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## County Road 622 at San Francisco Perez Creek Medina County, San Antonio District

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# Report for Archeological Survey

CSJ: 0915-45-053, County Road 622 at San Francisco Perez Creek Medina County, San Antonio District

Eric R. Oksanen, Principal Investigator; Antiquities Permit No. 8194

November 2, 2017

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.

#### Abstract

On October 11, 2017, archeologists James T. Abbott and Eric R. Oksanen of TxDOT's Archeological Studies Branch conducted an archeological survey of the proposed 0.45 acre Area of Potential Effect (APE) as part of the environmental review process in support of the replacement of the existing bridge on County Road 622 at San Francisco Perez Creek in Medina County. Previously documented archeological site 41ME103 is shown in the Texas Archeological Sites Atlas to extend into the APE. Investigations examined the APE for evidence of the site and a single shovel test was excavated and encountered a lens of cobble and larger gravels at 40 cm below surface. No evidence of site 41ME103 was observed in the APE and no archeological historic property was observed in the APE. The existing right of way is unlikely to contained preserved archeological deposits because of previous impacts from construction and maintenance.

No artifacts were observed or collected, therefore, nothing was curated. Records are retained at TxDOT under terms of the MOU between TxDOT and the THC.

Projec	t Identification						
•	Date: 11/02/2017						
•	■ Date(s) of Survey: 10/11/2017						
•	Archeological Survey Type:	Reconnaissance $\square$	Intensive $oxtimes$				
•	Report Version:	Draft $\square$	Final ⊠				
•	Jurisdiction:	Federal ⊠	State ⊠				
•	Texas Antiquities Permit Nu	ımber: 8194					
•	District: San Antonio						
•	County or Counties: Medina						
•	USGS Quadrangle(s): Devir	ne, Texas, 2998-223					
•	Highway: County Road 622	2					
•	<b>CSJ:</b> 0915-45-053						
•	Report Author(s): Eric R. O	ksanen, Sarah Himes					
Principal Investigator: Eric R. Oksanen							
Toyon Historiaal Commission Approval							
Texas Historical Commission Approval							
Signature Date							

#### **Project Description**

Project Type: Bridge replacement

■ Total Project Impact Acreage: 0.45 acres

New Right of Way (ROW) Acreage: 0.0 acres

Easement Acreage: 0.00 acres

Area of Pedestrian Survey: 0.45 acres

- Project Description and Impacts: The proposed project will remove the existing 50-foot (ft) long by 15- foot wide truss bridge and replace with a 75-ft by 26-ft wide structure on County Road 662 at San Fernando Perez Creek (Figure 1). The project will also remove the existing pavement, beginning 300-ft west of the channel and ending 175-ft east of the center of the stream channel. The existing 12-ft wide approaches will expand to 24-ft wide at the bridge and taper back to 12-ft wide (Figure 2). The abutments will be reinforced by concrete support wingwalls and rip rap and all work will occur in the existing right of way.
- Area of Potential Effects (APE): The APE is the project limits defined as approximately 300– ft west of the channel and 175-ft east of the channel, a distance of 475 ft, within a 40-ft wide right of way (see Figures 1 and 2). The area is approximately 0.45 acres. The maximum depth of impact will occur at locations for six drilled shafts for 36-inch diameter piers. These will be excavated to a depth greater than 40 feet. Depth of impact along the approaches is estimated at less than 2 ft, while work at the abutments is estimated at 6 feet.
- Survey Area: Same as APE.
- Parcel Number(s): Existing county-owned right of way.
- Project Area Ownership: The project area is owned and controlled by Medina County, a political subdivision of the State of Texas.

#### **Project Setting**

- Topography: The APE is located in the Northern Nueces Alluvial Plains ecoregion which is the northern extent of the South Texas Plains that is separated from the Central Plains by the Balcones Canyonlands and Escarpment to the north (Griffith et. al 2007). The APE is within the 1,200 foot-wide flood plain of the upper reaches of San Francisco Perez Creek, a tributary of San Miguel Creek and ultimately the Frio River. The stream flows north to south through the APE. Elevation is 712 feet above mean sea level (ft amsl) at the stream channel and 725 to 727 ft amsl at the abutments. The topography is level within the APE and abruptly rises to secondary terraces 300 feet west and 800 feet to the east (see Figure 1).
- Geology: The surface geology was mapped using the Geologic Atlas of Texas GIS overlay and the Bureau of Economic Geology Geologic Atlas of Texas-San Antonio Sheet (1983). The APE is within the Eocene-age Wilco Group, consisting mostly of mudstone, sandstone and lignite.

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This is a thick formation from 440 feet to 1200 feet. The San Antonio HPALM indicates the APE is within a high probability geoarcheological unit, meaning optimal natural conditions are present for preserving archeological deposits. This rating does not account for subsequent disturbances and the effects of construction and development (**Figure 3**).

- Soils: The APE was mapped with the USGS on-line Web Soil Survey (Figure 4). The APE is mapped as Divot clay loam, a hyperthermic Pachic Vertic Haplustolls. These are mollisols that form in recent alluvium. The soil is frequently flooded.
- Potential Archeological Liability Map: The Hybrid Potential Archeological Liability Model for San Antonio District (Abbott and Pletka 2016) depicts the APE within Unit 9, High Geomorphic Potential (Figure 5).
- Historic Land Use: The APE is within the McMullen and McGloins Colony (1829) as shown on the 1838 Texas map excerpt by Thomas Bradford (Figure 6) and the John H. Isbell A-547 1-1078 Survey (Figure 7). The existing bridge was erected in the 1920's. Adjacent properties were used for agriculture, under cultivation and as grazing. The current bridge is depicted on the 1936 Medina County General Highway Map (Figure 8).
- Land Use: The APE is existing county road right of way. Adjacent properties are used for agricultural purposes, primarily livestock grazing.
- Vegetation: Native vegetation is mesquite-live oak-bluewood park (Griffith et al. 2007). Riparian area species as found near the APE are pecan, live oak, cedar elm, black willow and eastern cottonwood. Understory is open grasslands and mid-height grasses. Current vegetation is mixed grasses and forbs maintained by mowing. Adjacent properties are grazing pastures.
- Estimated Ground Surface Visibility: 40%
- Previous Investigations and Known Archeological Sites: A review of the Texas Historic Sites Atlas (Atlas) identified site 41ME103 extending into the APE and site 41ME159 located 150 south of the APE (Figure 9).

The description of 41ME103 is summarized from the submitted site form in the Atlas. No report of investigation was located. Site 41ME103 is mapped primarily north and west of the APE. Recorded in 1996, the site was investigated by individuals associated with the South Texas Archeological Association, the Texas Archeological Society and the Texas Archeological Stewards Network in 1996, 1997, 1998 and 1999. Limited excavations were conducted in 1999. Records and artifacts are held in a private collection. The site measures approximately 20 acres and covers the stream valley flood plain and is on the surface or shallow-buried. Based upon projectile point typology, the occupations span the Archaic through contact era, an estimated 7,000 years. Artifacts appear to be lithics.

Site 41ME159 is mapped south of the APE as an eroding surface scatter of burned rock and lithic debris. No temporal diagnostics were noted.

Comments on Project Setting: Based on the Atlas and HPALM, the APE has potential to contain archeological deposits and archeological site 41ME103 is mapped in the APE. The investigation was to determine the presence of 41ME103 in the APE and identify undisturbed areas in the APE suitable for mechanical trenching. Any archeological material would be assessed for the eligibility for listing on the National Register of Historic Places (NRHP) or designation as a State Antiquities Landmark (SAL). Site 41ME103 and sites recorded in similar setting have been surficial or shallow buried. The narrow width (40 ft) of the APE limited the potential for undisturbed intact areas in the APE because of road construction, maintenance, utilities and erosion.

#### Survey Methods

- Surveyors: Eric Oksanen and James T. Abbott, TxDOT Archeological Studies Branch.
- Methodological Description: The typical TxDOT survey methods involve excavating trenches in alluvial settings as found at locations for bridge replacements. As part of a survey, the APE is assessed for access and feasibility for subsurface testing by trenching using excavation equipment. If there is no need for trenching, shovel probes may be excavated. The APE was divided into quadrants with the roadway dividing north and south and the stream channel dividing east and west. Each quadrant was inspected by the surveyors. Site 41ME103 and 41ME159 are surface scatters of lithic material and burned rock. Road construction and the narrow APE limited placement of subsurface testing. From road surface to fence line was approximately 12 feet on either side. Because of the narrow right of way, a single shovel probe was excavated in the NE quadrant and no trenching was necessary to evaluate the APE.
- Subsurface Probes (Figure 10)

Method	Quantity in Existing ROW	Quantity in Proposed New ROW	Quantity in Proposed Easements	Total Number per Acre
Shovel Test Units	1	-	-	2
Auger Test Units	-	-	-	-
Mechanical Trenching	-	-	-	-

Other Methods: None.

- Collection and Curation: NO  $\boxtimes$  YES  $\square$  If yes, specify facility.
- Comments on Methods: The APE is less than 0.5 acres. The THC and CTA standard is 3 shovel probes for surveys 2 acres and less. Typical TxDOT investigations include the excavation of backhoe trenches in suitable alluvial settings. The inspection of the APE identified no suitable setting for excavating a backhoe trench. A single shovel probe was excavated in the northeast quadrant.

#### Survey Results

Project Area Description: The APE has been impacted by construction of the roadway and bridge and by maintenance of the facilities and structure. The roadway is on an elevated fill section with open drainage ditches between the roadway surface and boundary of the right of way (Figure 11). During the survey, the APE was covered in mixed grasses and forbs of varying height and density, with varying surface visibility.

The APE has been modified by bridge and road construction. The approaches and the abutments are constructed on fill sections that have been used to elevate and stabilize the road and bridge (**Figures 12 and 13**). A single shovel probe was excavated to a depth of 42 cm in the northeast quadrant. No cultural material was observed and the excavation was terminated by a lens of cobble-size gravels (**Figure 14**). Thick gravel lens were observed in the stream channel. The sediments in the APE are clays with gravels and are unlikely to contain buried intact archeological deposits.

Table 1. Shovel Test 1.

ST#	Depth (cm)	Description
1	0-30	10YR6/1 Clay loam with gravel inclusions.
	30-42 Terminated.	10YR6/2 Clay loam with cobble- size chert and limestone gravels.

- Adjacent Area Description: The areas adjacent to the bridge are covered in a mix of understory and riparian hardwood species. The northeast quadrant is densely vegetated against the right of way line but away from the fence it is mixed open pasture (Figure 15). The northwest quadrant is similar to the northeast except the terrace is closer to the stream in the northwest quadrant. The southeast quadrant is grazing pasture and hay field (Figure 16) .. The southwest quadrant is a rolling terrace covered in grasses and groves of hardwood and rising to a prominent terrace to the west (Figure 17).
- Archeological Materials Identified: None

APE Integrity: The APE is in an active floodplain that is susceptible to high-energy flooding. Subsurface exposures and a single shovel probe revealed a matrix of clay and coarse gravels that are unlikely to contain intact archeological deposits. The recorded sites adjacent to the APE are characterized as surface scatters or shallow buried deposits of lithics and burned rock.

The APE has been impacted by construction and maintenance in the narrow 40-ft wide right of way. These impacts include stabilizing the stream banks at the abutments and elevating the approaches and excavating drainage ditches. Therefore, it is unlikely that intact archeological deposits exist in the APE. No evidence of archeological material associated with 41ME103 or 41ME159 were encountered in the APE.

D		:
Recon	nmend	dations

• Re	sults Valid Within:		
<b>•</b> 50	) feet of APE 🗵	feet of APE $\square$	Variable, see map □
	e Definition of this Horizontal Buffe ensiderations:	er Area Is Based on One or Mo	re of the Following
	tegrity of the areas adjacent to the g are affected by prior developmen		X
	urvey shows that archeological mat nlikely to exist in this area	terials	
Other	(specify):		
aroun within extend	ndings documented in this report a d the area of potential effects, as s this area would not require addition d beyond the buffer area or result i dered in this report would require a	specified in the previous bullet onal review or investigation. De n potential impacts deeper tha	. Any design change esign changes that either
Te	Archeological Site Evaluations: Site 41ME103 was not present with the proposed APE. The Texas Archeological Sites Atlas depicts the site extending into the eastern quadrants of the APE. A site sketch map depicts the roadway CR 662 as the southern boundary of the site.		
cri	o evidence of site 41ME103 was de teria for inclusion in the NRHP (36 storic properties (36 CFR § 800.16	CFR 60.4). Therefore, there a	re no archeological

Comments on Evaluations: None.

State Antiquities Landmarks (13 TAC 26.8) within the APE.

Further Work: No further work is recommended within the existing APE. No cultural material within the APE is recommended as eligible for listing in the National Register of Historic Places or designation as a State Antiquities Landmark.

- Justification: No evidence of site 41ME103 was detected in the APE. As a result of prior construction in the APE, there is little probability that archeological deposits occur in the APE with integrity sufficient to meet the criteria of eligibility (36 CFR § 60.4) for listing in the National Register of Historic Places as archeological historic properties (36 CFR § 800.16.(I)) or that would meet the criteria for designation as State Antiquities Landmarks (13 TAC 26.8). Furthermore it is also unlikely cemeteries occur in the APE and that the project will have no effect on a marked or unmarked cemetery (Health and Safety Code, Title 1, Chapter 711. 010, and Title 1, Chapter 711.035). In addition, site 41BL1379 does not constitute a 4(f) property under the Department of Transportation Act of 1966 as codified at 23 U.S.C. § 138 and 49 U.S.C. § 303, and administered under 23 CFR 774.
- Pursuant to Stipulation VI of the PA-TU, TxDOT finds that the APE does not contain archeological historic properties (36 CFR 800.16(I)), and the proposed undertaking would not affect archeological historic properties. In addition, the project does not merit additional field investigations in compliance with the MOU (43 TAC 2.24(f)(1)(C). The project will have no effect on archeological historic properties. In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area will cease and TxDOT archeological staff will be contacted to initiate post-review discovery procedures under the provisions of the PA and MOU.

#### References Cited

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Bradford, Thomas Gamaliel

1838 Advanced issue showing Austin as the capital (established 1839). Entered According to Act of Congress, in the Year 1838, by T. G. Bradford, in the Clerks Office, of the District Court of Massachusetts, Engraved by G. W. Boynton. Boston, ca. 1839.

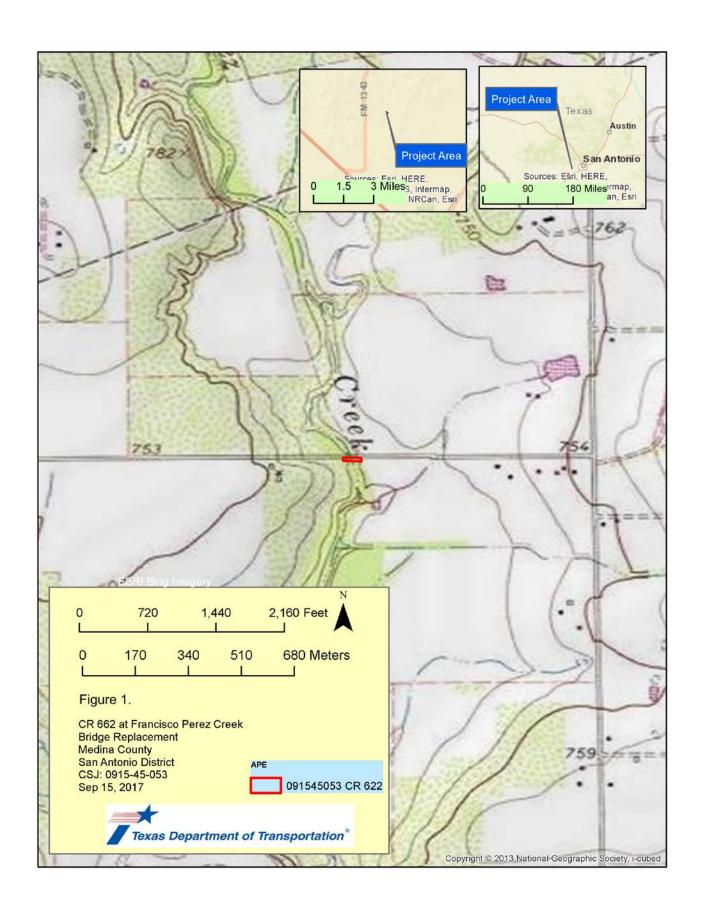
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Archeology Division of the Texas Historical Commission 2017 Texas Archeological Sites Atlas Site Record 41ME159. Accessed 02 Oct. 2017

#### **Figures**

- Figure 1. Project location.
- Figure 2. Plans and profile.
- Figure 3. Geologic of Atlas Overlay.,
- Figure 4. Web Soil Survey of APE.
- Figure 5. HPALM of San Antonio District.
- Figure 6. Excerpt of Texas Land Grants by T.G. Bradford 1838.
- Figure 7. Medina County General Land Office Land Grants- Excerpt showing project location.
- Figure 8. 1936 Medina County General Highway Map.
- Figure 9. Texas Archeological Sites Atlas
- Figure 10. Location of shovel test and project quadrant designation.
- Figure 11. Overview of roadway.
- Figure 12. West abutment.
- Figure 13. East abutment.
- Figure 14. Shovel test 1.
- Figure 15, North quadrants at fence line.
- Figure 16, Southeast quadrant.
- Figure 17, Southeast quadrant showing adjacent terrace.



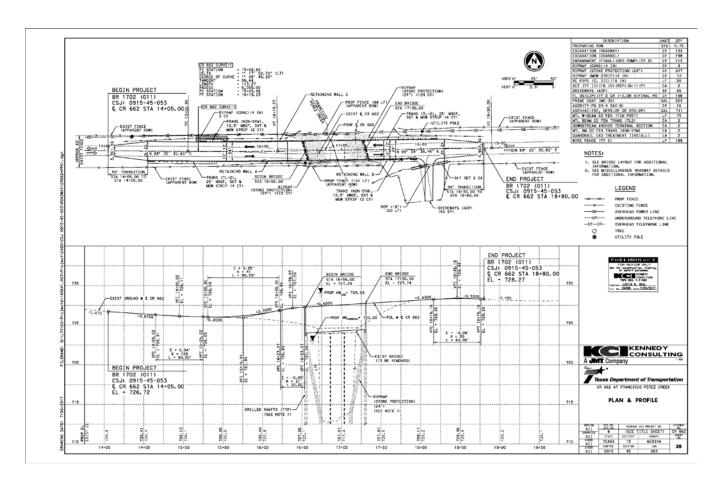
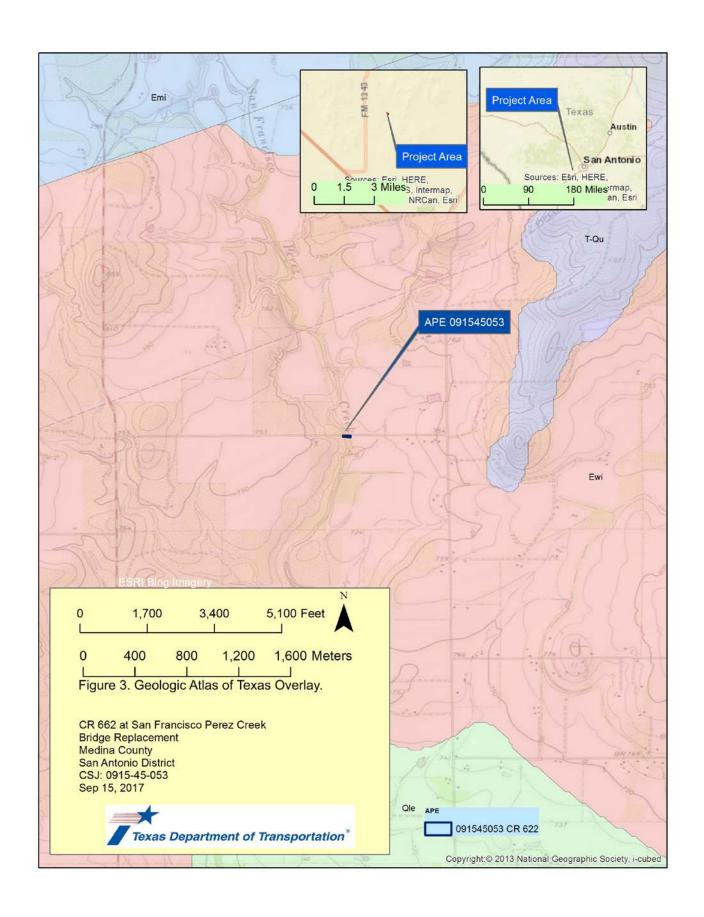
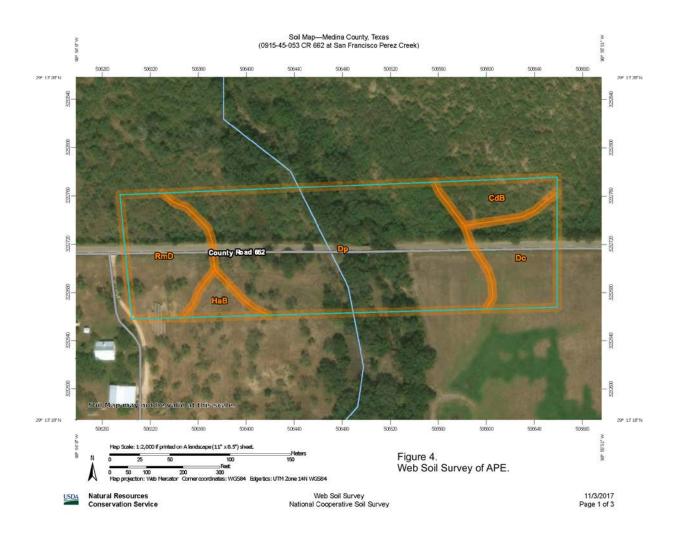
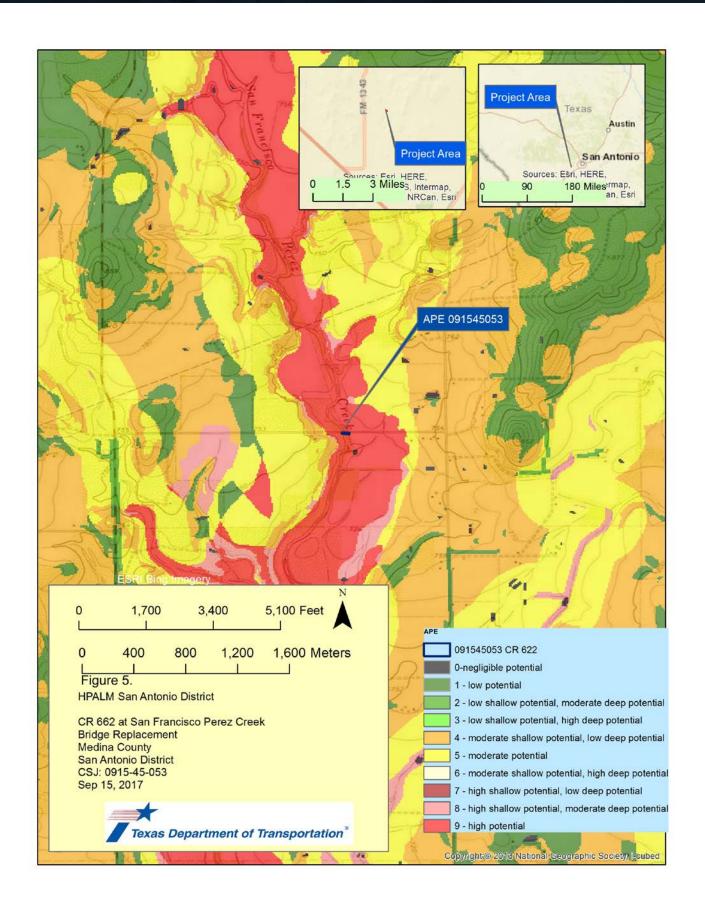
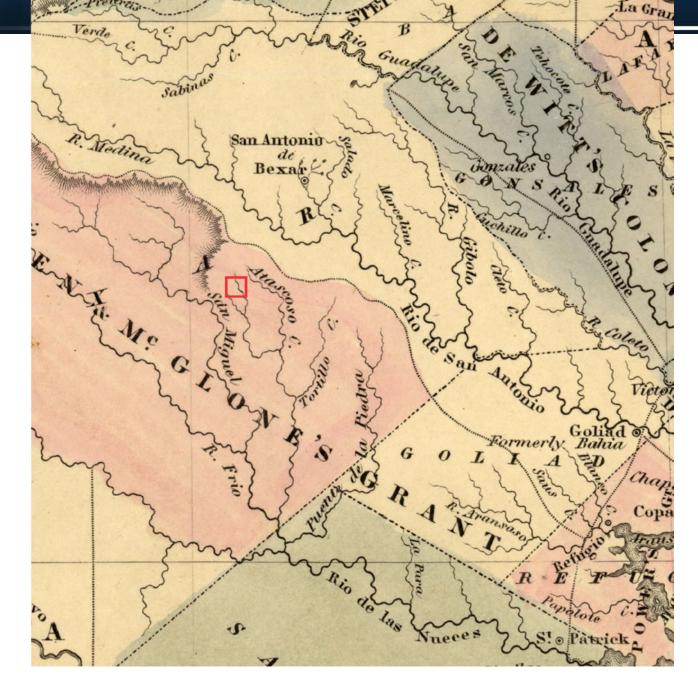


Figure 2. Plans and profile.







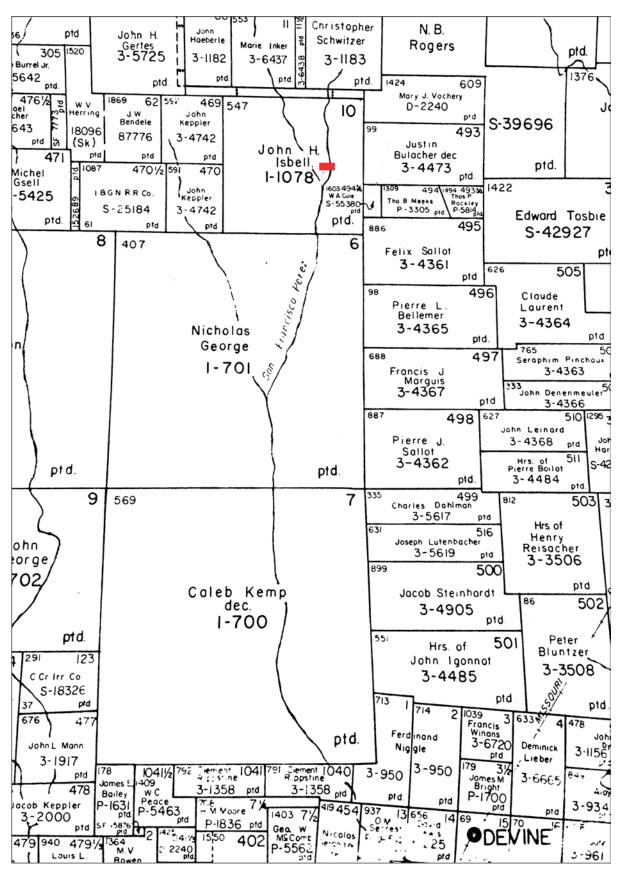


http://www.lib.utexas.edu/maps/historical/bradford-tx-ca1839-01.jpg

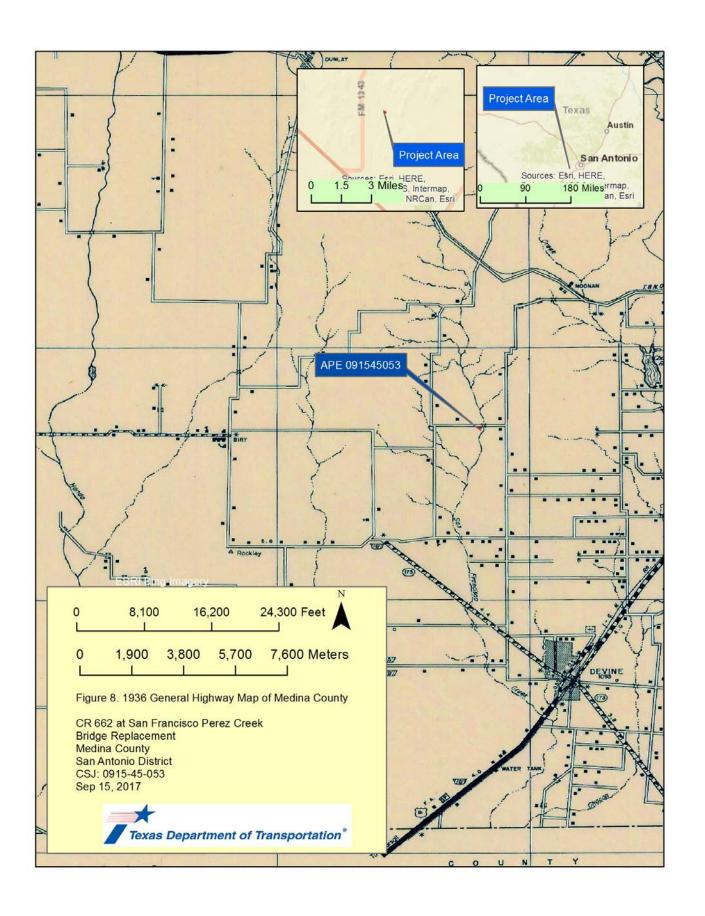
Figure 6. Excerpt of Texas Land Grants by T.G. Bradford 1838. 1838 T[homas] G[amaliel] Bradford.

Entered According to Act of Congress, in the Year 1838, by T. G. Bradford, in the Clerks Office, of the District Court of Massachusetts, Engraved by G. W. Boynton. [Boston, ca. 1839].

Advanced issue showing Austin as the capital (established 1839).



**Figure 7.** Medina County General Land Office Land Grants- Excerpt showing project location.



REMOVED BECAUSE OF RESTRICTED INFORMATION

Texas Natural Resource Code Title 9, Section 191.004

Texas Antiquities Code Title 13, Part 2, Chapter 24.13

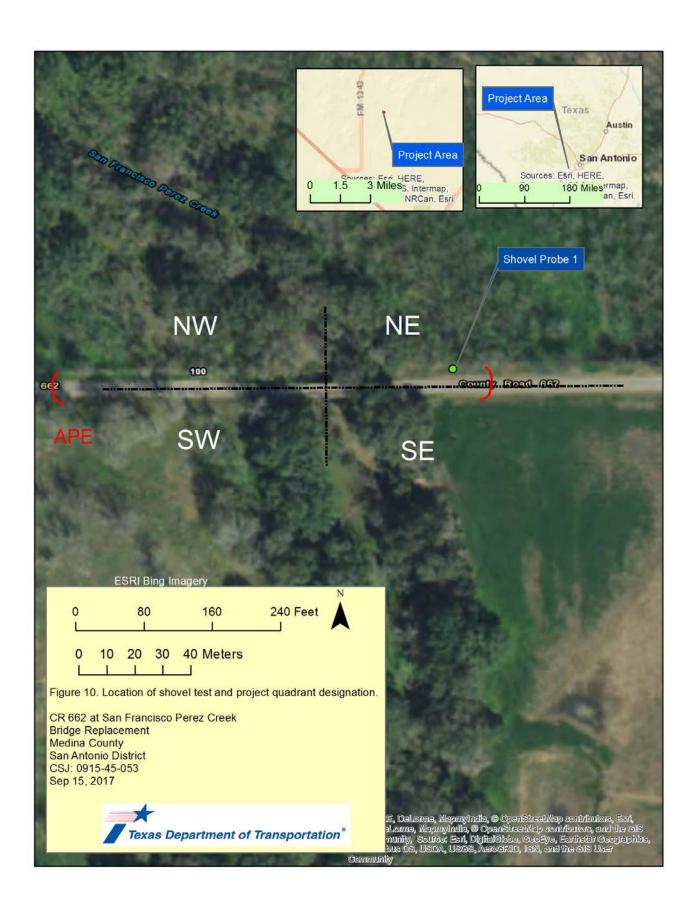




Figure 11. Overview of roadway showing elevated section.



Figure 12. West abutment.



Figure 13. East abutment.



Figure 14. Shovel Test 1.



Figure 15. North abutments vegetation at fence line.



Figure 16. Southeast quadrant.



Figure 17. Southeast quadrant showing adjacent terrace.