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PROPOSED SCOPE OF WORK FOR AN INTENSIVE ARCHAEOLOGICAL INVESTIGATION OF THE COUNTY ROAD 129 SAFETY IMPROVEMENT PROJECT, WILLIAMSON COUNTY, TEXAS

Project Landowner – Williamson County

Project Sponsor – Williamson County

Project Consultant – SWCA Environmental Consultants

Principal Investigator – Michael J. Retter, M.A.

Date – April 23, 2021

INTRODUCTION

At the request of Garver, LLC, SWCA Environmental Consultants (SWCA) proposes to conduct an intensive cultural resources survey of approximately 0.47 miles (0.76 kilometers [km]) of roadway in support of the County Road (CR) 129 Safety Improvements Project (project) (Figure 1). The project consists of improvements to the road, associated drainage, driveway connections, signing, and pavement markings. Because the project involves lands owned or controlled by Williamson County (a subdivision of the state), the project will be subject to review under the Antiquities Code of Texas (ACT), and the archaeological field investigation will require a Texas Antiquities Permit; therefore, the investigations proposed below are designed to comply with the requirements of the ACT. Based on the current project understanding, no federal regulatory compliance is anticipated. Based on a review of the project area soils, geology, and previously recorded archaeological sites, as well as previously conducted surveys in the area, SWCA proposes to conduct an intensive pedestrian survey with subsurface testing of the project area. The goal of the work will be to locate any previously recorded prehistoric and historic-age archaeological sites in the project area, locate any previously undiscovered archaeological sites in the project area, establish vertical and horizontal site boundaries, as appropriate with regard to the project area, and evaluate the significance and eligibility of any site recorded in the project area for eligibility for listing in the National Register of Historic Places (NRHP) and for designation as a State Antiquities Landmark (SAL). All work will be conducted in accordance with the ACT.

Project Description

The project area appears on the northeast portion of the *Pflugerville East, Texas* (3097-244) and the northwestern portion of the *Coupland, Texas* (3097-133) U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps. The project area is located approximately 0.21 miles (0.34 km) south of Brushy Creek and approximately 0.2 miles (0.32 km) north of the Williamson County line. The project area consists of the expansion of a two-lane rural asphalt road from approximately 10-foot-wide (3.04 m-wide) lanes without shoulders to two 12-foot-wide (3.65 m) lanes with 4-foot-wide (1.29 m) shoulders on each side, safety improvements to drainage elements, driveway connections, signing, and pavement markings. The proposed project area is 0.52 miles (0.84 km) south of Norman Crossing, Texas, along the southern periphery of Williamson County (Figure 2). The project area is currently situated in residential and agricultural fields, and the existing CR 129 roadway and right-of-way occupy the vast majority of the project area (see Figure 2).

Proposed Scope of Work for an Intensive Archaeological Investigation of the County Road 129 Safety Improvement Project, Williamson County, Texas

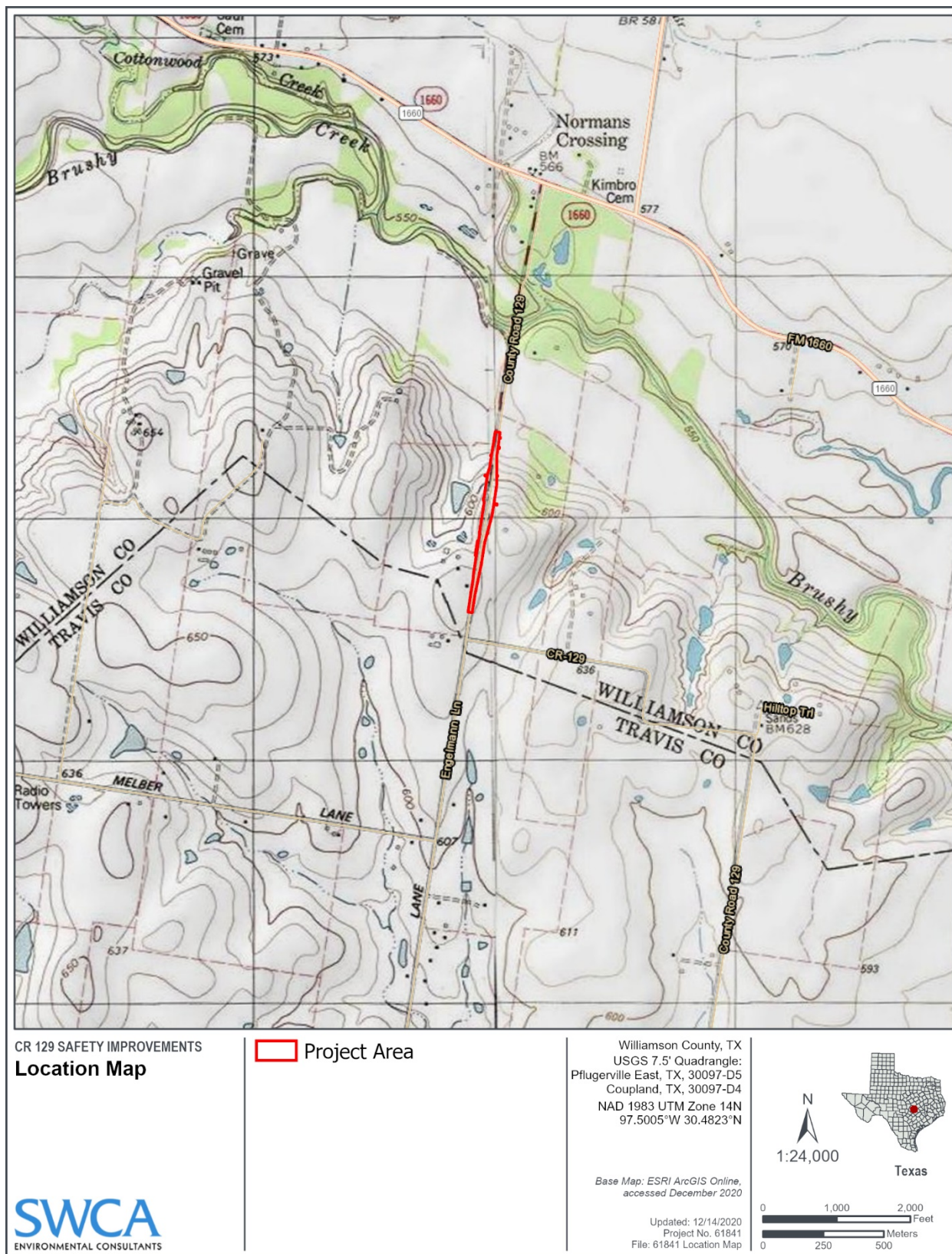


Figure 1. Project location map.

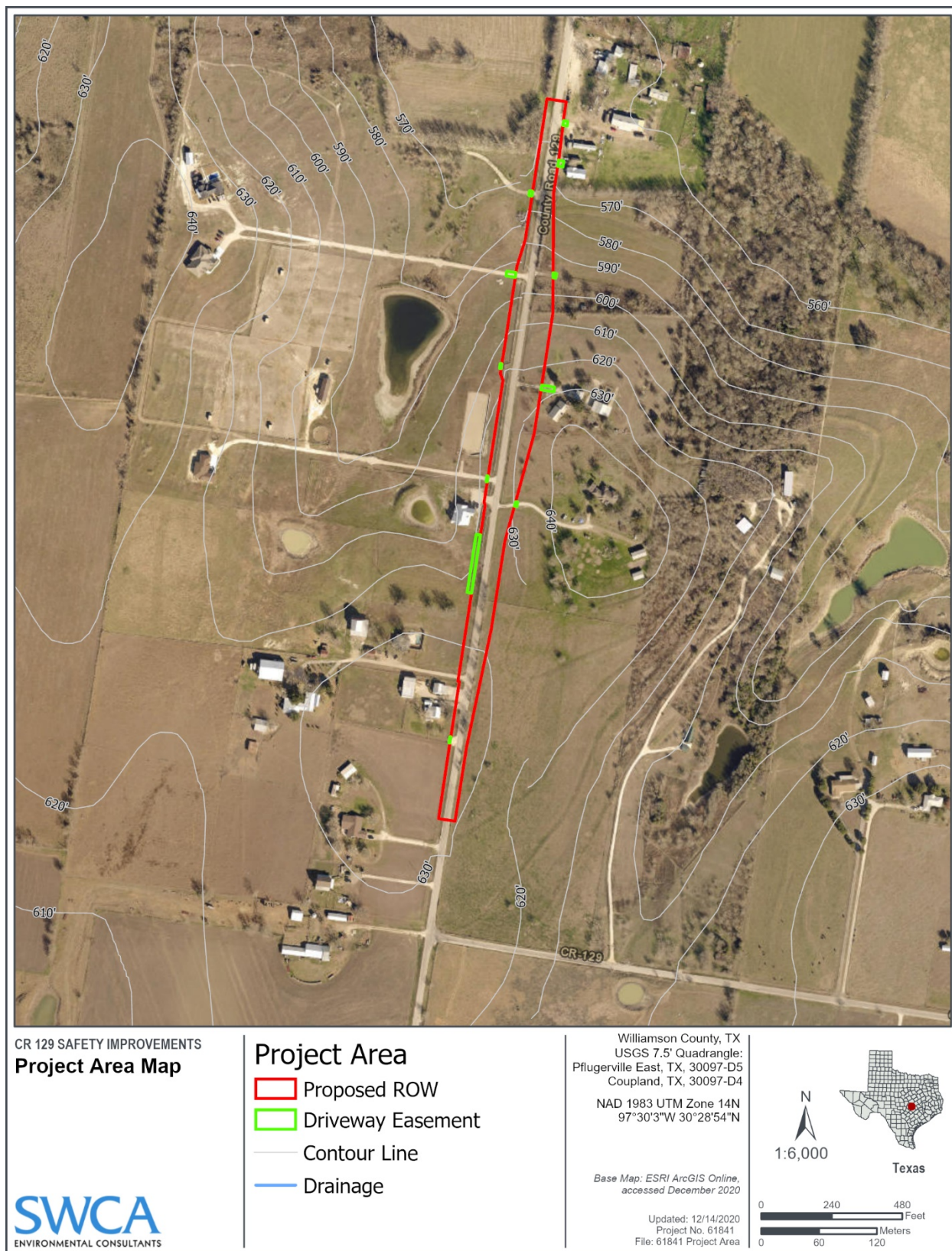


Figure 2. Project area overview map.

PROJECT SETTING

The project alignment crosses the Northern Blackland Prairie subregion within the Texas Blackland Prairies ecoregion (Griffith et al. 2007). The physiography of the area is described as lightly to moderately dissected irregular plains with low to moderate gradient streams with silty, clayey, and sandy substrates (Griffith et al. 2007:63).

Geology

The underlying geology throughout the project area consists entirely of Cretaceous-age Pecan Gap Chalk (Figure 3) (Barnes 1974; USGS 2020a). The Pecan Gap Chalk consists predominantly of chalk in the lower parts of the rock unit grading upwards to a chalky marl. This marl consists of a microangular calcite in a clay matrix with well-rounded quartz grains. This formation lies in beds up to 200 feet (61 m) thick, which grade laterally in some places to marl (USGS 2020a). Given the age of this formation, there is virtually no potential to contain buried archaeological resources.

Soils

According to the Natural Resources Conservation Service (2020), there are four soil series mapped within the project area including the Ferris-Heiden complex, 5 to 15 percent slopes, moderately eroded, Houston Black clay, 1 to 3 percent slopes, Houston Black clay, 3 to 5 percent slopes, moderately eroded, and Oakalla silty clay loam, 0 to 2 percent slopes, occasionally flooded (Table 1; see Figure 3).

The Ferris-Heiden complex consists predominantly of the Ferris (48%) soil series, and to a lesser extent, the Heiden (32%) soil series. These soils consist of deep, well-drained soils that formed in clayey residuum weathered from calcareous mudstone. This complex occurs on gently sloping to moderately steep footslopes, shoulders of interfluves, and backslopes of side slopes of ridges on dissected plains.

The Houston Black soil series consists of very deep, moderately well-drained soils that formed in clayey residuum derived from Cretaceous-aged mudstone. This soil occurs on interfluves and side slopes on upland ridges and plain on dissected plains.

Finally, the Oakalla soil series consists of very deep, well-drained soils that formed in loamy alluvium derived from Cretaceous-aged limestone. These soils occur on nearly level to gently sloping floodplains on perennial streams in river valleys. Due to the age, physical characteristics of these soils, as well as the landforms on which they occur, the project has little potential to contain deeply buried archaeological materials.

Table 1. Project Area Soils

Name	Symbol	Acres	Percentage
Ferris-Heiden complex, 5 to 15 percent slopes	FhF2	3.75	68.3
Houston Black clay, 1 to 3 percent slopes	HoB	0.94	17.1
Houston Black clay, 3 to 5 percent slopes	HoC2	0.78	14.3
Oakalla silty clay loam, 0 to 2 percent slopes	OaA	0.02	0.3

Source: Natural Resources Conservation Service (2020).

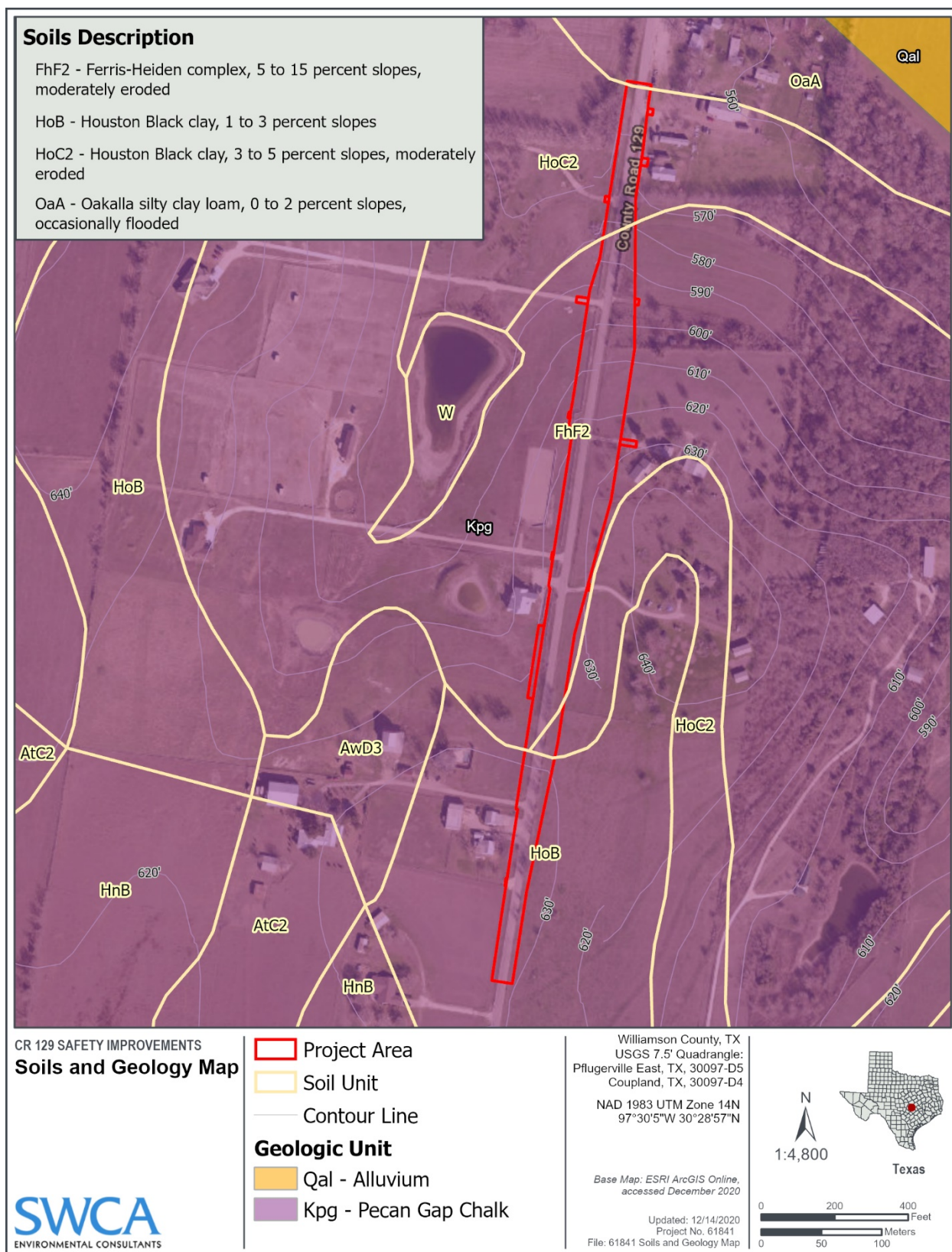


Figure 3. Project area soils and geology map.

BACKGROUND REVIEW

An SWCA archaeologist researched the Texas Archeological Sites Atlas (Atlas), a restricted, online database maintained by the Texas Historical Commission (THC) and the Texas Archeological Research Laboratory, for any previously recorded surveys and historic or prehistoric archaeological sites located in or within 1.0 km (0.6 mile) of the project area (THC 2020). In addition to identifying previously recorded archaeological sites, the Atlas review includes the following types of information: NRHP districts and properties, SALs, Official Texas Historical Markers, Registered Texas Historic Landmarks, cemeteries, and local neighborhood surveys. Listings in Atlas are limited to projects under purview of the ACT or the NHPA; therefore, the Atlas does not necessarily list all previous work conducted within a specific area. However, SWCA made a concerted effort to obtain reports for all previous cultural resources work conducted in the project area. The background review revealed that the proposed project area has not been previously investigated for cultural resources (Figure 4) (THC 2020). Two cultural resources surveys and four archaeological sites are located within a 1.0-km (0.6-mile) radius of the project area (see Figure 4) (THC 2020). Additionally, the historical map review revealed 23 potentially historic-age structures within a 1.0-km (0.6-mile) radius of the project area, three of which are immediately adjacent to (within 300 feet [106.7 m]) the current project area (Figure 5) (USGS 2020b).

Previous Cultural Resources Surveys

Two previously conducted cultural resources surveys were conducted within the 1.0-km (0.6-mile) radius around the project area, one of which was an area survey of two parcels and the other was a linear survey. The area survey was conducted in 1982 on two parcels located north of Brushy Creek with Soil Conservation Services noted as the project sponsor. The linear survey has no associated information detailed on the Atlas regarding the project. No further information is available regarding these surveys (THC 2020.)

Previously Recorded Archaeological Sites

Four archaeological sites (i.e., 41WM1382, 41WM779, 41WM13, and 41WM755) were identified within the 1.0-km (0.6-mile) radius of the project area, none of which are immediately adjacent to the project area. These sites are located near the northern periphery of the radius boundary, near or adjacent to Brushy Creek. Among these four sites, three are prehistoric sites (i.e., 41WM1382, 41WM779, and 41WM13) and one is a multicomponent site (41WM755) consisting of both a prehistoric and a historic component.

Site 41WM755 is located on the western side of CR 129 approximately 426.9 feet (130.1 m) from the Brushy Creek bridge on the northern bank of Brushy Creek. The site is defined as a large multicomponent site measuring approximately 200×200 feet (61×61 m) and yielded surface artifacts (glass and cans) dating to the early twentieth century and prehistoric subsurface artifacts (approximately 3.3 feet [1.0 m] deep) including burned rock, charcoal flakes, and mussel shell.

Site 41WM13 is located approximately 0.31 miles (0.50 km) north of the project area and is situated in a plowed field on the northern bank of a bend of Brushy Creek. The site is a large open campsite measuring approximately 1 acre in size and was investigated in 1959 and 1988. The initial investigation consisted of a surface inspection only; two dart point fragments, flakes, and cores were observed. Although no subsurface investigation was conducted in 1959, the property owner mentioned recovering cultural material approximately 6 feet (1.8 m) deep. In 1988, subsurface investigations resulted in the recording of burned rock and snail shell at approximately 3.3 feet (1.0 m) below the surface near the creek. However, road and bridge construction were noted to have impacted the site. This site is recommended not eligible for the NRHP (THC 2020).

Restricted Information
Not for Public Disclosure

Figure 4. Background review results map.

Site 41WM779 is defined as a prehistoric open camp site located in a plowed field approximately 352.4 feet (107.4 m) south of the southern bank of Brushy Creek. The site measures approximately 200×430 feet (61×131 m) and was assessed through a pedestrian survey, noting the presence of burned rock, lithic debitage, and mussel shell. No subsurface investigation was conducted, and no recommendations were provided (THC 2020).

No information was available on the Atlas regarding site 41WM1382 (THC 2020).

Camino Real de los Tejas

Two routes for the Camino Real de los Tejas National Historic Trail intersect with the 0.6-mile (1.0-km) radius of the project area, one of which intersects the project area. *Camino Reales* or “Royal roads” were routes that connected the Spanish empire to Mexico City. Camino Real de los Tejas was the primary overland route for the Spanish colonization of Texas and northwestern Louisiana (National Park Service 2020).

Historical Map Review

The historical map review revealed three potentially historic-age structures adjacent to (within 300 feet [107 m]) the project area, two of which are extant (see Figure 5) (Foster et al. 2006; USGS 2020b). An additional 23 potentially historic-age structures were identified within a 0.6-mile (1-km) radius surrounding the project area (USGS 2020b). All structures are depicted on the 1950 *Elgin* and 1968 *Pflugerville East* USGS topographic quadrangle maps, most of which are restricted to the periphery of the 0.6-mile (1-km) radius surrounding the project area (see Figure 5) (Foster et al. 2006; USGS 1950, 1968, 2020b). Current aerial imagery indicates that some of these structures are extant.

PROPOSED SCOPE OF WORK

Once an Antiquities Permit has been obtained, SWCA will conduct an archaeological field survey of the 0.47-mile-long (0.76-km) project area. The field survey will be performed by a team of two SWCA archaeologists walking the proposed project area. SWCA will incorporate approximately 100-foot-wide (30-m-wide) transects with archaeologists examining the ground surface for artifacts and features. The survey will be of sufficient intensity to determine the nature, extent, and, if possible, potential significance of any cultural resources located within the proposed project area. Subsurface explorations will be accomplished through shovel testing. The placement and quantity of these excavations will depend on the level of disturbance within the proposed project boundary and the nature of the soils, geology, and topography.

Shovel tests will be approximately 12 inches (30 centimeters [cm]) in diameter and excavated in arbitrary 8-inch (20-cm) levels to 31 inches (80 cm) below surface or culturally sterile deposits, whichever comes first. The matrix will be screened through ¼-inch mesh. The location of each shovel test will be plotted using a sub-meter accurate global positioning system (GPS) receiver, and each test will be recorded on appropriate project field forms. Shovel tests will be excavated according to THC standards. For linear projects, at least one shovel test per 100 m (328 feet) should be excavated within a 30 m (98-foot) corridor. The majority of the project corridor is less than 30 m (98 feet), except for an approximately 240-m-long (787-foot-long) segment near the middle of the project, which expands to a maximum of 45-m-wide (148-feet-wide). This expanded segment will require another transect of shovel tests. Any deviations from these standards will be clearly discussed and explained in the resulting report for the investigation. Based on these standards, a minimum of 11 shovel tests will be required for this project. If the shovel testing indicates the potential for cultural deposits deeper than 31 inches (80 cm) below surface, SWCA will make recommendations for any areas that would require deep testing (i.e., backhoe trenching) if

future impacts from the proposed project are anticipated to be deeper than 31 inches (80 cm) below surface.

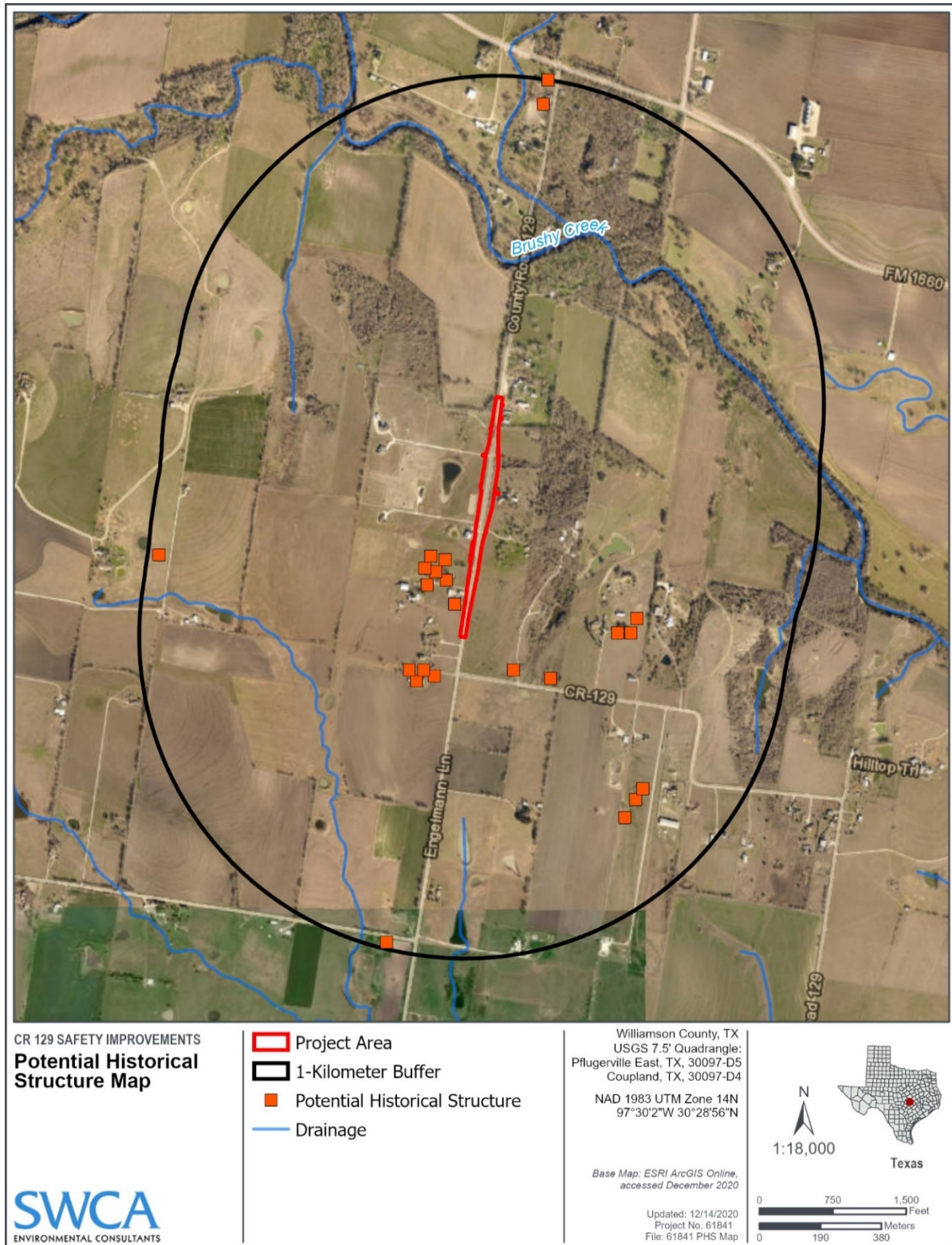


Figure 5. Potential historical structures within 1 km (0.6 mile) of the project area.

Site Documentation

If an archaeological site is encountered during the investigation, it will be explored as much as possible with consideration to land access constraints. All recorded sites will be mapped in detail and plotted on USGS 7.5-minute topographic quadrangle maps with a hand-held, sub-meter accurate GPS unit and appropriate project maps for planning purposes. All discovered sites will be assessed regarding potential significance so that recommendations can be made for property management (i.e., avoidance, non-avoidance, or further work). Additional shovel tests will be conducted per THC standards at discovered sites to define horizontal and vertical boundaries. Appropriate State of Texas Archaeological Site Data Forms will be filled out for each site discovered during the investigation.

SWCA proposes a non-collection survey. Artifacts will be tabulated, analyzed, and documented in the field, but not collected. Temporally diagnostic artifacts will be described in detail and photographed in the field. This policy will reduce curation costs once the fieldwork is concluded; however, as per the stipulations of the Antiquities Permit, all paperwork and photographs generated during the field investigation must be curated at an approved repository.

Reporting and Curation

SWCA will prepare a draft report of the investigation within 2 weeks of completion of the field survey. The archaeological report will conform to THC and Council of Texas Archeologists reporting standards. The report will document the general nature of the project area, the methodology used in the investigation, the presence and condition of any previously recorded sites revealed in the records review, the general nature and extent of cultural resources encountered during the archaeological survey, recommendations on the need for further work, and the potential significance of the cultural resources regarding future development and SAL status.

SWCA will submit a digital draft copy of the report to Williamson County for review and comment. Once this has been accomplished, SWCA will incorporate any appropriate edits and will submit a final draft report to the THC for review and comment. As part of completing Antiquities Permit requirements, SWCA will furnish two electronic copies of the final report on a tagged PDF formatted CD, as well as project area shapefiles, to the THC, complete an Abstracts in Texas Contract Archeology Summary form and abstract text on-line, and furnish 11 hard copies of the report (without site information, if any) to the university-based libraries and archaeological research facilities around the state. Field records and artifacts, if collected, will be curated at an approved curatorial facility which, in this case, is the Center for Archaeological Research at The University of Texas at San Antonio, per requirements of the ACT.

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