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Cultural Resources Survey of the Proposed 137-acre Grantwood Park, Harris County, Texas

Todd McMakin

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Cultural Resources Survey of the Proposed 137-acre Grantwood Park, Harris County, Texas

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**Cultural Resources Survey of the Proposed 137-acre
Grantwood Park, Harris County, Texas
Final Report**



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A handwritten signature in black ink, appearing to read "Todd McMakin", is positioned above the printed name.

Todd McMakin
Principal Investigator

Stone Point Services, SPS17C0545
Texas Antiquities Permit No.: 8116

August 15, 2017

Cultural Resources Survey of the Proposed 137-acre Grantwood Park, Harris County, Texas

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Authored by:
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Tyler, TX 75706

Submitted to:
Terracon Consultants, Inc.



Todd McMakin
Principal Investigator

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Executive Summary

Stone Point Services completed a cultural resources survey for a proposed 55-hectare (137-acre) county park in Cypress, Texas. The study area consists of an irregularly shaped former subdivision located southwest of Grant Road in Cypress, Texas. The project area is primarily wooded with mature oaks and pines mixed with a few ornamental trees and is bounded to the northwest by Cypress Creek.

Field investigations were conducted between July 27 and July 28, 2017. Survey methods included a pedestrian archaeological survey with shovel testing. In total, 117 shovel tests were excavated within the survey area, representing one shovel test per 1.2-acres, with most shovel tests located along Cypress Creek. Shovel tests were placed in areas with the least disturbance or where cultural deposits were most likely to be identified. Much of this area consists of a subdivision setting with houses that were demolished due to flooding in 2016. As such, significant disturbance was noted over much of the area. Soils noted across the survey area, when not disturbed, included mostly gray loam away from Cypress Creek and sand deposits over loam near Cypress Creek. The entire area is subject to periodic flooding.

No archaeological sites or historic standing structures were recorded during the survey. Survey methods conducted at the proposed park site meet or exceed methods recommended by the Texas Historical Commission and the Council of Texas Archeologists for surveys of 200-acres or less.

Acknowledgements

We would like to thank Terracon Consultants, Inc. for providing us with the necessary data. Todd McMakin served as Principal Investigator. Victoria Pagano served as Field Technicians. Thanks is also given to Katherine McMakin, GIS Specialist for Stone Point Services.

Table of Contents

| | |
|--|----|
| Chapter 1: Introduction | 1 |
| Chapter 2: Natural and Cultural Setting..... | 5 |
| Environmental Setting | 5 |
| Flora and Fauna..... | 5 |
| Geology and Soils..... | 5 |
| Cultural Setting | 9 |
| Prehistoric Overview | 9 |
| Paleoindian Period (9500 - 7000 BC)..... | 10 |
| Archaic Period (BC 7000 – AD 700)..... | 10 |
| Late Prehistoric (AD 700 – 1500)..... | 10 |
| Historic Overview..... | 11 |
| Previous Investigations | 12 |
| Chapter 3: Project Methodology..... | 14 |
| Background Research | 14 |
| Field Methods | 14 |
| NRHP Eligibility Assessments | 15 |
| Laboratory Methods..... | 18 |
| Chapter 4: Results and Recommendations | 19 |
| Survey results..... | 19 |
| Standing Structures | 20 |
| Management Recommendations..... | 20 |
| References Cited..... | 22 |
| Appendix A: Shovel Test Log | 24 |
| Appendix B: Abbreviated Resume of Principal Investigator | 29 |

List of Figures

| | |
|---|----|
| Figure 1: General location map of the survey area | 2 |
| Figure 2: USGS Satsuma 7.5 minute Quad showing the location of the survey area..... | 3 |
| Figure 3: Aerial map showing the location of the project area..... | 4 |
| Figure 4: General view of the project area..... | 6 |
| Figure 5: View of the project area along Cypress Creek | 6 |
| Figure 6: Soil types within the survey area..... | 7 |
| Figure 7: Representative shovel test profile of soils near Cypress Creek..... | 9 |
| Figure 8: Project area map showing shovel test locations | 16 |
| Figure 9: View of Cypress Creek showing steep banks on the south side (right) | 20 |
| Figure 10: 1970s house located on property | 21 |

List of Tables

| | |
|--|----|
| Table 1: Soils within the survey area | 8 |
| Table 2: Southeast Texas Cultural Sequence..... | 9 |
| Table 3: Previously recorded archeological surveys within one mile of the survey area..... | 12 |
| Table 4: Archeological sites within one mile of the survey area | 13 |

Chapter 1: Introduction

Stone Point Services completed a cultural resources survey for a proposed 55-hectare (137-acre) county park in Cypress, Texas. The study area consists of an irregularly shaped former subdivision located southwest of Grant Road in Cypress, Texas (Figures 1-3). The project area is primarily wooded with mature oaks and pines mixed with a few ornamental trees and is bounded to the northwest by Cypress Creek.

Field investigations were conducted between July 27 and July 28, 2017. Survey methods included a pedestrian archaeological survey with shovel testing. In total, 117 shovel tests were excavated within the survey area, representing one shovel test per 1.2-acres, with most shovel tests located along Cypress Creek. Shovel tests were placed in areas with the least disturbance or where cultural deposits were most likely to be identified. Much of this area consists of a subdivision setting with houses that were demolished due to flooding in 2016. As such, significant disturbance was noted over much of the area. Soils noted across the survey area, when not disturbed, included mostly gray loam away from Cypress Creek and sand deposits over loam near Cypress Creek. The entire area is subject to periodic flooding.

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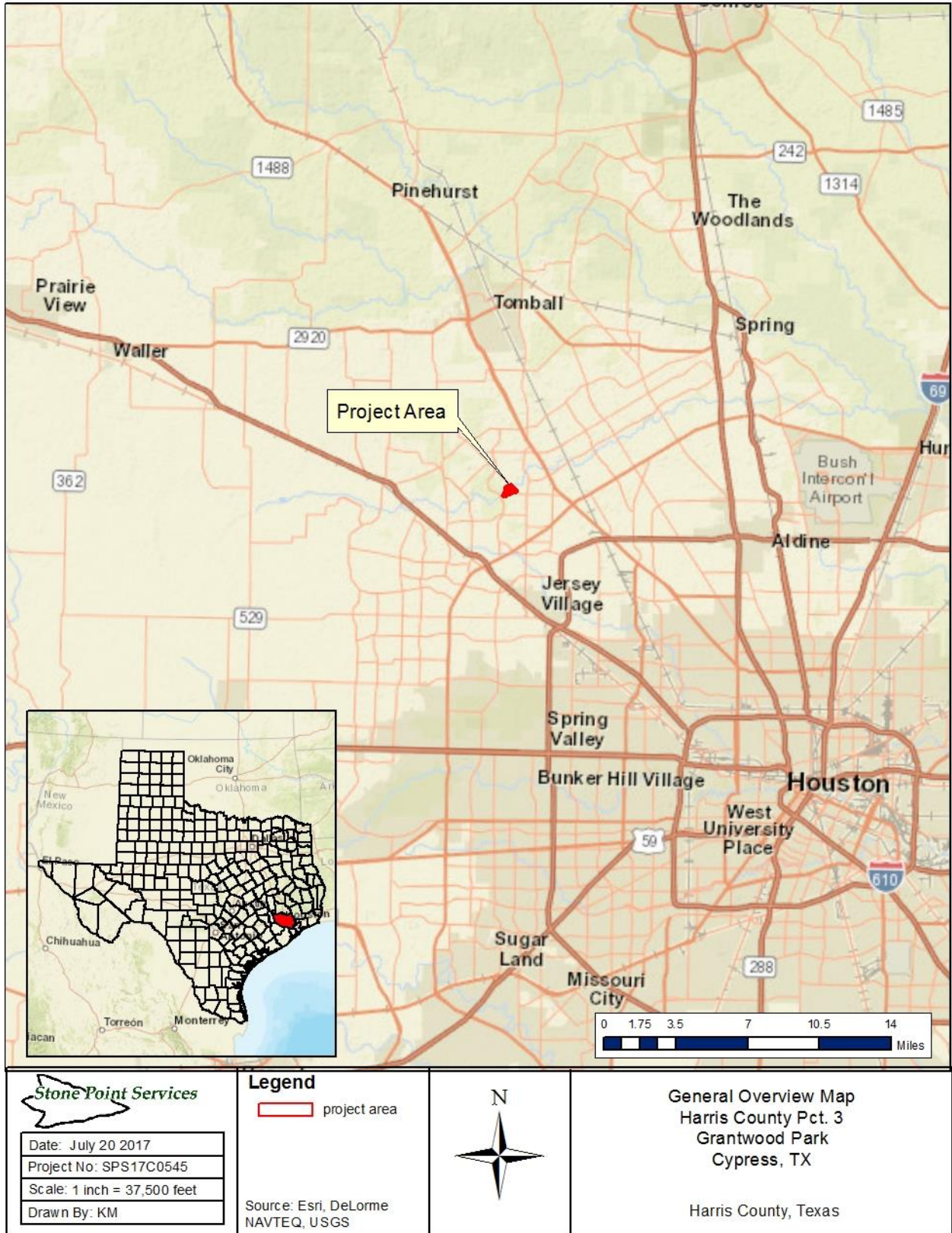


Figure 1: General location map of the survey area

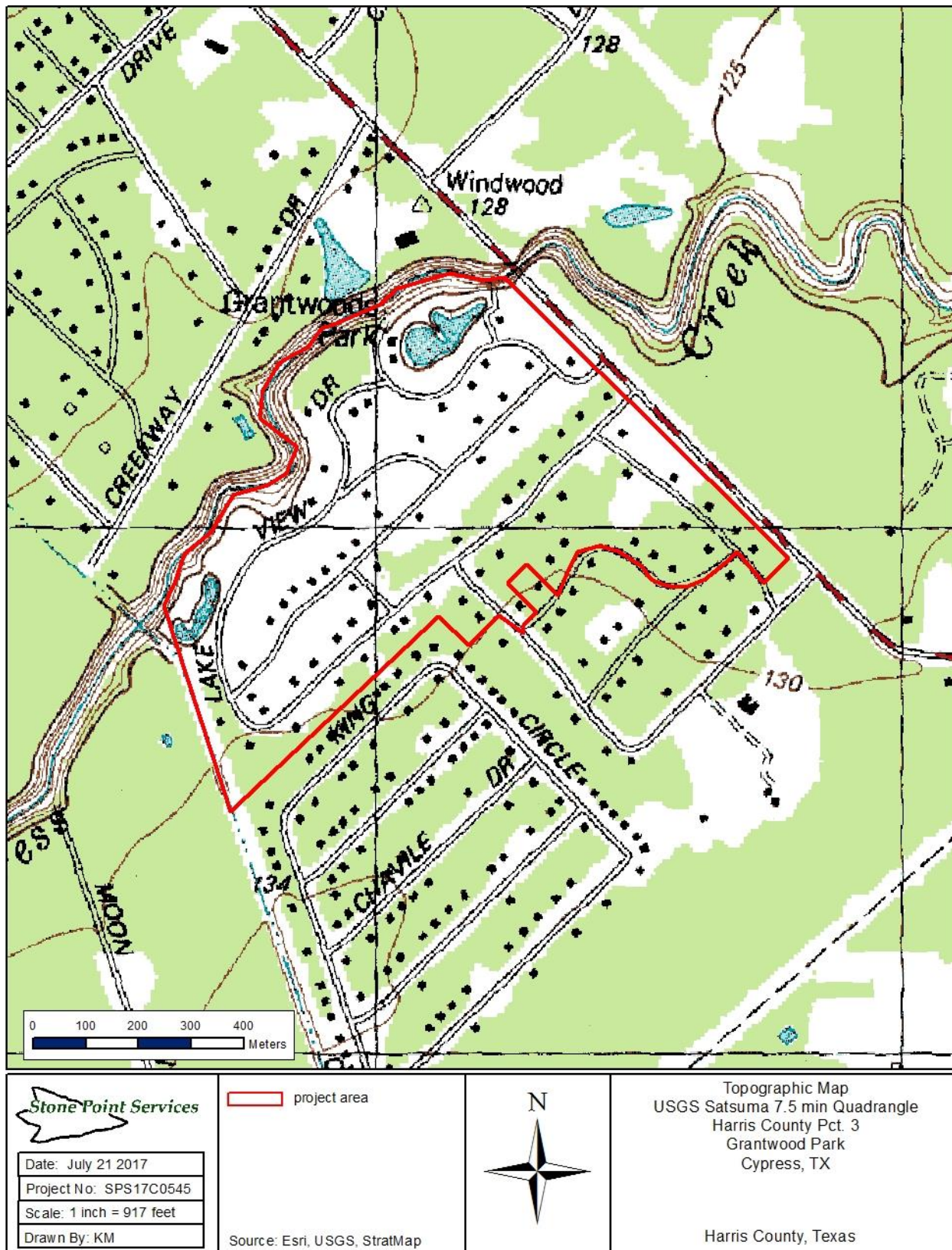


Figure 2: USGS Satsuma 7.5 minute Quad showing the location of the survey area







| | | | |
|---|---|---|--|
|  <p>Date: July 21 2017 Project No: SPS17C0545 Scale: 1 inch = 917 feet Drawn By: KW</p> | <p> project area  street</p> <p>Source: Esri, DigitalGlobe, GeoEye, USDA</p> |  | <p>Aerial Map Harris County Pct. 3 Grantwood Park Cypress, TX</p> <p>Harris County, Texas</p> |
|---|---|---|--|

Figure 3: Aerial map showing the location of the project area

Chapter 2: Natural and Cultural Setting

ENVIRONMENTAL SETTING

The survey area is located in Harris County, TX. Harris County lies within the Gulf Coastal Prairies and Marshes ecological zone. This region consists of a mixture of pines and deciduous hardwoods interspersed with a few prairies to the north and a mixture of marshes and prairies closer to the Gulf coast. The present project location lies primarily within pasture (Figures 4 and 5).

The climate of this part of Texas is characterized by generally mild to cool winters and hot, humid summers. Average Annual precipitation is 50 inches per year (127-cm) (U.S. U.S. Climate Data 2016). During the current survey, the temperatures were generally between 97-73° F with sunny skies.

Flora and Fauna

Harris County is located within the Texan biotic province (Blair 1950; Dice 1943). This region supports a broad range of indigenous species. Animals that historically may have been used for food, shelter, and clothing (or perhaps for tools) in Harris County include: white-tailed deer (*Odocoileus virginianus*), fox squirrel (*Sciurus niger*), raccoon (*Procyon lotor*), Virginia Opossum (*Didelphis virginiana*), bison (*Bison bison*), beaver (*Castor canadensis*), black bear (*Ursus americanus*), turkey (*Meleagris gallopavo*), quail (*Colinus virginianus*), and other smaller birds and rodent species (Davis and Schmidly 1994; Skokan et al. 1997).

Most of the upland habitats include primarily pine and oak forests interspersed with other hardwood species. Typical species noted within this area include dogwood (*Cornus florida*), black hickory (*Carya texana*), common persimmon (*Diospyros virginiana*), sweetgum (*Liquidambar styraciflua*), greenbriar (*Smilax*), white oak (*Quercus alba*), poison oak (*Toxicodendron pubescens*), blackberry (*Rubus fruticosus*), wax myrtle (*Myrica*), and others typical of upland and transitional settings (McMahan et al. 1984:25).

Geology and Soils

The survey area is in Harris County, in Tomball, TX. The US Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), *Soil Survey of Harris County, Texas* (NRCS 2017) was used in determining soils within the survey area.

Soils noted within the survey area include Wockley fine sandy loam, 0 to 1 percent slopes (Map Unit Wo), Gessner fine sandy loam, 0 to 1 percent slopes, ponded (Ge), Hatlif-Pluck-Kian Complex, 0 to 1 percent slopes (HtF), and Aris-Gessner Complex (Ar) (Figure 6). Most of the survey area is characterized by Wockley fine sandy loam and Gessner fine sandy loam. The Wockley series consists of nearly level, deep, somewhat poorly drained, loamy and sandy soils with slow permeability. These soils are formed from the Willis Formation of late Pliocene age.



Figure 4: General view of the project area



Figure 5: View of the project area along Cypress Creek

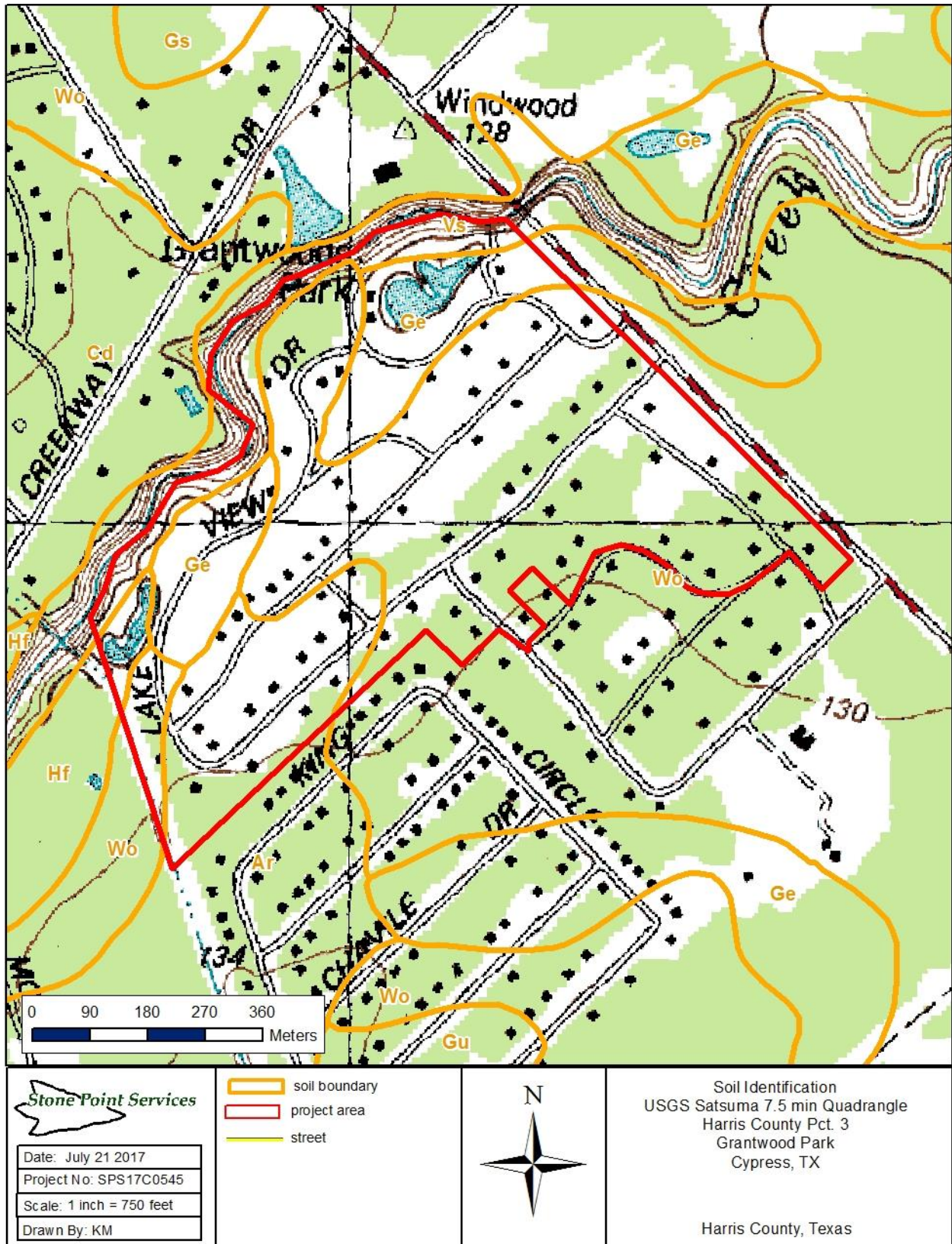


Figure 6: Soil types within the survey area

The Gessner series consists of very deep, poorly drained, very slowly permeable soils that formed from the Lissie Formation of Pleistocene age. These soils typically have the following stratigraphy (Table 1):

Table 1: Soils within the survey area

| Soil type | Horizon | Depth | Color | Texture |
|-----------------------|--------------------|--------------|--------------------------------|--------------------------|
| <i>Wockley</i> | Ap | 0-7 inches | Dark grayish brown (10YR 4/2) | Fine sandy loam |
| | A2 | 7-22 inches | Brown (10YR 5/3) | Fine sandy loam |
| | B21t | 22-33 inches | Brown (10YR 5/3) | Sandy clay loam |
| | B22t | 33-60 inches | Light brownish gray (10YR 6/2) | Sandy clay loam |
| <i>Gessner</i> | A | 0-4 inches | Dark grayish brown (10YR 4/2) | Fine sandy loam |
| | Bg1 | 4-9 inches | Grayish brown (10YR 5/2) | Fine sandy loam |
| | Bg2 | 9-19 inches | Grayish brown (10YR 5/2) | Fine sandy loam |
| | Btg1 | 19-25 inches | Grayish brown (10YR 5/2) | Dine sandy loam |
| | Btg2 | 25-38 inches | Dark grayish brown (10YR 4/2) | Sandy clay loam |
| | Btg3 | 38-49 inches | Dark grayish brown (10YR 4/2) | Sandy clay loam |
| | <i>Aris</i> | Ap | 0-5 inches | Grayish brown (10YR 5/2) |
| AE | | 5-10 inches | Gray (2.5Y 5/1) | Loam |
| Bt1 | | 10-16 inches | Dark gray (10YR 4/1) | Loam |
| Bt2 | | 16-31 inches | Dark gray (10YR 4/1) | Clay loam |
| Bt3 | | 31-41 inches | Gray (10YR 5/1) | Clay loam |
| Btg1 | | 41-49 inches | Gray (N6) | Clay |
| Btg2 | | 49-65 inches | Light greenish gray (5GY 7/1) | Clay loam |
| Btg3 | | 65-80 inches | Light greenish gray (10Y 7/1) | Sandy clay loam |
| <i>Hatliff</i> | A | 0-3 inches | Brown (10YR 5/3) | Fine sandy loam |
| | Bw1 | 3-24 inches | Yellowish brown (10YR 5/4) | Fine sandy loam |
| | Bw2 | 24-29 inches | Yellowish brown (10YR 5/4) | Fine sandy loam |
| | Bw3 | 29-41 inches | Brown (7.5YR 4/4) | Fine sandy loam |
| | Bw4 | 41-75 inches | Pale brown (10YR 6/3) | Loamy fine sand |
| | Bw5 | 75-80 inches | Brown (7.5YR 4/4) | Loamy sand |

Soils noted during shovel testing and surface inspection were generally consistent with these mapping units (Appendix A, Figure 7). Soils farther from Cypress Creek consisted of a mixture of disturbed soils from previous home locations (subdivision setting) and gray loam. These soils are indicative of frequently flooded areas. The soils closer to Cypress Creek consisted of sandy and sandy loam soils over loam subsoil. In some area, the sandy top soils (alluvial) were over 80-centimeters (31-inches) deep. Artifacts, if encountered, should be expected within 56-centimeters (22-inches) of the ground surface. However, due to somewhat deeper sand deposits adjacent to the creek, cultural material in this area could be deeper. Shovel testing procedures follow those outlined within the Archeological Survey Methods of Texas (Texas Historical Commission 2017).

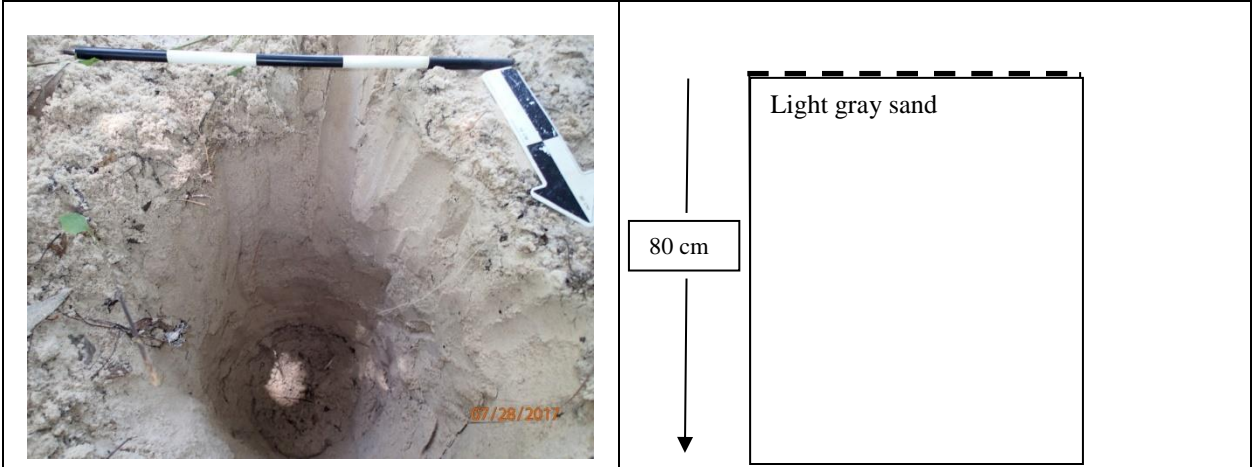


Figure 7: Representative shovel test profile of soils near Cypress Creek.

CULTURAL SETTING

The earliest humans in North America arrived during the Paleoindian Period, which begins at approximately 9500 BC and ends at 7000 BC in Texas. In southeast Texas, the Archaic Period begins at 7000 BC and continues until approximately AD 650. The Late Prehistoric Period begins at AD 650 and lasts until AD 1500. The Protohistoric Period, a period of sparse European contact, begins at AD 1500 and lasts until AD 1750. The Historic Period begins at AD 1750 and lasts until approximately AD 1950. Table 2 identifies the major periods in southeast Texas. For more detail, please see Pertulla (2004).

Table 2: Southeast Texas Cultural Sequence

| Dates | Period |
|-------------------|------------------------------|
| 9500 - 7000 BC | Paleoindian |
| 7000 BC - AD 650 | Archaic |
| AD 650 - AD 1500 | Late Prehistoric |
| AD 1500 - 1750 | Protohistoric |
| AD 1750 - 1950 | Historic |
| AD 1542 - 1800 | Spanish and French Influence |
| AD 1800- 1821 | American Immigration |
| AD 1821 - 1836 | Mexican State |
| AD 1836 - 1846 | Republic of Texas |
| AD 1846 | Texas becomes a US state |
| AD 1861 - 1865 | Civil War |
| AD 1865 - 1900 | Antebellum |
| AD 1900 - Present | Modern era |

Prehistoric Overview

Harris County lies within the Southeast Texas Archeological Region. Prehistoric temporal divisions are usually determined by changes in prehistoric diet and by the types of materials

(artifacts) used. In many instances, periods are somewhat subjective. In most cases, tribal affiliation is not assigned to any particular group until well into the late prehistoric periods. For the majority of prehistory, groups are associated with periods rather than distinct cultural divisions. In other words, archeologists will often refer to a "Middle Archaic" population, rather than noting a specific culture. In some areas, such distinctions are possible, but it is somewhat rare.

Paleoindian Period (9500 - 7000 BC)

The Paleoindian Period is the least understood period in Texas prehistory due to the low numbers of sites investigated that date to this period. In addition, minimal radiocarbon dates and the general lack of stratigraphically intact sites results in a poor understanding of this period. It appears that the social organization of the Paleoindian Period was loosely structured. These societies appear to have included social groups loosely organized around a central nuclear family. Most Paleoindian sites are very small and located near smaller streams and tributaries.

Paleoindian groups heavily relied on big game hunting with a high selectivity for specific tool types. Cultures representing various stages within this period are characterized by a series of distinctive, relatively large lanceolate projectile points. These points are frequently associated with other tools such as spurred end scrapers, graters, and bone foreshafts. Tools during the Paleoindian period were generally made of high quality materials and sometimes non-local lithic material was used. In addition, Paleoindians commonly refurbished and recycled tools (Story 1990).

Archaic Period (BC 7000 – AD 700)

The Archaic Period is defined by its change in subsistence strategy and a modification in tool manufacturing techniques. Tools were more often made of local materials, were less well made, and they were rarely recycled. Due to its large expanse of time, the Archaic Period is subdivided into three stages with tentative dates: Early (7000 - 4000 BC), Middle (4000 - 2000 BC), and Late (2000 - 700 BC).

Subsistence in the Early Archaic focused on hunting with a greater reliance on gathering. Story (1990) notes small and widely distributed sites reflecting high mobility within a still undefined territory. Dart points associated with the Early Archaic include Cossatot, Dawson, Kirk, Keithville, Palmer, and Wells (Story 1990). Foraging was a primary type of subsistence during the Middle Archaic. The increase in the use of plant food brought about a greater diversity in tool types, including polished stone tools, mortars and pestles, and a variety of chipped stone tools. Perhaps, most markedly, burned rock middens appear during the Middle Archaic period. During the Late Archaic, an increase in the number of archaeological sites and their size indicates an exploitation of all available food resources within the geographic boundaries of any specific group. Large cemeteries also appear during the late Archaic.

Late Prehistoric (AD 700 – 1500)

The Late Prehistoric period is characterized by the introduction of pottery and the bow and arrow. Use of the atlatl and spear were generally discontinued in southeast Texas during this period. These

changes probably entered the area from a number of different directions, but most significantly from northeast Texas.

The Late Prehistoric is divided into two phases based on radio carbon dates, arrow point types, and dietary changes. The first phase of this period is called the Austin Phase and dates to between A.D. 700 and 1300. This phase is marked by the introduction of the bow and arrow and increased use of burned rock middens. The second phase of the Late Prehistoric is the Toyah Phase, which is characterized by locally-made and imported Caddo ceramics, Perdiz arrow points, and specialized stone tool kits including end scrapers, beveled knives, and prismatic blades (Kenmotsu 2012). The Toyah Phase dates from around A.D. 1300 to 1720. The presence of Caddo ceramics at Toyah age campsites indicates long distance trade between central and eastern groups.

Historic Overview

The Historic Period began at approximately AD 1600 after Columbus and other early explorers reach North America from Europe. Although there was some interaction (primarily Spanish and French) in the 16th century, it was not until the late 17th century and into the early 18th century that Texas would become heavily influenced by the Spanish and French. In order to convert the natives to Catholicism, the Spanish constructed a series of missions in the area that would become Texas.

Spain would retain the greatest influence of any nation in Texas throughout the eighteenth century. The French were located primarily in Louisiana at this time and had little direct impact on central Texas. Americans would not make a significant impact on central Texas until after 1800. The Louisiana Purchase in 1803 saw an influx on American settlers into Louisiana and Texas. Many settlers would come into Texas from the north, following Trammel's Trace, a road that led from the Texas/Arkansas border at the Red River into east Texas.

Houston, Texas was established in 1832 by the Allen brothers who named the town after their friend, American politician and soldier, Sam Houston. The town was also designated the temporary capital of the new Republic of Texas and remained the capital from 1837 to 1839. In January 1837, the town comprised twelve residents and one log cabin. Four months later, 1,500 residents occupied a total of 100 houses. Yellow fever struck in 1839 and the population was temporarily reduced 12 percent. Drunkenness, dueling, brawling, and prostitution were reportedly also common (McComb 2016).

In fact, Houston continued to flourish throughout the nineteenth century despite the capital moving to Waterloo in 1839, later renamed Austin. During this time, Houston served as a major transportation hub for freight wagons and railroads from the Brazos River carrying cotton and hides bound for Galveston. The port of Houston also continued to prosper following a devastating hurricane in 1900, which left Galveston economically crippled. In contrast to Galveston which had boasted the nation's second largest per capita number of millionaires, Houston offered cheaper prices, abundant fresh water, as well as docks and refineries protected from the direct brunt of

storms. Since many of the first settlers to the area were from the South, the plantation-slavery system was in effect and slaves worked and lived in both rural and urban areas in and around Houston. A second boost to Houston’s economy came in 1901, following the discovery of oil at Spindletop, just south of Beaumont. Shipping and oil industries flooded into East Texas, many of them establishing headquarters in Houston.

Cypress is located approximately 20 miles northwest of Houston in Harris County. Prior to the 1840s, the area was the site of a mostly farming community with just a few settlers. In the 1840s, Germans settlers moved into the area. The first school was built in 1884 and the population quickly rose after the discovery of oil in the area in 1904.

Previous Investigations

A review of the Texas Archeological Sites Atlas identified no archaeological sites or historic structures within the survey area. At least four archaeological surveys have been conducted within the one mile the study radius. Table 3 provides a list of these previously recorded archaeological surveys that were used as general background for this project. Thirty-three archeological sites have been previously recorded within 1-mile of the survey area (Table 4).

Table 3: Previously recorded archeological surveys within one mile of the survey area

| Project Type | Date of Survey | Distance from Project Area | Project Specifics | Sites recorded? |
|----------------------|----------------|----------------------------|---|------------------------|
| Archeological Survey | 2004 | 0.03-mile north | James Hughey of HRA Gray and Pape. Sponsored by Harris County | None |
| Archeological Survey | 1978 | 0.04 mile north | US Army Corps of Engineers | 41HR390 |
| Archeological Survey | 2003 | 0.01-mile east | Porter and Moore, Moore Archeological Consulting, Inc. for the Harris County Flood Control District | 12 sites (see Table 4) |
| Archeological Survey | 2004 | 0.3-mile east | Schroeder and Weaver for Texas Parks and Wildlife Department | 8 sites (see Table 4) |
| Archeological Survey | 1978 | Immediately adjacent-east | US Army Corps of Engineers | Unknown |
| Archeological Survey | 2004 | Immediately adjacent-east | James Hughey of HRA Gray and Pape for the Harris County Flood Control District | None |
| Archeological Survey | 2004 | 0.3-mile west | David Driver of Moore Archeological Consulting, Inc. for the Harris County Flood Control District | None |
| Archeological Survey | 2003 | Immediately adjacent-west | Roger Moore of Moore Archeological Consulting, Inc. for the Harris County Flood Control District | 9 sites (see Table 4) |
| Archeological Survey | 1978 | Immediately adjacent-west | US Army Corps of Engineers | Unknown |

Table 4: Archeological sites within one mile of the survey area

| <i>Site Number</i> | <i>Location</i> | <i>Site type</i> | <i>NRHP Eligibility</i> |
|--------------------|-----------------|---|-------------------------|
| 41HR390 | N | St. John's Lutheran Church | Unknown |
| 41HR945 | NE | Prehistoric lithic scatter | Not Eligible |
| 41HR946 | NE | Prehistoric campsite | Not eligible |
| 41HR947 | E | Prehistoric lithic scatter | Not eligible |
| 41HR775 | E | Prehistoric ceramic and lithic scatter | Potentially eligible |
| 41HR400 | E | 20 th century farmstead | Unknown |
| 41HR342 | E | Prehistoric unknown | Unknown |
| 41HR778 | E | Transitional Archaic and late prehistoric | Potentially eligible |
| 41HR777 | E | Transitional Archaic and late prehistoric | Not eligible |
| 41HR774 | E | Prehistoric lithic scatter | Not eligible |
| 41HR776 | E | Prehistoric lithic scatter | Not eligible |
| 41HR774 | E | Prehistoric lithic scatter | Potentially eligible |
| 41HR785 | E | Prehistoric lithic scatter | Potentially eligible |
| 41HR786 | E | Prehistoric lithic scatter | Not eligible |
| 41HR780 | E | Prehistoric lithic scatter | Potentially eligible |
| 41HR782 | E | Prehistoric and historic scatter | Potentially eligible |
| 41HR784 | E | Prehistoric lithic scatter | Potentially eligible |
| 41HR785 | E | Prehistoric lithic scatter | Potentially eligible |
| 41HR781 | E | Prehistoric lithic scatter | Potentially eligible |
| 41HR984 | E | Prehistoric open campsite | Potentially eligible |
| 41HR783 | E | Prehistoric campsite and sawmill remains | Potentially eligible |
| 41HR948 | E | Prehistoric campsite | Not eligible |
| 41HR949 | E | Prehistoric campsite | Not eligible |
| 41HR950 | E | Prehistoric campsite | Not eligible |
| 41HR985 | W | Prehistoric lithic scatter | Not eligible |
| 41HR386 | W | Sawmill remnant | Unknown |
| 41HR339 | W | Prehistoric lithic and ceramic scatter | Eligible |
| 41HR972 | W | Prehistoric open campsite | Eligible |
| 41HR970 | W | Prehistoric open campsite | Eligible |
| 41HR393 | W | Historic log shelter | Unknown |
| 41HR974 | W | Prehistoric open campsite | Not eligible |
| 41HR366 | W | Prehistoric campsite | Eligible |
| 41HR338 | W | Prehistoric lithic and ceramic scatter | Potentially eligible |

Chapter 3: Project Methodology

The methods proposed for this project meet or exceed the minimum requirements for surveys in Texas. This project included three phases: 1) background research, 2) field investigations, and 3) laboratory analysis. Each phase of the investigations is described in detail below.

BACKGROUND RESEARCH

The background literature and records search for the project area was conducted through the Texas Archeological Sites Atlas, the NRHP database for Harris County, and through online sources for historic maps. The records examined Through the Texas Archeological Sites Atlas database included a review of information about previously recorded archaeological and historic resources in the vicinity of the present project. The literature review was used to determine if previously recorded cultural resources are in or near the project area, and also served to provide a historical context for the study area.

The background research also included information about standing historic structures and known cemeteries located near the survey area. As noted above, the purpose of the background research is to inform the Stone Point Services (SPS) crew of potentially important cultural resources that have been previously identified near the survey area. Using data from the background research, our researchers can pinpoint those areas that are more likely to contain archaeological sites. The background research likewise helped to identify historic resources, such as historic buildings and cemeteries, which are located close to the project area. The previous investigations section in Chapter 2 outlined the results of the background research. Previous surveys near the project area were assessed and their results summarized. In addition, historic aerial photography available through the various online sources, and other historic maps sources were used to determine if the project area was previously used for habitation. A combination of all data was used as a general background for the investigations and the resulting report.

FIELD METHODS

Archaeological investigation of the project area included an intensive archaeological survey using both pedestrian survey and shovel testing techniques. Pedestrian survey was used to locate quarries, cemeteries, chimneys, earthworks and other above ground features, as well as artifacts lying on the ground surface. Shovel testing was conducted in areas most likely to contain sites. Wet areas were not subjected to shovel testing but were walked on transects to identify any above ground or surficial deposits.

Shovel tests measured 40-centimeters (16-inches) in diameter and were excavated to sterile subsoil or at least 80-centimeters (31-inches) below ground surface, whichever was encountered first. Each shovel test was excavated in no greater than 10-centimeter (4-inches) levels to ensure that

any artifacts encountered could be plotted by depth. All shovel test fill was screened through 6.35-millimeter (0.25-inch) wire mesh screen. Sites (if encountered) were to be recorded using a Trimble GPS and plotted on USGS 7.5-minute topographic maps. All features were mapped using ArcGIS 10 with standard shapefile formats. If sites or isolated finds were identified, artifacts recovered during the survey were to be bagged by site or isolated find and relative provenience within each site. Each site would be delineated at reduced intervals (10-meters) and photographed with high resolution digital color images (three megapixels or higher). Sites would be documented using Texas archaeological site forms that would be submitted to the Texas Archeological Research Laboratory (TARL) upon conclusion of the fieldwork. The Project Archaeologist maintained detailed notes on survey methods, sites identified during the survey, and relevant environmental factors associated with each site. Because no archeological sites or isolated finds were recorded during this survey, no site forms will be prepared as part of this project.

NRHP ELIGIBILITY ASSESSMENTS

Archaeological resources identified during this survey were evaluated to determine their NRHP eligibility. As per 36 CFR 60.4, four broad criteria should be used when making a NRHP eligibility determination. In order to be considered eligible for the NRHP, a resource must possess integrity (location, design, setting, materials, workmanship, feeling, association), and it must meet at least ONE of the following criteria:

- A. it is associated with events that have made a significant contribution to the broad pattern of history;
- B. it is associated with the lives of persons significant in the past;
- C. it embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master, possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction;
- D. it has yielded, or is likely to yield, information important to history or prehistory.

Criteria A, B, and C are usually applied to historic structures, features, and non-archaeological resources (i.e., battlegrounds, etc.). Criterion D is most often used to determine the NRHP eligibility of archaeological resources. In most instances, an archaeological site or historic resource must be at least 50-years old when it is assessed. In some instances, especially in regard to particularly important resources (e.g., the World Trade Center Site), a structure or location may be nominated for the NRHP even if it does not meet the 50-year rule. As a general rule, any property or site greater than 50 years of age may be considered for the NRHP.

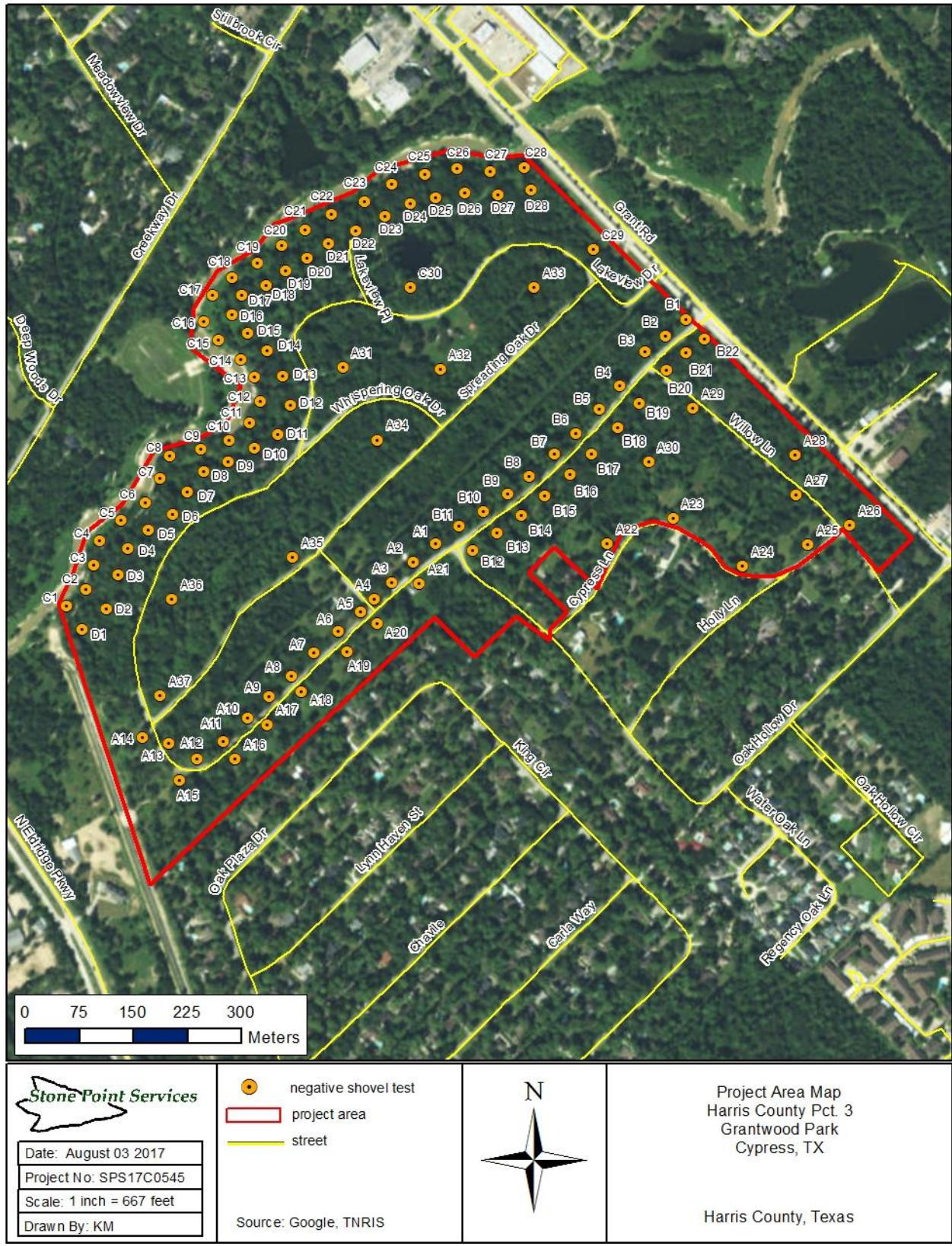


Figure 8: Project area map showing shovel test locations

Criterion D is the most commonly applied criterion in archaeological surveying. The surveyor must try to determine if the site in question has adequate context for it to answer important questions about history or prehistory. The ultimate decision of eligibility is generally determined by the State Historic Preservation Office (SHPO) and/or the federal agency requesting the survey. The surveyor can make recommendations, but ultimately the SHPO or federal agency will make the final determination of eligibility, either through concurring with a recommendation or not.

An archaeological survey, and associated site delineation, is rarely sufficient to make a final ruling of a site's NRHP eligibility. In most cases, the archaeologist will recommend a site as either "potentially eligible" for the NRHP or "not eligible" for the NRHP. If a recommendation of "potentially eligible" is given, and the SHPO or federal agency concurs, the site should be treated as if it is "eligible" for nomination to the NRHP. Additional testing of the site will generally be sufficient to make the final determination of NRHP eligibility. If a recommendation of "not eligible" is made for the site, and if the SHPO and/or federal agency concur, the site is then considered to be unlikely to provide information important to our understanding of history or prehistory.

Archaeologists generally look for a certain set of criteria to determine if a site possesses integrity. The most common keys in making this determination are location, setting, materials, and association. When archaeologists speak of a site being "intact" or if they mention "context" they usually are referring to whether a site has sufficient deposits that appear to be undisturbed to answer the important questions about the prehistoric and historic past that will make it potentially eligible under Criterion D. The materials (artifacts) present can aid in dating the site and assigning cultural association. If a site is associated with a specific group or period, and that association can be determined through archaeological research, then the site may retain sufficient integrity to be recommended potentially eligible for the NRHP. If a site is intact, this means that the site has retained its original location and setting and has not been disturbed. As an example, if an archaeological site has buried deposits and ample time-diagnostic artifacts for dating the site, but there is evidence of disturbance, this would call into the question the reliability of any data recovered from the site. As such, a site may be recommended not eligible for the NRHP if it is highly disturbed. Another example would be a small prehistoric site with potentially intact deposits but no time-diagnostic artifacts or organic remains to help identify the age and association of the site. In this latter case, an eligibility determination of not eligible may be rendered. Small lithic (stone) scatters are often determined not eligible due to the lack of research potential.

Historic archaeological sites pose a separate but similar set of issues. Although a prehistoric site may sometimes have evidence of a structure, they are far more common on historic sites. A historic structure on a site may be recommended not eligible for the NRHP due to it not meeting Criteria A, B, or C, and yet the archaeological site that surrounds the structure may in fact be eligible for the NRHP under Criterion D (information potential). Although the structure is in poor condition and possibly not eligible for the NRHP, the archaeological site might contain

information about the period in which the structure was used. In this case, the structure may be a contributing element to the site's NRHP eligibility under Criterion D.

LABORATORY METHODS

The following post-field activities meet all state and federal guidelines. Upon completion of all field investigations, recovered artifacts were returned to the SPS Lab and washed, catalogued, and analyzed. Field notes and all artifacts and pictures will be curated at an approved Texas facility. Laboratory methods for preparing artifacts, notes, and additional media will follow standard curation guidelines.

Chapter 4: Results and Recommendations

SURVEY RESULTS

Stone Point Services completed a cultural resources survey for a proposed 55-hectare (137-acre) county park in Cypress, Texas. The study area consists of an irregularly shaped former subdivision located southwest of Grant Road in Cypress, Texas. The project area is primarily wooded with mature oaks and pines mixed with a few ornamental trees and is bounded to the northwest by Cypress Creek.

Field investigations were conducted between July 27 and July 28, 2017. Survey methods included a pedestrian archaeological survey with shovel testing. In total, 117 shovel tests were excavated within the survey area, representing one shovel test per 1.2-acres, with most shovel tests located along Cypress Creek. Shovel tests were placed in areas with the least disturbance or where cultural deposits were most likely to be identified. Much of this area consists of a subdivision setting with houses that were demolished due to flooding in 2016. As such, significant disturbance was noted over much of the area. Soils noted across the survey area, when not disturbed, included mostly gray loam away from Cypress Creek and sand deposits over loam near Cypress Creek. The entire area is subject to periodic flooding.

No archaeological sites or historic standing structures were recorded during the survey. Survey methods conducted at the proposed park site meet or exceed methods recommended by the Texas Historical Commission and the Council of Texas Archeologists for surveys of 200-acres or less.

Thirty-three archeological sites have been recorded along Cypress Creek within one mile of the survey area. Of these 33 sites, only four have been recorded on the south side of Cypress Creek. Surveys in this area have recorded a very low number of sites south of the creek. The reason for this is uncertain as the soils are similar on both sides of the creek. However, a view of the creek (Figure 9) shows that access to the creek is much easier on the north side. The south side of the creek consists of mostly bluffs, where the south side is a gentle slope to the creek.

The present survey area has been heavily disturbed from the construction of a subdivision and associated houses. Much of this side of the creek was a housing subdivision throughout the 1960s and 1970s and continued to exist as a subdivision throughout the 1980s. A few houses remained until 2016 when a flood destroyed or damaged the remaining houses in this immediate area. Modern artifacts, including glass, nails, and plastic were noted across much of the area. Likewise, imported gravel was common in this area.



Figure 9: View of Cypress Creek showing steep banks on the south side (right)

Standing Structures

A single standing structure was noted within the survey area. This home appears to have been constructed in the 1970s and is not eligible for the NRHP (Figure 10). This home has been condemned due to flooding and will be removed. The house currently is unoccupied and has been vandalized with broken windows and graffiti.

MANAGEMENT RECOMMENDATIONS

Since no archaeological sites or historic structures were identified in the survey area, this project is recommended to continue without any further consideration of cultural resources. However, it should be noted that this survey only met the minimum standards for archeological surveys in Texas as defined by the Texas Historical Commission due to time and cost restraints. If artifacts are noted during park construction, all work should stop in this area until the Texas Historical Commission or a qualified archeologist can make an assessment.



Figure 10: 1970s house located on property

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Texas Archeological Sites Atlas

2016 Online database evaluations conducted in 2016. Information obtained from Texas Archeological Sites Atlas website.

Texas Historical Commission

2016 Archeological Survey Standards for Texas. Located at <http://counciloftexasarcheologists.org/wordpress/wp-content/uploads/surveystandards.pdf>

Appendix A: Shovel Test Log

| Transect | Shovel test No. | Artifacts? | Description |
|----------|-----------------|------------|---|
| A | 1 | None | 0-20cm: Gray loam 20-60cm: Gray clay loam |
| A | 2 | None | 0-20cm: Gray loam 20-55cm: Gray clay loam |
| A | 3 | None | Disturbed – in yard (mottled and gravel) |
| A | 4 | None | Disturbed – in yard (mottled and gravel) |
| A | 5 | None | Disturbed – in yard (mottled and gravel) |
| A | 6 | None | Disturbed – in yard (mottled and gravel) |
| A | 7 | None | 0-25cm: Gray loam 25-60cm: Gray clay loam |
| A | 8 | None | Disturbed: clay and gravel |
| A | 9 | None | 0-20cm: Gray loam 20-50cm: Gray clay loam |
| A | 10 | None | 0-22cm: Gray loam 22-51cm: Gray clay loam |
| A | 11 | None | 0-22cm: Gray loam 22-53cm: Gray clay loam |
| A | 12 | None | 0-27cm: Gray loam 27-45cm: Gray clay loam (compact) |
| A | 13 | None | 0-24cm: Gray loam 24-44cm: Gray clay loam (compact) |
| A | 14 | None | Disturbed: clay and gravel |
| A | 15 | None | Disturbed: clay and gravel |
| A | 16 | None | 0-28cm: Grayish brown loam 28-61cm: Gray clay (light gravel content) |
| A | 17 | None | Disturbed: clay and gravel |
| A | 18 | None | Disturbed: clay and gravel |
| A | 19 | None | 0-21cm: Grayish brown loam 21-50cm: gray clay |
| A | 20 | None | 0-25cm: Grayish brown loam 25-58cm: Gray clay (light gravel content) |
| A | 21 | None | 0-24cm: Grayish brown loam 24-64cm: Gray clay (light gravel content) |
| A | 22 | None | Disturbed: clay and gravel |
| A | 23 | None | Disturbed: clay and gravel |
| A | 24 | None | Disturbed: clay and gravel |
| A | 25 | None | Disturbed: clay and gravel |
| A | 26 | None | 0-26cm: Brownish gray loam 26-60cm: Gray clay |
| A | 27 | None | 0-25cm: Gray loam 25-54cm: Gray clay loam |
| A | 28 | None | Disturbed: clay and gravel |
| A | 29 | None | 0-28cm: Gray loam 28-60cm: Gray clay |
| A | 30 | None | 0-28cm: Gray loam 28-60cm: Gray clay |

| Transect | Shovel test No. | Artifacts? | Description |
|----------|-----------------|------------|---|
| A | 31 | None | 0-22cm: Brownish gray loam 22-62cm: Gray clay |
| A | 32 | None | 0-17cm: Gray loam 17-48cm: Gray clay loam |
| A | 33 | None | 0-26cm: Brownish gray loam 26-60cm: Gray clay |
| A | 34 | None | 0-25cm: Gray loam 25-54cm: Gray clay loam |
| A | 35 | None | 0-19cm: Brownish gray loam 19-48cm: Gray clay |
| A | 36 | None | 0-21cm: Gray loam 21-52cm: Gray clay loam |
| A | 37 | None | Disturbed: gravel and clay |
| B | 1 | None | Disturbed: Utility cable at 25cm |
| B | 2 | None | 0-10cm: Gray sandy loam 10-45cm: Compact gray sandy loam 45-55cm: Compact gray clay loam |
| B | 3 | None | 0-5cm: Dark gray loamy sand 5-15cm: Compact gray sandy loam 15-50cm: Light gray loam 50-65cm: Light brownish gray loam |
| B | 4 | None | 0-10cm: Gray sandy loam 10-45cm: Compact gray sandy loam 45-55cm: Compact gray clay loam |
| B | 5 | None | Disturbed: Gravel and clay loam |
| B | 6 | None | 0-21cm: Gray loam 21-53cm: Gray clay loam |
| B | 7 | None | 0-22cm: Gray loam 22-51cm: Gray clay loam |
| B | 8 | None | 0-24cm: Gray loam 24-54cm: Gray clay loam |
| B | 9 | None | 0-27cm: Gray loam 27-45cm: Gray clay loam (compact) |
| B | 10 | None | 0-21cm: Gray loam 21-48cm: Gray clay loam (compact) |
| B | 11 | None | 0-24cm: Gray loam 24-57cm: Gray clay loam |
| B | 12 | None | Disturbed: clay and gravel |
| B | 13 | None | 0-28cm: Grayish brown loam 28-61cm: Gray clay (light gravel content) |
| B | 14 | None | Disturbed: clay and gravel |
| B | 15 | None | Disturbed: clay and gravel |
| B | 16 | None | 0-21cm: Grayish brown loam 21-50cm: gray clay |
| B | 17 | None | 0-25cm: Grayish brown loam 25-58cm: Gray clay (light gravel content) |
| B | 18 | None | 0-24cm: Grayish brown loam 24-64cm: Gray clay (light gravel content) |
| B | 19 | None | 0-27cm: Gray loam 27-45cm: Gray clay loam (compact) |
| B | 20 | None | 0-24cm: Gray loam 24-44cm: Gray clay loam (compact) |

| Transect | Shovel test No. | Artifacts? | Description |
|----------|-----------------|------------|--|
| B | 21 | None | Disturbed: clay and gravel |
| B | 22 | None | Disturbed: clay and gravel |
| C | 1 | None | 0-80cm: Grayish brown sand |
| C | 2 | None | 0-40cm: Grayish brown sand 40-80cm: gray compact sand |
| C | 3 | None | 0-80cm: Grayish brown sand |
| C | 4 | None | 0-80cm: Grayish brown sand |
| C | 5 | None | 0-15cm: Grayish brown sand 15-50cm: Gray loam (compact) |
| C | 6 | None | 0-15cm: Pale brown sand 15-35cm: Grayish brown sand 35-60cm: Compact light gray sand |
| C | 7 | None | 0-12cm: Pale brown sand 12-32cm: Grayish brown sand 32-56cm: Compact light gray sand |
| C | 8 | None | 0-15cm: Pale brown sand 15-41cm: Grayish brown sand 41-62cm: Compact light gray sand |
| C | 9 | None | 0-16cm: Pale brown sand 16-33cm: Grayish brown sand 33-65cm: Compact light gray sand |
| C | 10 | None | 0-28cm: Pale brown sand 28-46cm: Grayish brown sand 46-71cm: Compact light gray sand |
| C | 11 | None | Disturbed: in yard, gravel and compact clay with plastic |
| C | 12 | None | 0-60cm: Grayish brown sand 60-80cm: Pale brown sand (compact) |
| C | 13 | None | 0-60cm: Grayish brown sand 60-80cm: Pale brown sand (compact) |
| C | 14 | None | 0-60cm: Grayish brown sand 60-80cm: Pale brown sand (compact) |
| C | 15 | None | Disturbed sandy soils: Plastic sheeting found at 70cm |
| C | 16 | None | 0-55cm: Grayish brown sand 55-81cm: Pale brown sand (compact) |
| C | 17 | None | 0-60cm: Grayish brown sand 60-80cm: Pale brown sand (compact) |
| C | 18 | None | 0-65cm: Grayish brown sand 65-80cm: Pale brown sand |
| C | 19 | None | 0-51cm: Grayish brown sand 51-82cm: Pale brown sand (compact) |
| C | 20 | None | 0-55cm: Grayish brown sand 55-80cm: Pale brown sand (compact) |
| C | 21 | None | 0-38cm: Grayish brown sand (light gravel) 38-81cm: Pale brown sand |
| C | 22 | None | 0-54cm: Light grayish brown sand 54-78cm: Pale brown sand (compact) |
| C | 23 | None | 0-61cm: Grayish brown sand 61-81cm: Pale brown sand |
| C | 24 | None | 0-80cm: Grayish brown sand |
| C | 25 | None | 0-78cm: Grayish brown sand |
| C | 26 | None | Disturbed, dense gravel on surface |

| Transect | Shovel test No. | Artifacts? | Description |
|----------|-----------------|------------|--|
| C | 27 | None | 0-45cm: Compact gray clay loam |
| C | 28 | None | 0-56cm: Compact gray clay loam |
| C | 29 | None | 0-32cm: Gray loam 32-65cm: Compact gray clay loam |
| C | 30 | None | Disturbed: Mottled soils with gravel |
| D | 1 | None | 0-78cm: Pale brown sand |
| D | 2 | None | 0-81cm: Pale brown sand |
| D | 3 | None | 0-35cm: Light gray sandy loam 35-65: Gray sandy clay |
| D | 4 | None | 0-41cm: Light gray sandy loam 41-75cm: Gray sandy clay |
| D | 5 | None | 0-21cm: Grayish brown sand 21-52cm: Gray loam (compact) |
| D | 6 | None | 0-36cm: Light gray sandy loam 36-78: Gray sandy clay |
| D | 7 | None | 0-14cm: Pale brown sand 14-35cm: Grayish brown sand 35-78cm: Compact light gray sand |
| D | 8 | None | 0-11cm: Pale brown sand 11-42cm: Grayish brown sand 42-67cm: Compact light gray sand |
| D | 9 | None | 0-16cm: Pale brown sand 16-33cm: Grayish brown sand 33-65cm: Compact light gray sand |
| D | 10 | None | 0-28cm: Pale brown sand 28-46cm: Grayish brown sand 46-71cm: Compact light gray sand |
| D | 11 | None | Disturbed: in yard, gravel and compact clay with plastic |
| D | 12 | None | 0-73cm: Pale brown sand |
| D | 13 | None | 0-78cm: Pale brown sand |
| D | 14 | None | 0-35cm: Light gray sandy loam 35-65: Gray sandy clay |
| D | 15 | None | 0-41cm: Light gray sandy loam 41-75cm: Gray sandy clay |
| D | 16 | None | 0-21cm: Grayish brown sand 21-52cm: Gray loam (compact) |
| D | 17 | None | 0-36cm: Light gray sandy loam 36-78: Gray sandy clay |
| D | 18 | None | 0-14cm: Pale brown sand 14-35cm: Grayish brown sand 35-78cm: Compact light gray sand |
| D | 19 | None | 0-11cm: Pale brown sand 11-42cm: Grayish brown sand 42-67cm: Compact light gray sand |
| D | 20 | None | 0-55cm: Grayish brown sand 55-80cm: Pale brown sand (compact) |
| D | 21 | None | 0-38cm: Grayish brown sand (light gravel) 38-81cm: Pale brown sand |
| D | 22 | None | 0-54cm: Light grayish brown sand 54-78cm: Pale brown sand (compact) |

| Transect | Shovel test No. | Artifacts? | Description |
|-----------------|------------------------|-------------------|--|
| D | 23 | None | 0-61cm: Grayish brown sand 61-81cm: Pale brown sand |
| D | 24 | None | 0-35cm: Light gray sandy loam 35-65: Gray sandy clay |
| D | 25 | None | 0-41cm: Light gray sandy loam 41-75cm: Gray sandy clay |
| D | 26 | None | 0-21cm: Grayish brown sand 21-52cm: Gray loam (compact) |
| D | 27 | None | 0-21cm: Grayish brown sand 21-52cm: Gray loam (compact) |
| D | 28 | None | 0-36cm: Light gray sandy loam 36-78: Gray sandy clay |

Appendix B: Abbreviated Resume of Principal Investigator

Todd McMakin
Principal Investigator
Senior Archeologist

EDUCATIONAL BACKGROUND

1987 - 1991 B.S., College of Charleston (Charleston, SC) Major: Anthropology

1991 - 1995 M.A., University of Southern Mississippi (Hattiesburg, MS) Major: Anthropology

SELECT EXPERIENCE

January 2012 - Present

Stone Point Services, LLC: Owner, Principal Investigator, and Senior Archaeologist

July 2011 - December 2011

S&ME, Inc. and Benchmark Environmental Consultants, Inc.: Principal Investigator and Senior Archaeologist

October 1998 – July 2011

Texas Parks and Wildlife Department: Cultural Resources Specialist – Tyler, Texas

February 1995 – October 1998

Archaeologist/Project Manager/Principal Investigator, Brockington and Associates, Inc., South Carolina

August 1993 - January 1995

Project Manager, Earth Search, Inc., New Orleans, Louisiana

CERTIFICATION AND AWARD

Register of Professional Archaeologists (RPA)

Award of Merit in Archeology. Presented by the Texas State Historic Preservation Office (SHPO)

RECENT EXPERIENCE

2012 *Archeological Survey of the Maxwell #2H Well Pad, Access Road, and Pipeline, Panola County, Texas.*

2012 *Archeological Survey of the Abbey Road #1 Well Pad, Access Road, and Pond, Houston County, Texas.*

2012 *Archeological Survey of the Bisons DU #1H Well Pad and Access Road, San Augustine County, Texas.*

2012 *Archeological Survey of the Navo Road Cell Tower Pad and Access Road, Denton County, Texas.*

2012 Desktop Environmental Mapping Projects (published under various authors) for Whittenton Group, Inc

2013 *Archeological Survey of the Vera Black #12H Well Pad and Access Road, Panola County, TX.*

2013 *Cultural Resources Assessment for a Cell Tower at the Snider Plaza Location, Dallas, TX.*

2013 *Cultural Resources Background Assessment for a Cell Tower, Collier County, FL.*

2010-2016 Various Cellular antennae surveys in Florida, Louisiana, South Carolina, Alabama, Texas, New Mexico, and Oklahoma.