

**Cultural Resources Monitoring of the
840 East Mulberry Avenue Multi-Family
Residential Development Project
San Antonio, Bexar County, Texas**

Texas Antiquities Code Permit No. 7772

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Abstract

On behalf of Brackenridge Gardens Ltd., Pape-Dawson archaeologists monitored the excavations of select utility connections within City of San Antonio- (COSA-) owned right-of-way (ROW) that are associated with the proposed 840 Mulberry Development Project in San Antonio, Bexar County, Texas. Adjacent to the current project area, the 840 Mulberry Development project area was previously surveyed in February 2016, when Pape-Dawson excavated four backhoe trenches (Galindo et al. 2016). As a result of this survey, Pape-Dawson recorded multicomponent site 41BX2125. Pape-Dawson recommended site 41BX2125 not eligible for inclusion to the National Register of Historic Places or for designation as a State Antiquities Landmark (SAL), and projected the route of the Upper Labor Acequia to be adjacent to the east of the development (Galindo et al. 2016). These findings were concurred upon by the Texas Historical Commission (THC) on April 6, 2016, in compliance with Section 106 of the National Historic Preservation Act, and concurred upon by the COSA Office of Historic Preservation (COSA-OHP) in compliance with the Historic Preservation and Design Section of the city's Unified Development Code (UDC).

Subsequently, excavations within the COSA-owned ROW were required to connect the 840 Mulberry development to existing utility infrastructure. At the behest of COSA-OHP, two separate areas where utility excavations were to cross the projected segment of the Upper Labor Acequia within the COSA-owned ROW were monitored by a Pape-Dawson archaeologist. Monitoring efforts were conducted in compliance with the Antiquities Code of Texas under Antiquities Permit No. 7772 and in consultation with the COSA-OHP.

Pape-Dawson's investigations included updating an extensive background records and literature review, followed by the archaeological monitoring of two construction areas within COSA-owned ROW by Dr. Mary Jo Galindo and Katie Hill on October 3 and 6, 2016. The goal of the work was to locate and identify all prehistoric and historic archaeological sites in the project area, to establish vertical and horizontal site boundaries within the project area, and to evaluate the significance and eligibility of any sites recorded within the project area for designation as an SAL. All work was done in accordance with the standards and guidelines of the THC and the Council of Texas Archeologists (CTA).

During the course of the current monitoring effort, a brick manhole from a defunct sewer line was encountered in the southern excavation for a sewer line connection. The manhole may have been constructed within the Upper Labor Acequia channel. If so, its construction appears to have obliterated any remnant of the former acequia. Likewise, extensive disturbances were noted in the northern fire hydrant connection, and no evidence of the Upper Labor Acequia channel was revealed.

All work within the monitoring areas was conducted within extensively disturbed deposits predominately dating to the twentieth century. Based on the results of the monitoring efforts, the excavations for utility connections had no effect on significant cultural properties. Project records and photographs will be curated at the Center for Archaeological Research at the University of Texas at San Antonio.

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Introduction

On behalf of Brackenridge Gardens Ltd., Pape-Dawson archaeologists monitored the excavations of select utility connections within City of San Antonio- (COSA-) owned right-of-way (ROW) that were associated with the proposed 840 Mulberry Development Project in San Antonio, Bexar County, Texas. Adjacent to the current project area, the 840 Mulberry Development project area was previously surveyed in February 2016, when Pape-Dawson excavated four backhoe trenches (Galindo et al. 2016). As a result of this survey, Pape-Dawson recorded multicomponent site 41BX2125. Pape-Dawson recommended site 41BX2125 not eligible for inclusion to the NRHP and projected the route of the Upper Labor Acequia to be adjacent to the east of the development (Galindo et al. 2016). These recommendations were concurred upon by the Texas Historical Commission (THC) on April 6, 2016, in compliance with Section 106 of the National Historic Preservation Act (NHPA), and concurred upon by the COSA Office of Historic Preservation (COSA-OHP) in compliance with the Historic Preservation and Design Section of the city's Unified Development Code (UDC).

Subsequently, excavations within the COSA-owned ROW were required to connect the 840 Mulberry development to existing utility infrastructure. At the behest of COSA-OHP, Pape-Dawson monitored utility excavations within two separate areas (project area) where utility excavations were to cross the projected segment of the Upper Labor Acequia within the COSA-owned ROW. Monitoring efforts were conducted in compliance with the Antiquities Code of Texas (ACT) under Antiquities Permit No. 7772 and in consultation with the COSA-OHP.

The irregularly shaped project area is situated 2.2 miles (3.6 kilometer [km]) north-northeast of downtown San Antonio, adjacent to the 840 Mulberry Development (Figure 1). The monitoring targeted a projected path of the Upper Labor Acequia that is mapped within the current project area (Figure 2). The northern portion of the project area, encompassing approximately 0.14 acre (0.6 hectare [ha]), is situated along East Mulberry Avenue approximately 380 feet (115 m) east of its intersection with North St. Mary's Street. Construction activities in this area involved the excavation of a trench in the south half of the ROW for the installation of a new fire hydrant. The southern portion of the project area is along East Huisache Avenue near its intersection with Allison Road. Construction activities in this portion of the project area involved the excavation of a trench along the north side of East Huisache Avenue for the installation of a new sewer line connection within an approximately 0.08-acre (0.03-ha) area. Thus, the project area totaled 0.22 acres (0.09 ha).

Pape-Dawson's investigations included updating an extensive background records and literature review, followed by archaeological monitoring of the project area. The goal of the work was to locate and identify all prehistoric and historic archaeological sites in the project area, to establish vertical and horizontal site boundaries within the project area, and to evaluate the significance and eligibility of any sites recorded within the project area for designation as a State Antiquities Landmark (SAL). All work was done in accordance with the standards and guidelines of the THC and the Council of Texas Archeologists (CTA). Pape-Dawson archaeologists Mary Jo Galindo and Katie Hill conducted the archaeological monitoring on October 3 and 6, 2016.

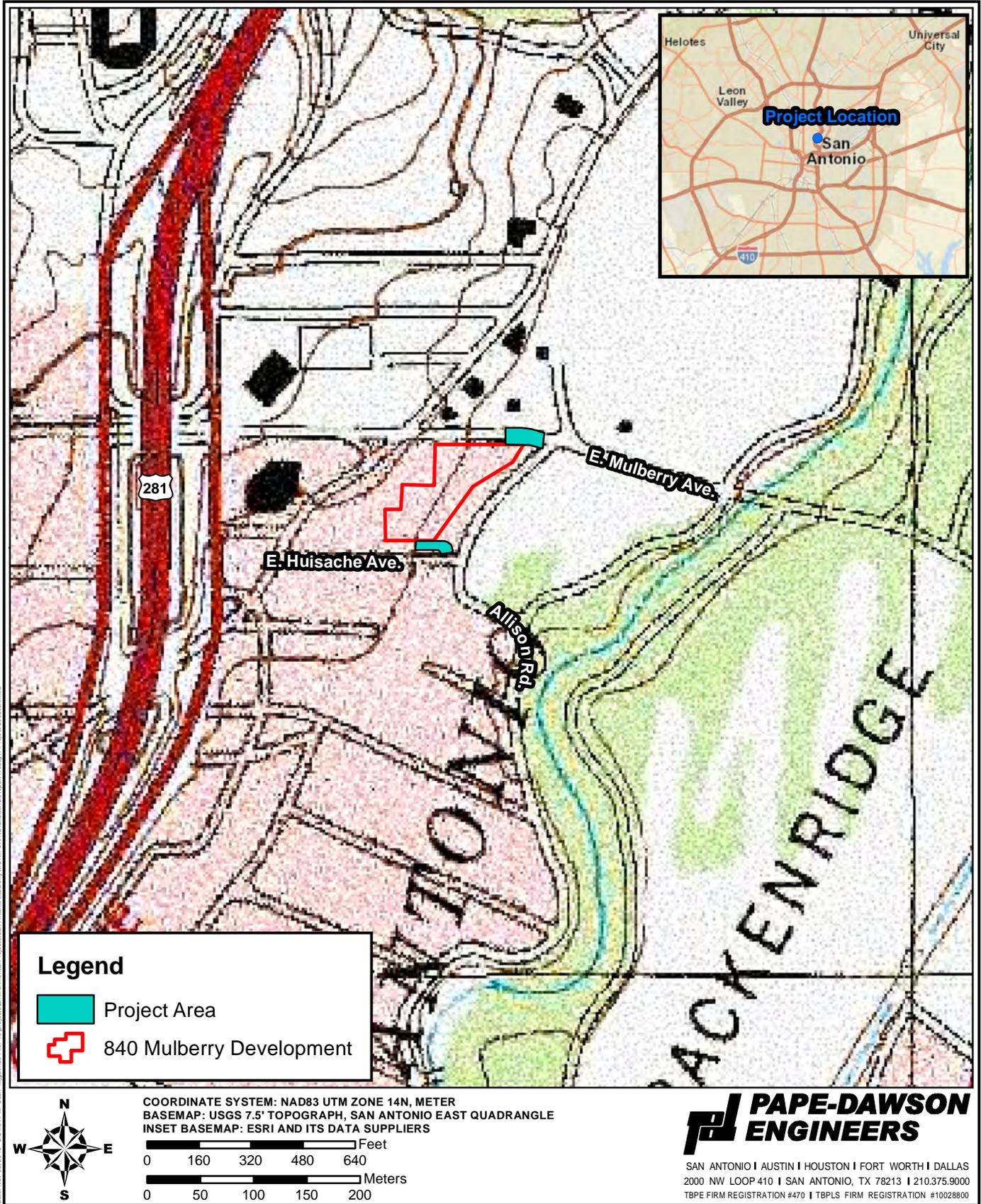


Figure 1 : Project Location Map

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Project Setting

The project area is situated on a gentle, east-trending slope overlooking the San Antonio River to the east. The surrounding area is mostly developed with residential and commercial complexes located to the north, south, and west, while Allison Park (formerly Davis Park), a 10-acre portion of the Brackenridge Park National Register Historic District (NRHD), is located just east of the project area (Pfeiffer and Tomka 2011). The project area itself has been heavily modified by the construction of roadways and sidewalks and the installation of utility lines for the surrounding commercial and residential development.

The project area is situated within the Blackland Prairies of the Gulf Coastal Plains physiographic region (Wermund 1996), and about 705 ft (215 m) west of the San Antonio River. The underlying geology is mapped as Upper Cretaceous-age Navarro Group and Marlbrook Marl (Bureau of Economic Geology [BEG] 1983). Soils within the project footprint are mapped as Lewisville silty clay with 0 to 1 percent slopes (U.S. Department of Agriculture, National Resources Conservation Services [USDA-NRCS] 2016). Lewisville silty clay is taxonomically classified as a Mollisol and is formed in ancient loamy and calcareous sediments. These soils are found on broad stream terraces (Taylor et al. 1966: 37-38; USDA-NRCS 2016) that may contain buried cultural deposits.

Methods

Records Review

Prior to fieldwork, Pape-Dawson archaeologists conducted a thorough background literature and records search of the proposed project area. This research included reviewing the San Antonio East (2998-133) U.S. Geologic Survey (USGS) 7.5-minute topographic quadrangle map at the Texas Archeological Research Laboratory (TARL) and searching the Texas Archeological Sites Atlas online database for any previously conducted surveys and historic or prehistoric archaeological sites located within a 0.62 mile (1 km) radius of the project area. The review also included information on the following types of cultural resources: NRHP-listed properties, sites, and districts, State Antiquities Landmarks (SAL), Official Texas Historical Markers (OTHM), Recorded Texas Historic Landmarks (RTHL), and cemeteries. In addition, archaeologists consulted the City of San Antonio (COSA) Historic Landmark Sites and Historic Geodatabases to locate any local historic landmarks and districts. The archaeologists also examined the U.S. Department of Agriculture Soil Survey of Bexar County, Natural Resources Conservation Service Web Soil Survey, the Geologic Atlas of Texas-San Antonio Sheet, and historic maps and aerials that depict the project area (Nationwide Environmental Title Research Online [NETR Online] 2016), including Sanborn Fire Insurance (Sanborn) maps.

Archival

With the exception of the San Antonio City Archives online records, and maps from the Texas Department of Transportation (TxDOT) Texas Historic Overlay, Pape-Dawson archaeologists consulted only secondary sources for contextual information and project area history. These sources included

previous archaeological reports for the project area, acequia maps on file with COSA-OHP, I. Wayne Cox's (2005) book on Spanish Colonial Acequias, and the Handbook of Texas Online.

Monitoring

Pape-Dawson archaeologists conducted cultural resources monitoring of utility excavations associated with the 840 Mulberry development project. The archaeologist coordinated all field activities with appropriate personnel and any on-site construction foremen regarding scheduling and safety. The archaeologist complied with all applicable safety regulations and wore all required safety equipment (e.g., hardhat and steel-toed boots). This effort consisted of a qualified archaeologist observing the excavation process, the excavation area, and the resulting fill, while frequently inspecting it for cultural remains. When encountered, artifacts were examined, quantified, and assessed as to age and origin. Pape-Dawson archaeologists thoroughly photographed and recorded the monitoring process and mapped any archaeological deposits with a sub-meter accurate, handheld Trimble GPS unit.

If intact archaeological deposits had been revealed during the construction process, the archaeologist would have attempted to make a determination as to potential significance. At such times, construction would have been temporarily suspended so that the archaeologist could better examine the cultural materials or features, take photographs, and thoroughly document the finds. Once the materials had been assessed, construction would have recommence, and continue as planned. Only if the materials had been assessed as extremely significant (e.g., intact features or human remains) would construction in the immediate area have been halted. If a localized work stoppage had been required, the monitoring archaeologist would have immediately contacted all involved parties (Brackenridge Gardens Ltd., THC, SA-OHP, etc.) through the appropriate Pape-Dawson project manager to discuss the find and formulate a plan of action. However, during the course of the monitoring it was not necessary to implement this emergency contingency plan.

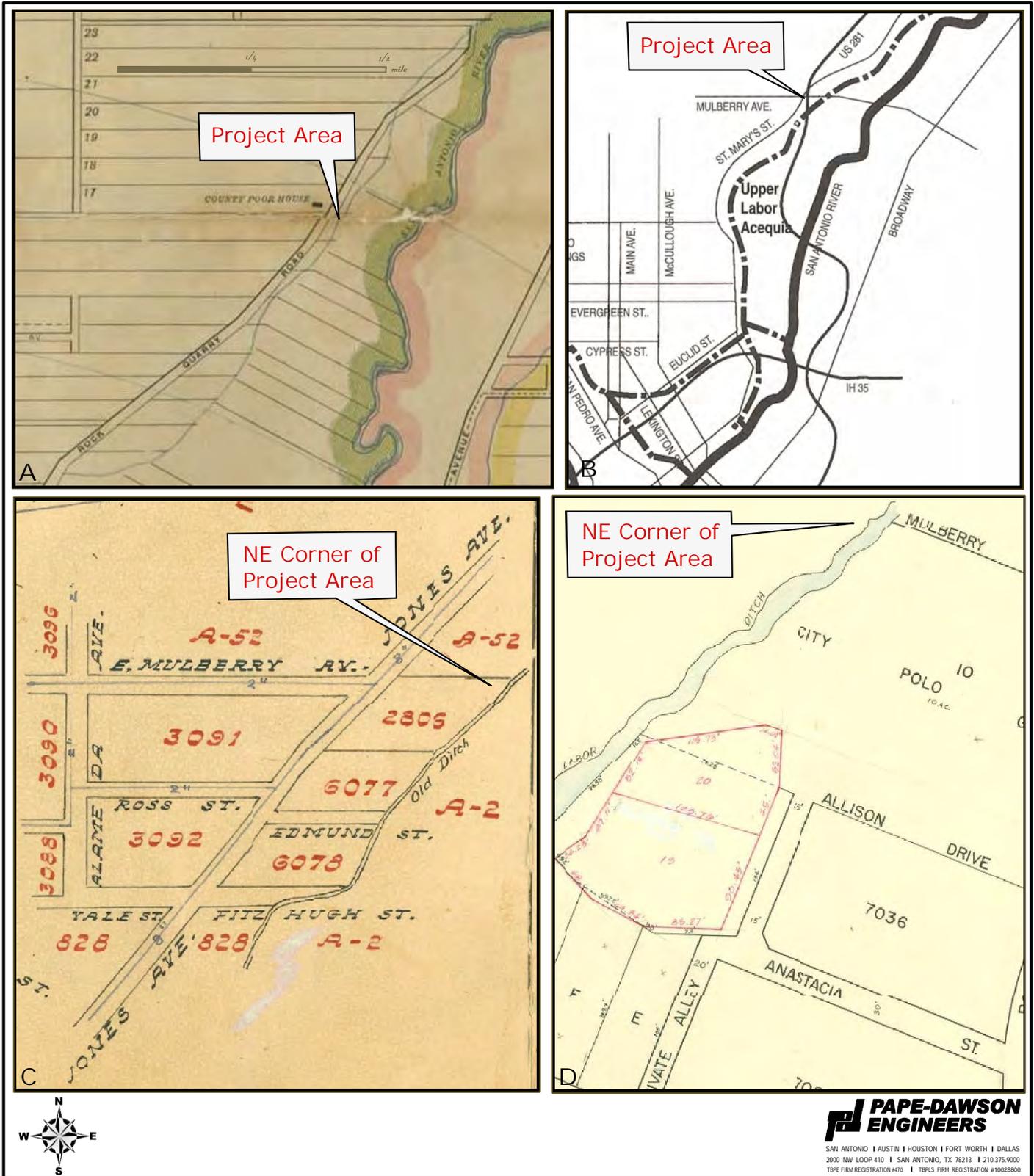
Diagnostic artifacts were to be collected and brought to Pape-Dawson's Archaeological Laboratory in Austin for cleaning, analysis, and curation. A representative sample of any non-diagnostic artifacts observed during the monitoring would have been photographed and documented in the field, but not collected.

Results

Records Review

The background review determined that the project area has been previously surveyed at the reconnaissance level (Fox 1979), and that—although not previously located archaeologically—a projected acequia route associated with the Acequia Labor de Arriba (Upper Labor Acequia) is depicted in historic maps between the San Antonio River and present-day North St. Marys Street, in the vicinity of the project area (Figure 3).

Adjacent to the current project area, the 840 Mulberry Development project area had been previously surveyed in February 2016, when Pape-Dawson excavated four backhoe trenches (Galindo et al. 2016).



A. 1889 J. J. Olsen map of San Antonio; B. Cox 2005: 19 Upper Labor Acequia Map;
 C. undated NCB Red Tax Map page 70 of 88; D. undated NCB Red Tax Map Page 3 of 88

Figure 3: Upper Labor Acequia

Artifacts associated with late-nineteenth- and early-twentieth-century occupations were encountered in all trenches, while prehistoric material was also in two of the trenches. Multicomponent site 41BX2125 was recorded within the 840 Mulberry Development project area and evaluated according to the criteria in 36 Code of Federal Regulations 60.4. Pape-Dawson recommended site 41BX2125 not eligible for inclusion to the NRHP and projected the route of the acequia to be adjacent to the east of the development (Galindo et al. 2016) (Figure 4).

An 1889 map of San Antonio by J. J. Olsen is presented as Figure 3A and depicts the acequia and Rock Quarry Road, which became Jones Avenue and is present-day North St. Mary's Street. The project area roughly corresponds to the northeastern corner of suerte 16, while the County Poor House was in suerte 17, with a road that would become Mulberry Avenue between them. Note that on this early map the acequia (not Rock Quarry Road) is the boundary between two sets of suertes, or land grants that meet at an angle. A similar angle is evident today in the alignment of East Mulberry Avenue; the east-west trending street turns southward at roughly the northeast corner of the project area (see Figure 1). A map from Cox (2005:19) is presented as Figure 3B and illustrates the Upper Labor Acequia parallel to and southeast of North St. Mary's Street.

In an undated plat map (page 70 of 88) in the COSA archives, New City Blocks 2806 and 6077 are depicted with their eastern boundary as the Upper Labor Acequia (labeled "Old Ditch") (Figure 3C). Another undated plat map (page 3 of 88) from the COSA archives depicts 10-acre Allison Park (labeled, "City Polo Grounds") with the acequia as its western boundary (Figure 3D). The information contained in these historic maps and plats is limited by their geo-spatial accuracy. The maps in Figure 3 were geo-referenced as best as possible given their shortcomings, but they do not provide conclusive evidence. The exact location of the acequia in relation to the project area could not be determined by these maps alone; rather, multiple lines of evidence (historic maps, plat maps, city commission minutes, and deed records) were combined with fieldwork results to project the Upper Labor Acequia route as lying adjacent to the 840 Mulberry Development's eastern boundary, and not within it (Galindo et al. 2016).

The Brackenridge Park NRHD and the River Road Local Historic District are also adjacent to the project area. There are no NRHP-listed properties or districts, SALs, OTHMs, RTHLs, cemeteries, or local historic landmarks within the project area. However, within 0.62 mile (1 km) of the project area there is one other NRHD, five NRHP-listed properties, two SALs (sites 41BX13 and 41BX1396), 11 other previously recorded archaeological sites (Appendix A), four OTHMs, one RTHL, and four City of San Antonio Landmarks (including only those properties that are local landmarks with no other designation; those with dual designations are counted by their state or federal designation) (Appendix B) (Figures 5a and 5b).

Prior Surveys

Including Fox (1979) and Galindo (et al. 2016), 26 archaeological projects have been conducted within the 0.62-mile (1-km) radius. The majority of these projects are located within Brackenridge Park, spanning from 1979 through 2014, and including survey, testing, data recovery, and monitoring projects. The project area was included in a reconnaissance-level survey by the University of Texas at San Antonio's Center for Archaeological Research (UTSA-CAR) that was conducted on behalf of the U.S. Army

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Corps of Engineers along the San Antonio River from the Olmos Dam to South Alamo Street (Fox 1979). There is no Antiquities Permit number associated with this survey, and the report contains only general, locational information regarding historic structures and prehistoric sites within the survey area. The current project area is not mentioned in the report. Subsequently, an archaeological survey and historical assessment of Brackenridge Park on behalf of COSA was conducted by UTSA-CAR without an ACT permit (Katz and Fox 1979). Another early survey with no associated ACT permit was an archaeological and historic assessment of Fort Sam Houston (Gerstle et al. 1978). In 2010, an archaeological survey with backhoe trenching was conducted adjacent to the project area in Allison Park and a segment of the Upper Labor Acequia was recorded (Shafer and Hester 2010). Because of the proximity of their investigation, Shafer and Hester (2010) findings are discussed throughout this report.

The remaining investigations were conducted within Brackenridge Park under ACT permits and include 10 surveys (Carpenter et al. 2014; Figueroa 2008; Houk 2002b; Houk and Miller 2001, 2005; Kemp et al. 2013; Miller and Barile 2002; Uecker 2008; Ulrich Miller 2012; Ulrich et al. 2012), eight monitoring projects (Anderson et al. 2012; Carpenter et al. 2014; Dickey et al. 2013; DiVito 2013; Galindo 2013; O'Farrell and Houk 2002; Shafer and Hester 2012; Ulrich et al. 2012), five testing projects (Carpenter et al. 2014; Figueroa and Dowling 2007; Houk 2002a; Kemp et al. 2013; Miller et al. 1999), and four data recovery investigations (Carpenter et al. 2014; Houk 2002a; Houk et al. 1999; Meskill et al. 2000). Two other projects conducted under ACT Permits 3098 and 6449 are within 0.62 mile (1 km) of the project area, but no associated final report is yet on file (THC 2016).

Brackenridge Park National Register Historic District

Brackenridge Park NRHD is comprised of 344 acres immediately south of the headwaters of the San Antonio River, which runs through the entire park from north to south. The river in the park is partially contained within Depression-era stone walls and has been re-channelized in some areas, but remains in its natural state from Tuleta Drive to Craig Place. The city-owned park is generally bounded by Hildebrand Avenue on the north, McAllister Freeway, Alpine Drive, the San Antonio Zoo and River Road on the west, Josephine Street and US 281 on the south, and Avenue B and Broadway on the east. Contributing resources range from mid- to late-eighteenth-century Spanish colonial irrigation features to Depression-era improvements and mid-twentieth-century amusements including a miniature train (Pfeiffer and Tomka 2011). The original park bequest (1899) comprised 199 acres east of the San Antonio River.

Brackenridge Park was extended west of the river in the early twentieth century when additional bequests were combined with Spanish land grant property already owned by the city. The park grew with no formal plan, evolving informally as new recreational features were introduced. These include a golf course (114 acres), ball fields, a museum, a sunken garden, and outdoor theater (Pfeiffer and Tomka 2011). The wooded eastern half of Brackenridge Park accommodates picnic gatherings and features meandering roads and walking paths. The park's western half houses activity sites like ball fields, a golf driving range, and the Brackenridge golf course, which spans both sides of the river. Brackenridge Park's general appearance is largely unchanged since the 1950s; however, a notable alteration took place in the early 1970s when construction of US 281 severed a portion of the park's western edge.

In the southern portion of Brackenridge Park, only part of the golf course and the tract known as Allison Park are west of the river (Pfeiffer and Tomka 2011). Allison Park was established in 1917 as a 10-acre open space, bounded on the north by East Mulberry Avenue, on the east by the San Antonio River, by private property on the west, and on the south by East Huisache Avenue. Along Mulberry Avenue, a cedar post fence defines an old horse trail that originally served the stable, which was at 830 East Mulberry Avenue (within the 840 Mulberry Development area) (Pfeiffer and Tomka 2011). The stable closed and was demolished in the late 1990s.

River Road Local Historic District

The River Road Historic District is a neighborhood comprised of multiple plats dating from 1913 through approximately 1950. The majority of the area was platted in the 1920s, and most of the housing stock is reflective of the time period (SA-OHP 2016). The homes include Bungalows, Tudor Revival cottages, minimal traditional houses, and other eclectic styles. The historic district is characterized by narrow, winding, tree-shaded streets and is bounded by Allison Road and Trail on the north, East Craig Place on the south, River Road and the San Antonio River on the east, and US 281 on the west.

In 1913, developer H.J. Allen platted the area known as “Belmont Place by the River,” which included Armour Place, McKinney Place (present-day Woodlawn Avenue), East Craig Place, and Preston Street (present-day Lindell Place). Many homes had been constructed within this area by 1927. Records indicate that three homes were constructed by 1929 on Lindell Place. Magnolia Place was platted in 1929 and included Magnolia Avenue, Magnolia Drive, and portions of Ostrom Drive, Lindell Place, and Dewberry.

Two particular residences of distinction include the Zambrano House at 104 Anastacia and a two-story home at 120 Anastacia. The Zambrano House is an eighteenth-century rammed earth house built by early landowner Macario Zambrano. One of his sons, Juan Manuel stifled the Casas Rebellion in 1811 and later fought at the battle of Medina River in 1813. Two other sons of Zambrano were José María, the first Alcalde and judge, and José Dario, who was the parish priest at San Fernando Cathedral during the Texas War for Independence. The Zambrano House is an RTHL and a local individual landmark. The house at 120 Anastacia was the former main building of the River Road Country Day School that was established on the site by Hetty S. Brown and operated in the early decades of the twentieth century.

Previously Recorded Sites

Upper Labor Acequia (41BX2043)

As mentioned, a segment of the Upper Labor Acequia (41BX2043) is mapped within the project area, according to various historic maps and recent research (see Figures 3 and 4). These maps are limited in detail for specific locations such as the project area; however, so multiple lines of evidence (historic maps, plat maps, and deed records) were used to support the premise that the Upper Labor Acequia lies adjacent to the project area’s eastern boundary (Galindo et al. 2016). An acequia route in approximately the same location is also visible on maps from the TxDOT Texas Historic Overlay dating to 1887, 1889, 1903, and 1912 (Figure 6) (Foster et al. 2006). Shafer and Hester (2010) encountered a small remnant of the Upper Labor Acequia that had been truncated by a sewer line during a survey of Allison Park, which

is adjacent to the east side of the project area. Acequias are simple, often soil-lined, gravity-flow canals whose depressions can still be seen today in certain areas of Brackenridge Park. For example, a portion of the Upper Labor Acequia still functions in the zoo to transport water for animal exhibits (Cox et al. 1999).

As the Spanish established missions during the eighteenth century in Bexar County, they also devised an irrigation and water supply system using spring water. Friars supervised the labor of Indians, settlers, and soldiers to construct diversion dams and acequias (Cox 2005). Overall, they built 7 gravity-flow ditches, 5 dams and an aqueduct that comprised a 15-mile network capable of irrigating about 3,500 acres (Tarin 2015). The system eventually distributed water not only for agriculture, but also personal consumption and other household uses (Porter 2009). Thus, the system represents the first municipal water system in what would become the United States, and is a contributing element of both the San Antonio Missions National Historic Park NRHP District (Ivey and Bush Thurber 1983), and the Brackenridge Park NRHP District (Pfeiffer and Tomka 2011). The Upper Labor Acequia was one of two major canals that were excavated to bring water to early settlements between the San Antonio River and San Pedro Creek (Cox et al. 1999). The Acequia del Alamo (also known as Acequia Madre, Alamo Madre, and Alamo Ditch) was the first canal dug at the San Antonio Springs between 1718 and 1744. The Acequia del Alamo continued to supply water until the early 1900s. The source of the acequia was the San Antonio River where water was diverted by means of a diversion dam that extended into the stream from its western bank. The acequia served to raise and direct the flow of water toward the eastern bank to a canal intake. In present-day San Antonio, this point can be found in Brackenridge Park, south of the intersection of Broadway and Hildebrand, near the Witte Museum.

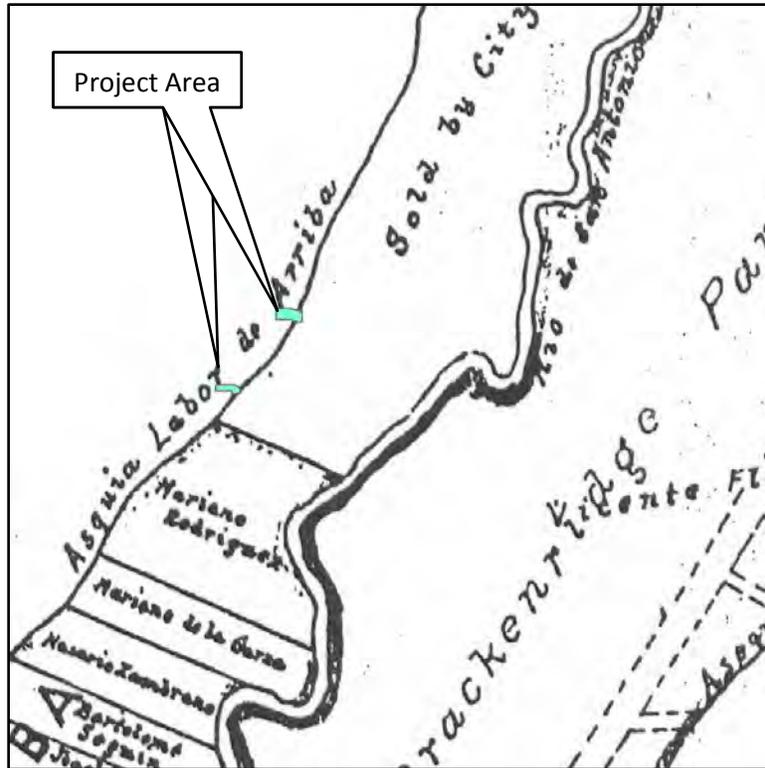


Figure 6: Project area on 1912 San Antonio Officials Map (Foster et al. 2006).

The Spanish missions consumed spring water exclusively until 1761 when a well was dug at the Alamo in anticipation that hostile Indians would block access to the river. Around 1776 a dam was built to divert spring water into a second canal, the Upper Labor Acequia, which was associated with the San Pedro Springs. In 1935, the Works Progress Administration (WPA) reconstructed the headgate and about 1,500 feet of the Upper Labor Acequia channel. At the same time, the WPA built a number of structures on park property, including the Sunken Garden built for the San Antonio Civic Opera Association and much of the stone work lining the river channel. They also rebuilt a portion of the channel above the old Water Works Waterway and a segment in the waterfowl area of the San Antonio Zoo (Cox 2005:72).

The Upper Labor Acequia dam was relocated during an archaeological excavation near East Hildebrand Avenue in 1996 (Cox et al. 1999). The undressed, colonial-era limestone dam had been expanded or repaired in the nineteenth century by German masons who used ashlar-dressed stones (Cox et al. 1999). The Upper Labor Acequia was filled around 1893, although traces of its limestone walls can still be found in the backyards of some residential areas (Cox 2005). As the population of San Antonio grew during the nineteenth century, the acequias could not meet the demand and eventually became a source of disease as people increasingly used them to dispose of waste (Porter 2009:96). The canals also required constant maintenance to keep them functioning properly. The Espada and San Juan Acequias are the only ones that still flow today.

Historic Maps and Aerial Photographs

In addition to researching previously recorded sites near the project area, the Pape-Dawson archaeologist consulted the Sanborn maps and reviewed historic maps and aerial photographs of the project area to assess the potential for historic archaeological deposits to exist within the project area. A review of 16 Texas Historic Overlay maps from 1836 to 1953 determined that the Upper Labor Acequia is mapped within the project area, and that structures were depicted adjacent to the project area on these historic-age maps as early as 1927 (Foster et al. 2006). Specifically, an 1887 map of Bexar County by J. D. Rullmann, an 1889 map of San Antonio by J. J. Olsen, a 1903 USGS map of San Antonio, and a 1912 San Antonio Officials map depict an acequia segment adjacent to the east of the project area (see Figure 6) (Foster et al. 2006).

In 1911, when the Hodgkins Addition was platted, the acequia was mapped as the eastern boundary of Lot 11 in New City Block 6077 (Figure 7) (Bexar County Clerk Records [BCCR] 368:17). Lot 11 would have been adjacent to the southern portion of the project area along the north side of Edmund Street (present-day East Huisache Avenue). According to the 1927 USACE map of East San Antonio, the entire block adjacent to the project area was developed, with structures facing both East Mulberry and East Huisache Avenues. Information about individual properties within the project area is limited in these historic maps. Instead, Sanborn maps were consulted for more specific information about historical development adjacent to the project area. Sanborn maps indicate that structures were present within the project area in the early-twentieth century. Specifically, Sanborn maps from 1951 depict residences, stables, and outbuildings in the block adjacent to the project area. These correspond to 830 East Mulberry Avenue, six addresses along East Huisache Avenue (727, 731, 733, 743, 745, and 749), and their associated outbuildings. The 1951 Sanborn map (Volume 2, Sheet 191) was geo-referenced as best as possible, given the inconsistencies in the original drawing. Some of the details, such as the width of Lot 11, are not accurate and are discussed below.

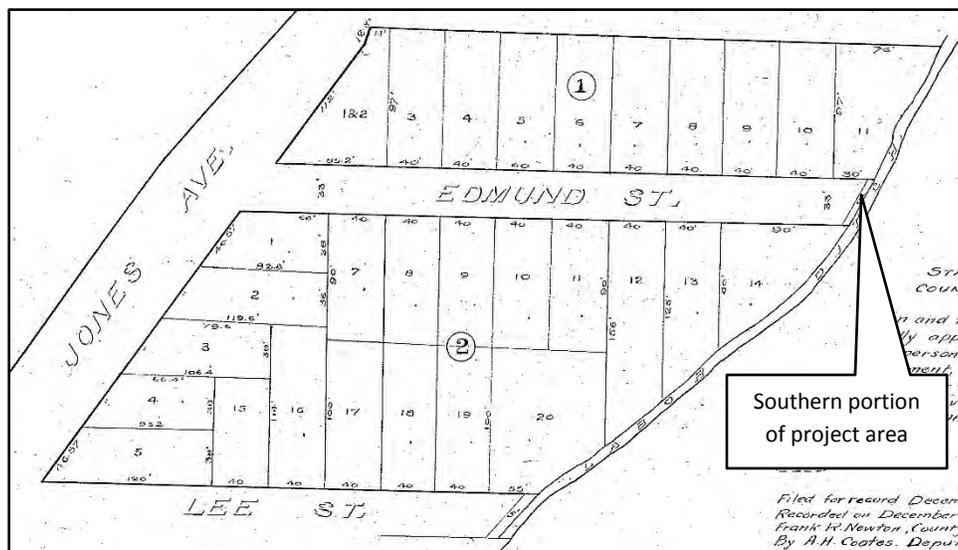


Figure 7: 1911 Hodgkins Addition Plat Map with Upper Labor Acequia as its eastern border (BCCR 368:17).

1951 Sanborn Fire Insurance Map

Sanborn map sheet 191 (Volume 2) that was revised in 1951 depicts the property adjacent to the project area with a horse riding academy that contained stables, a dwelling, a garage, and an office (Figure 8). The first stable had a sales office with the address 830 East Mulberry Avenue, and was centered along the northern perimeter of the project area, paralleling East Mulberry Avenue. South of this stable, two others were adjacent to each other and extended to the western perimeter, near an extant commercial building. Centered south of the stable/sales office along East Mulberry was a private garage with a residence directly to the east, and also with the address of 830 East Mulberry Avenue. Another office was south of the garage. Two more east-west oriented stables and one L-shaped stable are mapped in the southern half of the project area and are labelled, "Riding Academy." A residence and an outbuilding are depicted in each of Lots 8, 9, and 10.

As noted above, Lot 11 along East Huisache Avenue is adjacent to the southern portion of the project area. The riding academy is labeled with the address 745 East Huisache Avenue, while the office south of the garage is 749 East Huisache Avenue (even though it is closer to East Mulberry Avenue). Based on deed records and archival research, the width of Lot 11 is inaccurately depicted in the 1951 Sanborn (see Figure 9). It is drawn encompassing most of the stables at 743 and 735 East Huisache Avenue, but the southernmost building curiously straddles the supposed property line. Perhaps the Sanborn map maker excluded an open area that was being used as a pasture for the horses, or a parking area for the stable's clientele that was mistaken as part of the park. The portion of Lot 11 excluded from the Sanborn appears to be developed by 1955 when an aerial photograph depicts a building in the project area's southeast corner (NETR 2016). Aerial photography from the mid-1990s continued to depict these resources, but by 2004 they had all been razed (NETR 2016). Thus, according to historic Sanborn maps, the current project area is adjacent to the former location of 830 East Mulberry Avenue, Lot 11 along East Huisache Avenue, and their associated outbuildings.

Monitoring Fieldwork

Introduction

On October 3 and 6, 2016, Dr. Mary Jo Galindo and Katie Hill observed utility excavations within the projected route of the Upper Labor Acequia within the project area. The northern section of the project area along Mulberry Avenue was excavated during the installation of a new fire hydrant (Figure 9). The southern section of the project area involved sewer connections along East Huisache Avenue and Allison Road.

Fire Hydrant Trench

The fire hydrant trench within the northern section of the project area extended from the sidewalk adjacent to the northeastern corner of the 840 Mulberry Development north for almost 10 feet (ft) (3 m) into Mulberry Avenue (Figure 10). It was 5 ft (1.5 m) wide and 6 ft (1.83 m) at its greatest depth. Prior to excavation the asphalt and sidewalk were cut, broken into pieces and hauled away (Zone I). Underlying the asphalt and concrete was base material (Zone II). These two zones reached a total depth of 7.9 inches (20 cm) or just under 4 inches (10 cm) each. Below this the monitoring encountered black

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Figure 10. The fire hydrant trench overview, facing east.

(10YR2/1) clay loam (Zone III) over brown (10YR5/3) clay (Zone IV). Prehistoric artifacts were recovered in the backdirt of Zone III, which reached from 7.9 to 27.6 inches (20 to 70 cm) below surface. These artifacts included 2 tertiary flakes and 1 mammal bone fragment with no apparent cutmarks (Figure 11). Additionally, 2 pieces of fire cracked rock (FCR) were noted in the backdirt of Zone III at about 9.8 inches (25 cm) below surface. Zone III appeared to be intact, extending from the water main trench south to under the sidewalk; however, Zones III and IV do not correspond to the stratigraphy revealed about 75 ft (22.9 m) southwest in a backhoe trench excavated during the cultural resources survey of the adjacent 840 Mulberry Development (Galindo et al. 2016). Indeed, extensive disturbances were documented in BHT 1 at site 41BX2125, including two sewer lines along the eastern property boundary (Galindo et al. 2016:25). While Zones III and IV may be intact, they cannot be associated with a known stratigraphic zone from site 41BX2125.

The fire hydrant trench is about 30 ft (m) northwest of a trench excavated by Shafer and Hester (2010) in Allison Park where a small remnant of the Upper Labor Acequia that had been truncated by a sewer line was encountered near East Mulberry Avenue. The concrete-capped sewer line that Shafer and Hester (2010) encountered was about 19.7 inches (50 cm) below the surface. Nothing similar was encountered during the monitoring of the fire hydrant trench.

Zone IV extended from 27.6 inches (70 cm) to the bottom of the trench at 72 inches (183 cm) below the surface (Figure 12). It contained 10 percent limestone gravel and cobbles that ranged from 0 to 2 in (0 to 5 cm) in diameter, but no cultural material or features were observed in an apparently intact matrix. An



Figure 11. Bone fragment and 2 tertiary flakes from Zone III of the fire hydrant trench, and 1 large primary flake from Zone V.



Figure 12. The western wall profile of the fire hydrant trench.

additional zone, Zone V, was observed in the northern half of the excavation in the street. It started just below the Zone II base material at 7.9 inches (20 cm) and was visible to the bottom of the trench at 72 inches (183 cm) below the surface. This disturbed layer (Zone V) contained the backfill of the existing water main trench. A single artifact—a large primary flake—was observed in Zone V (see Figure 11).

Based on encountering small lithic flakes and a bone fragment in Zone III, which has no correlate in the stratigraphy of nearby site 41BX2125, and a large primary flake in a disturbed context, the prehistoric artifacts encountered in the fire hydrant trench could not be assigned to adjacent site 41BX2125 with certainty; therefore, they are considered isolated finds and no site revisit form was filed.

Sewer Line Trench

The sewer line trench in the southern section of the project area extended from an existing sewer line near the southeastern corner of the 840 Mulberry Development, and proceeded along East Huisache Avenue for 32 ft (9.8 m) to an existing concrete manhole (see Figure 9). The trench was 29.5 inches (75 cm) wide and 3.9 ft (1.2 m) deep. The purpose of this trench was to connect the new development's sewer service to an existing manhole and sewer line.

Previous research indicated that the Upper Labor Acequia traversed the area where the trench was to be excavated (see Figure 4). About 130 ft (40 m) south of this southern section of the project area, a brick-lined lateral channel associated with the Upper Labor Acequia is visible and would have connected to the acequia's main artery (Figure 13). Laterals allowed landowners adjacent to the acequia to irrigate their agricultural fields.

Extensive disturbances related to previous utility installations were noted throughout the trench wall profiles. No evidence of the Upper Labor Acequia was encountered, but a manhole from a defunct sewer was documented within the projected acequia route, and may be related to the concrete-capped sewer that Shafer and Hester (2010) noted in Allison Park in association with a small remnant of the acequia channel (see Figure 9).

Once the asphalt and concrete had been removed, excavation began by uncovering the existing sewer line a few meters west of the southeastern corner of the 840 Mulberry Development (Figure 14). The trench was excavated to a depth of 3.9 ft (120 cm), and the depth remained continuous for the length of the trench. From here, the trench was excavated toward the southeast into East Huisache Avenue. Nearing the property boundary a carbon stain was observed in the northeastern wall profile, and some red brick fragments were noted just below the vegetation. These were interpreted as remnants of a fence along the property boundary.

East of the property line, digging proceeded cautiously as an active gas line was expected. The line, which ran east to west intersecting the trench at a roughly 30-degree angle, was uncovered using hand tools. A few flakes were noted in the back dirt, but they were in the fill of the utility line trench (Zone V). Zone V was a gray brown (10YR5/2) sandy clay with brown (10YR4/5) mottles (Figure 15). Some wires were also uncovered where the gas line entered the northeast wall of the trench, and below these wires was noted a plastic wrapper, indicative of extensive disturbances. East of the disturbance caused by the



Figure 13. A brick-lined lateral channel of the Upper Labor Acequia is directly south of project area, facing west.

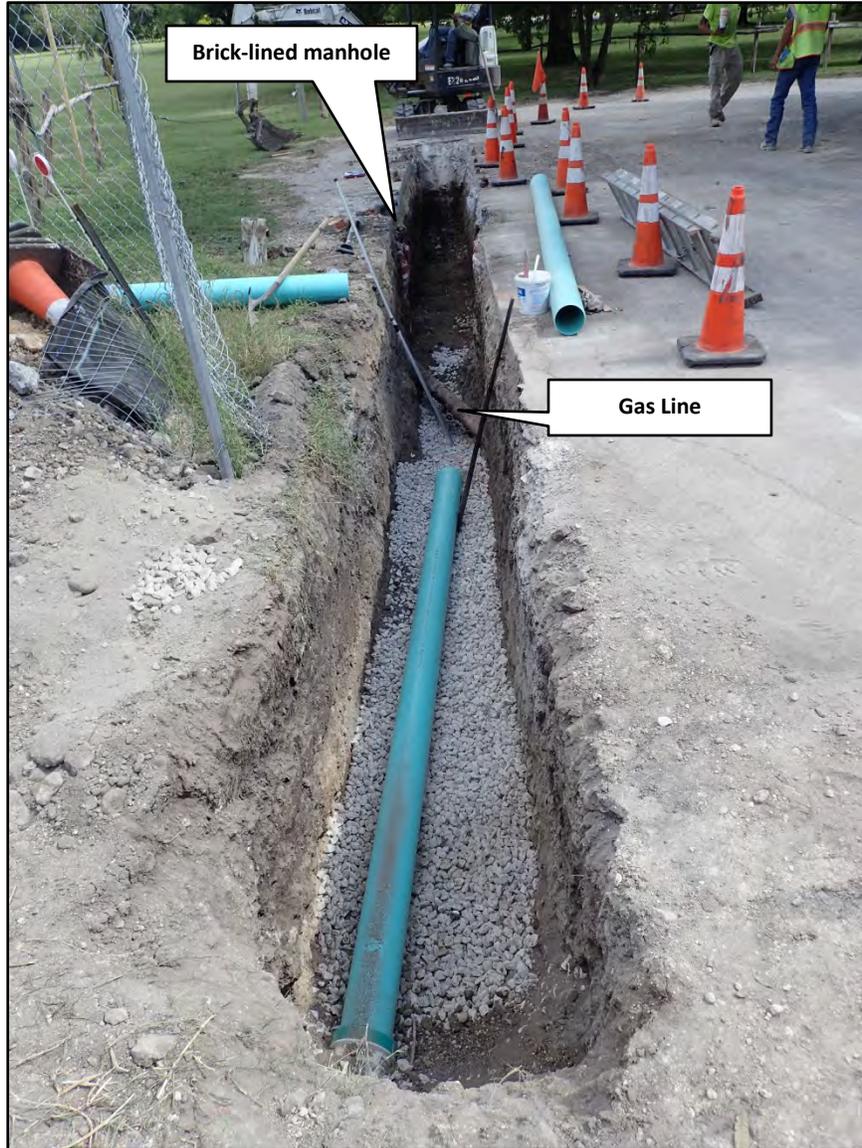
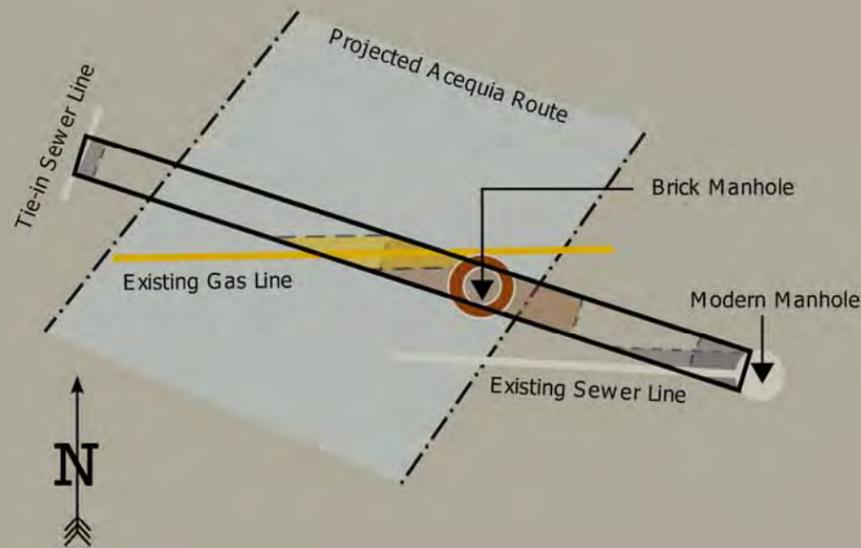


Figure 14. Overview of the sewer line trench, facing east.

Plan View of Trench with Disturbances



Soil Descriptions

- I. Asphalt
- II. Concrete road base
- III. Gravel road base
- IV. Fill from brick manhole: Dark brown (10YR 3/3) sandy clay with yellowish brown (10YR 5/6) mottles with few large pieces of asphalt and gravel. Historic artifacts recovered from backdirt of this zone.
- V. Fill from existing gas line: Grayish brown (10YR 5/2) sandy clay with brown (10YR 4/3) mottles
- VI. Brown (10YR 4/3) very sandy clay with dark yellowish brown (10YR 4/6) and very dark brown (10YR 2/2) mottles with stone, bricks and large fragments of concrete
- VII. Very dark brown (10YR 2/2) clay with some fragments of concrete
- VIII. Fill modern manhole: Grayish brown (10YR 5/2) sandy clay with gravel, many small fragments of asphalt and stones
- IX. Fill from modern sewer line: Dark yellowish brown (10YR 4/6) clay with very dark brown (10YR 2/2) mottles
- X. Fill from modern sewer line: Dark yellowish brown (10YR 4/6) clay
- XI. Gravel above existing sewer line

Southwest Wall Profile

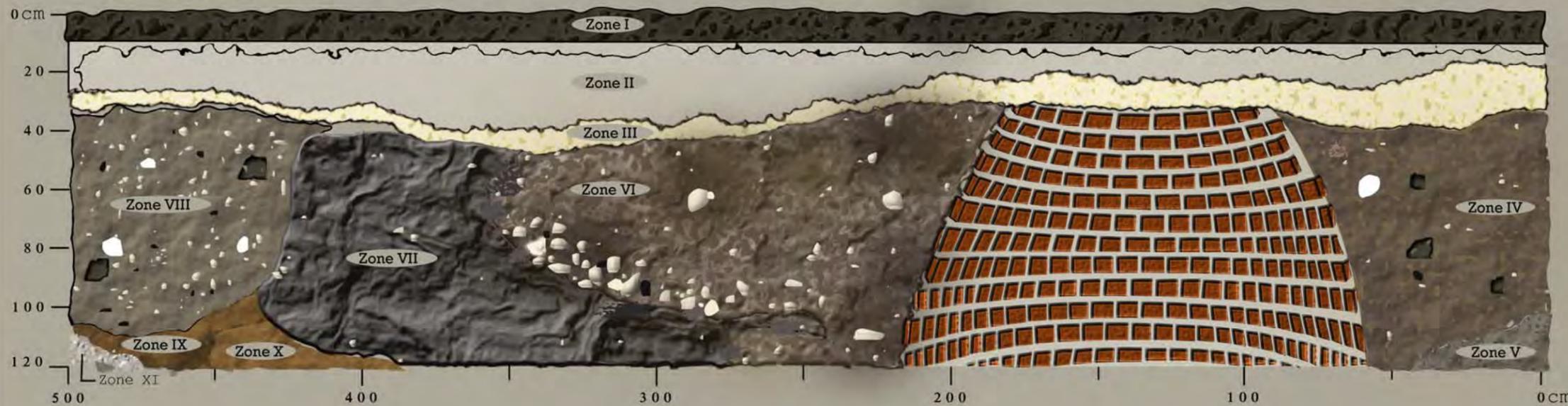


Image created by: K.B. Hill

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Figure 15: Sewer Line Trench

installation of the gas line and wires, the soil changed to dark brown (10YR3/3) sandy clay with yellowish brown (10YR5/8) mottles, and inclusions of gravel and fragments of concrete and asphalt (Zone IV). A sherd of ironstone and the neck and mouth of a large, colorless glass bottle were retrieved from the backdirt of this disturbed zone. Further digging uncovered a brick structure. This was first thought to be a brick-lined acequia, but it quickly became evident that the curve of the bricks did not comport with that interpretation.

Upon further excavation, it was revealed as a brick-lined manhole (Figure 16). In consultation with the COSA-OHP, the manhole was determined not to be a significant resource, and excavation was allowed to proceed through it. Besides being a common element of a defunct sewer system, the brick-lined structure would have likely extended too deep to install the sewer line beneath it.

As the manhole was removed, it was noted that while all the bricks were red, the upper courses of brick were stamped, "ALAMO," while the lower ones were primarily marked, "SECO" with a backwards "S."



Figure 16: Brick-lined manhole detail: A. Prior to demolition, facing west-southwest; B. Plan view, denoting former opening with dashed line; C. Northern wall profile during demolition; and D. ALAMO- and SECO-brand bricks.

The Alamo Brick Company was along New Sulphur Springs Road in the eastern part of San Antonio (King 1940:102). Previously called the Bem Brick Company when it started in 1896, the company changed its name in 1910 to Alamo Brick and was in business until 1943 (Steinbomer 1982), although by 1935 it was operating on a reduced scale (King 1940:98). The Seco Pressed Brick Factory opened in 1910 in D'Hanis, Texas, (about 50 miles west of San Antonio) and operated until 1939 (Fox et al. 1997; Odintz 2010). Thus, the brick manhole was probably constructed as part of the sewer system as early as 1910, but no later than 1939.

The sewer system may have been installed in the Acequia channel, which is not unusual considering a similar situation was encountered in Main Plaza (Hanson 2016). Placing sewer lines in acequias made sense from an engineering standpoint, since the grade was already defined (Shafer and Hester 2010). The manhole was likely built not in the center of the underlying sewer line, but rather off to one side or the other so as not to threaten the integrity of the sewer and to provide space to descend and work. Thus, while the manhole is situated near the eastern edge of the projected acequia route after Galindo et al. (2016), the underlying sewer is probably west of the manhole, situating it directly in the center of the projected route. (see Figure 9)

The manhole had been filled with gravel, and the remnants of a clay pipe exiting the manhole to the southeast were documented. The soil west of the brick-lined manhole was highly disturbed (see Figure 15). Zone VI was brown (10YR4/3) very sandy clay with dark yellow brown (10YR4/6) and very dark brown (10YR2/2) mottles. It contained fragments of brick, numerous stones, pieces of concrete and some FCR. A greater concentration of these inclusions lined the bottom of Zone VI, which was highly mixed and had an anomalous shape. East of it was a very dark brown (10YR2/2) sandy clay (Zone VII) containing concrete fragments and some small stones, but to a much lesser degree than Zone VI. Below Zone VII was a dark yellow brown (10YR4/6) clay (Zone X), which covered a small section of the profile wall and was visible in the floor of the trench. As would become apparent, Zone X was the fill of an existent sewer line running from the west to a modern concrete manhole to the east.

East of Zones VII and X was an abrupt vertical change in color, which was designated Zone VIII (see Figure 15). It was a grayish brown (10YR5/2) sand with gravel and fragments of asphalt that marked the excavation of the modern concrete manhole 6.6 ft (2 m) to the east. Below it was a dark yellow brown (10YR4/6) clay loam with very dark brown (10YR 2/2) mottles (Zone XI). Below Zone XI was gravel that had been placed directly over the existing sewer line to mark it. The only artifacts recovered east of the brick-lined manhole were brick fragments and small pieces of FCR. Based on the extensively disturbed context, the historic and prehistoric artifacts encountered in the sewer line trench could not be assigned to site 41BX2125 with certainty; therefore, no site revisit form was filed.

Summary and Recommendations

On behalf of Brackenridge Gardens Ltd., Pape-Dawson archaeologists monitored the excavations for water and sewer connections within COSA-owned ROW that are associated with the 840 Mulberry Development Project in San Antonio, Bexar County, Texas. These utility excavations were monitored at the behest of COSA-OHP, in compliance with the ACT, and under Antiquities Permit No. 7772. A

projected path of the Upper Labor Acequia (41BX2043) is mapped intersecting the project area (Galindo et al. 2016). Additionally, the project area is adjacent to the Brackenridge Park NRHD and the River Road Local Historic District. The actual depth of impacts for the project area was about 4 to 6 ft (1.2 to 1.8 m).

Pape-Dawson's investigations included updating an extensive background records and literature review, followed by the archaeological monitoring of two construction areas by Mary Jo Galindo and Katie Hill on October 3 and 6, 2016. The goal of the work was to locate and identify all prehistoric and historic archaeological sites in the project area, to establish vertical and horizontal site boundaries within the project area, and to evaluate the significance and eligibility of any sites recorded within the project area for designation as an SAL. All work was done in accordance with the standards and guidelines of the THC and the Council of Texas Archeologists.

A brick manhole from a defunct sewer line was encountered in the southern excavation for a sewer line connection. The manhole may have been constructed within the Upper Labor Acequia channel. If so, its construction has apparently obliterated any remnant of the acequia. Likewise, extensive disturbances were noted in the northern trench for the fire hydrant connection and no evidence of the Upper Labor Acequia (site 41BX2043) was revealed. A few historic and prehistoric artifacts were encountered in the monitored trenches in mainly disturbed contexts, and could not be assigned to adjacent site 41BX2125 with certainty; therefore, they are considered isolated finds and no site revisit form was filed.

All work within the monitoring areas was conducted within extensively disturbed deposits predominately dating to the twentieth century. Based on the results of the monitoring efforts, the excavations for utility connections had no effect on significant cultural properties. Project records and photographs will be curated at the Center for Archaeological Research at the University of Texas at San Antonio.

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Appendix A

Archaeological Sites found within 0.62 mile (1 km) of the Project Area

Table A-1. Archaeological Sites Recorded within 0.62 mile (1 km) of APE

Archeological Site	Site Type	Landform	Depths of Deposits (cmbs)	Distance & Direction	Determination of Eligibility
41BX13	Prehistoric campsite/village	Terrace	60-100 on low terrace/ Surface on upper	0.44 miles (0.71 km) south	SAL Eligible
41BX170	Historic scatter	Low Terrace	Surface	0.34 miles (0.55 km) northeast	Unknown/ Undetermined
41BX171	Historic dump and possible quarry	Undetermined	Unspecified	0.52 miles (0.84 km) north	Unknown/ Undetermined
41BX264	Prehistoric hearth field/ FCR scatter	Terrace	40-170	0.03 miles (0.05 km) east	Not Eligible for SAL designation
41BX293	Prehistoric occupation	Terrace	Unspecified	0.24 miles (0.39 km) southeast	Unknown/ Undetermined
41BX321	Prehistoric and Historic scatter	Floodplain	Surface/ burned rock at 110	0.34 miles (0.55 km) southeast	Not Eligible within ROW
41BX322	Prehistoric lithic scatter	Floodplain	Surface	0.37 miles (0.59 km)	Unknown/ Undetermined
41BX323	Prehistoric campsite	Upper and lower terraces	0-100	0.60 miles (0.97 km) northeast	SAL
41BX1396	Prehistoric occupation	Terrace	30-165	0.16 miles (0.26 km) southeast	SAL
41BX1773	Prehistoric scatter	Terrace	20-100	0.61 miles (0.98 km) northeast	Undetermined
41BX1892	Historic quarry/ procurement	Limestone Bluff	Surface	0.39 miles (0.62 km) northeast	Not Eligible
41BX1953	Prehistoric scatter	Floodplain	Unspecified	0.39 miles (0.62 km) southeast	Not Eligible within ROW
41BX2043	Upper Labor Acequia	Floodplain	Various	adjacent to the east	SAL Eligible

Appendix B

Historic Resources found within 0.62 mile (1 km) of the Project Area

Table B-1. Historic Resources within 0.62 mile (1 km) of APE

Resource Name	Designation	Distance from Project Area
Alamo Portland and Roman Cement Works	NRHP Listed	0.30 mile (0.48 km) north
Alamo Stadium and Gymnasium	NRHP Listed	0.42 mile (0.68 km) north
Archaeological Site	COSA Landmark	0.22 mile (0.35 km) northwest
Brackenridge Park Historic District	NRHP District	Adjacent to the east
Bushnell	COSA Landmark	0.62 mile (0.99 km) northwest
Central Catholic High School	OTHM/COSA Landmark	0.48 mile (0.77 km) southwest
Chinese Sunken Garden Gate	NRHP Listed	0.28 mile (0.45 km) north
Commercial Building	COSA Landmark	0.59 mile (0.95 km) southeast
Confederate Tannery	OTHM	0.10 mile (0.16 km) northeast
Jacala Restaurant	NRHP Listed	0.58 mile (0.93 km) southwest
Ludwig Mahncke	OTHM/COSA Landmark	0.60 mile (0.97 km) east
Monte Vista Residential Historic District	NRHP District	0.18 mile (0.29 km) west
Portland Cement Plants	OTHM/COSA Landmark	0.31 mile (0.50 km) north
River Road	COSA Historic District	55 feet (16.8 m) south
Rubiola Store	COSA Landmark	0.49 mile (0.79 km) southwest
San Antonio Water Works Pump Station No. 2	NRHP Listed	0.52 mile (0.84 km) south
Upper Labor Acequia	COSA Landmark	Adjacent to the east
Zambrano House	RTHL/COSA Landmark	0.11 mile (0.18 km) northwest