

APPENDIX F

CULTURAL RESOURCES SURVEY REPORT



**CULTURAL RESOURCE SURVEY
ALONG TRES PALACIOS CREEK
IN EL CAMPO,
WHARTON COUNTY, TEXAS**

By:

Joel B. Butler and Steven Eisenhour

Prepared for:

**Halff Associates, Inc
City of El Campo, Texas
Wharton County, Texas**

Antiquities Permit No. 6217

Technical Report 20

August 2012



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Prepared by

AmaTerra Environmental, Inc.
Austin, Texas



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ABSTRACT

On June 18–21, 2012, AmaTerra Environmental, Inc. (AmaTerra) staff performed a full cultural resources survey under Texas Antiquities Permit 6217 along a 2.75-mile stretch of Tres Palacios Creek in and near the City of El Campo in Wharton County, Texas. The undertaking is jointly funded by the City of El Campo and Wharton County through a Texas Water Development Board Flood Mitigation Assistance Grant overseen by the Federal Emergency Management Agency (FEMA). Because of FEMA involvement, the survey was conducted to comply with Section 106 of the National Historic Preservation Act and because this is a City and County-level public works project, the survey also complied with the Antiquities Code of Texas. All work conformed to 36 CFR Part 800, and 13 TAC 26 which outline the regulations for implementing Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas, respectively.

The area of potential effects (APE) for archeological resources is defined as the limits of construction for the undertaking, or 45 acres. The area of indirect effects for historic-aged structures extends a further fifty feet, for a total of 79 acres.

The archeological APE was found to contain almost entirely disturbed sediments, a result of repeated dredging along the creek channel. A 100 percent surface inspection supplemented by 38 shovel tests, two stream bank profiles, and seven backhoe trenches was performed within the project's direct APE.

No archeological sites were discovered during this survey and seven historical sites were documented within the APE for indirect impacts, one of which (The Wesley United Methodist Church) was found to be eligible for listing on the National Register of Historic Places. None of the historic sites will be directly impacted by the undertaking.

Because the proposed action will not directly impact any of the historic structures, and because the indirect impacts will be beneficial in their preservation, AmaTerra recommends that the proposed undertaking commence with no further cultural resources work.

No artifacts were collected as part of this archeological investigation. All field records created while conducting investigations within the project area will be permanently archived at the Texas Archeological Research Laboratory (Austin, Texas).

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CHAPTER 1

INTRODUCTION

From June 18-21, 2012 AmaTerra Environmental, Inc. (AmaTerra) carried out a cultural resource survey for the evaluation of proposed stream channel improvements to Tres Palacios Creek in El Campo, Wharton County, Texas under Texas Antiquities Permit No. 6217. The limits of construction extend from Loop 525 to County Road 406, totaling 2.75 miles.

The purpose of the survey was to identify whether any cultural resources would be affected by the proposed undertaking, which will involve widening the stream channel from its present width of approximately 15 feet to approximately 60 feet north of US 59 and 100 feet wide to the south. The Area of Potential Effect (APE) for direct impacts varies from 120 to 150 feet across by 14,520 feet in length (encompassing approximately 45 acres, **Figure 1**). The undertaking will avoid direct impacts upon any standing structures. The depth of disturbance will exceed the depth of any potential archeological deposits and will be limited to the bank slopes with minimal anticipated disturbance elsewhere. The APE for indirect impacts extends fifty feet beyond the limits of construction, totaling 79 acres (**Figure 2**). The project area is shown on the USGS 1:24000 El Campo, Texas topographic sheet in **Figure 1** and on a recent aerial photograph in **Figure 2**.

Through the Severe Repetitive Loss (SRL) grant program, the Federal Emergency Management Agency (FEMA) provides grants to states and local governments to implement long-term hazard mitigation measures. The SRL program is authorized by Section 1361A of the National Flood Insurance Program (NFIP) (Title 42, United States Code (U.S.C.) 4102a) with the purpose of reducing flood damages to residential properties that have experienced severe repetitive losses under flood insurance coverage and that will result in the greatest savings to the National Flood Insurance Fund (NFIF).

Tres Palacios Creek has been a source of frequent flooding for the citizens of El Campo for a significant length of time. Historic flood hazards within the City of El Campo have been listed in the Texas Colorado River Floodplain Coalition (TCRFC) All Hazards Mitigation Plan Update, and include floods in 1990, 1991, 1994, 1998, 2002, and 2008; all of which received a Disaster Declaration from the President. Most recently, the City of El Campo experienced extensive flood damages due to the Thanksgiving Day flood of 2004 and approximately five hundred homes in Wharton County were damaged during

the flood. Sources of flood hazards throughout the area include local stream flooding due to inadequate stream capacity, and restrictions in the channels caused by siltation. As a result of frequent flooding and the potential for increased development in the area, local officials applied for a Texas Water Development Board (TWDB) Flood Protection Planning Grant to aid in the creation of new hydrologic and hydraulic modeling of the river basin, as well as flood damage reduction alternative analyses to aid in planning efforts. The proposed flood mitigation project has been identified as an important project to the community that meets the purpose of the SRL grant program.

The Proposed Action Alternative is to widen an approximate 14,520-foot long segment of the Tres Palacios Creek to a 50-year capacity. The 50-year earthen channel would provide significant flood reduction to the local community, with negligible adverse impacts to adjacent properties. A total of 608 structures would be removed from the 100-year floodplain with the proposed action by reducing the 100-year flood elevation by 1 foot.

This alternative consists of increasing the flood storage capacity of Tres Palacios Creek by excavating sediment and grading to 4:1 side slopes. No grading or disturbance will occur within the channel below the ordinary high water mark (OHWM), in order to avoid disturbance to the natural channel. The proposed flood mitigation project will necessitate the acquisition of an easement varying from 120-feet wide to 150-feet wide.

Because of FEMA involvement, local authorities must comply with the National Historic Preservation Act (Section 106) and since this project would take place on municipal land and easements, local governments must also comply with the Antiquities Code of Texas. All work conformed to 36 CFR Part 800 and 13 TAC 26, which outline the regulations for implementing Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas, respectively.

The archeological survey included a pedestrian survey of the entire creek channel along with 38 shovel tests, two detailed stream bank profiles, and seven exploratory backhoe trenches in the accessible portions of the APE. None of the shovel tests, profiles, or trenches contained any evidence of archeological material. Furthermore, the survey provided enough data to determine that buried or surface prehistoric archeological sites are almost certainly not present within the unsurveyed portions of the APE due to past dredging activities along the entire project length. Dredge materials removed from Tres Palacios Creek have been piled on the bank and scraped into berms along the edges of the project APE. Subsequently, any Holocene-aged deposits were scraped and blended in with dredged channel-fill and piled along and outside of the project area. Any historic-

era archeological sites within the project area would have been non-structural and would date to the middle-20th Century.

Of the entire 45-acre direct effects APE, rights-of-entry (ROE) were available to approximately 26.8 acres (65 percent) and existing public easements made up an additional 6.7 acres (15 percent), allowing intensive survey to 33.5 acres (74 percent) of the project area (**Figure 3**). Furthermore, the creek channel was accessible throughout the entire project length, which permitted a pedestrian survey and visual inspection of nearly all of the APE from the stream's banks. This permitted investigators to determine that the APE throughout the project area was consistently and uniformly previously disturbed.

No archeological sites were discovered in the archeological APE (above or below the surface) and seven historic sites containing 12 structures were identified within the historic (indirect) APE. AmaTerra recommends that of the seven historic sites within the indirect APE, only the Wesley Chapel United Methodist Church located at 202 Olive Street is eligible for listing as State Archeological Landmarks or for listing on the National Register of Historic Places (NRHP). No direct effect on this or any other historic properties would occur as a result of the proposed construction.

Archeological fieldwork was conducted under Texas Antiquities Permit No. 6217. Joel Butler functioned as Principal Investigator and Project Archeologist. Emory Worrell acted as a field technician. Roughly 50 person hours were expended in the field.

AmaTerra recommends that no further cultural resource investigations are warranted for the Tres Palacios Creek undertaking to proceed.

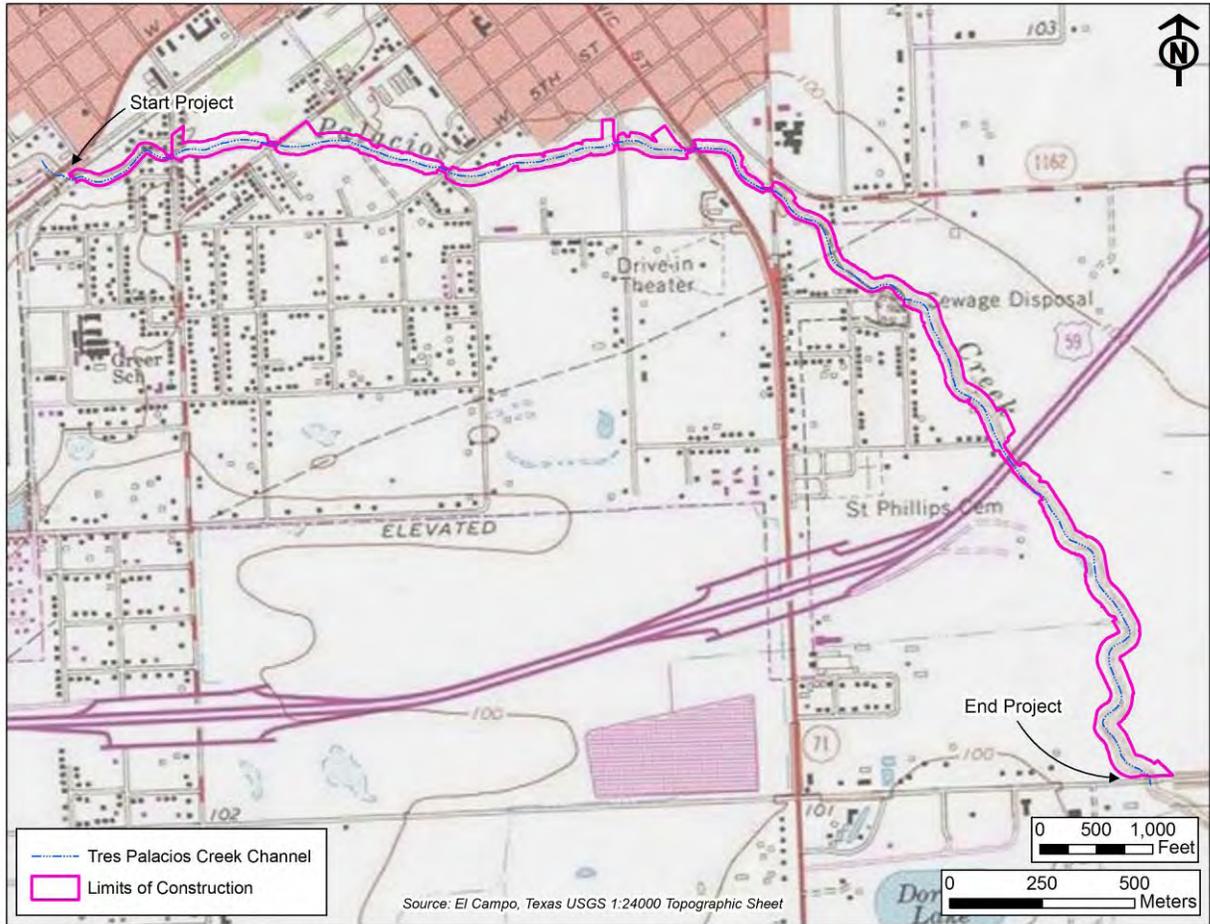


Figure 1. Project area on El Campo, Texas 1:24,000 topographic sheet.:24,000 topographic sheet.



Figure 2. Project Area on aerial photograph.

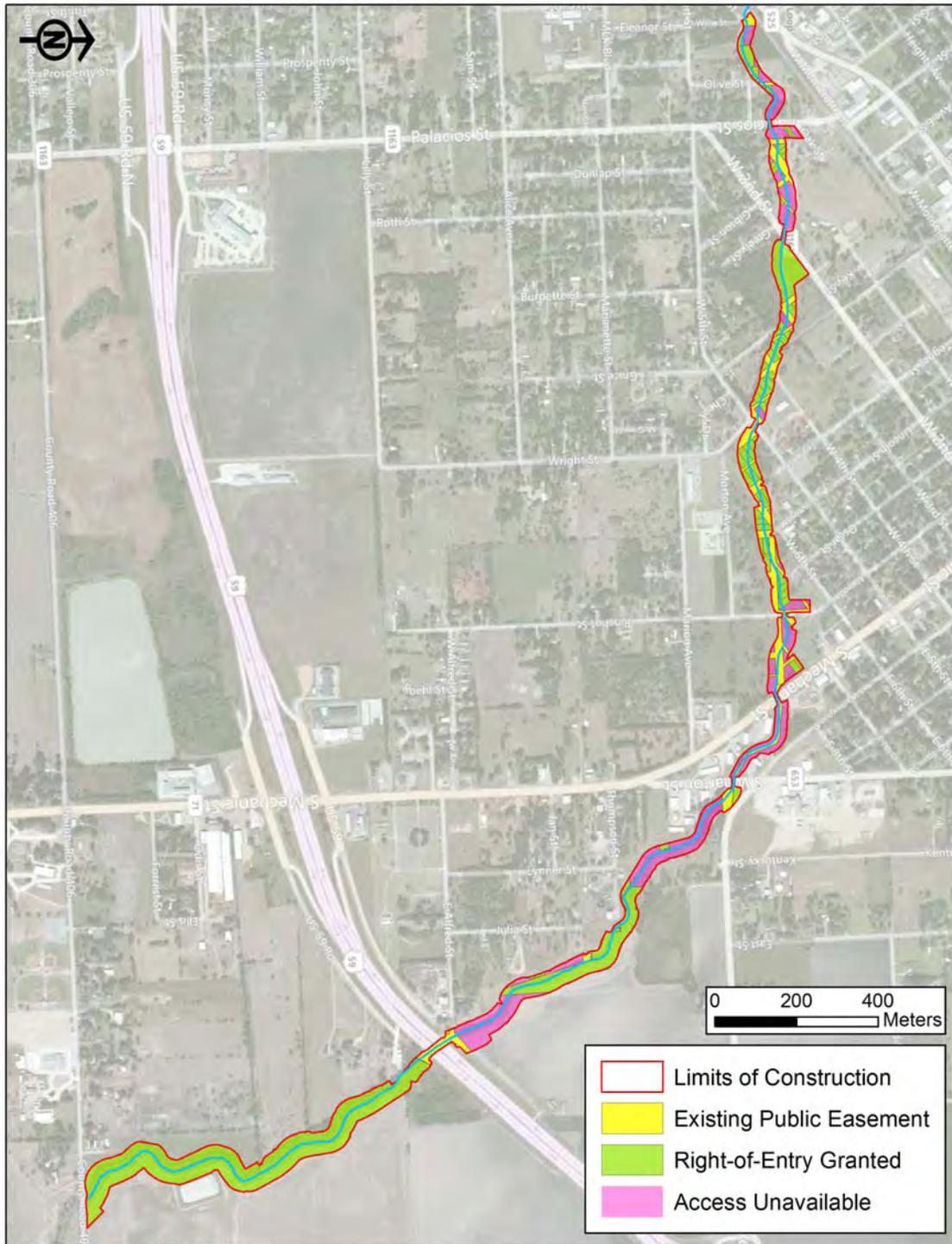


Figure 3. Accessible portions of the project area.

CHAPTER 2

ENVIRONMENTAL SETTING AND CULTURAL BACKGROUND

2.1 GEOGRAPHIC SETTING

The survey area is located on the nearly level Coastal Prairies subregion of the Gulf Coastal Plains physiographic region of Texas approximately 45 miles from the Gulf of Mexico. The project is located in Southeastern Texas in the Gulf Prairies and Marshes Ecological area. Natural vegetation in this part of Texas is primarily influenced by proximity to the sea and the numerous marshes and estuaries that form the Texas coastline (Alvarez 2006).

Surface visibility within the project area was found to average approximately 20 percent. The APE was found to be mostly heavily grassed over with only intermittent exposures of soil, typically on creek bank erosional slopes. Current land-use within the project area includes residential, commercial, and vacant urban properties with increased rangeland and plowed agricultural land east of State Highway 71.

2.2 BIOLOGICAL SETTING

Species of mammal common to the region include: Virginia opossum (*Didelphis virginianus*), raccoon (*Procyon lotor*), nine-banded armadillo (*Dasyus novemcinctus*), bobcat (*Felis rufus*), coyote (*Canis latrans*), white tail deer (*Odocoileus virginianus*), gray fox (*Urocyon cinereoargenteus*), eastern cottontail (*Sylvilagus floridanus*), striped skunk (*Mephitis mephitis*), deer mouse (*Peromyscus maniculatus*), fox squirrel (*Sciurus niger*) (Schmidly 1983). Common reptiles in the area include: cottonmouth water moccasin (*Agkistrodon piscivorous*), water snake (*Nerodia sp.*), green anole (*Anolis cristatellus*), Texas spiny lizard (*Sceloporus olivaceus*), common snapping turtle (*Chelydra serpentina*), spiny softshell turtle (*Trionyx muticus*), and red-eared slider (*Chrysemys scripta*), and American alligator (*Alligator mississippiensis*) (Behler and King 1997). Regional avian diversity includes: northern cardinal (*Cardinalis cardinalis*), northern mockingbird (*Mimus polyglottus*), Bewick's wren (*Thyromanes bewickii*), Carolina chickadee (*Peocile caroliniansis*), red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), great horned owl (*Bubo virginianus*), and eastern screech owl (*Otus asio*) as well as an abundance of shorebirds including great blue heron

(*Ardea herodias*), green heron (*Butorides virescens*), yellow-crowned night heron (*Nyctanassa violacea*), great egret (*Ardea alba*) and non-native cattle egrets (*Bubulcus ibis*) (Dickinson 2002).

Vegetation common to the region include: Live oak (*Quercus virginiana*), hackberry (*Celtis occidentalis*), prickly pear (*Opuntia sp.*), elbow bush (*Foresteria pubescens*), chiltepin (*Capsicum annuum*), and various bluestem grasses (*Andropogon sp.*) (Vines 1997).

2.3 SOILS AND GEOLOGY

An examination of USDA soil maps for Wharton County (McEwen et al 1974) reveals that soils within the APE consists of 27 percent Edna fine sandy loam (EdA) 0–1 percent slopes, 32 percent Bernard clay loam (BcA) 0–1 percent slopes, and 41 percent Bernard-Edna fine sandy loam (BeA) 0–1 percent slopes (NRCS 2012, **Figure 4**).

Edna soils are residual soils largely associated with uplands with parent material of Late Pleistocene age. The typical soil profile of Edna series soils is:

- 0 to 9 inches—fine sandy loam
- 9 to 38 inches—clay
- 38 to 50 inches—clay
- 50 to 65 inches—clay loam

Bernard and Bernard-Edna complex soils have similar pedon, both being associated with meander scrolls of Late Pleistocene parent material. The typical soil profile of Bernard and Bernard-Edna is:

- 0 to 8 inches—clay loam
- 8 to 48 inches—clay
- 48 to 60 inches—clay loam

All three soils characteristically terminate Holocene deposits in mottled compact clays of Late Pleistocene age.

Underlying geology in the project area consists of Beaumont formation Quaternary-aged sandy clays, reflected in the bottom portion of the Edna and Bernard soils, as described above (Barnes 1974).

Considering the projected depth of soils and the shallow occurrence of Beaumont formation deposits within the APE, there is potential for moderately deeply buried archeological deposits.

2.4 CULTURAL HISTORICAL FRAMEWORK

2.4.1 Previous Archeological Investigations

According to the THC Online Atlas, there are no previously recorded archeological sites within one kilometer of the APE. The closest archeological site (41WH63) is located six kilometers south of the project and consists of a single reported projectile point. Two previous archeological surveys have occurred within one kilometer of the APE (**Figure 4**). An area survey of three acres was carried out in 1993 for the Federal Highways Administration at the southern terminus of the project area and a 1994 survey was conducted by the Adjutant General's Office 200 meters southwest of the southern terminus. No sites are associated with these surveys. One cemetery (St Philips Cemetery) is located 250 meters southwest of the US 59 crossing and will not be impacted by the proposed stream widening.

2.4.2 Potential for Cultural Resources

The Atlas review determined that there are no archeological sites within one kilometer of the APE (.61 miles). Soils within the project area are known to possess low geoarcheological potential to contain buried cultural material. An examination of historic maps of the project area indicated the possibility of historic structures within the indirect APE, especially in the older portion of El Campo between FM 525 and South Wharton Street (FM 653). Because the project is located along a stream (a typically elevated probability location for prehistoric sites) and because of the likelihood of historic-aged archeological and historic-aged structural sites within and adjacent to the project area, a cultural resources survey, employing the use of shovel testing as well as backhoe trenching, was recommended to determine if any cultural resources were present along the area of proposed undertaking.

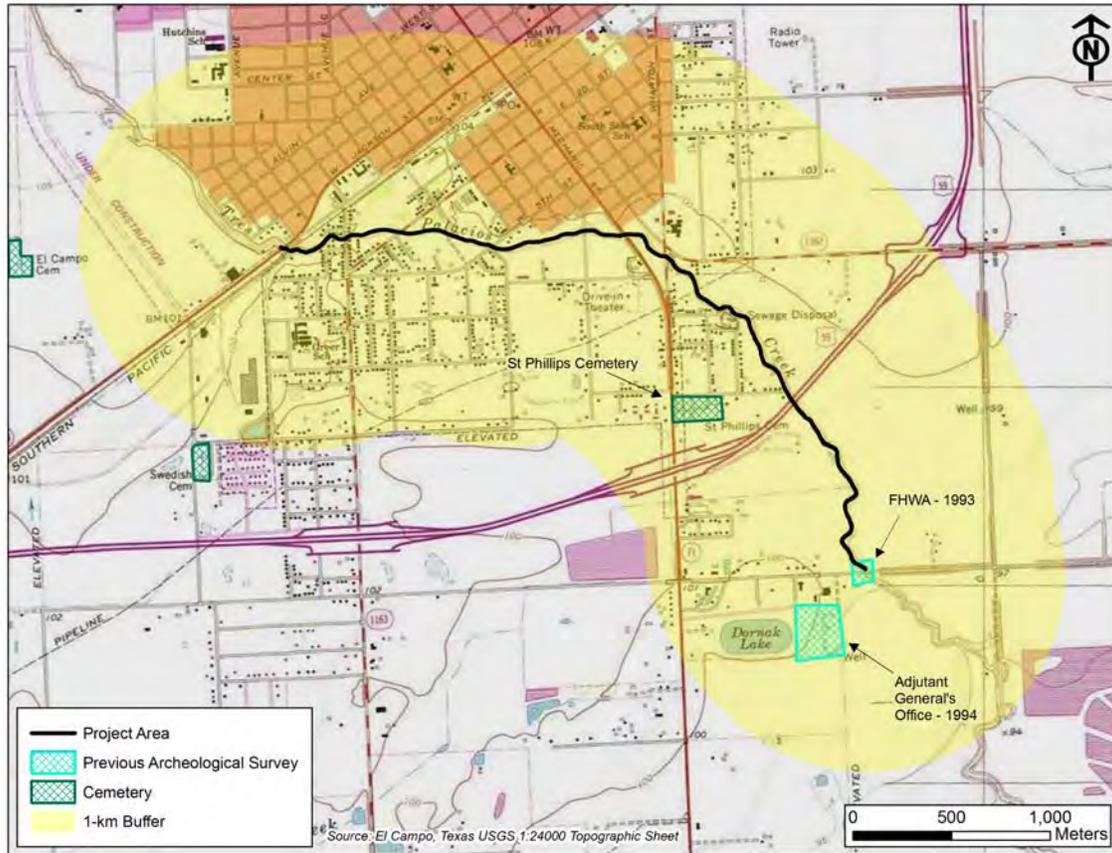


Figure 4. Previous archeological surveys on El Campo, Texas 1:24,000 topographic sheet.

2.4.3 Prehistoric Background

The project area is located in the Gulf Coast Prairies Region of Southeast Texas. This region has been extensively researched, and comprehensive chronological sequences have been established (Turner and Hester 1999). According to research conducted at archeological sites in this region, evidence of human occupation in the region roughly spans 12,000 years before present (BP) (Perttula 2004). These 12,000 years of occupation are typically divided into four main periods, based on technological and cultural changes seen throughout the archaeological record. These four main periods are as follows: the Paleoindian (12,000/11,500–8500/8000 BP); the Archaic (8500/8000–2000/1500 BP); the Late Prehistoric (2000/1500 BP–1650 AD); and the Historic (AD 1650–1950s) (Perttula 2004). The following is a general overview of trends seen during each period, followed by a discussion of what occurred in the Gulf Coast Prairies Region of Southeast Texas.

Paleoindian Period (ca. 11,500–8000 BP)

Generally, there is a lack of data relating to the Paleoindian Period in Southeast Texas and archeological excavation of any Paleoindian site has yet to be undertaken. While many projectile points such as Clovis, Plainview, Folsom, Scottsbluff, and San Patrice have been recovered, most were isolated, mixed, or surface finds, or found in excavations of later contexts (Ricklis 2004). The distribution of artifacts suggests that most sites occur along major streams or within major stream drainages.

Because of the paucity of evidence, no detailed understanding of settlement mobility and subsistence patterns during the Paleoindian period in Southeast Texas exists. What evidence does exist suggests that groups likely engaged in a mix of hunting and gathering, and since many of the lithics recovered are made of materials that are sparse or absent in the region, extensive movement of people and materials over the landscape is also suggested (Ricklis 2004).

Archaic Period—Inland Southeast Texas (ca. 8000–1500 BP)

Many Archaic sites have been found in this region, mostly near major streams, and these are represented by flaked stone dart points and other lithic tools. A general outline of dart point chronology during this period in Southeast Texas is available (Ricklis 2004), yet the lack of any other evidence (i.e. faunal, botanical, etc.), allows for little generalization regarding subsistence strategies other than the suggestion that groups were likely engaged in some form of hunting and gathering. By the Late Archaic period, the use of poor quality and local lithic materials suggest reduced mobility and smaller, more localized territories.

The use of cemeteries in this region, most notably the Ernest Witte cemetery, became increasingly important culturally by the Late Archaic period. These cemeteries could be quite large and often contained grave goods. For example, Group 2 of the Ernest Witte cemetery contained 145 individuals along with lithics, bone pins, and shell beads and pendants.

Archaic sites in the Coastal region of Southeast Texas consist mostly of shell middens. Most are located along the shores of secondary bays or in and around river mouths and deltas (Ricklis 2004). The most complete Archaic sequence of occupation in this region was recovered from the Eagle's Ridge site, a densely stratified shell midden. A large sample of features and artifacts from the earliest part of the period to the latest were recovered at the midden, which comprises mostly of *Rangia cuneata*, but also oyster shells. By the Late Archaic (ca. 3000 BP), the increase in number of sites uncovered has led researchers to suggest significant population growth occurred during this period.

Ceramic Period (ca. 2000 BP–700 AD)

The Ceramic Period in Southeast Texas has been defined as the period during which ceramics first appeared, and thus signals the end of the Archaic period. During the Early Ceramic period, while ceramics were introduced from Louisiana and the Lower Mississippi Valley, there is not much evidence of major changes in lifeways. Ceramic period artifacts recovered overlying Archaic ones near river drainages suggest consistent patterns in subsistence and settlement over time. Story (1990) coined the term Mossy Grove Tradition/Culture to describe groups that occupied areas surrounding Galveston Bay (including the current project area) during the Ceramic Period.

Late Prehistoric Period (ca. 700 AD–1450 AD)

This period is usually defined by the introduction of the bow and arrow. Evidence from the Mitchell Ridge site (41GV66) suggests that the Late Prehistoric in Southeast Texas can be divided into the Initial Late Prehistoric subperiod, represented by Scallorn arrow points, and the Final Late prehistoric period. The Final Late period correlates with the well-documented Toyah phase, as defined by an abundance of bison bone and a lithic assemblage geared towards the processing of the meat and hides of large game (Ricklis 2004).

2.4.4 Historic Background

Texas Republic and Early Statehood (1836-1881)

Throughout the years of the Republic of Texas, Wharton County remained mostly an untamed coastal prairie, punctuated by small farms. Wharton County was formed after Annexation in 1846 and quickly became an agricultural center for sugar farming and ranching. Because agricultural production was predominant in the county (71 percent of the Antebellum population were enslaved blacks) Wharton County voted nearly unanimously for secession from the United States in 1861. Following the post-Civil War economic depression, Wharton County's population tripled and ranching overtook farming as the primary industry in the region, largely due to the arrival of railroads throughout the Coastal Bend (Meinardus and Treybig 2012).

Railroads and Ranches (1882-1900)

El Campo started out as a switching station on the New York Texas & Mexican Railway (NYT&M) in 1882. That same year, the NYT&M completed its route between Rosenberg and Victoria, passing through the prominent cattle ranching lands southwest

of Houston. As Victoria was a major cattle shipping point at the time, local ranchers began using the switching station called Prairie Switch as a range camp and cattle loading station. Aside from temporary structures, the only permanent buildings were the switching station and the cattle chute. By 1890, the majority Mexican cowboys had renamed the camp El Campo (Meinardus and Treybig 2012).

In 1889, a general store opened at Prairie Switch to serve the local cowboys. When a post office opened the following year, it adopted the Mexican name of El Campo. Over the next two years a trickle of settlers appeared, opening a cotton gin, mill, and school house, and establishing a justice of the peace. With more settlers in the last decade came a greater emphasis on crops such as hay, cotton, and rice. A fire in 1896 wiped out much of the business district, but the town quickly rebuilt. By 1900, El Campo had become the second-largest hay shipping center in the country, and was switching over to a crop-based farming economy.

Rice Culture and Community Growth (1901-1958)

After a second fire damaged the town in 1901, El Campo residents turned to brick for building. The community quickly opened a library and bank, and finally incorporated as El Campo in 1905. Electricity and a central water system came in 1907 with the founding of the El Campo Ice and Water Company. City planners platted streets and lots in a grid surrounding the central business district on both sides of the NYT&M (later the Southern Pacific) tracks. The biggest influence on the new town's growth at the time, however, was rice.

Although farmers had been growing some rice in the region since the late nineteenth century, Seito Saibara, a Japanese educator, is commonly credited with starting the Gulf Coast rice culture when he moved to the community of Webster in Harris County in 1903 and began cultivating large rice paddies. The practice quickly spread and rice cultivation expanded rapidly throughout the Gulf Coast region. Wharton County became one of the top rice growing counties. The bulk of the paddies were east of the Colorado River, but El Campo and communities to the south had sizeable paddies as well. By 1904, the town had 70 rice farms supported by over 100 water pumping stations, and the two primary rice mills merged in 1914 into the El Campo Rice Milling Company (ELCO). Although depressed prices heavily impacted the rice industry in the aftermath of World War I and during the Depression, programs of the New Deal helped stabilize the industry in the 1930s (Meinardus and Treybig 2012).

Farm tenancy was a growing concern up through the 1930s and the Great Depression. By 1930, nearly three quarters of the total farms in Wharton County were operated by

tenants rather than land owners. New Deal programs outside of agriculture, however, helped stabilize land and goods prices, allowing the county to focus more on economic recovery. Cotton and rice continued to be popular crops, along with beef cattle ranching. The number of farms declined as acreage increased, indicating a shift to agribusiness and consolidated farming. The local economy received an additional boost during World War II, as German and Italian prisoners of war were employed as farm labor from 1943-1945.

By 1952 the population had increased to over 6,000, but despite the growing agricultural economy many residents lived in poverty. In 1960, the county still supported over 1,000 sharecroppers, and over 28 percent of the population lived below the poverty line. El Campo had a segregated African-American neighborhood on the southwest side of town (on the west end of the project area) with unpaved streets, small houses, and several segregated churches. The neighborhood was later impacted by the shift in the Tres Palacios' course, which eliminated several houses on the north side.

Oil Exploration and Modern Growth (1935-1970)

Although exploratory drilling happened south of El Campo as early as the first decade of the twentieth century, it was not until the 1930s that explorers made real oil discoveries. Petroleum quickly took off as an additional industry in the county, with the Texas Oil Company (Texaco) establishing a branch office in El Campo shortly after. Oil production peaked in the county in 1947 with over eight million barrels, but remained a profitable addition to the local economy along with natural gas and sulfur mining. In 1959, the El Campo Economic Development Corporation was formed as a non-profit group to encourage manufacturing and industrial growth in the community. Although initial success was limited, the corporation eventually (post-1970) succeeded in attracting a number of light industries to the area, including aluminum extrusion, children's clothing, and foam manufacturing. By 1970, the town had just shy of 10,000 residents (Meinardus and Treybig 2012).

CHAPTER 3

METHODS

The majority of the project area was not previously surveyed. Based on geographic setting and a review of historical maps, there was potential for historic and prehistoric archeological sites to be present within the project area. These would be on the surface or potentially buried with some potential for intact subsurface deposits.

The survey took place within public and private properties. AmaTerra personnel performed an intensive survey, as outlined in 13 TAC 26.20 (2) and defined in 13 TAC 26.5.

3.1 ARCHEOLOGICAL SURVEY METHODS

The APE of the undertaking was visually assessed and where possible and/or necessary shovel testing was conducted in accordance with the Texas Historical Commission's (THC) Archeological Survey Standards for Texas guidelines for linear surveys. Shovel testing was conducted at a rate of 16 tests per mile per 100 feet of width wherever there was potential for archeological material. With an overall average width of 135 feet throughout the 2.75-mile APE, a total of 88 shovel tests would have been performed if the APE had contained undisturbed deposits and had full rights of entry. However, pedestrian survey and shovel testing revealed that nearly the entire APE had been disturbed by previous channeling and dredging operations.

AmaTerra excavated 38 shovel tests along Tres Palacios Creek between Loop 525 and County Road 406. Shovel tests were excavated 30 centimeters (cm) wide in 20-cm levels to 80 cm beneath the surface (cmbs), precultural soils, or smectic clay. Excavated soil was screened through ¼-inch hardware cloth. Shovel tests ranged from 10 to 80 cm in depth and averaged 40 cm. Test locations were recorded with handheld GPS units and documented on standardized forms denoting soil composition and Munsell color notation, cultural materials found (if any), and any other distinguishing features helpful in characterizing soil type and pedogenesis within the project area.

During pedestrian survey, two stream bank profiles were carried out in locations where the stream bank was cut away and stratigraphy could be documented to assist in evaluating the likelihood of buried cultural deposits within portions of the project area inaccessible by a tractor. Soil was scraped revealing a vertical profile as far below the modern surface as could be done using a shovel.

Following pedestrian survey and shovel testing, seven backhoe trenches were excavated at selected locations to assess the potential for deeply buried deposits. Trenches were three meters in length and were excavated to depths of 1.5 to 2 meters. Random samples of excavated soil were screened through ¼-inch hardware cloth throughout all depths of the trenches. Detailed notes were kept describing soil changes and wall profiles were drawn; no cultural deposits were encountered in the trenches.

3.2 HISTORICAL SURVEY METHODS

The purpose of the survey was to identify buildings, structures, objects, and districts that are eligible for listing in the National Register of Historic Places (NRHP) and that would be directly impacted by improvements on Palacios Creek. This study is for planning purposes only and is not sufficient for regulatory coordination under Section 106. For the purposes of this study, the Area of Potential Effect (APE) was set to the proposed project limits plus 50’.

The fifty year cut-off date for historic age properties was set at 1962 in order for this study to be valid through 2012.

Field Investigations

On June 18-21, 2012, AmaTerra staff surveyed the project’s APE. The field survey consisted of:

- Identifying and photographing all pre-1963 buildings, structures, and objects located within the project’s APE;
- Keying all identified resources to a survey field map taken from recent aerial photographs; and
- Noting major relevant architectural or engineering features for each identified resource.

National Register of Historic Places Evaluation Criteria

In order to be considered for listing in the NRHP, buildings, structures, objects, sites, and districts must meet standards of historic significance defined by the Keeper of the National Register (36 CFR 60). Each property must be evaluated within the framework of its historic context and it must retain characteristics that make it a good representative of properties associated with that aspect of the past. The NRHP Criteria for Evaluation state that:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess

integrity of location, setting, design, materials, workmanship, feeling, and association, and:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Are associated with the lives of persons significant in our past; or
- C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded or may be likely to yield information important in prehistory or history (Department of Interior 1997).

Research Methods

Prior to the field visit, AmaTerra Environmental cultural resources specialists reviewed existing files held by the Texas Historical Commission (THC) to ascertain the location and proximity of recorded sites listed on the National Register of Historic Places (NRHP), Recorded Texas Historic Landmarks (RTHLs), and Official State Historical Markers (OTHMs) within or near the proposed APE for the Tres Palacios project.

Maps from the U. S. Geological Survey (USGS), relevant aerial photography, historical maps, land use maps, and project area photos were also examined in order to assess the potential for unrecorded, historic-age cultural resources to be present in the APE. Historic age is assumed to be 1962 (2012, minus 50 years). The map sources used include aerial photography from 1953-1979, the 1965 “El Campo” USGS 7.5 minute quadrangle (topographic) map (**Figure 5**), 1931 Sanborn Maps, Google Earth, and Bing Maps. Appendix A contains aerial views of the current land use conditions. Data from the Wharton County Appraisal District (BCAD) was used to determine the dates of improvement for the potential historic sites within the APE.

PREVIOUSLY IDENTIFIED RESOURCES

National Register of Historic Places

There are no properties listed in or under nomination to the NRHP within the project’s APE.

State Archeological Landmarks

There are no SAL within the project’s APE.

Recorded Texas Historic Landmarks

There are no properties listed as RTHL within the project’s APE.

Official Texas Historical Markers)/Local Historical Markers

There are no Official Texas Historical Markers (OTHM) or local historical markers within the project's APE.

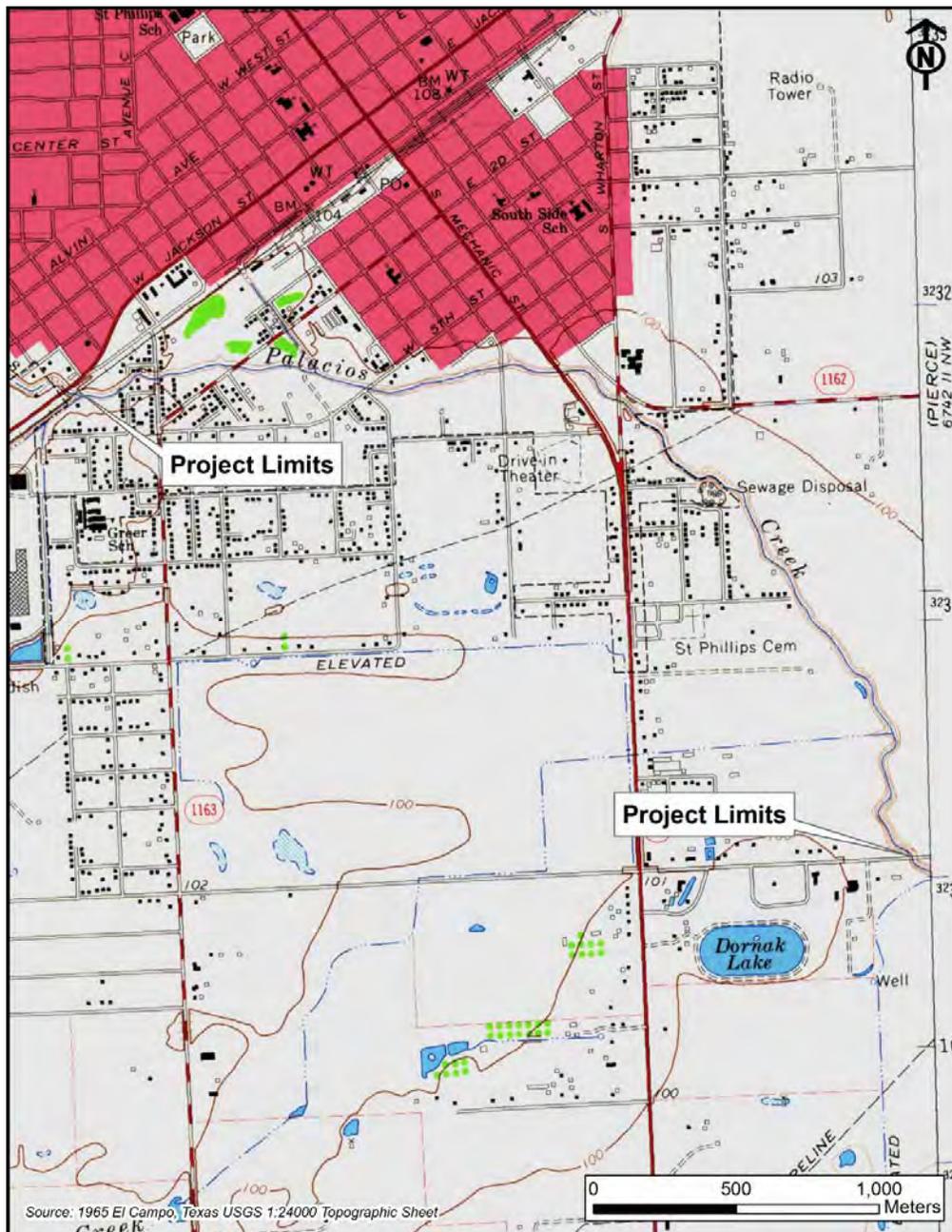


Figure 5. 1965 “El Campo” USGS 7.5 Minute Quadrangle showing the project area.

CHAPTER 4

SURVEY RESULTS

In June 2012, AmaTerra staff performed an historical structure survey as well as an intensive archeological survey in compliance with Section 106 and the Antiquities Code of Texas. Although no archeological sites were discovered during this survey, seven standing historic sites were documented within the APE, one of which (the Wesley United Methodist Church) was found to be eligible for listing on the NRHP.

4.1 ARCHEOLOGICAL SURVEY RESULTS

4.1.1 Survey Area Conditions

The character of the project area was found to vary from residential neighborhood (**Figure 6**) to brushy floodplain (**Figure 7**) to open rangeland (**Figure 8**). As can be seen in historic aerial photographs, the entire APE had been previously disturbed in some measure by previous dredging-related projects dating back as far as the 1950s. **Figure 9** depicts a freshly dredged portion of the project area in 1964.



Figure 6. Tres Palacios Creek Channel east of Palacios Street, facing west.



Figure 7. Tres Palacios Creek Channel south of US 59, facing south.



Figure 8. Tres Palacios Creek Channel north of County Road 406, facing south.



Figure 9. 1964 aerial photograph of freshly dredged segment of Tres Palacios Creek Channel north of County Road 406.

4.1.2 Findings

Archeologists placed 38 shovel tests, seven backhoe trenches, and carried out two bank profiles in the APE for the Tres Palacios Creek project (**Figures 10** and **11**). Shovel tests were carried out in all areas where public access was available or where ROE were granted, constituting approximately 74 percent of the project area, though nearly 100 percent of the project area was visible from the stream channel, which received a complete pedestrian inspection.

Shovel tests varied from 10 to 60 cmbs, averaging 30 cmbs. Shovel tests encountered consistent mottled clay with varying amounts of sand throughout the project area with very little variation. Trash debris was found to depths over 30 cmbs at several locations, indicating that shovel tests were within a disturbed zone, mostly likely piled dredge spoils. Nearly all of the shovel test locations were determined to be disturbed, truncated by grade-scraping, or capped by dredge spoils. Visual inspection of the creek channel

and its surroundings throughout the project area demonstrates that this is the case in areas where ROE was unavailable as well.



Figure 10. Map one of two, plotting shovel tests, bank profiles, and backhoe trenches carried out within the project area.

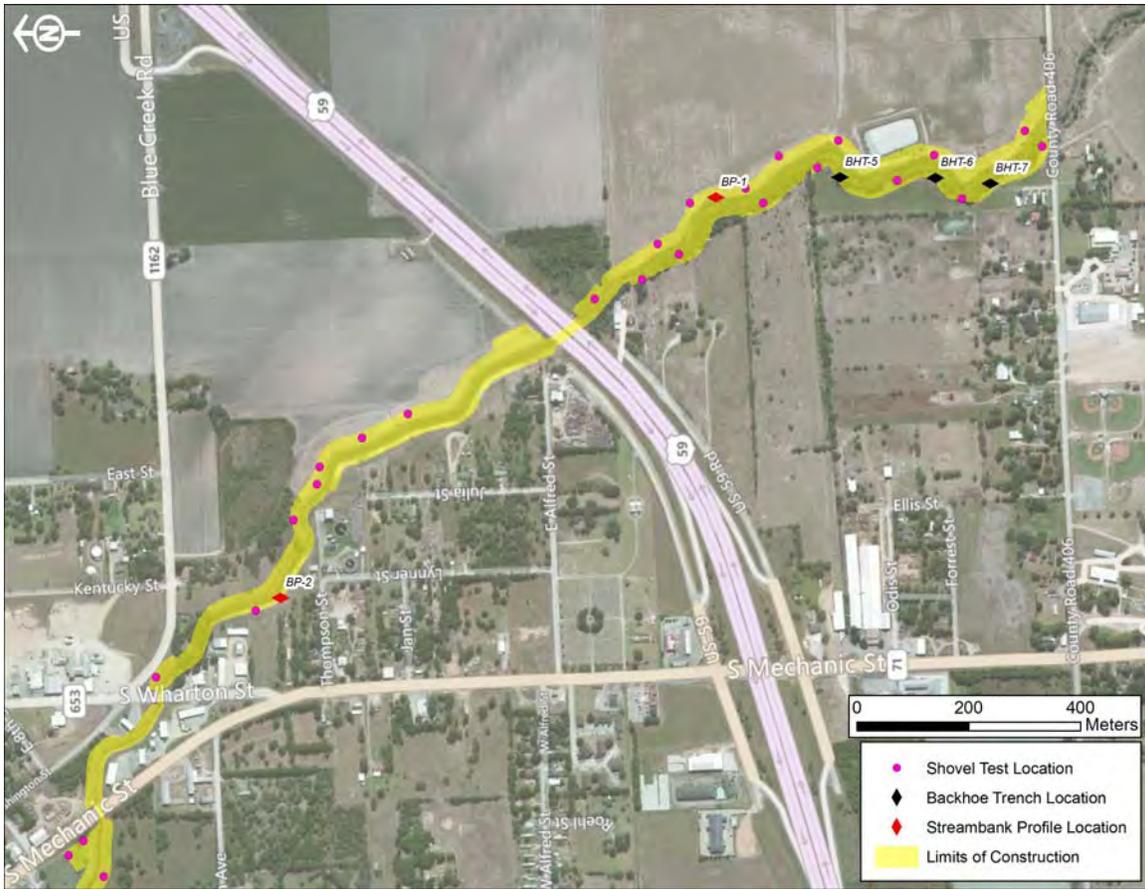


Figure 11. Map two of two, plotting shovel tests, bank profiles, and backhoe trenches carried out within the project area.

At two locations along Tres Palacios Creek, where exposed bank deposits seemed to contain *in situ* sediments, bank profiles were drawn to aid in interpreting the local geology. At a steep point of exposed bank, a shovel was used to create as near a vertical cut as possible for as deep as possible. In both profiles, depths attained were around 1.5 meters below the surface. Both profiles, though over one kilometer apart, were nearly identical, with sandy overfill underlain by mottled sandy clays and basal gray clays (**Figure 12**). Some manganese and calcium carbonate nodules less than 1 centimeter in diameter were noted in the lower extent of these profiles. No transported pebbles were noted in either profile.



Figure 12. Stream bank profile dug south of US 59 on the left bank of Tres Palacios Creek, facing south.

Following shovel testing and visual inspection of the APE, backhoe trenches were excavated at seven locations along Tres Palacios Creek. Trenches were excavated using a mini-backhoe supplied courtesy of the City of El Campo Public Works Department. Trenches were excavated to depths of 1.5 to 2 meters in depth and were photographed, profiled, and backfilled at the time of excavation (**Figure 13**). These trenches, like the bank profiles, demonstrated continuity from the start to end of the project area. All seven units had a capping layer of disturbed topsoil overlaying mottled sandy clays to depths of around 1.5 meters, beneath which a gray clay extended. The basal clay contained manganese nodules and calcium carbonate nodules generally less than one cm in diameter. Backhoe Trench 5 is presented in **Figure 14** as a typical trench profile.



Figure 13. Backhoe Trench 6 south wall profile, facing south.

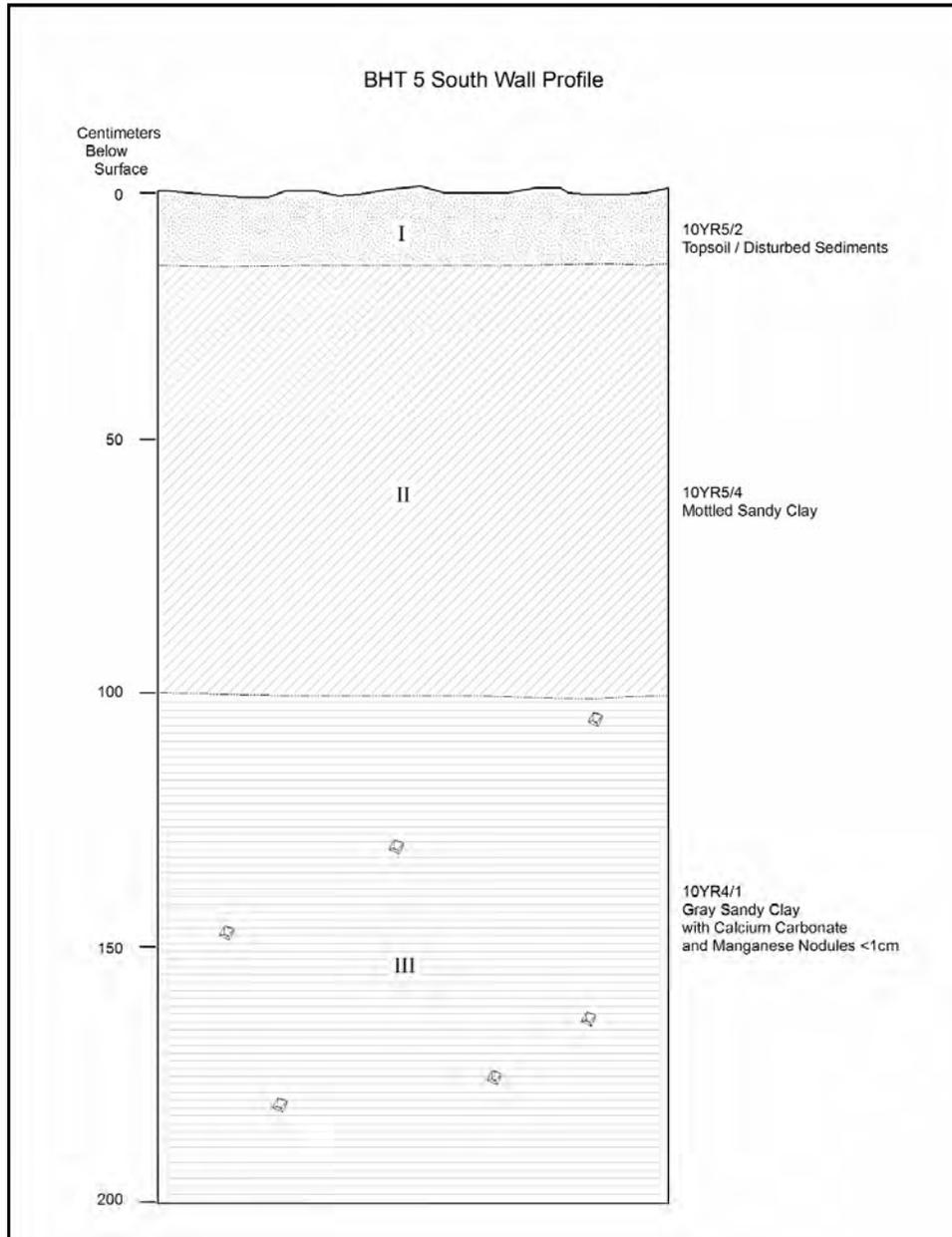


Figure 14. Backhoe Trench 5 south wall profile.

Based on the visual assessment, shovel testing, and trench and bank profiling, a typical stream channel and APE profile was formed (**Figure 15**). This profile demonstrates the extent of alteration that has occurred within the stream bank and surrounding area as a result of previous dredging. Spoils have been removed from the bottom of Tres Palacios' creek channel, piled on the banks, then moved further from the creek by scraping a flat platform immediately outside the channel walls. During the scraping process, most of the

Holocene deposits have been removed and/or blended into the dredged material and older strata. While surface deposits of Holocene sediment remain in places throughout the project area, it is so disturbed and thin that the potential for intact prehistoric deposits is remote.

Inspection of the project area also resulted in no Historic-aged archeological sites. Standing structures were documented by the historical survey.

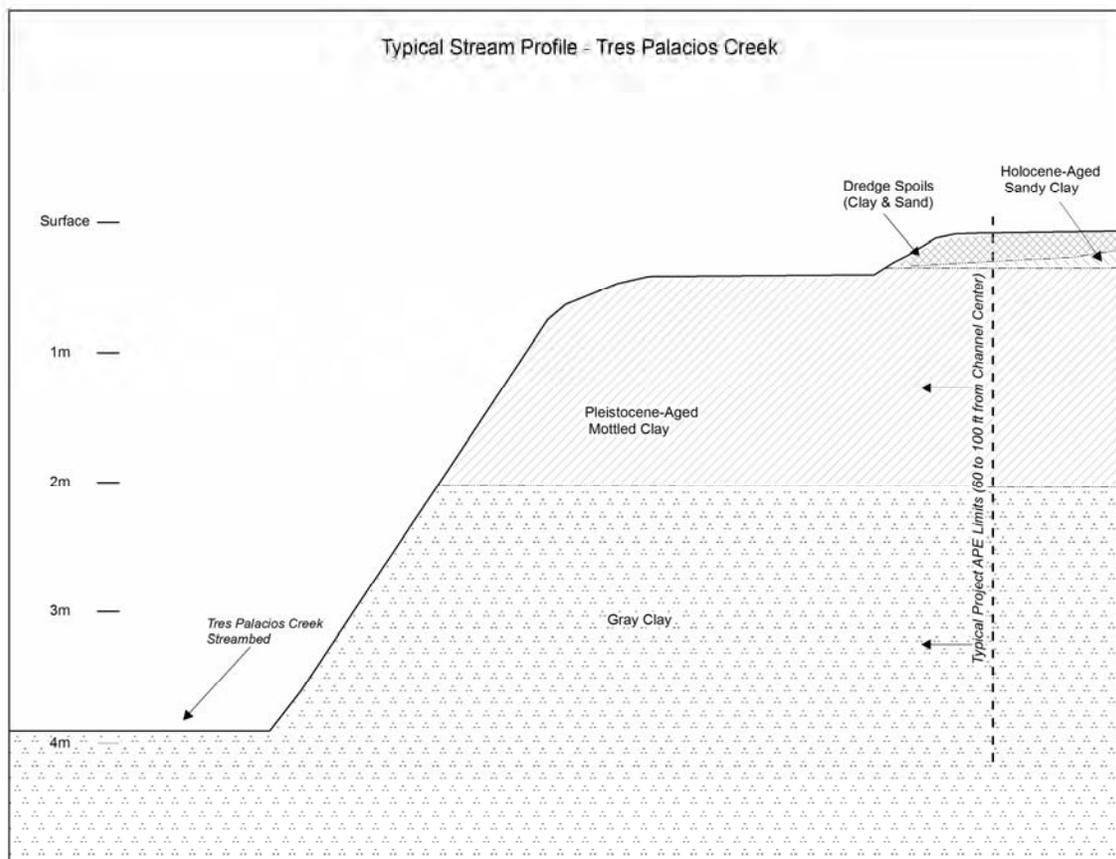


Figure 15. Typical Stream Profile of Tres Palacios Creek indicating extent of previous disturbances.

4.2 HISTORICAL SURVEY RESULTS

A review of historic maps and aerial photographs indicates that there were structures present near Palacios Creek as of 1931. Most of the historic-age domestic structures encountered during the field survey appear to have been constructed from 1930 to 1965. All of the structures are vernacular in style and commonly found examples. An infill of

later Ranch style homes, and the wide range of construction dates, makes for a lack in cohesiveness (in terms of design or feel).

A total of seven historic sites were identified within the indirect APE during the historic field survey. The following table identifies each resource: Please see **Appendix A** for a map detailing their location and **Appendix B** for individual photos of the sites.

SITE ID #	ADDRESS	FUNCTION/USE	STYLE/Form	DATE	COMMENTS	NRHP ELIGIBLE
1	No Address – Railroad tracks at Palacios Creek, El Campo, TX	TRANSPORTATION/ bridge	Utilitarian/ Concrete deck with timber piers.	c. 1960	None	No
2A	202 Olive St., El Campo, TX	RELIGIOUS/ church	Center steeple vernacular/ front gabled roof with steeple	c. 1930	Replacement support posts on front entry.	Yes, C
2B		Single dwelling	Minimal traditional/ front gabled roof	c. 1940	None	
3A	200 Palacios St., El Campo, TX	DOMESTIC/ single dwelling	Ranch/ hipped roof	1963 (Wharton Appraisal District)	None	No
3B		Shed	Utilitarian/ side gabled roof	c. 1963	None	
4	No address – Vasa St., El Campo, TX	AGRICULTURE/ pump house	Utilitarian/ side gabled roof	c. 1960	Replacement siding, front door.	No
5A	505 W. 5 th St., El Campo, TX	DOMESTIC/ single dwelling	Minimal traditional/ front gabled roof	1955 (Wharton Appraisal District)	None	No

5B		Shed	Utilitarian/ front gabled roof	c. 1955	None	
6	SH 71/Mechanic St. at Palacios Creek, El Campo, TX	TRANSPORTATION/ bridge	Utilitarian/ simple span deck, concrete flat slab	1930 (reconstructed 1964)	None	No
7A	No Address – Blue Creek Rd, El Campo, TX	DOMESTIC/ single dwelling	Minimal traditional/ front gabled roof	c. 1940	None	No
7B		Workshop	Utilitarian/ front gabled roof	c. 1940	None	

Two historic-aged bridges were encountered during the survey: A railroad bridge, crossing Palacios Creek, at the northern end of the project area (Site ID 1); and the SH-71/Mechanic Street bridge, at Palacios Creek, near the midway point of the project (Site ID 6). Neither bridge has known significance with historic events, trends, or persons of import under Criteria A or B, nor is either bridge significant under Criterion C for architecture or engineering.

Four domestic structures, all single-dwelling houses, were found in the project APE. Three of these structures are minimal traditional in style. This style was a transitional architectural style often found in the Texas, and constructed between 1935 and 1955. Minimal traditional buildings typically have little adornment, gabled roofs with narrow or no overhang, inset or small porches, and a compact footprint. A Ranch-style home (Site ID 3) was the other structure encountered. It has a low-pitched, hipped roof and an irregular massed plan. The Ranch style is a common post-1950 architectural style and is found throughout Texas. None of the houses have known association with important historic events, trends, or persons of import under Criteria A and B. They are of common architectural styles with minimal adornment or distinguishing characteristics setting them apart from other local examples, and have no significance for their architecture under Criterion C.

A pump house was encountered off Vasa St., near the northern end of the project area (Site ID 4). An aerial photo from 1964 (**Figure 16**) reveals that the original structure was likely moved, demolished, or heavily modified. It has no historic significance under Criteria A, B, or C.



Figure 16. Pump house location on 1964 aerial photograph.

Wesley Chapel United Methodist Church (**Figure 17**), located at 202 Olive Street, is considered as eligible for listing as on the National Register of Historic Places (NRHP) under Criterion C at the local level, in the area of Architecture. The church appears on the 1931 Sanborn map and was likely constructed around this same period. The structure appears to be largely original, suffering little in the way of modifications, and is a good example of an African-American center steeple, wood-frame church.

Historic District/Rural Historic Landscape Eligibility Determinations

A district is a definable geographic area that contains buildings, structures, objects, and open spaces that are linked historically or stylistically by plan or physical development. A district must be distinguishable from surrounding properties by changes such as density, scale, type, age, style of sites, buildings, structures, and objects, or by documented differences in patterns of historic development or associations. The majority of the components that add to the district's historic character, even if they are individually undistinguished, must possess integrity, as must the district as a whole. The relationships

among the district's components must be substantially unchanged since the period of significance (US Department of Interior 1997).



Figure 17. Wesley United Methodist Church, 202 Olive Street.

Although the project area may be classified as semi-rural, little distinguishes it from El Campo proper. The built environment is a mix of historic-age single-family homes, industrial/commercial properties, undeveloped land, and modern infill. The project area—as a whole—has few of the defining characteristics of a rural historic district, and what historic-age architecture exists is unremarkable both individually and as a collective whole. Some properties near the southern terminus have agricultural buildings associated with them, where agricultural activity is still present. However, it also appears that many of the agricultural structures previously in the area (**Figure 18**) are now no longer present (**Figure 19**). This could be due to factors such as the construction of US-59 or changes in industry/farming practices. Additionally, the large agricultural plots with one residential complex present appear to have suffered from sub-dividing and more modern residential infill. There are also commercial and/or industrial properties, constructed within the past twenty years, now located within the area (**Figure 20**). These factors impact integrity of

setting, design, feeling, land use, and spatial organization. No evidence suggests the area has any association with persons of historic importance, and the historic-age built environment lacks architectural significance as a district. As such, the survey identified no eligible historic districts or rural historic landscapes in the project APE.



Figure 18. 1964 historic aerial of El Campo, near southern terminus of project area.



Figure 19. 2012 aerial of El Campo, near southern terminus of project area, showing changes to area brought about by increased residential/commercial development and the construction of US-59.



Figure 20. 2012 aerial of El Campo, east of the of project area, showing a large number of commercial/industrial properties in the historically agricultural area.

CHAPTER 5

SUMMARY AND RECOMMENDATIONS

On June 18–21, 2012, AmaTerra staff performed an historical structure survey as well as an intensive archeological survey of the direct and indirect APE for proposed improvements to Tres Palacios Creek in El Campo, Texas. Work complied with Section 106 of the National Historic Preservation Act as well as the TAC and conformed to 36 CFR Part 800, and 13 TAC 26 which outline the regulations for implementing Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas, respectively. Archeological work was carried out under Texas Antiquities Permit 6217.

No archeological sites were discovered during this survey. The APE for direct effects (45 acres) was found to contain almost entirely disturbed sediments, a result of repeated dredging along the creek channel. A 100% surface inspection supplemented by 38 shovel tests, two stream bank profiles, and seven backhoe trenches was performed within the project's 100-foot wide APE.

Seven historical properties containing 12 structures were documented within the indirect APE, one of which (the Wesley United Methodist Church), is recommended to be eligible for listing on the NRHP. However, none of these properties would be directly impacted by the proposed undertaking.

Because the proposed action will not directly impact any of the historic structures, and because the indirect impacts will be beneficial in their preservation, AmaTerra Environmental, Inc. recommends that the proposed improvements proceed to completion. No further cultural resource work is warranted.

No artifacts were collected as part of this archeological investigation. All field records created while conducting investigations within the project area will be permanently archived at the Texas Archeological Research Laboratory (Austin, Texas).

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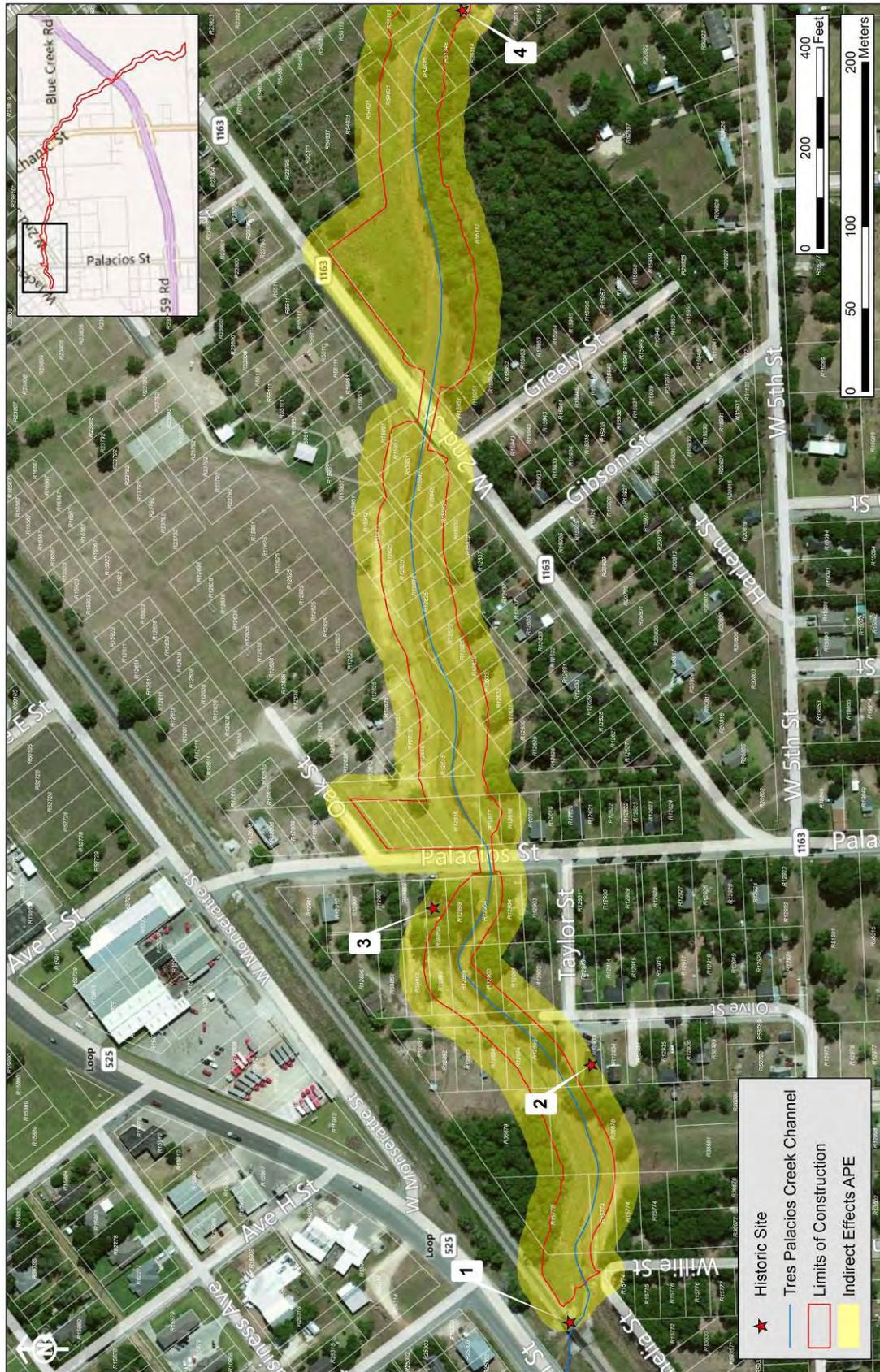
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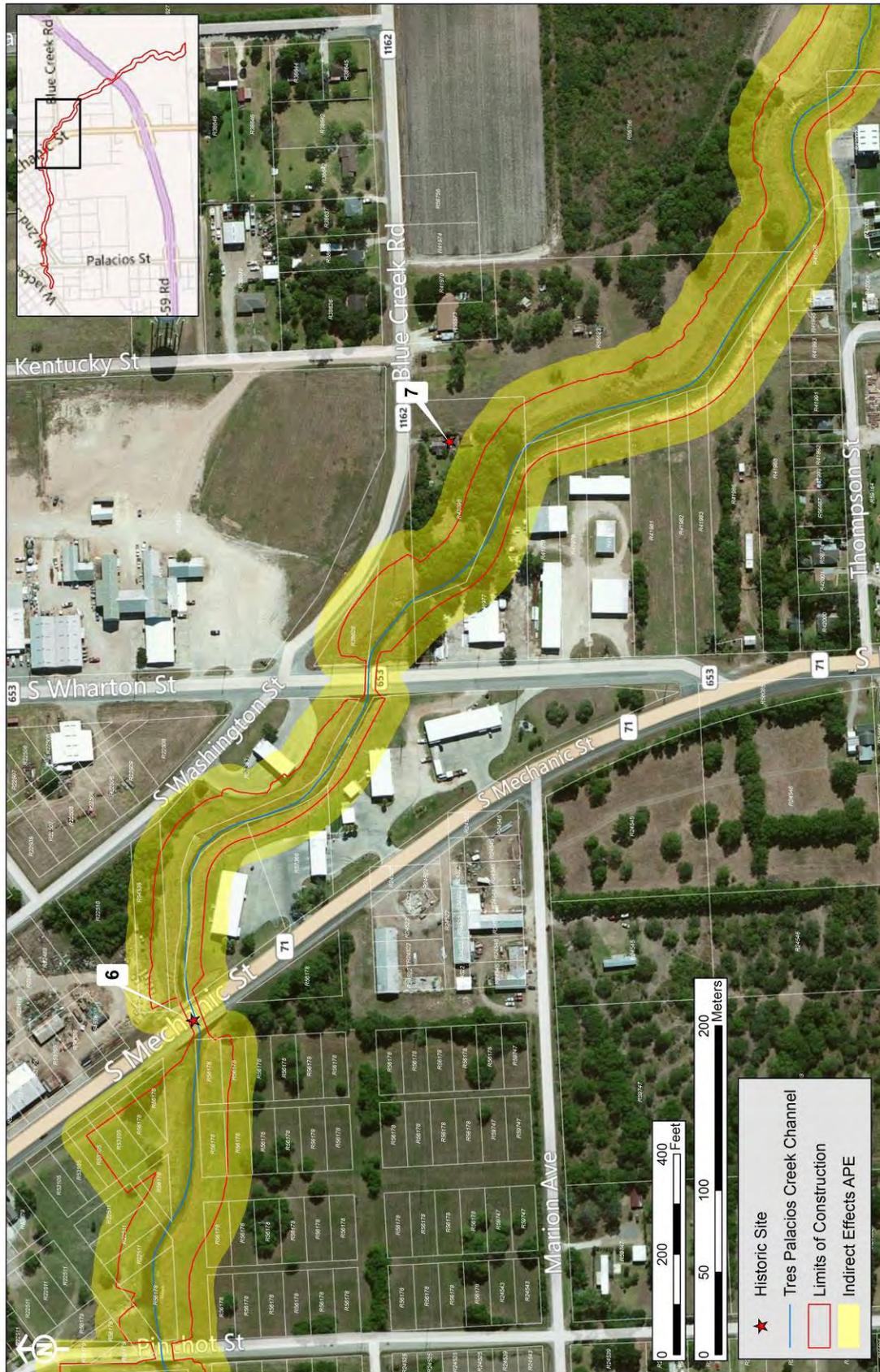
APPENDIX A
HISTORIC RESOURCES MAPS

Cultural Resource Survey along Tres Palacios Creek, El Campo, Wharton County, Texas

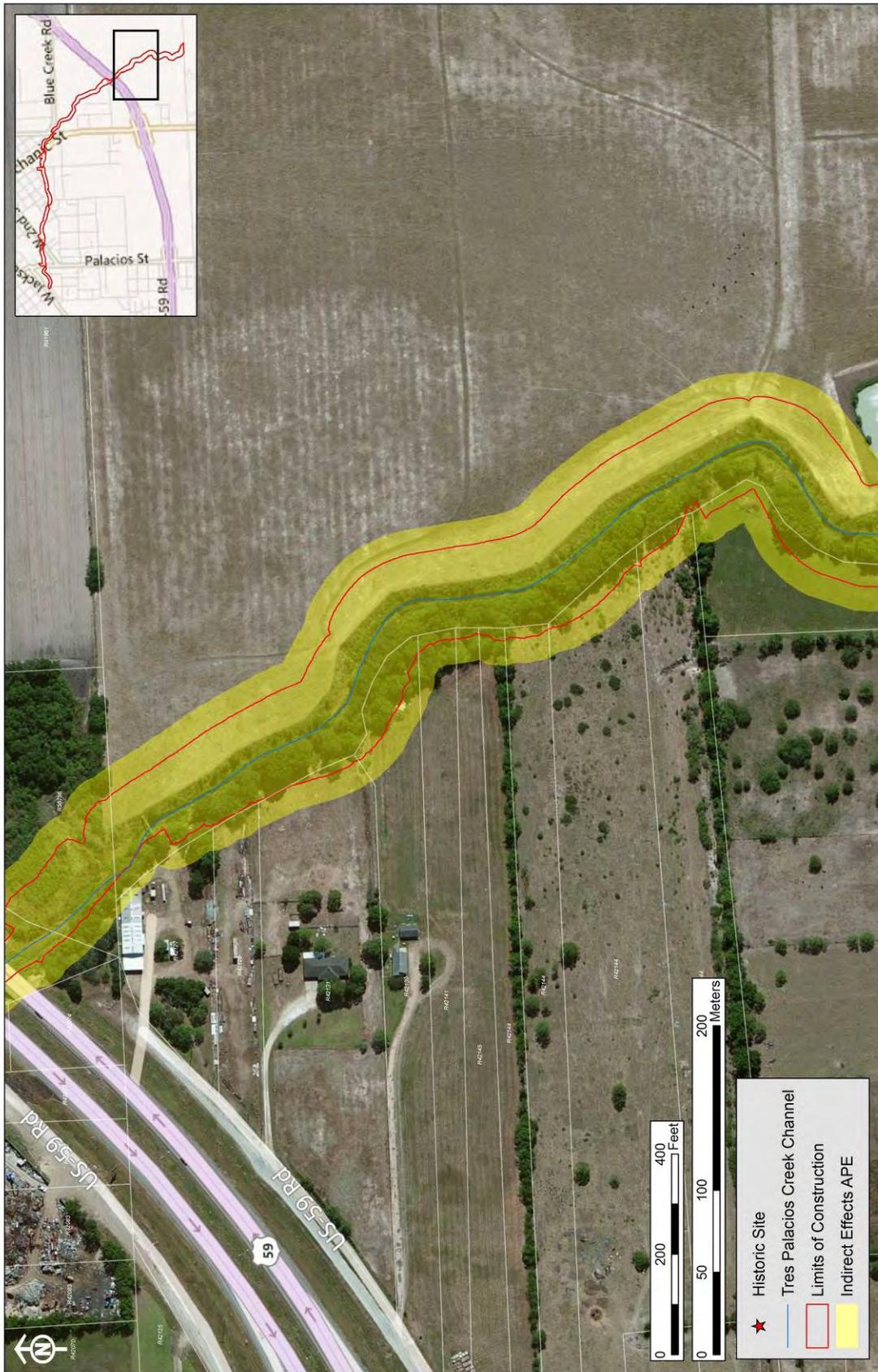


Cultural Resource Survey along Tres Palacios Creek, El Campo, Wharton County, Texas

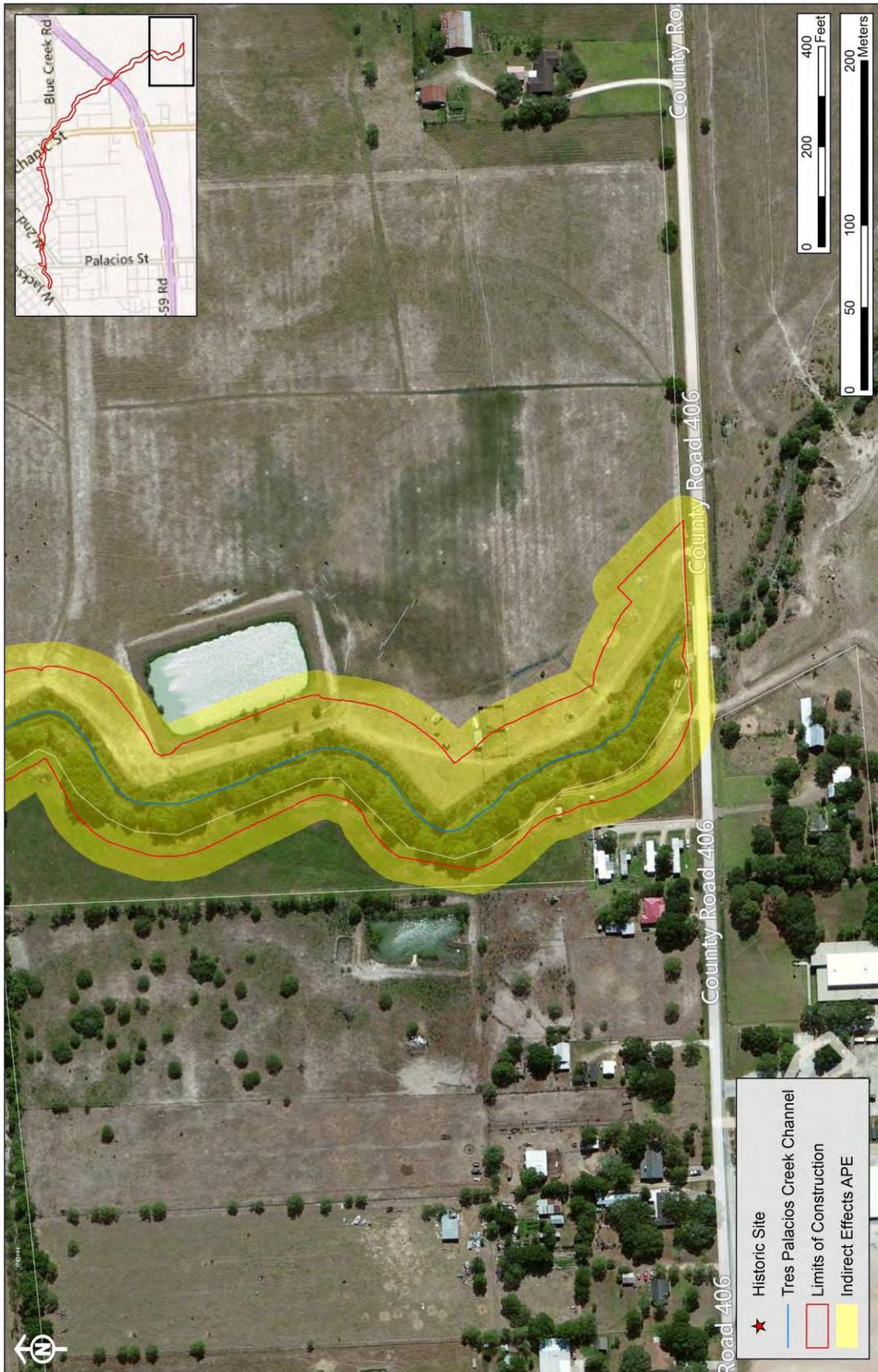








Cultural Resource Survey along Tres Palacios Creek, El Campo, Wharton County, Texas



APPENDIX B
HISTORIC RESOURCE PHOTOGRAPHS

Map I.D. #: 1
Site Location: No Address – Railroad bridge at Palacios Creek
UTM Coordinates: 14 764443E/ 3231897N
Function/use: TRANSPORTATION/ bridge
Date: c. 1960
Style/form: Utilitarian/ Concrete deck with timber piers
NRHP eligibility: Not eligible
Comments: None.



View facing west.

Map I.D. #: 2A
Site Location: 202 Olive Street
UTM Coordinates: 14 764611E/ 3231886N
Function/use: RELIGIOUS/ church
Date: c. 1930
Style/form: Center steeple vernacular / Front gabled roof with steeple
NRHP eligibility: **Yes, C**
Comments: None.



View facing west.

Map I.D. #2B



View facing northwest.

Map I.D. #: 3A
Site Location: 200 Palacios St.
UTM Coordinates: 14 764703E/ 3231977N
Function/use: DOMESTIC/ single dwelling
Date: 1963 (Wharton Co. Appraisal District)
Style/form: Ranch/ Hipped roof
NRHP eligibility: Not eligible
Comments: None.



View facing northwest.

Map I.D. #3B



View facing northeast.

Map I.D. #: 4
Site Location: No Address – Vasa St.
UTM Coordinates: 14 765242E/ 3231964N
Function/use: IRRIGATION/ pump house
Date: c. 1960
Style/form: Utilitarian/ Side gabled roof
NRHP eligibility: Not eligible
Comments: None.



View facing northeast.

Map I.D. #: 5A
Site Location: 505 W. 5th St.
UTM Coordinates: 14 765510E/ 3231924N
Function/use: DOMESTIC/ single dwelling
Date: 1955 (Wharton Co. Appraisal District)
Style/form: Minimal traditional/ Front gabled roof
NRHP eligibility: Not eligible
Comments: None.



View facing southeast.

Map I.D. #5B



View facing south

Map I.D. #: 6
Site Location: 2322 Webb Lynn Rd
UTM Coordinates: 14 766134E/ 3231974N
Function/use: TRANSPORTATION/ bridge
Date: 1930 (Reconstructed 1964)
Style/form: Utilitarian/ Simple span deck, concrete flat slab
NRHP eligibility: Not eligible
Comments: None.



View facing east.

Map I.D. #: 7A
Site Location: No Address – Blue Creek Rd.
UTM Coordinates: 14 766483E/ 3231820N
Function/use: DOMESTIC/ single dwelling
Date: c. 1940
Style/form: Minimal traditional/ Front gabled roof
NRHP eligibility: Not eligible
Comments: None.



View facing northeast.

Map I.D. #7B



View facing northeast.

Map I.D. #7C



View facing northeast.