The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.
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MANAGEMENT SUMMARY

PROJECT TITLE: Intensive Archeological Survey of the FM 1463 Detention Pond, Fort Bend County, Texas.

PROJECT DESCRIPTION: The proposed undertaking would consist of 6.5 acres of new right-of-way (ROW) for a proposed detention pond between the Willow Fork of Buffalo Bayou and Farm-To-Market (FM) Road 1463 in the City of Katy. Blanton & Associates, Inc. conducted survey of portions of the project area of potential effects (APE) on behalf of the Texas Department of Transportation, Houston District.

PROJECT LOCATION: Fort Bend County, Texas; Katy US Geological Survey 7.5” topographical quadrangle

APE ACREAGE: Approximately 6.5 (all new ROW)

APE ACRES SURVEYED: Approximately 6.5

DATE(S) OF WORK: February 25, 2019

PURPOSE OF WORK: The purpose of the archeological survey was to locate and evaluate archeological sites within the FM 1463 Detention Pond project APE in compliance with the National Environmental Policy Act, Section 106 of the National Historic Preservation Act and associated federal regulations (36 CFR 800), as well as the Texas Antiquities Code (9 TNRC 191) and associated state regulations (13 TAC 26).

TEXAS ANTIQUITIE PERMIT NUMBER: 8783

PRINCIPAL INVESTIGATOR: Andrea Stahman Burden, M.A., RPA

PROJECT ARCHEOLOGIST: Joseph Sanchez

TOTAL PERSON HOURS INVESTED: 10 (fieldwork)

SITES RECORDED/REVISITED: None

RESULTS/RECOMMENDATIONS: A total of nine shovel tests were excavated during the investigation. No archeological sites were identified within the APE, and no further work is recommended at this location.
1.0 INTRODUCTION

The Texas Department of Transportation (TxDOT) is planning construction of a detention pond between the Willow Fork of Buffalo Bayou and Farm-To-Market (FM) Road 1463 in the City of Katy, Fort Bend County, Texas (Figures 1 through 2 in Appendix A). The project would require approximately 6.5 acres of new right-of-way (ROW) for the proposed pond. No temporary or permanent easements or project specific locations have been identified at this time. The proposed detention pond is part of an overall expansion of FM 1463 from Interstate Highway 10 (I-10) to FM 1093. Currently, there is no assigned Ready-to-Let date for this project, but a letting date and Letter of Authority date are estimated for 2020.

The proposed detention pond project’s horizontal APE for archeological resources equals approximately 6.5 acres in size. The vertical APE for the potential detention pond is a maximum depth of 20 feet. The proposed schematic of the detention pond is included in Appendix B.

This report details the results of an archeological survey performed by Blanton & Associates (B&A) in advance of the project under Texas Antiquities Permit No. 8783. A total of 6.5 acres of the APE were surveyed by B&A on February 25, 2019. Archeological survey methods consisted of systematic inspection of the ground surface as well as subsurface inspection by shovel testing. Andrea Burden served as Principal Investigator for the project. Joseph Sanchez served as Project Archeologist. A total of 10 person-hours was invested in the fieldwork phase of the project. No artifacts were collected during the survey. Project records and a copy of the final report will be curated at the Center for Archeological Research at The University of Texas at San Antonio.

The purpose of the archeological survey was to locate and evaluate archeological sites within the project APE in compliance with the National Environmental Policy Act, Section 106 of the National Historic Preservation Act and associated federal regulations (36 CFR 800), as well as the Texas Antiquities Code (9 TNRC 191) and associated state regulations (13 TAC 26).

This report includes eight sections. Sections 2 and 3 briefly describe the natural and cultural setting of the APE vicinity. Section 4 relates previous investigations and previously documented sites in the vicinity of the APE. Section 5 presents the methods utilized during the survey. Section 6 presents the results of the survey. Section 7 provides a summary of the investigation and conclusions. Section 8 presents the references cited. Appendix A includes all figures. Appendix B consists of the project schematic. Appendix C includes survey forms and photos. Appendix D contains all project correspondence records.
2.0 ENVIRONMENTAL SETTING

A background review of area topographic, soils, and geologic maps was conducted by B&A. This review includes information relevant to the APE. In addition, Houston Potential Archeological Liability Map (PALM) data was supplied by the TxDOT Houston District office and is included in this review. The results of the comprehensive review are presented below.

2.1 Topography

The APE is located within the Coastal Prairies physiographic region (Bureau of Economic Geology [BEG] 1996). This region is characterized by nearly flat prairie lands that range in elevation from zero to 300 feet (ft) above mean sea level (BEG 1996). The area surrounding the APE at the proposed detention pond has been subject to residential and commercial development. The APE is an undeveloped riparian landscape characterized by pine-hardwood forest and includes the active channel and floodplain of Willow Fork Creek, a drainage that feeds into Buffalo Bayou, 1.17 km to the southeast.

Based on site distributional data from archeological work within the Coastal Prairies area over the past 50 years, archeological sites within this setting are often found near natural freshwater sources such as streams and lakes, along terraces, near the shorelines of secondary bays or riverine estuarine zones, and well-drained elevated topography, particularly small, natural mounds often called “pimple” mounds (Abbott 2001; Ricklis 2004).

2.2 Geology

The Coastal Prairies are part of the larger Gulf Coastal Plains geomorphic province. The geologic structure of deposits within the Gulf Coastal Plains is characterized by nearly flat strata comprised of deltaic sands and muds (BEG 1982). The APE crosses only one geologic unit, the Pleistocene–aged Lissie Formation (Ql). The Lissie Formation is comprised of clay, silt, sand, gravel, and caliche characterized by surface expressions of numerous rounded shallow depressions and pimple mounds (BEG 1982). As this unit predates the Late Quaternary, generally accepted as the earliest date for human occupation in North America, it possesses no potential to contain buried archeological material.

2.3 Soils

The APE at the proposed detention pond contains soils of the Edna association, which formed in situ from Late Pleistocene deposits (Web Soil Survey 2018). These soils have potential to contain intact buried archeological deposits.
2.4 Potential Archeological Liability Map (PALM) Recommendations

The Houston PALM shows that the APE is categorized as Unit 2 (surface survey recommended, no deep reconnaissance recommended) (Figure 3 in Appendix A).

3.0 CULTURAL BACKGROUND

The APE is located within the Southeast Texas Archeological Region (Perttula 2004:7). The prehistory of this area is generally divided into four broad cultural periods: Paleoindian (ca. 11,500 to 8,000 Years Before Present [B.P.]), Archaic (ca. 8,000 to 1,300 B.P.), Late Prehistoric (ca. 1,300 B.P. into historic times), and Historic (after ca. 300 B.P.). The following discussion summarizes the region’s culture history, per existing syntheses and temporal frameworks presented by Story (1990), Patterson (1995), and Ricklis (2004).

3.1 Paleoindian Period

The exact timing of the earliest human occupation of North America is the subject of considerable debate, though most researchers agree that humans occupied the mixed Oak-Hickory-Southern Pine forests and the coastal prairies of southeast Texas during the late Pleistocene (ca. 11,500 to 8,000 B.P.). Lower sea levels during the terminal Pleistocene were approximately 100 meters (m) below modern sea levels, providing stream settings for human occupation and utilization. The current knowledge of Paleoindian life ways and behavior is severely limited by the inundation of these coastal areas during the post-glacial sea level rise between 8,000 and 9,000 B.P., as well as valley cutting and widespread erosion caused by lower sea levels. It is generally agreed that low population densities of highly mobile hunter-gatherers traveled substantial distances within poorly defined territories subsisting on a wide variety of plant and animal foods, including now-extinct megafauna such as the mastodon. Although most of the artifacts attributable to the Paleoindian cultural period have come from surficial contexts as isolated finds on the older stable surfaces of the uplands, disturbed contexts, or mixed with artifacts from later periods, at least one stratified site, the Dimond Knoll Site (41HR796) (Barrett and Weinstein 2016), has been identified. Additional Paleoindian period sites within the Southeast Texas Archeological Region include, but are not limited to, 41HR571 (Patterson 1986); 41WH19 (Patterson et al. 1987), the McFaddin Beach Site, 41JF50 (Turner and Tanner 1994), 41FB249 (Patterson 1997), and the Timber Fawn Site, 41HR1165 (Crook 2016). Large, lanceolate projectile points are recognized as diagnostic of the time period and include, but are not limited to, Clovis, Folsom, Dalton, and San Patrice point types.

3.2 Archaic Period

The Archaic stage of prehistory in Texas spans roughly 7,500 years and is generally divided into Early (ca. 8,000 to 6,000 B.P.), Middle (ca. 6,000 to 3,500 B.P.), and Late Archaic (ca.
3,500 to 1,500 B.P.) on the basis of diagnostic projectile point types (Ricklis 2004:184-186). Numerous inland Archaic sites have been documented in southeast Texas along streams; however, most lack depositional integrity and preservation of materials, other than stone. The use of ground stone tools for plant processing indicates changes in cultural adaptation from the preceding Paleoindian period. Overall, the Archaic is marked by a broadening of the subsistence base and increased regionalization of dart point styles and other lithic tools over time.

The Early Archaic period coincides with the onset of the Hypsithermal (Altithermal) Interval of the middle Holocene beginning ca. 8,000 B.P. and continuing through the Middle Archaic. This drying period of increased temperatures and aridity resulted in open grasslands, with oak savannas occurring at the transitional zone with the eastern woodlands in southeast Texas (Ricklis 2004:183). Soil erosion and inadequate ground cover limited the array of potential plant and animal food resources. Diagnostic dart point types from the Early Archaic include early side-notched, early stemmed, and corner-notched, followed by massively barbed types such as Bell/Calf Creek and Wells (Story 1990). Middle Archaic dart point types include Bulverde, Lange, Williams, and probably the Kent-Gary types toward the latter portion of the Middle Archaic (Patterson 1995; Story 1990). The first recognizable group cemeteries appear during the Middle Archaic; most of these lacked grave goods. Cemeteries, often large and containing grave goods (such as the Ernest Witte site [41AU36]), appear to have become a common custom during the Late Archaic. This custom is indicative of population growth and the resulting need for development and strengthening territorial identification by specific groups.

During the early part of the Late Archaic (ca. 3,000 B.P.), increases in fossil arboreal pollen and changes in faunal data point to more mesic conditions. The wetter conditions, associated expansion of ground cover, and soil stabilization contributed to an increase in useful floral (e.g., nuts) and faunal (e.g., white-tailed deer and various small mammals and reptiles) food resources, thereby supporting population growth. In fact, Late Archaic sites are dramatically more common than those dating to previous cultural periods. The shift to poorer quality and locally available lithic raw materials also indicates reduced mobility and well-defined group territories (Story 1990). Late Archaic point types include Gary, Kent, Darl, Ensor, Elam, Ellis, and Fairland forms.

3.3 Late Prehistoric Period

The Late Prehistoric in Southeast Texas is often referred to as “Woodland” to denote its close cultural affiliation with more sedentary, ceramic-producing cultures throughout eastern North America. Hallmarks of the Late Prehistoric in this portion of Texas include the introduction of ceramics and the bow and arrow into the material culture. Based on similarities in the overall ceramic assemblage of the area, Story (1990) defined the Mossy Grove Tradition of Southeast
Texas and has suggested Early Ceramic (ca. 2,050 to 1,050 B.P.) and Late Ceramic (ca. 1,050 to 250 B.P.) subdivisions. The Early Ceramic period is characterized by the dominance of a distinctly Southeast Texas pottery, a plain, un-tempered, sandy-paste ware typed as Goose Creek Plain. The Late Ceramic period is marked by the introduction of arrow points, grog-and-bone tempered pottery often elaborately decorated, and the presence of Caddoan ceramics, possibly as trade wares from the Caddo heartland located to the north (Story 1990:256, 258, and 275–276). Despite the presence of these other ceramic types, Goose Creek Plain continued to dominate Late Ceramic assemblages. The introduction of ceramics to the regional material culture does not appear, however, to have been accompanied by any immediate changes in basic adaptive strategies during the Late Prehistoric; evidence indicates a continuation of a seasonally nomadic, hunter-gatherer lifestyle, exploiting a wide array of plant and animal resources. The presence of certain ceramics indicates contact with emerging complex cultures to the east and north, where horticulture and increasing sedentism were gradually replacing a hunter-gatherer subsistence regime (Ricklis 2004).

3.4 Historic Period

The advent of the Historic period in Texas has traditionally been marked by the shipwreck of Álvar Núñez Cabeza de Vaca in A.D. 1528 (422 B.P.). The remnants of the Hernando de Soto entrada led by Luis de Moscoso Alvarado entered what is now northeast Texas in the early 1540s (Bruseth and Kenmotsu 1993). Although neither of these early Spanish expeditions had direct contact with the native inhabitants of southeast Texas, by the 1700s the introduction of European diseases disastrously impacted native populations and spread far beyond areas of direct Native-European contact. Displacement of native Indians to the east resulted in their immigration and assimilation into southeast Texas. Some of the larger historic-era aboriginal groups within Southeast Texas were the Akokisa, Atakapa, and Bidai. Historic documentation concerning these groups indicates that the Bidai were primarily located inland in southeast Texas, whereas the Akokisa and Atakapa spent at least part of the year on the coast (Aten 1983:34-39).

The A.D. 1685 (265 B.P.) French expedition led by Robert Cavelier Sieur de La Salle established Fort St. Louis along Garcitas Creek in Victoria County. French fur traders, who traveled among the native Indians in southeast Texas, set up a trading post near the mouth of the Trinity River as early as 1720. In response to French incursions into the lower Trinity River and Galveston Bay area, the Spanish established a presidio and mission complex at the site of an unoccupied French trading post: the Nuestra Señora de la Luz Mission (1756) and the Agustin de Ahumada Presidio (Chipman and Joseph 2010:169). Throughout the mid-1700s, France and Spain both claimed the upper Texas coast; however, Spanish settlement in the area was short-lived and mostly abandoned by the early 1770s (Chipman and Joseph 2010:169).
By 1763, the Spanish controlled the adjacent region of Louisiana, later acquired by the United States in 1803 (Chipman and Joseph 2010). The United States considered most of Texas to be part of Louisiana and encouraged settlement. After gaining independence in 1821, Mexico claimed Spain’s former territories. About this time, Stephen F. Austin’s colonization grant led to a deluge of American settlers into Texas, which the Mexican government aggressively opposed. The ongoing disturbances between the Mexican government and Texas colonists eventually led to the Texas Revolution beginning in 1835 (Stephens and Holmes 1989) and resulting in the Republic of Texas in 1836. The Texas Republic denied all Native Indian land claims with the exception of the Tigua in West Texas and the Alabama in southeast Texas. With only small numbers of refugees living in remote areas, the majority of Native Indians were removed by 1839.

The steady population growth of Anglo-Americans led to the creation of counties at the beginning of the Republic of Texas era (1836 to 1845). Mexican-American disturbances continued after this time, as Mexico continued to claim part of Texas as their own. When Texas joined the United States in 1845, events escalated, leading to the Mexican-American War (1846 to 1848). After extensive losses throughout Mexico’s vast territories located west and south of Texas, the Mexican government accepted the loss of Texas.

Economic life, at this time, was grounded in plantation agriculture, which produced cotton and sugarcane, among other crops. Shipbuilding during this time allowed for the transport of crops, products, and people via river travel. The cotton industry provided an additional boost to the new economy; however, commercial cotton production depended on the ownership of an increasing numbers of enslaved peoples.

With the cash economy built on slave-based agriculture, most Anglo-American residents in Texas favored secession, and many participated as Confederate soldiers. In 1861, Texas declared its secession and joined the Confederate States of America. At the same time, railroad construction progressed with the Texas and New Orleans Railroad and the Eastern Texas Railroad. Although Texas’ role mainly consisted of providing supplies and materials via rail and steamboat, battles with federal troops took place in parts of southeast Texas, resulting in destruction of commercial industries.

Following the Civil War, the end of slavery resulted in the breakdown of the plantation system. Rather than investing in slaves, wealth became tied to land investments. Speculators and investors, often absentee, bought most of the available land, thus creating a system of sharecropping or tenant farming with labor supplied by poor Anglo-Americans or African-Americans. Improvements along the Trinity, Neches, and Sabine Rivers, along with the expansion of railroad lines by the late 1870s, allowed for the recovery of livestock, lumber, and shipping industries. Agriculture development did not recover until after 1890.
Plant irrigation methods and rice cultivation, along with oil exploration, quickly gained prominence in the early twentieth century. The discovery of oil throughout Texas generated population booms; the historic discovery of oil at the Spindletop oil field was of particular importance in Southeast Texas. Refineries built along the southeastern Texas coast played an active role in supplying oil during World War I and II. Additionally, local agriculture economies relied greatly on the export of rice, cotton, and timber. Shipping, agricultural, lumber, and petroleum industries remain important to the regional economy, along with the significant growth of businesses, educational facilities, recreation, etc. in the large-scale metropolitan cities.

4.0 PREVIOUS INVESTIGATIONS

Previous archeological surveys and locations of recorded archeological sites within 1 kilometer (km) (0.6 mile) of the APE were reviewed by consulting the Texas Historical Commission’s restricted-access Online Archeological Sites Atlas (Atlas). In addition to identifying recorded archeological sites, the review included the following types of information on the Atlas: National Register of Historic Places (NRHP) properties, State Antiquities Landmarks (SALs), Official Texas Historical Markers (OTHMs), Recorded Texas Historic Landmarks, and cemeteries. A combination of the 1964 USGS 7.5-minute topographical quadrangle map and a 1957 aerial photograph of the APE were consulted to identify historical structures, which may or may not be extant, that may represent high probability areas for the presence of historic archeological sites (otherwise known as Historic High Probability Areas, or HHPA) (Nationwide Environmental Title Research [NETR] 2018).

A search of the Atlas on February 1, 2019 revealed that no previous investigations have been documented within the APE at the detention pond location. Three previous investigations have occurred within 1 km of the APE at this location (Figure 4 in Appendix A). Although the full references for these projects are not listed on the Atlas, one of the surveys appears to have been conducted for a roadway improvement project (noted on Figure 4 as Federal Highway Administration [FHWA] 1995), one appears to be a drainage improvement project (noted on Figure 4 as Environmental Protection Agency [EPA] 1985), and one was conducted for a private development (noted on Figure 4 as Moore Archeological Consulting 2000) (Atlas 2019). No archeological sites or cemeteries have been recorded within the APE. Two archeological sites (41FB129 and 41FB279) and one cemetery (Stockdick Cemetery) have been recorded within 1 km of the APE at the detention pond location. Site 41FB129 was determined not eligible for inclusion in the NRHP in 2000. The NRHP eligibility of site 41FB279 and Stockdick Cemetery is undetermined. No historical markers have been recorded within 1 km of the APE at the detention pond location.
Consultation of the 1964 USGS 7.5-minute topographical quadrangle map and a 1957 aerial photograph of the APE revealed no evidence of possible locations of historic sites (NETR 2018).

5.0 METHODS

The methods for this project consisted of a 100 percent archeological survey of portions of the APE defined as proposed new ROW that have not been previously surveyed to identify archeological sites. This investigation consisted of systematic inspection of the ground surface by archeologists walking transects spaced at no more than 98-foot (30-m) intervals. These methods were employed to search for surficial evidence of archeological sites in areas not previously disturbed supplemented with systematic shovel testing to identify any subsurface archeological deposits. Survey was conducted within portions of the APE where right of entry (ROE) had been granted at the time of survey.

All 30-cm diameter shovel tests were excavated in arbitrary 10-cm levels to 1 m in depth or culturally sterile sediments, whichever occurred first. All removed soil was screened through 0.25-inch (0.63 cm) hardware cloth. Field observations were recorded on appropriate field forms and the locations of each shovel test was acquired with a hand-held global positioning system (GPS) receiver. The entire survey area was photo-documented.

All survey records including photographs will be processed for curation at the Center for Archaeological Research (CAR) at The University of Texas at San Antonio according to CAR’s Standards and Procedures for the Preparation of Archaeological Collections, Records, and Photographs (n.d.).

6.0 RESULTS OF INVESTIGATIONS

The intensive survey consisted of a 100 percent pedestrian survey within portions of the APE that coincide with proposed new ROW and where ROE was granted at the time of survey. Pedestrian survey of these areas was augmented by shovel testing. A total nine shovel tests were excavated to an average depth of 59 centimeters below surface (cmbs) during the investigation. Locations of the shovel tests are indicated in Figures 5 and 6. A table of shovel tests descriptions is included in Appendix C as well as survey photos.

Much of the ground surface of the APE was obscured by low grasses surrounded by large oaks. Average ground surface visibility was approximately 50 percent (Appendix C Photos 1 through 3). Disturbances observed along the western edge of the APE included construction of a church and associated gravel parking lot and landscaping and previous disturbance by a small mobile home park (three to four trailers) and associated electric/telephone utility poles and septic pumps were indicated by informant/landowner, Shelton Craig (see Appendix C Photos 4 through 7, Figures 5 and 6). Additional disturbance to the APE was evident by a pond
excavated in the center of the APE (see Appendix C Photo 8, Figures 5 and 6). Large berms were observed in the southeast and northeastern portions of the APE comprised of either clay dredged from the adjacent bayou or spoil from the previous pond excavation (see Appendix C Photo 9, Figures 5 and 6). These berms appeared positioned to create some topographic relief as well as provide flood control from the adjacent bayou.

All shovel tests were negative for cultural materials or indications of any subsurface cultural features. A Bt/Bk horizon of grayish-brown (10YR 4/2), sandy clay loam (Edna Series) was encountered in STs 1, 2, 4, 6, and 7 between the surface and approximately 70 cmbs. This zone of redeposited Pleistocene sediments dates from the early to late Holocene epoch and is the most likely to contain buried prehistoric archeological deposits, which is further corroborated by the depth of deposits at nearby prehistoric sites 41FB129 (0 to 60 cmbs) and 41FB279 (40 to 80 cmbs) (Atlas 2019). Surficial exposures of this deposit indicate floodwater erosion in the northern portion of the APE closest to the Willow Fork of Buffalo Bayou. Additional subsurface exposures of the deposit exhibited evidence of disturbance by mechanical means. Based on the survey data, it is unlikely that intact buried prehistoric archeological deposits exist within the APE.

7.0 SUMMARY AND RECOMMENDATIONS

B&A archeologists completed survey of 6.5 acres of new ROW for a proposed detention pond between the Willow Fork of Buffalo Bayou and FM 1463 in the City of Katy, Fort Bend County, Texas on February 25, 2019. The survey included 100 percent systematic inspection of the ground surface supplemented by shovel testing. A total of nine shovel tests were excavated within the APE.

No archeological sites were identified within the APE due to survey. B&A recommends that no further archeological investigation of portions of the APE that coincide with proposed new ROW is warranted and that construction be allowed to proceed as planned in this area. If previously unidentified cultural materials are discovered during construction, work in the immediate area of discovery should cease and TxDOT should be contacted.

No artifacts were collected during the current survey. Project records and a copy of the final report will be curated at CAR at The University of Texas at San Antonio.

8.0 REFERENCES CITED

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Web Soil Survey
Appendix A

Figures
Figure 1
Proposed Detention Pond Location on County Map Base
Fort Bend County, Texas
CSJ: 0188-10-021

Base Map: ESRI - USA Base Map

FM 1463 Improvement
Project Limits
Proposed Detention Pond

Intensive Archeological Survey of FM 1463 Detention Pond Project
Fort Bend County, Texas (CSJ: 0188-10-021)

Appendices
Figure 2
Proposed Detention Pond Location on USGS Topographic Map Base
Fort Bend County, Texas
CSJ: 0188-10-021
THIS PAGE HAS BEEN REDACTED AS IT CONTAINS CONFIDENTIAL SITE LOCATIONS
Appendix B

Project Schematic
DRAWN BY: LITAO LIU
7/31/2018

SCALE: 1"=80'

SECTION A-A
N.T.

SECTION B-B
N.T.

SECTION C-C
N.T.

Texas Department of Transportation
FM 1463
FROM LH 10 TO 600 FT NORTH OF WESTRIDGE CREEK LN
DETENTION POND CROSS SECTIONS

PRELIMINARY for permit, bidding or construction.
Document Incomplete: not intended
Appendix C

Field Forms and Photos
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<th>Site #</th>
<th>Site ST#</th>
<th>Field Test #</th>
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<th>Depth (cmbs)</th>
<th>Ps=Pos N=Neg</th>
<th>Munsell Soil Color</th>
<th>Soil Texture</th>
<th>Description (Area, Vegetation, Location, etc.)</th>
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<td>N</td>
<td>brown</td>
<td>sandy clay loam</td>
<td></td>
<td></td>
<td></td>
<td>basal clay, water seepage at 75cmbs</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>65-85</td>
<td>N</td>
<td>pale gray</td>
<td>sandy clay</td>
<td></td>
<td></td>
<td></td>
<td>dredged clay</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>0-45</td>
<td>N</td>
<td>mixed</td>
<td>clay fill</td>
<td>flat between berms</td>
<td></td>
<td></td>
<td>dredged clay</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>0-20</td>
<td>N</td>
<td>mixed</td>
<td>clay fill</td>
<td>terrace of Willow Fork Creek</td>
<td></td>
<td></td>
<td>possibly truncated</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>20-35</td>
<td>N</td>
<td>brown</td>
<td>sandy clay loam</td>
<td></td>
<td></td>
<td></td>
<td>basal clay</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>35-50</td>
<td>N</td>
<td>reddish gray</td>
<td>sandy clay</td>
<td></td>
<td></td>
<td></td>
<td>recent flood deposit</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>0-15</td>
<td>N</td>
<td>tan brown</td>
<td>sand</td>
<td>terrace of Willow Fork Creek</td>
<td></td>
<td></td>
<td>moist, firm, upper portion likely eroded</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>15-20</td>
<td>N</td>
<td>brownish gray</td>
<td>sandy clay loam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site#</td>
<td>Temp</td>
<td>Site ST#</td>
<td>Field Test #</td>
<td>Level Depth (10cm)</td>
<td>P=Pos N=Neg</td>
<td>Munsell Soil Color</td>
<td>Soil Texture</td>
<td>Description (Area, Vegetation, Location, etc.)</td>
<td>Comments</td>
<td>Reason for termination</td>
</tr>
<tr>
<td>-------</td>
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</tr>
<tr>
<td>7</td>
<td>3</td>
<td>20-35</td>
<td>N</td>
<td>reddish gray</td>
<td>sandy clay</td>
<td>terrace of Willow Fork Creek</td>
<td>basal clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>0-10</td>
<td>N</td>
<td>tan brown</td>
<td>sand</td>
<td>terrace of Willow Fork Creek</td>
<td>recent floodsand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>10-35</td>
<td>N</td>
<td>reddish gray</td>
<td>sandy clay</td>
<td></td>
<td>basal clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>0-45</td>
<td>N</td>
<td>grayish brown</td>
<td>sandy clay loam</td>
<td>wooded flat</td>
<td>moist and firm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>45-60</td>
<td>N</td>
<td>pale gray</td>
<td>sandy clay loam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>60-75</td>
<td>N</td>
<td>reddish gray</td>
<td>sandy clay</td>
<td></td>
<td>basal clay</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Frame</td>
<td>Shot</td>
<td>Site</td>
<td>Direction</td>
<td>Photographer</td>
<td>Date</td>
<td>Description</td>
<td></td>
<td></td>
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<td>-----------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>NA</td>
<td>E</td>
<td></td>
<td>Joe Sanchez</td>
<td>2/25/2019</td>
<td>From NW APE, view east along northern fence boundary, flat, wooded</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>NA</td>
<td>N</td>
<td></td>
<td>Joe Sanchez</td>
<td>2/25/2019</td>
<td>Overview of Willow Fork of Buffalo Bayou at the northeast corner of the APE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>NA</td>
<td>NE</td>
<td></td>
<td>Joe Sanchez</td>
<td>2/25/2019</td>
<td>Overview of Willow Fork of Buffalo Bayou at the northeast corner of the APE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>NA</td>
<td>E</td>
<td></td>
<td>Joe Sanchez</td>
<td>2/25/2019</td>
<td>Disturbance due to church-related gravel parking lot (foreground) and access road (background) within APE. Note berms in background.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>NA</td>
<td>NE</td>
<td></td>
<td>Joe Sanchez</td>
<td>2/25/2019</td>
<td>Disturbance in APE from concrete mobile home pads associated with former trailer park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>NA</td>
<td>NE</td>
<td></td>
<td>Joe Sanchez</td>
<td>2/25/2019</td>
<td>Disturbance in APE from previous electric/telephone utilities associated with former mobile home park</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>NA</td>
<td>E</td>
<td></td>
<td>Joe Sanchez</td>
<td>2/25/2019</td>
<td>Disturbance due to septic field pump installations within APE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>NA</td>
<td>NW</td>
<td></td>
<td>Joe Sanchez</td>
<td>2/25/2019</td>
<td>Disturbance due to pond excavation within APE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>NA</td>
<td>N</td>
<td></td>
<td>Joe Sanchez</td>
<td>2/25/2019</td>
<td>Redeposited berms of clay either dredged from the adjacent bayou or spoil from the previous pond excavation within the APE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Project: FM 1463 Detention Pond
Camera: Digital

Photo Log

Blanton & Associates, Inc.
Environmental Consulting • Planning • Project Management
Photo 1. Overview of the APE from northwest corner, facing east.

Photo 2. Overview of Willow Fork of Buffalo Bayou at the northeast corner of the APE, facing north.
Photo 3. Overview of Willow Fork of Buffalo Bayou at the northeast corner of the APE, facing northeast.

Photo 4. Disturbance due to church-related gravel parking lot (foreground) and access road (background) within APE, facing east. Note berms in background.
Photo 5. Disturbance in APE from concrete mobile home pads associated with former trailer park, facing northeast.

Photo 6. Disturbance in APE from previous electric/telephone utilities associated with former mobile home park, facing northeast.
Photo 7. Disturbance due to septic field pump installations within APE, facing east.

Photo 8. Disturbance due to pond excavation within APE, facing northwest.
Photo 9. Redeposited berms of clay either dredged from the adjacent bayou or spoil from the previous pond excavation within the APE, facing north.
I received an email informing of the upcoming survey and began to get ready by requesting maps and a GPS unit from the GIS department. After reviewing the email string sent to me by Andi Burden, I began to make phone calls to the list of landowners provided. I talked with Mr. Shelton Craig, who was very helpful and arranged access to his land for Monday, the 25th. I was unable to talk with Ms. Linda Robinson, so I did leave her a phone message asking for access to her property for Monday and to call me back if she had any issues. Based on the email string, she had previously provided right of entry, yet it had now expired.

After receiving maps sent by the GIS department, it appears that Ms. Robinson's land is on the opposite side of Willow Fork Creek and not an issue.

I called Mr. Craig a second time and he mentioned that he could provide access to the western project area that abuts a church property if I needed to access it - apparently he has a common gate that enters it.
Drives to the study area from the office (company truck) and began the survey. Mr. Craig was correct in that apparently the vast majority of the APE is on his land. The extreme western edge is apparently owned by a Church yet did not need to access it as it is highly disturbed by landscaping and the presence of an old gravel parking lot. According to Mr. Craig when he purchased the property (1989) it had a small trailer park (2-4 trailers) along the above-mentioned western APE. This is confirmed by telephone poles that provided utility hookups for electricity and telephones. This area has also been impacted by a Septic Field (see photos, maps).

A excavated a total of 9 shovel tests (all struck) that revealed mostly disturbed (truncated) sandy clay loams over sandy clays (cultural deposits) that are unlikely to contain buried cultural deposits. The parcel has been heavily disturbed by the construction of a pond within the center of the tract as well as numerous large - clay spoil berms that occupy most of the southeastern and northwestern boundaries. It appears that the berms were positioned to create some topography as well as provide flood control from adjacent Willow Fork Creek.

Shovel tests were positioned in all areas that appeared to be relatively intact. Shovel test #3 was placed on a berm to simply confirm that it was clay fill. A zone of grayish-brown, sandy clay loam (ST was 4, 5, 6, 9, and 10) is the most likely to potential contain buried cultural deposits yet this zone was typically eroded on top by flood waters or truncated by mechanical means. Based on the survey data it is unlikely that buried cultural materials exist within the APE and it is recommended that the project proceed without further archaeological investigations.
Based on the field work (2-25-19) the project area has no surficial historic occupation nor buried prehistoric/historic deposits. Flood debris observed on the NW baseline (50 cm above ground surface) indicates that flowing flood waters encompass the NW portion of the APE and likely extend inland for a substantial distance. Shovel test #5 and 9 were the only excavations to exhibit intact, grayish brown, sandy clay loam deposits at the surface. Based on experience in the region, this strata would be the most likely to contain prehistoric cultural deposits. I believe these shovel test are in areas that have been surficially scoured/eroded by floodwaters which likely removed an unknown portion of the surface deposits. These flood events have also deposited a thin mantle of recent alluvium (STP # 4 & 8) along the narrow terrace of Willow Fork Creek. The terrace was tested by shovel tests 6, 7 and 8. These excavations revealed either recent flood sands (STP # 4 & 8) or clay fill over brown, sandy clay loam over basal clay. The majority of shovel test excavated either reached ancient, intact basal clay or had deep deposits of clay fill and/or water seepage at depth. Shovel test #4 and 9 exhibited the gray-brown, sandy clay loam deposits mentioned above but were truncated and capped by clay fill or were entirely clay fill such as at STP # 3 and 5. The clay fill is a distinctive mix of yellowish brown with pronounced red mottling sandy clay (Beaumont Formation?). The centrally located pond and adjacent artificial clay spoil hills or barns...
Indicate a substantial amount of mechanical earth moving and general surface disturbances. Whether the clay fill hills were deposited with excavated pond material or not the APE has undergone a tremendous amount of surface disturbances as indicated in shovel tests 2, 4, 1, 6 as well as 3, 2 and 5. The most intact area within the APE is around S1P 1, 2, and 9.

Conversation with the landowner (Mr. Shilten Craig) who purchased the property in 1989 indicate that a "small trailer park" of around 4 mobile homes were present along the western project boundary (personal communication on 2-26-19). This is supported by the presence of utility hookups that provided electricity and telephone service (photo # 124-4716), the presence of concrete foundation pads (photo # 4719 and 4718) that are interpreted as mobile home pads. Additionally, markers for a Septic Field (photo #s 4727 and 4728) as well as PVC pipe vents are also present. Bordering this area (GPS ed) is a widespread gravel capped parking area (see map and photos # 4730-4731) that extends towards the western project boundary.

Based on the extensive disturbances present within the APE coupled with the negative subsurface shovel test excavations it is highly unlikely that significant buried cultural deposits exist within the study area. I recommend that the project proceed with no further archaeological investigations.
Appendix D

Project Correspondence
Hi, Andrea. Your permit number for the detention pond survey is 8783.
Tuesday, February 19, 2019

Andrea Burden
Blanton & Associates, Inc.
5 Lakeway Centre Cr., Ste. 200
Austin, TX 78734

Re: Project review under the Antiquities Code of Texas
    Final Report: FM 1463 Detention Pond CSJ: 0188-01-021
    Texas Antiquities Permit # 8783

Dear Colleague:

Thank you for your Antiquities Permit Application for the above referenced project. This letter presents the final copy of the permit from the Executive Director of the Texas Historical Commission (THC), the state agency responsible for administering the Antiquities Code of Texas.

Please keep this copy for your records. The Antiquities Permit investigations requires the production and submittal of one printed copy of the final report, a completed abstract form submitted via our online system, two copies of the tagged PDF final report on CD (one with site location information & one without), and verification that any artifacts recovered and records produced during the investigations are curated at the repository listed in the permit. The abstract form maybe submitted via the THC website (www.thc.state.tx.us) or use url: http://xapps.thc.state.tx.us/Abstract/login.aspx
Additionally, you must send the THC shapefiles showing the boundaries of the project area and the areas actually surveyed via email to archeological_projects@thc.texas.gov.

If you have any questions concerning this permit or if we can be of further assistance, please contact the reviewer, Bill Martin at (512) 463-5867.

Sincerely,

Nick Barrett:
Antiquities Permit Coordinator
(512) 463-1858

Enclosures

Cc: Texas Department of Transportation
State of Texas
TEXAS ANTIQUITIES COMMITTEE
ARCHEOLOGY PERMIT 8783

This permit is issued by the Texas Historical Commission, hereafter referred to as the Commission, represented herein by and through its duly authorized and empowered representatives. The Commission, under authority of the Texas Natural Resources Code, Title 9, Chapter 191, and subject to the conditions hereinafter set forth, grants this permit for:

Intensive Survey

To be performed on a potential or designated landmark or other public land known as:

Title: FM 1463 Detention Pond CSJ: 0188-01-021
County: Fort Bend
Location: Fort Bend County TX

Owned or Controlled by: (hereafter known as the Permittee):

Texas Department of Transportation
125 E. 11th St.
Austin Texas 78701

Sponsored by (hereafter known as the Sponsor):

Texas Department of Transportation
125 E. 11th St.
Austin Texas 78701

The Principal Investigator/Investigation Firm representing the Owner or Sponsor is:

Andrea Burden
Blanton & Associates, Inc.
5 Lakeway Centre Ct., Ste. 200
Austin, TX 78734

This permit is to be in effect for a period of:

5 Years and 0 Months

and Will Expire on:

02/15/2024

During the preservation, analysis, and preparation of a final report or until further notice by the Commission, artifacts, field notes, and other data gathered during the investigation will be kept temporarily at:

No Collection

Upon completion of the final permit report, the same artifacts, field notes, and other data will be placed in a permanent curatorial repository at:

Center for Archaeological Research

Scope of Work under this permit shall consist of:

An intensive pedestrian archaeological survey with shovel testing of high probability areas that meets or exceeds the State Archeological Survey Standards for Texas. This includes, subsurface shovel testing of pedestrian survey transects and mechanical testing in appropriate alluvial areas, see attached scope for more detail.
This permit is granted on the following terms and conditions:

1) This project must be carried out in such a manner that the maximum amount of historic, scientific, archeological, and educational information will be recovered and preserved and must include the scientific, techniques for recovery, recording, preservation and analysis commonly used in archeological investigations. All survey level investigations must follow the state survey standards and the THC survey requirements established with the projects sponsor(s).

2) The Principal Investigator/Investigation Firm, serving for the Owner/Permittee and/or the Project Sponsor, is responsible for insuring that specimens, samples, artifacts, materials and records that are collected as a result of this permit are appropriately cleaned, and cataloged for curation. These tasks will be accomplished at no charge to the Commission, and all specimens, artifacts, materials, samples, and original field notes, maps, drawings, and photographs resulting from the investigations remain the property of the State of Texas, or its political subdivision, and must be curated at a certified repository. Verification of curation by the repository is also required, and duplicate copies of any requested records shall be furnished to the Commission before any permit will be considered complete.

3) The Principal Investigator/Investigation Firm serving for the Owner/Permittee, and/or the Project Sponsor is responsible for the publication of results of the investigations in a thorough technical report containing relevant descriptions, maps, documents, drawings, and photographs. A draft copy of the report must be submitted to the Commission for review and approval. Any changes to the draft report requested by the Commission must be made or addressed in the report, or under separate written request to the Commission. Once a draft has been approved by the Commission, one (1) printed, unbound copy of the final report containing at least one map with the plotted location of any and all sites recorded and two copies of the report in tagged PDF format on an archival quality CD or DVD shall be furnished to the commission. One copy must include the plotted location of any and all sites recorded and the other should not include the site location data. A paper copy and an electronic copy of the completed Abstracts in Texas Contract Archeology Summary Form must also be submitted with the final report to the Commission. (Printed copies of forms are available from the Commission or also online at www.thc.state.tx.us.)

4) If the Owner/Permittee, Project Sponsor or Principal Investigator/Investigation Firm fails to comply with any of the Commission's Rules of Practice and Procedure or with any of the specific terms of this permit, or fails to properly conduct or complete this project within the allotted time, the permit will fall into default status. A notification of Default status shall be sent to the Principal Investigator/Investigation Firm, and the Principal Investigator will not be eligible to be issued any new permits until such time that the conditions of this permit are complete or, if applicable, extended.

5) The Owner/Permittee, Project Sponsor, and Principal Investigator/Investigation Firm, in the conduct of the activities hereby authorized, must comply with all laws, ordinances and regulations of the State of Texas and of its political subdivisions including, but not limited to, the Antiquities Code of Texas; they must conduct the investigation in such a manner as to afford protection to the rights of any and all lessees or easement holders or other persons having an interest in the property and they must return the property to its original condition insofar as possible, to leave it in a state which will not create hazard to life nor contribute to the deterioration of the site or adjacent lands by natural forces.

6) Any duly authorized and empowered representative of the Commission may, at any time, visit the site to inspect the fieldwork as well as the field records, materials, and specimens being recovered.

7) For reasons of site security associated with historical resources, the Project Sponsor (if not the Owner/Permittee), Principal Investigator, Owner, and Investigation Firm shall not issue any press releases, or divulge to the news media, either directly or indirectly, information regarding the specific location of, or other information that might endanger those resources, or their associated artifacts without first consulting with the Commission, and the State agency or political subdivision of the State that owns or controls the land where the resource has been discovered.

8) This permit may not be assigned by the Principal Investigator/Investigation Firm, Owner/Permittee, or Project Sponsor in whole, or in part to any other individual, organization, or corporation not specifically mentioned in this permit without the written consent of the Commission. 

9) Hold Harmless: The Owner/Permittee hereby expressly releases the State and agrees that Owner/Permittee will hold harmless, indemnify, and defend (including reasonable attorney’s fees and cost of litigation) the State, its officers, agents, and employees in their official and/or individual capacities from every liability, loss, or claim for damages to persons or property, direct or indirect of whatsoever nature arising out of, or in any way connected with, any of the activities covered under this permit. The provisions of this paragraph are solely for the benefit of the State and the Texas Historical Commission and are not intended to create or grant any rights, contractual or otherwise, to any other person or entity.

10) Addendum: The Owner/Permittee, Project Sponsor and Principal Investigator/Investigation Firm must abide by any addenda hereto attached.

Upon a finding that it is in the best interest of the State, this permit is issued on 02/15/2019.

Pat Mercado-Allinger,
Archeology Division Director

Mark Wolfe,
Executive Director
GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial)  FM 1463 Detention Pond (CSJ: 0188-01-021)
County (ies)  Fort Bend
USGS Quadrangle Name and Number  Katy (2995-10)
Federal Involvement  Yes  No
Name of Federal Agency  Federal Highway Administration
Agency Representative  TxDOT

II. OWNER (OR CONTROLLING AGENCY)

Owner  TxDOT
Representative  Scott Pletka, TxDOT ENV
Address  125 E. 11th St.
City/State/Zip  Austin, Texas  78701
Telephone (include area code)  512-416-2628  Email Address  scott.pletka@txdot.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  Andrea Stahman Burden
Affiliation  Blanton & Associates Inc
Address  5 Lakeway Centre Court, Suite 200
City/State/Zip  Austin, TX 78734
Telephone (include area code)  512-264-1095  Email Address  andrea.burden@blantonassociates.com

(OVER)
II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork  February 2019
Requested Permit Duration  5 Years  0 Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed Work)  Attached

III. CURATION & REPORT

Temporary Curatorial or Laboratory Facility  Non-Collection Survey
Permanent Curatorial Facility  CAR UTSA (Paperwork only)

IV. LAND OWNER’S CERTIFICATION

I, Scott Pletka, as legal representative of the Land Owner, TxDOT, 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

V. SPONSOR’S CERTIFICATION

I, as legal representative of the Sponsor, 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

VI. INVESTIGATOR’S CERTIFICATION

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

Signature  Date  02/7/2019

Principal Investigator must attach a research design, a copy of the USGS quadrangle showing project boundaries, and any additional pertinent information. Curriculum vita must be on file with the 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
www.thc.state.tx.us
3/3/09
SCOPE OF WORK
INTENSIVE ARCHEOLOGICAL SURVEY OF
THE FM 1463 DETENTION POND
FORT BEND COUNTY, TEXAS
TXDOT HOUSTON DISTRICT
CSJ: 0188-01-21

February 7, 2019

PROJECT DESCRIPTION

The Texas Department of Transportation (TxDOT) is planning construction of a detention pond between the Willow Fork of Buffalo Bayou and Farm-To-Market (FM) Road 1463 in the city of Katy, Fort Bend County, Texas (Figures 1 through 2 in Appendix A). The project would require approximately 6.5 acres of new right-of-way (ROW) for the proposed pond. No temporary or permanent easements or project specific locations have been identified at this time. The proposed detention pond is part of an overall expansion of FM 1463 from Interstate Highway 10 (I-10) to FM 1093.

An archeological background study of the FM 1463 area of potential effects (APE) was conducted for the FM 1463 expansion project. As indicated in the background study, portions of the APE near Willow Fork and Flewellen Creeks and mounds between Rose Lane and Churchill Farms Boulevard were recommended for archeological survey (Burden 2016).

The proposed detention pond project’s horizontal APE for archeological resources equals approximately 6.5 acres in size. The vertical APE for the potential detention pond is a maximum depth of 20 feet. The proposed schematic of the detention pond is included in Appendix B. Currently, there is no assigned Ready-to-Let date for this project, but a letting date and Letter of Authority date are estimated for 2020.

BACKGROUND INFORMATION

A background review of data extracted from area topographic, soils, and geology maps was conducted. Also, previous archeological surveys and locations of recorded archeological sites within 1 kilometer (km) (0.6 mile) of the project APE were reviewed by consulting the Texas Historical Commission’s Online restricted-access Archeological Sites Atlas (Atlas). In addition to identifying recorded archeological sites, the review included the following types of information on the Atlas: National Register of Historic Places (NRHP) properties, State Antiquities Landmarks (SALs), Official Texas Historical Markers, Recorded Texas Historic Landmarks, and cemeteries. A combination of the 1964 USGS 7.5-minute topographical quadrangle map and a 1957 aerial photograph of the APE were consulted for the possible locations of historic sites (Nationwide Environmental Title Research [NETR] 2018). In addition, Houston Potential Archeological Liability Map (PALM) data was supplied by the TxDOT Houston District office and is included in this review. The results of the comprehensive review are presented below.
Topography

The APE is located within the Coastal Prairies physiographic region (Bureau of Economic Geology [BEG] 1996). This region is characterized by nearly flat prairie lands that range in elevation from zero to 300 feet (ft) above mean sea level (BEG 1996). The area surrounding the APE at the proposed detention pond has been subject to residential and commercial development. The APE is an undeveloped riparian landscape characterized by pine-hardwood forest and includes the active channel and floodplain of Willow Fork Creek, a drainage that feeds into Buffalo Bayou, 1.17 km to the southeast.

Based on site distributional data from archeological work within the Coastal Prairies area over the past 50 years, archeological sites within this setting are often found near natural freshwater sources such as streams and lakes, along terraces, near the shorelines of secondary bays or riverine estuarine zones, and well-drained elevated topography, particularly small, natural mounds often called “pimple” mounds (Abbott 2001; Ricklis 2004).

Geology

The Coastal Prairies are part of the larger Gulf Coastal Plains geomorphic province. The geologic structure of deposits within the Gulf Coastal Plains is characterized by nearly flat strata comprised of deltaic sands and muds (BEG 1982). The APE crosses only one geologic unit, the Pleistocene–aged Lissie Formation (QI). The Lissie Formation is comprised of clay, silt, sand, gravel, and caliche characterized by surface expressions of numerous rounded shallow depressions and pimple mounds (BEG 1982). As this unit predates the Late Quaternary, generally accepted as the earliest date for human occupation in North America, it possesses no potential to contain buried archeological material.

Soils

The APE at the proposed detention pond contains soils of the Edna association, which formed in situ from Late Pleistocene deposits (Web Soil Survey 2018). These soils have potential to contain intact buried archeological deposits.

PALM Recommendations

According to the PALM data, the APE is categorized as Unit 2 (surface survey recommended, no deep reconnaissance recommended) (Figure 3 in Appendix A).

Discussion of Previous Work and Sites

A search of the Atlas on February 1, 2019 revealed that no previous investigations have been documented within the APE at the detention pond location. Three previous investigations have occurred within 1 km of the APE at this location (Figure 4 in Appendix A). Although the full references for these projects are not listed on the Atlas, one of the surveys appears to have been conducted for a roadway improvement project (Federal Highway Administration [FHWA] 1995), one appears to be a drainage improvement project (Environmental Protection Agency [EPA] 1985), and one was conducted for a private development (Moore Archeological Consulting 2000) (Atlas 2019). No archeological sites or cemeteries have been recorded...
within the APE. Two archeological sites (41FB129 and 41FB279) and one cemetery (Stockdick Cemetery) have been recorded within 1 km of the APE at the detention pond location. Site 41FB129 was determined not eligible for inclusion in the NRHP in 2000. The NRHP eligibility of site 41FB279 and Stockdick Cemetery is undetermined. No historical markers have been recorded within 1 km of the APE at the detention pond location.

Consultation of the 1964 USGS 7.5-minute topographical quadrangle map and a 1957 aerial photograph of the APE revealed no evidence of possible locations of historic sites (NETR 2018).

**Description of Previous Disturbances**

A portion of the APE, approximately 0.36 acre, has been previously excavated to form a pond.

**RESEARCH DESIGN**

Blanton & Associates proposes to conduct intensive archeological survey of the APE to identify archeological sites. This investigation would consist of systematic inspection of the ground surface by archeologists walking transects spaced at no more than 98-feet (30-meter [m]) intervals supplemented by judgmental shovel testing to search for surficial evidence of archeological sites in areas not previously disturbed. All 30-centimeter (cm) diameter shovel tests will be excavated in arbitrary 10-cm levels to 1 m in depth or culturally sterile sediments, whichever occurs first. All excavated soil will be screened through 0.25-inch (0.63 cm) hardware cloth. Areas inundated by water or displaying signs of disturbance will not be shovel tested.

Survey will be conducted within portions of the APE where right of entry (ROE) has been granted at the time of survey. If ROE is not granted at the time of survey, investigators will attempt to assess the APE from the public ROW and will make recommendations regarding further survey, if necessary. All field investigations will be carried out prior to the proposed construction in order to identify any potential archeological sites within the APE that may be affected by the undertaking. All survey methods will comply with applicable standards outlined and defined in 13 Texas Administrative Code (TAC) 26.15(6) and policies of the THC, as well as guidelines of the Council of Texas Archeologists (CTA), or plausible justification for deviation from these standards will be explicitly provided in the draft survey report.

Field observations will be recorded on appropriate B&A field forms and the locations of each shovel test will be plotted with a hand-held global positioning system (GPS) receiver. The entire survey area will be photo-documented. If cultural materials or indications of an archeological site are discovered, systematic shovel tests within the APE may be excavated surrounding the initial find to delineate the horizontal and vertical extent of the site. The site will be recorded on a State of Texas Archeological Site Data Form, a site sketch map will be drafted, and photos of the site will be taken. This form will be submitted to the Texas Archeological Research Laboratory and a trinomial will be obtained. Each archeological site documented as a result of the survey will be evaluated according to published eligibility criteria for inclusion in the NRHP or designation as an SAL.
Artifacts, if encountered, will not be collected during survey but will be sufficiently described and photographed in the field for further analysis. All survey records, including photographs, will be processed for curation at the Center for Archaeological Research (CAR) at The University of Texas at San Antonio according to CAR’s Standards and Procedures for the Preparation of Archaeological Collections, Records, and Photographs (n.d.).

Although not anticipated within the APE, if human burials (historic or prehistoric) are encountered during the survey, the find will be secured, and B&A will notify local law enforcement if not clearly associated with a cemetery or otherwise marked burial or grave and TxDOT. In addition, the Texas Historical Commission (THC) will be consulted to ensure work continues in accordance with provisions of the Texas Health and Safety Code Title 8 (c), Chapter 711, as amended, and associated regulations (13 TAC 22).

REPORTING REQUIREMENTS

Following fieldwork, a report of findings will be generated in accordance with standards for reports relating to archeological permits (13 TAC 26.16), and guidelines of the CTA for cultural resources management reports, and TxDOT’s Review Standards for Archeological Survey Reports. This report will include discussion of the results of the field investigations, a list of identified sites if any, NRHP/SAL eligibility recommendations for each site, and the criteria under which the sites were evaluated. The report will also include recommendations for further work or no further work with appropriate justifications based on the requirements of 13 TAC 26.15 and defined in 13 TAC 26.10. The report will also include the locations of each shovel test, recorded site locations, and specify land ownership for these areas.

A copy of the draft report will be submitted to TxDOT and THC for review and comment. A shapefile of the project location will also be provided to the THC. Upon concurrence with the draft report, one unbound copy of the final report will be submitted to TxDOT and the THC in partial fulfillment of permit requirements. The unbound copy of the final report will contain at least one map with the plotted location of any and all recorded sites. At least one archival-quality CD or DVD will be provided to TxDOT. The CD or DVD will contain two copies of a tagged PDF format of the report. A copy of the final report will accompany all survey records and photographs to CAR for curation.

REFERENCES CITED

Abbott, James T.

Atlas
Burden, Andrea Stahman

Bureau of Economic Geology (BEG)
1996 Physiographic Map of Texas. Bureau of Economic Geology, University of Texas at Austin.

Center for Archaeological Research (CAR)

Nationwide Environmental Title Research (NETR)

Ricklis, Robert A.

Web Soil Survey
APPENDIX A

Figures
Figure 2
Proposed Detention Pond Location on USGS Topographic Map Base
Fort Bend County, Texas
CSJ: 0188-01-21

Base Map: ESRI - USA Base Map
100k USGS Topographic Quadrangle:
Houston, Texas (USGS Quad ID 20965-E1)
THIS PAGE HAS BEEN REDACTED AS IT CONTAINS CONFIDENTIAL SITE LOCATIONS
APPENDIX B

Schematic
SECTION A-A

N.T. %

SECTION B-B

N.T. %

SECTION C-C

N.T. %
Hi Andi!

I finished reviewing your draft report a few days ago and thought it looked really well done. Well, apparently my dyslexia must be kicking in or something. I had checked all the CSJ numbers on the title page, footers, and exhibits. I could have sworn they were all correct. While writing the submittal letter to SHPO, I noticed the 0 and the 1 are transposed. Instead of 0188-10-021, these are all 0188-01-021. Would it be possible to send a fresh PDF with these CSJ numbers corrected to 0188-10-021, before sending to SHPO. Thanks!

Allen
Allen,

Here is the revised draft per your comments below.

Let me know if I can be of further assistance.

Andrea Stahman Burden
Archeologist
Blanton & Associates, Inc.
5 Lakeway Centre Court, Suite 200
Austin, Texas 78734
Tel 512.264.1095, ext. 188
Fax 512.264.1531
andrea.burden@blantonassociates.com

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From: Allen Bettis Jr <Allen.Bettis@txdot.gov>
Sent: Friday, April 12, 2019 8:43 AM
To: Andrea Burden <andrea.burden@blantonassociates.com>
Subject: Draft Report FM 1463 Detention Pond

Hi Andi!

I finished reviewing your draft report a few days ago and thought it looked really well done. Well, apparently my dyslexia must be kicking in or something. I had checked all the CSJ numbers on the title page, footers, and exhibits. I could have sworn they were all correct. While writing the submittal letter to SHPO, I noticed the 0 and the 1 are transposed. Instead of 0188-10-021, these are all 0188-01-021. Would it be possible to send a fresh PDF with these CSJ numbers corrected to 0188-10-021, before sending to SHPO. Thanks!

Allen
April 24, 2019

Section 106/Antiquities Code of Texas: Archeological Review ( Permit #8783)
Farm-to-Market Road (FM) 1463: Interstate Highway (IH) 10 – FM 359 Road Expansion (Detention Pond)
Houston District; Fort Bend County (0188-10-021)

Ms. Patricia A. Mercado-Allinger
Division Director/State Archeologist
Archeology Division
Texas Historical Commission
PO Box 12276
Austin, TX 78711-2276

Dear Ms. Mercado-Allinger:

The proposed project will be undertaken on Federal funding. In accordance with Section 106 (and the First Amended Programmatic Agreement among the Texas Department of Transportation [TxDOT], the Texas State Historical Preservation Officer [TSHPO], the Federal Highway Administration [FHWA], and the Advisory Council on Historic Preservation) and the Antiquities Code of Texas (and the Memorandum of Understanding between the Texas Historical Commission [THC] and TxDOT), this letter continues consultation for the proposed undertaking.

The following proposed project would improve an on-system facility, FM 1463 between IH 10 and FM 359 (CSJ: 0188-10-021), in Fort Bend County, Texas in TxDOT’s Houston District. The proposed 6.8 mile long road expansion project would expand the existing roadway along FM 1463 from a two-lane to a four-lane, six-lane, and eight-lane, divided urban roadway with curb and gutter, center turn lanes, paved shoulders, and sidewalks. The proposed project would also include storm water drainage in open ditches and replacing the existing bridge at Willow Fork. The construction activities will take place within the existing ROW and proposed new ROW. The existing right-of-way (ROW) is approximately 100 feet in width. The proposed project area encompasses approximately 87.5 acres of existing ROW for this project. New ROW encompasses 27.9 acres. The area of potential effect (APE) is defined as the project length, the existing ROW width, the proposed ROW width (20-60 feet), the total acreage 115.4 acres, and the depth of impact (3 feet usual for the roadway and approximately 50 feet in depth for the bridge replacement).

The proposed project was originally surveyed in December 2016 by archeologists from SWCA Environmental Consultants (SWCA) on behalf of TxDOT. Archival review determined that no recorded archeological properties were located within the APE for the proposed project. The nearest recorded site is 41FB279 and is reported to located approximately 1200 feet east of this FM 1463 on the north side of the Willow Fork of Buffalo Bayou, just outside of the current APE. There nearest archeological survey is the September 2000 intensive survey for Ten Poorman Investments, Inc. of the Willow Fork drainage east of FM 1463. SWCA performed 100 percent pedestrian survey with no sub-surface excavation due to the extensively disturbed condition of the APE. The deposits within the APE were disturbed to varying depths by a variety of developmental activities including transportation, commercial, utilities, and residential development. No archeological materials were encountered during the inventory other than modern debris. SWCA recommended that no further inventory was needed. The draft report was coordinated with your office on
August 2, 2017. Your office concurred with the recommendations made for No Effect and no further work needed on August 3, 2017.

Since that 2017 coordination, a design change has been made to this project. A storm water detention pond of 6.5 acres in size was added to the proposed design. The proposed detention pond would be located between the Willow Fork of Buffalo Bayou and FM 1463 in the City of Katy, south of Interstate Highway 10. Archeologists from Blanton and Associates, Inc., (B&A) under ACT Antiquities Permit #8783, conducted an intensive survey of the proposed detention pond APE on February 25, 2019. The survey of the 6.5 acre APE consisted of pedestrian survey and nine shovel-tests excavated to an average depth of 59 centimeters below the ground surface. The investigation did not encounter any archeological materials or subsurface cultural features and found the APE to be extensively disturbed by previous development. B&A archeologists recommended that no further archeological investigation on the proposed project detention pond APE was warranted. Based on the above information, TxDOT recommends that the archeological inventory is adequate and complete. TxDOT further recommends that since no cultural materials were recorded and the APE was found to be extensively disturbed, the proposed project would have No Effect on archeological sites or materials and should be allowed to proceed to construction. TxDOT further recommends a buffer of 50 feet beyond the current limit of the proposed detention pond within the APE due to the extensive disturbances outside the APE, previous survey, and the potential for any additional future design changes.

Please find attached for your review and comments the B&A draft survey report; Draft Intensive Archeological Survey: FM 1463 Detention Pond, Fort Bend County, Texas, CSJ: 0188-10-021. If you have no objections to the recommendations made or any comments on this report and find it acceptable, please sign below to indicate your concurrence and stamp the draft cover as acceptable.

Thank you for your consideration in this matter. If you have any questions or further need of assistance, please contact Allen Bettis of the TxDOT Archeological Studies Program at (512) 416-2747.

Sincerely,

Allen C. Bettis Jr.
Archeological Studies Program
Environmental Affairs Division

Attachment
cc w/o attachments: Andrea Burden, Blanton & Associates, Inc. - Austin
Michele Wilkins, Houston District Office
ACB PA File

Concurrence by: for Mark S. Wolfe, State Historic Preservation Officer

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.
DRAFT
Intensive Archeological Survey

FM 1463 Detention Pond,
Fort Bend County, Texas
CSJ: 0188-10-021
April 2019

Texas Department of Transportation, Houston District

Prepared by Blanton & Associates, Inc.
Texas Antiquities Permit No. 8783
Principal Investigator: Andrea Stahman Burden, M.A., RPA
Authors: Andrea Stahman Burden and Joseph Sanchez

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.