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Archaeological Survey Of The 2017 Texas Capital Fund Infrastructure Improvements Project For The City Of Grapeland, Houston County, Texas

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Archaeological Survey Of The 2017 Texas Capital Fund Infrastructure Improvements Project For The City Of Grapeland, Houston County, Texas

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**ARCHAEOLOGICAL SURVEY OF THE 2017 TEXAS CAPITAL FUND
INFRASTRUCTURE IMPROVEMENTS PROJECT FOR THE CITY OF GRAPELAND,**

HOUSTON COUNTY, TEXAS

Texas Antiquities Permit Number 8154



by

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and

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American Archaeology Group LLC
Report of Investigations Number 209

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ABSTRACT

An archaeological survey totaling 21.9 acres in a parcel tract and 5,929 feet of proposed water and wastewater pipelines with a 50 foot right-of-way was completed for the proposed 2017 Texas Capital Fund Project for the City of Grapeland in Houston County, Texas (totaling 28.71 acres surveyed). American Archaeology Group LLC conducted the work under the auspices of Section 106 of the National Historic Preservation Act (NHPA) and Antiquities Permit Number 8154. This survey was conducted in September 2017. The project area is located in northern Houston County, Texas. The field investigation was performed using the pedestrian survey method supported by backhoe trenching to test for potential subsurface cultural deposits. No cultural resources were identified during the course of this survey, therefore, it is recommended that the proposed project be allowed to proceed as planned. Monitoring by an archaeologist is not considered necessary. No artifacts were recovered, and project survey records are housed at AAG.

ACKNOWLEDGEMENTS

American Archaeology Group LLC is grateful to those whose cooperation made the completion of this project possible. Mr. Balis Dailey, Mayor of the City of Grapeland served as our land contact and visited the project area to ensure the proper areas were examined and provided the survey crew with topographic maps and aerial photographs. Mr. Franklin Stephens, P.E. from Schaumberg & Polk, Inc., the project engineers, visited the project site and assisted with in-field design changes and provided additional maps. We are also grateful to Mr. David Mills and Mr. David Malone, city employees who operated the backhoe during all of the trenching operations. Herbert G. Uecker served as the Principal Investigator for this project and Michael R. Bradle served as the Project Archaeologist assisted by Robert L. Bradle. Dr. Kerry Nichols of the Archeology Division, Texas Historical Commission, reviewed the report and is thanked for his advice and assistance throughout the project.

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INTRODUCTION

An archaeological survey of a parcel of land totaling 21.9 acres and 5,929 feet of proposed water and wastewater pipelines (50 foot right-of-way) was completed for the proposed 2017 Texas Capital Fund Project for the City of Grapeland in northern Houston County, Texas (totaling 28.71 acres surveyed). The project area is depicted on the 7.5' U.S.G.S. topographic quadrangles *Grapeland* and *Percilla* (Figure 1). It is located about one-half mile east of U.S. Highway 287 and bounded on the north by FM 227 (Figure 2). American Archaeology Group LLC conducted the work under the auspices of Section 106 of the National Historic Preservation Act (NHPA) and Antiquities Permit Number 8154. This survey was conducted in September 2017. The Universal Transverse Mercator (U.T.M.) coordinates for the approximate center of the tract are Zone 15 Easting 266233 and Northing 3487389.



Figure 1: Map showing general location of study area on Topographic Quads *Grapeland* and *Percilla*.

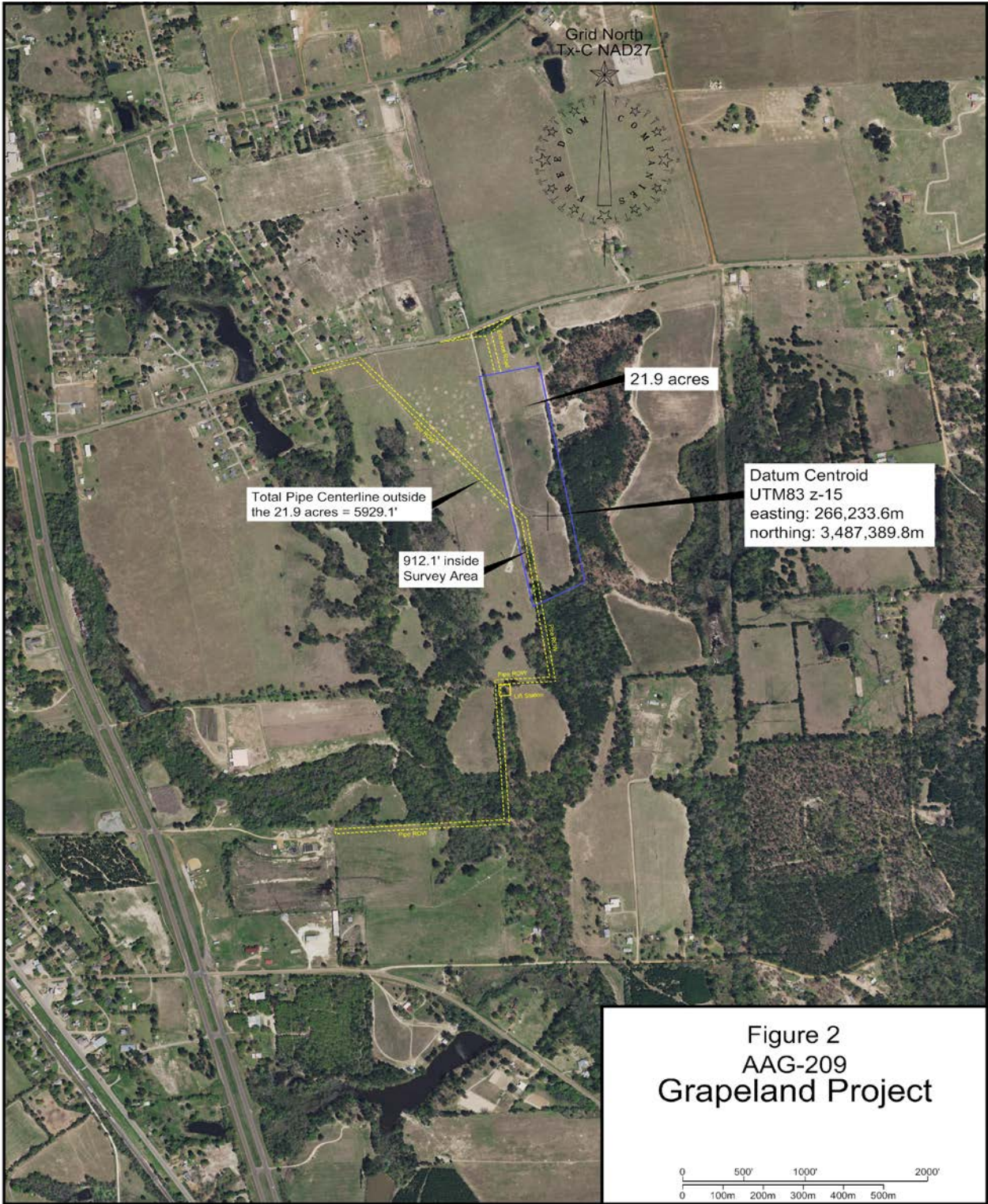


Figure 2. Project location on Google Earth aerial map.

ENVIRONMENTAL SETTING

General

The project area is located within the Austroriparian biotic province as defined by Blair (1950:98-100). The overstory vegetation is primarily large pines and hardwoods, while the understory consists of various shrubs and forbs. A more detailed discussion of the environmental setting for the region is presented in Ippolito's (1983) thorough overview of Texas National Forests. The reader is referred to Volume I (Stratigraphy) of the Geology of Texas by Sellards et al. (1932) for a more in-depth discussion of the geology of this area.

Houston County is predominantly located in the Piney Woods natural region. It is characterized as consisting of a rolling terrain with Pine and Oak trees and bottomland forests. The Trinity River forms the western boundary and the Neches River along the eastern boundary of Houston County, Texas.

Soils

There are four soil series within the study area of the Soil Survey of Houston County, Texas:

Bet is loamy fine sand, 1 to 5 percent slopes (Btc) is found in upland areas on gentle slopes. Typical soil profiles consist of 0-10 inches below surface, dark yellowish-brown loamy fine sand; 10-40 inches yellowish-brown loamy fine sand; 40-49 inches yellowish brown loamy fine sand; 61-83 inches very pale brown loamy fine sand (Steptoe 2002:44-45)

Darco loamy fine sand, 1 to 8 percent slopes (Dac) is found in upland areas on gentle slopes. Typical soil profiles consist of 0-12 inches below surface brown loamy fine sand; 12-26 inches light yellowish brown loamy fine sand; 26-47 inches pale brown loamy fine sand; 47-54 inches brown sandy clay loam; 54-68 inches red-brown or gray sandy clay loam (Steptoe 2002:50).

Naconiche mucky sandy loam, 0 to 2 percent slopes is found in floodplains nearly level to gently sloping areas. Typical soil profiles consist of 0-8 inches below surface, black mucky sandy loam; 8-14 inches black mucky sandy loam; 14-25 inches black loamy fine sand; 25-38 inches dark gray sand; 38-55 inches light gray fine sands; 55-80 inches light brownish gray fine sand (Steptoe 2002:94-95).

Rentzel loamy fine sand, 0 to 4 percent slopes is found in upland on nearly level to slopes. Typical soil profiles consist of 0-6 inches below surface dark brown loamy fine sand; 6-26 inches yellowish brown loamy fine sand; 26-50 inches yellowish brown sandy clay loam; 50-59 inches light brownish gray and yellowish red sandy clay loam; 59-80 inches brownish yellow fine sandy loam (Steptoe 2002:101-102).

ARCHAEOLOGICAL BACKGROUND

Previous Investigations

Houston County is located in the Northeast Texas region as defined by Biesart et al. (1985:76). Although numerous archaeological investigations have been conducted in Houston County, the vast majority have been small area surveys, often resulting in negative findings. Many of these investigations resulted from the demand placed on the landscape by the oil and gas industry.

Two overviews of the archaeology of the National Forests of Texas have been published. Fields (1979) prepared a report, which discussed the cultural resources of each forest. This was followed by Ippolito's (1983) more extensive work. Ippolito's effort provides a comprehensive discussion of the archaeology of all four forests and is the most recent and thorough review of the archaeology of the Texas national forests available. These two publications contain detailed chronology information for the reader to consult.

More recently three major works have appeared which contain detailed overviews relevant to Southeast Texas and the project area. These are *Archeology in the Eastern Planning Region, Texas: A Planning Document* by the Department of Antiquities Protection (Kenmotsu and Perttula (1993), *Cultural Resource Management Planning for the National Forests and Grasslands in Texas* (Martin et al. 1995), and Volume 66 of the *Bulletin of the Texas Archeological Society* (BTAS). The volume by Martin et al. (1995) is especially relevant to the region. Story (1974, 1981) also contains detailed cultural chronologies for the region, including Houston County.

ARCHIVAL RESEARCH AND FIELD METHODS

The project was divided into three phases - background and archival research, field survey, and report preparation. The background and archival research consisted of a check of the site records at the Texas Archeological Research Laboratory (TARL).

Background and Archival Research

A check of the site records at TARL was conducted to identify any previously recorded sites in the project area and to understand the nature of previous archaeological work in the region. There are 360 recorded archaeological sites in Houston County, with most of them located in the Eastern portion of the County (Texas Archaeological Sites Atlas 2017). Only two archaeological sites were previously located in or near Grapeland.

Site 41HO285 was recorded as an early 20th century jail and 41HO274 was recorded as a historic trash deposit consisting of glass bottles, pane glass, and a wire nail. One small survey conducted by Texas Department of Transportation personnel was conducted in 2012 near Grapeland but no abstract was on file. Fox (1979) conducted a survey for the proposed wastewater treatment plant in Grapeland which identified no cultural resources.

Field Investigation

The field investigation was conducted in September 2017 pursuant to the Research Design and Scope of Work approved by the THC (Appendix I). Herbert G. Uecker was the Principal Investigator and Michael R. Bradle served as the Project Archaeologist with assistance by Robert L. Bradle.

The investigation entailed a pedestrian surface survey of the entire study area supported by mechanical trenching with a backhoe. Ground visibility was poor, generally less than 10%, due to accumulations of pine needles and debris from past logging operations as well as thick brush and grassy areas (Figure 4) in areas. The pedestrian survey provided 100% coverage of the study area. The parcel area will be subjected to minimal surface impacts due to concrete slab construction not exceeding 50 centimeters below surface. The proposed wastewater line will be shallow for most of the route due to it being designed as a gravity flow line and a small lift station built within the right-of-way. The water line to the northwest will not exceed 4 feet in depth.

Overall, 32 backhoe trenches were excavated (Appendix II; Figure 3). Depths of the backhoe trenches varied from 89 to 271 centimeters below the ground surface, and the average depth was 156 centimeters. Excavated matrix from the backhoe trenches was inspected and numerous samples were screened through 1/4-inch hardware cloth. All data from subsurface tests were recorded in Appendix II. Figure 5 is a typical soil profile for the larger parcel area. Investigations were hampered by the unusual amount of water still present within the soil deposits due to the recent Hurricane Harvey rainfall and some areas where trees had been removed.



Figure 3. Location of Backhoe Trenches.



Figure 4. Photograph of parcel area looking east.



Figure 5. View of BHT-9.

RESULTS AND CONCLUSIONS

An archaeological survey totaling 21.9 acres and 5,929 feet of proposed water and wastewater pipelines was completed for the proposed 2017 Texas Capital Fund Project for the City of Grapeland in Houston County, Texas. This survey was conducted in September 2017. The field investigation was performed using the pedestrian survey method supported by backhoe trenching to test for potential subsurface cultural deposits (Figure 3). No cultural resources were identified during the course of this survey, therefore, it is recommended that the proposed project be allowed to proceed as planned. Monitoring by an archaeologist is not considered necessary. No artifacts were recovered, and project survey records are housed at AAG.

RECOMMENDATIONS

American Archaeology Group LLC recommends that the City of Grapeland be allowed to proceed with their 2017 TCF Infrastructure Improvements Project as planned. The presence of an archaeologist to act as a monitor during the construction phase is not considered necessary. There is always the possibility that cultural materials or features are missed during the course of any archaeological survey. Should the presence of cultural materials not discussed in this report be discovered during construction, the client is advised to cease work and contact AAG so that consultations may be held with the Texas Historical Commission, and the City of Grapeland.

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APPENDIX I: RESEARCH DESIGN AND SCOPE OF WORK

RESEARCH DESIGN

Records Check

Prior to entering the field, American Archaeology Group LLC (A.A.G.) will contact the Texas Archeological Research Laboratory (TARL) in Austin, Texas, the state repository for site records on Texas, to determine if previously recorded sites are present in the project area. This task may be conducted by a personal visit to TARL or by telephone.

The library at A.A.G. is very extensive, especially regarding reports for the project area region, and much of the archival work can be accomplished in-house. Since A.A.G. has conducted work in the area, much of the background work has already been accomplished.

Permit Application

No fieldwork will commence until a permit from the Archeology Division (AD) of the Texas Historical Commission has been issued. An application for an antiquities permit will be submitted to AD-THC as soon as A.A.G. receives Notice To Proceed. Normally, A.A.G. discusses the project with AD personnel before beginning any fieldwork. This is done to ensure that both parties are in agreement as to the level of work required for this project.

Survey Methods

The entire project area will be 100% intensively surveyed utilizing the pedestrian survey method supported by shovel testing and/or augering and examination of eroded and disturbed areas where cultural materials may be visible on the surface. Herbert G. Uecker will act as the Principal Investigator. Shovel testing, augering, and backhoe trenching will meet and exceed the Minimum Survey Standards For Texas established by the THC.

In areas of poor visibility, and environmental settings that have potential for buried cultural materials, shovel testing will be required and tests will be concentrated in areas of high site probability and randomly across the project area. All excavated fill from shovel tests will be screened through 1/4-inch hardware cloth. Shovel tests will be manually excavated to sterile clay or bedrock when possible.

The survey crew will be equipped with shovel test forms, notebooks, camera, compass, and a project area map for accurate plotting of shovel tests, backhoe trenches, and archaeological sites. In addition to shovel testing as a means of identifying buried sites, select areas in alluvial settings or areas with some appreciable soil depth will be subjected to backhoe trenching. All sites identified in the project area will be mapped in the field and plotted on a topographic map. Site locations will also be determined through the use of a Global Positioning System (GPS). Each site will be recorded using the official State of Texas Archeological Site Form. In no case will the survey crew work outside of the project area as depicted on the project area map provided by the client.

Only diagnostic artifacts will be collected from the surface. All artifacts recovered through shovel testing will be collected. These specimens will be bagged and recorded on a field sack log. They will be analyzed and prepared for eventual curation at TARL, unless a petition to discard is prepared and accepted.

The draft report will be submitted to AD-THC for review. Once the report has been approved by the State Historic Preservation Officer (SHPO), copies will be delivered to AD-THC and the client. A.A.G. will maintain copies of the notes, photographs, site forms, and any other records produced from the project deemed to be a work product.

Scope of Work

- I. Conduct background check for previously recorded archaeological sites in the project area and the vicinity. Review the relevant literature.
- II. Discuss the project with the AD-THC reviewer assigned to this project before entering the field.
- III. Obtain an antiquities permit from AD-THC.
- IV. Consult with the representative of the sponsor before beginning the field survey.
- V. Perform a 100% pedestrian survey of the project area to include shovel testing, and examination of all exposed areas such as creek banks for buried or displaced artifacts.
- VI. Check for deeply buried sites through the use of backhoe trenching in areas with deep soils.
- VII. Analyze all artifacts recovered and prepare them for curation at TARL.
- VIII. Prepare a draft report and submit copies to the AD-THC and the sponsor for review.
- IX. Make all required changes, correct any mistakes, and submit the final report and turn in the artifacts and associated records for curation, if no artifacts, then project records will be curated at AAG.

APPENDIX II: BACKHOE TRENCH LOG

BHT	Depth	Results	Remarks
01	125 cm	Negative	0-125 cm yellow brown sandy loam; yellow brown sandy clay.
02	147 cm	Negative	0-147 cm yellow brown sandy loam; yellow brown sandy clay.
03	132 cm	Negative	0-78 cm sandy loam; 78-132 cm mixed red brown sandy clay.
04	160 cm	Negative	0-82 cm yellow brown sand; 82-160 cm mixed red brown sandy clay.
05	89 cm	Negative	0-54 cm brown loamy sand; 54-89 cm yellow brown sandy clay.
06	130 cm	Negative	0-130 cm brown loamy sand; yellow brown sandy clay.
07	132 cm	Negative	0-93 cm brown loamy sand; 93-132 cm red brown sandy clay.
08	195 cm	Negative	0-195 cm mixed tan/yellow brown sandy clay.
09	162 cm	Negative	0-54 cm brown sandy loam; 54-162 cm red brown sandy clay.
10	165 cm	Negative	0-165 cm mixed brown sandy clay.
11	176 cm	Negative	0-132 cm tan brown sandy loam; 132-176 cm tan clay.
12	142 cm	Negative	0-95 cm tan sandy loam; 95-145 cm tan sandy clay.
13	169 cm	Negative	0-169 cm tan sandy loam.
14	172 cm	Negative	0-172 cm tan loamy sand.
15	161 cm	Negative	0-84 cm tan loamy sand; 84-161 cm tan sandy clay.
16	120 cm	Negative	0-100 cm tan loamy sand; 100-120 cm yellow brown sandy clay.
17	158 cm	Negative	0-158 cm tan loamy sand; tan sandy clay.
18	163 cm	Negative	0-163 cm tan loamy sand; tan sandy clay.

BHT	Depth	Results	Remarks
19	142 cm	Negative	0-105 cm tan loamy sand; 105-142 cm tan yellow brown sandy clay.
20	140 cm	Negative	0-88 cm red brown sandy clay; 88-140 cm red brown sandy clay.
21	159 cm	Negative	0-159 cm tan sandy loam; tan sandy clay.
22	172 cm	Negative	0-132 cm tan sand; 132-172 cm tan/red brown clay.
23	162 cm	Negative	0-162 cm tan sand; tan clay.
24	210 cm	Negative	0-182 cm tan sand; 182-210 cm yellow brown sandy clay.
25	154 cm	Negative	0-154 cm tan clay; yellow brown clay.
26	167 cm	Negative	0-167 cm tan sand; yellow brown clay.
27	92 cm	Negative	0-92 cm tan sand; yellow brown clay.
28	122 cm	Negative	0-122 cm tan sand; yellow brown clay.
29	147 cm	Negative	0-147 cm tan sand; yellow brown clay.
30	145 cm	Negative	0-62 cm tan sandy loam; 62-132 cm brown sandy clay; 132-145 cm olive clay.
31	270 cm	Negative	0-270 cm mixed yellow brown sand.
32	271 cm	Negative	0-48 cm tan brown sandy loam; 48-271 cm red brown sandy clay.
33	162 cm	Negative	0-95 cm tan sand; 95-162 cm red brown clay.
34	105 cm	Negative	0-48 cm tan sand; 48-105 cm mixed red brown clay.