Archeological Survey

Frontera Road Improvements: from 109 Linear Feet South of the Union Pacific Railroad Tracks to Alderete Lane, Del Rio, Val Verde County, Texas

TxDOT, Laredo District
CSJ: 0922-11-032
Texas Antiquities No. 8733

Prepared by: AmaTerra Environmental, Inc.
Joel Butler (Principal Investigator) and Sara Mackenzie Parkin

Date: May 2019

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.
Archeological Survey of Frontera Road from 109 Linear Feet South of the Union Pacific Railroad Tracks to Alderete Lane, Del Rio, Val Verde County, Texas

CSJ: 0922-11-032

by

Joel Butler and Sara Mackenzie Parkin
Joel Butler Principal Investigator

Prepared for:
Texas Department of Transportation
Laredo District
Texas Antiquities Permit No. 8733

Technical Report No. 267

Prepared by

AmaTerra ENVIRONMENTAL INC.

Austin, Texas

May 2019
Management Summary

On March 18-20, 2019, AmaTerra Environmental, Inc. (AmaTerra) carried out an intensive survey, as described in 13 TAC 26.20 and defined in 13 TAC 26.5. Joel B. Butler acted as the principal investigator, Sara Parkin as field director, and Jessica Kenmore as field technician. 48 person-hours were expended during fieldwork, 17 shovel tests, and 10 backhoe trenches were excavated in support of the survey.

Val Verde County, in cooperation with the Texas Department of Transportation (TxDOT) Laredo District proposes to widen and make improvements to Frontera Road from 109 linear feet (LF) south of the Union Pacific Railroad (UPRR) tracks to Aldrete Lane in the City of Del Rio in Val Verde County, Texas. This project is assigned CSJ no. 0922-11-032 and the archeological survey was carried out under Antiquities Permit 8733. The total project length is four kilometers (2.5 miles), with a total Area of Potential Effects (APE) of 27.3 acres including 3.9 acres of proposed temporary maintenance easement within property administered by the U.S. Department of Homeland Security (DHS) along the U.S. Border Fence. The remainder of the APE is entirely within existing road right-of-way (ROW).

The project is subject to Section 106 of the National Historic Preservation Act (Section 106) and the Antiquities Code of Texas (ACT) because it will involve land to be controlled by a political subdivision of the State of Texas, with funding from the Federal Highway Administration (FHWA).

During field investigations, 17 shovel tests and ten backhoe trenches were excavated, none of which contained archeological materials. No archeological sites were documented within the APE. One previously recorded site (412VV1714) was visited but not relocated.

No further archeological work is warranted, and construction is recommended to proceed for the project area.

All land surveyed was located on publicly-owned property. No artifacts were collected during investigations. All notes and forms generated during fieldwork will be curated at the Texas Archeological Research Laboratory (TARL) in Austin.
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Chapter 1

Project Description

AmaTerra Environmental, Inc. (AmaTerra) conducted an archeological survey of proposed improvements along four kilometers (2.5 miles) of Frontera Road in the City of Del Rio, Val Verde County, Texas. The project area extends from 109 linear feet (LF) south of the Union Pacific Railroad (UPRR) tracks to Aldrete Lane (Figures 1 and 2). Under the management of Val Verde County, in coordination with the Texas Department of Transportation (TxDOT) Laredo District, improvements to the existing roadway are planned. This project is being constructed under TxDOT CSJ no. 0922-11-032 and the archeological field survey was carried out under Antiquities Permit 8733. Detailed schematics and typical sections are presented in Appendix A. The project area is depicted on USGS Del Rio SW, Texas 7.5-minute topographic quadrangle, as seen in Figure 1.

The project is subject to Section 106 of the National Historic Preservation Act (Section 106) and the Antiquities Code of Texas (ACT) because it will involve land to be controlled by a political subdivision of the State of Texas, with funding from the Federal Highway Administration (FHWA). As described in the Programmatic Agreement between FHWA, TxDOT, and the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation, FHWA projects in Texas are administered by TxDOT. Therefore, the field survey and this report adhere to TxDOT guidelines and requirements.

Existing Facility

The existing roadway is a minor arterial. Within the project limits, Frontera Road is a two-lane undivided roadway with no raised medians, no shoulders, and an open ditch drainage system. Each travel lane is 12 feet wide. The existing right-of-way (ROW) is approximately 92 feet wide (typical) and encompasses 23.4 acres.

Proposed Facility

The proposed project would include the widening, rehabilitation, and reconstruction of Frontera Road within the project limits, as well as the inclusion of drainage improvements; signing; and pavement markings. The proposed roadway would include two 12-foot travel lanes (one in each direction) with two-foot outside shoulders for a total proposed pavement width of 28 feet. The existing drainage ditches would be graded to ensure proper drainage water capture. The proposed ditches would be located on the west side of the roadway from the northern project terminus to where Frontera Road curves to run in a southeasterly direction, at which point the ditches would be located on the north side of the roadway. The project would also include the addition of drainage structures (reinforced concrete pipes and box culverts) at nine locations throughout the project APE. A 20-foot wide 3.9-acre temporary easement would be located south of Frontera Road on property administered by the U.S. Department of Homeland Security (DHS) between Aldrete Lane and the northeast 90-degree turn south of Jessica Lane.

The Area of Potential Effects (APE) for archeological resources is defined as the footprint of the proposed project within the limits of the existing ROW and proposed maintenance easement, and all project-specific locations to the maximum depth of proposed impacts. Thus, the APE for archeological resources covers a total area of 27.3 acres within the typically 92-foot ROW to a depth of three feet, and down to seven feet at culvert locations.
The purpose of the archeological survey was to identify whether any archeological sites would be affected by the proposed roadway improvements. Fieldwork was carried out on March 18-22, 2019. Joel B. Butler acted as principal investigator, Sara Parkin as field director, and Jessica Kenmore as field technician. Forty-eight person-hours were expended during fieldwork, resulting in 17 shovel tests and 10 backhoe trenches excavated in support of investigations. No difficulties were encountered during the survey. Weather was cool and overcast with dry soil conditions. No archeological sites or artifacts were observed in the APE during investigations.

No artifacts were encountered during field investigations. All notes and records generated during fieldwork will be curated at the Texas Archeological Research Laboratory (TARL) in Austin.
Figure 1. Project location on the Del Rio SW, Texas 7.5-minute topographic quadrangle.
Figure 2. Project location overlaid on recent aerial imagery.
Chapter 2

Environmental Setting and Background

Physical Setting

The project area is located on the southwestern edge of Del Rio in Val Verde County. Frontera Road is currently home to numerous commercial properties and the U.S. Border Fence along the southern portion, and a municipal wastewater treatment facility, sports fields, and additional commercial properties along the northern portion.

Located in the far western South Texas Plains ecoregion, the project is located near the boundary with the Chihuahuan Desert and therefore displays characteristics of both regions (Griffith and Omerik 2009). The South Texas Plains region is a nearly level area covered with mesquite brush and grasses becoming more arid to the northwest. The elevation of the project area ranges from 900 to 945 feet above mean sea level. The Rio Grande River flows just south of the project, coming within 200 meters at its closest location.

Common fauna in this region include swamp rabbit (Sylvilagus aquaticus), plains pocket gopher (Geomys bursarius), nutria (Myocaster coypus), scissor-tailed flycatcher (Tyrannus forficatus), killdeer (Charadrius vociferous), coyote (Canis latrans), hog-nosed skunk (Conepatus leuconotus), American alligator (Alligator mississippiensis), Texas blind snake (Leptotyphlops dulcis), Gulf Coast toad (bufo valliceps), and diamondback terrapin (Malaclemys terrapin [Ellis et al. 1995]).

Vegetation within the project area is a mixture of unimproved vacant lots, commercial and municipal frontage, and maintained ROW. Surface visibility throughout the area varied from fair (50 percent) to high (up to 75 percent).

Geology and Soils

Holocene alluvium makes up approximately 60 percent of the APE while Holocene terrace deposits make up 10 percent and undivided quaternary sediments make up 30 percent (BEG 1992). Holocene-age alluvium may contain interbedded O-horizons which have potential for intact archeological deposits associated with short-term or single-use campsites. Terrace deposits may contain deeply-buried stratified archeological deposits, often with associated large volumes of fire-cracked rock, identifiable living surfaces, and other indicators of longer-term and/or repeated use.

According to the U.S. Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS, 2018) Web Soil Survey, soils within the APE consist of Lagloria loam (LaB, 63 percent), Rio Grande series soils (Ro, 13 percent), Laredo silty clay loam (Ls, 22 percent) with small areas of Reynosa silty clay loam (Ra, 1 percent) and Jimenez-Quernado complex soils (JmD, 1 percent). These soil series are mostly deep clay and silty loams associated with Pleistocene terraces.

Previous Archeological Work

According to the online Texas Archeological Sites Atlas, there is one previously recorded site within the limits of the undertaking (41VV1714) and six sites within one kilometer (Table 1; Figure 3). None of these sites are documented as National Register of Historic Places (NRHP) or State Archeological Landmark (SAL) eligible and are mostly open campsites containing non-diagnostic chert or quartzite artifacts. Site 41VV1714 was documented by a TxDOT survey in 1994 along the north side of Frontera Road east of the northward bend of the APE. Although the Atlas has no information about this site,
judging by the large size (165 acres), it is likely that it is a lithic surface scatter-type site with possible open campsites scattered within. One site, 41VV198, was documented 915 meters west of the project area in 1962 on the right bank of Cienegas Creek. The site contained possible Paleoindian/Transitional Archaic artifacts in the form of Angustura and Folsom projectile points. Additionally, the site form for site 41VV1601, 450 meters west of the APE, mentions a City employee finding a Pandale point (Early Archaic in age) at the wastewater treatment plant that adjoins the current project area. Site 41VV1992 is located 360 meters southwest of the central bend in the project APE. The site, documented in 2008 by Engineering-Environmental Management, Inc (e2M) during a survey for the border fence, consisted of six stone flakes in a shovel test at 30 centimeters below the surface (cmbs). Site 41VV1993 is located 600 meters south of the eastern project terminus and consisted of 50 pieces of stone debitage from 11 shovel tests. Depth of cultural material on the site was recorded as occurring to depths of 25 cmbs.

Table 1. Previously Recorded Sites Within One Kilometer of the Project Area

<table>
<thead>
<tr>
<th>Site</th>
<th>Date Recorded</th>
<th>Type</th>
<th>Project Description/Location</th>
<th>NRHP/SAL Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>41VV198</td>
<td>1962</td>
<td>Prehistoric Open Campsite</td>
<td>915 m west of north terminus</td>
<td>Unknown</td>
</tr>
<tr>
<td>41VV1601</td>
<td>1993</td>
<td>Prehistoric Open Campsite</td>
<td>450 m west of north terminus</td>
<td>Not Eligible</td>
</tr>
<tr>
<td>41VV1992</td>
<td>2008</td>
<td>Prehistoric Open Campsite/Lithic Scatter</td>
<td>360 m west of south terminus</td>
<td>Undetermined</td>
</tr>
<tr>
<td>41VV1714</td>
<td>1994</td>
<td>Unknown</td>
<td>Along north side of southern APE</td>
<td>Unknown</td>
</tr>
<tr>
<td>41VV1713</td>
<td>1994</td>
<td>Unknown</td>
<td>680 m east of north terminus</td>
<td>Unknown</td>
</tr>
<tr>
<td>41VV1993</td>
<td>2008</td>
<td>Prehistoric Open Campsite/Lithic Scatter</td>
<td>360 m south of SE terminus</td>
<td>Not Eligible</td>
</tr>
</tbody>
</table>

**Previous Investigations**

According to the Texas Historical Commission Atlas, there have been six archeological projects within one kilometer and five that abut or intersect the project area (Table 2; see Figure 3). An additional unpermitted survey, not plotted on the Atlas, was carried out prior to construction of the Border Fence along the entire southern portion of the project APE in 2008.

Table 2. Previous Surveys in the Project Area.

<table>
<thead>
<tr>
<th>Date</th>
<th>Sponsoring Agency</th>
<th>Firm</th>
<th>Project Description/ Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>EPA</td>
<td>Unknown</td>
<td>Adjoins APE at wastewater plant</td>
</tr>
<tr>
<td>1991</td>
<td>EPA</td>
<td>Unknown</td>
<td>450 m west of north terminus</td>
</tr>
<tr>
<td>2008</td>
<td>DHS</td>
<td>Michael Baker Jr., Inc</td>
<td>Across TX 239 from APE</td>
</tr>
<tr>
<td>1982</td>
<td>TDHPT</td>
<td>Unknown</td>
<td>Follows TX 239 to Frontera Road</td>
</tr>
<tr>
<td>2008</td>
<td>DHS</td>
<td>e2M</td>
<td>Along Border Fence</td>
</tr>
</tbody>
</table>
**Figure 3. Archeological sites and surveys within one kilometer of the project area.**

*This figure has been redacted due to site sensitive information.*

**Historical Land Use**

Historically, the project area was heavily used for agriculture. Irrigation canals were constructed in Val Verde County in the early years of the twentieth century and this enabled large scale agriculture to flourish. A U.S. Army Corps of Engineers “U. S. Army Tactical Topographic Map” dated to 1916 and a 1947 aerial photograph indicate that the project area had several buildings but was largely still used for agriculture (Figure 4). Today, the project APE mostly consists of vacant and commercially-developed land with a sewage treatment facility and sports fields along the western edge.
Regional Cultural Chronology

The APE is situated within the South Texas Archeological Region directly east of the Lower Pecos Region (Perttula 2004:7). Although separate from the Lower Pecos geographically (deeply cut limestone canyonlands in the Lower Pecos and open near-level plains in the South Texas Region), cultural influences from that region were undoubtedly felt in the area where the APE is located. Due to a lack of intensive excavations on a range of prehistoric sites, the chronology of this region remains more incomplete than other regions across Texas. The occupation of South Texas is currently divided into four broad time periods: Paleoindian, Archaic, Late Prehistoric, and Historic.

Paleoindian

The first inhabitants of South Texas, known as Paleoindians, are generally thought to have arrived around 11,200 years Before Present (BP). However, there is some debate about the exact timing and mode of arrival. The Paleoindian period was characterized by cooler and wetter climatic conditions than today. These people practiced unique subsistence patterns that consisted of hunting now extinct megafauna like mammoth, mastodons, bison, camel, and horse (Black 1989; Mauldin et al. 2003). In fact, mammoth remains in South Texas are typically found in secondary deposits along creeks (Hester 2004). However, within this region no mammoth faunal remains have been found in
association with Clovis peoples, the earliest known Paleoindian culture. These small bands of nomadic big game hunters also exploited small game (Collins 1995) and plant resources. Paleoindian lithic technology consisted of lanceolate-shaped and often fluted projectile points, polyhedral blade cores, blade tools, and the use of exotic raw materials. Diagnostic Paleoindian projectile points found in South Texas include Clovis, Folsom, St. Mary’s Hall, Golondrina, Scottsbluff, Angostura, and the Wilson type (Hester 2004). Archeologists believe that warmer and drier climatic conditions coupled with the extinction of megafauna caused a shift in Paleoindian subsistence strategies. This shift marked the end of the Paleoindian period and the beginning of the Archaic period, divided into three subperiods: Early, Middle, and Late Archaic.

**Early Archaic**

The Early Archaic subperiod (ca. 8000 BP to 4500 BP [Black 1989]) is characterized by “very low population density, small band sizes, highly mobile, and extremely large territorial ranges (Black 1989:49).” This behavior may be attributed to the arid environment (Hester 2004), as this climate required inhabitants to be “water-proximate.” Thomas Hester (2004:136) divides the Early Archaic into two horizons: early corner-notched and early basal notched. The early corner-notched horizon has corner-notched dart points with recurved or notched bases. These point types include Martindale, Uvalde, Baker, Bandy, and Gower dart points, as well as Guadalupe tools probably used in wood-working. The early basal-notched horizon is characterized by dart points with deep basal notches, large bulbs, and distinctive long stems. Point types include the Bell and Andice dart points. Additional tools associated with this horizon include early triangular bifaces and large unifacial Clear Fork tools, which were also likely used in wood-working.

**Middle Archaic**

The Middle Archaic subperiod (ca. 4500 BP to 2400 BP [Black 1989]) began with a shift in subsistence to a greater reliance on plant resources (Black 1989; Hester 2004). Tools associated with this subperiod include Abasolo, Bulverde, Lange, Morhiss, Pedernales, and Tortugas projectile points, unifacial distally beveled adze tools like the Nueces tool, and marine shell ornaments and tools. Reliance on plant resources is evident through “an increase in formal hearths, earth ovens, and burned rock accumulations (Hester 2004:139)”, as well as the presence of ground stone tools, such as tubular stone pipes, grinding slabs, and manos. Middle Archaic people occupied a much broader range of topographic settings with sites found along stream channels, in the floodplain(s), and on low terraces and natural levees (Black 1989). Nunley and Hester (1975) defined two types of sites based on their topographic position: “gallery,” or those found on terraces and arroyo banks; and “bower” sites located in hilly areas overlooking arroyos and their tributaries. The possibility that populations increased and territories became constrained is supported through the presence of large cemeteries associated with this subperiod (Black 1989).

**Late Archaic**

The beginning of the Late Archaic subperiod dates to around 2400 BP (Hester 2004). During this subperiod people continued to exploit plant resources evidenced in fire-cracked rock (FCR) accumulations, hearths, earth ovens, and grinding implements (e.g., manos and metates). Additional tools indicative of this subperiod include Desmuke, Catan, Ensor, Fairland, Marcos, Matamoros, Montell, and Shumla projectile points, as well as Olmos bifaces. Despite a reliance on plant resources, Late Archaic peoples continued to exploit marine and terrestrial animals such as freshwater mussels, turtles, fish, rabbits, and deer. Sites are often located near present-day streams or sloughs with many lithic procurement sites found “on high terraces and ridges composed of Rio
Grande or Uvalde gravels (Hester 2004:142). “The use of cemeteries increases during the Late Archaic subperiod, becoming more concentrated with human remains (personal communication Thomas Hester 2017).

Late Prehistoric

Some archeologists believe that the shift from Late Archaic lifeways to the Late Prehistoric (A.D. 800 to A.D. 1600 [Black 1989]) was a result of cultural diffusion rather than environmental or climatic change. Diagnostic traits of this period include the use of the bow and arrow, straight-stemmed arrow points, bone-tempered ceramics, and trade goods (e.g., obsidian, jadeite, and Huastecan pottery; Hester 2004). Artifacts associated with the Late Prehistoric period consist of Scallorn, Edwards, Perdiz, Starr, and Zavala arrow points. Sites are often located at or just below the surface of natural levees adjacent to streams. This period can be divided into the Toyah Horizon, dating from ca. A.D. 1300-1700, and the Brownsville Complex. The Toyah Horizon is often associated with bison hunting practices. Assemblages have Perdiz arrow points, end scrapers, flake knives, beveled knives, bone-tempered pottery, perforators, shell ornaments, and bird bone bead artifacts (Hester 2004). On the other hand, the Brownsville Complex is known for its shell and animal bone industries, and its relationships with the Huastecan culture in Mesoamerica (Hester 2004). Located in the Rio Grande delta, this complex focused on the exploitation of marine resources. Brownsville Complex sites and cemeteries are found on clay dunes. These people hunted, gathered, and fished for resources causing some archeologists to refer to them as “logistical collectors” (Kibler 1994 cited in Hester 2004).

Historic Period (ca.1500-1968)

Aside from infrequent visits from early Spanish explorers, the first European presence in the vicinity of Del Rio began in the 1700s with the establishment of a presidio and mission across the Rio Grande River in what is now Ciudad Acuña, Mexico. Development in Del Rio did not begin until the 1860s when spring-fed San Felipe Creek, which flows through the center of Del Rio, was tapped as a permanent source for reliable irrigation water, and a network of canals was established in the areas surrounding the town (Overfelt 2019).

Following the establishment of Val Verde County in 1885, Del Rio became the county seat. The local economy was based largely on ranching and agriculture, spurred by the construction of the Southern Pacific Railroad in the 1880s (Overfelt 2019).

The military presence in Del Rio has been felt since the Mexican-American War, with several forts and camps scattered throughout the region. Laughlin Air Base (formerly Laughlin Field) was established in World War II and has taken the lead in the local economy ever since (Overfelt 2019).

Within the project area, historic maps and aerial imagery indicate that the area was largely used for cultivation irrigated from local canals. In recent decades the project area has become a center for shipping companies, which comprise most of the traffic on Frontera Road. Between 2008 and 2010, the U.S. Department of Homeland Security Border Patrol installed a border fence along the southern edge of the project area and sealed off the eastern end of Frontera Road, which no longer connects to State Loop 239.
Archeological Site Potential

The majority of the project APE was found to be heavily impacted by trenched utilities, road and border fence construction, and mechanical brush-clearing, which would lower the integrity of deposits near the surface. However, some potential exists for buried prehistoric archeological deposits. The two most well-documented sites in the vicinity (41VV1992 and 1993) both denote cultural horizons occurring in the upper 30 centimeters, however deeper exploration was not carried out. Historic period archeological remains associated with one of the older ranches or farms in the vicinity were initially thought possible within the APE, however, upon field survey, the narrow width of the unpaved portions of ROW and the volume of prior disturbances (namely utilities trenching) throughout the project area precluded the potential for historic deposits throughout the majority of the project.
Chapter 3

Field Methods

The survey took place within existing public ROW and on a temporary easement administered by DHS. The survey effort was an intensive linear survey, as described in 13 TAC 26.20 (2) and defined in 13 TAC 26.5 and included visual inspection of 100% of the APE along with the excavation of 17 shovel tests and 10 exploratory backhoe trenches. Trenches and shovel tests were excavated at regular intervals within the entire existing ROW and DHS easement unless prior disturbance was confirmed to have impacted deposits beyond the standard 80 centimeters. Shovel testing was conducted at a rate of 16 tests per mile per 100 feet of width on each side of the road, except in portions of the APE where previous deep disturbance was apparent, which were documented through photographs and field notes and were not tested.

Because the proposed roadway improvements have potential to impact deeply-buried deposits along the southern east-west portion of the project, backhoe trenching was carried out along that portion of the project. Backhoe trenches were spaced approximately 300 meters apart (tightening to 200 meters when in closer proximity to the Rio Grande River) and were excavated from 1.5 to 2 meters deep. Samples were screened from the trenches during excavation and detailed notes, drawings, and photographs were made to document each trench.

All documents and photographs generated during fieldwork will be permanently curated and housed the TARL in Austin.
Chapter 4

Survey Results

AmaTerra archeologists carried out an intensive survey on March 18-20, 2019. Field conditions were mild, and no difficulties affected the survey. The project area was observed to be of mixed development, containing mostly industrial and commercial plots, some residential parcels, city utilities and parks, and property owned and maintained by DHS Border Patrol. Deep and extensive previous disturbances were apparent inside the APE, including buried utilities, drainage improvements, landscaped and heavily bladed areas, as well as paved areas and gravel road shoulders. There is evidence of extensive earth-moving disturbances within the surveyed area, particularly in the southern half of the APE, that consists of road backfill, sub-surface asphalt, silty soils, and sub-surface modern trash. All of these disturbances would heavily impact and/or destroy any archeological resources present. During field investigations, no new archeological sites were discovered. A total of 17 shovel tests and 10 mechanical trenches were excavated (Figure 5–8, Appendix B). No artifacts were collected during this survey.
Figure 5. Map of shovel tests and mechanical trenches excavated during fieldwork.
Figure 6. Map of shovel tests and mechanical trenches excavated during fieldwork.
Figure 7. Map of shovel tests and mechanical trenches excavated during fieldwork.
Figure 8. Map of shovel tests and mechanical trenches excavated during fieldwork.
The northern half of the project area referred to in this document extends from the railroad tracks at the intersection of Cienegas Road to the northeast bend in Frontera Road. The southern half of the APE runs from the bend in Frontera Road to where it terminates in the east at the border fence and State Loop 239.

The northern half of Frontera Road is characterized as a mix-use space of residential farming properties, commercial warehouses with large paved lots, a waste water treatment plant, and baseball fields. The APE in the northern half of Frontera Road is a narrow corridor populated with a buried water line, buried phone line, open cut earth drainage and irrigation ditches, and large swaths of paved or graveled ground. No shovel tests were excavated in the northern half of the APE due to the presence of buried utility lines and disturbed ground conditions on both sides of Frontera Road (**Figure 9 and 10**). One historical structure, an irrigation ditch, was described in a Historic Project Coordination Request (PCR) prior to fieldwork (Bell 2019). The irrigation ditch is located adjacent to and, in places within, the APE and consists of an open earth irrigation ditch with a concrete intersection and a series of sluice gates (**Figure 11**). One channel flows south alongside Frontera Road in an open earthen ditch and the other crosses beneath Frontera Road in a concrete culvert. The irrigation ditch is part of the San Felipe Agricultural, Manufacturing, & Irrigation system as described by historic marker #699 located at 608 Griner Street in Del Rio. The irrigation system is recommended as eligible for listing the NRHP.

![Image of Frontera Road](image)

**Figure 9.** Typical conditions throughout the northern half of the APE: buried utilities within a narrow ROW corridor, paved business entries, and a gravel shoulder, facing north.
Figure 10. Buried phone line present on the western side of Frontera Road's northern half and buried along the northern side of Frontera Road in the southern half of the APE, facing east.

Figure 11. Historical irrigation structures adjacent to the project APE, facing northeast.
The southern half of the APE is characterized by commercial warehouses, parking lots, and small vacant fields to the north of Frontera Road (Figure 12), and a maintained DHS easement and ROW to the south (Figure 13). 17 shovel tests and 10 backhoe trenches were excavated in the southern half of the APE along the south side of Frontera Road, all of which contained disturbed soils (Figure 14). Sub-surface conditions observed during excavations included road backfill, asphalt, modern trash (glass beer bottles, industrial plastic sheeting, Styrofoam, etc.), and old buried utilities (DHS sensor grid). Soils across the excavated portion of the APE were observed to be sandy loams, which were disturbed to a minimum depth of 60cm. No shovel tests were excavated along the north side of Frontera Road in the southern segment due to the presence of buried phone, gas, and water utilities, which filled the entire unpaved portion of the APE (Figures 15 and 16).

Typical shovel tests revealed disturbed and compact soils, comprised of mostly silt, backfill gravel, and trash. Shovel tests were excavated to a maximum of 80cmbs; on average, the 17 shovel tests were excavated to a depth of 38cmbs. Shovel tests were placed approximately every 100 meters within the southern APE in areas that appeared undisturbed. Backhoe trenches were excavated every 300 meters to a depth of 150-200cmbs. Typical trenches included disturbed soils to a minimum depth of 100cmbs, and included modern trash such as Styrofoam, plastic sheeting, glass beer bottles, and aluminum beer cans (Figure 17). One atypical trench included a layer of river rocks from a previous drainage culvert (Figure 18).

Figure 12. Typical conditions in the southern half of the APE along the northern side of Frontera Road: buried utilities and industrial complexes, facing north.
Figure 13. Typical conditions in the southern half of the APE along the southern side of Frontera Road: buried water line and landscaped slope, punctuated by pull-throughs, revetment cobbles, and a storm drain, facing west.

Figure 14. Buried PVC pipe within backhoe trench #4 (BH4)
Figure 15. Phone line buried along the north side of Frontera Road in the southern half of the APE, facing east.

Figure 16. Buried gas line along the north side of Frontera Road in the southern half of the APE, facing north.
Figure 17. Profile of a typical trench (BH7).

Figure 18. Profile of a typical trench (BH1) with deeply buried road gravels.
At the terminus of Frontera Road at State Loop 239 (the easternmost edge of the APE), one potentially historic monument was located (**Figure 19**).

From 1891-1894, 276 official concrete obelisks were established along the US-Mexico border. After the initial 276 concrete obelisks were constructed, smaller concrete markers were erected along the border in order to further delineate the boundary, particularly in high-traffic areas like cities and river-crossings. By 1984, 493 additional markers had been added along the border in urban places like Del Rio (Dear 2005). Based on its appearance, condition, and location, this marker likely belongs to that family of historic border markers. Due its close proximity to the border fence, it is unlikely to be impacted by the roadway improvements to Frontera Road, but we recommend avoiding disturbance during construction.

**Figure 19.** Concrete marker located during archeological survey, facing east.
Chapter 5

Summary and Recommendations

On March 18-20, 2019, AmaTerra carried out an intensive survey, as described in 13 TAC 26.20 and defined in 13 TAC 26.5. During investigations, 17 shovel tests and 10 backhoe trenches were excavated within the 2.5-mile long project APE, which encompasses 27.3 acres including a 3.9-acre easement managed by DHS. No archeological sites or artifacts were discovered during fieldwork.

The project was conducted under the ACT (Permit 8733) and Section 106 of the NHPA and all work conformed to the guidelines for implementation of these regulations under 13 TAC Chapter 26 as well as 36 CFR 800. No prehistoric or historic-age artifacts or archeological sites were discovered during field investigations. However, it is recommended that the concrete obelisk be avoided during construction.

Construction is recommended to proceed for the Frontera Road improvements with no further archeological work.

All land surveyed was located on publicly-owned property and all portions of the APE were accessible at the time of survey. No artifacts were collected during investigations. All notes and forms generated during fieldwork will be curated at TARL in Austin.
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References


Ellis, L. 2013 *Woodland Ceramics in East Texas and a Case Study of Mill Creek Culture Ceramics.* *Bulletin of the Texas Archeological Society* 84:137-180.


Jennings, T., and M. Waters 2014 *Pre-Clovis Lithic Technology at the Debra L. Friedkin Site, Texas: Comparisons to Clovis Through Site-Level Behavior.*
Overfelt, Robert C.

Perttula, Timothy K.

Project Coordination Request (PCR)
2018 Project Coordination Request for Historical Studies Project, AmaTerra Environmental, Inc. 2018. CSJ #0922-11-032; Frontera Road: 109 LF South of UPRR Tracks to Alderete Lane.

Ricklis, Robert A.

Story, D. A.

Texas Historical Commission

United States Department of Agriculture - Natural Resources Conservation Service (NRCS)

United States Geological Survey (USGS)
Appendix A

Schematics
Archeological Survey of Frontera Road, Del Rio, Val Verde County, Texas
Archaeological Survey of Frontera Road, Del Rio, Val Verde County, Texas

ST A. 109-50 to ST A. 115-50
Frontera Road Plan B Project

DANNEMILL
Division of Transportation

FEES AND MATERIALS

WITH SCALE 1"=100'
Archeological Survey of Frontier Road, Del Rio, Val Verde County, Texas
## Appendix B

### Shovel Test Log

<table>
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<th>Northing</th>
<th>Easting</th>
<th>Depth</th>
<th>Color</th>
<th>Texture</th>
<th>Disturbances</th>
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This report was written on behalf of the Texas Department of Transportation by

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AmaTerra Project No. 139-060