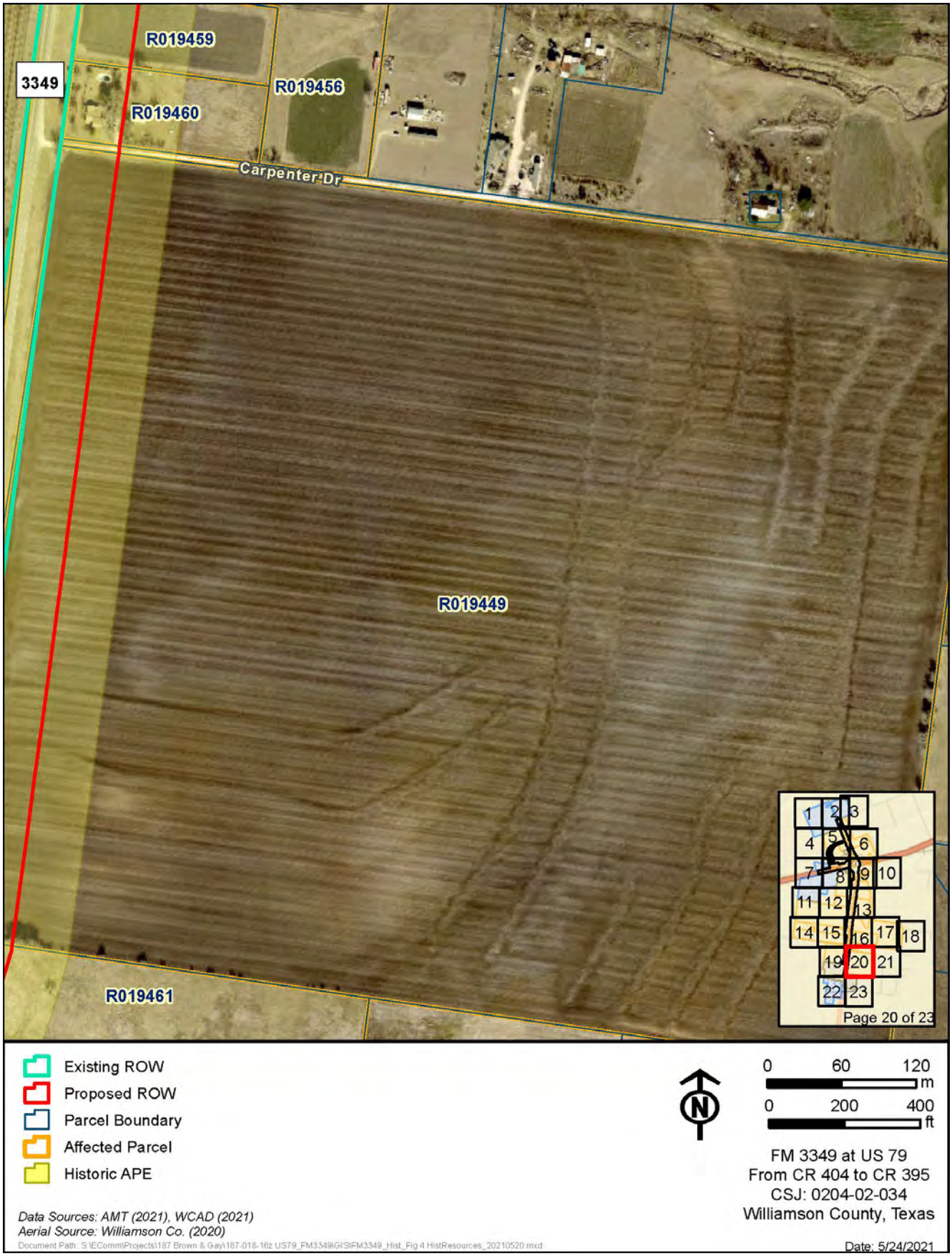


Figure 4t: Surveyed resource location map.

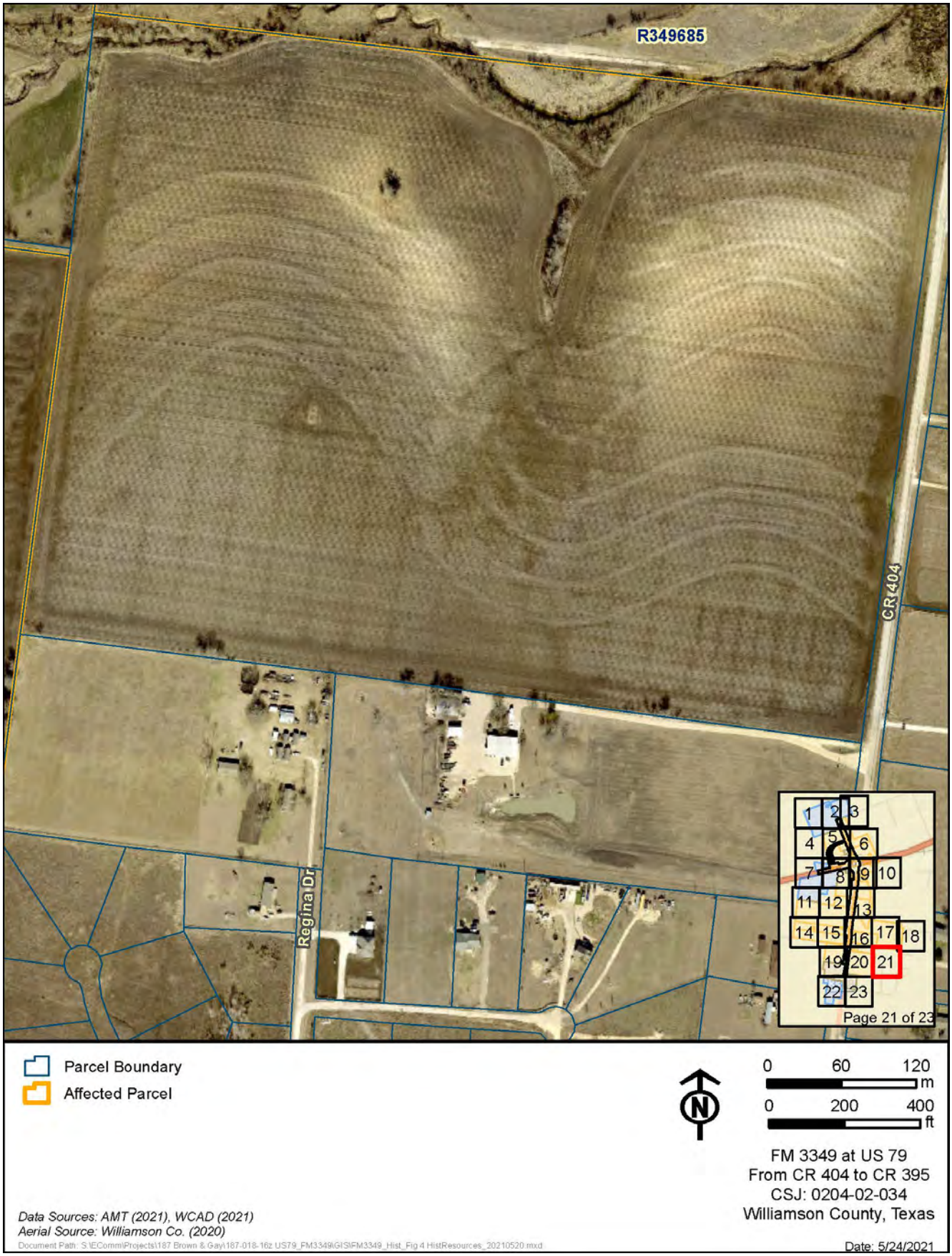


Figure 4u: Surveyed resource location map.

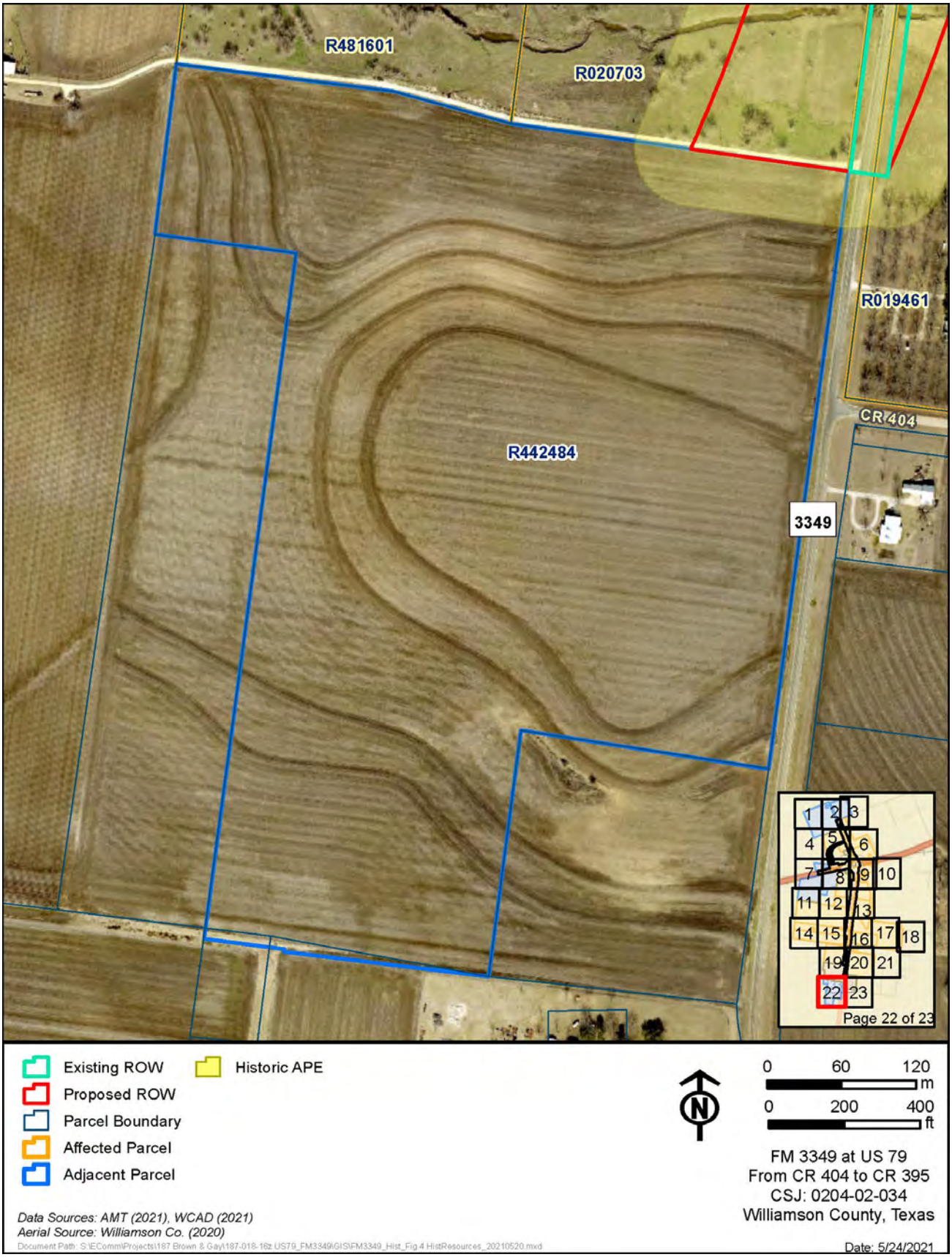
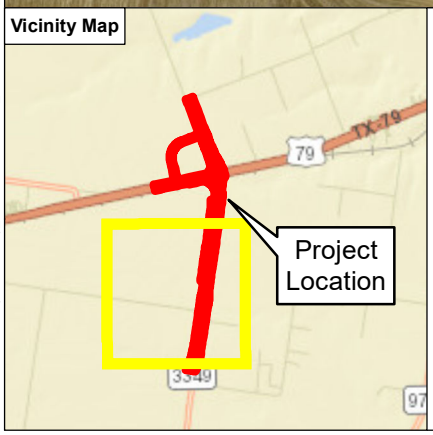


Figure 4v: Surveyed resource location map.

Figure 4w: Surveyed resource location map.

Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Section 4(f) Parcels
- Section 4(f) Protected Property
- Roadway
- Union Pacific Railroad

0 395 790
Feet

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Section 4(f) Protected Property Map

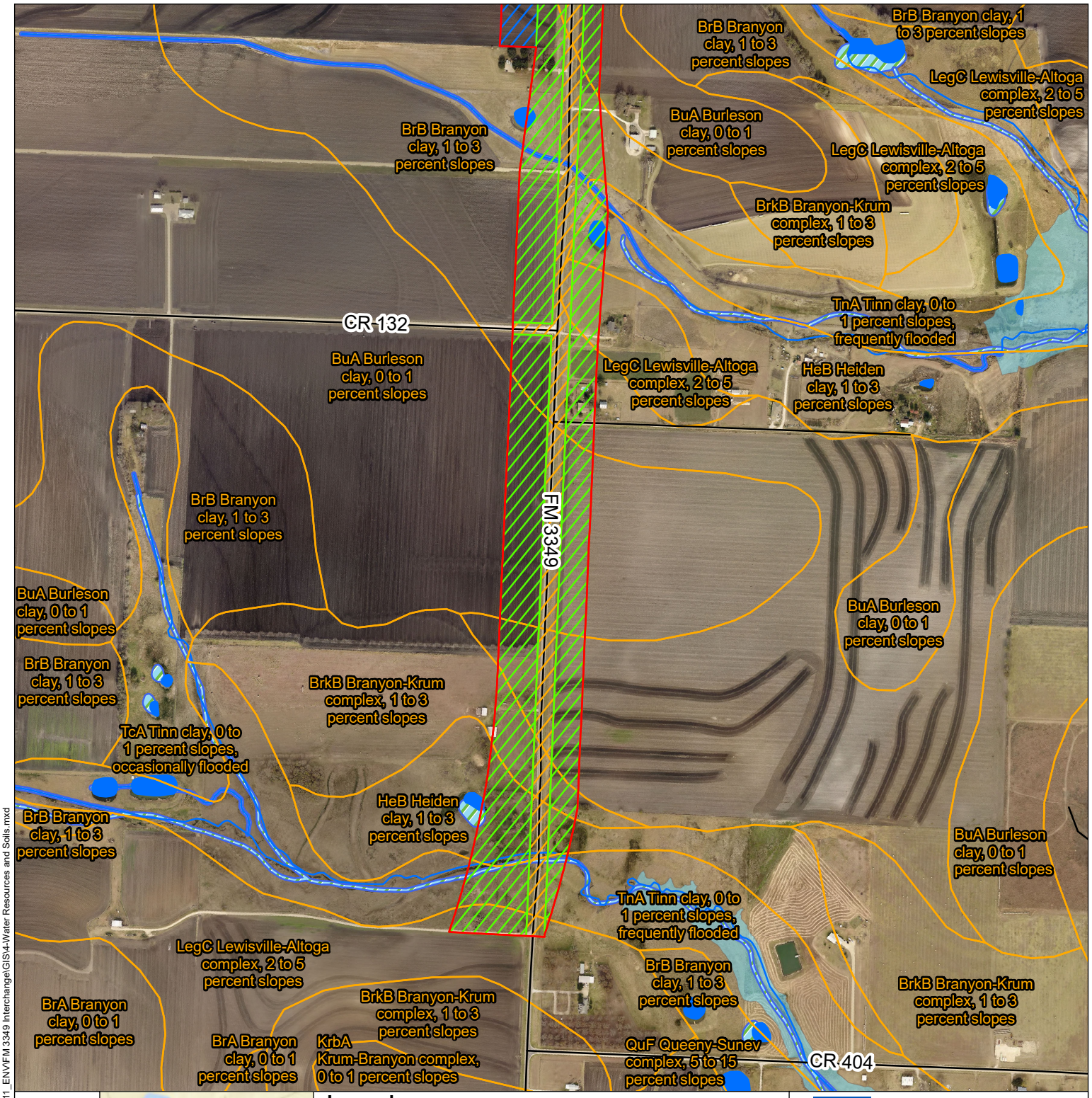
Williamson County, TX
CSJ: 0204-02-034

July 2021 | Proj. No: 4705-03

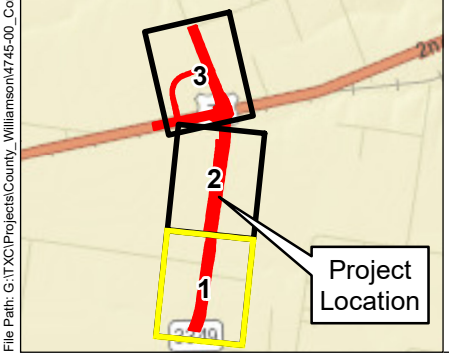
File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\12- Section 4(f) Protected Property.mxd

GIS Analyst: afash

Data Source: Wiliamson County 2018



Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Roadway
- Soil Unit (NRCS)
- Stream (NHD)
- Waterbody (NHD)
- Wetland (NWI)
- 100-year Flooplain

FEMA FIRM panels:
48491C0510F and
48491C0520F
eff. 12/20/2019

0 300 600
Feet

Page 1

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Water Resources and Soils Map Book

Williamson County, TX
CSJ: 0204-02-034

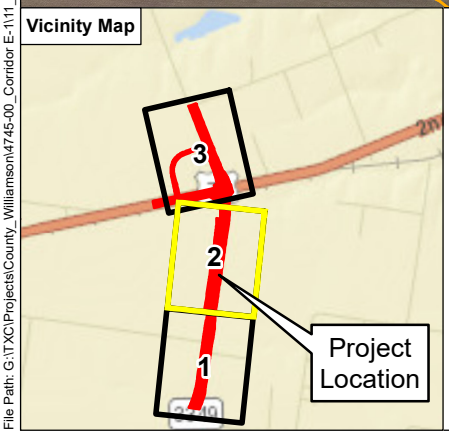
July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\4-Water Resources and Soils.mxd

GIS Analyst: smartineau

Data Source: FEMA 2019, NHD 2020, NRCS 2020, TxDOT 2019, WCAD 2019

Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Roadway
- Union Pacific Railroad
- Soil Unit (NRCS)
- Stream (NHD)
- Waterbody (NHD)
- Wetland (NWI)
- 100-year Flooplain

FEMA FIRM panels:
48491C0510F and
48491C0520F
eff. 12/20/2019

N

0 300 600
Feet

Page 2

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Water Resources and Soils Map Book

Williamson County, TX
CSJ: 0204-02-034

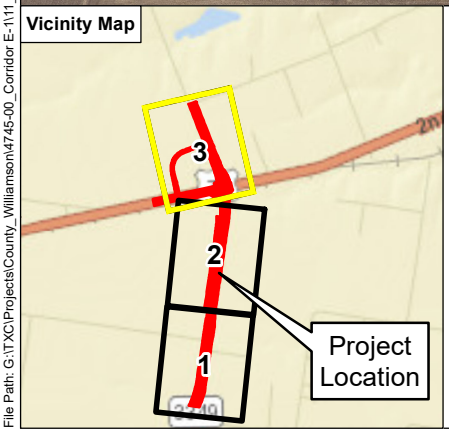
February 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\4-Water Resources and Soils.mxd

GIS Analyst: smartineau

Data Source: FEMA 2019, NHD 2020, NRCS 2020, TxDOT 2019, WCAD 2019

Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Roadway
- Union Pacific Railroad
- Soil Unit (NRCS)
- Stream (NHD)
- Waterbody (NHD)
- Wetland (NWI)
- 100-year Flooplain

FEMA FIRM panels:
48491C0510F and
48491C0520F
eff. 12/20/2019

0 300 600
Feet

Page 3

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Water Resources and Soils Map Book

Williamson County, TX
CSJ: 0204-02-034

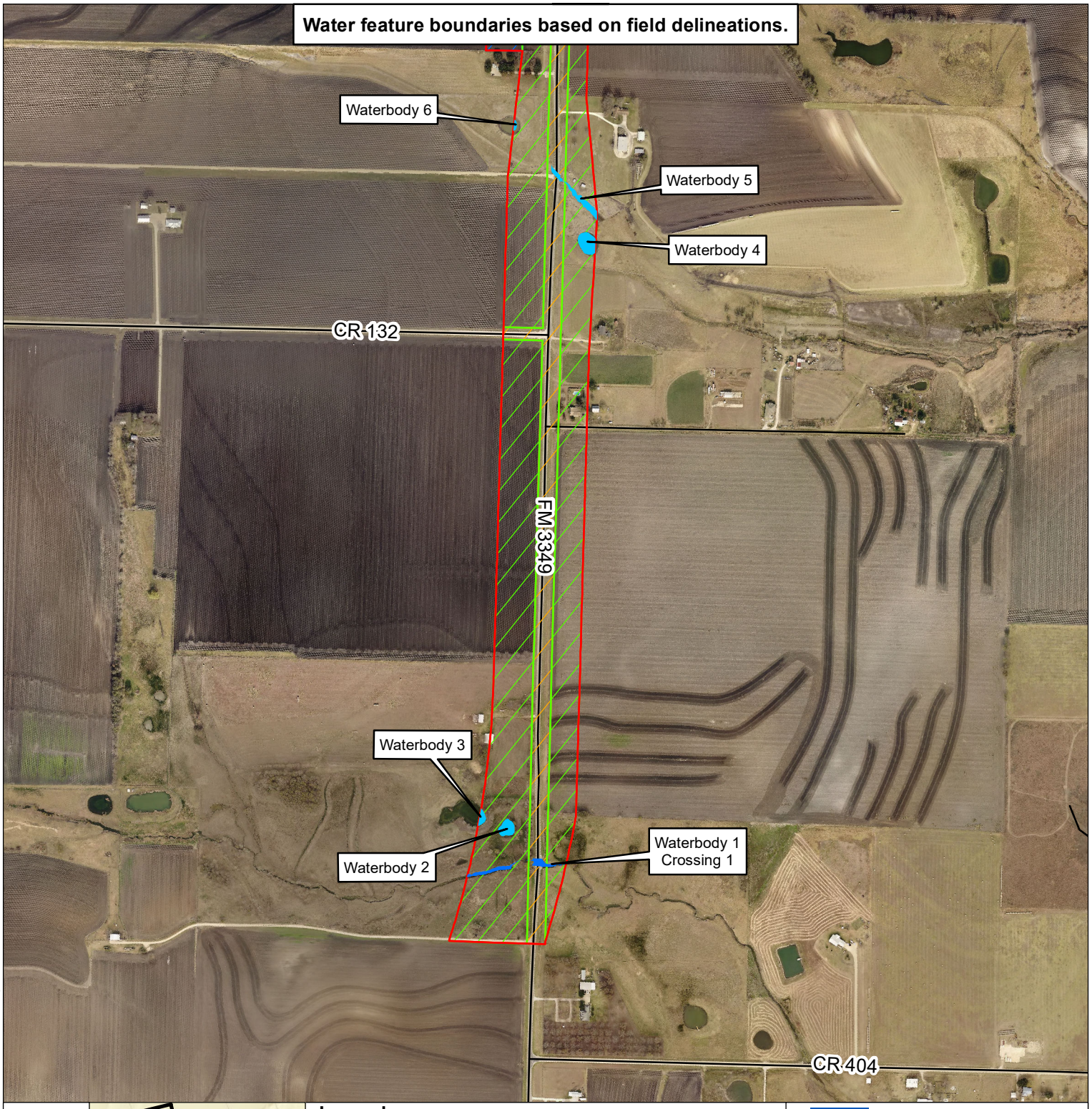
February 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\4-Water Resources and Soils.mxd

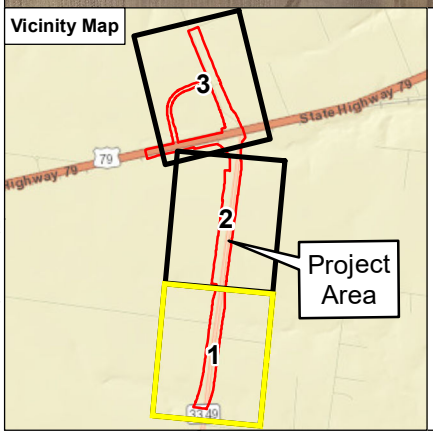
GIS Analyst: smartineau

Data Source: FEMA 2019, NHD 2020, NRCS 2020, TxDOT 2019, WCAD 2019

Water feature boundaries based on field delineations.



Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Non-Jurisdictional Feature
- Section 404 Jurisdictional Feature
- Roadway
- Union Pacific Railroad

0 250 500
Feet

No Section 10 navigable waters of the U.S. occur within the Project Area.

Page 1 of 3

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Observed Water Features Map Book

Williamson County, TX
CSJ: 0204-02-034

Date: July 2021 | Proj. No: 4705-03

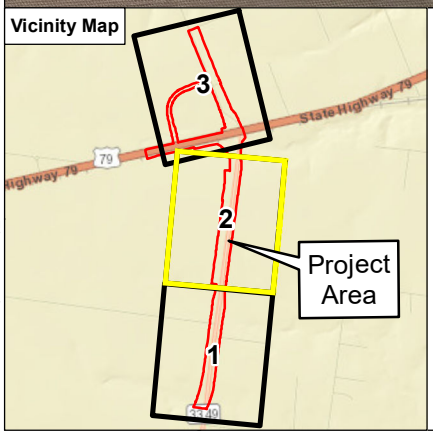
File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-I-111_ENV\FM 3349 Interchange\GIS\5-Observed Water Features.mxd

GIS Analyst: jhall2

Data Source: NHD 2020, NRCS 2020, Williamson County 2019, TxDOT 2019

Water feature boundaries based on field delineations.

Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Non-Jurisdictional Feature
- Section 404 Jurisdictional Feature
- Roadway
- Union Pacific Railroad

0 250 500
Feet

No Section 10 navigable waters of the U.S. occur within the Project Area.

Page 2 of 3

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Observed Water Features Map Book

Williamson County, TX
CSJ: 0204-02-034

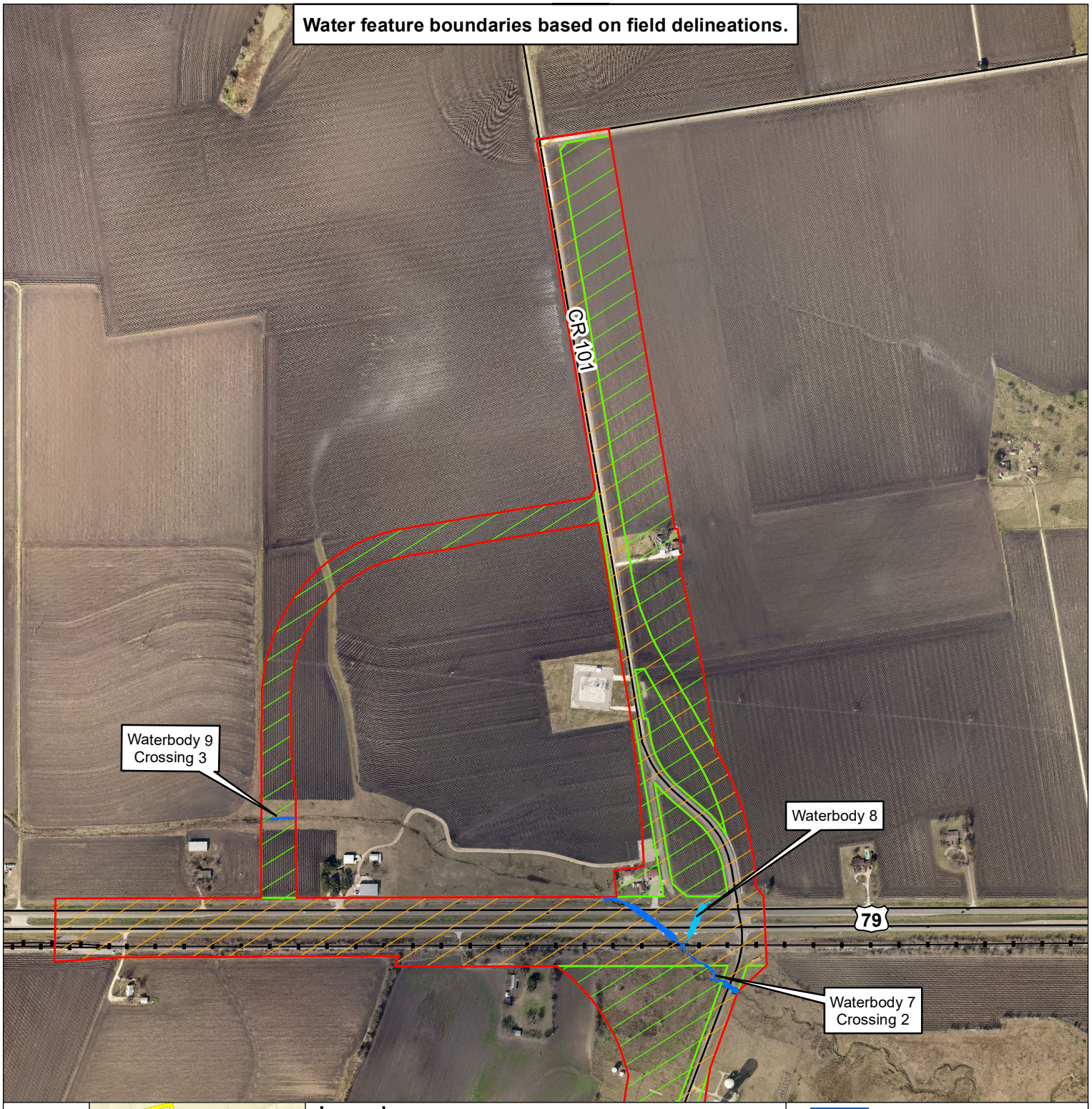
Date: December 2020 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\5-Observed Water Features.mxd

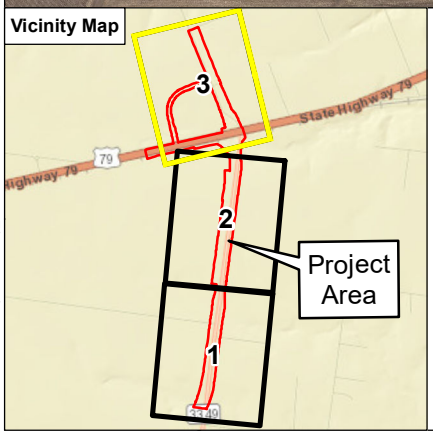
GIS Analyst: jhall2

Data Source: NHD 2020, NRCS 2020, Williamson County 2019, TxDOT 2019

Water feature boundaries based on field delineations.



Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Non-Jurisdictional Feature
- Section 404 Jurisdictional Feature
- Roadway
- Union Pacific Railroad

0 250 500
Feet

No Section 10 navigable waters of the U.S. occur within the Project Area.

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Observed Water Features Map Book

Williamson County, TX
CSJ: 0204-02-034

Date: December 2020 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\5-Observed Water Features.mxd

GIS Analyst: jhall2

Data Source: NHD 2020, NRCS 2020, Williamson County 2019, TxDOT 2019

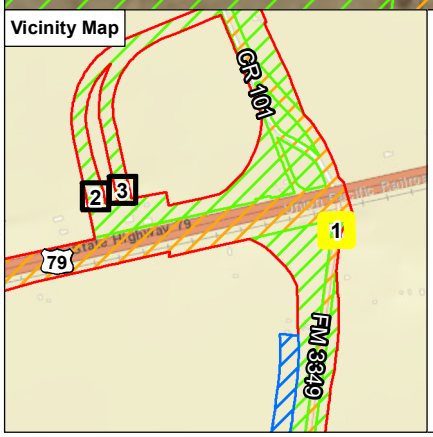
Water feature boundaries based on field delineations.

Waterbody 4
Crossing 1

FM 3349

Permanent impacts would result from removal of an existing culvert. Temporary impacts resulting from incidental fall back are anticipated within 25 feet of culvert removal.

Vicinity Map



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Jurisdictional Feature
- Permanent 404 Impacts
- Temporary 404 Impacts
- Roadway

0 15 30
Feet

No Section 10 waters will be impacted by the proposed project.

Page 1 of 3

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Section 404/10 Impacts Map Book

Williamson County, TX
CSJ: 0204-02-034

Date: July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\6-Section404ImpactsMapBook.mxd

GIS Analyst: rpetrosky

Data Source: NHD 2020, NRCS 2020, Williamson County 2019, TxDOT 2019

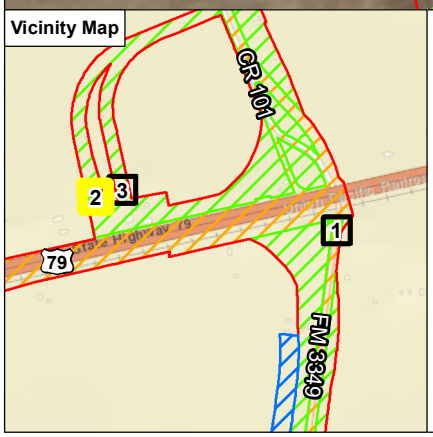
Water feature boundaries based on field delineations.

Option 2

Waterbody 6
Crossing 2

Permanent impacts would result from installation of a proposed culvert. Temporary impacts resulting from incidental fall back are anticipated within 25 feet of culvert installation.

Vicinity Map



Legend

- Project Area
- Proposed ROW
- Jurisdictional Feature
- Permanent 404 Impacts
- Temporary 404 Impacts

0 15 30
Feet

No Section 10 waters will be impacted by the proposed project.

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Section 404/10 Impacts Map Book

Williamson County, TX
CSJ: 0204-02-034

Date: October 2020 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\6-Section404ImpactsMapBook.mxd

GIS Analyst: rpetrosky

Data Source: NHD 2020, NRCS 2020, Williamson County 2019, TxDOT 2019

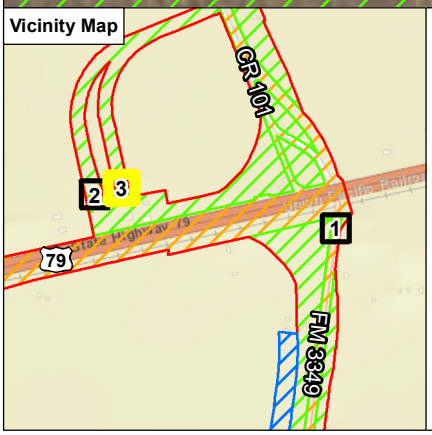
Water feature boundaries based on field delineations.

Option 2

Waterbody 6
Crossing 2

Permanent impacts would result from installation of a proposed culvert. Temporary impacts resulting from incidental fall back are anticipated within 25 feet of culvert installation.

Vicinity Map



Legend

- Project Area
- Proposed ROW
- Jurisdictional Feature
- Permanent 404 Impacts
- Temporary 404 Impacts

0 15 30
Feet

No Section 10 waters will be impacted by the proposed project.

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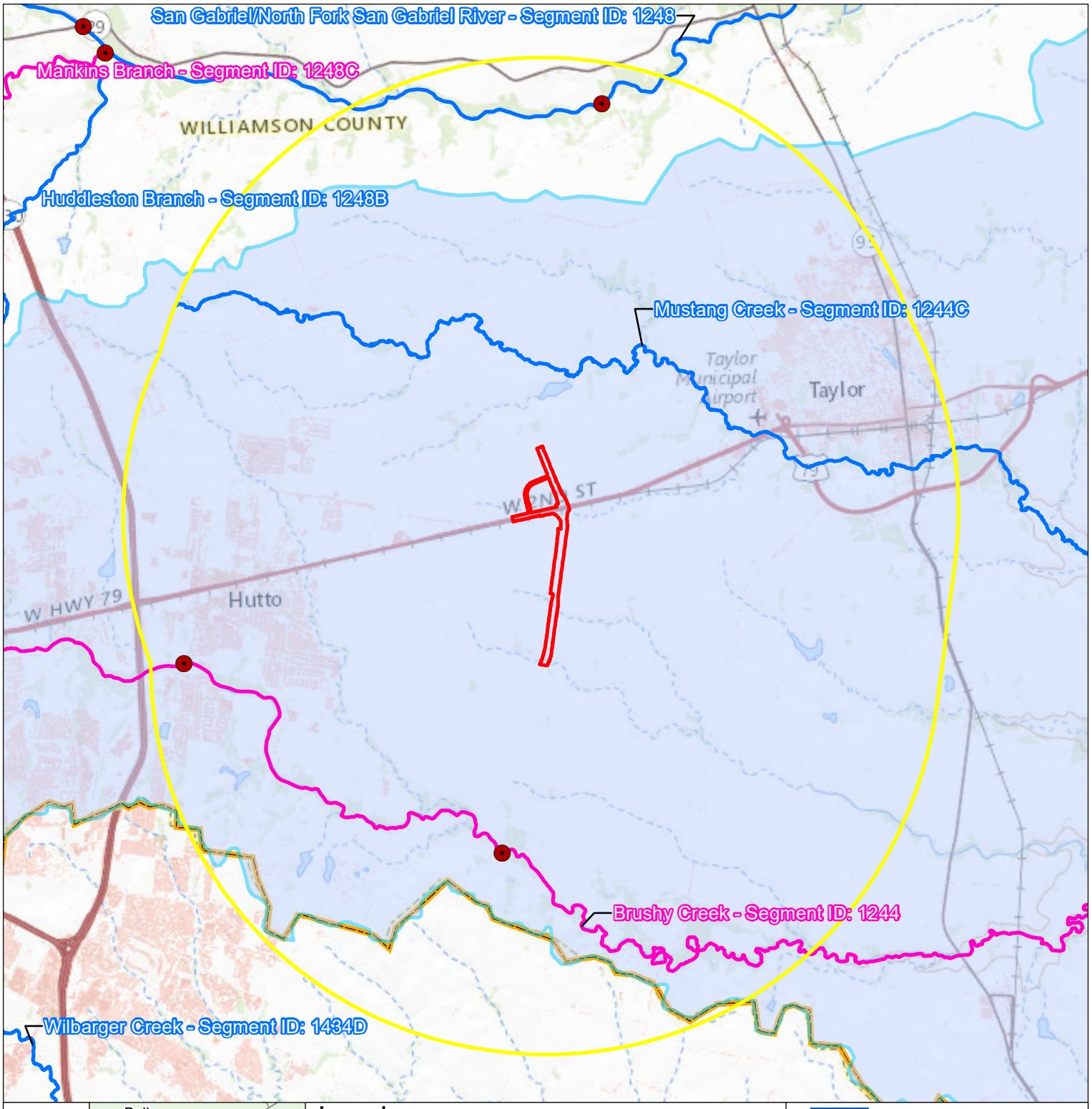
Section 404/10
Impacts Map Book
Williamson County, TX
CSJ: 0204-02-034

Date: October 2020 | Proj. No: 4705-03

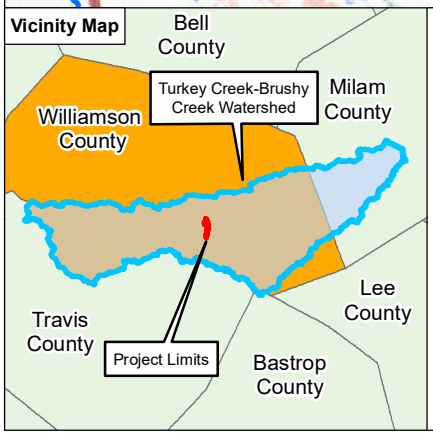
File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\6-Section404ImpactsMapBook.mxd

GIS Analyst: rpetrosky

Data Source: NHD 2020, NRCS 2020, Williamson County 2019, TxDOT 2019



Vicinity Map



Legend

- Project Area
- 5-mile Buffer
- SWQM Station (Active)
- TCEQ Stream Segment
- TCEQ Stream Segment Impaired
- Turkey Creek-Brushy Creek Watershed
- County Line

0 0.5 1 Miles

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TCEQ Surface Water Quality Map

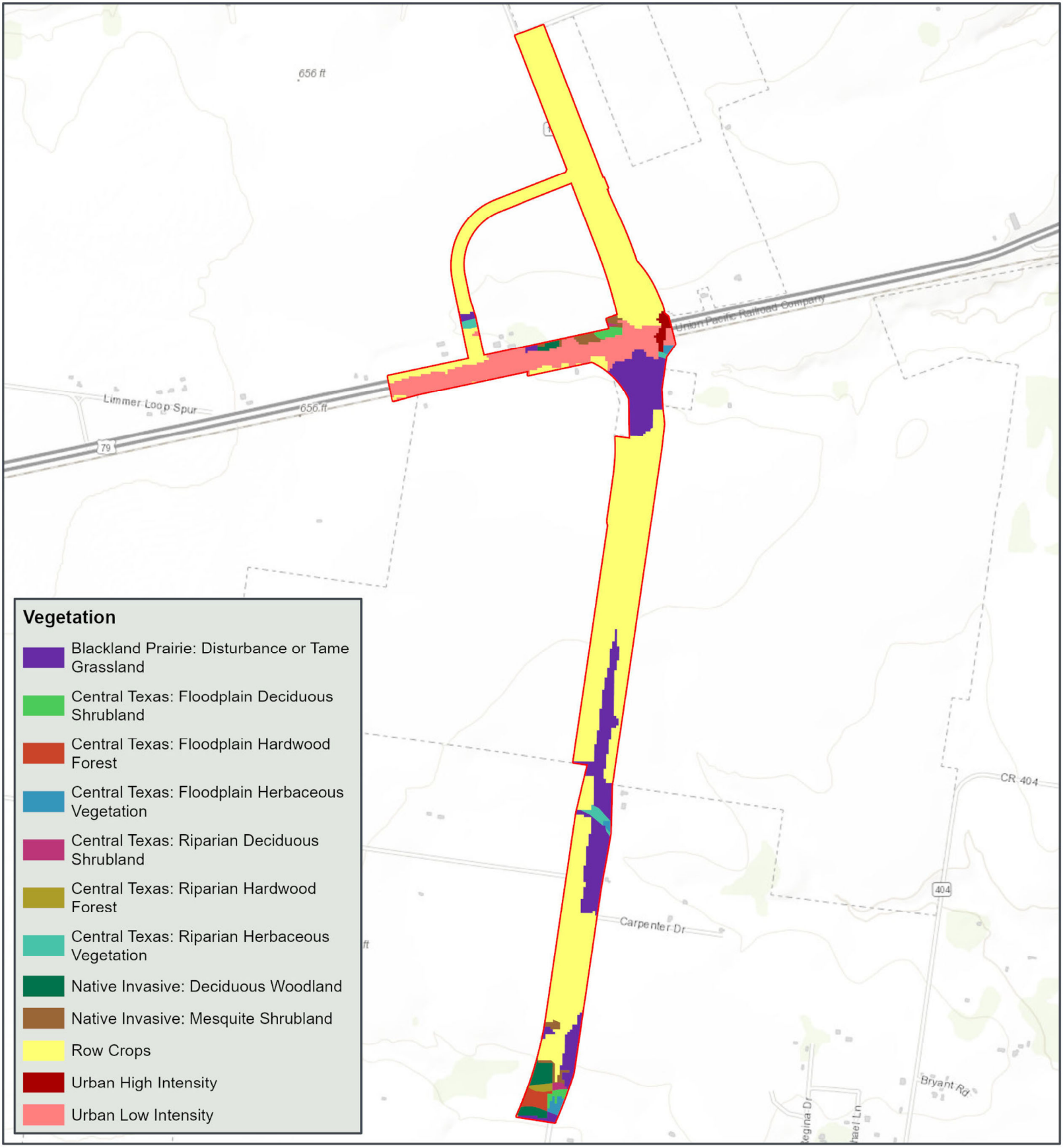
Williamson County, TX
CSJ: 0204-02-034

Date: July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\TCEQ Surface Water Quality Map_07-6-2021.mxd

GIS Analyst: jhall2

Data Source: Wiliamson County 2018



FM 3349 AT US 79

TPWD Ecological Mapping System Map

Project Area

Williamson County, TX
USGS 7.5' Quadrangle:
Taylor, TX, 30097-E4

NAD 1983 UTM Zone 14N
97.4889°W 30.5449°N

Base Map: ESRI ArcGIS Online, accessed January 2021

Updated: 1/21/2021
Project No. 59147.04
File: 59147_04 TPWD EMST

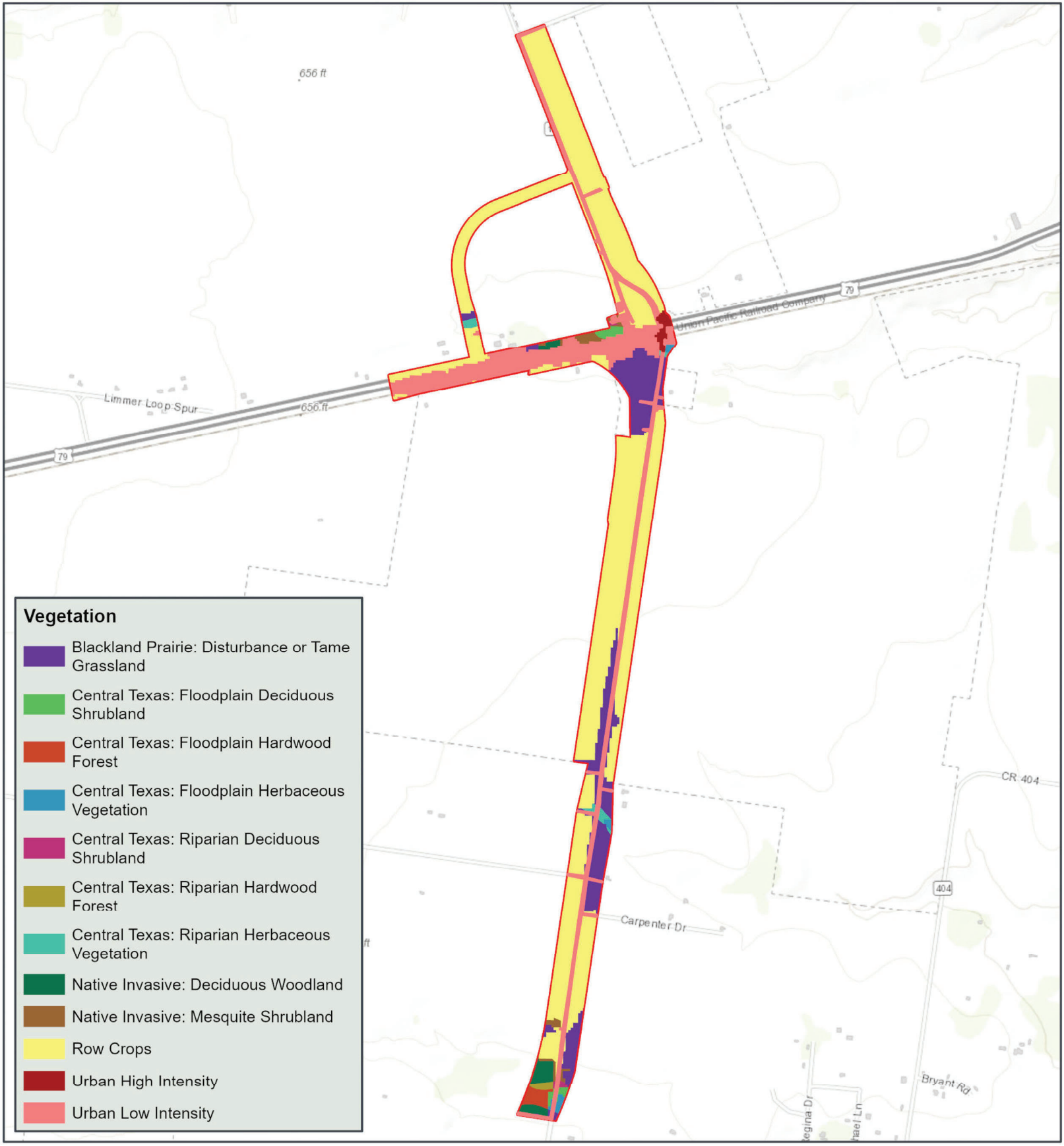
N

1:27,000

0 1,000 2,000 Feet

0 360 720 Meters

SWCA ENVIRONMENTAL CONSULTANTS



FM 3349 AT US 79

Observed TPWD Ecological Mapping System Map

Project Area

Williamson County, TX
USGS 7.5' Quadrangle:
Taylor, TX, 30097-E4

NAD 1983 UTM Zone 14N
97.4889°W 30.5449°N

Base Map: ESRI ArcGIS Online, accessed July 2021

Updated: 7/8/2021
Project No. 59147.04
File: 59147_04 TPWD EMST

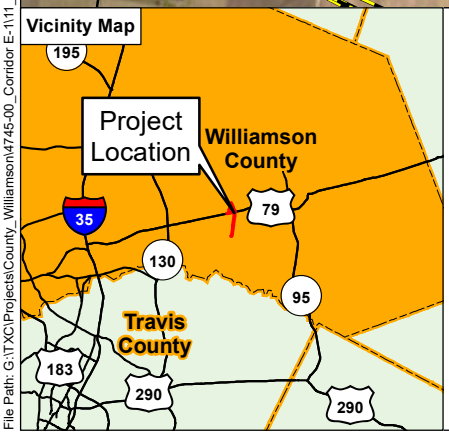
N

1:27,000

0 1,000 2,000 Feet

0 360 720 Meters

SWCA
ENVIRONMENTAL CONSULTANTS



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- Hazardous Materials Map ID
- Oil/Gas Pipeline
- Roadway
- Union Pacific Railroad

N

0 1,000 2,000
Feet

BGE, Inc.
101 West Louis Henna Blvd, Suite 400
Austin, TX 78728
Tel: 512-879-0400 Fax: 512-879-0499
www.bgeinc.com

FM 3349 at US 79

Hazardous Materials ISA Map

Williamson County, TX
CSJ: 0204-02-034

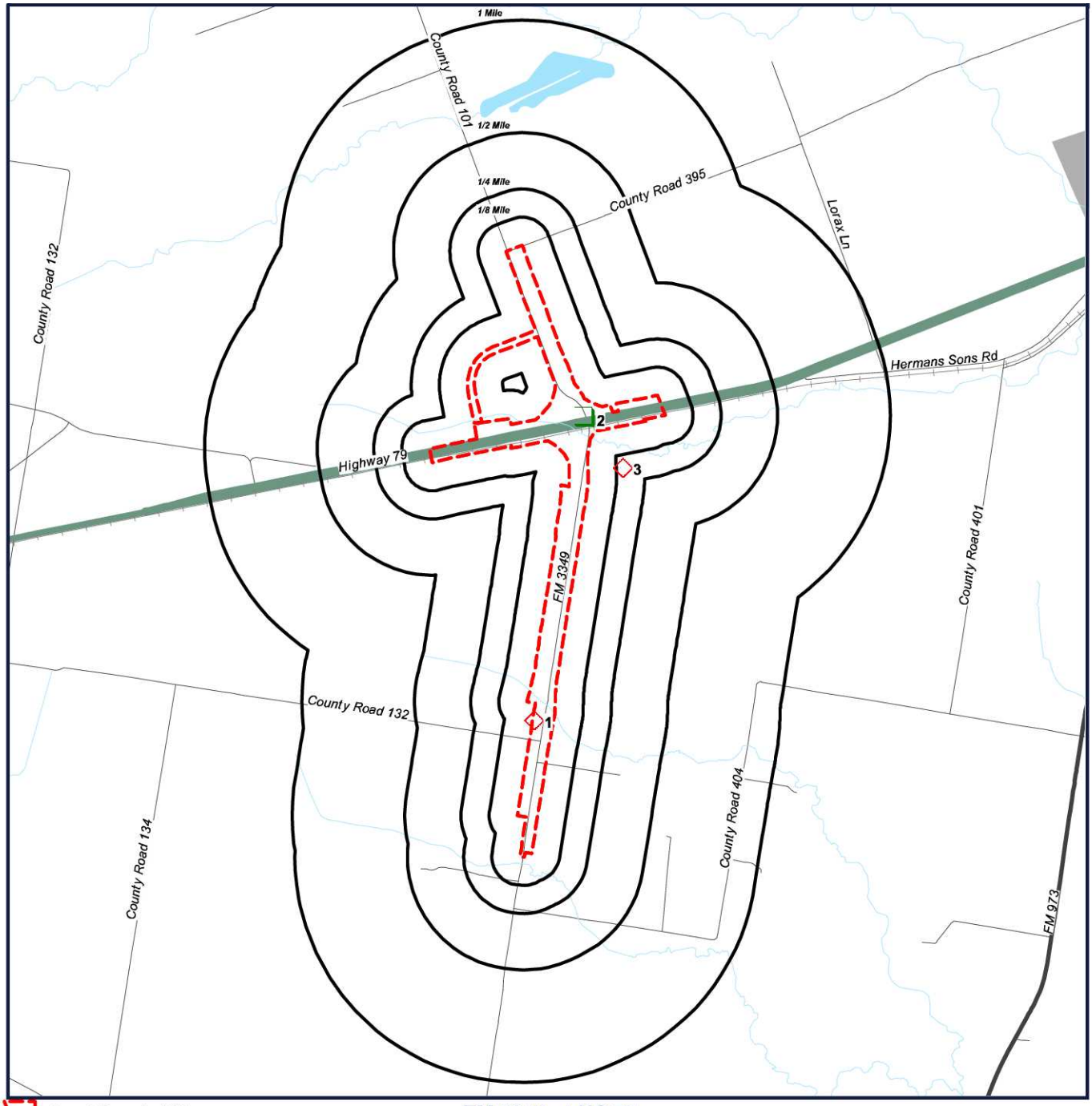
Date: July 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\7-Hazardous Materials ISA Map.mxd

GIS Analyst: smartineau

Data Source: Wiliamson County 2019, TRRC 2020, GeoSearch 2020

Radius Map 1



Target Property (TP)
PST
FRSTX

FM 3349 at US 79
US-79 & FM3349
Taylor, Texas
78634

N
W E
S

0' 1800' 3600' 5400'
SCALE: 1" = 3600'

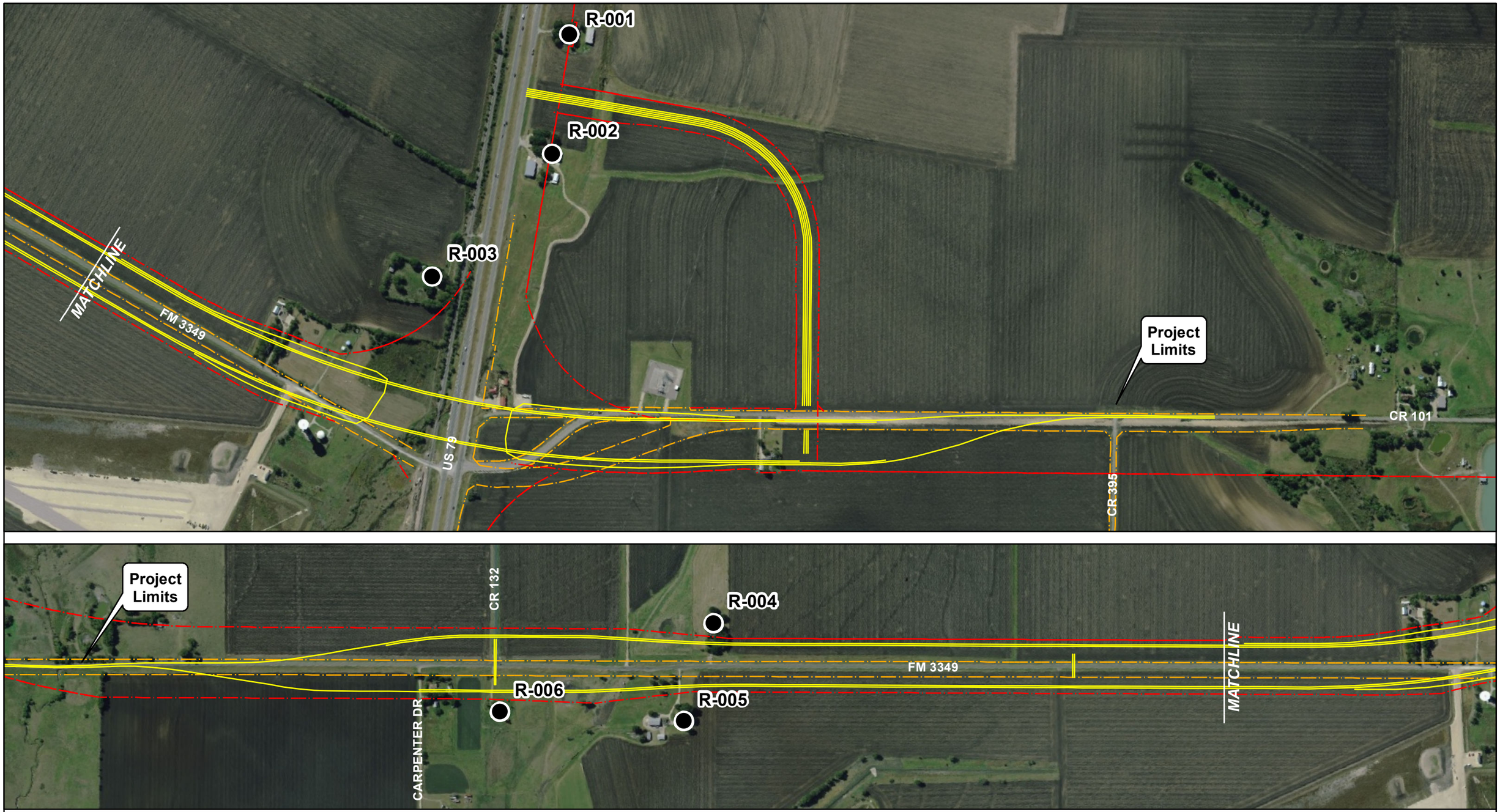


FIGURE 1:
Noise Analysis Results

FM 3349 at US 79
Williamson County, Texas

Noise_Receptors

R-# : Not Impacted

Proposed Improvements

Proposed Right of Way

Existing Right of Way

0 330 660 990 1,320 Feet

Appendix F – Resource Agency Coordination

To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Subject: RE: TPWD Early Coordination: FM 3349 at US 79, Williamson County (CSJ 0204-02-034, etc)

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Thanks!

Texas Department of Transportation
Hilda Ortiz | Environmental Program Manager
Austin District
7901 N IH 35, Austin, Texas 78753
Phone: (512) 832-7387 | Email: hilda.ortiz@txdot.gov

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Monday, August 16, 2021 8:38 AM
To: Hilda Ortiz <Hilda.Ortiz@txdot.gov>
Cc: JHall2@bgeinc.com; TMosier@bgeinc.com
Subject: RE: TPWD Early Coordination: FM 3349 at US 79, Williamson County (CSJ 0204-02-034, etc)

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Hi Hilda,

I have a few projects in my queue ahead of your FM 3349 at US 79 project that I am working on. I should be able to get back to your project later this week. I will let you know if I need anything else. Thank you for your patience.

Thanks,
Suzanne

From: Hilda Ortiz <Hilda.Ortiz@txdot.gov>
Sent: Wednesday, August 11, 2021 6:14 PM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: JHall2@bgeinc.com; TMosier@bgeinc.com
Subject: RE: TPWD Early Coordination: FM 3349 at US 79, Williamson County (CSJ 0204-02-034, etc)

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From: Hilda Ortiz <Hilda.Ortiz@txdot.gov>
Sent: Friday, August 27, 2021 2:27 PM
To: Suzanne Walsh (Suzanne.Walsh@tpwd.texas.gov)
Cc: Jeff Hall
Subject: RE: TPWD Early Coordination: FM 3349 at US 79, Williamson County (CSJ 0204-02-034, etc)
Attachments: 020402034 Revised AppD2- SGCN Tab - August 2021.pdf; 020402034 Revised Tier I Site Assessment August 2021.pdf

Hello Suzanne,

Please, see responses to your comments/questions below (in blue). Attached a *revised Species Analysis Spreadsheet SGCN Tab* and *revised Tier I Site Assessment*.

- TPWD recommends applying the Bird BMPs as outlined in the 2017 BMP PA to the following species: chestnut-collared longspur, lark bunting Updated as indicated

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- The use of any non-native vegetation in revegetation is discouraged. Locally adapted native species should be used. The use of seed mix that contains seeds from only locally adapted native species is recommended. Added BMP discussion to the Tier I Site Assessment.

- Please note that the American badger and thirteen-lined squirrel have been removed as SGCNs from Williamson County RTEST. Updated species profiles Species Analysis Spreadsheet SGCN tab to indicate "No Impact" and that "This species is removed from the Williamson County RTEST"

Thank you,

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7901 N IH 35, Austin, Texas 78753
Phone: (512) 832-7387 | Email: hilda.ortiz@txdot.gov

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Friday, August 20, 2021 3:45 PM
To: Hilda Ortiz <Hilda.Ortiz@txdot.gov>
Subject: RE: TPWD Early Coordination: FM 3349 at US 79, Williamson County (CSJ 0204-02-034, etc)

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Hilda,

Thank you for your patience. Please see comments below and let me know if you have any questions.

Thanks,
Suzanne

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- The use of any non-native vegetation in revegetation is discouraged. Locally adapted native species should be used. The use of seed mix that contains seeds from only locally adapted native species is recommended.

- Please note that the American badger and thirteen-lined squirrel have been removed as SGCNs from Williamson County RTEST.

From: Hilda Ortiz <Hilda.Ortiz@txdot.gov>
Sent: Monday, August 16, 2021 8:43 AM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Subject: RE: TPWD Early Coordination: FM 3349 at US 79, Williamson County (CSJ 0204-02-034, etc)

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Sent: Friday, August 27, 2021 3:05 PM
To: Hilda Ortiz
Cc: Jeff Hall
Subject: RE: TPWD Early Coordination: FM 3349 at US 79, Williamson County (CSJ 0204-02-034, etc)

Hilda,

Thank you for submitting the following project for early coordination: FM 3349 at US 79 (CSJ: 0204-02-034). TPWD appreciates TxDOT's commitment to implement the practices listed in the Tier I Site Assessment form submitted on July 8, 2021 and in emails below. Based on a review of the documentation, the avoidance and mitigation efforts described, and provided that project plans do not change, TPWD considers coordination to be complete. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect plants, fish, and wildlife.

According to §2.204(g) of the 2013 TxDOT-TPWD MOU, TxDOT agreed to provide TXNDD reporting forms for observations of tracked SGCN (which includes federal- and state-listed species) occurrences within TxDOT project areas. Please keep this mind when completing project due diligence tasks. For TXNDD submission guidelines, please visit the following link: http://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml

Sincerely,

Suzanne Walsh
Transportation Conservation Coordinator
(512) 389-4579

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Sent: Wednesday, August 11, 2021 6:14 PM

CSJ: 0204-02-034 – FM 3349 at US 79

TPWD 2013 MOU Best Management Practices 2017 Revision – BMPs

The following BMPs will be implemented for the SGCN listed per the TxDOT-TPWD BMP PA under the 2013 MOU – 2017 Revision.

For the **southern crawfish frog** (*Lithobates areolatus areolatus*):

1. Minimize impacts to wetland habitats including isolated ephemeral pools.
2. Water Quality BMPs
    - Minimize use of equipment in streams and riparian areas during construction. When possible, equipment access should be from banks, bridges, or barges.
    - When temporary stream crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.
3. Amphibian BMPs
    - For projects within one mile of a known occupied location or observation of the species recorded from 1980 until the current year and suitable habitat is present, coordinate with TPWD.
    - For new location roadway projects, coordinate with TPWD.
    - For projects within existing ROW when work is in water or will permanently impact a water feature and potential habitat exists for the target species complete the following:
        1. Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
        2. Minimize impacts to wetland, temporary and permanent open water features, including depressions, and riverine habitats.
        3. Maintain hydrologic regime and connections between wetlands and other aquatic features.
        4. Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in construction areas directly adjacent, or that may directly impact, potential habitat for the target species.
        5. 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, using erosion control blankets or mats that contain no netting, or only contain loosely woven natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable.
        6. Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features.
        7. When work is directly adjacent to the water, minimize impacts to shoreline basking sites (e.g. downed trees, sand bars, exposed bedrock) and overwinter sites (e.g. brush and debris piles, crayfish burrows) where feasible.
        8. Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may be refugia for terrestrial amphibians, where feasible.
        9. If gutters and curbs are part of the roadway design, where feasible install gutters that do not include the side box inlet and include sloped (i.e., mountable) curbs to allow small animals to leave roadway. If this modification to the entire curb system is not possible, install sections of sloped curb on either side of the storm water drain for several feet to allow small animals to leave the roadway. Priority areas for these design recommendations are those with nearby wetlands or other aquatic features.

- For projects that require acquisition or additional ROW and work within that new ROW is in water or will permanently impact a water feature, implement 1-9 above, plus 10-12 below, where applicable:
    1. For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barriers should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent features or 80 feet long in each direction, or whichever is the lesser of the two.
    2. For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wingwalls and barrier walls with overhangs.
    3. When riprap or other bank stabilization devices are necessary, their placement should not impede the movement of terrestrial or aquatic life through the water feature. Where feasible, biotechnical streambank stabilization methods using live native vegetation, or a combination of vegetative and structural materials should be used.

For the **cave myotis bat** (*Myotis velifer*) and the **big free-tailed bat** (*Nyctinomops macrotis*):

1. <u>Bat BMPs</u>
    - Direct contact with bats should include TPWD recommended white-nose syndrome protocols
    - The following survey and exclusion protocols should be followed prior to commencement of construction activities.
    - For activities that have potential to impact structures, cliffs or caves, or trees; a qualified biologist will perform a habitat assessment and occupancy survey of the features with roost potential as early in the planning process as possible or within one year before project letting.
    - For roosts where occupancy is strongly suggested but unconfirmed during the initial survey, revisit features at most four weeks prior to scheduled disturbance to confirm absence of bats.
    - If bats are present or recent signs of occupation (i.e. piles of guano, distinct musky odor, or staining and rub marks at potential entry points) are observed, take appropriate measures to ensure that bats are not harmed, such as implementing non-lethal exclusion activities or timing or phasing of construction.
    - Exclusion devices can be installed by a qualified individual between September 1 and March 31. Exclusion devices should be used for a minimum of seven days when minimum nighttime temperatures are above 50F AND minimum daytime temperatures are above 70F. Prior to exclusion, ensure that alternate roosting habitat is available in the immediate area. If no suitable roosting habitat is available, installation of alternate roosts is recommended to replace the loss of an occupied roost. If alternate roosts are not provided, bats may seek shelter in other inappropriate sites, such as buildings in the surrounding area.
    - If features used by bats are removed as a result of construction, replacement structures should incorporate bat friendly design or artificial roosts should be constructed to replace these features, as practicable.
    - Conversion of property containing cave or cliff features to transportation purposes should be avoided where feasible.
    - Avoid unnecessary removal of dead fronds on native or ornamental palm trees in south Texas (Cameron, Hidalgo, Willacy, Kenedy, Brooks, Kleberg, Nueces, San Patricio counties) from April 1 through October 31.

- Large hollow trees, snags (dead standing trees), and trees with shaggy bark should be surveyed for colonies and, if found, should not be disturbed until the bats are no longer occupying these features. Post-occupancy surveys should be conducted by a qualified biologist prior to tree removal from the landscape.
- Retain mature, large diameter hardwood forest species and native/ornamental palm trees where feasible.
- In all instances, avoid harm or death to bats. Bats should only be handled as a last resort and after communication with TPWD.

For the **Texas garter snake** (*Thamnophis sirtalis annectens*):

1. Terrestrial Reptile BMPs
    - 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 is preferred. Plastic netting should be avoided to the extent practicable.
    - 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.
    - Inform contractors that if reptiles are found on project site allow species to safely leave the project area.
    - Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible.
    - Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

The current 2017 revision of the BMP PA does not specify BMPs for all SGCN which may be impacted by the proposed project:

As these species are not covered under the BMP PA, TPWD coordination was conducted and the following additional BMPs will be implemented for the SGCN listed.

For the **Woodhouse's toad** (*Anaxyrus woodhousii*), and **Strecker's chorus frog** (*Pseudacris streckeri*):

1. Minimize impacts to wetland habitats including isolated ephemeral pools.
2. Water Quality BMPs
    - Minimize use of equipment in streams and riparian areas during construction. When possible, equipment access should be from banks, bridges, or barges.
    - When temporary stream crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.
3. Amphibian BMPs
    - For projects within one mile of a known occupied location or observation of the species recorded from 1980 until the current year and suitable habitat is present, coordinate with TPWD.
    - For new location roadway projects, coordinate with TPWD.
    - For projects within existing ROW when work is in water or will permanently impact a water feature and potential habitat exists for the target species complete the following:
        1. Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

2. Minimize impacts to wetland, temporary and permanent open water features, including depressions, and riverine habitats.
3. Maintain hydrologic regime and connections between wetlands and other aquatic features.
4. Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in construction areas directly adjacent, or that may directly impact, potential habitat for the target species.
5. 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, using erosion control blankets or mats that contain no netting, or only contain loosely woven natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable.
6. Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features.
7. When work is directly adjacent to the water, minimize impacts to shoreline basking sites (e.g. downed trees, sand bars, exposed bedrock) and overwinter sites (e.g. brush and debris piles, crayfish burrows) where feasible.
8. Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may be refugia for terrestrial amphibians, where feasible.
9. If gutters and curbs are part of the roadway design, where feasible install gutters that do not include the side box inlet and include sloped (i.e., mountable) curbs to allow small animals to leave roadway. If this modification to the entire curb system is not possible, install sections of sloped curb on either side of the storm water drain for several feet to allow small animals to leave the roadway. Priority areas for these design recommendations are those with nearby wetlands or other aquatic features.

- For projects that require acquisition or additional ROW and work within that new ROW is in water or will permanently impact a water feature, implement 1-9 above, plus 10-12 below, where applicable:
    1. For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barriers should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent features or 80 feet long in each direction, or whichever is the lesser of the two.
    2. For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wingwalls and barrier walls with overhangs.
    3. When riprap or other bank stabilization devices are necessary, their placement should not impede the movement of terrestrial or aquatic life through the water feature. Where feasible, biotechnical streambank stabilization methods using live native vegetation, or a combination of vegetative and structural materials should be used.

For the **chestnut-collared longspur** (*Calcarius ornatus*), and **lark bunting** (*Calamospiza melanocorys*):

<u>Bird BMPs:</u>

1. In addition to complying with the Migratory Bird Treaty Act, perform the following BMPs:
    - Prior to construction, perform daytime nest surveys including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be disturbed.

- Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season.
- Avoid removal of unoccupied, inactive nests, as practicable.
- Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair.
- Do not collect, capture, relocate, or transport bird eggs, young, or active nests without a permit.

For the **tricolored bat** (*Perimyotis subflavus*) and **Mexican free-tailed bat** (*Tadarida brasiliensis*):

1. Bat BMPs
    - Direct contact with bats should include TPWD recommended white-nose syndrome protocols
    - The following survey and exclusion protocols should be followed prior to commencement of construction activities.
    - For activities that have potential to impact structures, cliffs or caves, or trees; a qualified biologist will perform a habitat assessment and occupancy survey of the features with roost potential as early in the planning process as possible or within one year before project letting.
    - For roosts where occupancy is strongly suggested but unconfirmed during the initial survey, revisit features at most four weeks prior to scheduled disturbance to confirm absence of bats.
    - If bats are present or recent signs of occupation (i.e. piles of guano, distinct musky odor, or staining and rub marks at potential entry points) are observed, take appropriate measures to ensure that bats are not harmed, such as implementing non-lethal exclusion activities or timing or phasing of construction.
    - Exclusion devices can be installed by a qualified individual between September 1 and March 31. Exclusion devices should be used for a minimum of seven days when minimum nighttime temperatures are above 50F AND minimum daytime temperatures are above 70F. Prior to exclusion, ensure that alternate roosting habitat is available in the immediate area. If no suitable roosting habitat is available, installation of alternate roosts is recommended to replace the loss of an occupied roost. If alternate roosts are not provided, bats may seek shelter in other inappropriate sites, such as buildings in the surrounding area.
    - If features used by bats are removed as a result of construction, replacement structures should incorporate bat friendly design or artificial roosts should be constructed to replace these features, as practicable.
    - Conversion of property containing cave or cliff features to transportation purposes should be avoided where feasible.
    - Avoid unnecessary removal of dead fronds on native or ornamental palm trees in south Texas (Cameron, Hidalgo, Willacy, Kenedy, Brooks, Kleberg, Nueces, San Patricio counties) from April 1 through October 31.
    - Large hollow trees, snags (dead standing trees), and trees with shaggy bark should be surveyed for colonies and, if found, should not be disturbed until the bats are no longer occupying these features. Post-occupancy surveys should be conducted by a qualified biologist prior to tree removal from the landscape.
    - Retain mature, large diameter hardwood forest species and native/ornamental palm trees where feasible.

- In all instances, avoid harm or death to bats. Bats should only be handled as a last resort and after communication with TPWD.

For the **swamp rabbit** (*Sylvilagus aquaticus*), **long-tailed weasel** (*Mustela frenata*), **eastern spotted skunk** (*Spilogale putorius*), and **western hog-nosed skunk** (*Conepatus leuconotus*)**:**

1. 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.
2. <u>Fossorial Mammal BMPs:</u>
   - If black tailed prairie dog (BTPD) burrows or pocket gopher mounds are to be excavated/directly impacted, coordinate with TPWD WHAB.
   - When a construction zone is adjacent to active BTPD burrows or pocket gopher mounds, erect barriers to discourage individuals moving through or into the construction area.
   - When seeding or revegetation is planned in an area adjacent to BTPD burrows or pocket gopher mounds, a vegetative barrier should be considered in the planting to discourage dispersal into the ROW.

To minimize impacts to vegetation, TPWD additionally recommends the following BMP which will be implemented during the proposed project:

TPWD indicates the use of any non-native vegetation in revegetation is discouraged. Locally adapted native species should be used. The use of seed mix that contains seeds from only locally adapted native species is recommended.

From: Jennifer Carpenter
Sent: Wednesday, July 14, 2021 11:22 AM
To: ewbrackenridge@gmail.com
Subject: TxDOT Project: FM 3349 at US 79 (CSJ 0204-02-034)
Attachments: TxDOT Sect 106 Consultation 0204-02-034 (07-20).pdf

Dear Ms. Brackenridge:

You are receiving this email because of your interest and work with TxDOT and the Williamson County Historical Commission.

TxDOT reviewed cultural resources for the above referenced project as part of the historic preservation process (Sec. 106 of the National Historic Preservation Act).

- *We found the following non-archeological historic properties:*
    - 1280 FM 3349, Taylor: a ca. 1940 farm. TxDOT previously determined the property eligible in 2011. Recent survey confirmed the property's eligibility and integrity. The property contains five contributing resources:
        - ca. 1940 Minimal Traditional-style residence
        - ca. 1960 wood-frame hay barn
        - ca. 1950 storage building
        - ca. 1940 barn
        - ca. 1940 barn
    - 5900 CR 101, Taylor: a c. 1921 agricultural complex. The property continues to serve as a working farm and consists of 12 contributing resources:
        - 1921 Craftsman-style house
        - ca. 1965 pole barn
        - ca. 1921 wood frame barn
        - ca. 1921 wood frame barn
        - ca. 1950 barn
        - ca. 1975 shed
        - ca. 1921 shed
        - ca. 1921 shed
        - ca. 1975 residence
        - ca. 1975 shed
        - ca. 1950 shed
        - ca. 1975 outbuilding

Initial Feedback:

- Do you have any other information to add to our identification efforts?
- Is there someone TxDOT should reach out to regarding these sites?

Next Steps
We will continue to update you as more information is available. Additionally, we are consulting with federally recognized Native American Tribes with interest in this county. Our Archeological Studies Branch is also reviewing any potential impacts to archeological sites in area. If you would like more information on this, please let me know.

- Informal Consultation: Thank you for responding to our consultant's request for information about historic properties on May 21, 2021.
- Formal Consultation: "We are here!"
- Project contracts begin: 12/2021

Please reach out to us with any additional information you may have within the next 30 days, or feel free to reach out with questions about the project. If you are interested in getting more involved as a consulting party with TxDOT, see below.

Getting Involved

- TxDOT encourages you to make comments and participate in our public involvement process for this project. If you are interested in becoming a consulting party, you will be asked to provide comments on reports within certain timelines and participate in discussions with state and local preservation organizations. Please respond to this email if you'd like to become a consulting party. Here are some notes about consulting party roles:
    - Please respond to us in a timely manner. Formal comment periods for the consultation process are outlined in federal laws, regulations, and existing agreements.
    - Acknowledge when you received formal coordination documents from TxDOT within 72 hours.
    - Participation as a consulting party for this project may disqualify you, or any affiliated interests, from participating in any contract related to this project.

- Check out more resources on TxDOT's historic preservation process here. Additional information on the consulting party process is available from the Advisory Council for Historic Preservation at their website: https://www.achp.gov/protecting-historic-properties.

- Check out TxDOT's Project Tracker to learn more about this project. https://www.txdot.gov/inside-txdot/projects/project-tracker.html It can give you specific timing and lat/longs, etc.

I encourage you to check out our website for more information about historical and archeological sites. In addition, TxDOT's Beyond the Road campaign highlights the stories of the people and places uncovered as we complete our environmental responsibilities throughout the state.

We look forward to your future participation on this project.

Thank you,
Jennifer

Jennifer Carpenter
Historic Preservation Specialist
TxDOT—Environmental Affairs
200 E. Riverside Drive
Austin, TX 78704

(512) 840-9341
Jennifer.Carpenter1@txdot.gov

Sec. 106 Consultation

JULY 14, 2021

We kindly request your comments on historic properties. Please see the following summary for project details and information. The associated reports, which include a detailed project description, APE definition and identification efforts, are available upon request.

Contacts:

Jennifer Carpenter
512-840-9341

Summary:

Project ID (CSJ), Roadway, Limits, County and TxDOT District	*CSJ 0204-02-034, FM 3349 at US 79, Williamson County, Austin District*
Project Sponsor:	*Williamson County*
Consultation Status:	*☒Initial Consultation* *☐Continuation of Consultation* *Reason(s):*
Short Description:	*Road widening and bridge construction*
Lat/Longs:	*30.5540 -97.4830803*
New Right of Way:	*120.8 acres; 20.3 acres new permanent easement*
Depth of Impacts:	*75 feet*
Known Properties in project area:	*1280 FM 3349, Taylor* *5900 CR 101, Taylor*
Identification Efforts:	*Historical Resources Survey Report*
Recommendations:	*No adverse effect; proceed to construction.*
Link to Detailed Report:	https://txdot.box.com/s/sqh1tu93e330q3i5e96yw9j97yqqwf08

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

Notice:

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

From: Caitlin Brashear
To: Jennifer Carpenter
Subject: RE: Consultation Meeting 3/4 & FM 3349 (CSJ 0204-02-034)
Date: Wednesday, March 3, 2021 9:16:16 AM
Attachments: thc_email_logo_65px_e6b590e5-b608-48df-a46f-bbaf70308c09.png
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This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jennifer,

Thanks for the heads up about Thursday. Yesterday I was able to schedule a doctor's appointment for Thursday afternoon, so I won't be on the call either.

Regarding the Williamson County project, I agree that the two parcels should be considered one unit for the purpose of this survey. It does seem likely that there was originally one parcel that was later divided.

Please let me know if you have any other questions.

Thanks,
Caitlin

TEXAS HISTORICAL COMMISSION
REAL PLACES TELLING REAL STORIES

Caitlin Brashear
Historian, Federal Programs
History Programs Division
P.O. Box 12276, Austin, Texas 78711-2276
Phone: +1 512 463 5851
thc.texas.gov

From: Jennifer Carpenter [mailto:Jennifer.Carpenter1@txdot.gov]
Sent: Monday, March 1, 2021 3:27 PM
To: Caitlin Brashear <Caitlin.Brashear@thc.texas.gov>
Subject: Consultation Meeting 3/4 & FM 3349 (CSJ 0204-02-034)

CAUTION: External Email – This email originated from outside the THC email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi, Caitlin:

Williamson County is sponsoring a project to build a bridge (RR grade separation) at US 79 and FM 3349 between Taylor and Hutto. The county is completing the historic resources survey; TxDOT will complete all Section 106 consultation.

The PCR the county consultant submitted noted that a previously determined eligible c. 1930 farmstead is in the study area, but outside of the APE. While technically correct, the parcel has been subdivided and was likely originally one unit (see the attached snapshot from Williamson County CAD. The farmstead is Parcel R345748 and the fields are Parcel R346016). TxDOT found the property eligible in 2011 for a project to relocate FM 1660 (CSJ 1566-01-009); I've got the memo but the HRSR isn't in ECOS so I don't know much more about it.

I wanted to ask your opinion on the appropriate boundary for the eligible farmstead, so that the county's consultant can capture the correct information when they survey. Should they consider the two parcels one unit for survey purposes? If so, the eligible farmstead would be in the APE. I'm thinking that would be the best approach.

Also, I am assisting with our Beyond the Road webinar this Thursday afternoon and will miss our standing consultation call. If something else pops up, I'll email you.

Thanks,
Jennifer

Jennifer Carpenter
Historic Preservation Specialist
TxDOT—Environmental Affairs
200 E. Riverside Drive
Austin, TX 78704

(512) 416-2591
Jennifer.Carpenter1@txdot.gov

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

July 22, 2021

RE: CSJ: 0204-02-034; FM 3349 at US 79, Interchange, Williamson County, Austin District; Section 106 Consultation and Antiquities Code Coordination; Texas Antiquities Permit No. 30194

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

Dear Mr. Wolfe:

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

Undertaking Description

The proposed project will be undertaken with federal funds and will occur in part or in whole on non-federal public lands. Williamson County is proposing to improve the intersection of FM 3349 at US 79 and construct a bridge and on FM 3349. The proposed project would widen the existing FM 3349, replace an existing bridge and make intersection improvements on new location in Williamson County.

Area of Potential Effects

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

- The project limits extend 2.89 miles from CR 404 to CR 395 along FM 3349 and 0.74 miles along US 79 and 0.61 miles of new alignment. The total project length is thus 22,387 feet, and the APE includes any existing ROW within these limits.
- The existing ROW comprises approximately 72.3 acres.
- Existing easements comprise approximately 0 acres.
- The proposed project would require 120.78 acres of new right of way.

- The proposed project would require 20.31 acres of new easements.
- The estimated depth of impacts is typically three feet with a maximum depth of impacts of 75 feet.
- The APE is further detailed and illustrated in the attached report.

Identification Efforts

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

- The investigations reported here concern portions of the APE that did not warrant survey and portions of the APE that were accessible during survey.
- Archeologists undertook a survey. For this survey,
    - 60 acres had been previously surveyed or otherwise evaluated for this project, but AmaTerra re-surveyed all of this area for their report so their survey area includes this 60 acres;
    - 0 acres were identified as not requiring field survey, due to existing conditions of the setting identified through background research and described in the attached report;
    - 133.5 acres were surveyed and described in the attached report;
    - 79.9 acres lacked right of entry for any survey and requires survey upon acquisition; in addition, another approximately 41.5 acres need additional trenching, as AmaTerra was unable to trench in certain areas with high probability for buried deposits, so overall 121.4 acres still require survey;
    - previous investigation within the APE identified 41WM767 and 41WM1422 and
    - the current survey identified 41WM1445 and 41WM1446.
- Identified archeological sites for which a determination of eligibility for inclusion in the National Register of Historic Places and/or formal designation as a State Antiquities Landmark could not be made include: 41WM767, 41WM1422, and 41WM1446. Sites 41WM767 and 41WM1422 were inaccessible at the time of the survey due to right of entry denial, and 41WM1446 was planted in dense crops that precluded a thorough field evaluation of the site.
- Identified archeological sites that are not eligible for inclusion in the National Register of Historic Places and/or that do not warrant formal designation as State Antiquities Landmarks include site 41WM1445. Site 41WM1445 is the remains of a early-to-mid twentieth century farmstead. Deed research, historic maps, and imagery indicate the house and outbuildings were present by 1925. By 2003, the house and several outbuildings had been demolished. Deed research indicates the property is not associated with notable or prominent people. Given the destruction of the original buildings and subsequent modification to the location, the site lacks integrity of materials, association to important people or events, and/or unique characteristics that would make the property eligible for the National Register of Historic Places or formal designation as a State Antiquities Landmark.

Effects Determination

The proposed project would have direct effects resulting from ground-disturbing construction activities within the APE. Given the results of the identification efforts, TxDOT proposes that the project requires additional investigation to evaluate the eligibility of sites 41WM767, 41WM1422 and 41WM1446. The next section identifies the steps recommended by TxDOT based on the results of the identification efforts and this effects analysis.

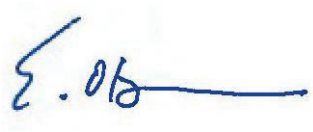
Recommendations

TxDOT seeks your concurrence on the following points:

- The identification efforts and analysis of effects completed to date are adequate.
- No further work or consultation is required within the evaluated portions of the APE. Once access is obtained to areas for which access has been denied, TxDOT will complete required investigations and consultation prior to construction.
- The attached draft report meets the reporting requirements of the Texas Antiquities Permit issued for the investigation.

Thank you for your consideration of this matter. If you have any questions or have need of further information, please contact me at 512-902-4786.

Sincerely,



Eric Oksanen
Archeological Studies Branch
Environmental Affairs Division

Cc w/o attachments: ECOS Scan

Concurrence By:

_____

for: Mark Wolfe, Executive Director and SHPO Date
Texas Historical Commission

From: noreply@thc.state.tx.us
Sent: Tuesday, August 10, 2021 10:29 AM
To: Scott Pletka; reviews@thc.state.tx.us
Subject: Section 106 Submission

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

Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas
THC Tracking #202113931
Date: 08/10/2021
0204-02-034, FM 3349
FM 3349 at US 79
Taylor,TX 76754

Description: TxDOT proposes to construct an interchange at FM 3349 and US 79. The submitted the report is the draft archeological survey report for the accessible portions of the APE.

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

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

Archeology Comments

- THC/SHPO concurs with information provided.
- This draft report is acceptable. Please submit a final report: one restricted version with any site location information (if applicable), and one public version with all site location information redacted. To facilitate review and make project information and final reports available through the Texas Archeological Sites Atlas, we appreciate submitting abstracts online at http://xapps.thc.state.tx.us/Abstract and e-mailing survey area shapefiles to archeological_projects@thc.texas.gov if this has not already occurred. Please note that these steps are required for projects conducted under a Texas Antiquities Permit.
- Test excavations are needed to complete the evaluation of National Register of Historic Places eligibility. Please submit a research design and excavation methodology.

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

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

Sincerely,

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

Please do not respond to this email.

From: Eric Oksanen
Sent: Tuesday, May 25, 2021 7:31 PM
To: mkomalty@kiowatribe.org; holly@mathpo.org; gary.mcadams@wichitatribe.com; Terri.Parton@wichitatribe.com; dhill@mycaddonation.com; caddochair.cn@gmail.com; Franks.D@sno-nsn.gov; ethompson@delawarenation-nsn.gov; lbrown@tonkawatribe.com; mallen@tonkawatribe.com; epa4apachetribeok@gmail.com; martinac@comanchenation.com; theodorev@comanchenation.com
Cc: Laura Cruzada (Laura.Cruzada@txdot.gov)
Subject: Section 106 Consultation CSJ: 0204-02-034, Williamson County, Austin District, Background Study Report

Sec. 106 Consultation

MAY 25, 2021

Contacts:

Laura Cruzada
512-416-2638

Eric Oksanen
512-902-4786

We kindly request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed project. Please see the following summary for project details and information. To access the associated reports, which include a detailed project description, APE definition and identification efforts, use the attached link. After 21 days, the link will expire. We will provide an updated link upon request. This project will also be included during our monthly Sec. 106 conference call every third Wednesday of the month at 2 p.m.

Summary:

Project ID (CSJ), County and TxDOT District	*CSJ: 020402034, FM 3349 at US 79 Interchange, Williamson County, Austin District*
Project Sponsor:	*Williamson County*
Short Description:	*Widen Roadway, Improve Intersections, and Construct Bridge*
Lat/Longs:	*30.5540/ -97.4830803*
New Right of Way:	*120.8 acres*
Depth of Impacts:	*Typical: 3 feet* *Maximum: 75 feet*
Known Archeological Sites or Properties in project area:	*41WM767 and 41WM1422*
Identification Efforts:	*Background Study*
Recommendations:	*Survey*
Link to detailed report:	*https://txdot.box.com/s/5ojq8dlq9fyccftregpcanbtz2kgoptm*

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

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 14, 2019, and executed by FHWA and TxDOT.

Eric Oksanen
District Archeologist
Environmental Affairs Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78704
Eric.oksanen@txdot.gov

p. 512|902-4786
At home
6:30am-4pm

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Texas Department of Transportation

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

July 19, 2021

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

District: Austin
County: Williamson
CSJ#: 0204-02-034
Highway: FM 3349 at US 79
Project Limits: From CR 404 to CR 395
Section 4(f) Property: **5900 CR 101, TAYLOR; 1280 FM 3349, TAYLOR**

Caitlin Brashear
History Programs
Texas Historical Commission
Austin, Texas 78711

Dear Ms. Brashear:

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TxDOT. In accordance with 36 CFR 800 and our 2015 Section 106 Programmatic Agreement, this letter initiates Section 106 consultation on the effect the proposed undertaking poses for a historic property located within the project's area of potential effects (APE). As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency.

Project Description

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

Determination of Eligibility

TxDOT historians conducted a historic resources reconnaissance survey to identify resources constructed in 1976 or earlier in the project area. They found 10 historic-age properties within the area of potential effects (APE), which for this project is 150 feet from the proposed ROW and/or easements along the existing alignment and 300 feet from the proposed ROW and/or easements along the new alignment. A review of the National Register of Historic Places (NRHP), as State Antiquities Landmarks (SAL), and Recorded Texas Historic Landmarks (RTHL), and TxDOT records found one property within the APE that was previously determined eligible:

- **1280 FM 3349, Taylor (Property No. 08)**, Williamson County CAD Parcels R346016 and R345748:[1] a ca. 1940 farm determined eligible for listing under *Criterion A*: Agriculture at the local level as a good representative example of a mid-20th century working farm in Williamson County. The property contains five contributing resources:

[1] TxDOT determined the property eligible in 2011 (see CSJ 1566-01-009). The property appears to have been subdivided for tax reasons. The domestic resources are located on Parcel R345748 and the agricultural resources and fields are located on R346016.

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- Resource No. 08a: a ca. 1940 Minimal Traditional-style residence
- Resource No. 08b: a ca. 1960 wood-frame hay barn
- Resource No. 08c: a ca. 1950 storage building
- Resource No. 08d: a ca. 1940 barn
- Resource No. 08e: a ca. 1940 barn

Historically, agriculture and the introduction of transportation networks, from the railroad to the highway system, played an important role in the development of eastern Williamson County. Anglo settlement began during the Texas Revolution but increased after the forced removal of the Tonkawa, Lipan Apaches, and Comanches. Williamson County was founded in 1848. The arrival of the International and Great Northern Railway (IGN) spurred development of the project area. Hutto, approximately 3 miles west of the project area, was founded as a railroad depot in 1876. It soon boasted a general store, lumber business, school, gin, churches, a bank, and a hotel. Taylor, approximately 4 miles east of the project area, was settled in anticipation of the railway that same year. It became an important shipping center for cattle, grain, and cotton and incorporated in 1882. The small community of Frame Switch, roughly located between Hutto and Taylor, originally served as a railroad stop. European immigrants from Germany, Austria, Scandinavia, Czechoslovakia, and Denmark settled in these communities.

Commercial farming of wool, mohair, and cotton defined agricultural production during the late 19th century and early 20th century. Taylor was named the "largest inland cotton market in the world," and by 1910, nearly 80% of cropland in Williamson County was dedicated to cotton production. The cash crop brought increased wealth to landowners but fortunes reversed after a 1921 flood and during the Great Depression. Federal relief programs assisted farmers, who began to diversify their crops and raise livestock. New and improved roadways, like Old US 79 (CR 136) between Hutto and Taylor, allowed for increased agricultural shipments. By 1940, cotton production had reduced by half as other products like sorghum and wheat became more viable.

Significant change came to Williamson County in the post-World War II era. Interstate Highway 35, completed in 1956 through the project area, encouraged the northward expansion of Austin. New subdivisions began to dot the landscape and the county's population rapidly grew. Williamson County continues to grow and suburbanize. Between 2000 and 2019, Hutto's population increased from 1,250 to 25,320; Taylor residents numbered 17,001 in 2019. This suburban expansion has not yet impacted the project area and it remains a rural, agricultural landscape (see pages 11-14 of the HRSR).

Based on the HRSR, TxDOT historians identified the following properties as **eligible** for listing in the NRHP:

- **1280 FM 3349, Taylor (Property No. 08)**, Williamson County CAD Parcels R346016 and R345748: Survey confirmed the eligibility and integrity of this previously-determined eligible ca. 1940 farm. The historic boundary is inclusive of both parcels.

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- **5900 CR 101, Taylor (Property No. 01)**, Williamson County CAD Parcels R020291 and R020292:[2] A c. 1921 agricultural complex eligible under *Criterion A*: Agriculture at the local level as a good representative example of a 20th-century working farm in Williamson County. The property's period of significance is 1921-1977, representative of the date the first residence was built to the end of the historic period. The property continues to serve as a working farm[3] and it has retained integrity of location, setting, design, materials, workmanship, feeling, and association. The complex has also retained its domestic zone, working zone, and associated fields; thus, it meets the criteria outlined in TxDOT's *Agricultural Theme Study for Central Texas*. The historic boundary of the farm is inclusive of both parcels. The complex consists of 12 contributing resources:

    - Resource No. 01a: a 1921 Craftsman-style house with a cross-gable roof, exposed rafter tails, decorative brackets, and at least one interior chimney, original wood siding, and original paired wood sash windows. The house continues to serve as the main living quarters for the farmstead, anchoring the complex's domestic zone. In addition to its contributing status under *Criterion A*, the home's definitive style, retention of character-defining features, and original materials also qualify it for listing under *Criterion C*.

    - Resource No. 01b: a ca. 1965 pole barn with a shallow-pitched, side gable metal roof, four open bays, and corrugated metal siding It is located within the domestic work zone.

    - Resource No. 01c: a ca. 1921 wood frame barn with a steep-pitched, front gable metal roof and what appears to be original wood siding. The metal roof and the poor condition of the barn negatively impact its integrity of materials and workmanship; however, the barn defines the agricultural work zone and it continues to possess enough integrity to convey its significance.

    - Resource No. 01d: a ca. 1921 wood frame barn with a steep-pitched, front gable metal roof, original wood siding, and a small gabled-roof dormer. The metal roof and poor condition of the barn negatively impact its integrity of materials and workmanship; however, the barn defines the agricultural work zone and it continues to possess enough integrity to convey its significance.

    - Resource No. 01e: a ca. 1950 barn with a steep-pitched, side gable metal roof. It is located in the agricultural working zone.

    - Resource No. 01f: a ca. 1975 shed with a shallow-pitched, metal, side gable roof and wood siding. It is located within the agricultural work zone.

    - Resource No. 01g: a ca. 1921 shed with a hipped metal roof and original wood siding. It is located within the agricultural work zone.

[2] The property appears to have been subdivided for tax reasons; the domestic resources are located on Parcel R020292 and the agricultural resources and fields are located on Parcel R020291.
[3] Williamson CAD data lists the current owner as Anderson Farms, LLP.

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- Resource No. 01h: a ca. 1921 shed within the agricultural work zone. Likely a loafing shed, it has a shallow-pitched, metal shed roof and wood siding and daubing. A large bay is located along the south elevation, while a window is located on the east elevation.

- Resource No. 01i: a ca. 1975 residence with a shallow-pitched, side gable metal roof, wood siding, double-hung windows, and small stoop with a modern door and simple turned spindles. The house serves as a secondary residence within the domestic work zone.

- Resource No. 01j: a ca. 1975 shed with a shallow-pitched, side gable shingle roof, composite siding, and a sliding bay door. It is located within the agricultural work zone.

- Resource No. 01k: a ca. 1950 shed with a shallow-pitched, metal shed roof with wide, overhanging eaves and original wood siding. It is located within the agricultural work zone.

- Resource No. 01l: a ca. 1975 outbuilding with a steep-pitched metal gable roof. It is located within the agricultural work zone.

The remaining historic-age properties in the APE are not eligible for listing in the National Register (see pages 20-32 of the HRSR).

Consultation with Interested Parties

TxDOT informally consulted with the THC on March 1 and 3, 2021 via email to determine the appropriate APE boundary for a subdivided parcel containing historic-age resources. TxDOT shared a summary of the historic resource survey results with the THC on July 13th via email and discussed the project via video call on July 15th. TxDOT emailed the Williamson County Historical Commission (CHC) on July 14th to share the survey results and to inquire about historic-age properties in the project area. Should the CHC respond within the typical 30-day period with additional information or other considerations, TxDOT will continue to consult with them.

Determination of Effects

TxDOT historians determined that the project will have **no adverse effect** on the identified historic properties.

The project requires new ROW from 1280 FM 3349 (Property No. 08). The parcel totals approximately 78.35 acres and the proposed acquisition is 1.08 acres (2.3%). As shown in *Figure 1*, the acquisition is more than ½-mile from the property's contributing built resources. With less than 5% of the parcel impacted by the acquisition, project activities do not result in any direct adverse effects. The proposed changes do not introduce new visual or audible impacts. Project activities will not result in a loss of integrity of location, design, setting, materials, workmanship, association, or feeling. The property's ability to convey its historical significance will remain intact upon completion of the project.

The project requires no new ROW from 5900 CR 101 (Property No. 01), as shown in *Figure 2*.

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Additionally, project activities pose minimal potential to cause indirect, cumulative, or reasonably foreseeable effects. Roadways through the project area have been stable transportation corridors for decades. A noise analysis in June 2021 found that the project would not result in a traffic noise impact for the eligible properties.

Section 4(f) Finding

As part of this coordination, TxDOT historians determined that the project meets the requirements for a Section 4(f) *de minimis* impact finding on 1280 FM 3349, Taylor (Property No. 08) under 23 CFR 774. TxDOT based its determination on the fact that the use amounts to less than 5% of the property's acreage and the proposed use will have **no adverse effect** on the NRHP-eligible property. The proposed use would not impact any of the properties' contributing features. This *de minimis* finding does not require the traditional second step of including all possible planning to minimize harm because avoidance, minimization, mitigation, or enhancement measures are included as part of this determination.

Conclusion

In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings (December 2015), I hereby request your signed concurrence with TxDOT's finding of eligibility and of **no adverse effect**.

We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the aforementioned MOU dated December 9, 2019.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety, and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please contact me at (512) 840-9341 or jennifer.carpenter1@txdot.gov.

Sincerely,

DocuSigned by:
Jennifer Carpenter
2C1488B09CFC41C...

Jennifer Carpenter
Historic Preservation Specialist
Environmental Affairs Division

thru: Rebekah Dobrasko, Environmental Program Manager Lead: DS RD

Bruce Jensen, Cultural Resources Management Section Director: DS BJ

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CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:
HISTORIC PROPERTIES PRESENT: 5900 CR 101, TAYLOR; 1280 FM 3349, TAYLOR
NO ADVERSE EFFECTS: 5900 CR 101, TAYLOR; 1280 FM 3349, TAYLOR

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

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

NAME: _____ DATE:_____
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Texas Department of Transportation

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    - Resource No. 01a: a 1921 Craftsman-style house with a cross-gable roof, exposed rafter tails, decorative brackets, and at least one interior chimney, original wood siding, and original paired wood sash windows. The house continues to serve as the main living quarters for the farmstead, anchoring the complex's domestic zone. In addition to its contributing status under *Criterion A*, the home's definitive style, retention of character-defining features, and original materials also qualify it for listing under *Criterion C*.

    - Resource No. 01b: a ca. 1965 pole barn with a shallow-pitched, side gable metal roof, four open bays, and corrugated metal siding It is located within the domestic work zone.

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    - Resource No. 01e: a ca. 1950 barn with a steep-pitched, side gable metal roof. It is located in the agricultural working zone.

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[2] The property appears to have been subdivided for tax reasons; the domestic resources are located on Parcel R020292 and the agricultural resources and fields are located on Parcel R020291.
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- Resource No. 01h: a ca. 1921 shed within the agricultural work zone. Likely a loafing shed, it has a shallow-pitched, metal shed roof and wood siding and daubing. A large bay is located along the south elevation, while a window is located on the east elevation.

- Resource No. 01i: a ca. 1975 residence with a shallow-pitched, side gable metal roof, wood siding, double-hung windows, and small stoop with a modern door and simple turned spindles. The house serves as a secondary residence within the domestic work zone.

- Resource No. 01j: a ca. 1975 shed with a shallow-pitched, side gable shingle roof, composite siding, and a sliding bay door. It is located within the agricultural work zone.

- Resource No. 01k: a ca. 1950 shed with a shallow-pitched, metal shed roof with wide, overhanging eaves and original wood siding. It is located within the agricultural work zone.

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Consultation with Interested Parties

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Determination of Effects

TxDOT historians determined that the project will have **no adverse effect** on the identified historic properties.

The project requires new ROW from 1280 FM 3349 (Property No. 08). The parcel totals approximately 78.35 acres and the proposed acquisition is 1.08 acres (2.3%). As shown in *Figure 1*, the acquisition is more than ½-mile from the property's contributing built resources. With less than 5% of the parcel impacted by the acquisition, project activities do not result in any direct adverse effects. The proposed changes do not introduce new visual or audible impacts. Project activities will not result in a loss of integrity of location, design, setting, materials, workmanship, association, or feeling. The property's ability to convey its historical significance will remain intact upon completion of the project.

The project requires no new ROW from 5900 CR 101 (Property No. 01), as shown in *Figure 2*.

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Additionally, project activities pose minimal potential to cause indirect, cumulative, or reasonably foreseeable effects. Roadways through the project area have been stable transportation corridors for decades. A noise analysis in June 2021 found that the project would not result in a traffic noise impact for the eligible properties.

Section 4(f) Finding
As part of this coordination, TxDOT historians determined that the project meets the requirements for a Section 4(f) *de minimis* impact finding on 1280 FM 3349, Taylor (Property No. 08) under 23 CFR 774. TxDOT based its determination on the fact that the use amounts to less than 5% of the property's acreage and the proposed use will have **no adverse effect** on the NRHP-eligible property. The proposed use would not impact any of the properties' contributing features. This *de minimis* finding does not require the traditional second step of including all possible planning to minimize harm because avoidance, minimization, mitigation, or enhancement measures are included as part of this determination.

Conclusion
In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings (December 2015), I hereby request your signed concurrence with TxDOT's finding of eligibility and of **no adverse effect**.

We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the aforementioned MOU dated December 9, 2019.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety, and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please contact me at (512) 840-9341 or jennifer.carpenter1@txdot.gov.

Sincerely,

DocuSigned by:
Jennifer Carpenter
2C1488B09CFC41C...

Jennifer Carpenter
Historic Preservation Specialist
Environmental Affairs Division

thru: Rebekah Dobrasko, Environmental Program Manager Lead: DS RD

Bruce Jensen, Cultural Resources Management Section Director: DS BJ

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CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:
HISTORIC PROPERTIES PRESENT: 5900 CR 101, TAYLOR; 1280 FM 3349, TAYLOR
NO ADVERSE EFFECTS: 5900 CR 101, TAYLOR; 1280 FM 3349, TAYLOR

NAME: Caitlin Brashear DATE: 7/29/2021
for Mark Wolfe, State Historic Preservation Officer

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

NAME: Caitlin Brashear DATE: 7/29/2021
for Mark Wolfe, State Historic Preservation Officer

From: Eric Oksanen
Sent: Tuesday, July 20, 2021 2:59 PM
To: mkomalty@kiowatribe.org; holly@mathpo.org; gary.mcadams@wichitatribe.com; Terri.Parton@wichitatribe.com; dhill@mycaddonation.com; caddochair.cn@gmail.com; Franks.D@sno-nsn.gov; ethompson@delawarenation-nsn.gov; lbrown@tonkawatribe.com; mallen@tonkawatribe.com; epa4apachetribeok@gmail.com; martinac@comanchenation.com; theodorev@comanchenation.com
Subject: Section_106_Continuing_Consultation_Request_0204-02-034_20_Williamson County_ Austin_ District_ Survey Report

Corrected CSJ- it is **0204-02-034**

From: Eric Oksanen
Sent: Tuesday, July 20, 2021 2:25 PM
To: mkomalty@kiowatribe.org; holly@mathpo.org; gary.mcadams@wichitatribe.com; Terri.Parton@wichitatribe.com; dhill@mycaddonation.com; caddochair.cn@gmail.com; Franks.D@sno-nsn.gov; ethompson@delawarenation-nsn.gov; lbrown@tonkawatribe.com; mallen@tonkawatribe.com; epa4apachetribeok@gmail.com; martinac@comanchenation.com; theodorev@comanchenation.com
Cc: Laura Cruzada (Laura.Cruzada@txdot.gov) <Laura.Cruzada@txdot.gov>
Subject: Section_106_Continuing_Consultation_Request_0214-02-034_20_Williamson County_ Austin_ District_ Survey Report

Contacts:

Laura Cruzada
512-416-2638

Eric Oksanen
512-902-4786

We kindly request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed project. Please see the following summary for project details and information. To access the associated reports, which include a detailed project description, APE definition and identification efforts, use the attached link. After 21 days, the link will expire. We will provide an updated link upon request. This project will also be included during our monthly Sec. 106 conference call every third Wednesday of the month at 2 p.m.

Summary:

Project ID (CSJ), County and TxDOT District	*CSJ: 0204-02-034 County, District*
Project Sponsor:	*Williamson County*
Short Description:	*FM 3349, New Bridge and Intersection Improvements*
Lat/Longs:	*30.5540/-97.4830803*
New Right of Way:	*120.8 acres.*
Depth of Impacts:	*Typical 3 feet* *Maximum 75 feet*
Known Archeological Sites or Properties in project area:	*41WM767, 41WM1422,41WM1445, and 14WM1446*
Identification Efforts:	*Survey.* *The survey could not access all of the APE because of denial of entry.*
Recommendations:	*-The existing right of way of 62.3 acres has been evaluated and no historic properties will be affected and no further work is recommended in the existing right of way.* *-Site 41WM1445 is recommended as not eligible. The site is a early-to mid-twentieth century farmstead that lacks spatial integrity.* *-Sites 41WM767 and 41WM1422 were not evaluated because of denial of entry and their status is Undetermined. Additional evaluation is necessary when access is granted.* *-Site 41WM1446, a historic-era farmstead could not be evaluated because of dense crop coverage at the time of survey.* *-Additional work is necessary to evaluate the site; therefore, its status is Undetermined.* *-All areas that were denied right of entry will be surveyed and areas where trenching has been identified will be assessed when the property is acquired.*
Link to detailed report:	https://txdot.box.com/s/mop2y8ghiwbq0k18nem3wez0kf2t0f8i

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

	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.

Eric Oksanen
District Archeologist
Environmental Affairs Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78704
Eric.oksanen@txdot.gov
p. 512|902-4786

At home
6:30am-4pm

The Delaware Nation
Historic Preservation Department
31064 State Highway 281
Anadarko, OK 73005
Phone (405)247-2448

August 18, 2021

To Whom It May Concern:

The Delaware Nation Historic Preservation Department received correspondence regarding the following referenced project(s).

Project(s): CSJ 0204-02-034 County, District

Our office is committed to protecting tribal heritage, culture and religion with particular concern for archaeological sites potentially containing burials and associated funerary objects.

The Lenape people occupied the area indicated in your letter prior to European contact until their eventual removal to our present locations. According to our files, the location of the proposed project does not endanger cultural, or religious sites of interest to the Delaware Nation. **Please continue with the project as planned** keeping in mind during construction should an archaeological site or artifacts inadvertently be uncovered, all construction and ground disturbing activities should immediately be halted until the appropriate state agencies, as well as this office, are notified (within 24 hours), and a proper archaeological assessment can be made.

Please note the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Band of Mohican Indians are the only Federally Recognized Delaware/Lenape entities in the United States and consultation must be made only with designated staff of these three tribes. We appreciate your cooperation in contacting the Delaware Nation Historic Preservation Office to conduct proper Section 106 consultation. Should you have any questions, feel free to contact our offices at 405-247-2448 ext. 1403.

Erin N. Paden

Erin Paden
Director of Historic Preservation
Delaware Nation
31064 State Highway 281
Anadarko, OK 73005
Ph. 405-247-2448 ext. 1403
epaden@delawarenation-nsn.gov

COMANCHE NATION

Texas Department of Transportation
Attn: Mr. Eric Oksanen
125 East 11th St.
Texas 78701

June 22, 2021

Re: TxDOT Section 106 Consultation CSJ: 0204-02-034,
Williamson County, Austin District, Background Study Report

Dear Mr. Oksanen:

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

Please contact this office at (580) 595-9960/9618) if you require additional information on this project.

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

Regards

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

Consult Response delayed due to Covid-19 work conditions.

Appendix G – Section 4(f) Documentation

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

Main CSJ: 0204-02-034
District(s): Austin
County(ies): Williamson
Property ID: R345748 and R346016
Property Name: 5900 CR 101, Taylor; 1280 FM 3349, Taylor

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

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

What Type of Property is Being Evaluated?

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

Section 4(f) Defining Criteria for Historic Properties

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

Establishing Section 4(f) Use of the Property

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

Establishing Section 4(f) *De Minimis* Eligibility

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

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

Section 4(f) Use:

The project does not require new ROW from 5900 CR 101 (Property No. 01), as shown in Attachment 1, and there would be no Section 4(f) use.

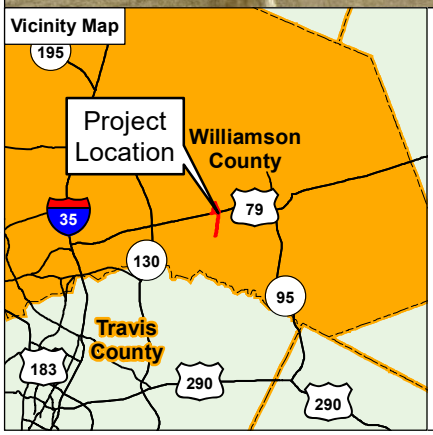
The project requires new ROW from 1280 FM 3349 (Property No. 08). The parcel totals approximately 78.35 acres and the proposed acquisition is 1.08 acres (2.3%). As shown in Attachment 2, the acquisition is more than ½-mile from the property's contributing built resources. With less than

5% of the parcel impacted by the acquisition, project activities do not result in any direct adverse effects. The proposed changes do not introduce new visual or audible impacts. Project activities will not result in a loss of integrity of location, design, setting, materials, workmanship, association, or feeling. The property's ability to convey its historical significance will remain intact upon completion of the project.

Documentation

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

- ☑ A detailed map of the Section 4(f) Property including current and proposed ROW; property boundaries; access points for pedestrians and vehicles and existing and planned facilities.
- ☑ Street level photograph of the property
- ☑ Concurrence letter from Official with Jurisdiction
- ☑ Copy of WPD I Screen from ECOS.



Legend

- Project Area
- Existing ROW
- Proposed ROW
- 4(f) Historic Property
- NRHP Eligible Historic Resource
- Contributing Historic Resource

0 195 390
Feet

BGE, Inc.
101 West Louis Henna Blvd, Suite 400
Austin, TX 78728
Tel: 512-879-0400 Fax: 512-879-0499
www.bgeinc.com

FM 3349 at US 79

Historic Property No. 01
4(f) De Minimis
Attachment 1

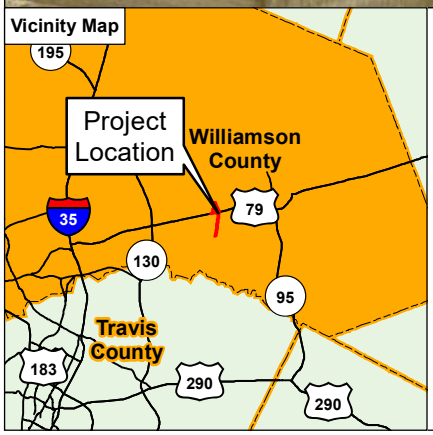
Williamson County, TX
CSJ: 0204-02-034

Date: August 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\4(f) map Property No.01.mxd

GIS Analyst: jhall2

Data Source: Wiliamson County 2018



Legend

- Project Area
- Existing ROW
- Proposed ROW
- Proposed Permanent Easement
- 4(f) Historic Property
- NRHP Eligible Historic Resource
- Contributing Historic Resource
- Ineligible Historic-Age Resource

0 295 590
Feet

BGE, Inc.
101 West Louis Henna Blvd, Suite 400
Austin, TX 78728
Tel: 512-879-0400 Fax: 512-879-0499
www.bgeinc.com

FM 3349 at US 79

Historic Property No. 08
4(f) De Minimis
Attachment 2

Williamson County, TX
CSJ: 0204-02-034

Date: August 2021 | Proj. No: 4705-03

File Path: G:\TXC\Projects\County_Williamson\4745-00_Corridor E-1\11_ENV\FM 3349 Interchange\GIS\4(f) map Property No.08.mxd

GIS Analyst: jhall2

Data Source: Wiliamson County 2018

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Texas Department of Transportation

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

July 19, 2021

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

District: Austin
County: Williamson
CSJ#: 0204-02-034
Highway: FM 3349 at US 79
Project Limits: From CR 404 to CR 395
Section 4(f) Property: **5900 CR 101, TAYLOR; 1280 FM 3349, TAYLOR**

Caitlin Brashear
History Programs
Texas Historical Commission
Austin, Texas 78711

Dear Ms. Brashear:

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 9, 2019, and executed by FHWA and TxDOT. In accordance with 36 CFR 800 and our 2015 Section 106 Programmatic Agreement, this letter initiates Section 106 consultation on the effect the proposed undertaking poses for a historic property located within the project's area of potential effects (APE). As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency.

Project Description

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

Determination of Eligibility

TxDOT historians conducted a historic resources reconnaissance survey to identify resources constructed in 1976 or earlier in the project area. They found 10 historic-age properties within the area of potential effects (APE), which for this project is 150 feet from the proposed ROW and/or easements along the existing alignment and 300 feet from the proposed ROW and/or easements along the new alignment. A review of the National Register of Historic Places (NRHP), as State Antiquities Landmarks (SAL), and Recorded Texas Historic Landmarks (RTHL), and TxDOT records found one property within the APE that was previously determined eligible:

- **1280 FM 3349, Taylor (Property No. 08)**, Williamson County CAD Parcels R346016 and R345748:[1] a ca. 1940 farm determined eligible for listing under *Criterion A*: Agriculture at the local level as a good representative example of a mid-20th century working farm in Williamson County. The property contains five contributing resources:

[1] TxDOT determined the property eligible in 2011 (see CSJ 1566-01-009). The property appears to have been subdivided for tax reasons. The domestic resources are located on Parcel R345748 and the agricultural resources and fields are located on R346016.

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- Resource No. 08a: a ca. 1940 Minimal Traditional-style residence
- Resource No. 08b: a ca. 1960 wood-frame hay barn
- Resource No. 08c: a ca. 1950 storage building
- Resource No. 08d: a ca. 1940 barn
- Resource No. 08e: a ca. 1940 barn

Historically, agriculture and the introduction of transportation networks, from the railroad to the highway system, played an important role in the development of eastern Williamson County. Anglo settlement began during the Texas Revolution but increased after the forced removal of the Tonkawa, Lipan Apaches, and Comanches. Williamson County was founded in 1848. The arrival of the International and Great Northern Railway (IGN) spurred development of the project area. Hutto, approximately 3 miles west of the project area, was founded as a railroad depot in 1876. It soon boasted a general store, lumber business, school, gin, churches, a bank, and a hotel. Taylor, approximately 4 miles east of the project area, was settled in anticipation of the railway that same year. It became an important shipping center for cattle, grain, and cotton and incorporated in 1882. The small community of Frame Switch, roughly located between Hutto and Taylor, originally served as a railroad stop. European immigrants from Germany, Austria, Scandinavia, Czechoslovakia, and Denmark settled in these communities.

Commercial farming of wool, mohair, and cotton defined agricultural production during the late 19th century and early 20th century. Taylor was named the "largest inland cotton market in the world," and by 1910, nearly 80% of cropland in Williamson County was dedicated to cotton production. The cash crop brought increased wealth to landowners but fortunes reversed after a 1921 flood and during the Great Depression. Federal relief programs assisted farmers, who began to diversify their crops and raise livestock. New and improved roadways, like Old US 79 (CR 136) between Hutto and Taylor, allowed for increased agricultural shipments. By 1940, cotton production had reduced by half as other products like sorghum and wheat became more viable.

Significant change came to Williamson County in the post-World War II era. Interstate Highway 35, completed in 1956 through the project area, encouraged the northward expansion of Austin. New subdivisions began to dot the landscape and the county's population rapidly grew. Williamson County continues to grow and suburbanize. Between 2000 and 2019, Hutto's population increased from 1,250 to 25,320; Taylor residents numbered 17,001 in 2019. This suburban expansion has not yet impacted the project area and it remains a rural, agricultural landscape (see pages 11-14 of the HRSR).

Based on the HRSR, TxDOT historians identified the following properties as **eligible** for listing in the NRHP:

- **1280 FM 3349, Taylor (Property No. 08)**, Williamson County CAD Parcels R346016 and R345748: Survey confirmed the eligibility and integrity of this previously-determined eligible ca. 1940 farm. The historic boundary is inclusive of both parcels.

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- **5900 CR 101, Taylor (Property No. 01)**, Williamson County CAD Parcels R020291 and R020292:[2] A c. 1921 agricultural complex eligible under *Criterion A*: Agriculture at the local level as a good representative example of a 20th-century working farm in Williamson County. The property's period of significance is 1921-1977, representative of the date the first residence was built to the end of the historic period. The property continues to serve as a working farm[3] and it has retained integrity of location, setting, design, materials, workmanship, feeling, and association. The complex has also retained its domestic zone, working zone, and associated fields; thus, it meets the criteria outlined in TxDOT's *Agricultural Theme Study for Central Texas*. The historic boundary of the farm is inclusive of both parcels. The complex consists of 12 contributing resources:

    - Resource No. 01a: a 1921 Craftsman-style house with a cross-gable roof, exposed rafter tails, decorative brackets, and at least one interior chimney, original wood siding, and original paired wood sash windows. The house continues to serve as the main living quarters for the farmstead, anchoring the complex's domestic zone. In addition to its contributing status under *Criterion A*, the home's definitive style, retention of character-defining features, and original materials also qualify it for listing under *Criterion C*.

    - Resource No. 01b: a ca. 1965 pole barn with a shallow-pitched, side gable metal roof, four open bays, and corrugated metal siding It is located within the domestic work zone.

    - Resource No. 01c: a ca. 1921 wood frame barn with a steep-pitched, front gable metal roof and what appears to be original wood siding. The metal roof and the poor condition of the barn negatively impact its integrity of materials and workmanship; however, the barn defines the agricultural work zone and it continues to possess enough integrity to convey its significance.

    - Resource No. 01d: a ca. 1921 wood frame barn with a steep-pitched, front gable metal roof, original wood siding, and a small gabled-roof dormer. The metal roof and poor condition of the barn negatively impact its integrity of materials and workmanship; however, the barn defines the agricultural work zone and it continues to possess enough integrity to convey its significance.

    - Resource No. 01e: a ca. 1950 barn with a steep-pitched, side gable metal roof. It is located in the agricultural working zone.

    - Resource No. 01f: a ca. 1975 shed with a shallow-pitched, metal, side gable roof and wood siding. It is located within the agricultural work zone.

    - Resource No. 01g: a ca. 1921 shed with a hipped metal roof and original wood siding. It is located within the agricultural work zone.

[2] The property appears to have been subdivided for tax reasons; the domestic resources are located on Parcel R020292 and the agricultural resources and fields are located on Parcel R020291.
[3] Williamson CAD data lists the current owner as Anderson Farms, LLP.

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- Resource No. 01h: a ca. 1921 shed within the agricultural work zone. Likely a loafing shed, it has a shallow-pitched, metal shed roof and wood siding and daubing. A large bay is located along the south elevation, while a window is located on the east elevation.

- Resource No. 01i: a ca. 1975 residence with a shallow-pitched, side gable metal roof, wood siding, double-hung windows, and small stoop with a modern door and simple turned spindles. The house serves as a secondary residence within the domestic work zone.

- Resource No. 01j: a ca. 1975 shed with a shallow-pitched, side gable shingle roof, composite siding, and a sliding bay door. It is located within the agricultural work zone.

- Resource No. 01k: a ca. 1950 shed with a shallow-pitched, metal shed roof with wide, overhanging eaves and original wood siding. It is located within the agricultural work zone.

- Resource No. 01l: a ca. 1975 outbuilding with a steep-pitched metal gable roof. It is located within the agricultural work zone.

The remaining historic-age properties in the APE are not eligible for listing in the National Register (see pages 20-32 of the HRSR).

Consultation with Interested Parties

TxDOT informally consulted with the THC on March 1 and 3, 2021 via email to determine the appropriate APE boundary for a subdivided parcel containing historic-age resources. TxDOT shared a summary of the historic resource survey results with the THC on July 13th via email and discussed the project via video call on July 15th. TxDOT emailed the Williamson County Historical Commission (CHC) on July 14th to share the survey results and to inquire about historic-age properties in the project area. Should the CHC respond within the typical 30-day period with additional information or other considerations, TxDOT will continue to consult with them.

Determination of Effects

TxDOT historians determined that the project will have **no adverse effect** on the identified historic properties.

The project requires new ROW from 1280 FM 3349 (Property No. 08). The parcel totals approximately 78.35 acres and the proposed acquisition is 1.08 acres (2.3%). As shown in *Figure 1*, the acquisition is more than ½-mile from the property's contributing built resources. With less than 5% of the parcel impacted by the acquisition, project activities do not result in any direct adverse effects. The proposed changes do not introduce new visual or audible impacts. Project activities will not result in a loss of integrity of location, design, setting, materials, workmanship, association, or feeling. The property's ability to convey its historical significance will remain intact upon completion of the project.

The project requires no new ROW from 5900 CR 101 (Property No. 01), as shown in *Figure 2*.

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Additionally, project activities pose minimal potential to cause indirect, cumulative, or reasonably foreseeable effects. Roadways through the project area have been stable transportation corridors for decades. A noise analysis in June 2021 found that the project would not result in a traffic noise impact for the eligible properties.

Section 4(f) Finding
As part of this coordination, TxDOT historians determined that the project meets the requirements for a Section 4(f) *de minimis* impact finding on 1280 FM 3349, Taylor (Property No. 08) under 23 CFR 774. TxDOT based its determination on the fact that the use amounts to less than 5% of the property's acreage and the proposed use will have **no adverse effect** on the NRHP-eligible property. The proposed use would not impact any of the properties' contributing features. This *de minimis* finding does not require the traditional second step of including all possible planning to minimize harm because avoidance, minimization, mitigation, or enhancement measures are included as part of this determination.

Conclusion
In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings (December 2015), I hereby request your signed concurrence with TxDOT's finding of eligibility and of **no adverse effect**.

We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the aforementioned MOU dated December 9, 2019.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety, and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please contact me at (512) 840-9341 or jennifer.carpenter1@txdot.gov.

Sincerely,

DocuSigned by:
Jennifer Carpenter
2C1488B09CFC41C...

Jennifer Carpenter
Historic Preservation Specialist
Environmental Affairs Division

thru: Rebekah Dobrasko, Environmental Program Manager Lead: DS RD

Bruce Jensen, Cultural Resources Management Section Director: DS BJ

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CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:
HISTORIC PROPERTIES PRESENT: 5900 CR 101, TAYLOR; 1280 FM 3349, TAYLOR
NO ADVERSE EFFECTS: 5900 CR 101, TAYLOR; 1280 FM 3349, TAYLOR

NAME: Caitlin Brashear DATE: 7/29/2021
for Mark Wolfe, State Historic Preservation Officer

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

NAME: Caitlin Brashear DATE: 7/29/2021
for Mark Wolfe, State Historic Preservation Officer

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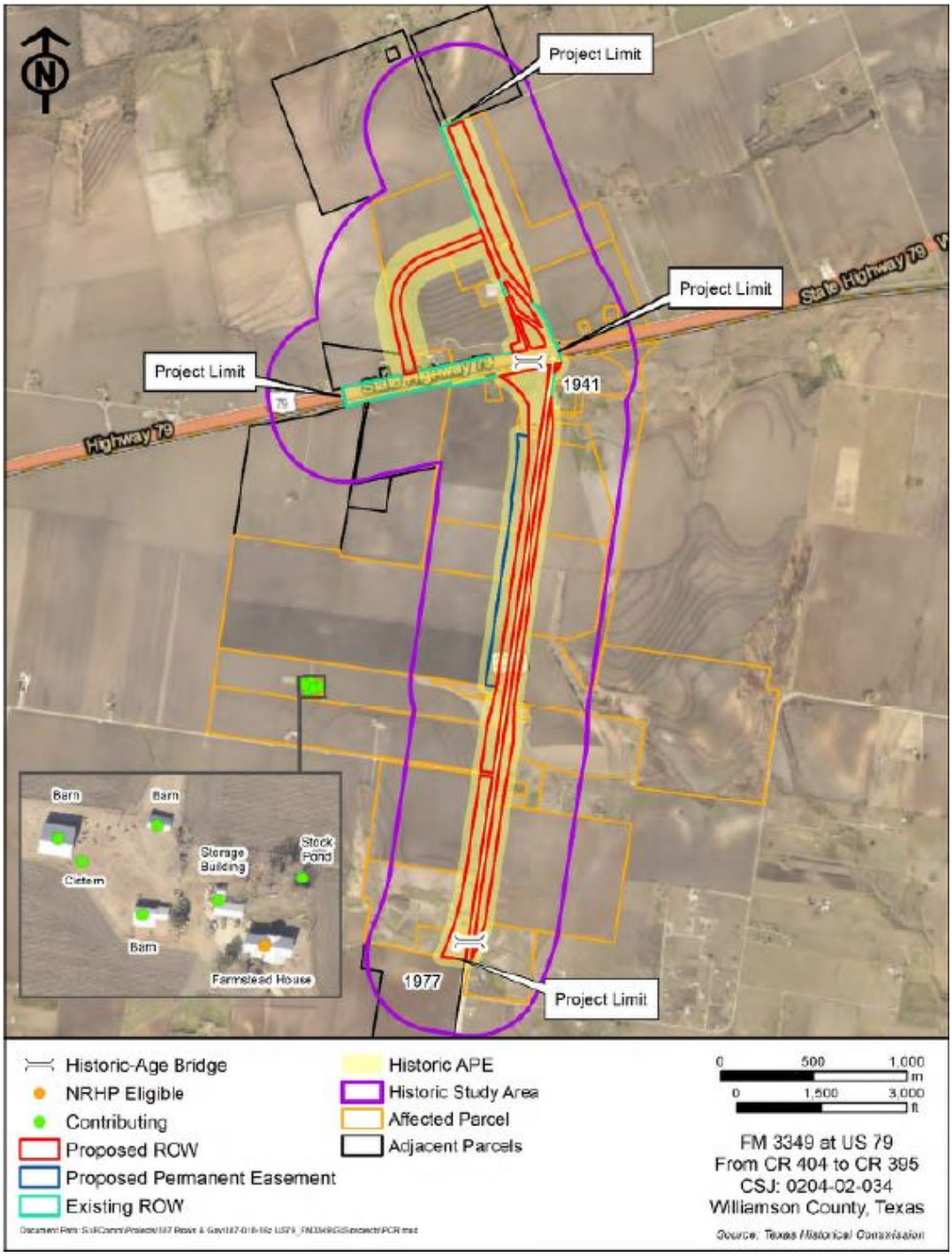

Figure 1. Project APE map showing the location of 1280 FM 3349, Taylor (Resource No. 08, marked by green dots). The inset shows the layout of the agricultural complex. The project will acquire new ROW way from the eastern edge of the property, more than ½-mile from the historic built resources. *Historic Resources Survey Report, p. 185 TxDOT*

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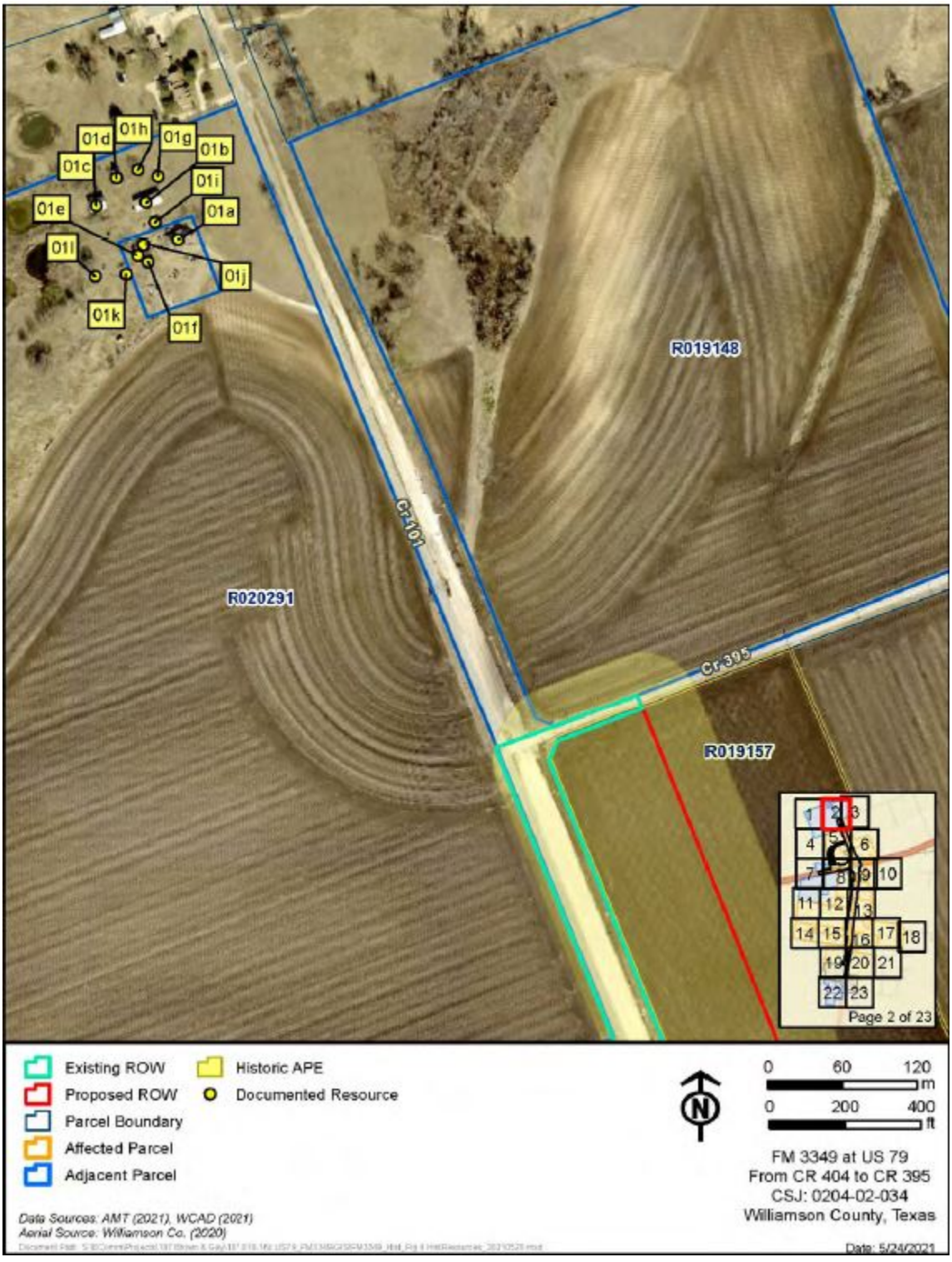

Figure 2. Project APE map showing the location of 5900 CR 101, Taylor (Property No. 01). No new ROW will be acquired from the property. *Historic Resources Survey Report, p. 187 TxDOT*

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ECOS Project Description

Back To List

- WPD Section I - Project Definition
- WPD Section II - Tool
- WPD Section III - Project Work Plan
- WPD Section IV - Findings

Print this Page

Project Definition

Project Name: FM 3349 at US 79

CSJ: 0204 - 02 - 034

Anticipated Environmental Classification: EA

No — Is this an FHWA project that normally requires an EIS per 23 CFR 771.115(a)?

Project Association(s)

DCIS Project Funding and Location

DCIS & P6 Letting Dates

DCIS Project Description

Jurisdiction

Environmental Clearance Project Description

Project Area

Typical Depth of Impacts: 3 (Feet) Maximum Depth of Impacts: 75 (Feet)

New ROW Required: 120.8 (Acres)

New Perm. Easement Required: 20.3 (Acres) New Temp. Easement Required: 0 (Acres)

Project Description

Describe Limits of All Activities: Spell

The proposed project area would extend for approximately 2.89 miles along FM 3349 and CR 101 (from approximately 0.12 mile north of CR 404 to CR 395) and approximately 0.74 mile along US 79 (from approximately 0.71 mile west of the intersection of FM 3349/CR 101 and US 79 to approximately 150 feet east of the intersection of FM 3349/CR 101 and US 79). The proposed project area would also include an approximately 0.65-mile-long arcing corridor of proposed ROW for a local access jug handle between CR 101 and US 79 in the northwest quadrant of the FM 3349/CR 101 and US 79 intersection.

The existing FM 3349 ROW is approximately 100 feet wide. The proposed project would require the acquisition of approximately 150-210 feet of ROW along the west side of FM 3349 and approximately 100-180 feet along the east side of FM 3349, resulting in a new FM 3349 ROW width of 350-490 feet.

The existing CR 101 ROW is approximately 120 feet wide. The proposed project would require the acquisition of approximately 280 feet of ROW along the east side of CR 101, resulting in a new CR 101 ROW width of 400 feet.

The existing US 79 ROW is approximately 330-380 feet wide. The proposed project would not require the acquisition of new ROW along US 79.

The proposed project would require the acquisition of approximately 150-190 feet of ROW along the

Describe Project Setting: Spell

The proposed project would occur in a rural area in Williamson County, Texas between the cities of Hutto and Taylor. There are currently no substantial traffic generators in the immediate vicinity of the proposed project area; however, US 79 is a major east-west route between Taylor and Toll 130.

The proposed project area is in the Northern Blackland Prairies ecoregion. Soils consist primarily of calcareous clayey soils derived from Quaternary alluvium. Land use is almost entirely agriculture (a mix of row crops and pasture/hay fields). Native prairie grasses have been replaced by converted pastures and row crops with few trees. Trees are primarily limited to hardwoods surrounding scattered homesteads and hardwood shrubs along fencerows.

A few scattered residences are interspersed along larger tracts of agricultural land. One commercial property is present in the northwest quadrant of the FM 3349/CR 101 and US 79 intersection. A City of Hutto water tower is present in the southeast quadrant of the intersection and the City of Jonah's Water Plant Number 5 is present in the southwest quadrant of the intersection. The Union Pacific Railroad crosses the proposed project area parallel to and immediately south of US 79. The City of Hutto's planned Dual Rail Site is in the southwest quadrant of the FM 3349/CR 101 and US 79 intersection on the west side of FM 3349. The planned RCR Taylor Logistics Park is in the southeast quadrant of the FM 3349/CR 101 and US 79 intersection on the east side of FM 3349.

The three streams cross the proposed project area, with a total of four separate crossings. An unnamed tributary of Mustang Creek crosses the proposed project area twice: at the intersection of FM 3349/CR 101 and US 79, and at the southern end of the proposed jug handle ROW alignment, approximately 500 feet north of US 79. Boggy Creek crosses the southern end of the project area, approximately 1,100 feet north of CR 404. Boggy Creek and the unnamed tributary of Mustang Creek are likely jurisdictional waters of the U.S. An unnamed tributary of Boggy Creek crosses the proposed project area, approximately 900 feet north of CR 132. This crossing is ephemeral and, under the new 2020 Navigable Waters Protection Rule, is considered non-jurisdictional.

Describe Existing Facility: Spell

The existing FM 3349 roadway, from approximately 0.12 mile north of CR 404 to US 79, is a two-lane undivided roadway with one 11-foot southbound travel lane, one 11-foot northbound travel lane, and 1-foot outside shoulders.

The existing CR 101 roadway, from US 79 to approximately 0.25 mile north of US 79, is a two-lane undivided roadway with one 12-foot northbound lane, one 12-foot southbound lane, and outside shoulders varying from one foot to 10 feet. Approximately 500 feet north of US 79, the southbound 10-foot shoulder on CR 101 tapers southward and the pavement widens to accommodate a 12-foot southbound right turn lane, which begins approximately 220 feet north of US 79. The existing CR 101 roadway, from approximately 0.25 mile north of US 79 to CR 395, is a two-lane undivided roadway with one 10-foot northbound travel lane, one 10-foot southbound travel lane, and no shoulders.

The existing US 79 facility, from approximately 0.71 west of FM 3349/CR 101 to approximately 150 feet east of FM 3349/CR 101, is a four-lane divided roadway with two 12-foot eastbound travel lanes, two 12-foot westbound travel lanes, 10-foot outside shoulders, and 4-foot inside shoulders. Directions of travel are separated by a grassy median (approximately 50 feet wide). The Union Pacific Railroad (UPRR) runs parallel to and south (approximately 60 feet) of US 79 within existing ROW.

Describe Proposed Facility: Spell

The proposed typical sections are described below:

FM 3349 at-grade typical section from approximately 0.36 mile north of CR 404 to approximately 0.21 mile south of US 79: The typical section would be a four-lane divided roadway, with two northbound 12-foot general purpose travel lanes, two southbound 12-foot general purpose travel lanes, 10-foot northbound and southbound inside and outside shoulders, and 2-foot inside and outside curb and gutter.

CR 101 at-grade typical section from approximately 0.21 mile north of US 79 to approximately 0.12 mile south of CR 395: The proposed CR 101 facility would be an at-grade four-lane divided roadway, with two northbound 12-foot general purpose travel lanes, two southbound 12-foot general purpose travel lanes, 10-foot northbound and southbound inside and outside shoulders, and 2-foot inside and outside curb and gutter.

FM 3349 and CR 101 retaining wall typical sections: The proposed FM 3349 roadway, from approximately 0.21 mile south of US 79 to approximately 0.12 mile south of US 79 would be an elevated (earth and retaining wall) four-lane divided roadway, with two northbound 12-foot general purpose travel lanes, two southbound 12-foot general purpose travel lanes, 10-foot inside shoulders, 7.5-foot outside shoulders, and 1-foot inside and outside single slope traffic rails. The proposed CR 101 roadway, from approximately 0.12 mile north of US 79 to approximately 0.21

Yes Would the project add capacity?

Transportation Planning

Environmental Clearance Information

Project Contacts

Last Updated By: Hilda Ortiz

Last Updated Date: 05/26/2021 03:37:05

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Project and APE Maps

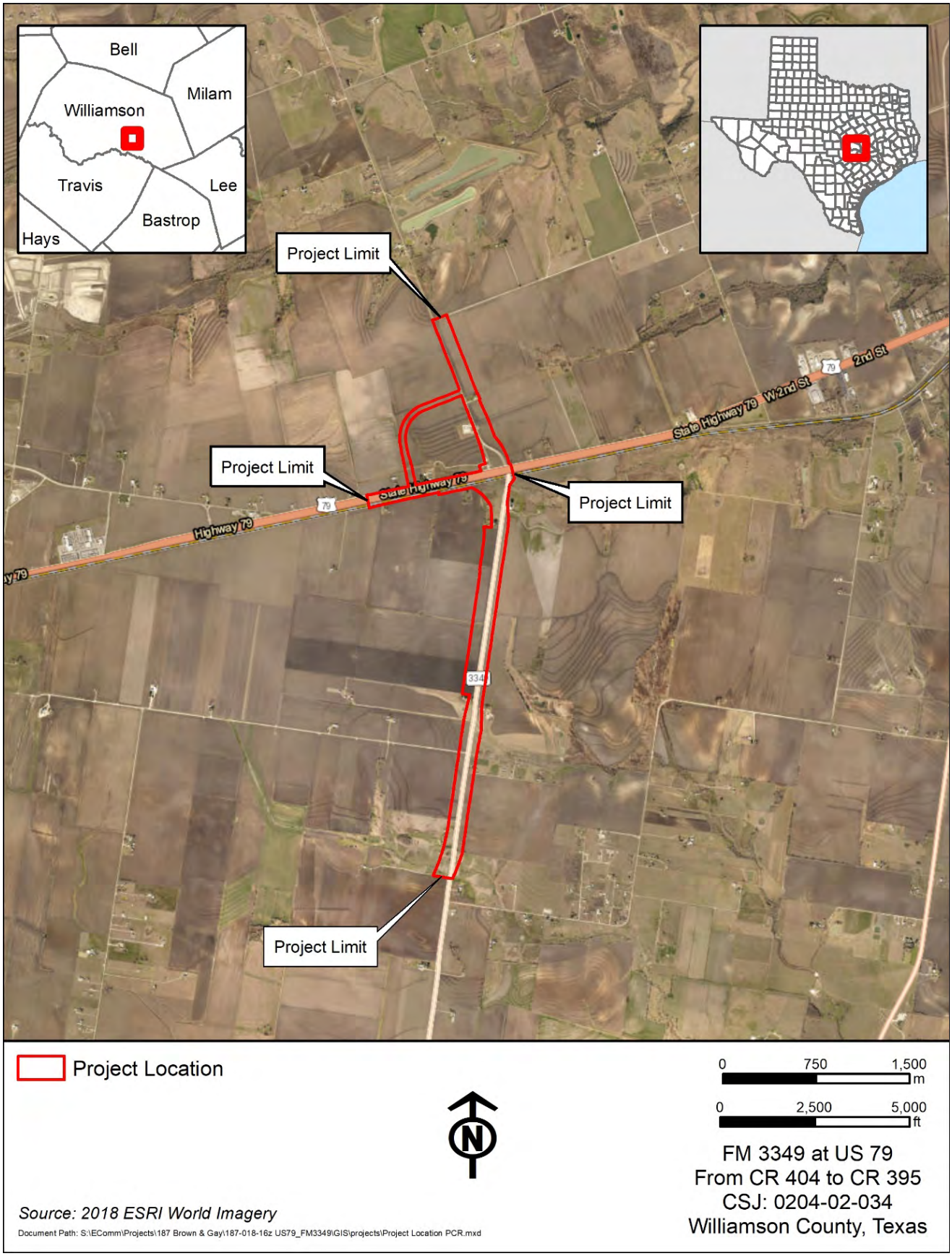

Figure 1a: Project location map (aerial)

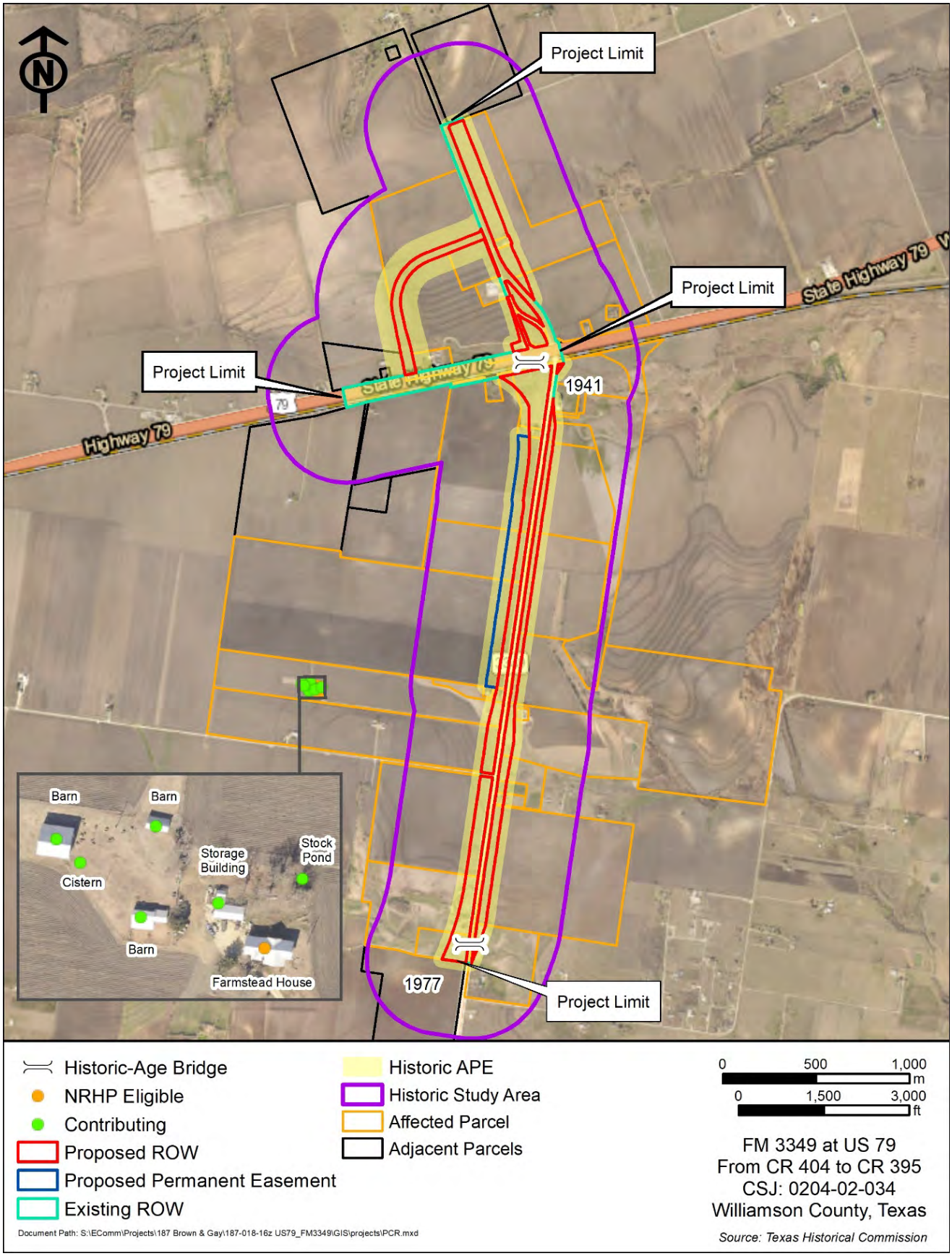

Figure 2: Project APE and Study Area

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Eligible Properties

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	08a
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	1280 FM 3349 30.537585°, -97.496450°
Function/Sub-function:	AGRICULTURE/ Single family dwelling
Construction Date:	Ca. 1940
NRHP Eligibility:	Previously determined Eligible (May 2011, CSJ: 0566-01-009, Site No. 122A), Criterion A (Agriculture),
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 08a is a Minimal Traditional style house featuring asbestos siding, a modern, metal, cross-gabled roof, a porch sheltered by a shed roof with a dormer, and original metal, sash windows. Resource No. 08a was previously determined eligible in May 2011 under Criterion A for Agriculture, as Property No. 08 represents an operating 1940s farm in Williamson County. AmaTerra project historians concur with the 2011 findings, as Resource No. 08a maintains integrity of location, its agricultural setting, its design features, original materials, workmanship, feeling of a historic-age, operating farm, and association with historic trends in Williamson County agriculture. The surrounding fields support Property No. 08's integrity of setting, feeling, and association. The organization of the domestic and agricultural work zones, as well as the surrounding associated fields are maintained, despite the inclusion of a modern garage and shed, and support integrity of setting, design, feeling, and association. While Resource No. 08a maintains integrity of design, materials, and workmanship, it does not rise to a level of architectural significance to be recommended eligible under Criterion C.

Camera facing northwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	08b
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	1280 FM 3349 30.538076°, -97.497436°
Function/Sub-function:	AGRICULTURE/ Barn
Construction Date:	Ca. 1960
NRHP Eligibility:	Previously determined Contributing (May 2011, CSJ: 0566-01-009, Site No. 122D), Criterion A
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 08b is a wood-frame hay barn featuring a steep-pitched, metal, gabled roof, vertical corrugated metal siding, six open bays on the south façade, and large sliding bay doors on the east façade. Resource No. 08b was previously determined a contributing resource to Property No. 08 in May 2011 under Criterion A for Agriculture, as Property No. 08 represents an operating 1940s farm in Williamson County. AmaTerra project historians concur with the 2011 findings, as Resource No. 08b maintains integrity of location, its agricultural setting, its design features, original materials, workmanship, feeling of a historic-age, operating farm, and association with historic trends in Williamson County agriculture. The surrounding fields support Property No. 08's integrity of setting, feeling, and association. The organization of the domestic and agricultural work zones, as well as the surrounding associated fields are maintained, despite the inclusion of a modern garage and shed, and support integrity of setting, design, feeling, and association. While Resource No. 08b maintains integrity of design, materials, and workmanship, it does not rise to a level of architectural significance to be recommended eligible under Criterion C.

Camera facing northeast.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	08c
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	1280 FM 3349 30.537811°, -97.496676°
Function/Sub-function:	AGRICULTURE/ Storage building
Construction Date:	Ca. 1950
NRHP Eligibility:	Previously determined Contributing (May 2011, CSJ: 0566-01-009, Site No. 122E), Criterion A
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☐ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 08c is a storage building located behind the modern four-car garage. It features a metal, gabled roof. Resource No. 08c was previously determined a contributing resource to Property No. 08 in May 2011 under Criterion A for Agriculture, as Property No. 08 represents an operating 1940s farm in Williamson County. AmaTerra project historians concur with the 2011 findings, as Resource No. 08c maintains integrity of location, its agricultural setting, its design features, original materials, workmanship, feeling of a historic-age, operating farm, and association with historic trends in Williamson County agriculture. The surrounding fields support Property No. 08's integrity of setting, feeling, and association. The organization of the domestic and agricultural work zones, as well as the surrounding associated fields are maintained, despite the inclusion of a modern garage and shed, and support integrity of setting, design, feeling, and association. While Resource No. 08c maintains integrity of design, materials, and workmanship, it does not rise to a level of architectural significance to be recommended eligible under Criterion C.

Camera facing north.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	08d
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	1280 FM 3349 30.537732°, -97.497023°
Function/Sub-function:	AGRICULTURE/ Barn
Construction Date:	Ca. 1940
NRHP Eligibility:	Previously determined Contributing (May 2011, CSJ: 0566-01-009, Site No. 122C), Criterion A
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 08d is a barn featuring a shallow-pitched, metal, gabled roof with a metal, shed roof overhang supported by simple wood braces and supports. A small barn addition is attached to the east façade of the main footprint. Both the larger barn and attachment have corrugated metal siding. Resource No. 08d was previously determined a contributing resource to Property No. 08 in May 2011 under Criterion A for Agriculture, as Property No. 08 represents an operating 1940s farm in Williamson County. AmaTerra project historians concur with the 2011 findings, as Resource No. 08d maintains integrity of location, its agricultural setting, its design features, original materials, workmanship, feeling of a historic-age, operating farm, and association with historic trends in Williamson County agriculture. The surrounding fields support Property No. 08's integrity of setting, feeling, and association. The organization of the domestic and agricultural work zones, as well as the surrounding associated fields are maintained, despite the inclusion of a modern garage and shed, and support integrity of setting, design, feeling, and association. While Resource No. 08d maintains integrity of design, materials, and workmanship, it does not rise to a level of architectural significance to be recommended eligible under Criterion C.

Camera facing northeast.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	08e
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	1280 FM 3349 30.538163°, -97.496968°
Function/Sub-function:	AGRICULTURE/ Barn
Construction Date:	Ca. 1940
NRHP Eligibility:	Previously determined Contributing (May 2011, CSJ: 0566-01-009, Site No. 122B), Criterion A
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 08e is a barn featuring a metal, gabled roof and corrugated metal siding. Resource No. 08e was previously determined a contributing resource to Property No. 08 in May 2011 under Criterion A for Agriculture, as Property No. 08 represents an operating 1940s farm in Williamson County. AmaTerra project historians concur with the 2011 findings, as Resource No. 08e maintains integrity of location, its agricultural setting, its design features, original materials, workmanship, feeling of a historic-age, operating farm, and association with historic trends in Williamson County agriculture. The surrounding fields support Property No. 08's integrity of setting, feeling, and association. The organization of the domestic and agricultural work zones, as well as the surrounding associated fields are maintained, despite the inclusion of a modern garage and shed, and support integrity of setting, design, feeling, and association. While Resource No. 08e maintains integrity of design, materials, and workmanship, it does not rise to a level of architectural significance to be recommended eligible under Criterion C.

Camera facing southwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01a
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.568712°, -97.491794°
Function/Sub-function:	AGRICULTURE/ Single family dwelling
Construction Date:	Ca. 1921
NRHP Eligibility:	Eligible, Criterion A (Agriculture), Criterion C
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01a is the main house associated with Property No. 01, located in the domestic work zone of the farmstead. The Craftsman-style house features a cross-gable roof, exposed rafter tails, decorative brackets beneath wide eaves, at least one interior brick chimney located on the south downslope of the roof, original wood siding, and original paired windows. The two visible porches are sheltered by overhanging gabled extensions of the roofline and are accentuated by groupings of three pedimented, squared columns over half-walls. Retaining its original materials, the house maintains integrity of design, materials, and workmanship. Furthermore, the house maintains integrity of setting, feeling, and association because it defines the domestic work zone, its agricultural setting is preserved, as its associated lands are still being worked for agricultural purposes, and the building serves as the main living quarters for the farmstead, giving it direct association with the parcel and other resources. Resource No. 01a and its associated property are recommended eligible under Criterion A because they are representative of eastern Williamson County's agricultural history (further explained National Register Eligibility Recommendations/ Eligible Properties/Districts). Resource No. 01a possesses many indicative features of a Craftsman style house, and is therefore, a strong example of the style. Therefore, Resource No. 01a is recommended eligible under Criterion C.

Camera facing northwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01b
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.568990°, -97.492056°
Function/Sub-function:	AGRICULTURE/ Pole barn
Construction Date:	Ca. 1965
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01b is a pole barn located within the domestic work zone of Property No. 01 north of Resource No. 01a. The wood-frame pole barn features a linear, rectangular plan, a shallow-pitched, side-gabled, metal roof, four open bays along the south façade, and corrugated metal siding. While Resource No. 01b was constructed several decades after the establishment of the farmstead, it falls within the farmstead's period of significance (1921-1977) and maintains the overall design of the domestic and agricultural working zones. Therefore, it is recommended eligible under Criterion A (Agriculture) as a contributing resource to Property No. 01. Although the pole barn maintains integrity of design, materials, and workmanship, it does not rise to a level of architectural significance to be recommended eligible under Criterion C.

Camera facing southwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01c
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.568974°, -97.492473°
Function/Sub-function:	AGRICULTURE/ Barn
Construction Date:	Ca. 1921
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☒ Design ☐ Materials ☐ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01c is a wood-frame barn located within the agricultural work zone of Property No. 01. The barn features a steep-pitched, front-gabled, metal roof (modern replacement), and what appears to be original wood siding. There is a wood vent located on the front façade. The modern roof negatively impacts integrity of materials. In addition, the barn is in poor condition as large portions of the wood siding are missing, which impacts integrity of workmanship. Therefore, Resource No. 01c is recommended not eligible under Criterion C. However, the barn's construction falls within the period of significance. Furthermore, the barn maintains the design of the domestic and agricultural work zones of Property No. 01. Therefore, Resource No. 01c is recommended as a contributing resource to Property No. 01 under Criterion A.

Camera facing west.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01d
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.569169°, -97.492296°
Function/Sub-function:	AGRICULTURE/ Barn
Construction Date:	Ca. 1921
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☐ Design ☒ Materials ☐ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01d is a wood-frame barn located within the agricultural work zone of Property No. 01. The barn features a steep-pitched, front-gabled, metal roof, and original wood siding. A small, gable-roofed dormer near the northeast corner of the barn is a unique feature. The dormer has its own modern door, metal roof, and plywood siding. Due to the open bay on the south façade, it appears the barn may have featured a hay loft. Three open bays are located underneath it. The barn is in poor condition as large portions of the wood siding are missing, which impacts integrity of workmanship. Furthermore, aerial imagery suggests the northern extension of the barn (including the unique dormer) is a modern addition, circa. 1985, negatively impacting integrity of design. Therefore, Resource No. 01d is recommended not eligible under Criterion C. However, the barn's construction falls within the period of significance. Furthermore, the barn maintains the design of the domestic and agricultural work zones of Property No. 01. Therefore, Resource No. 01d is recommended as a contributing resource to Property No. 01 under Criterion A.

Camera facing northwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01e
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.568605°, -97.492138°
Function/Sub-function:	AGRICULTURE/ Barn
Construction Date:	Ca. 1950
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01e is a barn located within the agricultural work zone of Property No. 01. The barn features a steep-pitched, side-gabled, metal roof flanked by two steep-pitched, shed roofs, and white-painted, wood siding. An open bay is apparent on the east façade. Overall, Resource No. 01e retains its integrity. However, it does not rise to a level of architectural significance to be recommended eligible under Criterion C. However, the barn's construction date falls within the period of significance. Furthermore, the barn maintains the design of the domestic and agricultural work zones of Property No. 01. Therefore, Resource No. 01e is recommended as a contributing resource to Property No. 01 under Criterion A.

Camera facing northwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01f
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.568557°, -97.492051°
Function/Sub-function:	AGRICULTURE/ Shed
Construction Date:	Ca, 1975
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☐ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01 is a shed located within the agricultural work zone of Property No. 01. The shed features a shallow-pitched, metal, side-gabled roof, and wood siding. While the shed retains its integrity, it does not rise to a level of architectural significance to be recommended eligible under Criterion C. However, it does contribute to the overall design of the various zones of the farmstead, and is therefore recommended eligible as a contributing resource of Property No. 01 under Criterion A.

Camera facing west.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01g
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.569175°, -97.491952°
Function/Sub-function:	AGRICULTURE/ Shed
Construction Date:	Ca. 1921
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01g is a shed featuring a hipped, metal roof and original wood siding. A large bay is noted on the south façade, while a window with its original muntin is located on the east façade. The muntin is in poor condition and fallen out of place. While the shed retains its integrity, it does not rise to a level of architectural significance to be recommended eligible under Criterion C. However, it does contribute to the overall design of the various zones of the farmstead, and is therefore recommended eligible as a contributing resource of Property No. 01 under Criterion A.

Camera facing southwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01h
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.569224°, -97.492119°
Function/Sub-function:	AGRICULTURE/ Loafing shed
Construction Date:	Ca. 1921
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture), Criterion C
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01h appears to be a loafing shed located within the agricultural work zone of Property No. 01. The loafing shed features a shallow-pitched, metal, shed roof and wood siding. The wood siding is accentuated by unique daubing between planks. With less vegetation present in Google Street view, it is clearer to see there are four partially open bays. The openings are along the lower portion of the façade, indicative of a hog shelter. As one of the original structures associated with the farmstead, Resource No. 01h contributes to the overall design of the various zones of the farmstead, and is therefore recommended eligible as a contributing resource of Property No. 01 under Criterion A. Furthermore, Resource No. 01h features unique workmanship. Daubing is indicative of northern European construction techniques, which is representative of Williamson County's earliest settlers and the passing down of traditions. The structure maintains integrity of design, its original materials, and workmanship. Therefore, Resource No. 01h is also recommended eligible under Criterion C.

Camera facing southwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01i
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.568841°, -97.491984°
Function/Sub-function:	AGRICULTURE/ Secondary housing
Construction Date:	Ca. 1975
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☐ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01i is secondary housing located within the domestic work zone of Property No. 01 and northeast of Resource No. 01a. It features a shallow-pitched, side-gabled, metal roof, painted-white, wood siding, two double-hung windows with inoperable panel shutters, and a small stoop with a modern panel door and simple turned spindles. While Resource No. 01i retains integrity, it does not rise to a level of architectural significance to be recommended eligible under Criterion C. However, Resource No. 01i falls under the period of significance and contributes to the domestic work zone boundaries and is therefore recommended as eligible under Criterion A (Agriculture) as a contributing resource.

Camera facing southwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01j
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.568680°, -97.492086°
Function/Sub-function:	AGRICULTURE/ Shed
Construction Date:	Ca, 1975
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource. No. 01j is a shed located within the agricultural work zone of Property No. 01. It features a shallow-pitched, side-gabled, shingled roof, composite siding, a sliding bay door located on the south façade, and a window on the east façade. While Resource No. 01j retains integrity, it does not rise to a level of architectural significance to be recommended eligible under Criterion C. However, Resource No. 01j falls under the period of significance and contributes to the agricultural work zone boundaries and is therefore recommended as eligible under Criterion A (Agriculture) as a contributing resource.

Camera facing southwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01k
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.568471°, -97.492236°
Function/Sub-function:	AGRICULTURE/ Shed
Construction Date:	Ca, 1950
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☐ Design ☒ Materials ☐ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01k is a shed featuring a shallow-pitched, metal, shed roof with wide overhanging eaves and original, painted-white, wood siding. There are two open bays, one on the east façade, the other on the west façade. While Resource No. 01k retains integrity of materials, it does not rise to a level of architectural significance to be recommended eligible under Criterion C. However, Resource No. 01k falls under the period of significance and contributes to the agricultural work zone boundaries and is therefore recommended as eligible under Criterion A (Agriculture) as a contributing resource.

Camera facing northwest.

DocuSign Envelope ID: 91E115C7-04DB-4ECF-A093-F733D17C7FEE

Survey Date:	May 11, 2021
Resource No:	01I
Project Location:	Williamson County
Project Name and CSJ:	FM 3349 at US 79, CSJs: 0204-02-034, 3488-01-008, 0914-05-211
Address, Lat/Long:	5900 CR 101 30.568464°, -97.492496°
Function/Sub-function:	AGRICULTURE/ Unknown
Construction Date:	Ca. 1975
NRHP Eligibility:	Eligible, Contributing Resource, Criterion A (Agriculture)
Integrity:	☒ Location ☒ Setting ☒ Design ☒ Materials ☒ Workmanship ☒ Feeling ☒ Association
Comments:	Resource No. 01I is an outbuilding of unknown function located within the agricultural work zone of Property No. 01. Aerial imagery showcases a linear plan, while survey photos highlight a steep-pitched, metal, gabled roof. The siding is dark in color and may be wood. While Resource No. 01I retains integrity, it does not rise to a level of architectural significance to be recommended eligible under Criterion C. However, Resource No. 01I falls under the period of significance and contributes to the agricultural work zone boundaries and is therefore recommended as eligible under Criterion A (Agriculture) as a contributing resource.

Camera facing west.