TEXAS HISTORICAL COMMISSION

ANTIQUITIES PERMIT APPLICATION FORM ARCHEOLOGY

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial) Ronald Reagan Blvd. Widening Segment D-1
County (ies) Williamson
USGS Quadrangle Name and Number Leander NE, 3097_324
UTM Coordinates Zone 14R E 614731 N 3401427
Location Ronald Reagan Blvd from CR 248 to CR 245
Federal Involvement ❑ Yes ☑ No
Name of Federal Agency
Agency Representative

II. OWNER (OR CONTROLLING AGENCY)

Owner Williamson County
Representative Judge Steven Snell
Address 710 Main Street
City/State/Zip Georgetown, TX 7866
Telephone (include area code) (512) 943-1550 Email Address steve.snell@wilcotx.gov

III. PROJECT SPONSOR (IF DIFFERENT FROM OWNER)

Sponsor
Representative
Address
City/State/Zip
Telephone (include area code) Email Address

PROJECT INFORMATION

I. PRINCIPAL INVESTIGATOR (ARCHEOLOGIST)

Name Karl Kibler
Affiliation aci environmental consulting
Address 1001 Mopac Circle
City/State/Zip Austin, Texas 78746
Telephone (include area code) 512--347-9000 Email Address KKibler@aci-group.net

ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork June 16, 2025
Requested Permit Duration 5 Years 0 Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed Work) See attached Scope of Work

III. CURATION & REPORT

Temporary Curatorial or Laboratory Facility aci environmental consulting
Permanent Curatorial Facility TARL

IV. LAND OWNER'S CERTIFICATION

I, Steven Snell, 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 06/04/2025

V. SPONSOR'S CERTIFICATION

I, Steve Snell, as legal representative of the Sponsor, Williamson Count, do certify that I have review 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 06/04/2025

VI. INVESTIGATOR'S CERTIFICATION

I, Karl Kibler, as Principal Investigator employed by aci environmental consulting (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 Karl Kibler Date 5/15/2025

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 Archeology Division.

FOR OFFICIAL USE ONLY

Reviewer _____ Date Permit Issues _____
Permit Number _____ Permit Expiration Date _____
Type of Permit _____ Date Received for Data Entry _____

Texas Historical Commission
Archeology Division
P.O. Box 12276, Austin, TX 78711-2276
Phone 512-463-6096
thc.texas.gov

TEXAS HISTORICAL COMMISSION
real places telling real stories
thc.texas.gov

Kevin Ramberg
Principal Ecologist, COO
1001 Mopac Circle
Austin, TX 78746
aci environmental consulting
aci-consulting.net
Austin Denver

Scope of Work – Texas Historical Commission Antiquities Permit Application for the Intensive Cultural Resources Survey for the proposed Ronald Reagan Blvd. Widening Segment D-1 Project in Williamson County, Texas.

1.0 PROJECT DESCRIPTION

This scope of work is submitted to the Texas Historical Commission (THC) as part of a Texas Antiquities Permit Application for the proposed Ronald Reagan Boulevard (Blvd.) Widening Segment D-1 (project) located in Williamson County, Texas (Figure 1 and Figure 2).

The project is anticipated to be locally sponsored and funded by Williamson County and will involve ground disturbing activities on public land. For this reason, compliance with the Antiquities Code of Texas (9 TNR 191) and associated Rules of Practice and Procedure (13 TAC 26) is required. No federal involvement, including funding, permitting, or approval, is anticipated for the proposed project; therefore, Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, would not apply.

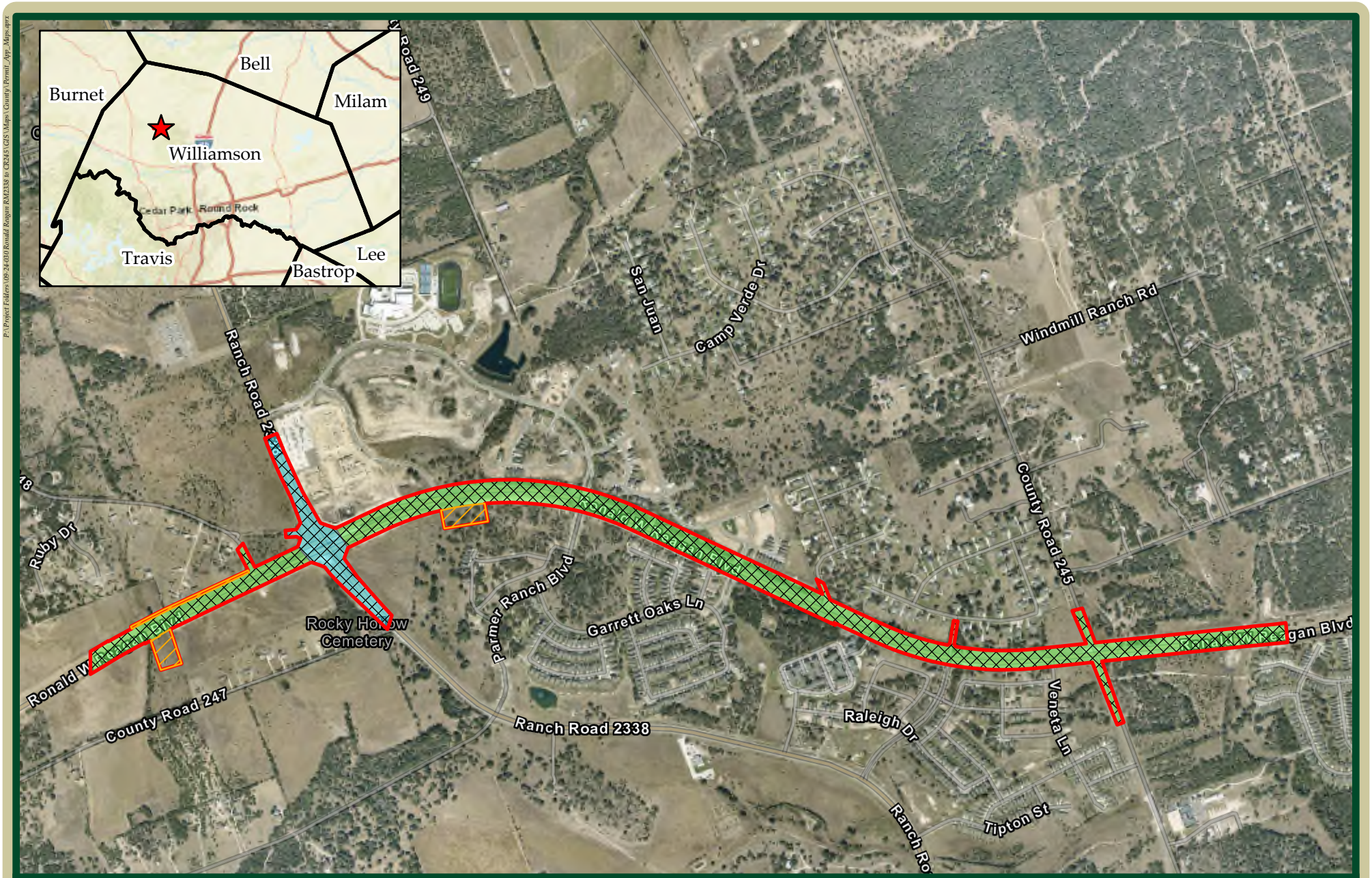
The proposed project would widen the existing two-lane undivided Ronald Reagan Blvd. roadway to a four-lane divided roadway. The project is also anticipated to include construction of intersection improvements, including turn lanes and a new bridge paralleling the existing overpass bridge, within Texas Department of Transportation (TxDOT) right of way (ROW) at the intersection of Ronald Reagan Blvd. and RM 2338.

The project area consists of the limits of all proposed ground disturbing activities. The project area is located along Ronald Reagan Blvd. from approximately 0.56 mile west of Ranch to Market Road (RM) 2338 to approximately 0.41 mile east of County Road (CR) 245 and along RM 2338 from approximately 0.21 mile south of Ronald Reagan Blvd. to approximately 0.26 mile north of Ronald Reagan Blvd. The proposed project is approximately 2.8 miles long, beginning approximately 0.56 mile west of RM 2338 and ending approximately 0.41 mile east of County Road (CR) 245. The project area, totaling approximately 98.8 ac (40.0 ha), includes 79.9 ac (32.3 ha) of existing Williamson County

ROW, 13.2 ac (5.3 ha) of existing TxDOT ROW, and 5.7 ac (2.3 ha) of proposed Williamson County ROW. The proposed ROW for the project includes a strip approximately 0.28 mile long and approximately 30 feet wide along the north edge of the existing Ronald Reagan Blvd ROW east of RM 2338 and two areas for detention ponds south of the existing Ronald Reagan Blvd. ROW, measuring approximately 380 ft (116 m) north-south by 260 ft (79 m) east-west and 220 ft (67 m) north-south by 530 ft (162 m) east-west (see Figure 1). The maximum depth of impacts for the project is unknown but anticipated to be greater than 14 ft. (4.2m)

The existing Ronald Reagan Blvd. ROW was previously surveyed by SWCA in 2007 (Permits #4381 and #4475) prior to construction of the existing Ronald Reagan Blvd. roadway and in anticipation of future road expansions. However, the new ROW for the currently proposed project was not anticipated or surveyed at that time. Therefore, aci environmental consulting proposes to survey the new ROW, totaling 5.7 ac (2.3 ha). The proposed survey would exclude the existing County and TxDOT ROW which has been previously surveyed and appears to have been extensively disturbed by vegetation clearing, road construction, roadside drainage improvements and the installation of buried utilities.

In this scope of work, **aci environmental consulting** proposes to conduct intensive pedestrian survey augmented by shovel testing within the proposed new ROW. The archeological survey for the project will be conducted in compliance with the Antiquities Code of Texas. The investigation will consist of an intensive pedestrian survey, shovel testing, and site recording, including a site revisit to previously recorded archeological site 41WM1161. Recorded sites will be evaluated and assessed for designation as a State Antiquities Landmark (SAL) and for listing on the National Register of Historic Places (NRHP). Fieldwork and reporting will be conducted in accordance with current THC and Council of Texas Archeologists (CTA) standards. Karl Kibler will serve as the project's Principal Investigator. Records from this investigation will be curated at the Texas Archeological Research Laboratory (TARL) at the University of Texas in Austin.

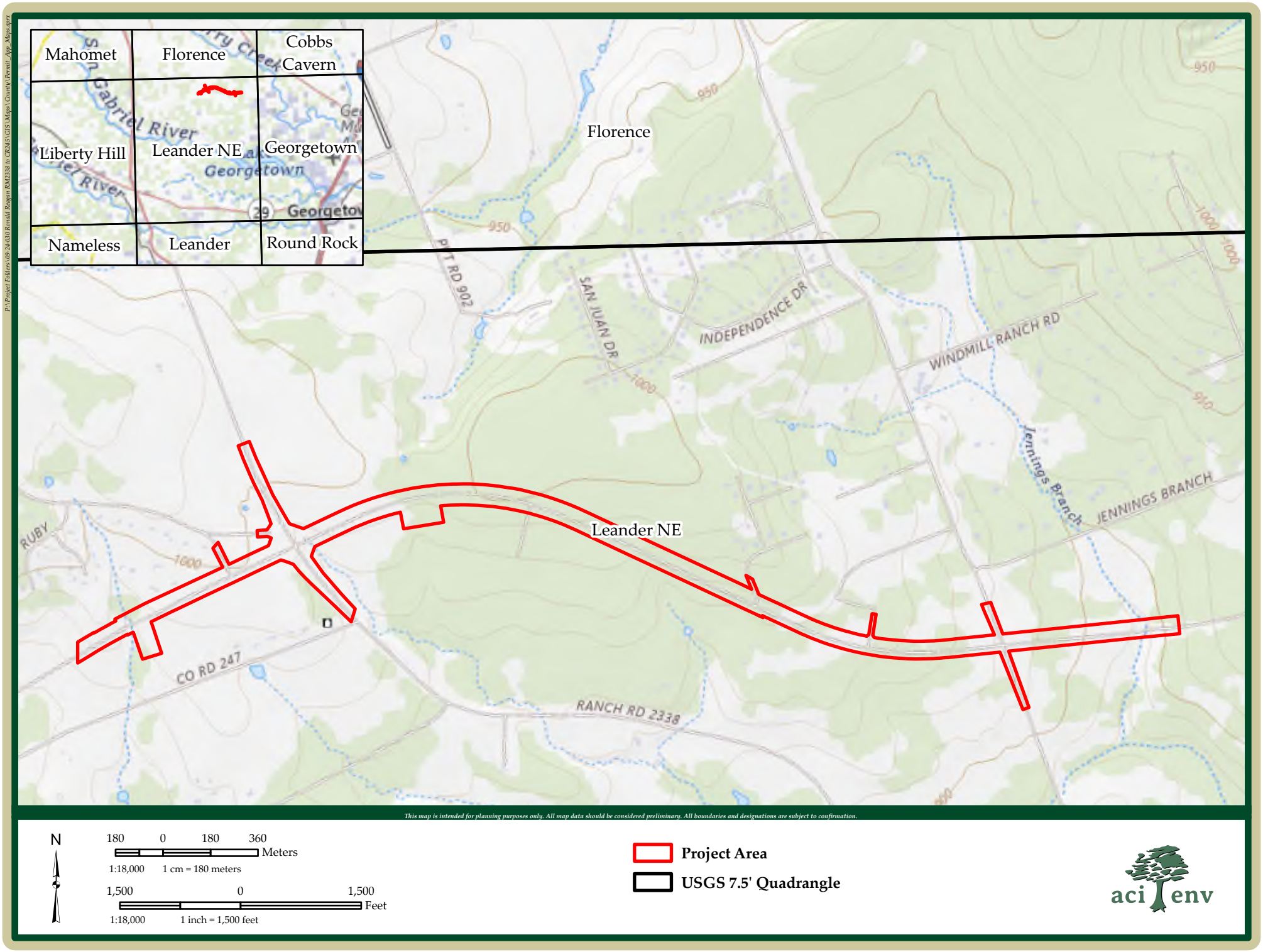


Ronald Reagan Blvd. Widening Segment D-1

Figure 1. Project Area on Aerial Photography

aci Project No.: 09-24-030

May 2025



Ronald Reagan Blvd. Widening Segment D-1

aci Project No.: 09-24-030

Figure 2. Project Area on *Leander NE* 7.5-Minute Topographic Quadrangle (USGS The National Map 2025)

May 2025

2.0 ENVIRONMENTAL SETTING

2.1 Physiography

The proposed project is located within the *Leander NE* U.S. Geologic Survey (USGS) 7.5-minute topographic quadrangle (USGS 2025a) (see Figure 2). The project area is situated on a dissected upland plain setting, crossing multiple interfluve ridges. Three streams, Jennings Branch and two unnamed tributaries, and several drainages appear to cross the project area, all draining roughly perpendicular to the project area from north to south. The project area ranges in elevation from approximately 890 ft above mean sea level (MSL) to 1000 ft above MSL.

The project area is located within the Edwards Plateau Level III and Cross Timbers Level III ecological regions of Texas, and more specifically within the Balcones Canyonlands Level IV and Limestone Cut Plain Level IV ecological regions (Griffith et al. 2007).

Vegetation types typical of the Balcones Canyonlands include riparian areas, oak savanna, and upland woodlands. Vegetation found in these areas historically included but was not limited to: Texas oak (*Quercus buckleyi*), plateau live oak (*Q. fusiformis*), Vasey oak (*Quercus vaseyana*), Texas persimmon (*Diospyros texana*), Ashe juniper (*Juniperus asheii*), cedar elm (*Ulmus crassifolia*), little bluestem (*Schizachyrium scoparium*), yellow Indiangrass (*Sorghastrum nutans*), sideoats grama (*Boutelous curtipendula*), Texas wintergrass (*Nassella leucotricha*), threeawns (*Aristida sp*.), bald cypress (*Taxodium distichum*), American sycamore (*Platanus americanus*), black willow (*Salix nigra*), slippery elm (*Ulmus rubra*), Ohio buckeye (*Aesculus glabra*), boxelder (*Acer negundo*), bigtooth maple (*Acer grandidentatum*), and Carolina basswood (*Tilia caroliniana*).

The Limestone Cut Plain has flatter topography, lower drainage density, and a more open woodland character than the Balcones Canyonlands. The historic vegetation of the Limestone Cut Plain was like that of the Balcones Canyonlands. Vegetation historically included but was not limited to: post oak (*Quercus stellata*), white shin oak (*Quercus*

sinuata var. breviloba), cedar elm (*Ulmus crassifolia Nutt.*), Texas ash (*Fraxinus albicans*), plateau live oak (*Quercus fusiformis*), and bur oak (*Quercus macrocarpa*) are prevalent. Grasses include big bluestem (*Andropogon gerardi*), little bluestem (*Schizachyrium scoparium*), yellow Indiangrass (*Sorghastrum nutans*), silver bluestem (*Bothriochloa laguroides*), Texas wintergrass (*Nassella leucotricha*), tall dropseed (*Sporobolus compositus*), sideoats grama (*Bouteloua curtipendula*), and common curlymesquite (*Hilaria belangeri*).

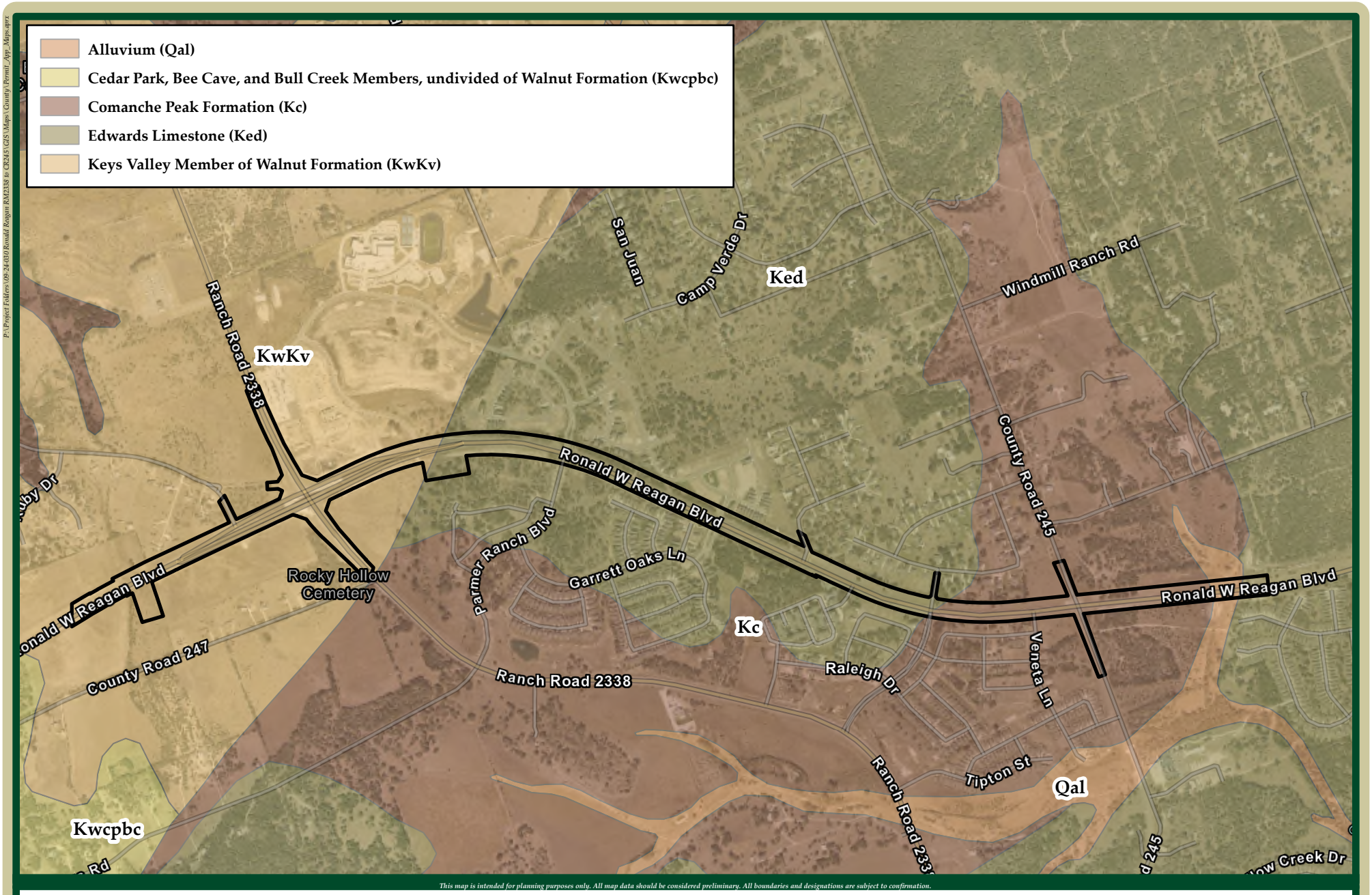
2.2 Geology

According to the United States Geological Survey (USGS) Texas Geology Web Map, the project area is underlain by four rock units (USGS 2025b) (Figure 3). The rock units are described as follows:

1. Keys Valley Member of Walnut Formation (KwKv)
"soft, white, marine megafossils include *Exogyra texana, Gryphaea mucronate,* and pelecypods, ammonites, gastropods, and echinoids; thickness up to 50 feet, feathers out southward near Williamson-Travis County line."

2. Alluvium (Qal)
"Floodplain deposits, including indistinct low terrace deposits clay, silt, sand, and gravel; silty and clay, calcareous to surface, dark gray to dark brown; sand largely quartz; gravel siliceous, mostly chert, quartzite, limestone, and petrified wood, along Colorado River much igneous and metamorphic rock, probably mostly reworked from terrace deposits; fluviatile morphology well preserved with point bars, oxbows and abandoned channel segments."

3. Comanche Peak Formation (Kc)
"fine to very find grained, fairly hard, nodular, light gray, weathers white, extensively burrowed, burrow fillings slightly coarser and darker, typically crops out in scarp face beneath Edwards Limestone; thickness up to 80 feet, feathers out southward near Williamson-Travis County line."



Ronald Reagan Blvd. Widening Segment D-1

aci Project No.: 09-24-030

Figure 3. Surface Geology

May 2025

4. Edwards Limestone (Ked)

"limestone, dolomite, and chert; limestone aphanitic to fine grained, massive to thin bedded, hard, brittle, in part rudistid biostromes, much miliolid biosparite; dolomite fine to very vine grained, porous, medium gray to grayish brown; chert, nodules and plates common, varies in amount from bed to bed, some intervals free of chert, mostly white to light gray; in zone of weathering considerably recrystallized, "honeycombed," and cavernous forming an aquifer; forms flat areas and plateaus bordered by scarps; thickness 60-350 feet thins northward."

2.2 Soils

According to the Natural Resource Conservation Service (NRCS) United States Department of Agriculture (USDA) Web Soil Survey (SSS 2025a), the project area intersects eight soil map units. The eight soil map units primarily consist of soils from six recognized soil series (Figure 4). The six primary soil series are described as follows (SSS 2025b):

1. Brackett

   "The Brackett series consists of shallow to paralithic bedrock, well drained soils formed in residuum weathered from limestone of Cretaceous age, mainly from the Glen Rose formation. These nearly level to very steep soils are located on backslopes of ridges on dissected plateaus of the Edwards Plateau."

2. Denton

   "The Denton series consist of deep, well drained, slowly permeable soils that formed in clayey materials over residuum weathered from limestone bedrock of lower Cretaceous age. These nearly level or gently sloping soils are on backslopes and footslopes of ridges."

3. Doss

   "The Doss series consists of shallow to weakly cemented limestone, well drained, moderately slow permeable soils that formed in calcareous loamy and clayey residuum derived from marls and limestone. These very gently to moderately sloping soils occur on hill slopes on dissected plateaus. "

4. Eckrant

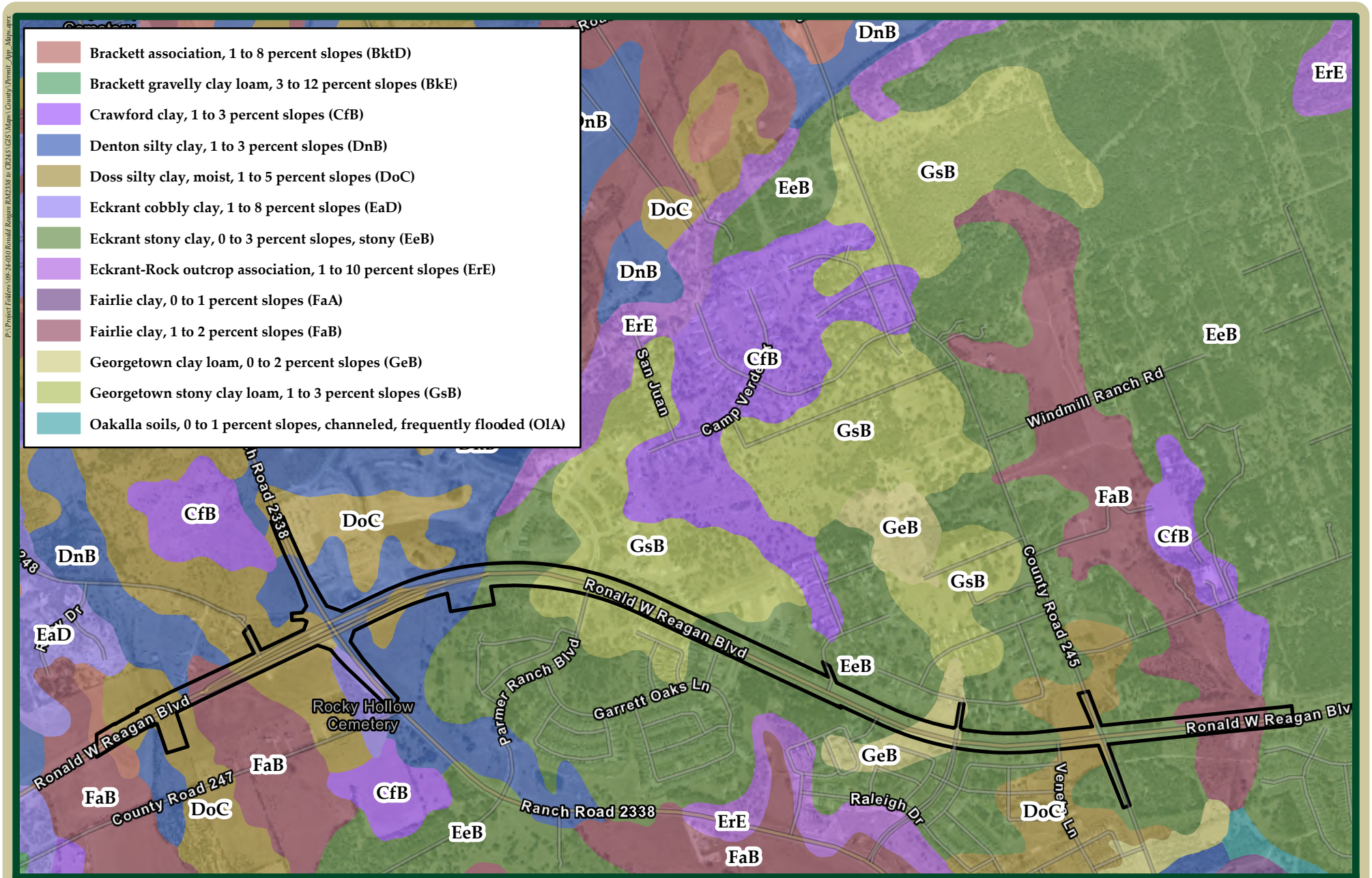
   The Eckrant series consists of well drained, moderately slowly permeable soils that are very shallow to shallow over indurated limestone bedrock. These nearly level to very steep soils formed in residuum derived from limestone and occur on summits, shoulders, and backslopes of ridges on dissected plateaus.

5. Fairlie

   The Fairlie series consists of deep, moderately well drained, very slowly permeable soils. These nearly level to gently sloping soils formed in residuum weathered from the austin chalk formation and occur on footslopes and toeslopes of upland ridges.

6. Georgetown

"The Georgetown series consists of moderately deep, well drained, very slowly permeable soils that have formed over indurated limestone of Cretaceous age. These soils occur on nearly level to very gently sloping dissected plateaus."



Ronald Reagan Blvd. Widening Segment D-1

aci Project No.: 09-24-030

Figure 4. Soils Map Units

May 2025

3.0 GEOARCHEOLOGICAL POTENTIAL OF SOILS

Two geoarcheological models, the Automated Archeological Integrity Model of Texas (AAIMT) (Abbott 2013) and the TxDOT Austin District Hybrid Potential Archeological Liability Map (HPALM) (Abbott & Plekta 2014), were consulted to assess the potential of soils within the project area to preserve buried intact prehistoric deposits. According to the AAIMT, the majority of soils have a low potential to preserve buried intact prehistoric deposits throughout the project area. According to the HPALM, the majority of the project area has a low to moderate potential to preserve intact prehistoric deposits buried at any depth.

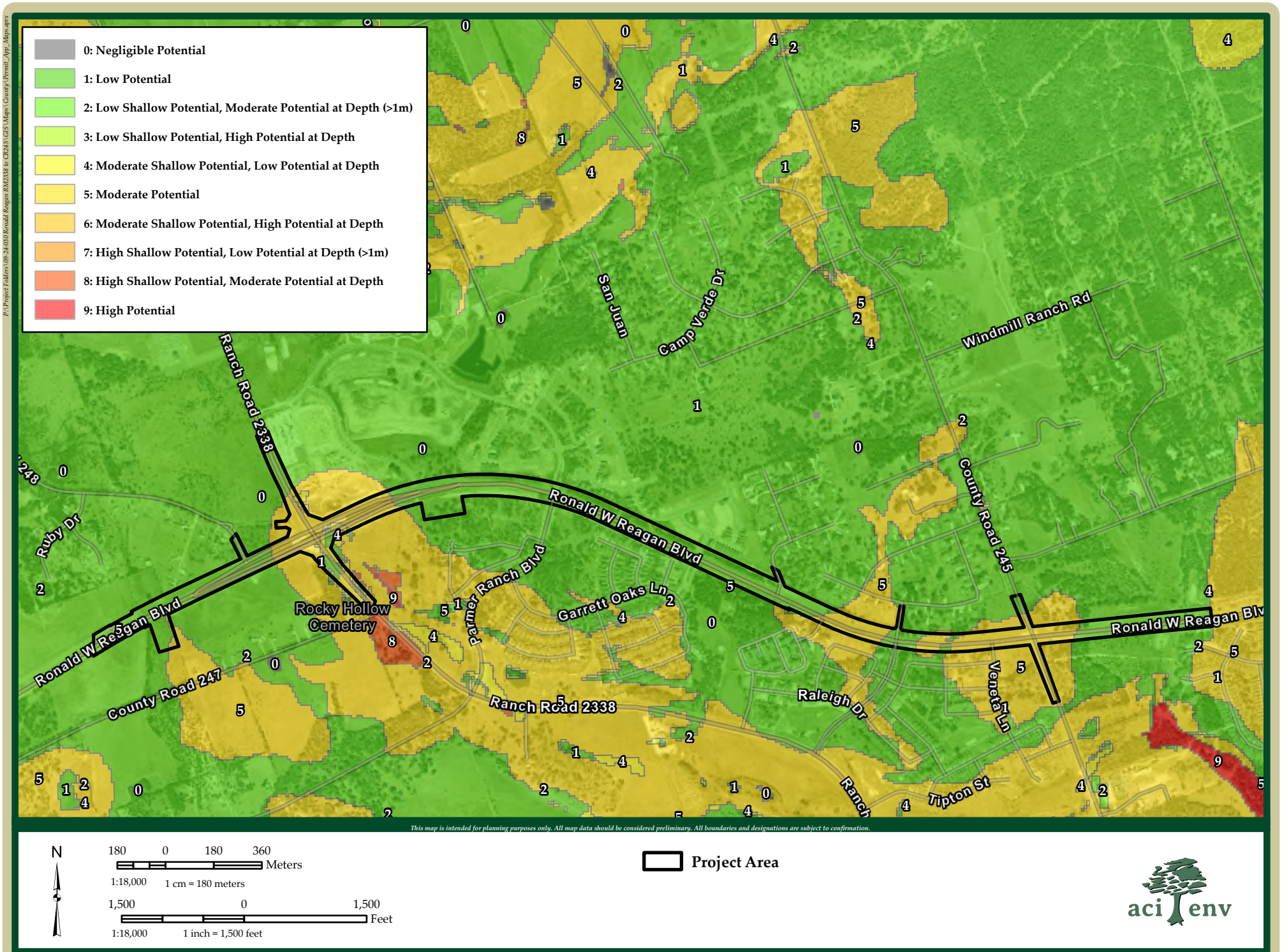
3.1 Automated Archeological Integrity Model of Texas

According to AAIMT, soils from the Bracket Series, Doss Series, Eckrant Series, Fairlie Series and Georgetown Series each have low potential to preserve buried intact prehistoric deposits at any depth (less than or greater than one meter) within the project area (Abbott 2013). Soils from Denton Series have a low-moderate potential in shallow contexts (less than one meter) and low potential in deep contexts (greater than one meter) to preserve buried intact prehistoric deposits within the project area (Abbott 2013). Areas of proposed ROW contain Denton, Eckrant, and Fairlie Series soils (Figure 4), which have low potential at depth and low to moderate potential in shallow contexts.

3.2 Hybrid Potential Archeological Liability Map

The HPALM (Figure 5) (Abbott & Plekta 2014) typically considers geomorphic setting, localized variation in characteristics within a soil series, previous disturbance if apparent, and other factors to determine geoarcheological potential to preserve buried intact prehistoric deposits within a given area. According to the HPALM, approximately 68 percent of the project area has a low potential to preserve buried intact prehistoric deposits at any depth (HPALM Code 1) (Abbott & Plekta 2014). Approximately 30 percent of the project area has moderate potential to preserve buried intact prehistoric deposits at any depth (HPALM Code 5) (Abbott & Plekta 2014). The

remaining two percent is made up of HPALM Codes 2 (low shallow potential, moderate potential at depth; <1%), 4 (moderate shallow potential, low potential at depth; 1.9%) and 8 (high shallow potential, moderate potential at depth; <1%). Areas of proosed ROW are mapped as HPALM Code 1 or 5, low to moderate potential for preservation of buried prehistoric cultural resources in shallow and deep contexts.



Ronald Reagan Blvd. Widening Segment D-1

aci Project No.: 09-24-030

Figure 5. Austin District Hybrid Potential Archeology Liability Map (HPALM) (Abbott & Pletka 2015)

May 2025

4.0 PREVIOUSLY RECORDED CULTURAL RESOURCES

A literature review of the Atlas (THC 2025) was conducted to identify previously conducted archeological investigations and previously recorded cultural resources within a one km (0.6-mile (mi)) radius of the project area (Figure 6).

4.1 Previously Recorded Archeological Sites

The Atlas (THC 2025) review determined there to be four archeological sites (41WM1161, 41WM1117, 41WM1118, and 41WM1121) located within the APE, two adjacent archeological sites (41WM1502 and 41WM1124), and an additional nine archeological sites within one km of the project area. Considering only the proposed new ROW, only site 41WM1161 is adjacent. Site 41WM1161 is a historic water well that was first recorded in 2007 by SWCA under the Ronald W. Reagan Blvd North Phase II Project. In 2007, site 41WM1161 was determined to be ineligible for NRHP nomination. Relocation of the site was attempted in 2022 by aci consulting (now aci environmental consulting) but the attempt was unsuccessful. No previously recorded sites are mapped within the proposed new ROW; however, as only a centroid point is provided for site 41WM1161 and its boundaries have not been determined, there is some potential that the site extends into the new ROW on the western end of the proposed project. .

Table 1 provides summary details of the previously recorded archeological sites within one km of the project area.

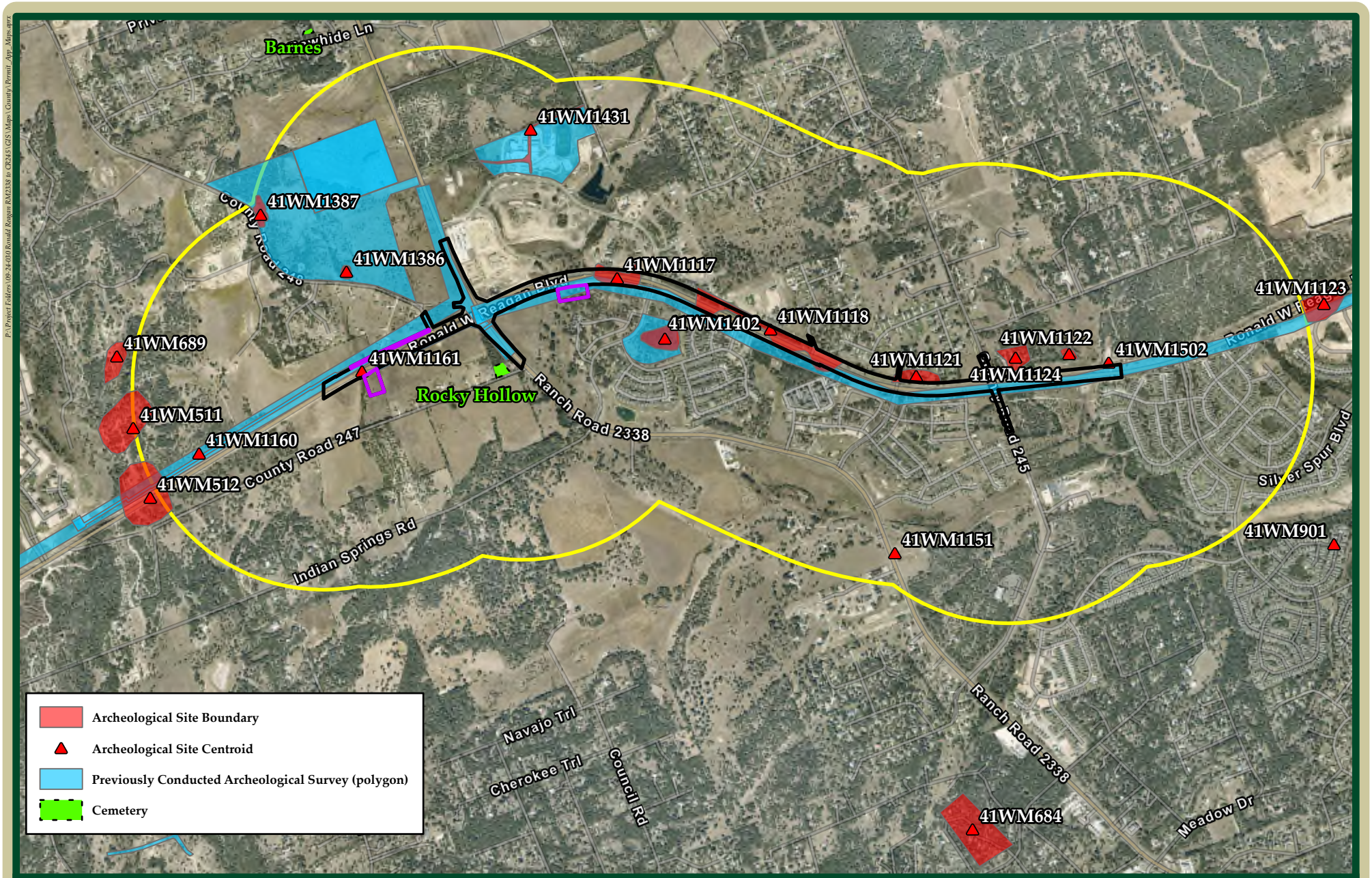
Table 1: Previously Recorded Archeological Sites within One km

Archeological Site	Site Type	Depth of Deposits (cmbs)	Distance from APE	Determination of Eligibility per THC Atlas	Recommendations
41WM1117	Prehistoric Lithic Tool and Debris Scatter	surface	**within**	Ineligible In ROW	No further work
41WM1118	Lithic Procurement Site/Lithic Tool and Debris Scatter	surface	**within**	Ineligible within ROW	No further work
41WM1121	Prehistoric Lithic Tool and Debris Scatter	surface	**within**	Ineligible within ROW	No further work
41WM1122	Prehistoric Open Campsite/ Historic Household Debris Scatter	surface	55 m N	Ineligible within ROW	No further work
41WM1124	Early 20th Century Farmstead	surface	**adjacent**	Ineligible within ROW	No further work
41WM1151	Historic Debris and Collapsed Structure	0-10 cmbs	835 m S	Ineligible	Archival research
41WM1160	Historic Domestic Artifacts	surface	730 m SW	Ineligible	No further work
41WM1161	Historic Water Well	surface	**within**	Ineligible	No further work
41WM1386	Historic Homestead	surface	359 m N	Ineligible	No further work

Table 1: Previously Recorded Archeological Sites within One km

Archeological Site	Site Type	Depth of Deposits (cmbs)	Distance from APE	Determination of Eligibility per THC Atlas	Recommendations
41WM1387	Remains Of Historic Homestead	0-10 cmbs	950 m N	Ineligible	No further work
41WM1402	Lithic Surface Scatter	surface	140 m S	Ineligible	No further work
41WM1431	Historic Stone Wall	surface	431 m NE	Ineligible	No further work
41WM1502	Surficial Lithic Artifact Scatter	surface	**adjacent**	Ineligible within ROW	No further work
41WM511	Quarry Procurement	surface	894 m SW	Unknown	unknown
41WM512	Historic Scatter, Lithic Scatter, Prehistoric Campsite	0-50 cmbs	956 m SW	Unknown	Further investigation could reveal more information

Source: THC 2025,
cmbs = centimeters below surface



This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

NOT FOR PUBLIC DISCLOSURE

aci env

Ronald Reagan Blvd. Widening Segment D-1

aci Project No.: 09-24-030

Figure 6. Previously Recorded Cultural Resources and Surveys

May 2025

4.2 Previously Conducted Investigations

The Atlas (THC 2025) shows three previous archeological investigations within the project area and four previous archeological investigations located within one km of the project area.

Table 2 provides summary details of the previously conducted investigations within one km of the project area.

Table 2: Previously Conducted Investigations within One km

TAC Permit No.	Year	Investigating Firm	Sponsor	Project	Methodology	Distance from APE	Recorded Cultural Resources
4381	2007	SWCA Environmental Consulting	Williamson County	Ronald W. Reagan Boulevard North	Pedestrian Survey, Shovel Testing	**within**	41WM1160, 41WM1161
4475	2007	SWCA Environmental Consulting	Williamson County	Ronald W. Reagan Boulevard North	Pedestrian Survey, Shovel Testing	**within**	41WM1173, 41WM1174
8094	2017	Terracon Consultants, Inc	Georgetown ISD	Fisher Tract Survey	Pedestrian Survey, Shovel Testing	378 m N	None
8232	2017	Terracon Consultants, Inc	Georgetown ISD	The Willrae Tract Survey	Pedestrian Survey, Shovel Testing	66 m N	41WM1386, 41WM1387
8796	2019	Horizon Environmental Services, Inc	Georgetown ISD	Georgetown ISD Elementary School Tract	Pedestrian Survey, Shovel Testing	113 m S	41WM1402
9429	2020	Terracon Consultants, Inc	Georgetown ISD	Parmer Ranch Middle School	Pedestrian Survey, Shovel Testing	405 m NE	41WM1431
30750	2023	aci consulting	JDS RR LLC	Benton Tract Lift Station and Force Main	Pedestrian Survey, Shovel Testing	**within**	None

Source: THC 2025

TAC permit numbers, 4381, 4475, and 30750 are mapped within the project area. TAC permit numbers 4381 and 4475 are both associated with surveys for the Ronald W. Reagan Boulevard North project in 2007, conducted by SWCA consulting. These

surveys were conducted in preparation for the construction of Ronald Reagan Blvd and future foreseeable expansions of the roadway. It should be noted that the spatial data on the Atlas do not appear to be entirely accurate as they show portions of the existing ROW that were not covered by the 2007 SWCA surveys. However, aci environmental consulting archeologists reviewed the SWCA reports and it appears that all of the existing ROW within the current project area was covered by SWCA's surveys. These surveys resulted in the recording of four newly recoded sites, 41WM1160, 41WM1161, 41WM1173, and 41WM1174. Site 41WM1611 is located within the project area. TAC permit number 30750 is associated with the Benton Tract Lift Station Force Main project in 2023, conducted by aci consulting (now aci environmental consulting). No sites were recorded during the survey for TAC permit number 30750.

4.3 Additional Cultural Resources

Additionally, the THC Atlas review focused on NRHP districts and properties, SALs, Official Texas Historical Markers (OTHMs), Registered Texas Historical Landmarks (RTHLs), and cemeteries.

The Atlas (THC 2025) review determined there to be one cemetery, Rocky Hollow, located within 1 km of the project area. Rocky Hollow Cemetery, also called Little Arkansas Cemetery and Bullion Cemetery (THC 2025), is approximately one acre and contains approximately 200 burials. The first burial is listed as 1865. No additional NHRP districts or properties, SALs, OTHMs, RTHLs, or cemeteries exist within the APE or within one km of the APE.

5.0 HISTORIC LAND USE AND HISTORIC-AGE PROPERTIES

Recent and historic-age topographic maps (1966, 1980, 1991, 2013, 2016, and 2019) (NETR Online 2025a) and aerial photographs (1937, 1958, 1962, 1963, 1974, 1981, 1995, 1996, 2004, 2008, 2010, 2012, 2014, 2016, 2018, 2020, and 2022) (NETR Online 2025b) available online were examined to identify the potential for historic structures or historic archaeological sites within the APE. In addition, an architectural historian (AmaTerra, ERG) meeting the requirements of the Secretary of the Interior's standards for a professional historian reviewed the Atlas and the TxDOT Historic Resources

Aggregator database for properties listed in the NRHP, non-archeological SALs, and RTHLs within 0.25 mile of the project area (K. Korfmacher, personal communication, May 8, 2025).

Prior to the construction of Ronald Reagan Blvd, between 2007 and 2012, the project area and adjacent areas were primarily undeveloped agricultural or rangeland. Based on aerial imagery Rocky Hollow Cemetery, approximately 1000 ft south of the intersection of Ronald Reagan Blvd and RM 2238, is clearly in use by 1962 and may have been in use prior to 1937. The cemetery is adjacent to the project area to the west of RM 2338. The cemetery is not currently listed in the NRHP but is a registered Historic Texas Cemetery (WM-C056). The proposed project would be limited to the existing ROW in this area, and no impacts to the cemetery would occur.

The only other evidence for historic-age structures shows a homestead approximately 400 ft north of Ronald Reagan Blvd and approximately 1200 ft east of RM 2338. This homestead is visible on the earliest aerial imagery, in 1937. By the time of the 2004 imagery, all structures in this area had been removed/demolished, and by 2012, the area had been cleared of all vegetation and topsoil for modern development. The project area closest to this location is limited to the existing ROW, and there is no potential for impacts to any cultural deposits associated with this homestead, if still present.

6.0 METHODS

6.1 Survey Method

An intensive pedestrian survey of the proposed new ROW for the Ronald Reagan Blvd Widening Segment D-1 project will be conducted to locate any archeological sites or other historical properties that may be adversely affected by construction. The survey will utilize 30-m transect spacing, and will be augmented by systematic shovel testing. Shovel tests will be excavated at an average rate of 2 shovel tests per acre within the project area. A minimum of 12 shovel tests are anticipated to meet the CTA survey guidelines. While shovel tests may be precluded by erosional areas, slopes greater than 20 percent, natural features, and significant ground disturbance, these shovel tests will be redirected to areas with a higher potential to contain archaeological deposits based

on the HPALM, if possible. Shovel tests will be excavated at least 30 centimeters (cm) in diameter to the bottom of Holocene deposits, or to a maximum depth of 80 cm below surface, if possible. The shovel tests will be dug in 10 cm levels, and the excavated sediments will be screened through ¼-inch hardware cloth, unless high clay or water content requires that the material be troweled through or sorted by hand. Shovel tests will be recorded on logs and the locations of the tests will be recorded on a handheld GPS unit. Other field forms will include a daily journal, photograph log, and site forms.

As the project area does not contain any listed NRHP, non-archeological SAL, or RTHL properties, the project historian recommends the proposed project would have no effect on above-ground historic resources under the Texas Antiquities Code. The Rocky Hollow Cemetery is not adjacent to the project area and would not be impacted by project activity; therefore, no investigation for historic-age resources beyond the archaeological survey within new ROW is recommended.

aci environmental consulting does not recommend mechanical trenching in the project area at this time. If field investigations reveal potential for deeply buried cultural material in any location throughout the project area, the use of mechanical prospections in that area may be reevaluated and additional coordination with the THC would be conducted prior to completing field work for the survey. If mechanical investigations are required, then backhoe trenching will be conducted in accordance with CTA standards. Backhoe trenches will be excavated in 4-inch (10.2 cm) levels with a flat blade bucket to the lesser of either the depth of pre-Holocene-age deposits, the depth of the vertical APE, or to the maximum depth that can be reached by the backhoe. All trenching work will be performed in accordance with applicable regulations regarding trench safety. Appropriate measures were taken for any trenches that exceed 4 ft (1.2 m) in depth, following Occupational Safety and Health Administration (OSHA) safety protocols. Archaeologists will closely monitor trench excavations, inspect the backfill for cultural material, and screen one five-gallon bucket of soil from every third excavator bucket. Following excavation, the trench walls will be scraped, a portion of one wall will be hand-picked and photographed, and a representative trench profile will be described using standard soil description nomenclature. Trenches and any

archaeological deposits will be mapped with a handheld GPS unit. All trenches will be backfilled and leveled upon completion of excavation and documentation.

Previously recorded site 41WM1161 will be revisited as part of survey effort and any newly discovered cultural resources will be recorded within the project area. Newly discovered cultural resources dating 50 years or older will be recorded. Sites will be defined as five or more prehistoric artifacts, five or more historic artifacts of varying material type, construction, or design, and/or a single cultural feature, such as hearth or midden, observed on the surface or exposed during subsurface testing within an area no greater than 30-x-30 meters. The distance of artifactual materials from active disturbances such as trails and roadways and/or location within dense canopy that may lessen the chances for disturbance will be taken into consideration when defining an archaeological site. All other found artifacts will be recorded as isolated finds and included in the final report.

Sites will be delineated through surface expression and/or excavation of radial shovel test pits at intervals no greater than 15 meters in a cruciform pattern until two negative shovel tests are encountered in each direction or landform or project limits area reached. An Archeological Site Form will be filled out for each site identified and submitted to TARL at the University of Texas at Austin to obtain trinomials for newly recorded sites or to update records for previously recorded sites that extend into the APE. Sites will be evaluated for potential significance and eligibility for inclusion in the NRHP or designation as an SAL. The survey methods will comply with current THC and CTA standards for site investigation.

This will be a non-collection survey. The documentation for the non-collected material will include: a complete inventory of artifacts observed, photographs of all artifacts recovered from subsurface deposits, and photographs of all diagnostic artifacts as well as a representative sample of all non-diagnostic artifacts recovered from the surface. Prehistoric lithic material will be described based on raw material type, tool type, and stage of reduction. Prehistoric ceramics will be described based on sherd type (rim, body, base), and decoration (engraved, incised, punctuated, etc.), while historic

ceramics will be described based on sherd type, paste, decoration (molded, transfer print, flow blue, decalcomania, hand-painted, glazed, etc.), and any maker's marks. Historic glass will be described based on color, decoration, mold lines, closures embossing, and manufacturer's codes. In-field analysis will be conducted by senior field personnel familiar with artifacts of the region and period.

6.2 Reporting

The findings of the records search, intensive survey, assessments and recommendations concerning any cultural resources located, and a brief archeological and environmental background will be submitted as a draft report following current CTA and THC guidelines to the THC for review and comment. Discussion will include contextual background of the APE, list of sites identified, their eligibility for NRHP inclusion or formal designation as a SAL, and the appropriate criteria under which the sites were evaluated. The report will also include recommendations for further work or no further work with appropriate justifications. After the draft report has been reviewed and approved, a final report will be prepared for submission to the THC.

6.3 Curation

Following confirmation of THC concurrence with the report, final copies of the report, project boundary and site location shape files, and an online *Abstracts in Texas Contract Archaeology Form* will be submitted to the THC. The Antiquities Permit will be completed upon the submission of the final copies of the report and the curation form. Project records and a hard copies of the restricted version of the report will be curated at TARL in accordance with TARL curation requirements. No artifacts will be curated as part of this permit, as this is a non-collection survey.

7.0 REFERENCES CITED

Abbott, James T.

2013 *Rapid, Broad-Scale Modeling of Generalized Archeological Integrity Potential in Texas Using Extant GIS Data: A Proposed Methodology for Supervised, Semi-Automated Modeling of Archeological Potential, and a Pilot Study of Its Effectiveness*. Report on File, Environmental Affairs Division, Texas Department of Transportation, Austin.

Abbott, James and Scott Pletka

2014 Data Release: The Austin District HPALM Model. Texas Department of Transportation, Environmental Affairs Division, Austin.

Griffith, Glenn, Sandy Bryce, James Omernik, and Anne Rogers

2007 Ecoregions of Texas. Texas Commission on Environmental Quality, Austin, Texas.

NETR Online

2025a *Historic Topographic Maps* https://www.historicaerials.com/viewer. Last Accessed May 8, 2025.

2025b *Historic Aerials* https://www.historicaerials.com/viewer. Last Accessed May 8, 2025.

Soil Survey Staff (SSS)

2025a Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed 5/6/2025.

2025b Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions. Available online at https://soilseries.sc.egov.usda.gov/osdname.aspx. Accessed 5/6/2025.

Texas Historical Commission (THC)

2025 Texas Archeological Sites Atlas. Texas Historic Commission, Austin. Available Online at https://atlas.thc.state.tx.us/. Last Accessed 5/6/2025.

(USGS) United States Geologic Survey

2025a *Leander NE* Quadrangle. USGS – Department of the Interior: Denver, Colorado.

2025b Bureau of Economic Geology (BEG). Texas Geology Web Map. Physiographic Map of Texas. https://webapps.usgs.gov/txgeology/. Last Accessed 5/6/2025.

2025c USGS Historical Topographic Map Explorer. Esri Historical. https://www.arcgis.com/home/item.html?id=15118046711648a783844109bfdd220. Last Accessed 5/6/2025.