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Intensive Pedestrian Survey for the BCRUA OHL Rebuild, Travis County, Texas

Julie Shipp

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INTENSIVE PEDESTRIAN SURVEY FOR THE BCRUA OHL REBUILD, TRAVIS COUNTY, TEXAS

Final Report
June 2018

TAC Permit # 8420

Prepared for:

Brushy Creek Regional Utility Authority
1906 Hur Industrial Blvd.
Cedar Park, Texas 78613

Prepared by:

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aci Project No.: 35-17-042

Abstract

On June 12, 2018, archeologists from aci consulting conducted a cultural resources survey for the proposed Brushy Creek Regional Utility Authority (BCRUA) overhead line (OHL) rebuild in Travis County, Texas. The Area of Potential Effect for this project consists of the 50-foot Right-of-Way (ROW) for the proposed rebuild of the 5.31-mile overhead electric power supply alignment, for a total of 32.17 acres (13.02 hectares).

The project will be funded through the BCRUA, thus the project was conducted in compliance with the Texas Administrative Code (13 TAC 26.20[2]) under Texas Antiquities Code permit number 8420, as well as Section 106 of the National Historic Preservation Act of 1966, as amended, for any additional compliance for impacts to US Army Corps of Engineers (USACE) regulated waters. The survey did not result in the location of any new archeological sites, historic structures, or additional historic properties. Based on these results, no further archeological work is recommended. Records from this investigation will be curated at the Texas Archeological Research Laboratory. Julie Shipp served as Principal Investigator.

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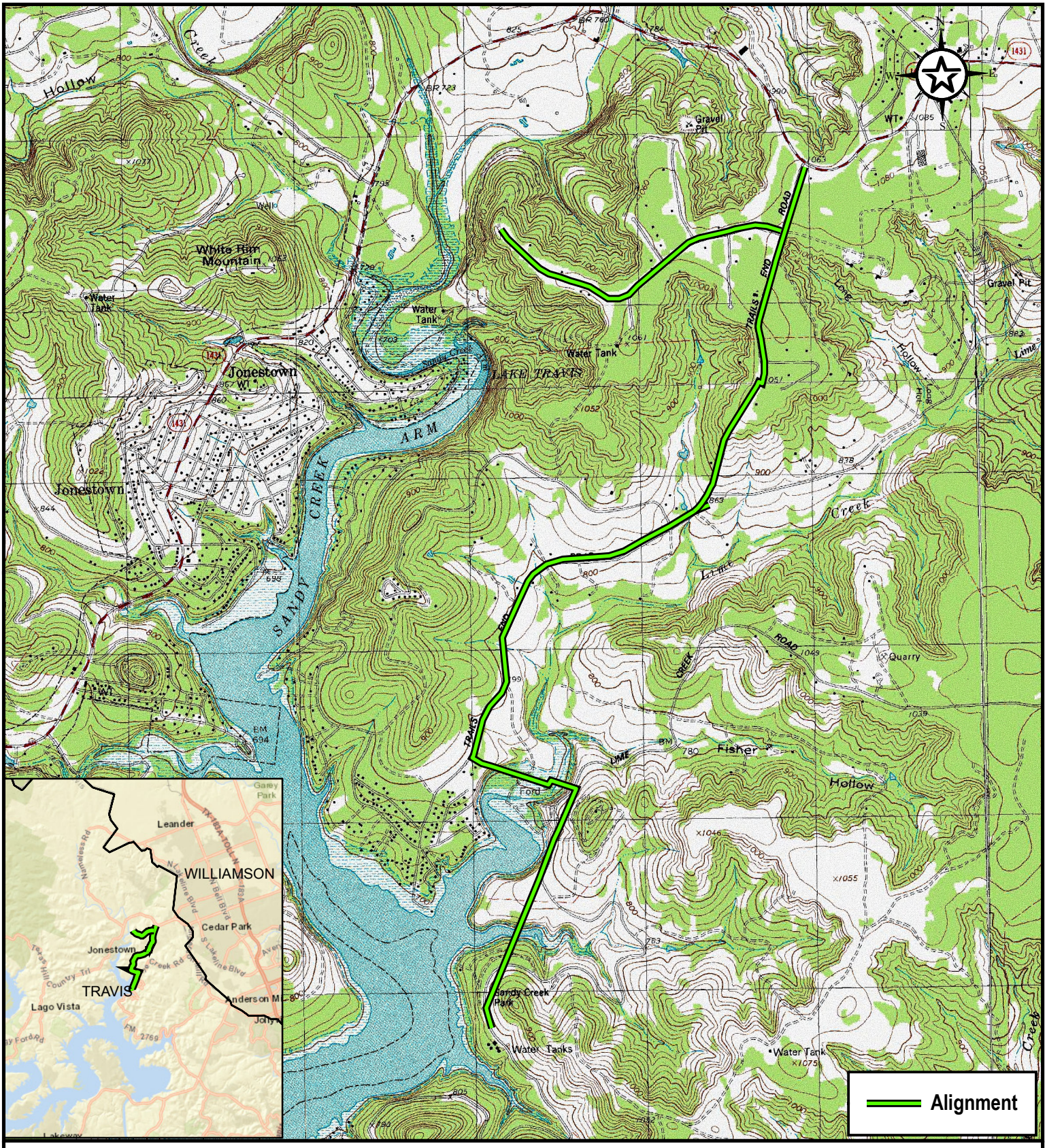
1.0 INTRODUCTION

On June 12, 2018, archeologists from aci consulting conducted a cultural resources survey for the proposed Brushy Creek Regional Utility Authority (BCRUA) overhead line (OHL) rebuild in Travis County, Texas. The Area of Potential Effect for this project consists of the 50-foot Right-of-Way (ROW) for the proposed rebuild of the 5.31-mile overhead electric power supply alignment, for a total of 32.17 acres (13.02 hectares) (Figures 1 and 2).

The project will be funded through the BCRUA, thus the project is conducted in compliance with the Texas Administrative Code (13 TAC 26.20[2]) under Texas Antiquities Code permit number 8420, as well as Section 106 of the National Historic Preservation Act of 1966, as amended, for any additional compliance for impacts to US Army Corps of Engineers (USACE) regulated waters.

The investigation will consist of an intensive pedestrian survey, shovel testing, site recording, assessment of sites for listing on the national Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL), data analysis, and reporting in accordance with THC and Council of Texas Archaeologists (CTA) standards.



Project Area on USGS 7.5-minute Topographic Quadrangles

SCALE: 1 " = 2,500 ' 0 381 762 Meters 1 inch = 762 meters

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PROJECT NAME: OHL Rebuild

DATE: 06/18/2018

REVISION: 1.0

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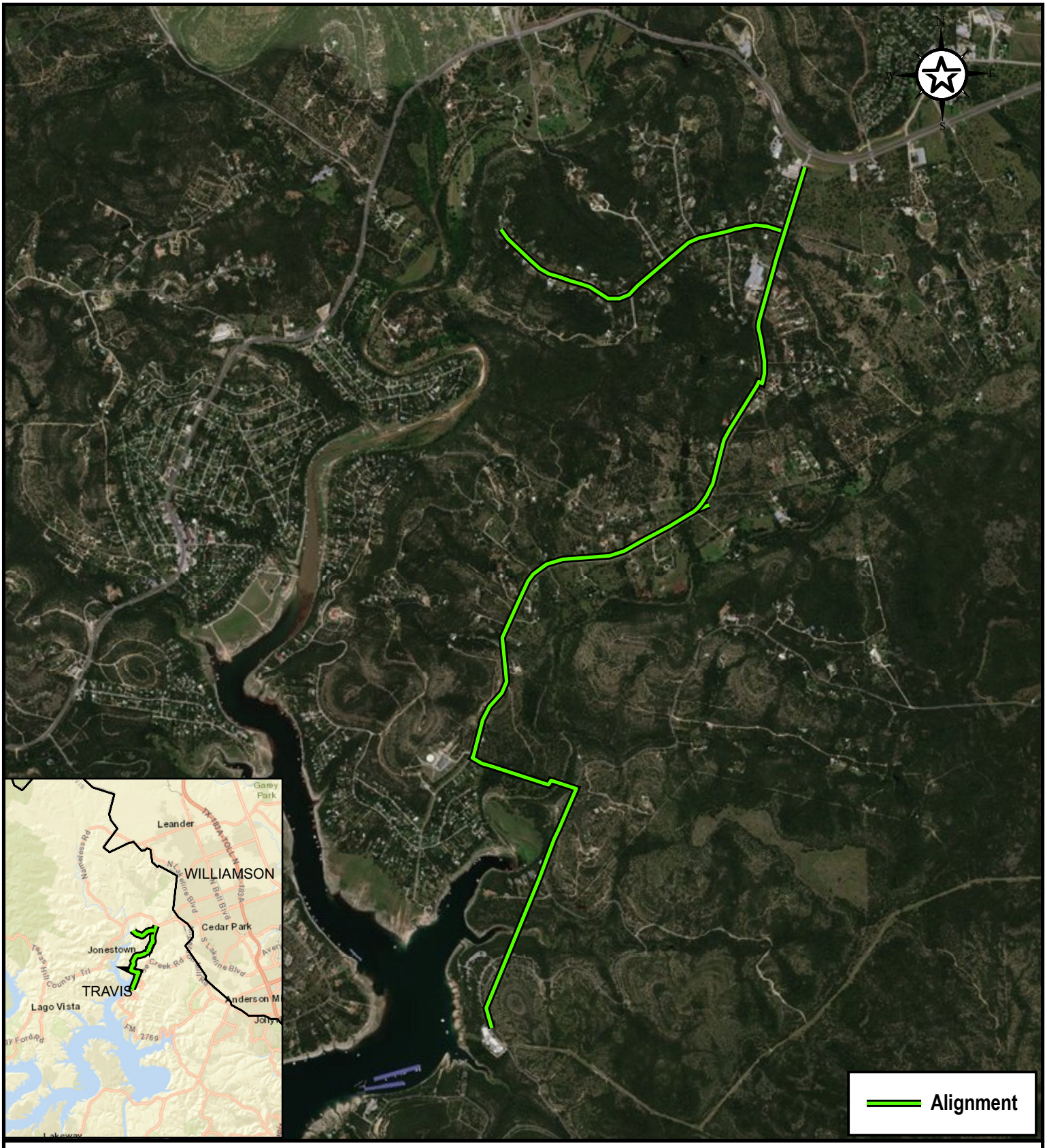

Project Area on Aerial Photographic Background

SCALE: 1 " = 2,500 ' 0 381 762 Meters 1 inch = 762 meters

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2.0 BACKGROUND REVIEW

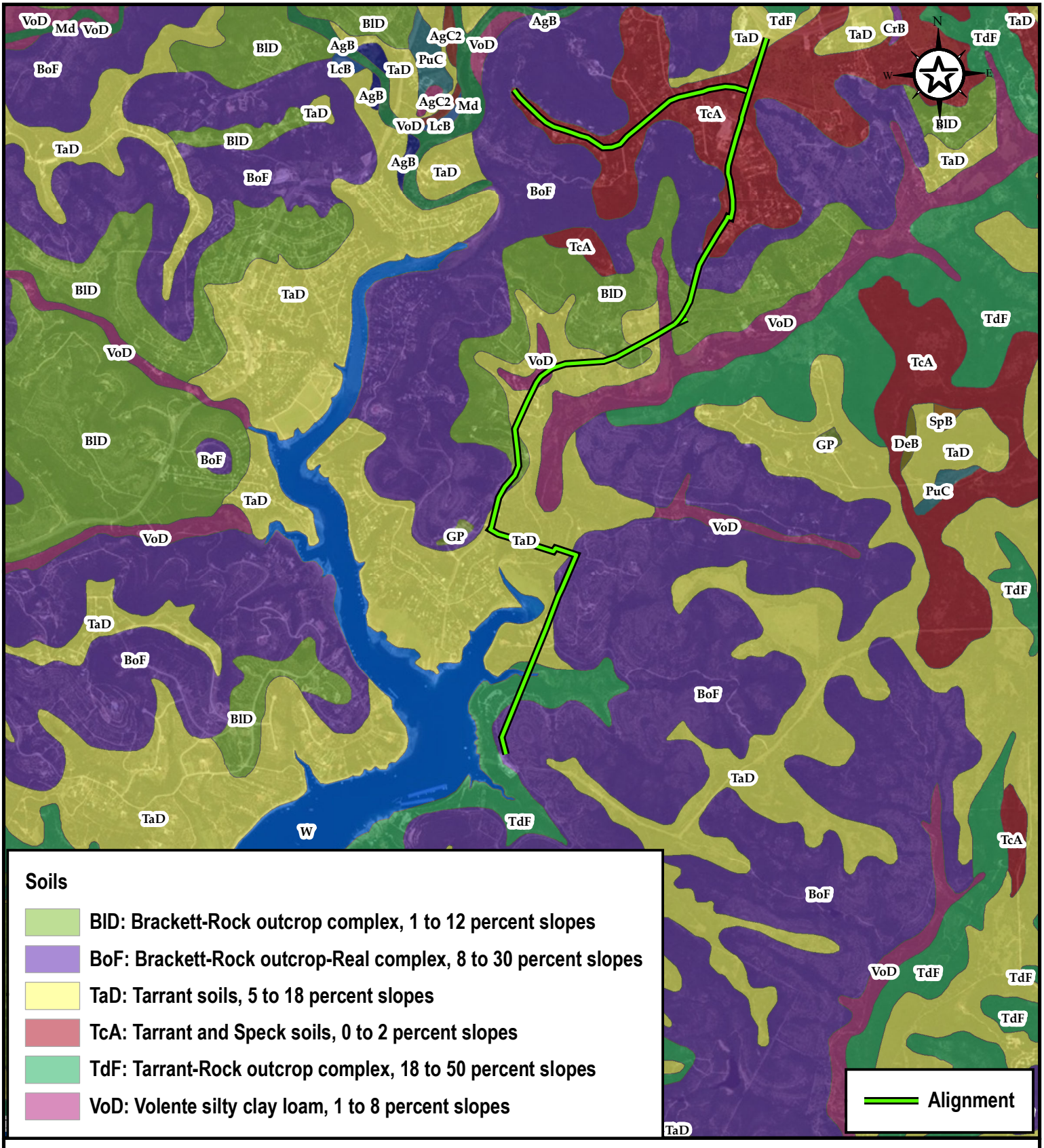
2.1 Physiography

The project area is located in central Texas along the eastern edge of the Edwards Plateau in the Balcones Canyonlands. The Balcones Canyonlands are approximately 1000 feet higher in elevation than the Gulf Coastal Plain to the east. Erosion along the edge of the Edwards Plateau has resulted in steep, stair-step topography characterized by canyons, sinkholes, and karsts. The Balcones Canyonlands are relatively well watered in comparison to the larger Edwards Plateau and the Blackland Prairie to the east (Wermund 1995).

2.2 Geology and Soils

The Bureau of Economic Geology classified the general surface geology of the subject area as being primarily dominated by the Upper Glen Rose Formation (Kgr(u)). This group is described by Barnes (1974) as: Glen Rose Formation (Kgr): "Limestone dolomite, and marl subdivided into two units by Corbula bed C; alternating resistant and recessive beds forming stairstep topography; limestone aphanitic to fine grained, hard to soft and marly, light gray to yellowish gray; dolomite, fine grained, porous, yellowish browh; marine megafossils include molluscan steinkerns, rudistids oysters, and echinoids; upper part, relatively thinner bedded, more dolomitic, and less fossiliferous than the lower part, thickness about 200 feet; lower part more massive and about 160 feet thick, includes at top Corbula bed, C, with abundant steinkerns of Corbula Harvey (Hill) in an interval up to 5 feet thick; thickness of Glen Rose Formation 380 +/- feet."

Six soil series are mapped along the project alignment (Figure 3). The soils in the majority of the APE are mapped as Brackett-Rock outcrop complex, Tarrant, Tarrant-Rock outcrop complex, and Volente. Also mapped within the APE are Brackett-Rock outcrop-Real complex and Tarrant and Speck (NRCS 2018). The majority of the soils within the project area have been previously determined to have a low to moderate probability to contain archeological sites according to the Potential Archeological Liability Maps (PALM) model created by TxDOT ENV for highway projects in the Houston District (Abbott 2013).



Project Area Soils

SCALE: 1 " = 3,000 ' 0 381 762 Meters 1 inch = 914 meters

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All of the soils formed *in situ* over limestone. Brackett and Real soils are shallow, gravelly, calcareous, loamy soils overlying interbedded limestone and marl. Tarrant soils are very shallow, stony, calcareous, clayey soils intermingled with shallow soils overlying limestone. Speck soils are shallow, clayey soils. Volente soils are deeper than the other soils but also formed on sloping uplands.

- *Brackett-Rock outcrop complex, 1 to 12 percent slopes (BlD)* - 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.

- *Brackett-Rock outcrop-Real complex, 8 to 30 percent slopes (BoF)* - The Brackett-Rock outcrop-Real complex consists of 38% Brackett, 25% Real, and 22% rock outcrop series. The Real series consists of soils that are very shallow to paralithic limestone bedrock interbedded with marl and chalk. These well drained soils formed in residuum derived from limestone of Cretaceous age.

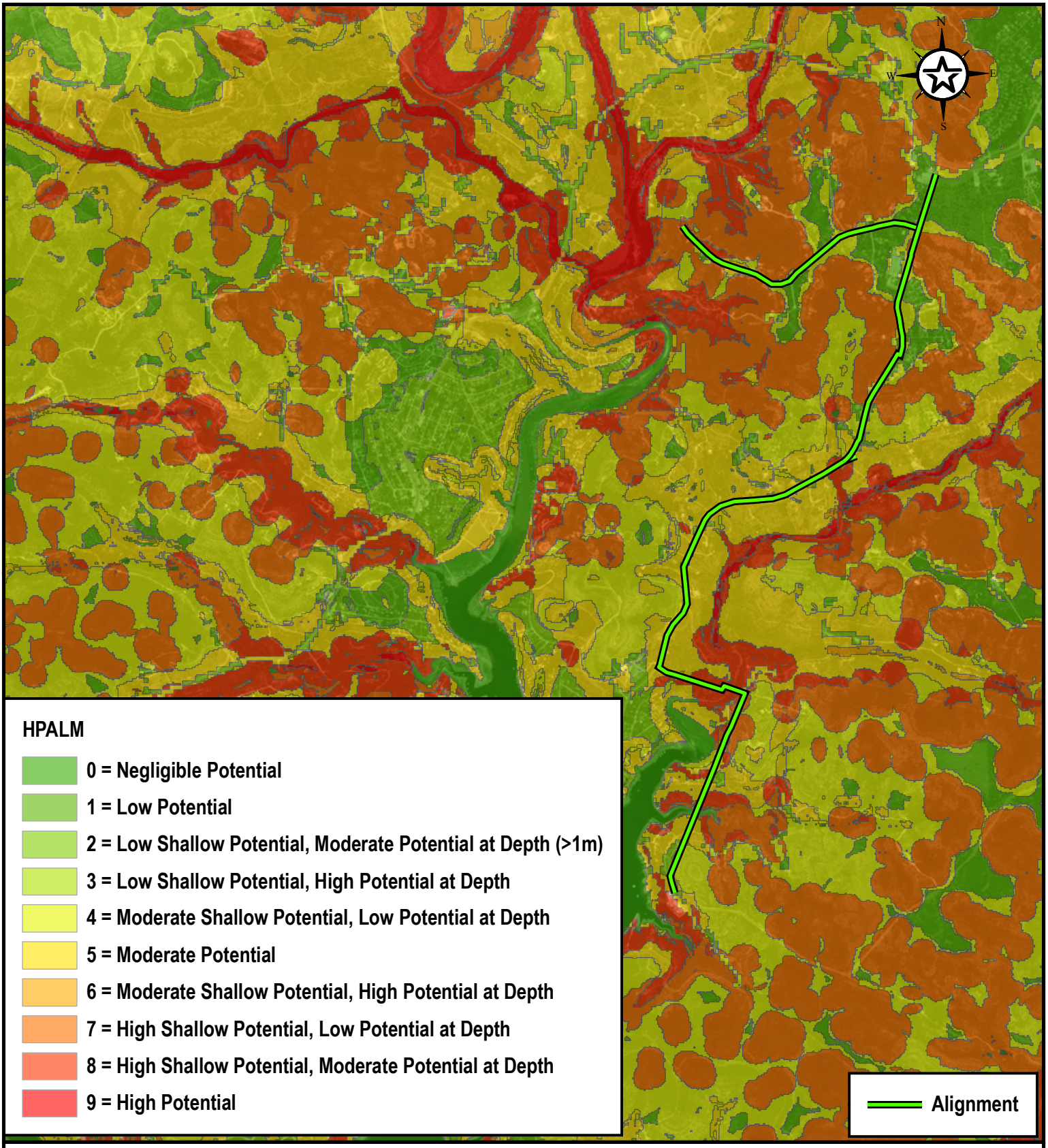
- *Tarrant soils, 5 to 18 percent slopes (TaD)* - The Tarrant series consists of soils that are very shallow and shallow to indurated limestone bedrock, interbedded with marl and chalk. These well drained soils formed in residuum derived from limestone of Cretaceous age. These nearly level to very steep soils are on summits, shoulders, and backslopes of ridges on dissected plateaus.

- *Tarrant and Speck soils, 0 to 2 percent slopes (TcA)* – The Tarrant and Speck soils consists of 63% Tarrant and 32% Speck soils. The Speck series consists of shallow, well drained, slowly permeable soils formed in residuum and colluvium derived from indurated limestone. These soils nearly level to moderately sloping soils occur on interfluves, side slopes, and base slopes of hills and ridges.

- *Tarrant-Rock outcrop complex, 18 to 50 percent slopes (TdF)* – The Tarrant-Rock outcrop complex consists of 50% Tarrant, 30% rock outcrop, and 20% unnamed soils.

- *Volente silty clay loam, 1 to 8 percent slopes (VoD)* - The Volente series consists of deep, well drained, moderately slowly permeable soils that formed in calcareous clayey sediments. These soils are on nearly level to sloping uplands.

According to the Austin Hybrid District Potential Archeological Liability Map (HPALM), the majority of the APE has moderate potential for cultural resources (Figure 4). The southern portion, which includes areas that have not been surveyed and some that were surveyed in 1980, crosses areas with high potential for cultural resources (Abbott and Pletka 2015).



Austin District Hybrid Potential Archeological Liability Map (HPALM)

SCALE: 1 " = 3,000 ' 0 381 762 Meters 1 inch = 914 meters

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2.3 Cultural Review

A literature review of the THC Archeological Sites Database (the Atlas) revealed that no previously recorded sites are within the APE; however, six sites are located within one kilometer of the APE (Table 1; Figure 5). All sites are prehistoric with diagnostic artifacts recovered. No cemeteries or historical markers are within the APE or 1 kilometer of the APE.

Table 1. Previously Recorded Archeological Sites within 1 km of the APE.

Site	Site Type	NRHP Eligibility	Recommendations
41TV149	Prehistoric rock shelter	Undetermined	None
41TV237	Prehistoric campsite	Undetermined	None
41TV301	Prehistoric lithic scatter	Undetermined	None
41TV547	Prehistoric campsite	Undetermined	None
41TV2107	Prehistoric campsite	Ineligible	Further investigation
41TV2445	Prehistoric campsite	Ineligible within ROW	Further investigation

In 2009, a majority of the alignment was surveyed by aci consulting for BCRUA. In 1980, the southern portion of the alignment was surveyed for the Lower Colorado River Authority.

3.0 FIELD METHODS

On June 12, 2018, archeologists from aci consulting conducted a cultural resources survey of the APE to locate any archeological sites or other historical properties that may be adversely affected by construction. The pedestrian survey was conducted within the entire APE. Shovel testing was limited due to good ground surface visibility (ranging from approximately 30-50 percent) and shallow and eroded soils at the surface (Figure 6).

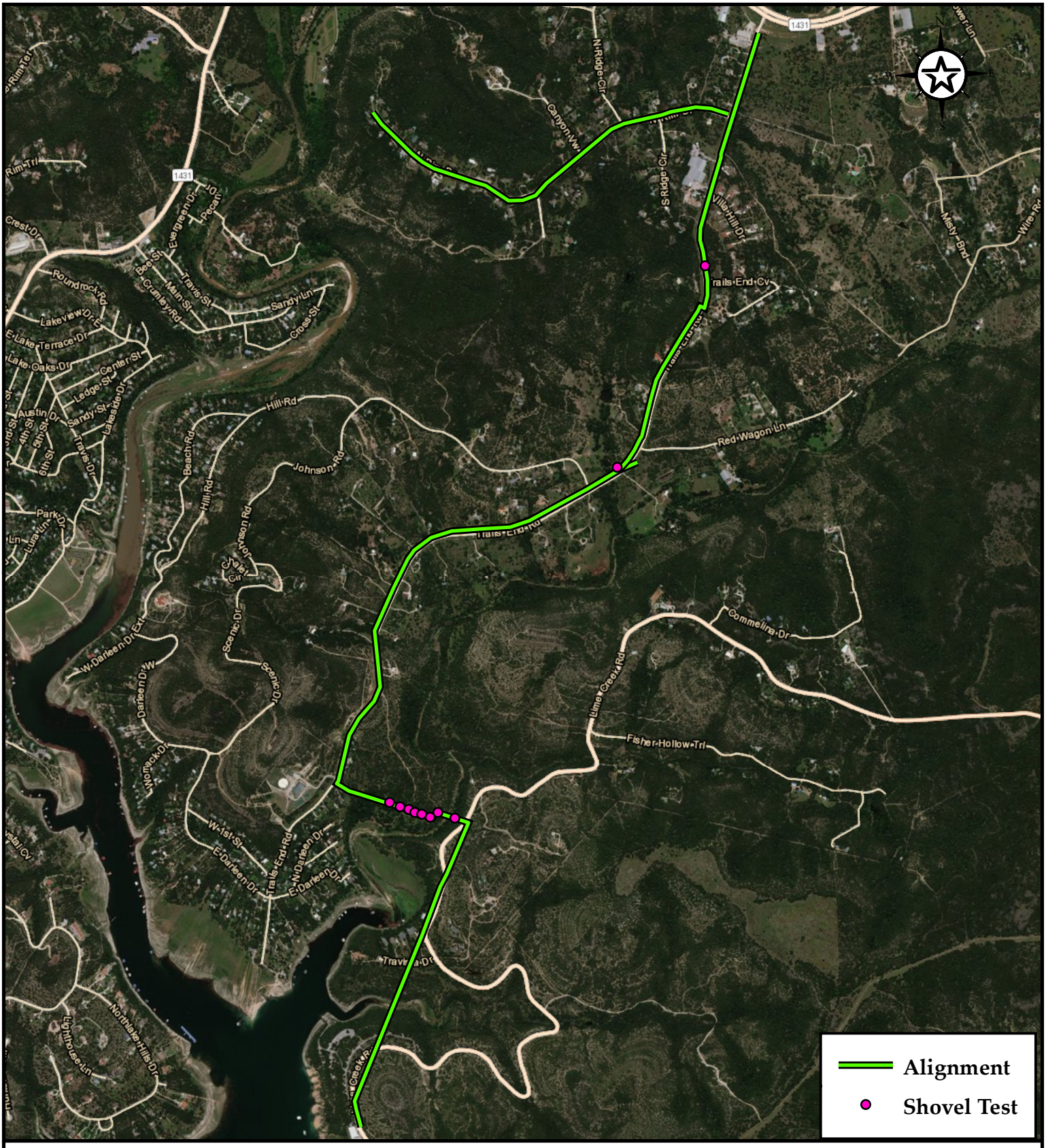
Shovel tests were excavated in settings that had potential for buried cultural horizons and/or if the ground surface visibility was less than 30 percent. The tests were excavated at least 30 centimeters (cm) in diameter to the bottom of Holocene deposits, when possible. The shovel tests were dug in 10 cm levels, and the excavated sediments were screened through ¼-inch hardware cloth. Shovel tests were recorded on logs and the locations of the tests were recorded on a GPS unit. Other field forms included a daily journal and photograph log.

4.0 RESULTS OF INVESTIGATION

The survey was conducted under hot conditions on June 12, 2018. The survey began on North Rim Drive along the western arm of the alignment, heading west to east. The remainder of the alignment was surveyed north to south. The entire APE followed OHL of the existing alignment. Much of this alignment was disturbed from not only the existing OHL alignment, but also due to residential activities such as road construction.

The alignment along North Rim Drive runs through a residential area and either the surface visibility was greater than 30 percent (Figure 7) or the area of the alignment was previously disturbed (Figure 8).

The majority of the remainder of the alignment follows Trails End Road. This is also the portion that was previously surveyed by aci consulting in 2009. This portion of the alignment either had surface visibly greater than 30 percent (Figure 9) or was previously disturbed (Figure 10). Only two shovel tests were conducted along this portion, placed in high probability areas (see Figure 6).



Cultural Survey Field Results

SCALE: 1 " = 1,968 ' 0 300 600 Meters 1 inch = 600 meters

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Figure 7. Surface visibility along North Rim Drive

Figure 8. Road and residential disturbances along North Rim Drive

Figure 9. Surface visibility along Trails End Road

Figure 10. Disturbances along Trails End Road

The southern portion of the alignment cuts southeast from Trails End Road through property towards Lime Creek Road. This portion of the alignment runs through undeveloped high probability areas and was where most of the shovel tests were excavated (Figure 11). The alignment also crossed a dry arm of Sandy Creek (Figure 12).

From here, the alignment heads south through Sandy Creek Park, a few residential areas, and ends in an area previously surveyed.

In total, 10 shovel tests were excavated and all were negative for cultural resources.

Figure 11. High probability area near Sandy Creek arm

Figure 12. Dry crossing of Sandy Creek arm

5.0 CONCLUSIONS AND RECOMMENDATIONS

On June 12, 2018, archeologists from aci consulting conducted a cultural resources survey for the proposed BCRUA OHL rebuild in Travis County, Texas. The APE consists of the 50-foot Right-of-Way (ROW) for the proposed rebuild of the 5.31-mile overhead electric power supply alignment, for a total of 32.17 acres (13.02 hectares).

No archaeological sites were recorded during the survey and no previously recorded archaeological sites, cemeteries, NRHP properties, SALs, or RTHLs were identified during the background review. Based on these results, no further archeological work is recommended. If any cultural resources are observed during the course of construction for this project, the BCRUA is advised to contact a professional archeologist.

6.0 REFERENCES CITED

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