

TEXAS HISTORICAL COMMISSION

ANTIQUITIES PERMIT APPLICATION FORM
ARCHEOLOGY

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial) Cultural Resources Survey of County Road (CR) 258 from U.S. Highway 183 to Sunset Ridge Roadway in west Williamson County, Texas
County (ies) Williamson
USGS Quadrangle Name and Number Leander NE, TX (3097-324) and Liberty Hill, TX (3097-323)
UTM Coordinates Zone 14N E 607338 N 3394033
Location Williamson County
Federal Involvement ☐ Yes ☒ No
Name of Federal Agency NA
Agency Representative NA

II. OWNER (OR CONTROLLING AGENCY)

Owner Williamson County
Representative Bill Gravell, Jr., County Judge
Address 710 South Main Street, Suite 101
City/State/Zip Georgetown, Texas, 78626
Telephone (include area code) 512-943-1550 Email Address _____

III. PROJECT SPONSOR (IF DIFFERENT FROM OWNER)

Sponsor Same as above
Representative _____
Address _____
City/State/Zip _____
Telephone (include area code) _____ Email Address _____

PROJECT INFORMATION

I. PRINCIPAL INVESTIGATOR (ARCHEOLOGIST)

Name Christina Nielsen
Affiliation SWCA Environmental Consultants
Address 4407 Monterey Oaks Blvd., Building 1, Suite 110
City/State/Zip Austin, TX 78749
Telephone (include area code) 512-476-0891 Email Address cnielsen@swca.com

(OVER)

ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork October 28, 2019

Requested Permit Duration 5 Years 0 Months (1 year minimum)

Scope of Work (Provided an Outline of Proposed Work) SWCA will conduct an intensive pedestrian survey (with subsurface testing as necessary based on field conditions) of the proposed County Road (CR) 258 from U.S. Highway 183 to Sunset Ridge Roadway in west Williamson County, Texas (please refer to the attached Scope of Work).

III. CURATION & REPORT

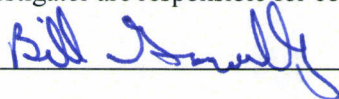
Temporary Curatorial or Laboratory Facility SWCA Environmental Consultants

Permanent Curatorial Facility Center for Archaeological Research-University of Texas at San Antonio

IV. OWNER'S CERTIFICATION

I, Bill Gravell, Jr., County Judge, as legal representative of the Land Owner, Williamson County, do certify that I have reviewed the plans and research design, and that no investigations will be performed prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Owner, Sponsor, and Principal Investigator are responsible for completing the terms of the permit.

Signature



Date

February 25, 2020

V. SPONSOR'S CERTIFICATION

I, Same as above, as legal representative of the Sponsor, do certify that I have reviewed the plans and research design, and that no investigations will be performed prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Sponsor, Owner, and Principal Investigator are responsible for completing the terms of this permit.

Signature

Date

VI. INVESTIGATOR'S CERTIFICATION

I, Christina Nielsen, as Principal Investigator employed by SWCA Environmental Consultants (Investigative Firm), do certify that I will execute this project according to the submitted plans and research design, and will not conduct any work prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Principal Investigator (and the Investigative Firm), as well as the Owner and Sponsor, are responsible for completing the terms of this permit.

Signature



Date

October 22, 2019

Principal Investigator must attach a research design, a copy of the USGS quadrangle showing project boundaries, and any additional pertinent information. Curriculum vita must be on file with the Division of Antiquities Protection.

FOR OFFICIAL USE ONLY

Reviewer

Date Permit Issues

Permit Number

Permit Expiration Date

Type of Permit

Date Received for Data Entry



February 19, 2019

Tiffany Osburn
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Re: Request for Antiquities Permit to Conduct Intensive Cultural Resources Survey of the Proposed County Road 258 from US Highway 183 to Sunset Ridge Roadway Improvements Project, Williamson County, Texas.

Dear Ms. Osburn:

This letter is a request for a Texas Antiquities Permit to conduct an intensive cultural resources survey of portions of the proposed, approximately 1-mile-long segment of County Road (CR) 258 from U.S. Highway 183 to Sunset Ridge Drive in western Williamson County, Texas. It is SWCA's understanding that the Project includes a proposed two-lane roadway extending CR 258 from US 183 to Sunset Ridge as identified in the County's long-range transportation plan. 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 and archaeological field investigations will require a Texas Antiquities Permit.

If I can be of any assistance, please do not hesitate to contact me at (512) 476-0891.

Respectfully submitted,



Christina Nielsen
Principal Investigator

TEXAS ANTIQUITIES PERMIT APPLICATION PROPOSED SCOPE OF WORK FOR AN INTENSIVE CULTURAL RESOURCES SURVEY OF THE PROPOSED COUNTY ROAD 258 FROM U.S. HIGHWAY 183 TO SUNSET RIDGE ROADWAY IMPROVEMENTS PROJECT, WILLIAMSON COUNTY, TEXAS

Project Landowners – Williamson County

Project Sponsor – American Structurepoint, Inc.

Project Consultant – SWCA Environmental Consultants (SWCA)

Principal Investigator – Christina Nielsen, M.A.

Date – February 19, 2019

INTRODUCTION

At the request of American Structurepoint, Inc., and on behalf of Williamson County, Texas, SWCA Environmental Consultants (SWCA) proposes to conduct an intensive cultural resources survey of the proposed approximately 1-mile-long project area for improvements to County Road (CR) 258 from U.S. Highway 183 to Sunset Ridge Roadway in west Williamson County, Texas (Figure 1). It is SWCA's understanding that the Project includes a proposed two-lane roadway extending CR 258 from US 183 to Sunset Ridge (Project Area), as identified in the County's long-range transportation plan. 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 archaeological field investigations will require a Texas Antiquities Permit.

Based on a review of the project area soils, geology, and previously recorded archaeological sites and 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 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 designation as a State Antiquities Landmark (SAL). All work will be done in accordance with the ACT.

PROJECT DESCRIPTION

Of the 1-mile-long project area, approximately 0.6 mile is on the *Leander NE, Texas* (3097-324) U.S. Geological Survey (USGS) 7.5-minute quadrangle map, with the remaining 0.4 mile on the *Liberty Hill, Texas* (3097-323) USGS 7.5-minute quadrangle map. The proposed 1-mile-long CR 258 segment is a planned two-lane roadway extension that begins at the intersection with Highway 183 to 550 feet east of Sunset Ridge Drive on the eastern side of the City of Liberty Hill, Williamson County, Texas (see Figure 2). The proposed roadway will be constructed within a variable width right-of-way (ROW) that ranges between 120 and 140 feet wide at the intersection of CR 258/Highway 183 and CR 258/Sunset Ridge Drive but is typically 120 feet wide throughout most of the project area. Overall, the planned project area consists of a 1-mile-long corridor that encompasses approximately 12 acres. The depth of impacts are anticipated to extend 3 to 4 feet below ground surface for roadway construction and up to 10 feet for any cross-drainage culverts.

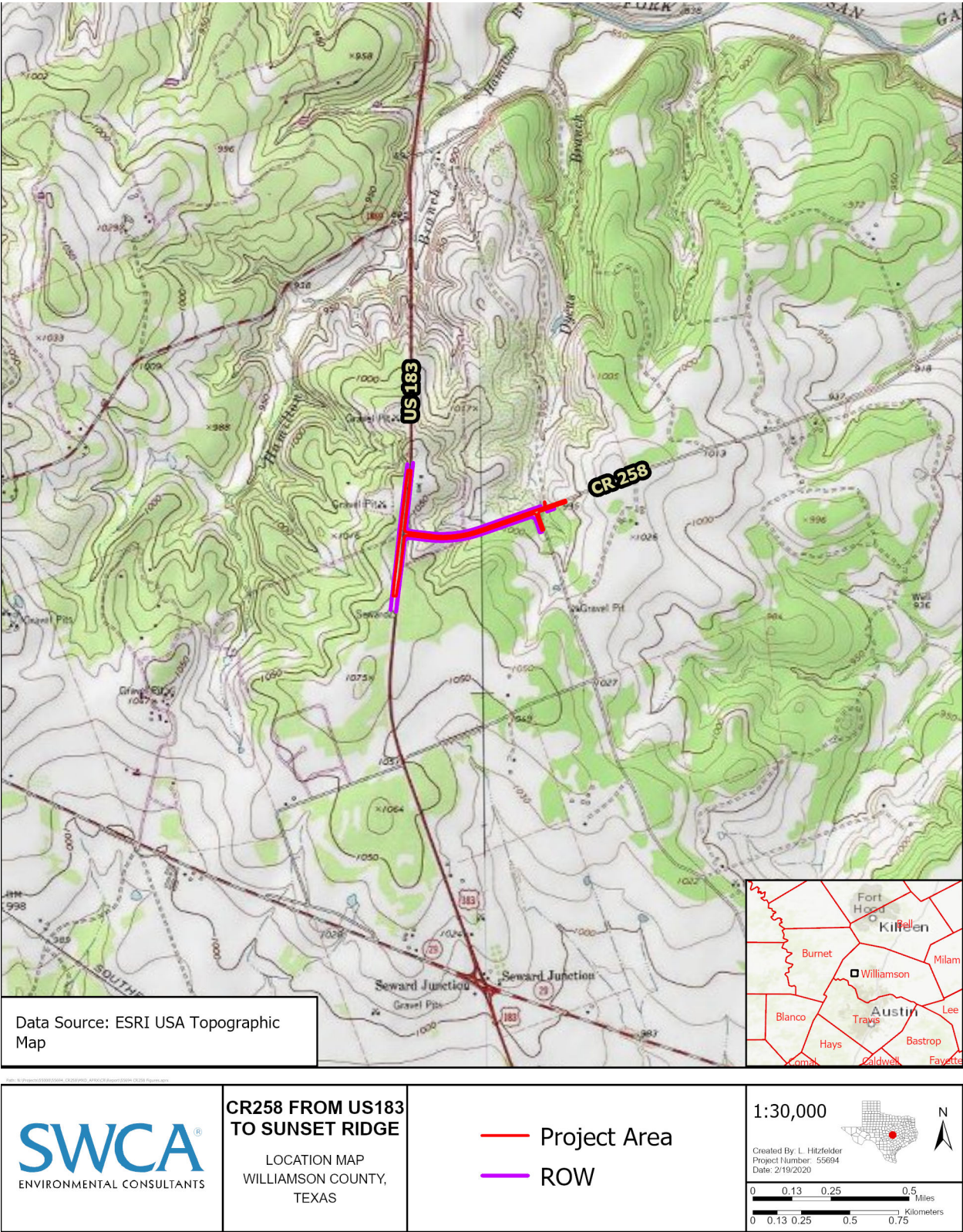


Figure 1. Project location.

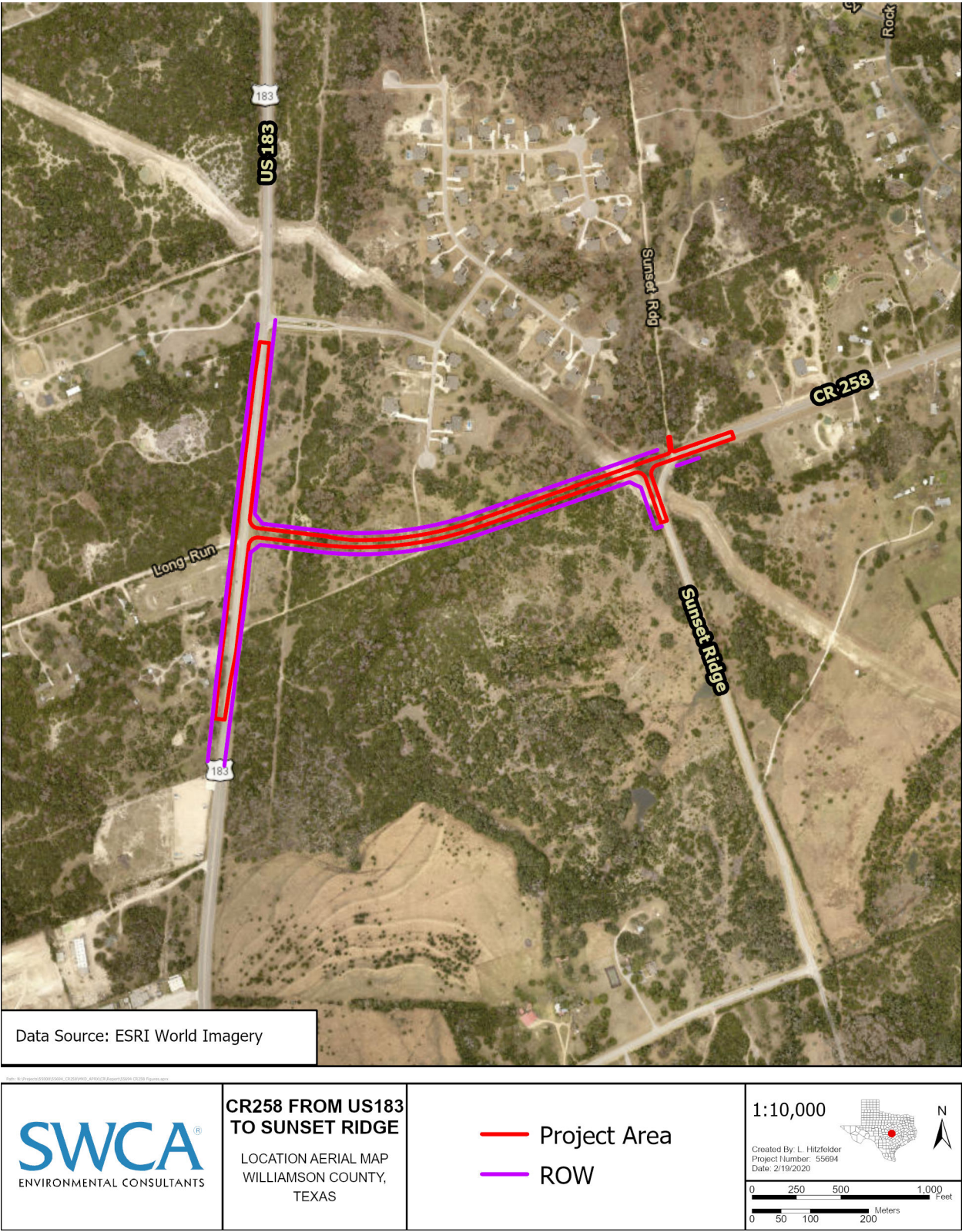


Figure 2. Project area.

GEOLOGY AND SOILS

The underlying geology throughout the project area consists of Comanche Peak Formation (40%), Upper Member of the Glen Rose Formation (35%), and Burro Canyon Formation (25%) (USGS 2019; Figure 3). The dominant lithology for the Comanche Peak formation consists of persistent, white chalky limestone, with a thickness between 20 and 55 feet (USGS 2019). The dominant lithology for the Upper Member of the Glen Rose formation consists of limestone, chalk, and marl, with a thickness between 40 and 200 feet (USGS 2019). The dominant lithology for the Burro Canyon formation consists of a varicolored conglomerate and shale, sandstone, limestone, and chert, with a thickness between 150 and 260 feet (USGS 2019). Given the age and physical properties of the formations, they have a low potential to contain deeply buried archaeological resources.

Project area soils are mapped as Eckrant cobbly clay, 1 to 8 percent slopes (39%); Brackett gravelly clay loam, 3 to 12 percent slopes (40%); and Denton silty clay, 1 to 3 percent slopes (21%) (Figure 4) (Natural Resources Conservation Service [NRCS] 2019). The Eckrant series soils consists of shallow or very shallow, moderately slowly permeable clay over limestone bedrock. These soils form on nearly level to very steep slopes on summits, shoulders, and backslopes of ridges on dissected plateaus (NRCS 2019). As this soil formed in residuum derived from limestone of Cretaceous age, it has little to no potential to contain deeply buried archaeological materials.

The Brackett soil series consists of shallow to paralithic limestone bedrock with well-drained soils located on backslopes of ridges and sloping uplands (NRCS 2019). As this soil formed in residuum weathered from limestone during the Cretaceous period, it also has little to no potential to contain deeply buried archaeological materials; however, there is potential for shallowly buried cultural materials.

The Denton series soils formed in clayey materials consisting of well-drained, deep soils found on nearly level to gently sloping foot slopes and backslopes of ridges (NRCS 2019). This soil formed over residuum derived from limestone of Cretaceous age, it has little to no potential to contain deeply buried archaeological materials; however, there is potential for shallowly buried cultural materials.

PREVIOUS INVESTIGATIONS AND RECORDED SITES

SWCA reviewed records available on the Texas Archeological Sites Atlas (Atlas) online database to determine the presence/absence of known prehistoric and historic cultural resources, as well as previously conducted cultural resources surveys within a 1-mile radius of the currently proposed project area. The background literature review determined that one cultural resources survey (Atlas No. 8500011956) is known to have been conducted within the proposed project area; however, no archaeological sites have been recorded within the project area (Figure 5). One additional cultural resources survey (Atlas No. 8500020659) and two archaeological sites (41WM949 and 41WM1154) are located within a 1-mile radius of the project area (Figure 5). The historic map review revealed two potentially historic-age structures immediately adjacent to (within 350 feet of) the current project area (USGS 2019).

In June 2005, a 1.52-mile-long linear survey was conducted within the current project area. No archaeological sites were recorded within the current project area during this investigation. In September 2012, a linear survey intersecting the northern boundary of the current project area was conducted by Blanton & Associates, Inc., for proposed improvements to CR 258 from Sunset Ridge to Ronald Reagan Boulevard. No archaeological sites were recorded during this investigation.

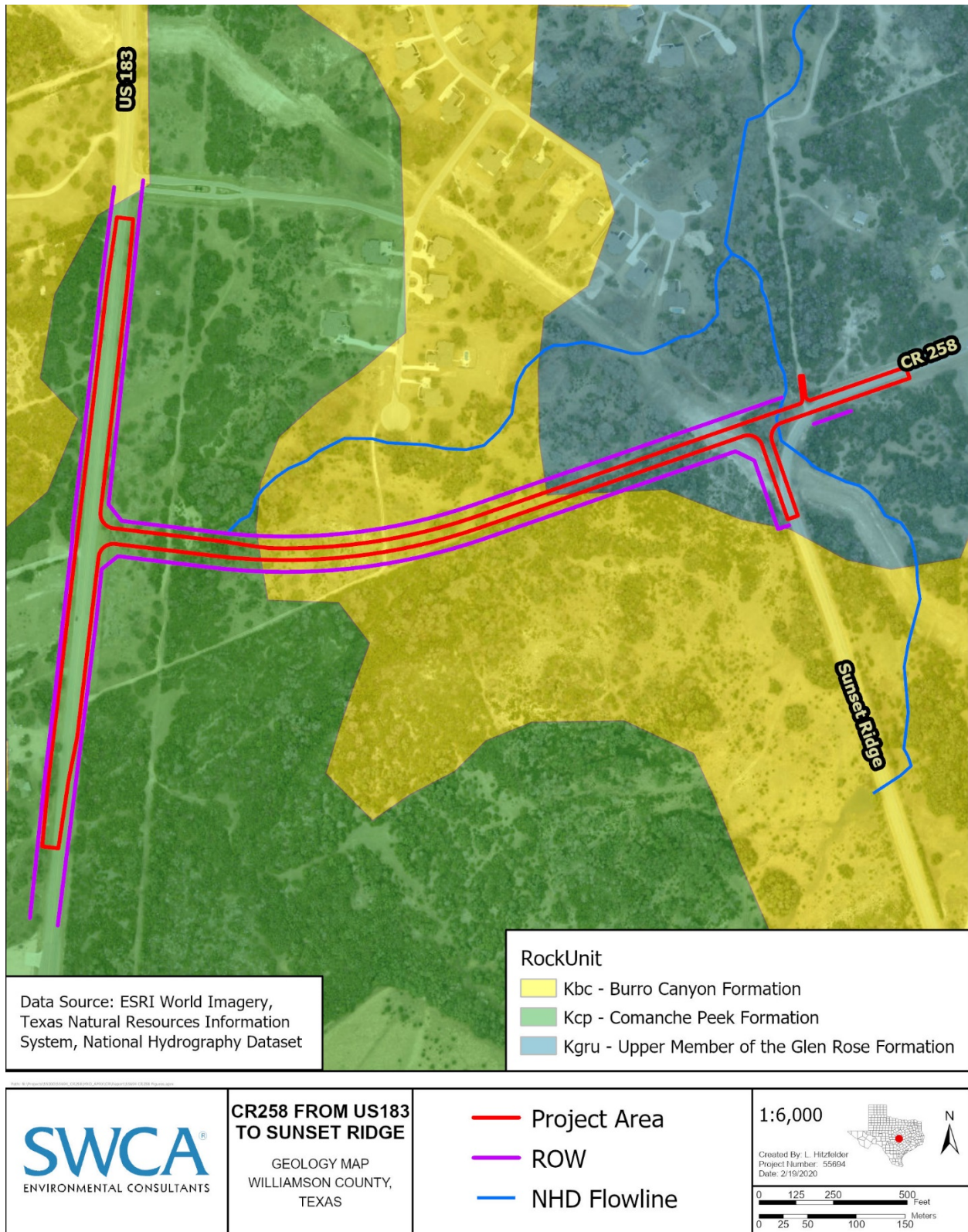


Figure 3. Geological map of project area.

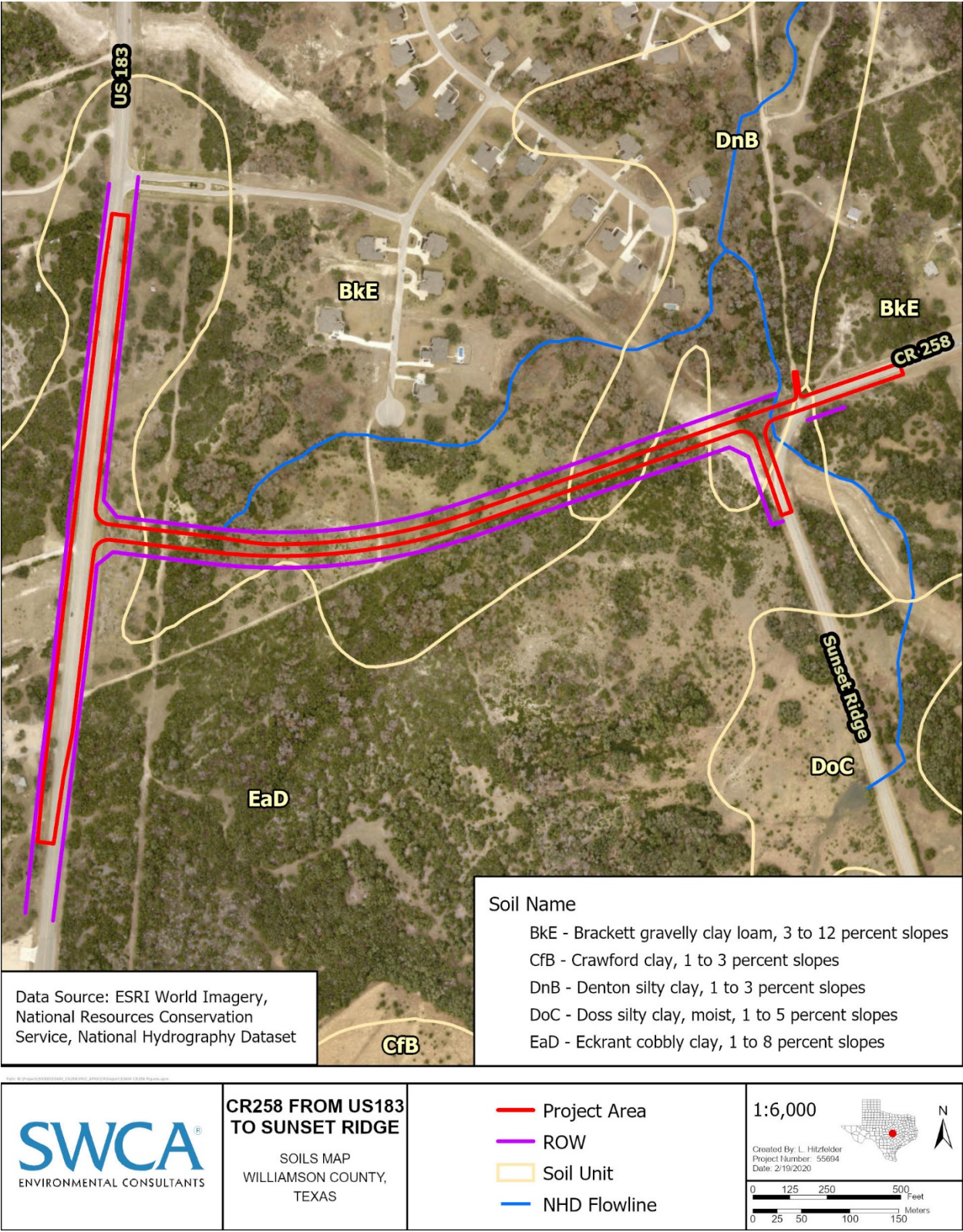


Figure 4. Project area soils.

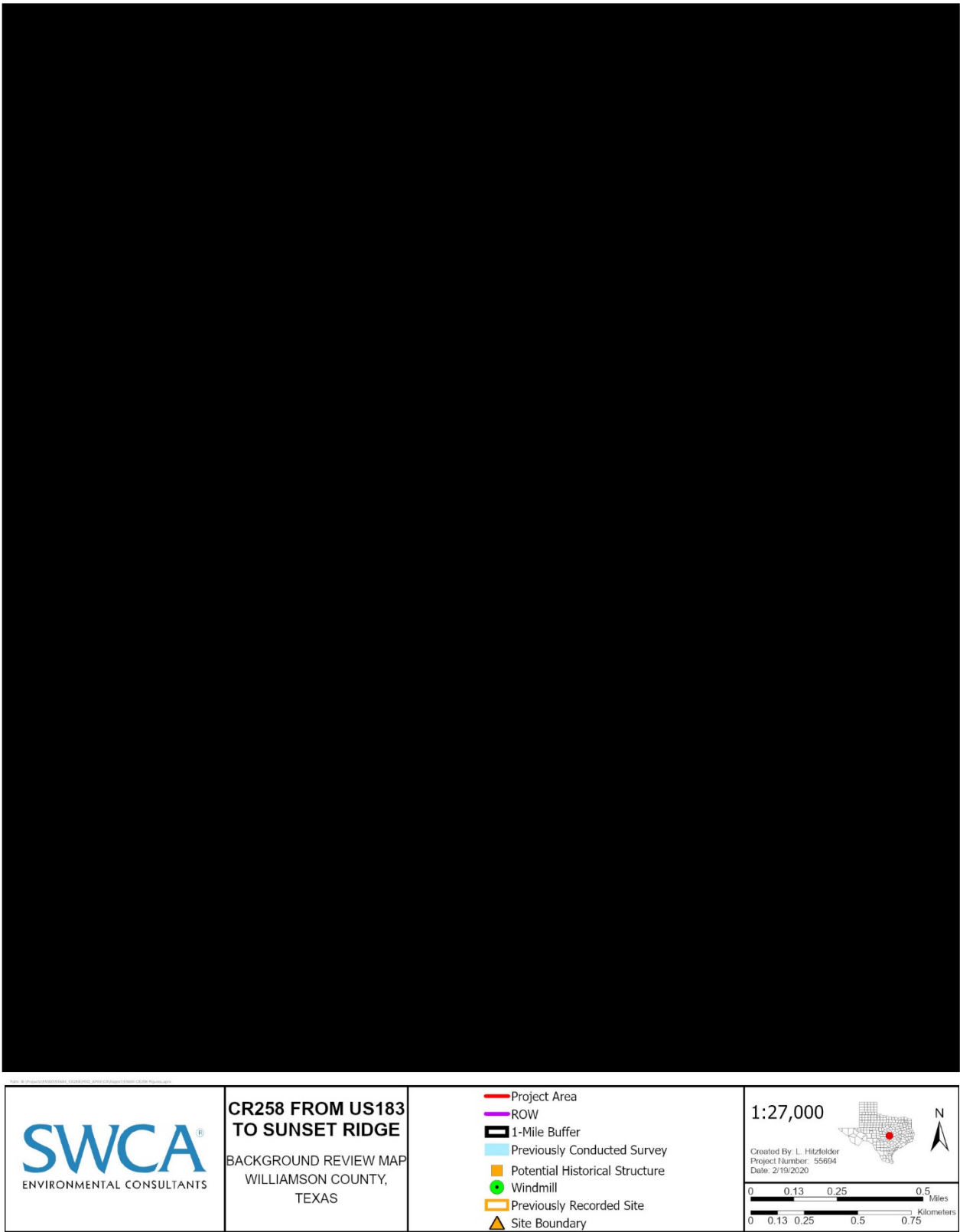


Figure 5. Background review results map.

Two archaeological sites (41WM949, 41WM1154) are within a 1-mile radius of the project area. Site 41WM949 is a surficial prehistoric lithic scatter approximately 0.99 mile north of the project area. The site was recorded in 1999 by Andy Malof and Dan Prikryl for the Andice to Leander Transmission Line Rebuild project (THC 2019). The site is located on an upland rise with evidence of numerous tertiary flakes, one small core, and a biface fragment. Raw material consisting of Georgetown chert mixed with other Edward chert groups. Natural and artificial impacts likely causing disturbances include erosion, bioturbation, road construction and maintenance. The site is currently undetermined regarding eligibility for the National Register of Historic Places (NRHP) or as an SAL, but further investigations of adjacent areas could contribute additional information on local prehistoric land use (THC 2019).

Site 41WM1154 is a surficial historic debris scatter approximately 0.55 mile south of the project area. The site was recorded in 2006 by Rachel Feit with Kicks & Co. (THC 2019). The site is located on a relatively flat, occasionally wooded area with evidence of historic artifacts like whiteware, glass, metal, and brick. Artificial impacts likely causing disturbances include plowing and existing transmission lines. The site is currently ineligible for the NRHP, with no recommended further work (THC 2019).

In addition to previously recorded archaeological sites, the background review assessed whether other cultural resources, including possible structures, cemeteries, and historic linear features, were present within the study area. The assessment identified 40 potentially historic-age structures within the 1-mile study area. SWCA reviewed additional resources, such as USGS maps and THO maps; however, no NRHP properties, SALs, historic markers, or cemeteries were identified within, or immediately adjacent to, the study area.

HISTORIC MAP REVIEW

The historic map review revealed no potentially historic-age structures directly within the current project area. Two structures are immediately adjacent (within 350 feet) to the project area (USGS 2019). A more extensive look at the 1-mile study area reveals a total of 40 potentially historic-age structures. These structures are depicted on 1962 *Liberty Hill* and 1962 *Leander NE, Texas*, USGS quadrangle maps. Current aerial imagery indicates that most of these structures are extant. A high concentration of structures (n=30) are located on the southwestern edge of the study area near the intersection of State Highway 183 and State Highway 29 (see Figure 5). The remaining structures are scattered across the study area.

PROPOSED SCOPE OF WORK

Following receipt of a Texas Antiquities Permit, SWCA will conduct an intensive cultural resources survey of the approximately 1-mile-long project area, which will be of sufficient intensity to determine the nature, extent, and, if possible, potential significance of all cultural resources discovered within the proposed project area. The scope of work for the field investigations includes an intensive pedestrian survey with subsurface investigations (e.g., shovel test excavations) that meets survey standards established by the THC and Council of Texas Archeologists.

The field survey will consist of SWCA archaeologists walking the proposed project area. Surface investigations will consist of a visual inspection of the proposed easement looking for evidence of prehistoric and historic cultural material. Subsurface investigations will involve shovel tests that will be approximately 30 centimeters (cm) in diameter and excavated in arbitrary 20-cm levels to 100 cm below surface, unless soil characteristics or bedrock preclude reaching that depth. Archaeologists will screen the matrix from each shovel test through ¼-inch mesh and plot the location of each excavation using a hand-

held global positioning system (GPS) receiver. Archaeologists will record each shovel test on a standardized form in SWCA's field tablets to document excavations.

Given the geologic and soil conditions within the proposed project area, backhoe trenching is not currently anticipated; however, if pedestrian survey and shovel testing suggest that there is the potential for deeply buried cultural deposits, then backhoe trenching would proceed as necessary based on field conditions. Backhoe trenches would be placed approximately 100 to 300 meters (m) apart, with tighter intervals if necessary. Trench placement would be determined on the level of disturbance, the location of any impacted areas such as construction, and the preservation potential for archaeological sites as determined by an SWCA archaeologist. Backhoe trenches would be excavated to a depth sufficient to determine the presence/absence of buried cultural materials and allow the complete recording of all features and geomorphic information to depths of project impacts. Generally, trenches would be 1.2 to 1.5 m (4 to 5 feet) deep, 7 m (23 feet) in length, and 0.75 m (2.5 feet) wide. An experienced archaeologist would monitor all trenching while excavations are underway. Once the trench has been excavated, an SWCA archaeologist would scrape down both walls of the trench, examining the profiles for artifacts, features, or other cultural manifestations.

Stratigraphic descriptions would be recorded for each trench. The archaeologist would map and photograph all features encountered during trenching. All work will be performed in accordance with OSHA (29 Code of Federal Regulations 1926). When necessary to assess the potential for more deeply buried deposits (greater than 1.5 m [5 feet] below surface), back dirt from the backhoe bucket would be sifted and selectively screened to assess presence or absence of cultural materials. SWCA would thoroughly document and photograph the entire process. Upon completion of excavation, all trenches would be backfilled, leveled, and returned, as much as possible, to its original state.

SWCA will complete appropriate State of Texas Archaeological Site Data Forms for each cultural resource site discovered during the investigations. SWCA will produce a detailed plan map of each site and plot locations on USGS 7.5-minute quadrangle maps and relevant project maps. Artifacts will be tabulated, analyzed, and documented in the field, but not collected. Temporally diagnostic artifacts will be described in detail, mapped, and photographed in the field. This policy will reduce curation costs once the fieldwork is concluded; however, all records, files, notes, forms, and photographs generated during fieldwork will, as per the requirements of the antiquities permit, be curated at the Center for Archaeological Research at The University of Texas-San Antonio.

REPORTING

Once the survey has been completed, SWCA will prepare a draft report of investigations for review by American Structurepoint, Williamson County, and the THC. The report will document the methodology used in the investigations, background environmental and cultural information, the presence and condition of previously recorded sites and cultural resources encountered during the archaeological survey, recommendations on the need for further work, and the potential significance of all cultural resources regarding future development and SAL eligibility. The resulting survey report will also provide the appropriate criteria under which the sites were evaluated. Once American Structurepoint, Williamson County, and the THC comment on the draft report, SWCA will incorporate all appropriate edits and submit the final report to the THC for their concurrence. The ACT requires that, upon approval of the draft report, a final report must be produced. SWCA will furnish one unbound hard copy and two electronic copies of the final report on a tagged PDF formatted CD to the THC, complete an abstract text online, and furnish 12 hard copies of the report (without site information, if any) to the Texas State Library, university-based libraries, and archaeological research facilities around the state.

REFERENCES CITED

Natural Resources Conservation Service (NRCS)

- 2019 Soil Survey Staff, National Resources Conservation Service, United States Department of Agriculture. Web Soil Survey of Travis County, Texas. Available at: <http://websoilsurvey.nrcs.usda.gov/>. Accessed October 12, 2019.

Texas Historical Commission (THC)

- 2019 Texas Archeological Site Atlas restricted database. Available at: <http://nueces.thc.state.tx.us/>. Accessed October 12, 2019.

U.S. Geological Survey (USGS)

- 2019 The National Geologic Map Database (TopoView). Historical topographic map collection. Available at: <http://ngmdb.usgs.gov/maps/TopoView/>. October 12, 2019.