

# **Intensive Archaeological Survey and Monitoring of the Tobin Parking Garage Project San Antonio, Bexar County, Texas**

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**Prepared for:  
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**April 2017**

## Abstract

At the request of the Tobin Center for the Performing Arts, Pape-Dawson conducted an intensive archaeological survey and monitoring of the proposed Tobin Parking Garage Project in San Antonio, Bexar County, Texas. As part of the compliance process, the City of San Antonio's Office of Historic Preservation Office requested that an archaeologist monitor the subsequent construction excavations within a portion of the project area. The triangularly shaped project area is bounded by Taylor Street to the west, 4th Street to the northeast, an unnamed alleyway to the south, and Hessler Alley to the southeast, encompassing an area of 1.21 acres (0.49 hectares). The project will entail excavation associated with garage construction, sidewalk construction, and retaining wall installation with depths of impacts anticipated to be up to 8 feet (2.4 meters) below the current ground surface.

As the project is located within the City of San Antonio (COSA) city limits and the River Improvement Overlay District 3, compliance with the Historic Preservation and Design Section of the COSA Unified Development Code is required. As the project is located on privately-owned property and will not require federal permits or funding, compliance with both the Antiquities Code of Texas and Section 106 of the National Historic Preservation Act will not be necessary. The purpose of the investigations was to identify all cultural resources located within the project area and to evaluate the significance and eligibility of identified archaeological resources for inclusion to the National Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL), per the Archaeological Report Guidelines of the COSA Office of Historic Preservation (COSA-OHP). All work was done in accordance with the archaeological survey standards and guidelines as developed by the Council of Texas Archaeologists and adopted by the Texas Historical Commission. The goal of the monitoring was to gather information on the nature and types of cultural resources possibly buried in the buffered portion of the project area, and focused on potentially significant resources related to the Spanish Colonial era and the Navarro Acequia.

The investigations included a cultural resources background literature and records review and an intensive survey with mechanical trenching. Subsequently, archaeological monitoring was performed during construction activities that occurred on October 11, 2016. The background review determined that the project area has been previously surveyed at the reconnaissance level, there are no sites recorded within or adjacent to the project area, and that there are no NRHP-listed properties or districts, SALs, Official State of Texas Historical Markers, Recorded Texas Archeological Landmarks, or cemeteries within the project area. One local historic landmark had been designated within the project area, but the house was relocated elsewhere prior to survey. Sanborn map and historic aerial photograph research determined that structures were present within the project area as early as 1896. Additionally, although not previously confirmed by archaeology, a projected route of the Navarro Acequia is mapped as traversing the eastern edge of the project area (COSA Municipal Archives and Records 1850).

Pape-Dawson's intensive archaeological survey included the excavation of six backhoe trenches on June 13, 2016. Archaeologists recorded multicomponent site 41BX2133, which encompasses the entire

project area with prehistoric lithic artifacts observed in three trenches and late-nineteenth- to early-twentieth-century artifacts observed on the surface and within all six trenches. In addition, Pape-Dawson archaeologists recorded site 41BX2134, a segment of a little-known, private acequia associated with José Antonio Navarro, which was encountered in a backhoe trench excavated along the southeastern edge of the project area.

Sites 41BX2133 and 41BX2134 were evaluated according to the criteria in 36 Code of Federal Regulations 60.4 and in 13 Texas Administrative Code 26.10. Archival research determined that the project area was associated with both several long-term residents and businesses and with transient renters or boarders during the late-nineteenth and twentieth centuries. Researchers noted that lots 1 and 2 belonged to Mary A. Rigsby during the late-nineteenth and early-twentieth centuries. Previous surveys have shown that the Rigsby family is considered to have significantly contributed to the development of the Highland Park community southeast of downtown. However, no artifacts or features positively associated with Mary Rigsby or with any of the potential site occupants were identified during current investigations, and her house was moved to another location in San Antonio prior to the current investigations. Considering the lack of intact features besides footings, and the disturbed nature of the historic deposits, site 41BX2133 is not eligible for listing in the NRHP or for SAL designation under any applicable criteria. Pape-Dawson recommends no further archaeological work at 41BX2133.

Conversely, the segment of the Navarro Acequia (41BX2134) within the project area is recommended eligible for listing in the NRHP and for designation as an SAL, and Pape-Dawson recommends avoidance of site 41BX2134. Since the Navarro Acequia cannot be avoided by the proposed project, the methodology for archaeological monitoring of the parking garage construction—developed in consultation with the COSA-OHP—is detailed in the Summary and Recommendations section of this report.

Collected artifacts will be returned to the landowner or discarded with landowner permission. 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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## **Management Summary**

Tobin Center for the Performing Arts proposes to construct a parking garage in San Antonio, Bexar County, Texas. The triangularly shaped project area is bounded by Taylor Street to the west, 4th Street to the northeast, an unnamed alleyway to the south, and Hessler Alley to the southeast, encompassing an area of 1.21 acres (0.49 hectares). The project will entail excavation associated with garage construction, sidewalk construction, and retaining wall installation with depths of impacts anticipated to be up to 8 feet (2.4 meters) below the current ground surface.

The project is situated in the City of San Antonio city limits and the River Improvement Overlay District 3, therefore; compliance with the Historic Preservation and Design Section of the COSA Unified Development Code is required. As no federal funding or permitting is anticipated for this project, and it is situated on private property, compliance with both Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas will not be necessary.

Fieldwork took place on June 13, 2016. Dr. Mary Jo Galindo served as Principal Investigator and was assisted in the field by Virginia Moore and Jacob I. Sullivan. As a result of the survey, multicomponent site 41BX2133 was recorded as encompassing the entire project area. Site 41BX2134, the Navarro Acequia was also recorded along the project area's southeastern edge. It is a little-known, private acequia associated with José Antonio Navarro.

During the course of the survey, a historic-artifact scatter, footings associated with a late-nineteenth to early-twentieth century apartment building, and a prehistoric component of unknown age were identified for site 41BX2133. Pape-Dawson recommends that site 41BX2133 is not eligible for inclusion to the National Register of Historic Places or for designation as a State Antiquities Landmark under any applicable criteria.

Conversely, the segment of the Navarro Acequia within the project area is recommended eligible for listing in the NRHP and for designation as an SAL, and Pape-Dawson recommends avoidance of site 41BX2134. Since the Navarro Acequia cannot be avoided by the proposed project, the methodology for archaeological monitoring of the parking garage construction is detailed in this report. Archaeological monitoring was performed during construction activities that occurred on October 11, 2016.

In the unlikely event that undiscovered cultural material is encountered during construction, it is recommended that all work in the vicinity should cease and the COSA archaeologist be contacted to ensure compliance with the UDC.

## **Introduction**

On behalf of the Tobin Center for the Performing Arts, Pape-Dawson conducted an intensive archaeological survey with mechanical trenching and monitoring of the proposed new parking garage for the Tobin Center in downtown San Antonio in Bexar County, Texas (Figures 1 and 2). Specifically, the triangularly shaped project area is located within the block south of the intersection of Taylor Street and 4th Street, and is bounded by Taylor Street to the west, 4th Street to the northeast, an unnamed alleyway to the south, and Hessler Alley to the southeast, encompassing an area of 1.21 acres (0.49 ha). The project will entail excavation associated with garage construction, sidewalk construction, and retaining wall installation with depths of impacts anticipated to be up to 8 ft (2.4 m) below the current ground surface.

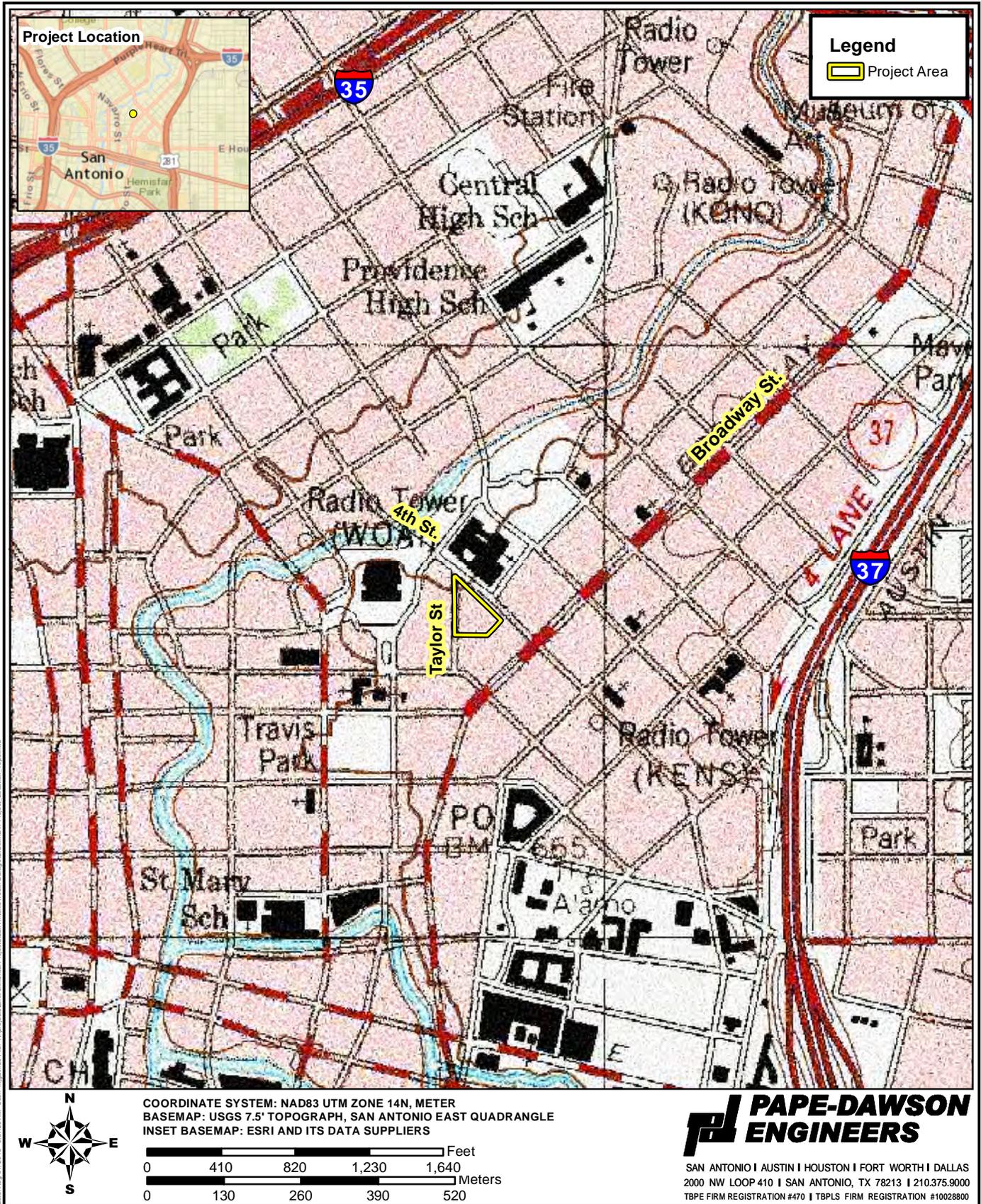
As the project is located within the City of San Antonio (COSA) city limits and the River Improvement Overlay (RIO) District 3, compliance with the Historic Preservation and Design Section of the COSA Unified Development Code (UDC) is required. As the project is located on privately-owned property and will not require federal permits or funding, compliance with both the Antiquities Code of Texas and Section 106 of the National Historic Preservation Act (NHPA) will not be necessary.

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 inclusion to the National Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL), per the Archaeological Report Guidelines of the City of San Antonio Office of Historic Preservation. All work was done in accordance with the archaeological survey standards and guidelines as developed by the Council of Texas Archaeologists (CTA) and adopted by the Texas Historical Commission (THC). Pape-Dawson archaeologists Mary Jo Galindo, Virginia Moore, and Jacob I. Sullivan conducted the field work on June 13, 2016.

Based on the results of the intensive survey, COSA-OHP requested that an archaeologist monitor the construction excavations within a portion of the project area. Monitoring was performed during construction activities that occurred on October 11, 2016. The goal of the monitoring was to gather information on the nature and types of cultural resources possibly buried in the buffered portion of the project area, and focused on potentially significant resources related to the Spanish Colonial era and the Navarro Acequia. The methodology for archaeological monitoring of the parking lot construction where avoidance is not possible is detailed in the Summary and Recommendations section of this report, while the monitoring report is included in Appendix C.

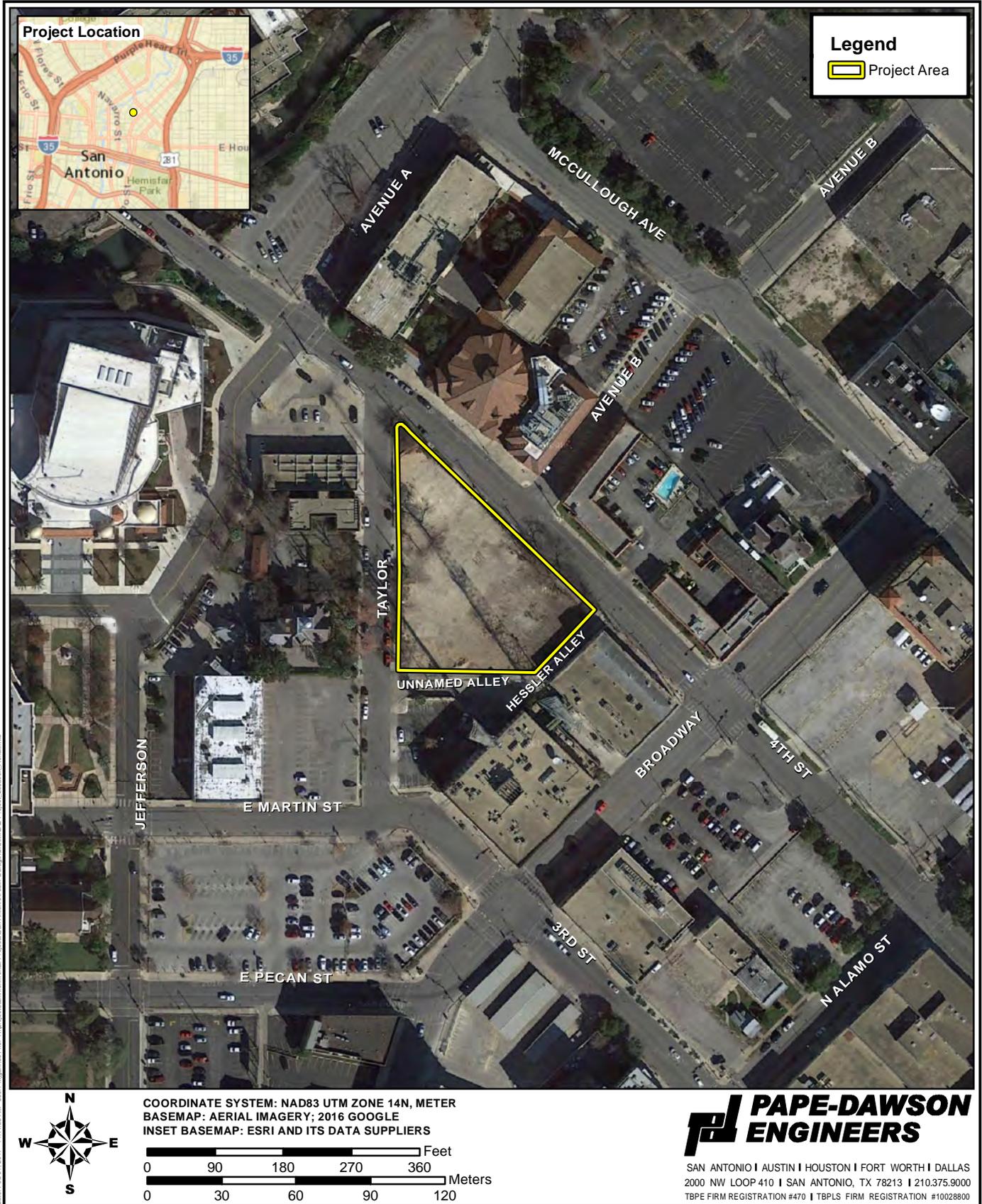
## **Project Setting**

The project is situated in downtown San Antonio, about one block east-southeast of the Tobin Center for the Performing Arts and 0.26 mile (0.41 kilometers [km]) north of the Alamo. Most of the immediate area surrounding the project area has been commercially developed. The project area itself was occupied by a mix of residential and commercial buildings as recently as last year (2015); however, all buildings have been removed, and the entire 1.21 acres (0.49 ha) is cleared except for a few oak trees along the perimeter of the lot (Figure 2).



**Figure 1 : Project Location Map**

Tobin Center Parking Garage PN: 07408-45  
 Bexar County, Texas  
 Cultural Resources Monitoring Report  
 January 2017



**Figure 2 : Project Area Location Map**

Tobin Center Parking Garage PN: 07408-45  
 Bexar County, Texas  
 Cultural Resources Report  
 April 2017

The underlying geology of the project area is mapped exclusively as Pleistocene-age terrace deposits (Bureau of Economic Geology [BEG] 1983). The sand, silt, clay, and gravel associated with these deposits are typically observed on higher terrace deposits with common calcium carbonate inclusions observed along smaller stream terraces. Major river terraces, such as those associated with the San Antonio River which is just 415 ft (127 m) northwest of the project area, are commonly capped by 6.5 to 13 ft (2 to 4 m) of clayey sand and silt (BEG 1983).

Approximately 75 percent of the project area is mapped as the frequently flooded Tinn and Frio soils (U.S. Department of Agriculture, National Resources Conservation Service [USDA-NRCS] 2016). These are very deep soils formed in calcareous, clayey alluvium on nearly level floodplains. A typical profile consists of black (10YR2/1) clay over very dark gray (10YR3/1) clay extending more than 6.5 ft (2 m) in depth. In most cases, the depth to sand and gravel exceeds 29.5 ft (9 m) (USDA-NRCS 2016). Deep alluvium such as this has a high potential to contain deeply buried cultural material. The presence of deep alluvial soils, which were beyond the reach of shovel testing, necessitated the use of mechanical excavation.

The remaining 25 percent of the project area is mapped as Branyon clay with 1 to 3 percent slopes (USDA-NRCS 2016). These are also very deep soils formed in calcareous, clayey alluvium derived from Pleistocene-age mudstone, and are found on stream terraces in river valleys. The common soil profile consists of dark gray (10YR4/1) clay over gray (10YR5/1) to light gray (10YR7/2) clay that extends more than 6.5 ft (2 m) deep (USDA-NRCS 2016). Since these soils formed in ancient alluvium, archaeological deposits would likely be shallowly buried or visible on the ground surface.

## **Cultural Chronology**

Bexar County falls within the Central Texas archaeological region of the Central and Southern Planning Region as delineated by the THC (Mercado-Allinger et al, 1996). Cultural developments in this region are typically classified by archaeologists according to four primary chronological time periods: Paleoindian, Archaic, Late Prehistoric, and Historic. These classifications have been defined primarily by changes in material culture and subsistence strategies over time as evidenced through information and artifacts recovered from archaeological sites. This cultural chronology provides a brief summary of each major cultural period with reference to significant archaeological work that has occurred within the region.

### **Paleoindian (11,500 B.P. – 8,800 B.P.)**

Although there is some debate about whether pre-Clovis Paleoindian peoples lived in Texas, there is evidence of Paleoindian occupation within Texas by 11,500 B.P. Collins (1995:376, 381) has proposed dividing this period into early and late phases, with Dalton, San Patrice, and Plainview projectile points possibly providing the transition between them. Research has shown Paleoindians were gathering wild plants and hunting large mammals (mammoth, bison, etc.) as well as smaller terrestrial and aquatic animals (Collins 1995: 381; Bousman et al. 2004: 75). Projectile points characteristic of the Paleoindian period in Central Texas are lanceolate-shaped and include Clovis, Plainview, and Folsom (Turner and Hester 1993). In Texas, most Paleoindian sites are classified as procurement or consumption sites (Bousman et al. 2004: 76-78), but a few, such as the Wilson-Leonard site in Williamson County (Collins

1995) and the Pavo Real site in Bexar County (Henderson 1980), have produced in situ human burials (Collins 1995: 383). Other Paleoindian sites discovered within Bexar County include site 41BX47 on Leon Creek (Tennis 1996), the Richard Beene site (41BX831) (Thoms and Mandel 2007), and the St. Mary's Hall site (41BX229), which has provided insight into a more diverse diet for Paleoindian groups (Hester 1978),

As the climate warmed, the Paleoindian people began to shift away from hunting large animals. The changing environment, which led to extinction of the megafauna, likely influenced their decision to focus more on hunting small game animals, including deer and rabbit, as well as gathering edible roots, nuts, and fruits (Black 1989). This change in food supply, as well as a different set of stone tools, marks the transition into the Archaic Period.

### Archaic (8,800 B.P. – 1,200 B.P.)

Usually divided into early, middle, late, and sometimes transitional sub-periods, the Archaic marks a gradual shift from hunting Megafauna and some smaller animals supplemented with wild plants to a focus on hunting and gathering medium and small animals and wild plants, and an eventual transition to agriculture. Beginning with Clear Fork gouges and Guadalupe bifaces in the Early Archaic (8500 B.P. – 6000 B.P.) (Turner and Hester 1993; Collins 1995), Early Archaic people produced a variety of point types. The variety of points and their scattered distribution over a large area in the Early Archaic may indicate smaller groups of people moving over larger territories (Prewitt 1981). Point types transition to Bell-Andice-Calf Creek, Taylor, and Nolan-Travis points in the Middle Archaic (6000 B.P. – 4000 B.P.) (Turner and Hester 1993; Collins 1995), and burned rock middens become an important characteristic. The Middle Archaic focus on constructing burned rock ovens to cook a diverse array of plant food (Black 1989) suggests a slightly more sedentary focus. The Bulverde, Pedernales, Ensor, Frio, and Marcos points in the Late Archaic (4000 B.P. – 1300 B.P.) (Turner and Hester 1993; Collins 1995) mirror the diversity of point types found in the Early Archaic. During the Late Archaic, cemeteries, especially associated with rock shelters, become common in central Texas (Dockall et al. 2006). In Bexar County, sites with Early Archaic components include the Housman Road site (41BX47), the Richard Beene site (41BX831) (Thoms and Mandel 2007), the Higgins site (41BX184) (Black et al. 1998), and the Panther Springs site (41BX228) (Black and McGraw 1985). While the Elm Waterhole site (41BX300) is representative of a Middle Archaic site within Bexar County (McNatt et al. 2000), the Granberg site (41BX17\41BX271) in San Antonio is a multi-component site with occupations from both the Middle and Late Archaic sub-periods.

### Late Prehistoric (1,200 B.P. – 250 B.P.)

As the Archaic transitioned into the Late Prehistoric period, several technological changes become apparent. The most notable change is the use of the bow and arrow rather than the spear and atlatl, as evidenced by smaller dart points. Another significant innovation is the creation and use of ceramic vessels. Some groups began to practice consistent agriculture during this time as well; there is some evidence that peoples in Central Texas may have incorporated agriculture into their lives, but primarily remained hunter gatherers (Collins 1995). Also during this period, there are possible indications of major population movements, changes in settlement patterns and perhaps lower population densities (Black

1989). Archaeologists divide the Late Prehistoric into two phases: the Austin phase, followed by the Toyah.

## Historic (1600s – 1950)

San Antonio was the site of many occupations by prehistoric peoples, but Europeans did not explore the area until the seventeenth century. Alonso de León's 1689 and 1690 expeditions and Domingo Terán de los Ríos' 1691 expedition were likely some of the first interactions between Europeans and Native groups (de la Teja 1995:6). These explorations helped the Spanish choose locations to establish five missions in and around what would later become San Antonio. Don Martín de Alarcón established the first mission, San Antonio de Valero, in 1718, on the west bank of the San Pedro Creek, followed by the Presidio San Antonio de Béxar and the Villa de Béxar (de la Teja 1995). However, by 1722 the Marqués de San Miguel de Aguayo had moved the presidio and villa downstream to a second location along San Pedro Creek (Clark et al. 1975). Other missions, including Mission San José y San Miguel de Aguayo, Nuestra Señora de la Purísima Concepción, San Juan Capistrano, and San Francisco de la Espada were established in the area from 1720 to 1731 (Clark et al. 1975). Most of the Native American people recruited to live at these missions comprised many different groups (Campbell 1977), but it is difficult to know all the groups that were present due to the variations in spelling and phonetic complexity. The missions used this Native labor force to construct acequias, or irrigation ditches, which helped them to develop self-sustaining communities bordered by farmland (Long 2010).

In 1731, Spain sent 16 families from the Canary Islands to the villa de Béxar to establish the secular village. With the arrival of these families, surveyors set out the city's main plaza, or Plaza de las Islas, next to the church, designated a spot for the Casas Reales, and began to establish residential lots (Spell 1962). In 1773, San Antonio de Béxar Presidio was named the capital of Spanish Texas, and the settlement including mission Indians had a population of about 2,000 by 1778 (Fehrenbach 2010). During this period of early settlement, water was an essential component for successful settlement and survival. The acequia system, begun with the arrival of the missionaries, continued to expand to serve irrigation and drinking water needs. The acequia system influenced the street layout in the city (Cox 2005:20) and played an integral part in contact between the Spanish, who brought the engineering concepts for the system, and the indigenous groups forced to provide the construction labor.

During the 1820s and early 1830s, American settlers began moving to San Antonio in increasing numbers, though the population remained predominately Mexican. In 1824, Texas and Coahuila were united into a single state with its capital at Saltillo. San Antonio fought for Mexican Independence in 1813, then for its own sovereignty during the Texas Revolution. The Siege of Bexar and the Battle of the Alamo, in 1835 and 1836, were both located within San Antonio, showing its importance in the region. After Texas gained its independence from Mexico in 1836, Bexar County was created and San Antonio was chartered as its seat (Long 2010). However, this was not the end of conflict in the city; a dispute with Comanche Indians resulted in the Council House Fight in 1840, and Woll's invasion in 1842 precipitated Texas' entrance into the United States as the 28<sup>th</sup> state.

On March 2, 1861, Texas seceded from the Union about a month before the Civil War began. San Antonio became a Confederate storage area as well as a location where military units could be

organized; however, the city kept its distance from most of the actual fighting (Fehrenbach 2010). After the Civil War, San Antonio continued to grow larger, spurred on by the arrival of the railroad in 1877 (Fehrenbach 2010). Industries such as cattle, distribution, ranching, mercantile, gas, oil, and military centers in San Antonio prospered. The city served as the distribution point for the Mexico-United States border as well as the rest of the southwest. At the turn of the twentieth century, San Antonio was the largest city in Texas with a population of more than 53,000. Much of the city's growth after the Civil War was a result of an influx of southerners fleeing the decimated, reconstruction-era south. An additional population increase came after 1910, when large numbers of Mexicans began moving into Texas to escape the Mexican Revolution (Fehrenbach 2010).

Modernization increased dramatically between the 1880s and the 1890s, compared to the rest of the United States. Civic government, utilities, electric lights and street railways, street paving and maintenance, water supply, telephones, hospitals, and a city power plant were all built or planned around this time (Fehrenbach 2010). The First United States Volunteer Cavalry was organized in San Antonio during the Spanish-American War, and San Antonio was an important military center for the army and air forces during both world wars. Its five military bases provided an important economic base and contributed to the evolution of the city's medical research industry.

## **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) 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 recorded surveys and historic or prehistoric archaeological sites located within a 0.31 mile (0.5 km) radius of the project area. The review also included information on the following types of cultural resources: NRHP-listed properties, sites, and districts, SALs, 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 (Taylor et al. 1991), Natural Resources Conservation Service Web Soil Survey (USDA-NRCS), the Geologic Atlas of Texas-San Antonio Sheet (BEG 1983), 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**

Pape-Dawson archaeologists consulted online records from the San Antonio City Archives, maps from the Texas Department of Transportation (TxDOT) Texas Historic Overlay, online records from the Bexar County Clerk, City Directories, and Bexar County Census Records available at HeritageQuest online. Secondary sources consulted in regards to potential routes of the Navarro Acequia 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. In addition, Pape-Dawson historians conducted a limited chain of title search on the property and city directory research along with census research to determine potential occupants associated with site 41BX2133.

## Fieldwork

Pape-Dawson archaeologists conducted an intensive cultural resources survey of the proposed 1.21-acre (0.49-ha) project area that included a 100-percent pedestrian survey augmented with mechanical trenching and monitoring. The presence of deep alluvial soils necessitated the use of mechanical excavation. Pape-Dawson archaeologists excavated six trenches that were approximately 4.1 to 4.7 ft (1.25 to 1.43 m) deep, 13.1 to 22.9 ft (4.0 to 7.0 m) long, 3.3 to 4.9 ft (1 to 1.5 m) wide, and were excavated in 4-inch (10.2-cm) levels. All trenching work was performed in accordance with Occupational Safety and Health Administration (OSHA) (29 CFR 1926) regulations. Appropriate measures were taken for trenches that exceeded 4 ft (1.2 m) in depth, following OSHA safety protocols for safe ingress and egress. All trenches were backfilled and leveled upon completion of excavation and recording.

Pape-Dawson archaeologists thoroughly photographed and recorded representative trench profiles, and mapped the trenches and any archaeological deposits with a sub-meter accurate, handheld Trimble Global Positioning System (GPS) unit. Information regarding sites 41BX2133 and 41BX2134 was recorded on site forms in the field, which was subsequently submitted to TARL. Diagnostic artifacts were collected and brought to Pape-Dawson's Archaeological Laboratory in Austin for cleaning and analysis. Collected artifacts will be returned to the landowner or discarded with landowner permission. A representative sample of non-diagnostic artifacts observed during the survey was photographed and documented in the field, but not collected. Project records and photographs will be curated at the Center for Archaeological Research at the University of Texas at San Antonio (UTSA-CAR) following the specific standards of preparation. Archaeological sites were evaluated according to the NRHP criteria in 36 CFR 60.4 and according to the criteria in 13 TAC 26.10, as required by the Archaeological Report Guidelines of the COSA-OHP.

## Historic Artifact Analysis

Historic artifacts were initially divided by material into three broad categories. The material categories of the diagnostic artifacts collected consist of historic ceramic, glass, and metal. Additional attributes such as surface treatment, decorative element, maker's mark, morphological characteristics, technological variables, form, color, size, and condition were evaluated as warranted. Sorting criteria for each artifact category are discussed below.

### *Historic Ceramic*

Ceramics were initially categorized according to ware type and then sub-divided by categorical paste attributes. Historic ware types include coarse earthenware, refined earthenware, porcelain, and stoneware. Paste attributes such as color, hardness, and porosity can be used to identify specific paste types within each ware type. Examples of paste types for coarse earthenware include redware and terracotta, while refined earthenware can be further distinguished as whiteware, ironstone, semiporcelain, and yellowware. During excavations, only whiteware, ironstone, semiporcelain, and

stoneware paste types were encountered at site 41BX2133; no diagnostic artifacts were associated with site 41BX2134.

### *Glass*

Glass was initially sorted according to identifiable morphological attributes associated with object category and subsequent object form. Object categories include container glass and window glass. The specimens were then identified by the object form, when applicable. Decorative techniques as well as maker's marks were also noted for all container glass. Color variations for each glass shard were recorded in addition to artifact form and condition.

### *Metal*

Metal specimens were initially categorized according to specific metal type, such as copper, ferrous metal, or lead. Morphological attributes were identified, which permitted classification into object category and subsequent object form. Technological variables were also noted for temporally sensitive object forms. In addition, maker's marks were recorded when present, along with artifact form and condition. Size was recorded for particular artifact forms.

## **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 (the Navarro Acequia) is mapped parallel to the southeast side of the project area (COSA Municipal Archives and Records 1850). Historic maps depict structures within the project area as early as 1896, many of which continued to be present through the twentieth century, according to Sanborn maps. There are no previously recorded archaeological sites, NRHP-listed properties, SALs, OTHMs, RTHLs, or cemeteries within the project area. One local historic landmark had been designated within the project area, but the house was relocated elsewhere prior to survey. Within a 0.31-mile (0.5-km) radius of the project area there are seven previously recorded archaeological sites, one cemetery, 19 NRHP-listed properties, one NRHP historic district, 11 OTHMs (10 of which are also RTHLs), three COSA historic districts, 129 COSA Historic Landmarks, and two documented acequias (Table 1).

### *Prior Surveys*

The project area is overlapped by a large, reconnaissance-level survey paralleling the San Antonio River. The work was conducted in 1979 on behalf of the U.S. Army Corps of Engineers (USACE), Fort Worth District (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. Additional previously conducted investigations within a 0.31-mile (0.5-km) radius are largely located within or adjacent to the Alamo Plaza, including one survey (Beecher and Figueroa 2014), one archival study (THC 2016), two testing projects (Nichols 1997 and Tomka et al. 2008), and seven monitoring projects (Anthony et al.

Table 1. Cultural Resources within a 0.31-mile (0.5-km) Buffer Around the Project Area

Resource Name	Designation	Within Project Area (yes/no)
Acequia Madre (41BX8)	NRHP-eligible	no
Acequia Upper Labor (41BX2043)	NRHP-eligible	no
Alamo / Alamo Plaza	NRHP-listed; COSA Landmark; RTHL; Local Historic District; National Register District	no
Alamo Low Barracks and Main Gateway	OTHM	no
Albert Maverick Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Alderman's	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Alexander, R F - House	COSA Landmark	no
Altman, Anton - House	COSA Landmark	no
American Sports Center	COSA Landmark	no
Archaeological Site - Irish Flat	COSA Landmark	no
Archaeological Site - San Antonio Water Works #2	NRHP-listed; COSA Landmark	no
Auditorium Circle	Local Historic District	no
Augusta Street Bridge	COSA Landmark	no
Ayres, Atlee B Building	COSA Landmark	no
Baker Shoes	COSA Landmark	no
Barclay, J P - House	COSA Landmark	no
Barclay, R D - House	COSA Landmark	no
Barr Building	NRHP-listed; COSA Landmark	no
Bennett Building	COSA Landmark	no
Bowen's Island	OTHM	no
Builder's Exchange Building	NRHP-listed; COSA Landmark	no
Burns Building, Washer Bros Building	NRHP-listed; COSA Landmark	no
Calcasieu Building	NRHP-listed; COSA Landmark	no
Central Trust Building	NRHP-listed; COSA Landmark	no
Church of Christian Scientists	COSA Landmark	no
Commercial Building	COSA Landmark	no
Commercial Building	COSA Landmark	no
Commercial Building	COSA Landmark	no
Commercial Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Commercial Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Commercial Building	COSA Landmark	no
Commercial Building	COSA Landmark	no
Crockett Block / Old Palace Theater	COSA Landmark; Alamo Plaza Local Historic District	no
Crockett Hotel	COSA Landmark	no
Davis, Eugene - House	COSA Landmark	no
Dibrell House	COSA Landmark	no
Dittmar Building	COSA Landmark	no
Dulling House	COSA Landmark	no
Engleman / Muench House	COSA Landmark; RTHL	no
Fire Station #01	COSA Landmark	no
First Baptist Church / Webb Hall	COSA Landmark	adjacent to project area
First Baptist Church Ministries	COSA Landmark	adjacent to project area
First Presbyterian Church	COSA Landmark; OTHM	no
Flannery House #1	COSA Landmark	no
Gallagher Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
George Building	COSA Landmark	no
Gibbs Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Goad Motor Co Building	NRHP-listed; COSA Landmark	no

Table 1. Cultural Resources within a 0.31-mile (0.5-km) Buffer Around the Project Area

Resource Name	Designation	Within Project Area (yes/no)
Goggan and Bros Music Co Building	COSA Landmark	no
Goggan Building	COSA Landmark	no
Grace Lutheran Church	COSA Landmark	no
Grayson's	COSA Landmark	no
Gunter Hotel	NRHP-listed; COSA Landmark	no
Gunter Hotel Parking Structure	COSA Landmark	no
Hagner, F M - House	COSA Landmark	no
Hallerman House	COSA Landmark	no
Havana Inn	NRHP-listed; COSA Landmark; Auditorium Circle Local Historic District	no
Herff / Manhattan Building	COSA Landmark	no
Hoefgen House	COSA Landmark	no
House	COSA Landmark	no
House	COSA Landmark	no
House	COSA Landmark	no
House	COSA Landmark	no
House	COSA Landmark	no
House	COSA Landmark	no
House	COSA Landmark	no
Irish Flat	COSA Landmark	no
Irish Flat	COSA Landmark	no
Irish Flat	COSA Landmark	no
Irish Flat	COSA Landmark	no
King, Claudius - House	COSA Landmark; RTHL	no
KMOL Building	COSA Landmark	no
Kress Building	COSA Landmark	no
Lexington Street Bridge	COSA Landmark	no
Lockwood Bank	COSA Landmark	no
Magnolia Oil Company Building	COSA Landmark	no
Majestic Theatre	NRHP-listed; COSA Landmark	no
Martin Street Bridge	COSA Landmark	no
Maverick / Carter House	NRHP-listed; COSA Landmark; OTHM; RTHL	adjacent to project area
Maverick, George Building	NRHP-listed; COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Medical Arts Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Mendolwitz Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Moore Building	COSA Landmark	no
Moye, Albert - House	COSA Landmark	no
Municipal Auditorium	NRHP-listed; COSA Landmark; Auditorium Circle Local Historic District	no
Navarro Street Bridge #3	COSA Landmark	no
Naylor Trophy Room	COSA Landmark	no
Neisner's	COSA Landmark	no
Nichols Grocery	COSA Landmark	no
Nix Professional Building	COSA Landmark	no
Ogilvie Building (Alden Hotel)	COSA Landmark	no
Pan American Round Table	OTHM	no
Paris Hatters Building	COSA Landmark	no
Paseo del Alamo	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Pecan Street Bridge	COSA Landmark	no

Table 1. Cultural Resources within a 0.31-mile (0.5-km) Buffer Around the Project Area

Resource Name	Designation	Within Project Area (yes/no)
Pincus Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Princess Theater	COSA Landmark	no
Reed, Erastus Sr - House	COSA Landmark	no
Residential Building	COSA Landmark	no
Richmond Avenue Bridge	COSA Landmark	no
Riverside Hotel	COSA Landmark	no
Rogers, J W - House	COSA Landmark	no
Rosenberg, Frank Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Sachs, Edward - House	COSA Landmark	no
San Antonio Casion Club Building	RTHL	no
San Antonio Express News Building	COSA Landmark	no
San Antonio Light Building	COSA Landmark	no
Schiebel / Richardson House #1	COSA Landmark	no
Schiebel / Richardson House #2	COSA Landmark	no
Scottish Rite Temple	NRHP-listed; COSA Landmark; RTHL	no
Southwestern Bell Building	COSA Landmark; Auditorium Circle Local Historic District	no
St Anthony Hotel	NRHP-listed; COSA Landmark	no
St Mark's Episcopal Church	NRHP-listed; COSA Landmark; RTHL	no
St Mary's Street Bridge #1	COSA Landmark	no
Stevens Building	RTHL	no
Texas Theater, Marg & Facade	COSA Landmark	no
Thiele House	NRHP-listed; COSA Landmark; RTHL	no
Toltec Apartments	NRHP-listed; COSA Landmark	adjacent to project area
Traveler's Hotel	COSA Landmark	no
Travis Building	COSA Landmark	no
Travis Park United Methodist Church	COSA Landmark; OTHM	no
Turn Verein	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
U S Post Office / Federal Building	NRHP-listed; COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Uhl, Gustav - House and Store	NRHP-listed; COSA Landmark	no
United Cigar Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Ursuline Convent and Academy	NRHP-listed; COSA Landmark; RTHL; Local Historic District	no
Vogue Building	COSA Landmark	no
Winerich Building	COSA Landmark	adjacent to project area
Witherspoon Oil Co	COSA Landmark	no
Wolfson, Saul - House	COSA Landmark; RTHL	no
Woolworth Building	COSA Landmark; Alamo Plaza Local Historic District; Alamo Plaza National Register District	no
Wright Building	COSA Landmark	no
Wright, Martin Building	COSA Landmark; Auditorium Circle Local Historic District	no
Wurzbach, Charles - House	COSA Landmark	no
YWCA	COSA Landmark	no
YWCA	COSA Landmark	no
YWCA / Henry Terrell Building	COSA Landmark	no
Zuschlag House	COSA Landmark	no

2003, Cox 1992, Galindo 2012, Nichols 2014, and Ulrich et al. 2009). The Atlas depicted two more linear projects within a 0.31-mile (0.5-km) radius, but no further information about them was available (THC 2016).

### *Previously Recorded Cultural Resources*

As mentioned, a total of seven previously recorded archaeological sites are within a 0.31-mile (0.5-km) radius of the project area (Figure 3; Table 2). The closest site, 41BX1818, is 425 feet (130 m) northwest of the project area. The site was recorded by CAR during the Archaeological Monitoring of the Urban Reach Section of the San Antonio River Improvement Project (Antiquities Permit No. 5377) in 2008 (Ulrich et al. 2009). The site consists of the remnants of the Lexington Avenue Dam, a limestone and concrete dam originally constructed between 1939 and 1941 to control the water level in an unimproved segment of the San Antonio River (Ulrich et al. 2009). The dam was uncovered during the construction of a new segment of the Riverwalk, and the central portion of the dam was removed in order to allow boat access to this new segment (Ulrich et al. 2009). Site 41BX1818 represents the remaining portions of the original dam. The site's eligibility for inclusion to the NRHP or designation as an SAL is currently undetermined (THC 2016).

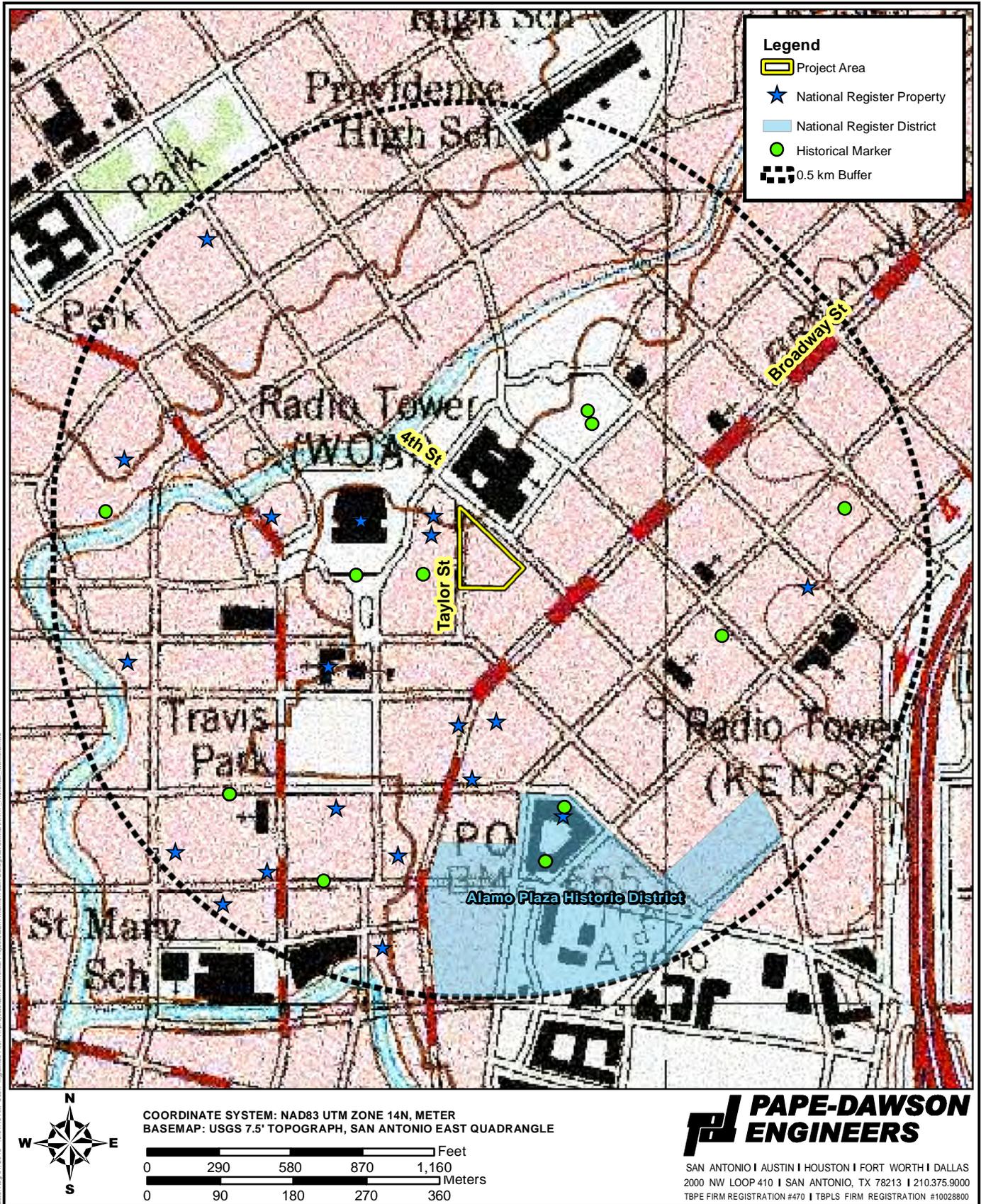
The remaining six sites within the 0.31-mile (0.5-km) buffer consist of historic-age buildings and structures dating from the Spanish Colonial period to the early twentieth century (THC 2016). Only one site within the buffer, site 41BX235, contains a prehistoric component (THC 2016).

One NRHP-listed historic district is located within the 0.31-mile (0.5-km) buffer (Figure 4). The Alamo Plaza Historic District is located approximately 0.26 mile (0.41 km) south of the project area. The district is also a COSA Landmark, Local Historic District, and RTHL (THC 2016; COSA-OHP 2016). The lone cemetery within the 0.31-mile (0.5-km) buffer (Alamo Cemetery) is located within the Alamo Plaza Historic District (see Figure 3). In addition, 19 NRHP-listed properties are within the 0.31-mile (0.5-km) buffer, two of which are adjacent to the current project area. The Maverick-Carter House, located across Taylor Street from the project area at 119 Taylor Street, is a grand, stone mansion designed and constructed in 1893 by Alfred Giles (THC 2016). The house was built for William Maverick and sold in 1914 to Henry Champe Carter. The Maverick-Carter House is also a designated OTHM and RTHL (THC 2016). Just to the south at 131 Taylor Street is the Toltec Apartments. This U-shaped brick building was constructed between 1913 and 1915 (Pfeiffer 2010).

Lastly, 129 COSA Historic Landmarks and three COSA Historic Districts are within the 0.31-mile (0.5-km) buffer around the project area (Figure 5; see Table 1) (COSA-OHP 2016). Five of these Historic Landmarks are adjacent to the project area. The previously mentioned Maverick-Carter House and Toltec Apartments are COSA Historic Landmarks. In addition to those, the project area is in proximity to the First Baptist Church/Webb Hall to the north, the First Baptist Church Ministries to the west, and the Winerich Building to the south (COSA-OHP 2016).

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**Figure 4 : National Register Properties, Districts, and Historical Markers within 0.5 km of the Project Area**

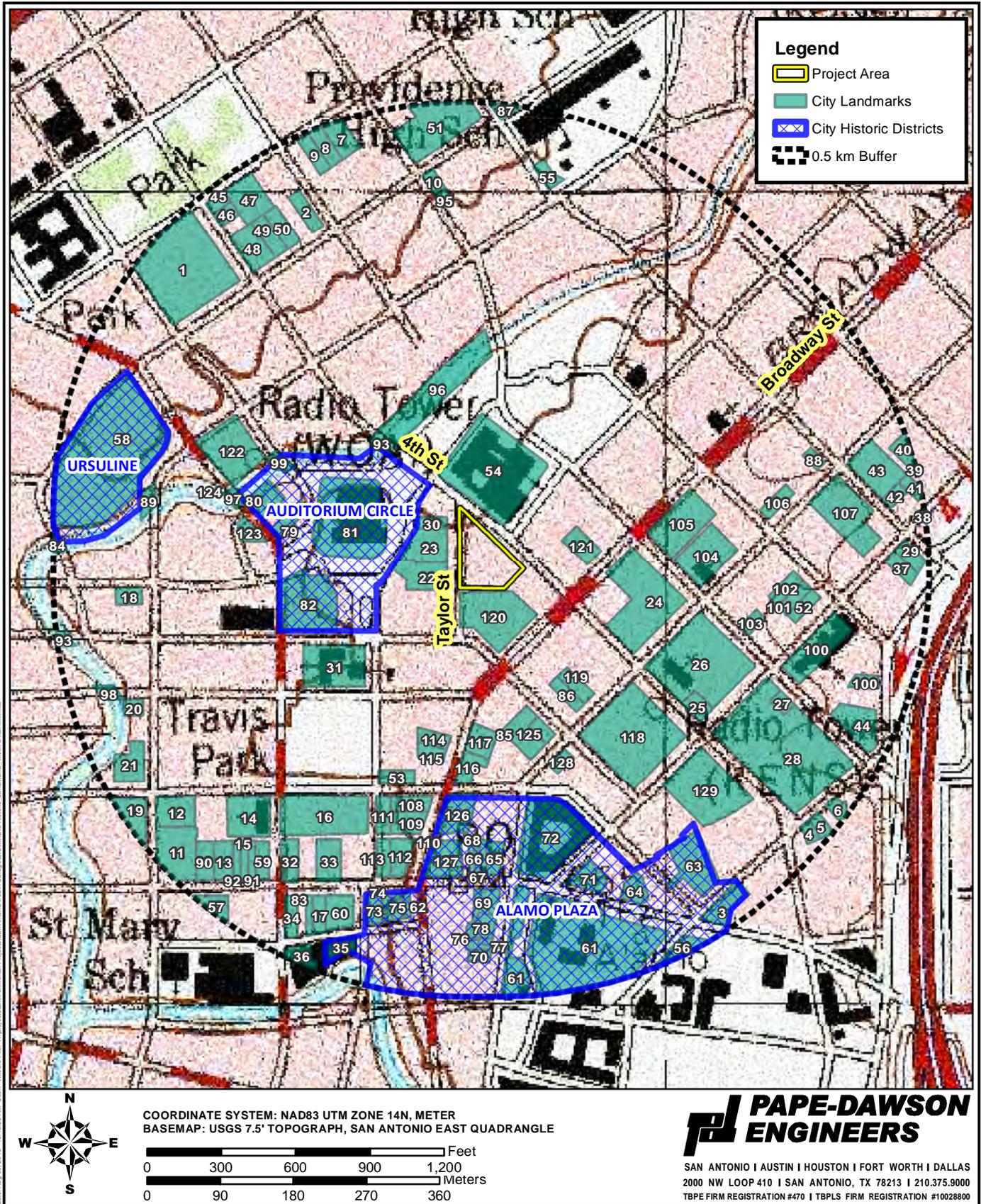


Figure 5 : Local Historic Landmarks within 0.5 km of the Project Area

### *Historic Map Review*

A review of 20 Texas Historic Overlay maps dating from 1767 to 1953 revealed a private acequia depicted as adjacent to the project area (Foster et al. 2006). The 1868 Descriptive Book of the District of Texas map shows the acequia paralleling the southeastern margin of the project area (Figure 6). It also depicts a prominent bend in the historic alignment of the San Antonio River, approximately 380 ft (116 m) northwest of the project area. The acequia continues in a southwesterly direction cutting through the Public Square, now known as Travis Park. From there, the acequia diverts to the south and appears to stop at the Navarro Street and Paseo Street intersection (Foster et al. 2006). A review of the COSA municipal archives determined that the acequia was constructed sometime prior to 1850 (COSA Municipal Archives and Records 1850). The 1850 plat map by F. Giraud depicts the acequia and describes the waterway as a “large ditch” (Figure 7). The route of the ditch was georeferenced onto both modern and historic maps.

Another plat map by F. Giraud dated to 1852 apparently depicts the Navarro Acequia route as it traverses nearby tracts allotted to heirs during the settlement of the A. Rodriguez estate (COSA 1852). A dashed line representing an acequia roughly follows the same path as the acequia depicted on the 1850 plat map. The distinctions are important; however, as more detail is given in 1852 regarding the southern extent of the Navarro Acequia, which is depicted splitting into two parallel acequia segments that both end at the San Antonio River. In addition to the 1852 plat map, it was observed that the projected Navarro Acequia route generally coincides with property boundaries of the post-mission land grants on the 1912 San Antonio Officials map (Foster et al. 2006) with very little deviation.

As mentioned before, there are two additional projected acequias within 0.31-mile (0.5-km) of the project area (see Figure 6). The routes of these acequias were georeferenced from maps by I. Wayne Cox and are currently on file with the COSA-OHP. The Acequia Upper Labor is northwest of the project area, and three segments of the Acequia del Alamo are south and southeast of the project area. Interestingly, a segment mislabeled “Acequia del Alamo” in maps on file with the COSA-OHP is in proximity to the southern half of the projected private Acequia. Based on the historic maps reviewed, this segment is actually part of the projected Navarro Acequia (see Figure 6).

Based on these factors, the Navarro Acequia borders the project area, and the Hessler Alley (depicted on later maps) adjacent to the project area likely represents the route of the acequia. However, there was potential for the acequia to fall within the boundary of the project area, especially within the southeast corner.

### 1896 Sanborn Fire Insurance Map

The 1888 Sanborn maps do not extend coverage to the project area; however, the 1896 Sanborn map (Sheet 43) depicts 15 structures within the project area (Figure 8) (The University of Texas [UT] Online 1896). The project area is broken up into eight lots, each of which contains at least one structure. Six of the lots face 4th Street (Lots 1-6), which parallels the northeastern side of the project area, and two lots face Taylor Street on the west side of the project area (Lots 7 and 8). Two small unnamed alleyways parallel the south and southeast sides of the project area (UT Online 1896).

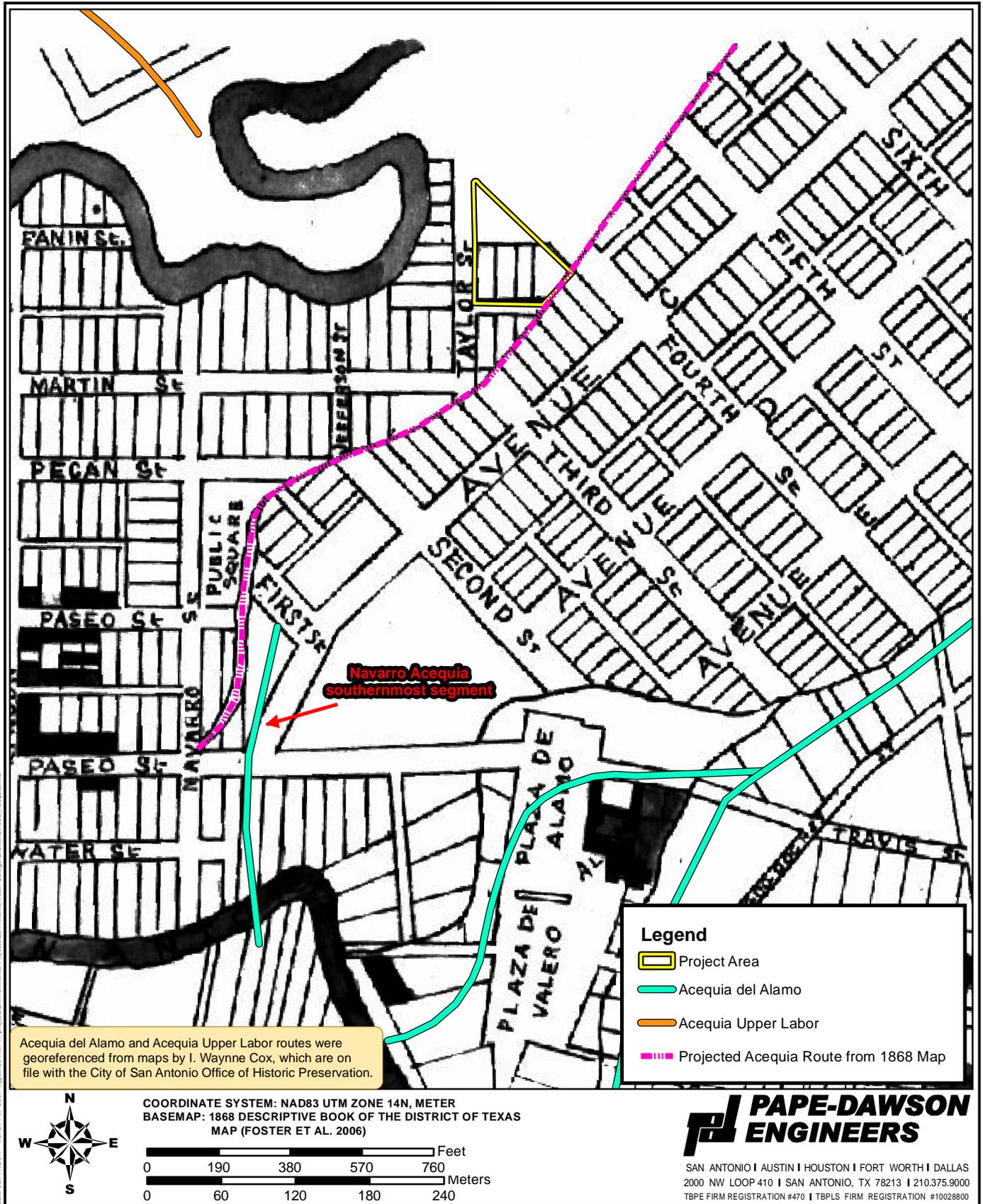


Figure 6 : 1868 Descriptive Book of the District of Texas Map (Foster et al. 2006)

**Legend**  
 Project Area



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**COORDINATE SYSTEM: NAD83 UTM ZONE 14N, METER**  
**BASEMAP: AERIAL IMAGERY; GOOGLE**  
**OVERLAY: COSA 1850**

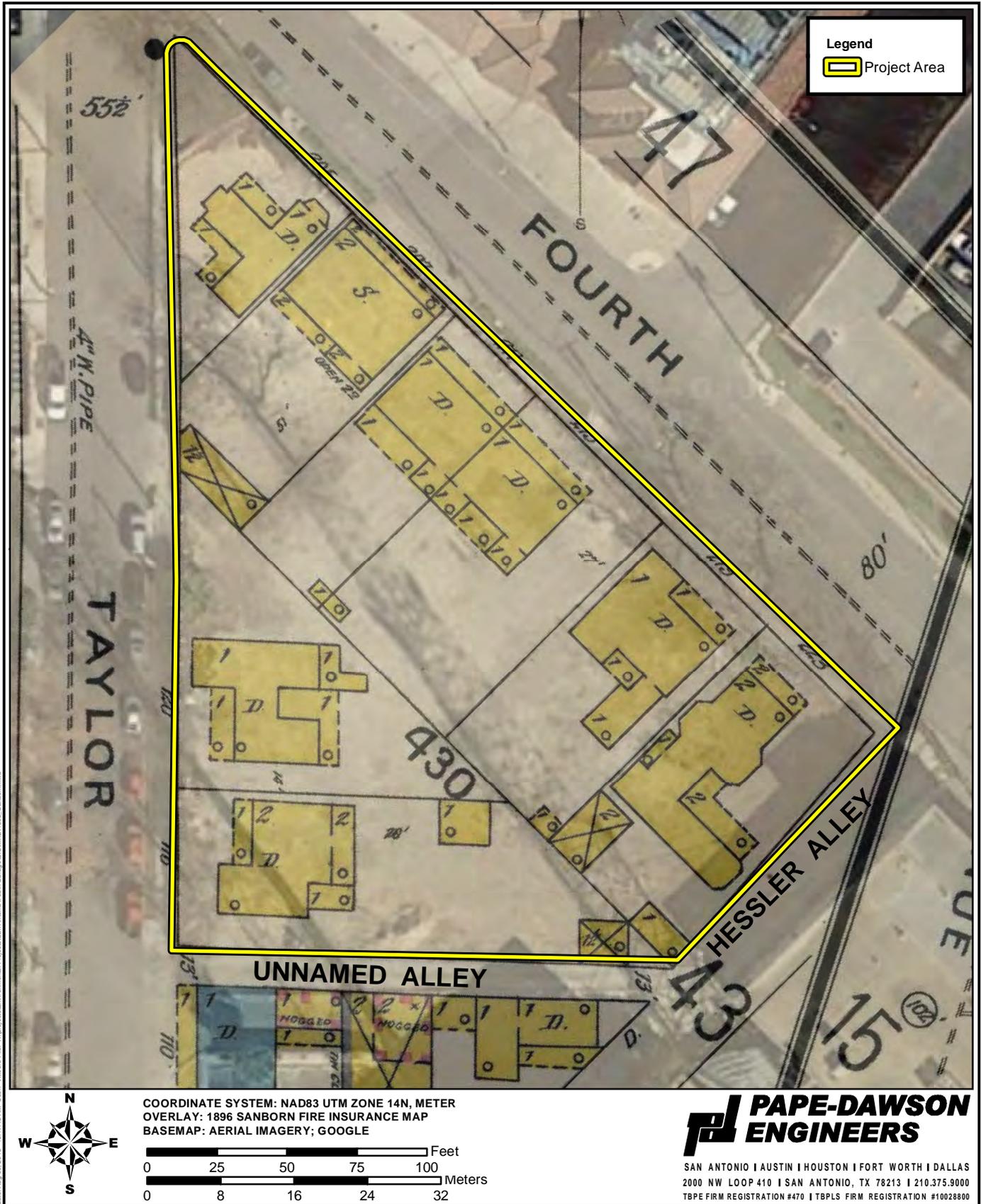
0 150 300 450 600 Feet

0 50 100 150 200 Meters

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**Figure 7 : Partial Acequia Route (COSA Municipal Archives and Records 1850)**



**Figure 8 : 1896 Sanborn Fire Insurance Map**

Beginning at the northernmost lot depicted within the project area (Lot 6), one dwelling is depicted at 205 4th Street (UT Online 1896). This home is a single-story, frame structure with a slate or tin roof. The building is T-shaped and sits at the southeastern boundary of the lot. Two porches are depicted on the northern half of the structure, one each on the eastern and western façades. To the southeast, a two-level frame store with a slate or tin roof is depicted at 207 4th Street (Lot 5). The store sits at the northeastern margin of the lot immediately adjacent to 4th Street. The building has two porches, each two stories high with slate or tin roofs. One porch faces 4th Street while the other is located on the back of the building facing the back of the lot. A second structure is depicted at the back of the lot adjacent to Taylor Street. This is a 1 ½-story, frame stable with a slate or tin roof (UT Online 1896).

Two adjacent buildings span across the next two lots, numbered 211 and 215 4th Street (Lots 3 and 4) (UT Online 1896). The buildings are depicted near the front of the lots, adjacent to 4th Street. They are each a single-story, frame building with a slate or tin roof, and have nearly identical floorplans. Both have long, 1-story porches spanning the northeastern sides of the buildings facing 4th Street, and each has a smaller porch positioned along the back of the buildings. A small structure, likely an outbuilding or privy, is depicted spanning the back of the lots. This is a 1-story, frame structure with a tin or slate roof (UT Online 1896).

Further southeast along 4th Street, an irregularly-shaped building is depicted at 219 4th Street (Lot 2) (UT Online 1896). This is a 1-story, frame building with a slate or tin roof. The building faces 4th Street with a small porch spanning the northeastern corner on the front of the building. A small frame outbuilding is depicted in the southern corner of the lot with a tin or slate roof.

A 2-story, L-shaped building is depicted in the southeastern corner of the project area at 223 4th Street (Lot 1). The frame building has a slate or tin roof and two porches. Each porch is 2 stories high, one of which faces 4th Street, and the other is located in the “crook” of the L-shape on the southern end of the house. A small, frame outbuilding is located in the southern corner of the lot adjacent to Hessler Alley. This is a 1-story structure with a slate or tin roof. An additional structure is located in the western corner of the lot. This is a 2-story, frame stable with a slate or tin roof (UT Online 1896).

The remaining two lots depicted within the project area front Taylor Street (UT Online 1896). A single-story home is depicted at 120 Taylor Street (Lot 7). This frame building is irregularly shaped with a slate or tin roof. The building has two porches, one of which faces Taylor Street to the west, and the other faces the back of the lot. The southernmost lot in the project area, 116 Taylor Street (Lot 8), contains three structures. A 2-story home is depicted near the front of the lot facing Taylor Street. This is an irregularly shaped frame home with a slate or tin roof. A single-story porch runs along the front of the house facing Taylor Street, and the southeastern corner of the home is depicted as being only 1-story high. A square-shaped outbuilding is located in the northeastern corner of the lot. The frame structure is 1-story high and has a slate or tin roof. In addition, a 1 ½-story high, frame stable is depicted in the southeastern corner of the lot adjacent to the unnamed alleyway. This structure is square-shaped with a slate or tin roof (UT Online 1896).

### 1912 Sanborn Fire Insurance Map

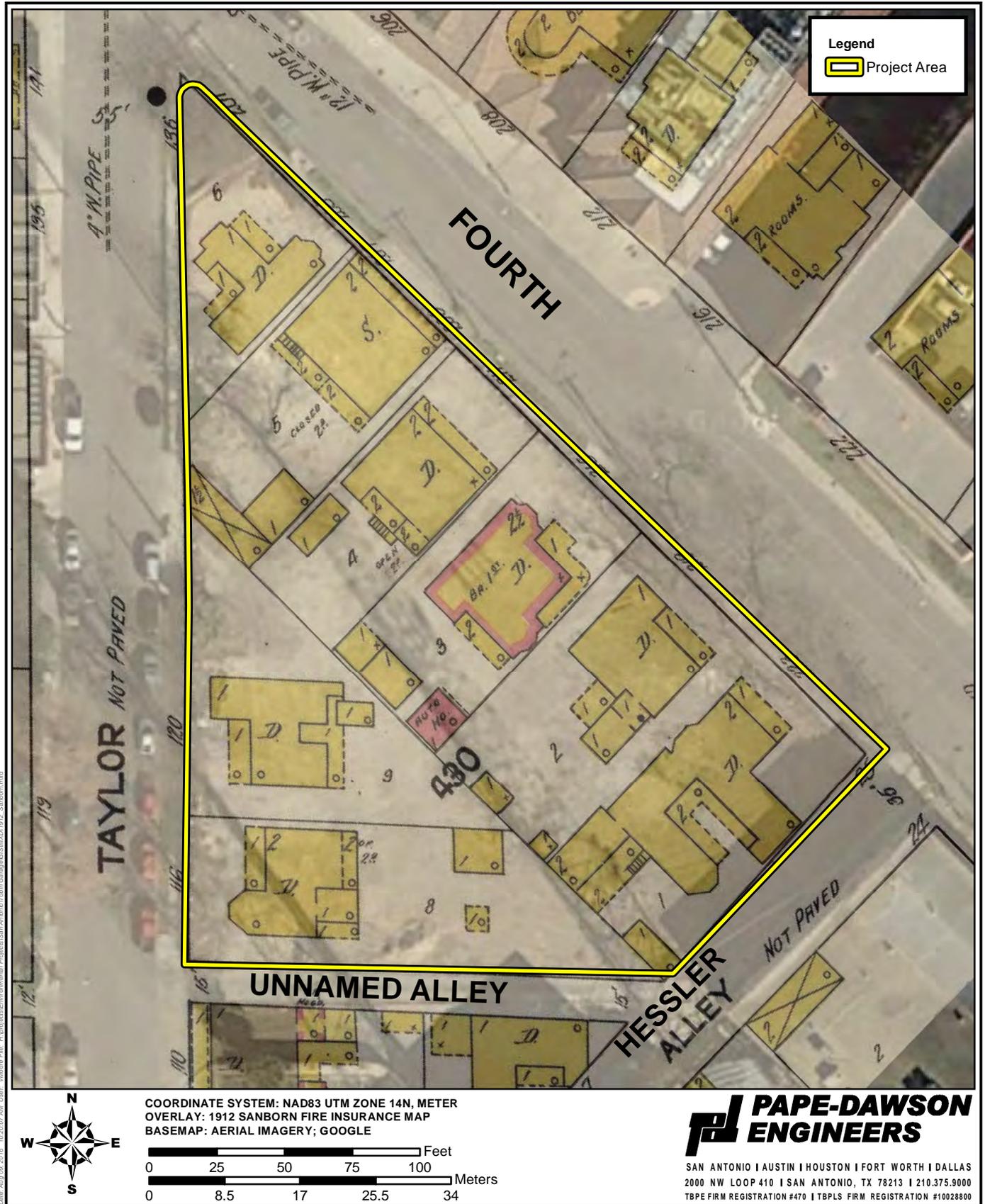
The 1912 Sanborn (Sheet 140) depicts eight lots, some of whose structures remain similar to the 1896 depiction (Figure 9) (UT Online 1912). In addition, the previously unnamed alleyway parallel to the southeastern side of the project area is now designated Hessler Alley, while the unnamed alleyway to the south remains unchanged. The northernmost lot facing 4th Street has not changed (Lot 6); however, it is now designated as 201 and 205 4th Street (205 4th Street in 1896). Similarly, the store located on the adjacent lot (Lot 5) is now labeled with two address markers as well (207 and 209 4th Street). This building is mostly unchanged; however, a covered stairway has been added to the back of the store, and a rectangular outbuilding has been added near the stables at the back of the lot. The outbuilding is a single-story, frame building with a slate or tin roof (UT Online 1912).

Moving to the southeast along 4th Street, the two adjacent buildings that spanned both lots at 211 and 215 4th Street has been removed (UT Online 1912). A 2-story, square-shaped home is now depicted near the center of the lot at 211 4th Street (Lot 4). This is a frame home with a shingled roof. A 2-story porch with a slate or tin roof spans the length of the front of the house facing 4th Street, and an open staircase along the back of the house provides access to the second story. There are two rooms partitioned off from the rest of the house in the southwest corner of the building, both of which are depicted as having a slate or tin roof. In addition, a rectangular shaped outbuilding is depicted behind the home. This is a single-story, frame structure with a slate or tin roof (UT Online 1912).

A new dwelling is depicted at 215 4th Street near the center of Lot 3 (UT Online 1912). This is an irregularly-shaped frame building facing 4th Street. The home is 2½-stories high with a shingle roof and brick veneer on the ground floor. A 2-story porch with a slate or tin roof is on the back of the house, and a single-story wrap-around porch with a shingle roof spans the southeastern corner of the house. Two frame outbuildings are located in the western corner of the lot. Both are single-story structures with the northern structure having a shingle roof and the southern a slate or tin roof. In addition, a single-story, brick building with frame cornice is located in the southern corner of the lot. The structure has a slate or tin roof and is labeled as an auto house (garage) (UT Online 1912).

As depicted on the 1896 Sanborn, the southeastern corner of the project area was divided into Lots 1 and 2; however, the 1912 Sanborn does not depict a lot boundary between 219 and 223 4th Street (UT Online 1912). The dwelling depicted at 219 4th Street remains mostly unchanged except for a rectangular addition on the southwestern side (back) of the home. A single-story porch with a slate or tin roof was added to the rear of the house, and a partitioned room along the south side of the house is depicted as having a composition or gravel roof. In addition, a small, single-story outbuilding with a shingle roof is now depicted at the back of the lot (UT Online 1912).

As mentioned before, the 1896 Sanborn depicts an L-shaped dwelling bordered by stables to the south at 223 4th Street (Lot 1) (UT Online 1912). The 1912 Sanborn depicts a much larger dwelling. The original building appears to have been combined with the stables to the southwest, and a two-story addition is depicted adjacent to the former stables. The addition is a frame structure with a slate or tin roof, just like the rest of the dwelling. The addition also contains a closed stairway providing access to the second floor. Another addition is depicted on the southeastern side of the dwelling, which creates a U-shape for



**Figure 9 : 1912 Sanborn Fire Insurance Map**

the central part of the building. The existing 2-story porch has been extended along the addition to form a small courtyard (UT Online 1912).

On the west side of the project area, the dwelling depicted at 120 Taylor Street remains mostly unchanged (Lot 9) (UT Online 1912). The dwelling at 116 Taylor Street is also very similar to that depicted on the 1896 Sanborn; however, a small, single-story porch is now depicted on the southeast corner of the building (Lot 8). The stables present on the 1896 Sanborn are absent on the 1912 map, and a small, square-shaped outbuilding is now depicted near the back of the lot. The structure is a single-story, frame building with a slate or tin roof (UT Online 1912).

#### 1951 Revised Sanborn Fire Insurance Map

A copyrighted version of the 1951 revised Sanborn map was reviewed using Discovery Texas, an online subscription database providing numerous research guides and services. The 1951 Sanborn map depicts both very minor and drastic differences from the 1912 Sanborn (Discover Texas 1951). The project area is still divided into eight lots with one or more structures depicted in each lot. The northernmost lot (Lot 6) is now designated with three address numbers (201, 203, and 205). The dwelling depicted on the two previous maps is absent, and a large radio repair shop/store is now depicted in this lot. This is a single-story building that faces both Taylor Street and 4th Street. The large space on the north side of the building has been partitioned into two rooms. This portion of the building is clad in stucco and has a composition or gravel roof. A small, rectangular structure is depicted at the southeastern corner of the lot. This is a single-story structure constructed of cement brick or concrete block with a composition or gravel roof. Two additional structures are depicted along the southeastern margin of the lot. Both are single-story, frame structures, one of which has a composition or gravel roof while the other has a slate or tin roof (Discover Texas 1951).

The 2-story store at 207 and 209 4<sup>th</sup> Street (Lot 5) is unchanged; however, the stables and outbuilding at the back of the lot have been replaced with a garage and storage building (Discover Texas 1951). Both are single-story, frame structures with slate or tin roofs. Similarly, the dwelling at 211 4<sup>th</sup> Street (Lot 4) is mostly unchanged. The shingle roof depicted in 1912 is now a composition or gravel roof. In addition, the outbuilding depicted behind the house on the 1912 Sanborn is now absent (Discover Texas 1951).

Moving further southeast, the dwelling at 215 4<sup>th</sup> Street (Lot 3) is similar to that depicted on the 1912 Sanborn, except for a small addition to the southeast corner of the house that overlaps onto Lot 2 (Discover Texas 1951). This addition is two stories high with slate or tin roof. Additionally, the home has transitioned from a shingle roof to a composition or gravel roof, and the two frame outbuildings at the back of the lot have been replaced with a garage. The garage is a single-story, frame building with a slate or tin roof (Discover Texas 1951).

The dwelling at 219 4<sup>th</sup> Street retains the same general shape as that depicted on the 1912 Sanborn; however, the home is much larger (Discover Texas 1951). The building has been expanded toward the back of Lot 2 leaving only one porch facing 4<sup>th</sup> Street. The dwelling is now clad in asbestos and has a composition or gravel roof. An outbuilding is no longer depicted near the back of the lot, and a single-

story, frame garage with a composition or gravel roof is now depicted in the southeastern corner of the lot (Discover Texas 1951).

A stucco-clad apartment building is depicted in the southeast corner of the project area (223 4<sup>th</sup> Street) (Lot 1) (Discover Texas 1951). The rough U-shape of the building is similar to the 1912 depiction indicating an expansion of the original structure. The building is two stories high and clad in stucco with a slate or tin roof. A narrow porch spans the length of the building along 4<sup>th</sup> Street (Discover Texas 1951).

The dwelling at 120 Taylor Street (Lot 7) has been converted to a stucco-clad apartment building (Discover Texas 1951). Much of the building remains structurally similar to the 1912 depiction. Additions to the building are evident on the north side and at the southeastern and southwestern corners. Each addition is one story high with a composition or gravel roof (Discover Texas 1951).

Lastly, the dwelling at 116 Taylor Street (Lot 8) appears to have had only minor modifications since 1912 (Discover Texas 1951). A small, 1-story framed addition is depicted on the southeastern corner of the home that has a slate or tin roof, matching the rest of the home. The single-story, frame outbuilding at the back of the lot is now depicted as a garage (Discover Texas 1951).

### *Historic and Modern Aerial Imagery*

A review of historic-age and modern aerial photographs identified several structures within the project area. The 1955 aerial depicts at least eight structures (NETR 2016). A large building in the southeastern corner of the project area (Lot 1) is likely the apartment complex previously depicted on the 1951 Sanborn map. Five additional structures were located adjacent to 4<sup>th</sup> Street along the eastern boundary of the project area. There was slightly more tree coverage on the western half of the project area; however, at least two additional structures can be discerned in this area (NETR 2016).

Aerial imagery dated to 1963 and 1966 is similar to the abovementioned 1955 photograph, but by 1973 only six structures are visible within the project area (NETR 2016). The apartment complex remains in the southeast corner of the project area (Lot 1). A structure adjacent to the apartments (Lot 2) and the two northernmost structures along 4<sup>th</sup> Street (Lots 5 and 6) appear unchanged; however, the two middle structures along 4<sup>th</sup> Street (Lots 3 and 4) have been replaced by a large structure, likely another apartment complex. In addition, only one structure (Lot 7) is visible within the western half of the project area (NETR 2016).

The 1986 aerial photograph is similar to the 1973 photograph; however, the northernmost structure adjacent to 4<sup>th</sup> Street (Lot 6) has been removed (NETR 2016). By 1995, the structure in the western half of the project area (Lot 7) has been removed and replaced by a parking lot. The remaining four structures (Lots 1, 2, 3/4, and 5) are present on all aerial photographs until 2015 when all were demolished (NETR 2016).

Interestingly, four neighborhood surveys were conducted between 1981 and 1982, one for each of the four structures mentioned above that were later demolished in 2015 (THC 2016). The northernmost structure, located at 209 4<sup>th</sup> Street (Lot 5), is the J. C. Carl(e)'s General Store and 4<sup>th</sup> Street Inn. It was

described as a 2-story, Victorian-themed, frame building originally constructed circa 1880. The building was enlarged in 1891 and later remodeled in 1965. At the time of the 1982 survey, the building was being used as a restaurant and considered to be in good condition (THC 2016).

Moving southeast along 4<sup>th</sup> Street, the building at 213 4<sup>th</sup> Street (Lots 3 and 4) is the Metro House Apartments (THC 2016). The building was described as a modern, 3-story brick apartment complex. Although it was in excellent physical condition at the time of the survey, its appearance was found to detract from the historic area. The building at 219 4<sup>th</sup> Street (Lot 2) was a 1-story, frame house with an asbestos shingle roof. It was described as a good example of the Colonial Revival Style; however, it had been extensively altered by 1982 (THC 2016).

Lastly, the building at 225 4<sup>th</sup> Street (Lot 1), the Morning Glory Apartments, was a 2-story, stucco, Mission Revival style building (THC 2016). The building was described as being in good condition and a simple example of the Mission Revival style (THC 2016). Based on these surveys, the J. C. Carl's General Store, the Colonial Revival house, and the Morning Glory Apartments are some of the original structures depicted on the Sanborn Fire Insurance maps.

#### *US Federal Census, City Directory, and Deed Record Summary*

Archival research determined that the project area had several long-term residents and businesses, while the remainder of the residents were transient renters or boarders. For example, Lots 1 and 2 belonged to Mary A. Rigsby; she owned and lived on Lot 2 (1899-1919) and her historic home was designated a local historic landmark. Rigsby sold the Morning Glory apartment building on Lot 1 in 1919 to W.B. and Matilda Martin who operated it for at least 20 years. Lot 5 belonged to the J.C. Carl family for about 40 years (1892-1931) and their 2-story building had a store downstairs and a residence upstairs. Finally, Lot 7 belonged to Meda Moore who ran an apartment house there for more than 20 years (1922-1946).

#### 205 4th Street (Lot 6)

Lewis Ulrich bought Lot 6 from Kate Twohig in 1890 for \$700 (BCDR 77:69). Ulrich then sold Lot 6 to M. E. Miller for \$1,250 that same month (BCDR 77:308). She also purchased a triangularly shaped lot at the southeastern corner of Taylor and 4<sup>th</sup> Streets at that time (BCDR 77:309). By May 1890, Miller sold these lots to Adolph Scholz for \$1,000 (76:135-137). Scholz sold the property to Laura Torrey in 1895 for \$2,000 (140:258). Torrey did not live here; she is listed in city directories on 5th Street from at least 1891 until her death in 1910. Her son John S. Torrey inherited the property and sold it to Janie L. Bell in 1912 (BCDR 390:266-267). Bell sold the property for \$7,000 to Mrs. H. J. Jarrell in 1920 (BCDR 569:478). None of the above owners apparently ever resided here; Bell resided on Magnolia Avenue during 1910 to 1940.

The 1900 U.S. Federal Census records Annie Fletcher and her daughter Florence Fletcher renting 205 4th Street (the northernmost end of the project area). Annie Fletcher was working as a school teacher and had been born in 1857 in Canada to parents from England. Her 20-year-old daughter Florence Fletcher was born in 1879 in Canada. They both immigrated to the United States in 1871. This address is not included in the 1910 U.S. Federal Census, but city directory information is available for 1908 and 1909

when Mrs. C.B. Bowman lived here (Appler 1908, 1909). Seven other residents were recorded between 1914 and 1940 (Appler 1914, 1915, 1919; Appler Directory Company 1922, 1924; Worley 1931, 1940).

The 1920 U.S. Federal Census records Tillie M. Pearce and her two teenaged daughters renting 205 4th Street, along with boarder Wilham E. Tesch. Tillie M. Pearce, 37, had been born in Pennsylvania to German parents, but her daughters were Texans. She worked in a local laundry, while her 14-year-old daughter Mabel Pearce was a telephone operator. Thirteen-year-old Berdrilee Pearce was attending school. Tesch, 34, was born in California to German parents and worked as an electrician in a local shop. This address is not included in the 1930 U.S. Federal Census.

#### 207 4th Street (Lot 5)

Lewis Ulrich bought Lot 5 from Kate Twohig in 1889 for \$935 (BCDR 73:610). Less than four months later, Ulrich sold the property to John C. Carl for \$1,500 (BCDR 64:178-180; 104:293-294). John C. Carl would sell Lot 5 to his son, John T. Carl in 1920 for \$3,500 (BCDR 613:333; 644:557). A store bearing their surname operated here until at least 1931 (Worley 1931).

The J. C. Carl and Son Store (Figure 10) is listed in city directories at 207 4th Street as early as 1892, when John C. Carl, John T. Carl, W. M. Carl, and Lillie A. Carl also reside upstairs (Appler 1892). John and Georgia Carl resided and worked at 207 4th Street in the 1900 U.S. Federal Census, along with their extended family, including a married son with a wife and child, a single son, a married daughter and her husband, and a servant. John Carl owned the building outright and was born in 1843 in Louisiana to a father who was French Canadian and a mother who was native to Louisiana. Georgia Carl was born in Louisiana in 1848 and was the mother to eight children, but only six were surviving by 1900. Their eldest son John T. Carl was a partner in his father's grocery business and was born in Louisiana in 1871. His 17-year-old brother (name illegible) had been born in Texas in 1882 and was working as a grocery salesman. John T. and Mary Carl and their 3-year-old daughter Myrtle Carl are listed on the census along with John T. Carl's 19-year-old sister Rose William and her 28-year-old husband Osmon William (commercial traveler); and a 16-year-old servant, Lizzie Opperman. The census indicates that Lizzie Opperman and her father had been born in Texas, while her mother had been born in Germany.



Figure 10: The J. C. Carl and Son store circa 1979 (THC 2016).

By 1910, 27-year-old grocer Lindon M. Carl and his wife Emma Carl are renting 207 4th Street. Given his age, it was probably his name that was illegible in the 1900 census. Besides this couple, no other residents are noted at this address in the 1910 census.

In the 1920 U.S. Federal Census the address is recorded as 209 4th Street, but retail grocer Lindon M. Carl and his wife Emma Carl are still residents. It is noted that Emma Carl's parents were from Germany, while she was born in Texas. This address is not included in the 1930 U.S. Federal Census. In 1931, J. T. Carl Grocery and M. M. Fassnidge Meats are listed in the city directory at this address, but by 1940 the store is called 4th Street Food Store (Worley 1931, 1940).

#### 209 4th Street (Lot 4)

The earliest deed transaction encountered for the project area was the 1882 sale by T. J. Devine of Lots 1, 2, 3, and 4 for \$2,500 to Cyrena Clark (Bexar County Deed Records [BCDR] 25:126-128). Clark then sells all four lots to R. M. Moore for \$4,500 the following month (BCDR 26:51). Moore sells all four lots to Sam M. Johnson for \$4,500 in 1885 (BCDR 34:495-496). Johnson may have been party to a lawsuit because Lots 3 and 4 were sold by the Bexar County Sheriff to highest-bidder Henry Basse for \$150, in fulfillment of a judgment rendered in May 1885 against Cyrene Clark and A. G. Clark, et al. (BCDR 42:491). Basse paid \$101 for Lot 3 and \$50 for Lot 4, indicating that Lot 3 probably had improvements, whereas Lot 4 did not. Basse sold these lots to attorney C. H. Clifford for \$200 in 1886 (BCDR 44:521). Clifford sold half of his interest in Lots 3 and 4 to Julius A. Buckler for \$200 in 1894 (BCDR 127:342).

The 1924 city directory lists Mrs. Cora Pierce as residing at 209 4th Street with M. and Effie Daily living upstairs (Appler Directory Company 1924). In the 1930 U.S. Federal Census, the first address recorded along 4th Street is 209 4th Street, which Arthur B. and Lela Sutter were renting and residing with their two adult children and three boarders. Everyone was born in Texas except a widowed, 70-year-old

boarder who was from Virginia. Arthur B. Sutter was a barber and his son Roy R. Sutter worked as a bell boy at a hotel. One boarder worked as a soda dispenser at a drug store, while another was a bookbinder. The address is noted as vacant in 1931 (Worley 1931). No other references to this address were encountered in the city directories examined; it is most likely the same residence as 211 4<sup>th</sup> Street.

#### 211 4th Street (Lot 4)

William and Mary Ellis were renting 211 4th Street in the 1900 U.S. Federal Census, along with their four children who ranged in age from 2 months to 7 years, and who had all been born in Texas. William and Mary Ellis were both born in 1869; he was working as the manager of a saddlery in 1900 and had been born in Virginia to parents from Mississippi and Virginia. Mary Ellis was born in Louisiana to parents from Mississippi and Louisiana.

City directory information for 1908 and 1909 indicates that R. M. Moore lived here (Appler 1908, 1909). R. M. Moore owned Lots 1 through 4 briefly in 1885 before selling them to Sam M. Johnson (BCDR 34:495-496). By 1910, William J. and Anna E. Cotter are renting 211 4th Street and reside here with four female lodgers. The couple are ages 35 and 28, respectively, and have been married for 8 years. William Cotter was born in Kansas to Irish parents and worked as a housing contractor, while Anna Cotter was from Pennsylvania. Lodgers included 29-year-old widow Blanche Owen who was born in Georgia, 35-year-old Sadie Scamman from Kansas who worked as a stenographer and was single, 50-year-old Elizabeth Moore who was born in Michigan and had been married for 28 years, and 38-year-old widow Honor Beam who was born in Texas.

Between 1914 and 1919, J. F. and Elma Kline reside here (Appler 1914, 1915, 1919). In the 1920 U.S. Federal Census, Paul A. and Nina H. Rynd were renting 211 4th Street and resided here with three sons (ages 8 to 12), a daughter and son-in-law, and two lodgers. The couple are ages 40 and 36, respectively and were both born in Michigan, as were all their children. Paul A. Rynd worked as an advertising manager for a machine and supply company. Their 18-year-old daughter, Aileen M. Dixon was married to Leo A. Dixon, 22, from Iowa who was working as a salesman for a wholesale and retail trucking company. Lodgers included 52-year-old Judith Harper and her 19-year-old daughter Louise Harper. Both were born in Texas. No occupation is given for Judith Harper, while it was noted that Louise Harper was attending school. Judith Harper continues to reside here through 1924 (Appler Directory Company 1922, 1924). This address is not included in the 1930 U.S. Federal Census. City directory information indicates that Albert Broden lived here in 1931, while Dora Farr resided here in 1940 (Worley 1931, 1940).

#### 215 4th Street (Lot 3)

T. J. Devine sold Lots 1, 2, 3, and 4 in 1882 for \$2,500 to Cyrena Clark (BCDR 25:126-128). Clark almost immediately sold all four lots to R. M. Moore for \$4,500 (BCDR 26:51), who in turn sold them to Sam M. Johnson for \$4,500 in 1885 (BCDR 34:495-496). Johnson was apparently involved in a lawsuit because months later Lots 3 and 4 were sold by the Bexar County Sheriff to highest-bidder Henry Basse for \$150. He paid \$101 for Lot 3 and only \$50 for Lot 4, indicating that Lot 3 probably had improvements, whereas Lot 4 did not (BCDR 42:491). Basse Basse sold these lots to attorney C. H. Clifford for \$200 in 1886 (BCDR 44:521). Clifford sold half of his interest in Lots 3 and 4 to attorney Julius A. Buckler for \$200 in 1894

(BCDR 127:342). Buckler apparently obtained ownership of the other half and sold Lot 4 to R. M. Moore in 1900 (BCDR 193:25) (see above entry for Moore at 211 4<sup>th</sup> Street).

Julius and Mary Buckler lived at 215 4th Street in the 1900 U.S. Federal Census, along with their 11-year-old daughter Henrietta Buckler. Julius was a 50-year-old lawyer who owned the building outright. Mary was 38 years old, and they had been married for 12 years. All members of the family had been born in Kentucky.

City directory information indicated that Ben M. Hammond resided here in 1908 and 1909 (Appler 1908, 1909). By 1910, Ben M. and Nellie Hammond own 215 4th Street outright and reside here with their two sons (ages 6 and 2 years), and a divorced mulatto woman, Lucy Robinson, who worked for the family as a cook. She was 60 years old, from Virginia, and had outlived her own two children. Ben M. Hammond was a 42-year-old jeweler with a wholesale and retail business. He had been married to 35-year-old Nellie Hammond for 9 years. He had been born in South Carolina, and Nellie Hammond in Kentucky, but their sons were Texans. The Hammonds lived here through 1919 (Appler 1919). This address is not included in the 1920 or 1930 U.S. Federal Census, but city directory information indicates that Mrs. L. W. Russell resided here from at least 1922 to 1924 (Appler Directory Company 1922, 1924). Other residents noted in directories are Mrs. A. D. Parnell and J. M. Bruff in 1931, and Albert E. Kinder in 1940 (Worley 1931, 1940).

#### 219 4th Street (Lot 2)

Sam M. Johnson sold Lot 2 in 1885 to Olive Ophelia Coulson for \$800 (BCDR 45:144). Coulson then uses Lot 2 to repay a debt to Francis Smith in 1892 (BCDR 115:288). Smith sells Lot 2 to Mary A. Rigsby in 1899 for \$2,650 (BCDR 167:466). Rigsby sells Lot 2 for \$10,250 in 1925 to W.B. and Matilda Martin using a warranty deed with a vendor's loan (BCDR 821:357). The loan was apparently not repaid because in 1944, the Mary A. Rigsby Estate sells Lot 2 to W.B. Martin, Jr. for \$6,300 (BCDR 2061:85).

Mary Rigsby owned 219 4th Street outright and resided there with two adult children and a boarder, according to the 1900 U.S. Federal Census (Figure 11). She was a 53-year-old widow who had been born in Kentucky. Her mother was also from Kentucky, but her father had been born in Virginia. Mary Rigsby bore five children, but only three survived by 1900. Her 25-year-old daughter Nellie and her 29-year-old son Elgie lived with her and both had been born in Kentucky. Nellie was an artist, while Elgie worked as an assistant railroad agent. Their boarder was 35-year-old Samuel Foot, a commercial traveler from New York. City directories between 1908 and 1919 record Mary A. Rigsby at this address (Appler 1908, 1909, 1914, 1915, 1919).



Figure 11: The Mary A. Rigsby house circa 1979 (THC 2016).

Mary Rigsby continues to be listed at this address in the 1910 U.S. Federal Census, along with her mother Margaret Doyel, son Elgie F. Rigsby, and three lodgers in two families. Her son was now a contracting freight agent for the railroad. Lodgers Abb K. and Birdie Parr were ages 32 and 28, respectively, had both been born in Tennessee, and had been married for ten years. Abb was working as a traveling salesman for a hat store. Belle Graham was a 40-year-old lodger who had been born in Texas; no occupation was indicated for her. This address is not included in the 1920 U.S. Federal Census, but city directory information indicates that B. S. and Winnie Martin lived here in 1922, while J. W. and Emma Hammond resided here in 1924 (Appler Directory Company 1922, 1924).

In the 1930 U.S. Federal Census, 60-year-old Katherine Crownover is renting 219 4th Street for \$50 monthly. She lived there with her 29-year-old daughter, 6-year-old grandson, and four boarders. Katherine Crownover continues to reside here in 1931, along with at least one boarder (Worley 1931). By 1940, Mrs. Vera C. Hoover and chiropractor Melvin Hardin live here (Worley 1940).

Due to the property's association with the Rigsby family, the house was designated as a COSA local historic landmark. Prior to the demolition of the structures within the current project area, the residence at 219 4<sup>th</sup> Street was relocated.

#### 223 4th Street (Lot 1)

T. J. Devine sold Lots 1, 2, 3, and 4 for \$2,500 to Cyrena Clark in 1882 (BCDR 25:126-128). Clark then sold all four lots to R. M. Moore for \$4,500 the following month (BCDR 26:51). Moore sold the property to Sam M. Johnson for \$4,500 in 1885 (BCDR 34:495). Johnson sold Lot 1 to Eliza Silsbee for \$890 later that same year (BCDR 40:104 and 302). According to the 1900 U.S. Federal Census, Eliza Silsbee owned 223 4th Street outright and resided there along with three adult children, two granddaughters, a sister and her step-daughter, three boarders, and five servants (four of whom were Black). Eliza Silsbee was a 56-year-old widow who had been born in Pennsylvania to parents from France and Switzerland. She bore

four children, but only three survived by 1900. Her 27-year-old son Bertrand Silsbee, who was also born in Pennsylvania, lived here with his wife Lula Silsbee and their daughters Virginia Silsbee (age 3) and Dorothy Silsbee (age 1). Bertrand Silsbee was working as a contractor. His younger, unmarried brother Robert M. Silsbee was 19, had been born in Texas, and was working as a dry goods salesman. Eliza Silsbee's 62-year-old sister, Temperance Raymond, also lived here with her step-daughter, 47-year-old Sara Bobee.

Three members of the Kight family were boarding with Eliza Silsbee, including parents Charles and Sara Kight, and their 28-year-old son Irvin Kight. Charles Kight was working as the secretary for a business club, while Irvin Kight was a railroad agent. Finally, five servants are listed at the residence, including three Black women, a Black man, and a White man. All were literate and spoke English. Lina Mathews was a married, 28-year-old mother of two children who worked as a cook for Eliza Silsbee. She was born in Texas, but her parents were from Mississippi. Cora Marshal was 19 years old, single, and born in Texas to Texan parents. She worked as a nurse for Eliza Silsbee. Twenty-six-year-old Lizzie Marshal was single and born in Texas. Although she shares the same last name as Cora, Lizzie's parents were both born in Missouri, and she worked as a house maid for Eliza Silsbee. James Johnson was a 21-year-old, single Black man who worked as a dishwasher for Eliza Silsbee. John Morris had been born in Illinois, was single White man, and worked as a waiter for Eliza Silsbee.

City directories for 1908, 1909, and 1915 record Mrs. G. B. (Eliza) Silsbee at this address (Appler 1908, 1909, 1915). Eliza Silsbee continues to be listed at this address in the 1910 U.S. Federal Census, along with her sister Temperance Raymond, three granddaughters (Virginia, Dorothy, and Margaret [age 9] Silsbee), a 28-year-old Black cook named Ester Taylor who worked for Eliza Silsbee, and ten lodgers in five families. Lodgers included Charles and Sara Kight with their 36-year-old son Torrence Kight; George and Mollie White; Jennie Bagley and her 22-year-old son Harvey B. Bagley; Samuel A. and Julia Wolcott; and Estelle Sederberg. Charles Kight, whose family also resided here in 1900, was now managing a mine, while his son worked as a traveling railroad freight agent. George White was a 72-year-old physician born in Alabama who had been married to 49-year-old Mollie White for 32 years, during which time they had two children. Harvey B. Bagley was also a physician. He had been born in Mississippi, but his mother Jennie Bagley was born in Ireland, like her parents. Samuel Wolcott was a retired capitalist at age 63, and had been married to his 52-year-old wife Julia Wolcott for 26 years. Together they had one child. Finally, 28-year-old Estelle Sederberg was a physician who was single and had been born in Kentucky.

Silsbee's estate sold Lot 1 in 1915 for \$15,000 to Wolf and Anna Jaffe, who sold it three years later for \$13,000 to W. B. and Matilda Martin (BCDR 474:48 and 524:545). W. B. Martin turned over sole ownership of Lot 1 to Matilda Martin in 1918 while it was subject to five liens (BCDR 550:119). By 1919, W. B. and Matilda Martin reside here (Appler 1919). In the 1920 U.S. Federal Census, William B. Martin is paying a mortgage on 223 4th Street and is residing here with his wife Matilda Martin, their 13-year-old son, and 26 boarders in 14 households with only one child recorded. The couple are ages 38 and 33, respectively, with William B. Martin working as a stock broker while Matilda Martin ran the apartment house. All had been born in Texas, although Matilda Martin's parents were from Germany. Seven of the lodgers had been born in Texas, with many relocating from neighboring and northeastern states, and as

far away as from Wales and Canada. The address is known as the Morning Glory Apartments between 1922 and 1940 (Appler Directory Company 1922, 1924; Worley 1931, 1940). In the 1930 U.S. Federal Census, 15 people in 11 households are renting apartments at 223 4th Street for between \$35 and \$55 monthly (Figure 12).



Figure 12: The Morning Glory Apartments circa 1979 (THC 2016).

### 116 Taylor Street (Lot 8)

Marie O. Grandjean bought Lot 8 (116 Taylor Street) in 1895 for \$2,900 (BCDR 133:330). She sold the property to attorney Leo Tarleton in 1897 for \$4,000 (BCDR 141:565). He resided there with his wife Mary Tarleton, two daughters, and a son, according to the 1900 U.S. Federal Census. Both Leo and Mary Tarleton were 54 years old and had been married to each other for 25 years. Leo Tarleton had been born in Kentucky, but Mary Tarleton and all their children were born in Texas. Son Garrard Tarleton was 20 years old and worked as a typewriter. Ethel Tarleton (age 19) and Alma Tarleton (age 17) were neither in school nor had occupations listed.

By 1910, Josephine B. Vairin was renting 116 Taylor Street and running it as a boarding house. She was a 36-year-old widow who had been born in Texas and had two children, both of whom were born in Louisiana. Her daughter Josephine Vairin was 13 years old and her son Coutelle Vairin was 11. Josephine B. Vairin continued to reside here through 1914 (Appler 1914). Charlotte Goetz, who immigrated from Germany in 1890, was a lodger in the home and worked as a stenographer in a brewery. Morris D. and Rilla Hesse were also lodgers from New York and Ohio, respectively. Morris worked as an insurance salesman, and they had been married for 13 years.

Maude Burroughs resided at 116 Taylor Street in 1919 (Appler 1919). The only address on Taylor Street in the 1920 U.S. Federal Census is 202 Taylor, which was being rented by John W. and Leila Williams. The couple are ages 49 and 41, respectively, with John W. Williams working as a checking clerk for a storage company. Also residing at this address are four female-headed households with a total of six children,

four of whom were over the age of 16 and working. Occupations of the boarders include grocery clerk, laundry cashier, bookkeeper for a plumbing company, hotel cashier, and clerk at a detective agency.

Four addresses along Taylor Street are enumerated in the 1930 U.S. Federal Census: 106, 110, 116, and 120. Mina Schoudel, a 65-year-old widow, was renting 116 Taylor Street for \$70 monthly. Six boarders also lived with her, and their occupations included taxi driver, mill manager, and café waitress. According to city directory information, Mina Schoudel had been a resident of Taylor Street since 1919 and continued living here through 1931 (Appler 1919; Appler Directory Company 1922, 1924; Worley 1931).

The 1940 census lists Bess Moore Featherstone and her 17-year-old son at 116 Taylor Street along with three boarders in two families. Featherstone was a 48-year-old widow. She had financed Lot 8 in 1938 with a \$4,000 note that her aunt, Mollie M. Moore, paid in full in 1942 (BCDR 1663:464-465; 2315:383). Mollie M. Moore is also associated with 120 Taylor Street (see below). Mollie M. Moore did not live on Taylor Street until 1924 when she resided next door at 120 Taylor Street. City directories and census data reveal she lived at 818 Avenue B from at least 1892 to 1919, working as a compositor for the Daily Light newspaper, as a dance instructor, and operating a boarding house at that address (Appler 1892, 1897, 1919).

#### 20 Taylor Street (Lot 7)

The 1900 U.S. Federal Census records Agnes Jean residing at 120 Taylor Street. She was a 61-year-old widow who had immigrated from Germany in 1849. She continues to be listed here in the 1910 U.S. Federal Census, but this address is not included in the 1920 U.S. Federal Census. City directory information fills in the gaps between 1914 and 1926. Mrs. L. Bonnet resided here in 1914, while Mina Schoudel lived here in 1919 (Appler 1914, 1919). Mollie M. Moore bought Lot 7 in 1915 from the Agnes Jean Estate for \$5,500 (BCDR 456:385-387). In August 1919, Mollie M. Moore was granted a special building permit for 120 Taylor Street; the 1924 city directory also lists her at this address. She is also associated with 116 Taylor Street (see above). From 1922 to 1926, the address is known as the Moore Apartments, run by Meda Moore (Mollie's sister-in-law) (Appler Directory Company 1922, 1924; Worley 1926).

Elizabeth A. Reser financed the purchase of Lot 7 from Mollie M. Moore in 1926 for \$12,000 (BCDR 869:306). Robert A. and Ethel M. Gregory assumed the note for the property in 1928 from Resner for \$10,950 (BCDR 1031:16; 1091:465-467). In 1930, the Gregorys reside at 120 Taylor, according to the census, and they rented apartments that cost \$40 monthly to two households with a total of seven people. Robert A. Gregory was a real estate agent, and the occupations of the boarders included seamstress, cigar company saleslady, automobile mechanic, and grocery store salesman. The 1940 census reveals that Meda Moore lived in Houston in 1935, but was residing once again at 120 Taylor by 1940, managing its apartments. Apparently the Gregorys are not able to complete the sale because Meda Moore's daughter Featherstone bought Lot 7 in 1941 for \$5,000 from Mollie M. Moore (BCDR 2315:381-382). Meda Moore lived at this address when she died at age 82 in 1954 (San Antonio Express July 22, 1954). Bess Featherston deeded Lot 7 to her son Tom Moore Featherston in 1966 (BCDR 5661:993). Thus, this property was in the Moore family for roughly 51 years (1915-1966).

## Fieldwork

The 1.21-acre (0.49-ha) project area is within the block south of the intersection of Taylor Street and 4<sup>th</sup> Street, which is in an urban setting. Surface coverage across the site varies from patches of thick, tall grasses in the southeastern end to a graveled parking area in the northwestern half of the project area (Figure 13). Recent aerial images (Google Maps 2014, 2015) show the grassy section in the southeast end of the project area corresponds to the fenced properties located at 219 and 223 4<sup>th</sup> Street (Lots 1 and 2) as seen on the 1912 Sanborn maps (see Figure 9). This was corroborated during the survey as concrete footings associated with chain-link type fencing was observed along Hessler Alley and potentially in BHT 3. Recent aerial images also show that the entire project area had been graded and cleared of all standing structures by the end of 2015 (Google Maps 2015). During the current effort, archaeologists verified disturbances associated with the prior parking lot construction and the more recent grading and clearing through pedestrian survey and trenching.



Figure 13: General view of project area surface coverage, looking west.

Six backhoe trenches (BHT 1-6) were excavated during the survey (Figure 14). Of these, three trenches (BHTs 1, 2, and 4) were situated along the southeastern boundary where historic maps depicted an acequia (Figure 15). BHTs 3, 5, and 6 targeted both backyard features and prehistoric deposits, given the proximity of a prominent bend in the historic alignment of the San Antonio River that would have been approximately 380 ft (116 m) northwest of the project area. Four trenches were oriented roughly northwest to southeast, while two others were oriented northeast to southwest. All six ranged in length from 13.1 to 22.9 ft (4 to 7 m), in width from 3.3 to 4.9 ft (1.0 to 1.5 m), and in depth from 4.1 to 4.6 ft (1.25 to 1.4 m). All trenches were positive for historic-age artifacts, and three trenches (BHTs 1, 2 and 4) were positive for prehistoric material. Based on the results on the investigations, Pape-Dawson archaeologists recorded two archaeological sites (41BX2133 and 41BX2134) within the project footprint.

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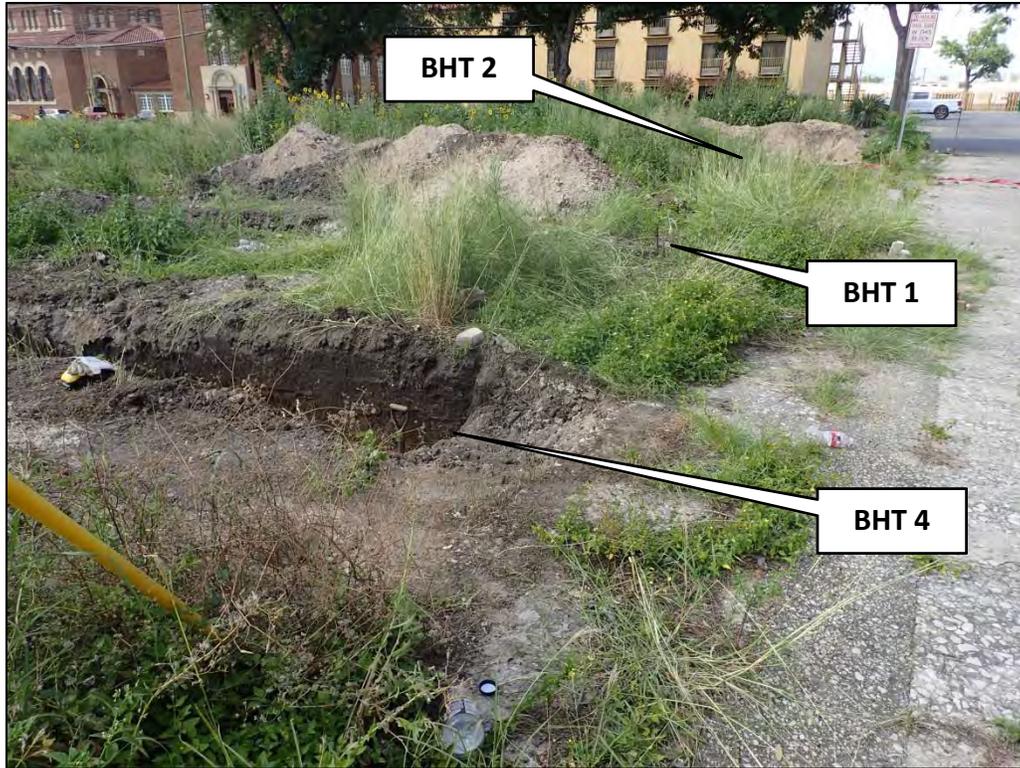


Figure 15: Location of BHT 1, 2, and 4 northwest of alley, looking northeast.

Site 41BX2133 is a multi-component site that spans the entire project area. It contains historic artifacts (identified in all six trenches), structural elements (identified in three trenches), and a sparse scatter of prehistoric lithic material. Site 41BX2134, interpreted as a section of the Navarro Acequia, was encountered in BHT 4, while corresponding disturbances or possible acequia remnants were noted in the southeastern end of two other backhoe trenches (BHTs 1 and 2) that were situated adjacent to Hessler Alley, where the projected route of the acequia was historically mapped (See Figure 14 and Figure 15). Individual trench descriptions are presented in Appendix A, and a detailed description of each newly recorded site is presented below.

### Site 41BX2133

Site 41BX2133 is a multi-component site that encompasses the entire project area (Figure 16). The site's historic component consists of a sprawling scatter of historic artifacts and six brick and concrete footings. The prehistoric component is represented by a sparse scatter of prehistoric lithic material limited to the southeast portion of the project area. A review of historic and modern maps and aerials showed that structures stood on the site from at least 1896 until 2015, when all structures were demolished or removed, and the property was graded. The site was an empty lot at the time of survey. Vegetation at the site consisted of some tall grass with a scattering of mature trees in the southeastern half, while a graveled parking lot covered the northwestern half of the site and project area.

Six backhoe trenches (BHTs 1-6) were excavated within the boundaries of site 41BX2133. All six trenches were positive for historic-age artifacts, and three trenches (BHTs 1, 2 and 5) were positive for prehistoric

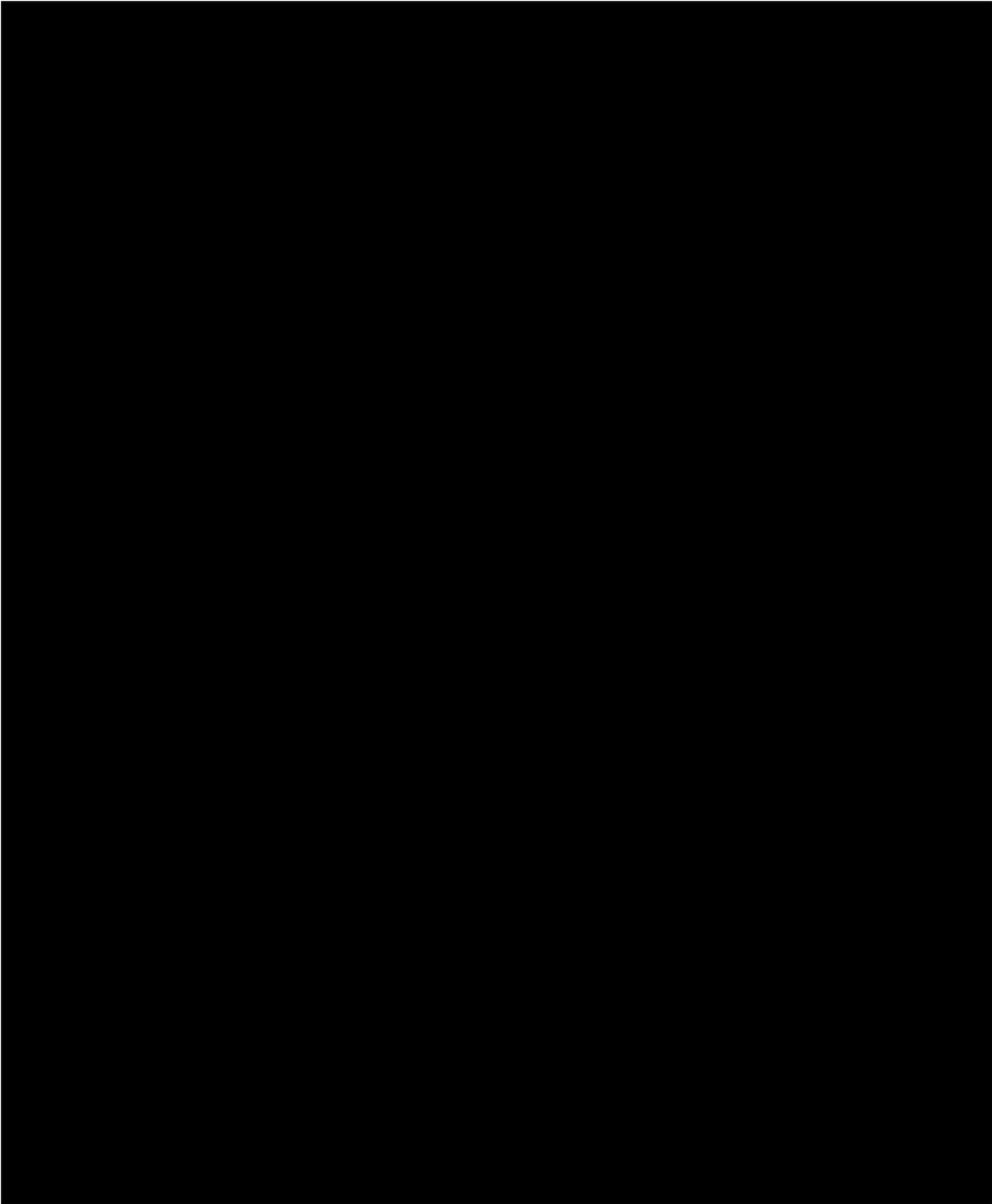
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material. Five brick and concrete footings were encountered in three trenches (BHT 1, 2 and 4) along the eastern end of the project area, and one footing was documented on the surface. All six of these align with the outer walls of structures visible in the georeferenced 1896, 1912, and 1951 Sanborn maps (Figure 17). Footing 1 was constructed within what is interpreted as a former acequia channel; therefore, site 41BX2133 overlaps site 41BX2134 (the Navarro Acequia). Multiple historic-age artifacts associated with late-nineteenth- to mid-twentieth-century occupations were collected from the surface and were encountered in the top 16 inches (40 cm) in all six trenches. A number of prehistoric artifacts including one stone tool were collected from BHTs 1, 2 and 5. Based on the findings, multi-component site 41BX2133 was defined as encompassing the entire project area.

As discussed previously, 15 structures were observed within the project area on the 1896 Sanborn map (Sheet 43) (UT Online 1896). These were divided across a total of eight lots with at least one structure in each. Six of the lots faced 4<sup>th</sup> Street and two lots faced Taylor Street. As discussed in the records review, 219 4<sup>th</sup> Street was owned by Mary A. Rigsby from 1885 until 1944, when her estate sold it. City directories indicate that she lived here from 1908 to 1919. Previous surveys have shown that the Rigsby family is considered to have significantly contributed to the development of the Highland Park community southeast of downtown. However, no artifacts or features positively associated with her were identified during current investigations. Mary A. Rigsby's former residence had been designated a COSA Historic Landmark and was relocated to a different property prior to the survey.

Based on the 1896 map, it appears that the footings encountered in BHTs 1, 2 and 4 belong to a 2-story L-shaped building at 223 4<sup>th</sup> Street. Later, on the 1912 Sanborn (Sheet 140) there are seven lots, some of which remain similar to the 1896 depiction (UT Online 1912). However, 223 4<sup>th</sup> street is no longer divided into two lots (219 and 223), rather just one large lot. Within this double lot a rectangular addition is depicted on the southeast side of the structure, which corresponds to the footings observed in BHT 2. According to the 1920 U.S. Federal Census, this structure was a multi-family building and was known as the Morning Glory Apartments between 1922 and 1940. Most of the structures observed in these historic maps were still visible on modern aerials until 2015 when the block was demolished.

As mentioned above, of the six trenches excavated within the site, three contained brick footings and artifacts while the remaining three contained artifacts only. The following is a more in-depth discussion of what was discovered in each trench as related to 41BX2133. BHT 1 was placed along the southeastern edge of the project area perpendicular to Hessler Alley. During its excavation, the remains of a brick footing located in the northeastern wall were uncovered. Its plotted location corresponds to the previous structure located on the property as seen on the 1912 Sanborn map (see Figure 17). In the northwestern end of the trench, just west of the brick footing, Zone IV, comprised of fill containing brick and asphalt fragments overlaying a 0.39 inch (1 cm) thick layer of caliche, appears to be directly under where the structure was located and is possibly structural fill placed prior to construction. The area around the brick footing extending down to the marl is very jumbled and is probably due to disturbance associated with the excavation for the brick footing (Figure 18). Artifacts observed included lithic flakes, red brick fragments, and asphalt chunks. Artifacts collected include bottle and window glass fragments, Albany slipped stoneware, red brick fragment, and burned mammal long bone fragment from the back



**Figure 17: 1912 Sanborn Fire Insurance Map with Trenching Results**

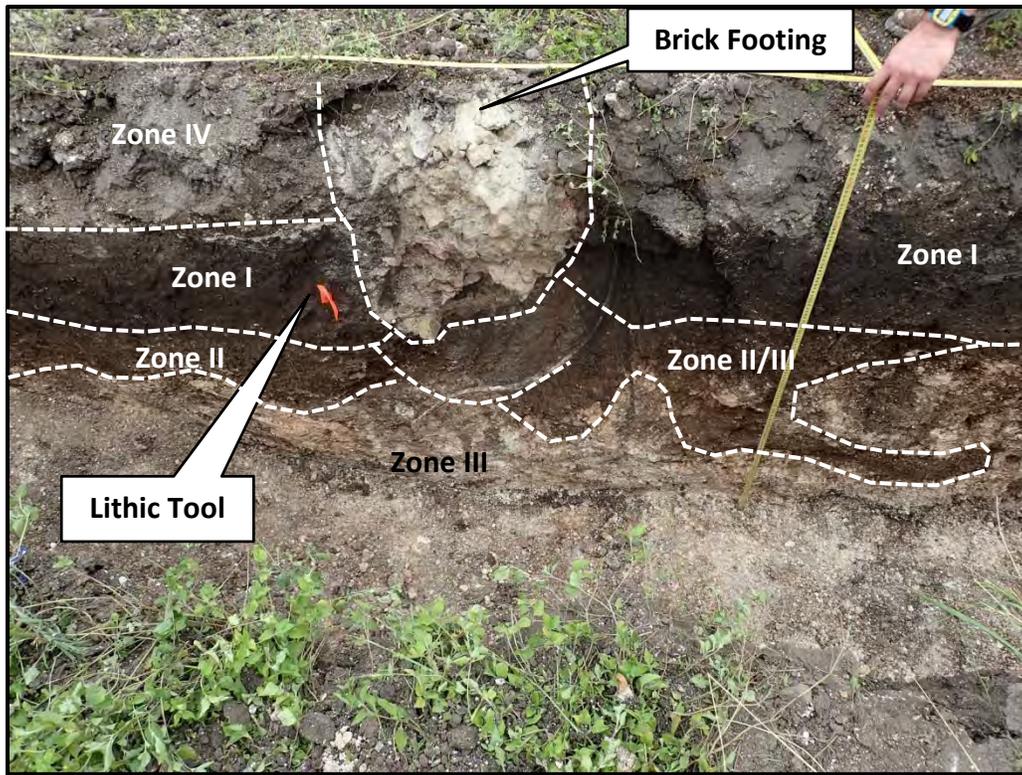


Figure 18: BHT 1, brick footing from 41BX2133 encountered in northeast wall.

dirt and a stone tool from Zone I (at 48 cmbs) in the trench profile. The non-diagnostic biface had an adze-like morphology, a high medial ridge, and was nearly triangular in profile. A summation of the diagnostic artifact analysis will be presented following the sites discussion.

Archaeologists encountered three stacked-brick footings sitting on concrete in the southwestern wall of BHT 2 (see Figure 14; Figure 19). These correspond to a historic addition to the structure as seen on the 1912 Sanborn map (see Figure 17). The three brick footings located on the southwest side of the trench extend into the Zone IV marl. The footings consisted of a variety of red and yellow brick stacked and mortared atop large concrete slabs. The footings were not disassembled, but loose yellow bricks were encountered that did not have a maker's mark, while the red bricks were stamped, "SECO". 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 footings were probably constructed as early as 1910, but no later than 1939. Footing 1 (Figure 20) is situated above the southwestern edge of the acequia with Footing 2 (Figure 21) located around 15.7 inches (40 cm) to the west. In contrast, Footing 3 (Figure 22) is more than 41.3 inches (105 cm) west of Footing 2, which is more than twice the distance between Footings 1 and 2. It is unclear if this "doubling up" of the footings at the corner of the later addition is due to its placement above the fill of the potential acequia or if it was considered a standard construction practice at that time. Artifacts observed in BHT 2, included brick fragments, bone, glass, metal, and coal collected from the backdirt or Zone I, and lithic debitage collected from the backdirt and from the trench wall in Zones 3 and 4. None of these artifacts was encountered within the fill of the potential Acequia channel remnant.

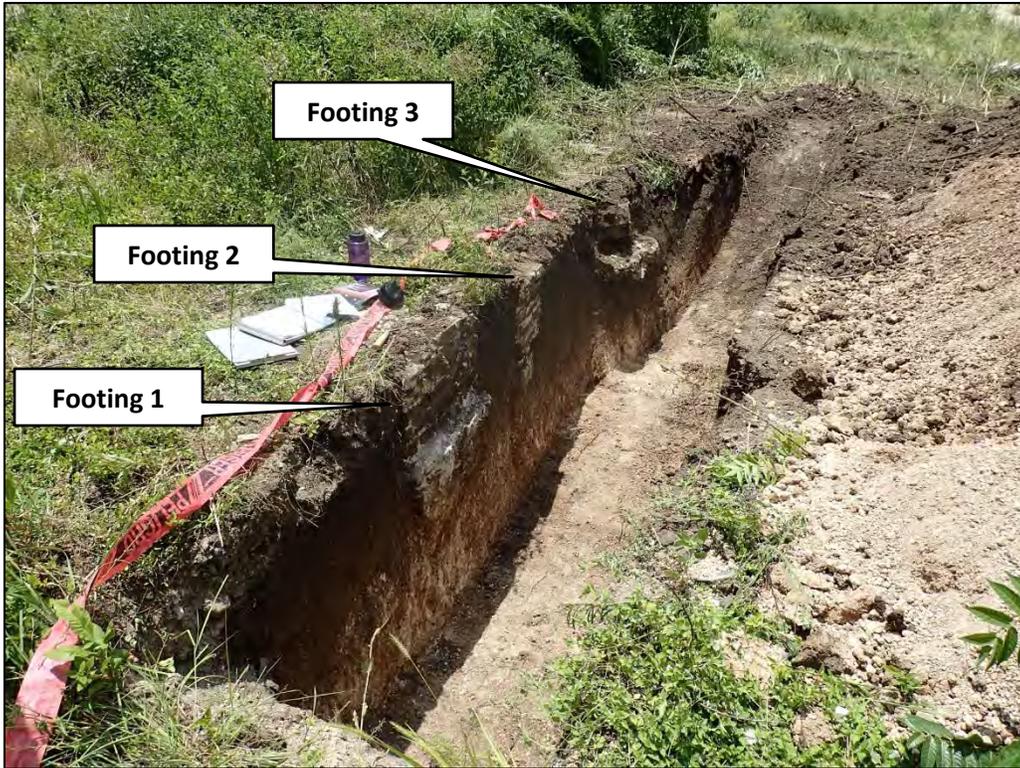


Figure 19: BHT 2 southwest wall profile.



Figure 20: BHT 2 detail of Footing 1 at site 41BX2133.



Figure 21: BHT 2 detail of Footing 2 at site 41BX2133.



Figure 22: BHT 2 detail of Footing 3 at site 41BX2133.

BHT 3 was excavated west of BHT 1 and is oriented southwest to northeast within site 41BX2133 (see Figure 14). During the initial opening of the trench, concrete along with historic and modern artifacts were encountered at the far southwest end. Review of aerial maps from before the property was cleared, show a fence enclosing the backyard of the historic home associated with the Rigsby family at 219 4<sup>th</sup> Street. In addition, the trench was excavated adjacent to where modern maps depicted a shed within the fenced yard. It was thought the concrete belonged to part of the fence along which debris had been deposited over the years. A number of metal, glass and ceramic artifacts were collected from the backdirt during the excavation. However, due to the nature of the recent disturbances on the property, archaeologists were unable to definitively attribute any of the historic age artifacts specifically to the Mary A. Rigsby occupation of 1899-1919.

BHT 4 contained one footing in the northeast wall, approximately 9.8 ft (3 m) from the southeast end of the trench (Figures 23 and 24). From the footing to the western end, is a layer of fill overlaying a thin caliche base identified as Zone IV. This fill corresponds in depth and material noted in Zone IV of BHT 1. Review of the georeferenced 1896 and 1912 Sanborn maps show the southern wall of the historic structure sitting in the same general location as the footing in BHT 4. A ceramic utility pipe was encountered in the eastern end of the trench and appears to run northwest to southeast (see Figure 24). It could not be determined if this serviced any of the structures in the current project area. A few glass fragments and a piece of coal were collected from the backdirt of BHT 4.

BHT 5 was excavated along the boundary between the grass and graveled sections of the project area. As discussed previously, the grassy area appears to correspond to the property boundary for 219 4<sup>th</sup> Street, thus placing BHT 5 at least partially within the yard of the house previously occupied by the Rigsby family. A few historic ceramic artifacts were collected from the backdirt and three prehistoric lithic artifacts were collected from the profile in Zones I and II. However, as with BHT 3, none of the historic age artifacts could be positively attributed to the Rigsby family occupation.

BHT 6 was the westernmost trench, and the soils observed were completely different from all other five trenches. One pearlware ceramic fragment was collected from the backdirt of BHT 6 and numerous bricks and brick fragments were observed in the upper 16 inches (40 cm). No additional artifacts or features were observed in BHT 6.

### Artifact Analysis for 41BX2133

A total of 117 artifacts were collected at site 41BX2133, including seven pieces of faunal bone, two brick fragments, 30 ceramic sherds, two pieces of coal, 51 shards of glass, seven lithic artifacts, 17 metal fragments, and a shell button. Of those, 43 were temporally diagnostic historic-age artifacts associated with a late-nineteenth to early-twentieth century occupation. Four pieces of ceramic date earlier (1820-1845). The material observed included fragments of glass, ceramics, and metal, which were mainly recovered from the backdirt during the trenching process. The domestic refuse noted during the survey was sparse and intermixed with modern trash.



Figure 23: BHT 4 northeast wall profile with brick footing.

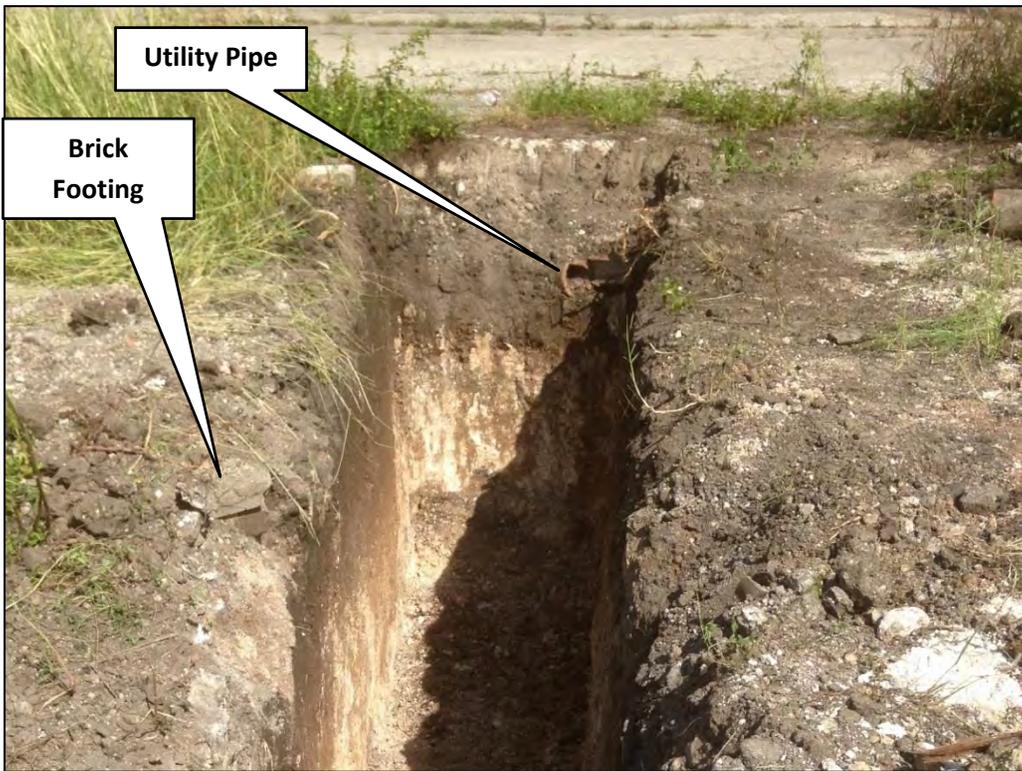


Figure 24: BHT 4, ceramic utility pipe in wall at southeast end of trench.

### *Historic Ceramic at 41BX2133*

Ceramics were categorized according to ware type and then sub-divided by categorical paste attributes. Historic ware types include coarse earthenware, refined earthenware, porcelain, and stoneware. Paste attributes such as color, hardness, and porosity can be used to identify specific paste types within each ware type. Examples of paste types for coarse earthenware include redware and terracotta, while refined earthenware can be further distinguished as whiteware, ironstone, semiporcelain, and yellowware. During excavations, whiteware, ironstone, semi-porcelain, and stoneware paste types were encountered at site 41BX2133 (Table 3).

A total of 11 diagnostic ceramic sherds was recovered at the site, all of which were recovered from either the back dirt or on the surface. Four of these are stoneware sherds used for food storage. One is a molded Bristol-glazed sherd (Figure 25). Until 1915, Bristol glazes were commonly used on the exterior with an Albany slip on the interior. After this time, Bristol glazes were used alone on the exterior and interior, and can still be seen today (Stelle 2015). One sherd has an Albany-like slip on both the interior and exterior (Figure 26). The commercial production of Albany-like slip glazes ceased around 1940 based on public perception of dark colors as unhygienic for food storage (Greer 1981). Bristol glazes supplanted other types of glazes because its pale color was perceived as sanitary. Two sherds are Rockingham molded stoneware with an emerald green glazed interior (Figure 27). Rockingham is typically characterized by relief molded decoration with a rich uniform to mottled brown glaze and are more common in the late-nineteenth century (Claney 2004).

**Table 3: Diagnostic historic ceramics from site 41BX2133.**

BHT#	Level	Orig Count	Artifact Material	Category	Age Range	Comments
1	Backdirt	1	Ceramic	Storage Vessel	terminus of 1940	Stoneware body Albany Slip on the interior and exterior sherd
3	Backdirt	1	Ceramic	Serving Vessel	1875-1897	Ironstone full profile sherd undecorated with maker's mark: Alfred Meakin (no "Ltd")
		1	Ceramic	Serving Vessel	1826-1831	Whiteware rim sherd light blue Transferprint
		2	Ceramic	Storage Vessel	Late 19th Century	Stoneware body sherd Molded Brown glazed exterior, and green glazed interior. Rockingham-like glaze
		1	Ceramic	Storage Vessel	1906 +	Semi-porcelain base sherd with a partial makers mark : John Maddock & Sons
5	Backdirt	1	Ceramic	Serving Vessel	1820-1845	Whiteware lid sherd plain, molded
6	Backdirt	1	Ceramic	Serving Vessel	terminus of 1840	Pearlware full profile plate sherd undecorated
Surface		1	Ceramic	Serving Vessel	1826-1831	Ironstone rim sherd with light blue Transferprint
		1	Ceramic	Serving Vessel	Late 19th Century	Whiteware rim sherd with plain white glazed, molded scalloped edge
		1	Ceramic	Storage Vessel	1915 +	Stoneware body sherd plain Bristol glaze, Molded



Figure 25: Molded Bristol glazed stoneware fragment from the surface.



Figure 26: Albany like stoneware from backdirt of BHT 1



Figure 27: Rockingham like glazed stoneware from the backdirt of BHT 3.

One Pearlware, four whiteware and one ironstone diagnostic fragments of tableware were also encountered in the back dirt at site 41BX2133. Two are light blue transfer printed rim sherds (Figure 28). Transfer printing uses tissue paper to transfer the inked image from an engraved copper plate to a ceramic vessel. Both design and color scheme are useful in estimating dates of production. Light blue transfer prints have a mean range of production of 1826-1831 (Stelle 2011). Two plain molded whiteware fragments date to the mid to late-nineteenth century. Plain undecorated whiteware was one of the cheapest types of serving vessel available in the mid- to late-nineteenth century. Maker's marks are one of the most useful diagnostic features used in dating artifacts. Two plain ceramic artifacts (one semi-porcelain and one ironstone) recovered from the site retained enough of a maker's mark to positively identify the manufacturers and associated production ranges. The ironstone sherd is a full saucer profile and was produced by Alfred Meakin between 1875 and 1897 (Figure 29). The semi-porcelain base fragment has a partial mark from John Maddock & Sons produced after 1906 (Figure 30). The undecorated Pearlware sherd from BHT 6 that straddled Lots 5 and 6 has a terminal production date of 1840 (THC 2015) (Figure 31).



Figure 28: Light blue transfer print rim fragment from the backdirt of BHT 3.

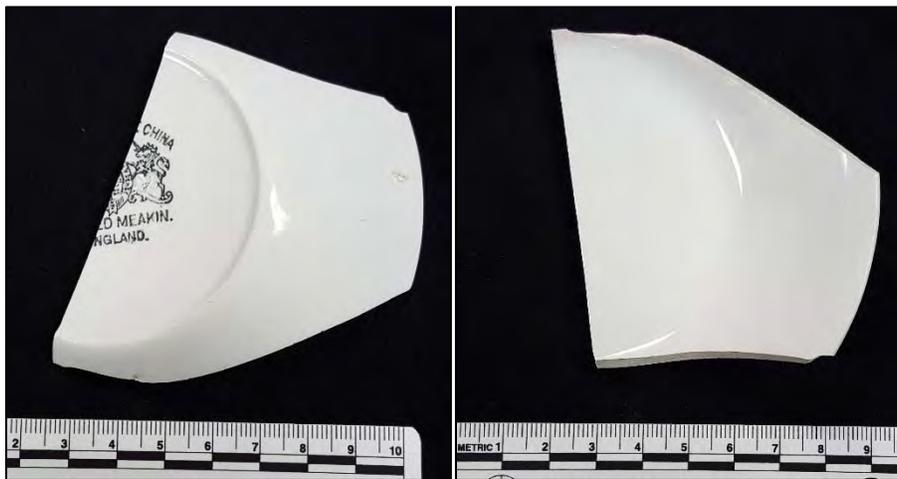


Figure 29: Ironstone saucer profile with Alfred Meakin maker's mark.



Figure 30: Semi-porcelain plate base fragment with Jon Maddock & Sons maker's mark.



Figure 31: Pearlware plate profile fragment.

### *Historic Glass at 41BX2133*

Glass was initially sorted according to identifiable morphological attributes associated with object category and subsequent object form. Object categories include container glass and window glass. The specimens were then identified by the object form, when applicable. Decorative techniques as well as maker's marks were also noted for all container glass. Color variations for each glass shard were recorded in addition to artifact form and condition these were found to be of more diagnostic use than other features observed during analysis (Table 4).

**Table 4: Historic bottle glass recovered from site 41BX2133.**

<b>Artifact Description</b>	<b>BHT#</b>	<b>Level</b>	<b>Count</b>	<b>Description</b>
Aqua	1	Backdirt	1	body
Blue-green		Surface	1	bottle rim
Cobalt	3	Backdirt	1	Body, flat glass
			1	body
		Surface	1	bottle base
Colorless	1	Backdirt	1	bottle base with maker's mark: "M (in circle), 5"
	2	Backdirt	1	bottle finish
			1	bottle base
	3	Backdirt	2	bottle base with maker's mark: "S & D, 2, 86" and a suction scar
			1	bottle finish
			1	body, has small bubbles in glass
			1	jar/cup finish
			1	bottle base
		Surface	1	bottle stopper fragment
Milk glass	3	Backdirt	1	jar lid is a "Genuine Boyd Cap"
		Surface	1	bottle base with partial maker's mark "...ES..."
			1	rim
			1	body
Solarized		Surface	1	bottle base, has a "5" on base with valve marks

“Container glass,” is defined as any glass shard exhibiting curvature and thickness consistent with bottle and jar forms and not identified as lighting or window glass. This also includes container closures such as lids. When recognizable, object form was also recorded. For example, jar lid liners would be distinguished by their unique circular, opaline form, and snuff bottles by their well-defined square body shape, bead finish and amber hue. Shardlets of unknown vessel form which retained enough curvature to determine they were not window glass, but were too fragmented to assigned to specific container types, were assigned to the unknown category.

Changes in the way glass bottles were produced over time are identified by the characteristic marks left during the manufacturing process. In 1903 Michael J. Owen patented his automatic bottle blowing machine resulting in more homogenous bottle designs. In 1917 the first fully mechanized bottle-making factory opened and, by 1924, automatic machines accounted for 90 percent of all bottles produced. However, earlier manufacturing techniques still continued on after these technological advances for a variety of reasons. Therefore, it is difficult to come closer than about a decade when dating bottles based on manufacturing techniques and color. Thus, if possible, trademarks and maker's marks provide the most accurate date for the manufacture of bottles. Many fragments of glass bottles were observed at the site. Most appear to have been from an automatic bottle machine with no other identifiable features, placing them as no younger than 1917.

Aquamarine (aqua) glass is the result of low levels of natural iron impurities in sand, which were not off set with color neutralizing agents during the glass making process. Aquamarine was a very popular color in all types of jar and bottle glass from the early nineteenth century to the 1920s and remained well-liked in canning jars into the 1930s. Around this time, consumer preference for colorless glass caused production of aquamarine vessel glass to wane. However, shades of aquamarine in soda bottle form are still widely produced today (Lindsey 2016). Two shards of aqua glass were recovered from BHT-1 backdirt.

Four milk glass fragments recovered from the site were produced by adding tin or zinc oxides, fluorides, and phosphates to the glass mixture. Milk glass was used in the production of a wide array of different vessel types, though the color was most commonly used in hygienic bottles and jars from the 1870s to 1950s (Lindsey 2016). One of the fragments is a “Genuine Boyd’s Cap” canning lid liner from between 1869 to 1950.

Colorless glass also consists of a subcategory of solarized glass including sun-colored amethyst. Prolonged exposure to ultra-violet rays, such as sun light, causes a chemical reaction that tints the once colorless glass. Additions of manganese dioxide produce a distinct amethyst color. Although manganese dioxide has been used for centuries for its decolorizing properties in glass making, it was most commonly used from 1890 to 1920 (Lindsey 2016). One solarized bottle base with valve marks was recovered from the surface of the site.

### *Window glass from 41BX2133*

Window glass analysis is a process of determining a relative initial construction date for historic structures by measuring its thickness (Weiland 2009). The use of cylinder glass to produce window glass began during the first part of the nineteenth century. As window size increased during the next 70-100 years, the thickness of the glass gradually became thicker. In the first few decades of the twentieth century, skilled laborers in the window glass production process were replaced with machines (Douglas and Frank 1972) and the thickness of glass was standardized at 0.12 to 0.13 inches (3.0 to 3.3 millimeter [mm]) (Walker 1971; Moir 1987; Weiland 2009).

The thickness of the window pane fragments from the back dirt at site 41BX2133 were measured and correlated to the year of manufacture using a formula developed by Randall W. Moir (1987), who used window pane glass from 45 sites in south and northeast Texas. A total of 13 shards fell within the required width range and were examined (Table 5). According to Moir (1987), the window glass shards at site 41BX2133 date between 1831 and 1943, averaging 1902. This date range must remain tenuous at best, because Moir (1987) recommends using glass from the best possible context (scatters along foundation lines or walls), and using about a 30-piece sample. All the pieces of the sample from site 41BX2133 are from backdirt and surface contexts and only 14 samples were collected. Variations in the difference between thickness-to-date correlations are consequences of regional differences in the glass industry and site socioeconomic factors (Moir 1987; Weiland 2009). For example, larger windows for a nineteenth-century, wealthy person's house may have required thicker panes, but if the dimensions of these thicker panes were applied to Moir's formula, the result would be a twentieth-century date.

**Table 5: Historic window glass from site 41BX2133.**

<b>BHT#</b>	<b>Level</b>	<b>Orig Count</b>	<b>Thickness (mm)</b>	<b>Approximate Date</b>
1	Backdirt	1	1.75	1860.1
3	Backdirt	1	2.55	1927.0
		1	2.68	1938.4
		1	1.42	1831.9
		1	2.73	1942.6
		1	2.26	1903.0
		1	2.38	1913.1
		1	2.74	1943.0
		1	2.03	1883.7
4	Backdirt	1	2.39	1913.6
		1	2.39	1913.6
Surface		1	1.95	1876.5
		1	2.03	1883.2

### *Historic Shell Artifacts*

One shell button was recovered from the surface of 41BX2133 (Figure 32). It is flat-backed with a dish-shaped, beveled edged front. Two holes have been drilled near the center. Based on the iridescence and thickness of the button, it is probably made from freshwater shell. Typically freshwater buttons were used for utilitarian clothing. With no maker's mark, the button is likely from the nineteenth century, predating plastic, but shell buttons are still produced today.



Figure 32: Shell button from surface of 41BX2133

### *Artifact Summary*

Non-diagnostic prehistoric artifacts were sparse and included 1 tool, 1 piece of shatter, 2 flakes, and 3 fire-cracked rocks from BHTs 1, 2, and 5 in Zones 1 through 4. The tool was recovered from the north wall profile of BHT 1. No prehistoric features were associated with the lithic artifacts. Glass shards comprise the majority of the historic artifacts at site 41BX2133, and based on thickness, the window glass dates between 1831 and 1943. Various glass vessel shards also indicate a late-nineteenth to early-twentieth century time period. Ceramic artifacts also provide attributes suitable for dating, with the various decorations of ceramic sherds suggesting date ranges of 1820-1845, 1826-1831, 1875-1897, and 1906 to present.

### *Archival Summary*

As detailed above, archival research determined that site 41BX2133 had several long-term residents and businesses, while the remainder of the residents were transient renters or boarders. Lots 1 and 2 belonged to Mary A. Rigsby; she owned and lived on Lot 2 (1899-1919) and her historic home was designated a local historic landmark and moved to another location prior to the survey. Rigsby mortgaged the Morning Glory apartment building on Lot 1 in 1919 to W.B. and Matilda Martin who operated it for at least 20 years. The loan was apparently not repaid because in 1944, the Mary A. Rigsby Estate sold Lot 2 to W.B. Martin, Jr. for \$6,300 (BCDR 2061:85). Lot 5 belonged to the J.C. Carl family for about 40 years (1892-1931) and their 2-story building had a store downstairs and a residence upstairs. Finally, Lot 7 belonged to Meda Moore who ran an apartment house there for more than 20 years (1922-1946). Artifacts recovered across the project area reflect time periods that comport with the known residential occupation of site 41BX2133, though none of the artifacts can be directly associated with any one occupant.

## Site 41BX2134 (Navarro Acequia)

The outline of a possible channel cut into bedrock was revealed in BHT 4 and is interpreted as the Navarro Acequia (41BX2134). The site is on a terrace overlooking the San Antonio River to the west (see Figure 1). Though encountered in a total of three trenches (BHTs 1, 2 and 4), the channel is most clearly evident in the northeastern wall profile of BHT 4, but possible channel remnants extend the length of the southeastern end of the project area. The unlined channel has been cut into the underlying bedrock to a maximum depth of 4.1 ft (125 cm) below surface and width of 4.1 ft (125 cm) wide. No artifacts were observed within the fill of the Acequia channel and the matrix in and around the channel seemed homogenous. The following section describes the attributes of the potential acequia identified within each trench followed by a discussion of the site.

BHT 1 was placed along the southeastern edge of the project area perpendicular to Hessler Alley in the vicinity of the projected routes of the Navarro Acequia depicted on the 1850 and 1868 maps (Figure 33). The stratigraphy evident in BHT 1 was carefully examined for any indication of a channel associated with the acequia. After cleaning the walls of the trench, the undulating interface between Zone II and the underlying bedrock marl in the southeast end of the trench was interpreted as one or more possible Acequia channels. Based on the clear lower boundaries of the ditch-shaped deposits observed in the trench profile, Zone II appears to have filled the potential channel(s) of the acequia that is thought to have run adjacent to the southeastern edge of the project area (Figures 34, and 35).

In an attempt to clarify what was observed in BHT 1, BHT 2 was situated approximately 32.8 ft (10 m) northeast. It encountered deposits of brown silty clay (Zone II) cutting into the underlying marl in both wall profiles, corresponding to similar deposits seen in the BHT 1 (Figure 36). Thus, basin-shaped cuts within the marl were noted in the southeastern ends of BHTs 1 and 2, and they appeared to form a potentially linear feature corresponding to the Navarro Acequia observed on historic maps (see Figures 6 and 7). Profiles were drawn of both the southwest and northeast sides of BHT 2 with particular attention paid to the location of the potential acequia in the profiles. As seen in Figure 36, the possible acequia in BHT 2 appears to have undergone at least two cut and fill episodes. The section of the acequia observed within the southwest wall is less well defined, possibly due to disturbances associated with the construction of the footings noted in 41BX2133. It appears that what remains of the channel may extend beyond the southeastern end of the trench and perhaps into Hessler Alley (Figure 37).

BHT 4 was placed southwest of BHT 1 in search of better evidence for an Acequia channel along the southeastern end of the project area. The potential acequia channel is much more clearly defined in BHT 4 than in either BHT 1 or 2. The bedrock cut is filled with Zone II soils and situated at the southeastern end of the trench, just as in BHTs 1 and 2 (Figures 38 and 39). As seen in Figure 39, the Acequia channel appears to be 4.1 ft (125 cm) wide, and approximately 19.7 inches (50 cm) deep, with the top of the bedrock cut at 29.5 inches (75 cm) below surface.

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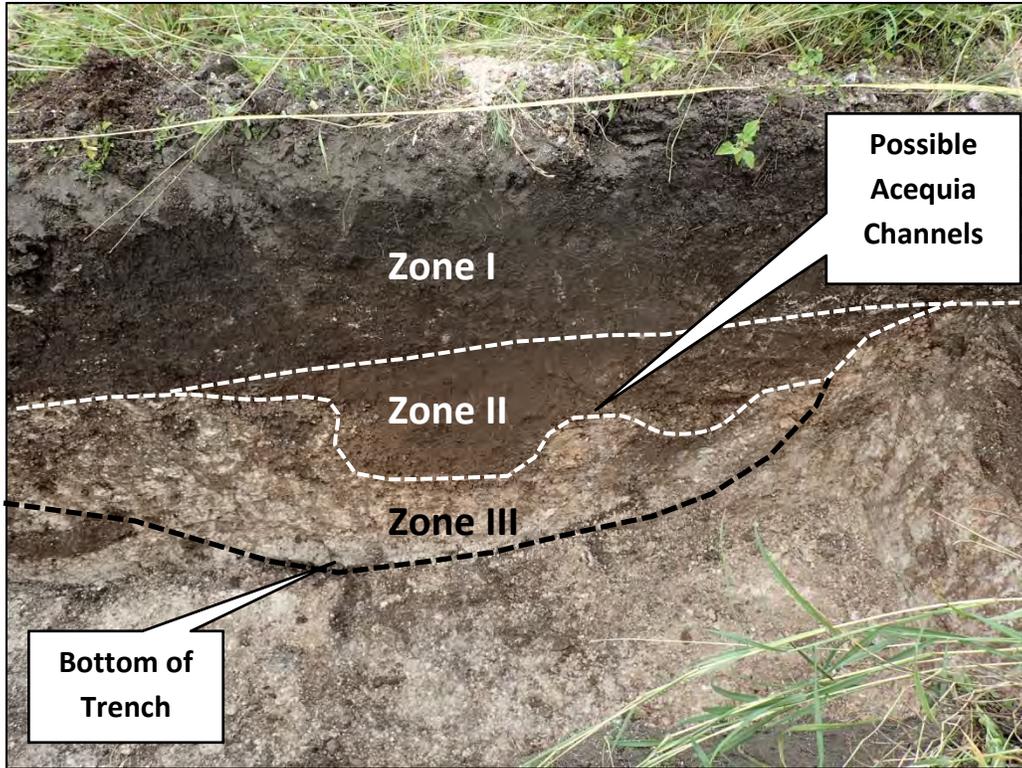


Figure 34: BHT 1, Navarro Acequia (41BX2134) as seen in the northeast wall profile at the southeastern end of the trench.

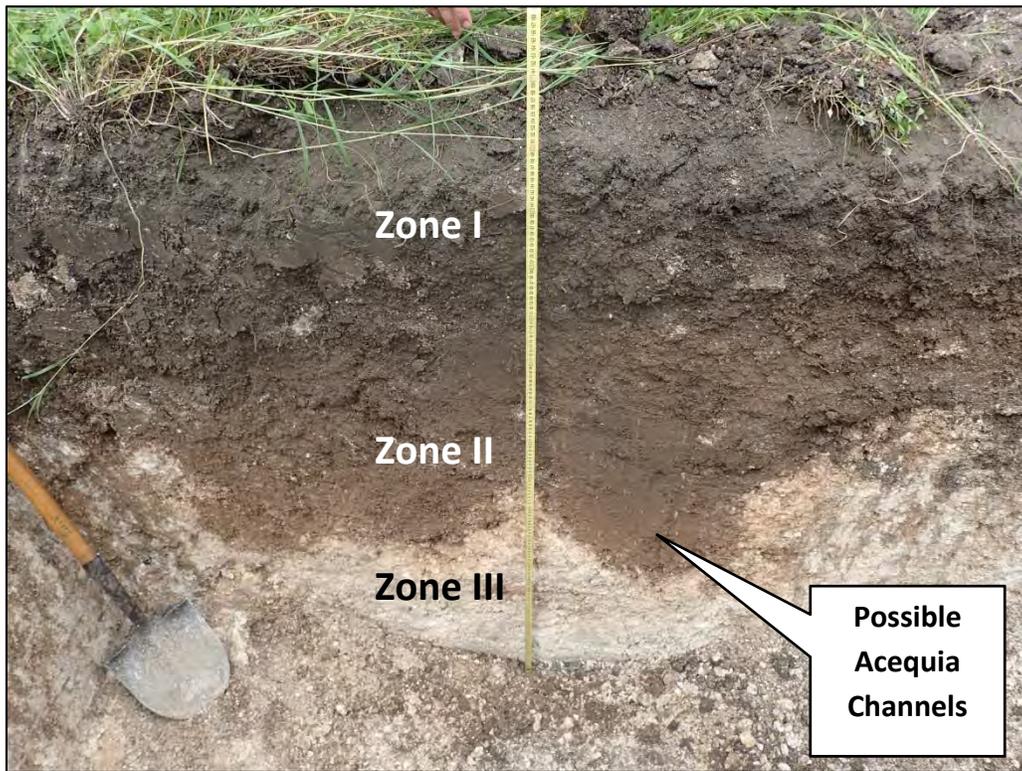
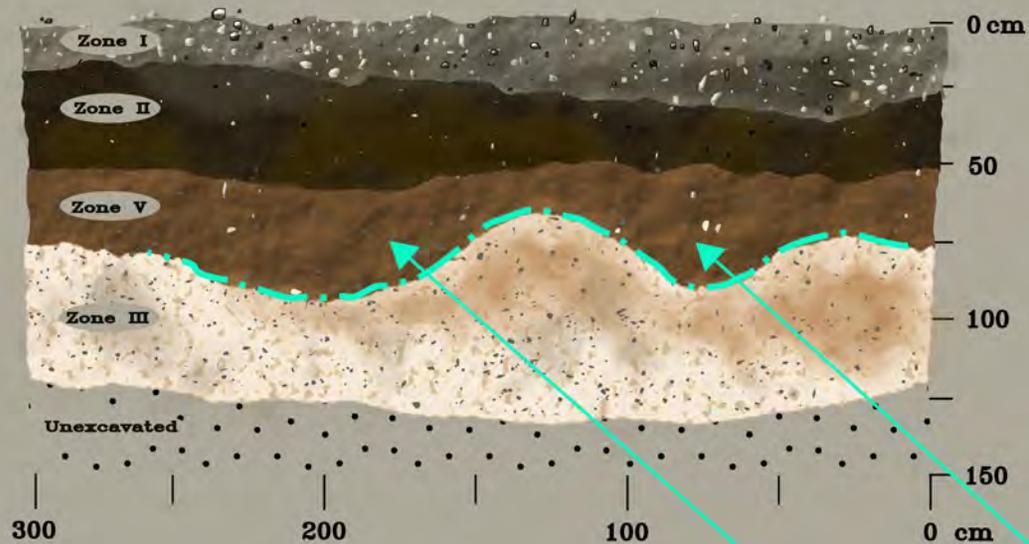


Figure 35: BHT 1, Navarro Acequia (41BX2134) in southwest wall profile.



### Soil Descriptions

- Zone I: 10YR 2/2 very dark brown silty clay with 10YR 3/2 very dark grayish brown mottles
- Zone II: 10YR 3/3 dark brown silty clay with 10YR 4/3 brown mottles
- Zone V: 10YR 4/3 brown silty clay with 10YR 6/4 light yellowish brown mottles
- Zone III: 10YR 8/1 white chalky clay, with 10YR 4/3 brown & 10YR 6/4 light yellowish brown mottles

### Legend

-  cobbles & pebbles
-  CaCO<sub>3</sub> flecks



Above: Possible acequia in the northeast wall of BHT 2.

Image created by: K.B. Hill

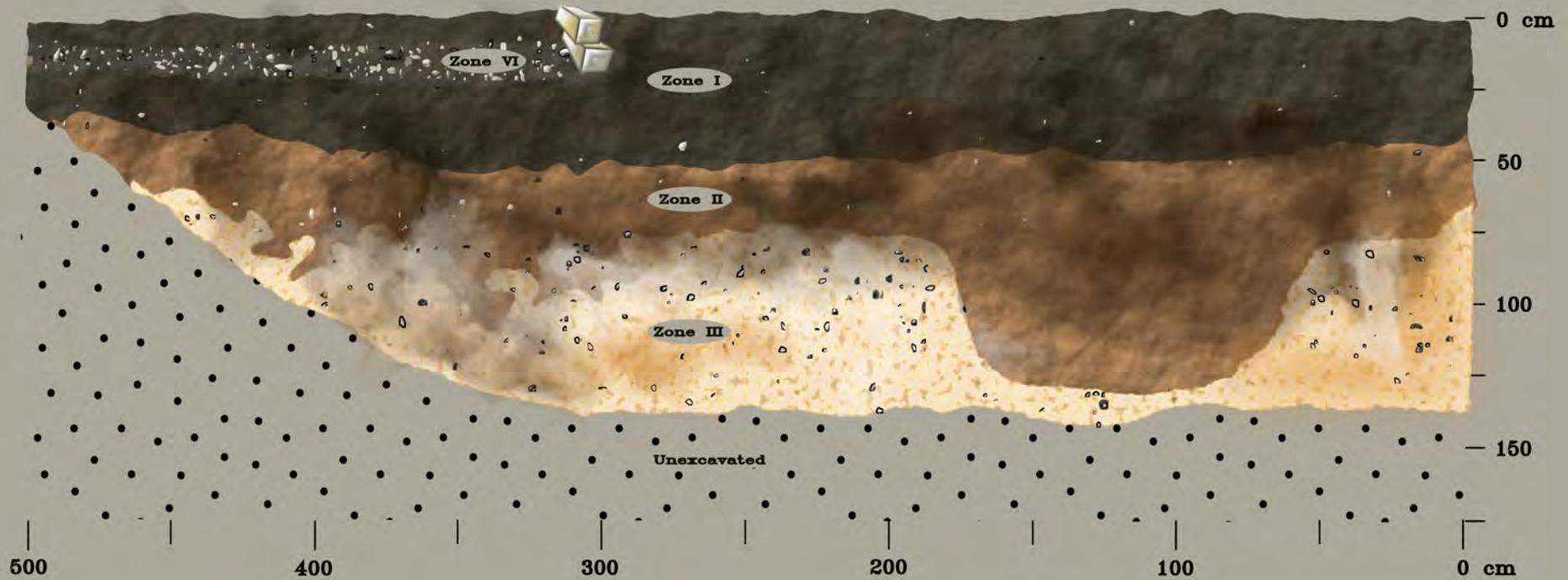
Figure 36 : BHT 2 Northeast Wall Profile



Figure 37: BHT 2 southwest wall profile at southeastern end of trench.



Figure 38: BHT 4 northeast wall profile with the potential Navarro Acequia (41BX2134) lower boundary depicted at trench's southeastern end, facing northeast.



### Soil Descriptions

- Zone I: 10YR 2/1-2/2 black to very dark brown silty clay with few 10YR 3/2 very dark grayish brown mottles
- Zone II: 10YR 3/3 dark brown silty clay with common 10YR 6/4 light yellowish brown mottles
- Zone III: 10YR 8/1 white chalky clay with 10YR 4/3 brown and 10YR 6/4 light yellowish brown mottles
- Zone IV: 10YR 3/1 very dark gray clay loam, caliche road base

### Legend

-  bricks
-  cobbles & pebbles
-  CaCO<sub>3</sub> flecks



Above: Acequia in northeast wall of BHT 4.

Image created by: K.B. Hill

Tobin Garage PN: 7408-45  
 Bexar County, Texas  
 Cultural Resources Report  
 November 2016

**PAPE-DAWSON ENGINEERS**  
 SAN ANTONIO AUSTIN HOUSTON FORT WORTH  
 2000 NW LOOP #10 SAN ANTONIO, TX 78213  
TXPE FIRM REGISTRATION #410 TXEA FIRM REGISTRATION

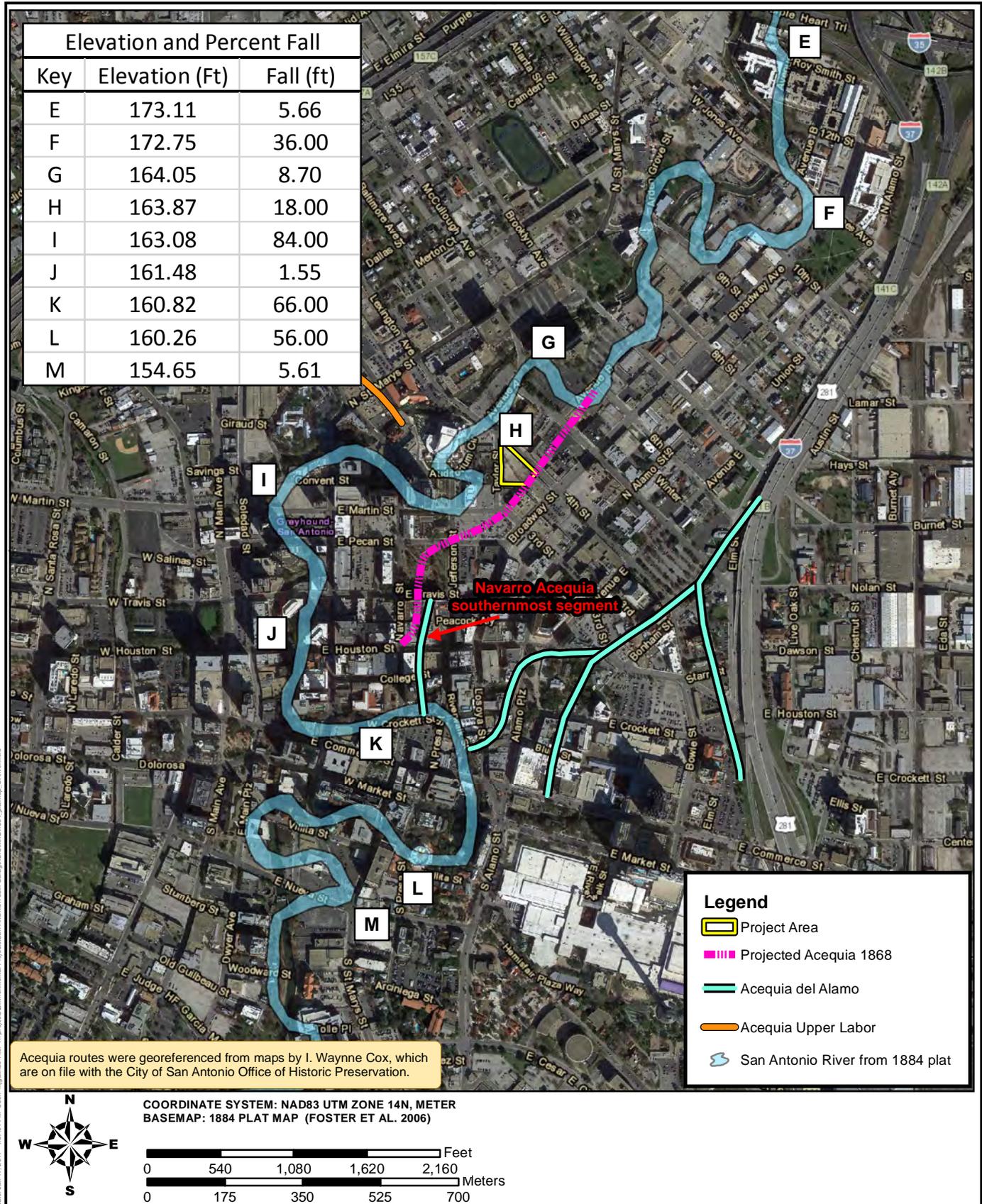
Figure 39 : BHT 4 Northeast Wall Profile

During the initial background review, the acequia was identified as a private acequia based on an 1850 plat map by F. Giraud received from COSA (see Figure 7). Through later archival review, it was determined that the “private” acequia was a section of the Navarro Acequia (41BX2134) (Cox 1992). The section depicted in the 1850 map does not connect to the San Antonio River at either end. However, according to the COSA acequia map, there is a branch of the Acequia del Alamo (41BX8) extending from near the southern end of the Navarro Acequia to the river (see Figure 6). As discussed, this segment is apparently mislabeled and it actually represents the southernmost segment of the Navarro Acequia that would have rejoined the river, as acequias were designed to do.

The Navarro Acequia was first documented in 1850 on property maps identifying lands for Jose Antonio Navarro (COSA Municipal Archives and Records 1850). The project area is in the northeastern corner of Navarro’s property (see Figure 7). The plat and field notes indicate that the acequia ran within Navarro’s property boundaries. Along this central section, the 1850 map indicates that the acequia actually consisted of two parallel ditches separated by 13.8 ft (4.2 m) with the eastern ditch being labeled as a “cortador” (COSA Municipal Archives and Records 1850). Cox (1992) states that earlier land division maps suggest that the Navarro Acequia existed in 1793 when the mission lands were secularized. Very little additional information is known about this Acequia, but there exists the potential for multiple paralleling channels at the southern end.

The Navarro Acequia was an element of an irrigation and water supply system that the Spanish devised as they established missions in Bexar County. Friars supervised the labor of Indians, settlers, and soldiers to construct acequias, or canals, and dams (Cox 2005). 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.

The source of the acequia would have been the San Antonio River where water was diverted by means of a diversion dam that extended into the stream from the bank. Prior to channelization, a prominent bend in the San Antonio River was approximately 380 ft (116 m) northwest of the project area, and this segment of the acequia would have potentially connected to the river at the northern and southern ends of this bend (Figure 40). An 1884 plat map of the project area (Foster et al. 2006) contains an old route of the San Antonio River along with a chart of its elevation and fall at specific locations. Based on an overlay of the projected acequias route and this data, it seems that little effort would have been needed to divert the river to flow through the acequia. For example, the map and chart indicate that the elevation of the San Antonio River is 172.75 ft (52.7 m) (above mean sea level, presumably) at a point about 0.5 mile (0.8 km) upriver from the origin of the Navarro Acequia (Figure 40:F). The river’s elevation measures 164.05 ft (50 m) near where the diversion dam for the Acequia would have been constructed (Figure 40:G). Thus, the river current would have been accelerating while falling 8.7 ft (2.7 m) in elevation as it traversed the last 0.5 mile (0.8 km) before the diversion dam, creating momentum to propel the water along the Acequia route. The elevation where the Navarro Acequia is projected to re-enter the San Antonio River (Figure 40:K) is 160.82 ft (49 m), an elevation difference of only 3.23 ft (1 m) from the diversion dam, which would have allowed the water to slow down once it entered the approximately 0.5-mile (0.8-km) projected acequia route (Foster et al. 2006).



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**Figure 39 : Recorded and Projected Acequia Routes from Historic Overlays (COSA 1850, Foster et al. 2006)**

## Summary and Recommendations

At the request of the Tobin Center for the Performing Arts, Pape-Dawson Archeologist conducted an intensive archaeological survey of the proposed Tobin Parking Garage Project in San Antonio, Bexar County, Texas. Specifically, the triangularly shaped project area is the block south of the Taylor Street and 4th Street intersection. It is bounded by Taylor Street to the west, 4th Street to the northeast, and Hessler Alley to the south, encompassing an area of approximately 1.21 acres (0.49 ha). As part of the compliance process, the COSA-OHP requested that an archaeologist monitor the subsequent construction excavations within a portion of the project area. The project will entail excavation associated with garage construction, sidewalk construction, and retaining wall installation with depths of impacts anticipated to be up to 8 ft (2.4 m) below the current ground surface.

The project is situated within the COSA city limits and within the RIO District 3, requiring compliance with the Historic Preservation and Design Section of the COSA UDC. As the project is located on privately owned property and will not require federal permits or funding, compliance with both the Section 106 of the NHPA and the ACT will not be necessary. The purpose of the investigations was to identify all historic or prehistoric cultural resources located within the project area and to evaluate the significance and eligibility of identified resources for inclusion to the NRHP or for designation as an SAL, per the Archaeological Report Guidelines of the COSA-OHP. All work was done in accordance with the archaeological survey standards and guidelines as developed by the CTA and adopted by the THC. The goal of the monitoring was to gather information on the nature and types of cultural resources possibly buried in the buffered portion of the project area, and focused on potentially significant resources related to the Spanish Colonial era and the Navarro Acequia.

The investigations included a cultural resources background literature and records review and an intensive survey with mechanical trenching. Subsequently, archaeological monitoring was performed during construction activities that occurred on October 11, 2016. The background review determined that the project area has been previously surveyed at the reconnaissance level, there are no sites recorded within or adjacent to the project area, and that there are no NRHP-listed properties or districts, SALs, Official State of Texas Historical Markers, Recorded Texas Archeological Landmarks, or cemeteries within the project area. One local historic landmark had been designated within the project area, but the house was relocated elsewhere prior to survey. Sanborn map and historic aerial photograph research determined that structures were present within the project area as early as the late-nineteenth century. Additionally, although not previously confirmed by archaeology, a projected route of the Navarro Acequia is mapped as traversing the eastern edge of the project area (COSA Municipal Archives and Records 1850).

Pape-Dawson's intensive archaeological survey included the excavation of six backhoe trenches on June 13, 2016. Archaeologists recorded multicomponent site 41BX2133, which encompasses the entire project area with prehistoric lithic artifacts observed in three trenches and late-nineteenth- to early-twentieth-century artifacts observed on the surface and within all six trenches. In addition, Pape-Dawson archaeologists recorded site 41BX2134, a segment of a little-known, private acequia associated

with José Antonio Navarro, which was encountered in a backhoe trench excavated along the southeastern edge of the project area.

Sites 41BX2133 and 41BX2134 were evaluated according to the criteria in 36 CFR 60.4 and in 13 TAC 26.10. Archival research determined that the project area was associated with both several long-term residents and businesses and with transient renters or boarders during the late-nineteenth and twentieth centuries. Researchers noted that lots 1 and 2 belonged to Mary A. Rigsby during the late-nineteenth and early-twentieth centuries. Previous surveys have shown that the Rigsby family is considered to have significantly contributed to the development of the Highland Park community southeast of downtown. However, no artifacts or features positively associated with Mary Rigsby or with any of the potential site occupants were identified during current investigations, and her house was moved to another location in San Antonio prior to the current investigations. Considering the lack of intact features besides footings, and the disturbed nature of the historic deposits, site 41BX2133 is not eligible for listing in the NRHP or for SAL designation under any applicable criteria. Pape-Dawson recommends no further archaeological work at 41BX2133.

Conversely, the segment of the Navarro Acequia (41BX2134) within the project area is recommended eligible for listing in the NRHP and for designation as an SAL, and Pape-Dawson recommends avoidance of site 41BX2134. Since the Navarro Acequia cannot be avoided by the proposed project, the methodology for archaeological monitoring of the parking garage construction—developed in consultation with the COSA-OHP—is detailed below.

Collected artifacts will be returned to the landowner or discarded with landowner permission. Project records and photographs will be curated at the Center for Archaeological Research at The University of Texas at San Antonio.

## Avoidance Plan

After consultation with the COSA-OHP, Pape-Dawson developed an avoidance plan to minimize subsurface impacts within a 32.8-ft (10-m) buffer around the proposed route of the Navarro Acequia (41BX2134) through the project area (Figure 41). The projected route is based on a plat map drawn by Francis Giraud in 1850 on file with COSA Engineer's Office (Katz et al. 1978:2). Because the project will entail excavation associated with garage construction, sidewalk construction, and retaining wall installation with depths of impacts anticipated to be up to 8 ft (2.4 m) below the current ground surface, the acequia segment in the profile (between 21.6 to 27.6 inches (55 to 70 cm) below surface) would be adversely impacted by these proposed vertical impacts. If the subsurface impacts throughout the buffer cannot be avoided, the COSA-OHP requires that ground disturbing activities within the Acequia Buffer Area be archaeologically monitored, and that the buffer be depicted on the construction plans along with the text, "Do not conduct ground disturbing activities within the Acequia Buffer Area without an archaeological monitor present. Provide 24-hour's notice by calling Principal Investigator Dr. Mary Jo Galindo at 512-563-7999 to arrange for monitoring." A copy of these plans is included in Appendix B of this report. The methodology for archaeological monitoring is detailed in the section below.

## Archaeological Monitoring Methods

The goal of the monitoring will be to gather information on the nature and types of cultural resources possibly buried in the buffered portion of the project area. The archaeologist will coordinate all field activities with appropriate personnel and any on-site construction foremen regarding scheduling and safety. The archaeologist will comply with all applicable safety regulations and wear all required safety equipment (e.g., hardhat and steel-toed boots). Monitoring will consist 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 will be examined, quantified, and assessed as to age and origin. Diagnostic artifacts or those of particular interest are to be collected for further study at Pape-Dawson's Archaeological Laboratory in Austin. Particular attention will be given to any cultural resources that may date to the nineteenth century or prior. If intact archaeological deposits are revealed during the construction process, the archaeologist will attempt to make a determination as to potential significance. At this point, construction will be temporarily halted so that the archaeologist can better examine the cultural materials or features, take photographs, and thoroughly document the finds. Once the materials are assessed, construction will recommence, and continue as planned. Only if the materials are assessed as extremely significant (mainly intact features or human remains) is construction in the immediate area to be halted. If a localized work stoppage is required, the monitoring archaeologist will immediately contact all involved parties (Tobin Center for the Performing Arts, COSA-OHP, etc.) through the appropriate Pape-Dawson project manager to discuss the find and formulate a plan of action.

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## **Appendix A**

### Backhoe Trench Profile Descriptions

**Table A-1. Backhoe Trench Data**

BHT #	Zone	Depth (cmbs)	Munsell	Soil Color	Soil Texture	Structure	Inclusions	Lower Boundary	Cultural Material/Comments
1	I	0-50	10YR2/1 to 10YR2/2 with 10YR3/2 Mottles	Black to Very Dark Brown with Very Dark Grayish Brown Mottles	Friable Silty Clay	Small, Angular, Blocky	Few Snail Shell Fragments, Common Rootlets, Many Small Limestone Flecks, Few To Common Calcium Carbonate Flecks, Few Subangular Chert Cobbles, Angular Limestone Gravel	Gradual (Clear Above Acequia And Above Marl)	<b>Metal Fragments 0 to 10 Centimeters Below Surface (cmbs), Very Few Asphalt Fragments 0 to 20 cmbs, 1 Brick Footing 0 to 67 cmbs, tri-facially worked chert tool at 48 cmbs.</b>
	II	50-100	10YR3/3 with 10YR6/4 Mottles	Dark Brown with Light Yellowish Brown Mottles	Friable Silty Clay	Fine, Angular, Blocky	Few Snail Shell Fragments, Few Rootlets, Few Subangular Limestone Flecks, Few Calcium Carbonate Flecks, Few Round Chert Pebbles	Clear	<b>1 Brick Footing 0 to 67 cmbs, chert flakes at 80 cmbs and 83 cmbs, rodent burrow disturbance, possible acequia fill</b>
	III	100-140	10YR8/1 with 10YR4/3 and 10YR6/4 Mottles	White with Brown and Light Yellowish Brown Mottles	Loose Chalky Clay	Granular	Few Subangular Limestone Pebbles, Mottled with 10YR4/3 Brown Clay and 10YR6/4 Light Yellowish Brown Clay	Unobserved	<b>Possible acequia channels cut into marl</b>
	IV	0-30	10YR3/1	Very Dark Gray	Friable Clay Loam	Medium, Angular, Blocky	Common Snail Shell Fragments, Common Rootlets, Many Subangular Pebbles, Common Calcium Carbonate Flecks, Common Charcoal Flecks	Abrupt	<b>Zone IV is from the Surface to 30 cmbs at Northwestern End of Trench, 1-cm Layer of Caliche at Base of Zone IV, Glass And Asphalt Fragments 10 to 20 cmbs</b>
2	I	0-20	10YR2/2 with 10YR3/2 Mottles	Very Dark Brown with Very Dark Grayish Brown Mottles	Friable Silty Clay	Angular, Blocky	Few Snail Shell Fragments, Common Rootlets, Many Small Limestone Flecks, Chert Cobbles	Gradual	<b>Glass, Metal and Coal in backdirt and Faunal Bone at 10 to 20 cmbs, 3 Concrete and Brick Footings</b>
	II	20-45	10YR3/3 with 10YR4/3 Mottles	Dark Brown with Brown Mottles	Loose Silty Clay	Blocky, Granular	Few Snail Shell Fragments, Few Rootlets, Few Limestone Flecks, Few Calcium Carbonate Flecks, Few Chert Pebbles	Gradual	<b>3 Concrete and Brick Footings, a few Lithics</b>
	V	45-80	10YR4/3 with 10YR6/4 Mottles	Brown with Light Yellowish Brown Mottles	Friable Silty Clay	Angular, Blocky	Few Snail Shell Fragments, Few Rootlets, Few Limestone Flecks, Few Calcium Carbonate Flecks, Few Chert Pebbles	Clear	<b>3 Concrete and Brick Footings, possible acequia fill</b>
	III	80-140	10YR8/1 with 10YR4/3 and 10YR6/4 Mottles	White with Brown and Light Yellowish Brown Mottles	Loose Chalky Clay	Granular	Limestone Marl, Mottled with 10YR4/3 Brown Clay and 10YR6/4 Light Yellowish Brown Clay	Unobserved	<b>3 Concrete and Brick Footings, disturbance noted in SE end of SW profile, possible acequia channels in NE profile</b>
3	VI	0-22	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Not Recorded	Abrupt	Road Base
	VII	22-31	10YR4/2 with 10YR3/1 Mottles	Dark Grayish Brown with Very Dark Gray Mottles	Loose Silty Loam	Granular	Common Mottles of 10YR3/1 Very Dark Gray Clay	Gradual	<b>Disturbed or Fill, Ceramics, Metal, and Glass Fragments, Few Asphalt Fragments, Few Calcium Carbonate Flecks</b>
	II	31-46	10YR3/2 with 10YR4/3 Mottles	Very Dark Grayish Brown with Brown Mottles	Loose Silty Clay	Fine, Angular, Blocky to Granular	Few Mottles of 10YR4/3 Brown Clay, Few Snail Shell Fragments, Common Rootlets, Common Calcium Carbonate Flecks, Few Angular Limestone Flecks	Gradual	None
	V	46-66	10YR4/3	Brown	Friable Silty Clay	Fine, Angular, Blocky	Few Rootlets, Common Calcium Carbonate Flecks, Few Angular Chert Pebbles, Common Angular to Subangular Limestone Flecks	Clear	None
	III	66-138	10YR8/1 with 10YR4/3 and 10YR6/4 Mottles	White with Brown and Light Yellowish Brown Mottles	Friable Chalky Clay	Granular	Limestone Marl, Few Subangular Limestone Pebbles, Mottled with 10YR4/3 Brown Clay and 10YR6/4 Light Yellowish Brown Clay	Unobserved	None

**Table A-1. Backhoe Trench Data**

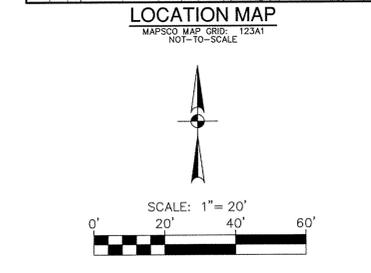
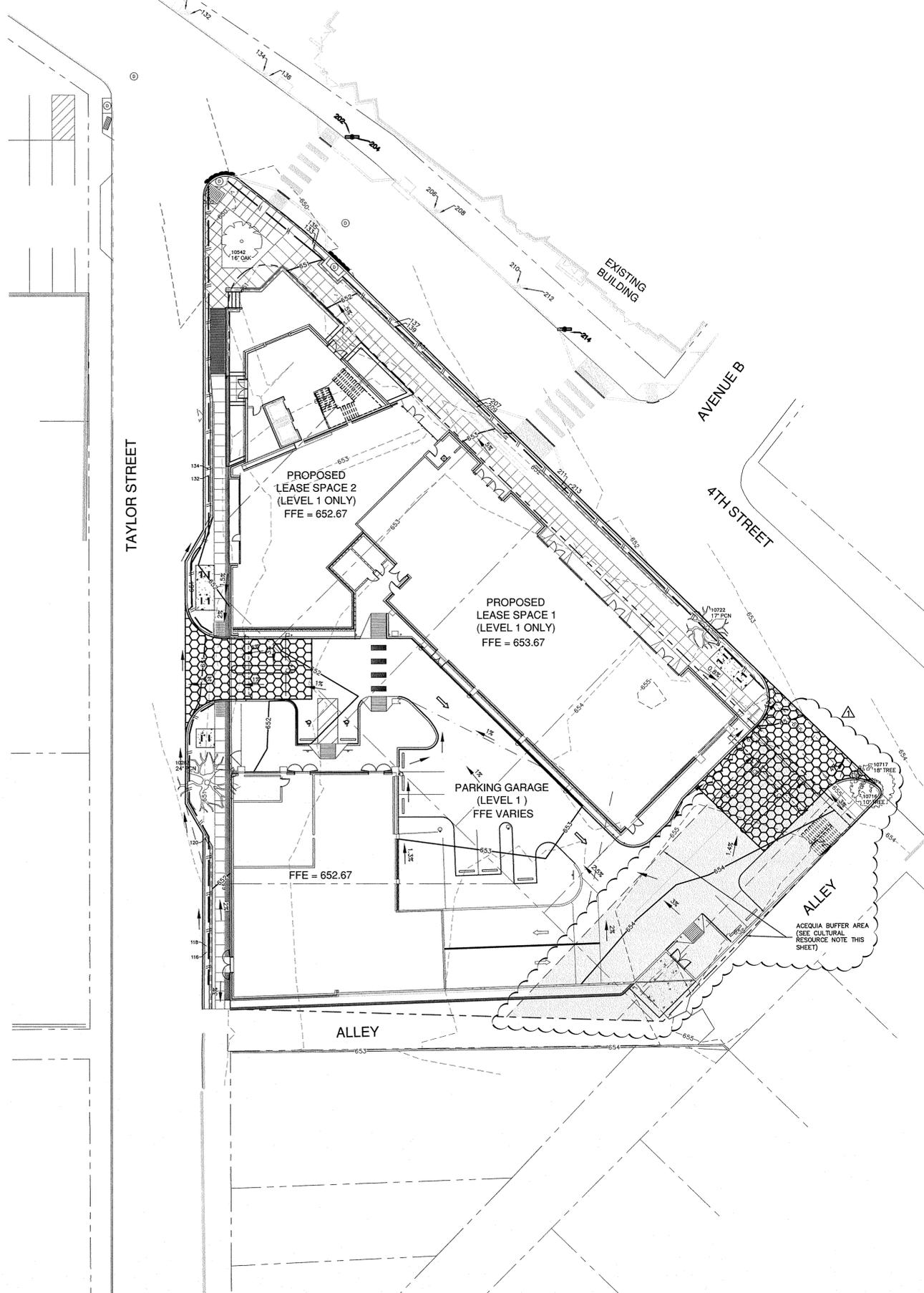
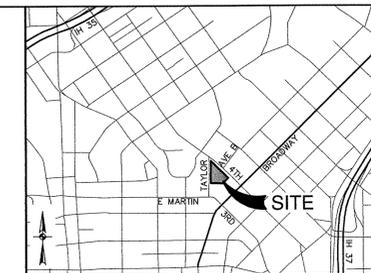
BHT #	Zone	Depth (cmbs)	Munsell	Soil Color	Soil Texture	Structure	Inclusions	Lower Boundary	Cultural Material/Comments
4	I	0-50	10YR2/1 to 10YR2/2 with 10YR3/2 Mottles	Black to Very Dark Brown with Very Dark Grayish Brown Mottles	Friable Silty Clay	Angular, Blocky	Few Mottles of 10YR3/2 Very Dark Grayish Brown Clay, Few Snail Shell Fragments, Common Rootlets, Few Calcium Carbonate Flecks, Few Subangular Limestone Pebbles	Gradual	<b>Glass and Coal artifacts. One Partial Brick Footing Evident.</b>
	II	50-100	10YR3/3 with 10YR6/4 Mottles	Dark Brown with Light Yellowish Brown Mottles	Friable Silty Clay	Angular, Blocky	Common Mottles of 10YR6/4 Light Yellowish Brown Clay, Few Snail Shell Fragments, Few Rootlets, Few Calcium Carbonate Flecks, Few Limestone Flecks, Few Round Chert Pebbles	Clear	<b>Acequia fill</b>
	III	100-135	10YR8/1 with 10YR4/3 and 10YR6/4 Mottles	White with Brown and Light Yellowish Brown Mottles	Loose Chalky Clay	Granular	Limestone Marl, Mottled with 10YR4/3 Brown Clay and 10YR6/4 Light Yellowish Brown Clay	Unobserved	<b>Acequia channel cut into marl</b>
	IV	0-20	10YR3/1	Very Dark Gray	Friable Clay Loam	Angular, Blocky	None	Abrupt	Caliche Road Base, <b>Red Bricks</b>
5	I	0-20	10YR4/2 with 10YR3/1 Mottles	Dark Grayish Brown with Very Dark Gray Mottles	Friable Silty Clay	Angular, Blocky	Mottles of 10YR3/1 Very Dark Gray Clay, Few Snail Shell Fragments, Common Limestone Pebbles	Gradual	Disturbed, Mixed with Road Base, and <b>Some Glass and Metal Observed</b>
	II	20-50	10YR3/2 with 10YR4/3 Mottles	Very Dark Grayish Brown with Brown Mottles	Friable Silty Clay	Fine, Angular, Blocky	Mottles of 10YR4/3 Brown Clay	Gradual	<b>Few Chert Flakes around 40 cmbs</b>
	III	50-140	10YR8/1 with 10YR4/3 and 10YR6/4 Mottles	White with Brown and Light Yellowish Brown Mottles	Loose Chalky Clay	Granular	Limestone Marl, Mottled with 10YR4/3 Brown Clay and 10YR6/4 Light Yellowish Brown Clay	Unobserved	None
6	VIII	0-40	10YR7/1 with 10YR3/2 Mottles	Light Gray Very Dark Grayish Brown Mottles	Silty Gravel and Clay	Granular	Mottled 50 percent with 10YR3/2 Very Dark Grayish Brown Clay	Abrupt	<b>One Ceramic Sherd, Bricks and Brick Fragments, Tree Roots 20 to 40 cmbs</b>
	IX	40-125	10YR3/2	Very Dark Grayish Brown	Clay	Angular, Blocky	Calcium Carbonate Nodules	Unobserved	Tree Roots Throughout

## **Appendix B**

### Construction Plans

1 2 3 4 5 6

A B C D E

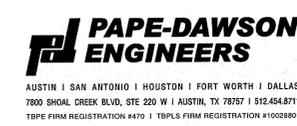


- GENERAL NOTES:**
- DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.
  - CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASHOUT PIT, AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD.
  - STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED BY THE RESPONSIBLE PARTY.
  - RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS BY USE OF ADEQUATE FENCING, IF NECESSARY.
  - ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES.
  - FOR A COMPLETE LISTING OF TEMPORARY STORM WATER POLLUTION PREVENTION CONTROLS REFER TO THE TPDES STORM WATER POLLUTION PREVENTION PLAN.
  - STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES. SOME OF THESE FEATURES MAY BE SHOWN OUTSIDE THE SITE BOUNDARIES ON THIS PLAN FOR VISUAL CLARITY.
  - AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.
  - BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS.
  - BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT PRACTICES HAS BEEN STABILIZED IN ACCORDANCE WITH TPDES REQUIREMENTS.
  - UPON COMPLETION OF THE PROJECT, INCLUDING SITE STABILIZATION, AND BEFORE FINAL PAYMENT IS ISSUED, CONTRACTOR SHALL REMOVE ALL SEDIMENT & EROSION CONTROL MEASURES, PAYING SPECIAL ATTENTION TO ROCK BERMS IN DRAINAGE FEATURES.
  - SILT FENCE INSTALLATION TO BE COORDINATED WITH THE DEMOLITION OF EXISTING PAVEMENT AND STRUCTURES. UNTIL THE INSTALLATION OF SILT FENCE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SITE AND PERFORM STREET SWEEPING OF THE ADJACENT STREETS AS A TEMP MEASURE AS NECESSARY.
  - GPS ENERGY WILL FUNCTION AS A SECONDARY OPERATOR ON THIS PROJECT AND BE INSTALLING ELECTRIC UTILITIES FOR ON-SITE CONSTRUCTION AND OFF-SITE FEED TO THE PROJECT.

**CULTURAL RESOURCES NOTE:**  
DO NOT CONDUCT GROUND DISTURBING ACTIVITIES WITHIN THE ACEQUIA BUFFER AREA WITHOUT AN ARCHAEOLOGICAL MONITOR PRESENT. PROVIDE 24-HOUR'S NOTICE BY CALLING PRINCIPAL INVESTIGATOR DR. MARY JO GALINDO AT 512-563-7999 TO ARRANGE FOR MONITORING.

TEMPORARY BMP MODIFICATIONS

DATE	SIGNATURE	DESCRIPTION



GMP PACKAGE

**MarmoriMok**  
ARCHITECTURE 210.223.9492 T 210.223.2582 F  
700 N. St. Mary's Suite 1600 San Antonio, TX 78205



**TOBIN CENTER FOR THE PERFORMING ARTS  
MIXED USE PARKING GARAGE**  
227 4TH STREET SAN ANTONIO, TX 78205



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Checked: [Signature]  
Date: 5/27/2016  
PROJECT No. 7408.40  
Revisions:  
9/07/16 ACEQUIA BUFFER

SHEET TITLE  
**STORMWATER  
POLLUTION  
PREVENTION PLAN**  
SHEET NO.

C2.00

Date: Sep 08, 2016, 3:02pm User: D. R. Garcia  
File: P:\A\08\10\Design\Civil\TP7408.dwg

### TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

### ESA NOTE:

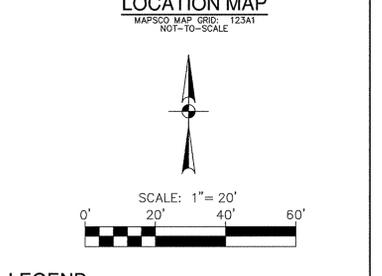
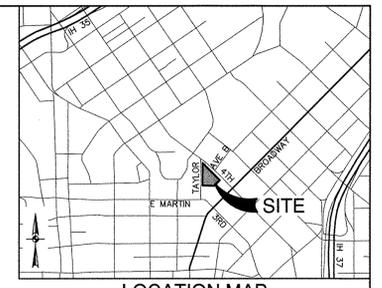
- CONTRACTOR TO REFERENCE ENVIRONMENTAL SITE ASSESSMENT (ESA) STUDIES, NARRATIVES AND/OR SUPPLEMENTS BY PS FOR ANY EXISTING SOIL AND MATERIALS ABATEMENT AND/OR MITIGATION TO BE PERFORMED PRIOR TO ANY SITE DEMOLITION OR DISTURBANCE.
- CONTRACTOR TO PROTECT EXISTING TOCQ SAMPLING AND MONITORING WELLS WITHIN AND AROUND THE SITE.

### NOTE:

ANY ADDITIONAL HARDSCAPE FOUND WITHIN EXISTING BUILDING SITE LIMITS TO BE REMOVED. CONTRACTOR SHALL CONFIRM WITH OWNER AND ENGINEER PRIOR REMOVAL.

### CULTURAL RESOURCES NOTE:

DO NOT CONDUCT GROUND DISTURBING ACTIVITIES WITHIN THE ACEQUIA BUFFER AREA WITHOUT AN ARCHAEOLOGICAL MONITOR PRESENT. PROVIDE 24-HOUR'S NOTICE BY CALLING PRINCIPAL INVESTIGATOR DR. MARY JO GALINDO AT 512-963-7999 TO ARRANGE FOR MONITORING.



**CAUTION!!!**  
THE LOCATIONS OF EXISTING UTILITIES, SITE LIGHTING CIRCUIT, AND IRRIGATION LINES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.  
TEXAS ONE CALL 1-800-545-6005  
SAFETY 233-2009  
WHETHER SHOWN ON PLANS OR NOT, AND TO PROTECT THE SAME DURING CONSTRUCTION, CONTRACTOR SHALL EXPOSE PROPOSED UTILITY CROSSINGS PRIOR TO CONSTRUCTION OF SANITARY SEWER, STORM DRAINAGE, AND OTHER UTILITIES. CONTRACTOR SHALL COORDINATE WORK WITH SHOPPING CENTER OWNER.

### DEMOLITION - GENERAL NOTES:

- ALL EXISTING ITEMS NOT SPECIFICALLY NOTED TO BE REMOVED SHALL REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPLACING EXISTING ITEMS REMOVED DURING DEMOLITION THAT WERE TO REMAIN.
- ALL EXISTING TREES SHALL REMAIN UNLESS OTHERWISE NOTED. CONTRACTOR SHALL IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT AND ENGINEER SHOULD ANY QUESTIONS ARISE REGARDING EXISTING TREES.
- THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT, CURBS AND SIDEWALKS AT LOCATIONS AS SHOWN ON THE PLANS. NO JAGGED OR IRREGULAR CUTS IN PAVEMENT, CURBS, OR SIDEWALK WILL BE ALLOWED OR ACCEPTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS, AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
- CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OR ENGINEER REGARDING ANY QUESTIONS FOR DEMOLITION WORK ON THIS PROJECT.
- EXISTING UTILITIES SHOWN ON THIS LAYOUT WERE OBTAINED FROM A SURVEY OF VISIBLE FEATURES AT THE SITE. ORIGINAL RENOVATION PLANS, AND GIS DATA FILES FROM SAWS AND CPS ENERGY. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND EXPOSING CONFLICTS PRIOR TO CONSTRUCTION.

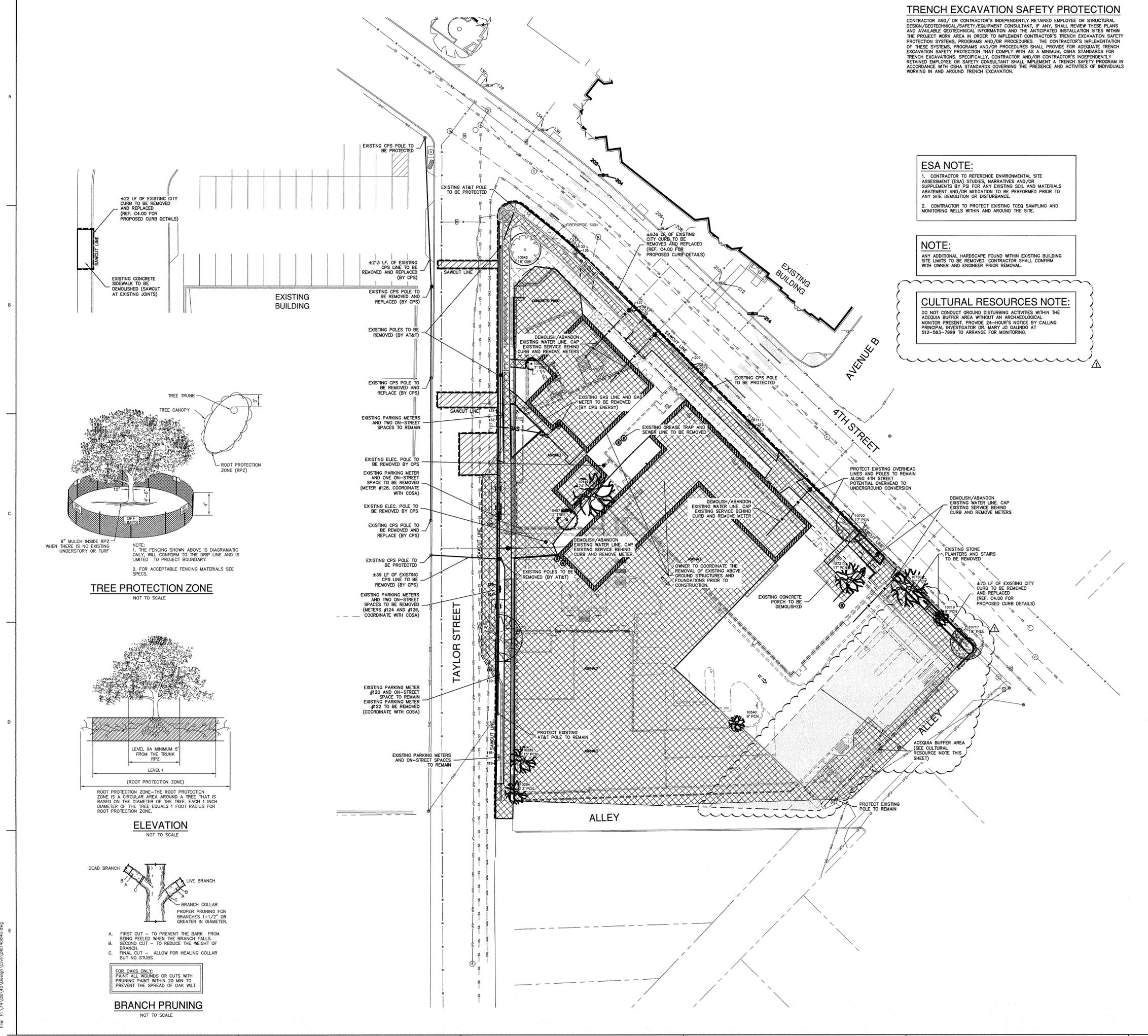
### TREE PRESERVATION NOTES:

- A ROOT PROTECTION ZONE WILL BE ESTABLISHED AROUND EACH TREE OR ANY VEGETATION TO BE PRESERVED TO MEET THE LANDSCAPE OR TREE PRESERVATION ORDINANCES. THE ROOT PROTECTION ZONE SHALL BE AN AREA ESTABLISHED BY THE RADIUS EXTENDING OUTWARD FROM THE TRUNK OF THE TREE A DISTANCE OF ONE (1) LINEAR FOOT FOR EACH INCH DIAMETER INCH AT GROUND HEIGHT (4.5') OF THE TREE. A 10-INCH DIAMETER TREE WILL HAVE A 10 FOOT RADIUS ROOT PROTECTION ZONE.
- NO WORK SHALL BEGIN WHERE TREE PROTECTION FENCING HAS NOT BEEN COMPLETED AND APPROVED. TREE PROTECTION FENCING SHALL BE INSTALLED, MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING CONSTRUCTION. THE FENCING WILL BE A MINIMUM OF 4' HEIGHT.
- ALL ROOTS LARGER THAN ONE-INCH IN DIAMETER ARE TO BE CUT CLEANLY AND OAK WOUNDS PAINTED WITHIN 30 MINUTES.
- EXPOSED ROOTS SHALL BE COVERED AT THE END OF THE WORK DAY USING TECHNIQUES SUCH AS COVERING WITH SOIL, MULCH OR WET BURLAP.
- NO EQUIPMENT, VEHICLES OR MATERIALS SHALL BE OPERATED OR STORED WITHIN THE ROOT PROTECTION ZONE. NO CLEAN-OUT AREAS WILL BE CONSTRUCTED SO THAT THE MATERIAL WILL BE IN OR MIGRATED TO THE ROOT PROTECTION ZONE.
- NO GRADE CHANGE MORE THAN 3" IS ALLOWED WITHIN THE ROOT PROTECTION ZONE.
- ROOTS OR BRANCHES IN CONFLICT WITH CONSTRUCTION SHALL BE CUT CLEANLY ACCORDING TO PROPER PRUNING METHODS. ALL OAK WOUNDS SHALL BE PAINTED WITHIN 30 MINUTES TO PREVENT OAK WILT INFECTION.
- ANY TREE REMOVAL SHALL BE APPROVED BY THE CITY ARBORIST (207-8053).
- TREES WHICH ARE DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED.
- TREES MUST BE MAINTAINED IN GOOD HEALTH THROUGHOUT THE CONSTRUCTION PROCESS. MAINTENANCE MAY INCLUDE WATERING THE ROOTS PROTECTION ZONE AND OR WASHING FOLIAGE.
- NO WIRES, NAILS OR OTHER MATERIALS MAY BE ATTACHED TO PROTECTED TREES.
- CONTRACTOR TO VERIFY EXISTING ELEVATIONS OF COMMUNICATION LINE. IF COMMUNICATION LINE IS DEEPER THAN BUILDING FOUNDATION, THEN ABANDON ON SITE. IF COMMUNICATION LINE IS IN CONFLICT WITH BUILDING FOUNDATION, THEN DEMOLISH.
- CONTRACTOR TO VERIFY EXISTING ELEVATION OF UNDERGROUND ELECTRICAL LINE. IF THE UNDERGROUND ELECTRICAL LINE IS IN CONFLICT WITH THE ELEVATION OF THE BUILDING FOUNDATION, THEN THE ELEVATION OF THE UNDERGROUND ELECTRICAL LINE SHOULD BE RE-ADJUSTED TO CLEAR THE FOUNDATION OF PROPOSED BUILDINGS.
- REFER TO LANDSCAPE ARCHITECT PLANS AND SPECIFICATIONS FOR DETAILS.

**PAPE-DAWSON ENGINEERS**  
AUSTIN | SAN ANTONIO | HOUSTON | FORT WORTH | DALLAS  
7800 SHAL CREEK BLVD, STE 220 W | AUSTIN, TX 78757 | 512.454.8711  
TDPF FIRM REGISTRATION #470 | TDPF FIRM REGISTRATION #10028901



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Checked: [Signature]  
Date: 5/27/2016  
PROJECT No. 7408.40  
Revisions:  
9/07/16 ACEQUIA BUFFER



±22 LF OF EXISTING CITY CURB TO BE REMOVED AND REPLACED (REF. C4.00 FOR PROPOSED CURB DETAILS)

EXISTING CPS POLE TO BE PROTECTED

±213 LF OF EXISTING CPS LINE TO BE REMOVED AND REPLACED (BY CPS)

EXISTING CPS POLE TO BE REMOVED (BY AT&T)

EXISTING CPS POLE TO BE REMOVED AND REPLACE (BY CPS)

EXISTING PARKING METERS AND TWO ON-STREET SPACES TO REMAIN

EXISTING ELEC. POLE TO BE REMOVED BY CPS

EXISTING PARKING METER AND ONE ON-STREET SPACE TO BE REMOVED (METER #128, COORDINATE WITH COSA)

EXISTING ELEC. POLE TO BE REMOVED BY CPS

EXISTING CPS POLE TO BE REMOVED AND REPLACE (BY CPS)

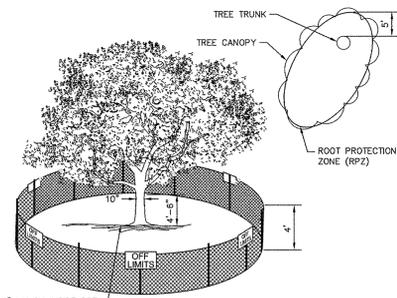
±39 LF OF EXISTING CPS LINE TO BE REMOVED (BY CPS)

EXISTING PARKING METERS AND TWO ON-STREET SPACES TO BE REMOVED (METERS #124 AND #126, COORDINATE WITH COSA)

EXISTING PARKING METER #120 AND ON-STREET SPACE TO REMAIN

EXISTING PARKING METER #122 TO BE REMOVED (COORDINATE WITH COSA)

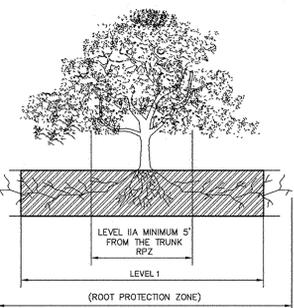
EXISTING PARKING METERS AND ON-STREET SPACES TO REMAIN



### TREE PROTECTION ZONE

NOT TO SCALE

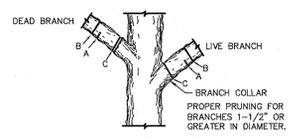
- NOTE:
- THE FENCING SHOWN ABOVE IS DIAGRAMATIC ONLY. WILL CONFORM TO THE DRIP LINE AND IS LIMITED TO PROJECT BOUNDARY.
  - FOR ACCEPTABLE FENCING MATERIALS SEE SPECS.



### ELEVATION

NOT TO SCALE

ROOT PROTECTION ZONE—THE ROOT PROTECTION ZONE IS A CIRCULAR AREA AROUND A TREE THAT IS BASED ON THE DIAMETER OF THE TREE. EACH 1 INCH DIAMETER OF THE TREE EQUALS 1 FOOT RADIUS FOR ROOT PROTECTION ZONE.

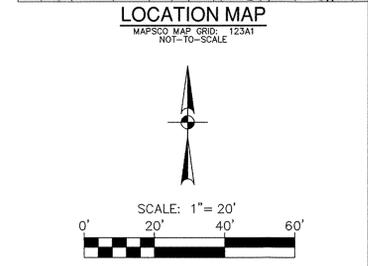
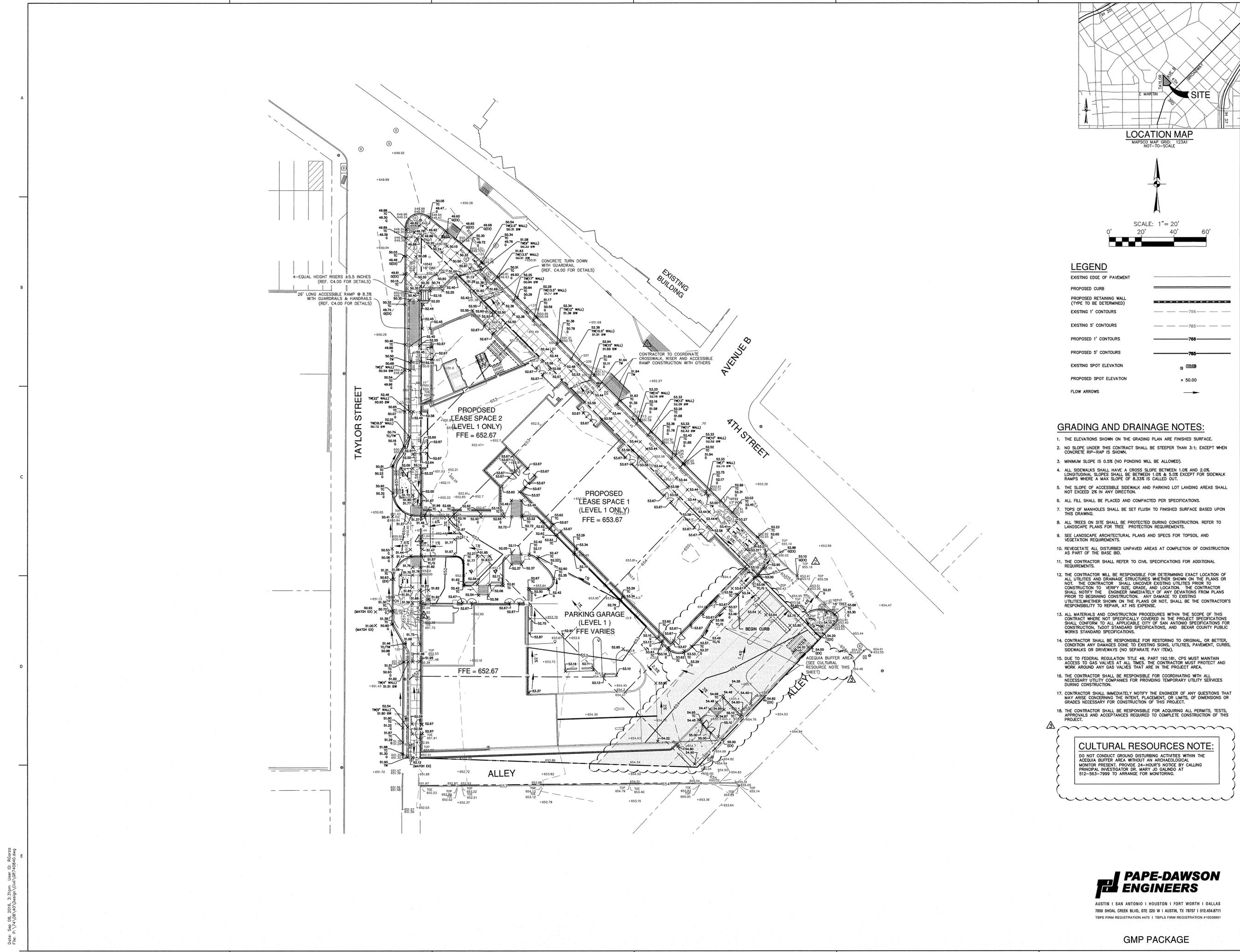


- PROPER PRUNING FOR BRANCHES 1-1/2" OR GREATER IN DIAMETER.
- FIRST CUT — TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
  - SECOND CUT — TO REDUCE THE WEIGHT OF BRANCH.
  - FINAL CUT — ALLOW FOR HEALING COLLAR BUT NO STUBS

FOR OAKS ONLY: PAINT ALL WOUNDS OR CUTS WITH PRUNING PAINT WITHIN 20 MIN TO PREVENT THE SPREAD OF OAK WILT.

### BRANCH PRUNING

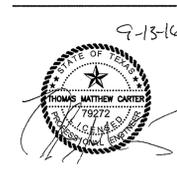
NOT TO SCALE



- LEGEND**
- EXISTING EDGE OF PAVEMENT
  - PROPOSED CURB
  - PROPOSED RETAINING WALL (TYPE TO BE DETERMINED)
  - EXISTING 1' CONTOURS
  - EXISTING 5' CONTOURS
  - PROPOSED 1' CONTOURS
  - PROPOSED 5' CONTOURS
  - EXISTING SPOT ELEVATION
  - PROPOSED SPOT ELEVATION
  - FLOW ARROWS

- GRADING AND DRAINAGE NOTES:**
1. THE ELEVATIONS SHOWN ON THE GRADING PLAN ARE FINISHED SURFACE.
  2. NO SLOPE UNDER THIS CONTRACT SHALL BE STEEPER THAN 3:1; EXCEPT WHEN CONCRETE RIP-RAP IS SHOWN.
  3. MINIMUM SLOPE IS 0.5% (NO PONDING WILL BE ALLOWED).
  4. ALL SIDEWALKS SHALL HAVE A CROSS SLOPE BETWEEN 1.0% AND 2.0%. LONGITUDINAL SLOPES SHALL BE BETWEEN 1.0% & 5.0% EXCEPT FOR SIDEWALK RAMPS WHERE A MAX SLOPE OF 8.33% IS CALLED OUT.
  5. THE SLOPE OF ACCESSIBLE SIDEWALK AND PARKING LOT LANDING AREAS SHALL NOT EXCEED 2% IN ANY DIRECTION.
  6. ALL FILL SHALL BE PLACED AND COMPACTED PER SPECIFICATIONS.
  7. TOPS OF MANHOLES SHALL BE SET FLUSH TO FINISHED SURFACE BASED UPON THIS DRAWING.
  8. ALL TREES ON SITE SHALL BE PROTECTED DURING CONSTRUCTION. REFER TO LANDSCAPE PLANS FOR TREE PROTECTION REQUIREMENTS.
  9. SEE LANDSCAPE ARCHITECTURAL PLANS AND SPECS FOR TOPSOIL AND VEGETATION REQUIREMENTS.
  10. REVEGETATE ALL DISTURBED UNPAVED AREAS AT COMPLETION OF CONSTRUCTION AS PART OF THE BASE BID.
  11. THE CONTRACTOR SHALL REFER TO CIVIL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
  12. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
  13. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL APPLICABLE CITY OF SAN ANTONIO SPECIFICATIONS FOR CONSTRUCTION, TxDOT STANDARD SPECIFICATIONS, AND BEXAR COUNTY PUBLIC WORKS STANDARD SPECIFICATIONS.
  14. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ORIGINAL, OR BETTER, CONDITION ANY DAMAGES DONE TO EXISTING SIGNS, UTILITIES, PAVEMENT, CURBS, SIDEWALKS OR DRIVEWAYS (NO SEPARATE PAY ITEM).
  15. DUE TO FEDERAL REGULATION TITLE 49, PART 192.181, CPS MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES. THE CONTRACTOR MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE IN THE PROJECT AREA.
  16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL NECESSARY UTILITY COMPANIES FOR PROVIDING TEMPORARY UTILITY SERVICES DURING CONSTRUCTION.
  17. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
  18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.

**CULTURAL RESOURCES NOTE:**  
DO NOT CONDUCT GROUND DISTURBING ACTIVITIES WITHIN THE ACEQUIA BUFFER AREA WITHOUT AN ARCHAEOLOGICAL MONITOR PRESENT. PROVIDE 24-HOURS NOTICE BY CALLING PRINCIPAL INVESTIGATOR DR. MARY JO GALINDO AT 512-563-7999 TO ARRANGE FOR MONITORING.



**TOBIN CENTER FOR THE PERFORMING ARTS  
MIXED USE PARKING GARAGE**  
227 4TH STREET SAN ANTONIO, TX 78205

**TOBIN CENTER  
FOR THE PERFORMING ARTS**

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Drawn: RG  
Checked: [Signature]  
Date: 5/27/2016  
PROJECT No. 7408-40  
Revisions:  
6/13/16 ADDENDUM NO. 01  
7/29/16 PERMIT COMMENTS  
9/07/16 ACEQUIA BUFFER

**PAPE-DAWSON  
ENGINEERS**  
AUSTIN | SAN ANTONIO | HOUSTON | FORT WORTH | DALLAS  
7800 SHOAL CREEK BLVD, STE 220 W | AUSTIN, TX 78757 | 512.454.8711  
TOPSOIL FIRM REGISTRATION #470 | T&E FIRM REGISTRATION #10028801

GMP PACKAGE

SHEET TITLE  
GRADING PLAN  
SHEET NO.

C6.00

## **Appendix C**

### Monitoring Letter Report

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**MEMORANDUM**

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**TO:** MATTHEW ELVERSON, CITY OF SAN ANTONIO OFFICE OF HISTORIC PRESERVATION  
**FROM:** MARY JO GALINDO, PH.D., RPA, PRINCIPAL INVESTIGATOR, PAPE-DAWSON  
**SUBJECT:** CULTURAL RESOURCES MONITORING REPORT FOR THE TOBIN GARAGE PROJECT  
**DATE:** 1/17/2017  
**CC:** KAY HINDES, CITY OF SAN ANTONIO OFFICE OF HISTORIC PRESERVATION  
NESTA ANDERSON, PAPE-DAWSON

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**Project Description**

On behalf of the Tobin Center for the Performing Arts, Pape-Dawson previously submitted to your office a draft report of an intensive survey with mechanical trenching of the proposed Tobin Parking Garage Project in downtown San Antonio, Bexar County, Texas (**Figure 1**). Based on the results and recommendations of the draft survey report and at the behest of the City of San Antonio Office of Historic Preservation (COSA-OHP), an archaeologist monitored the construction excavations within a portion of the project area referred to as the Acequia Avoidance Area (**Figure 2**). Monitoring was performed during construction activities that occurred on October 11, 2016. This letter reports presents the results of the archaeological monitoring.

The overall project area is bounded by Taylor Street to the west, 4th Street to the northeast, an unnamed alleyway to the south, and Hessler Alley to the southeast, encompassing an area of 1.21 acres (0.49 hectares). The Acequia Avoidance Area was defined in consultation with the COSA-OHP by placing a 32.8-ft (10-m) buffer northwest of the proposed route for the Navarro Acequia (41BX2134) through the project area. The 32.8-ft (10-m) Acequia Avoidance Area was superimposed on the engineering plans dated September 7, 2016 (Galindo 2016:Appendix B), and it was determined that proposed vertical impacts within the Acequia Avoidance Area were 4 ft (1.2 m) below surface throughout. Because the acequia segment in BHT 4 profile was between 29.5 to 49.2 inches (75 to 125 cm) below surface (Galindo 2016: Figure 39), it was determined that these proposed vertical impacts would adversely impact the segment of the Navarro Acequia that traverses the project area. The acequia channel measured 4.1 ft (125 cm) wide and about 19.7 inches (50 cm) deep as revealed in the northeastern wall profile of Backhoe Trench 4 (BHT 4) during the initial survey (Galindo 2016: Figure 39). The bottom of the channel was about 4 ft (1.2 m) below current ground surface, thus the proposed vertical impacts would encompass the acequia.

## Methodology

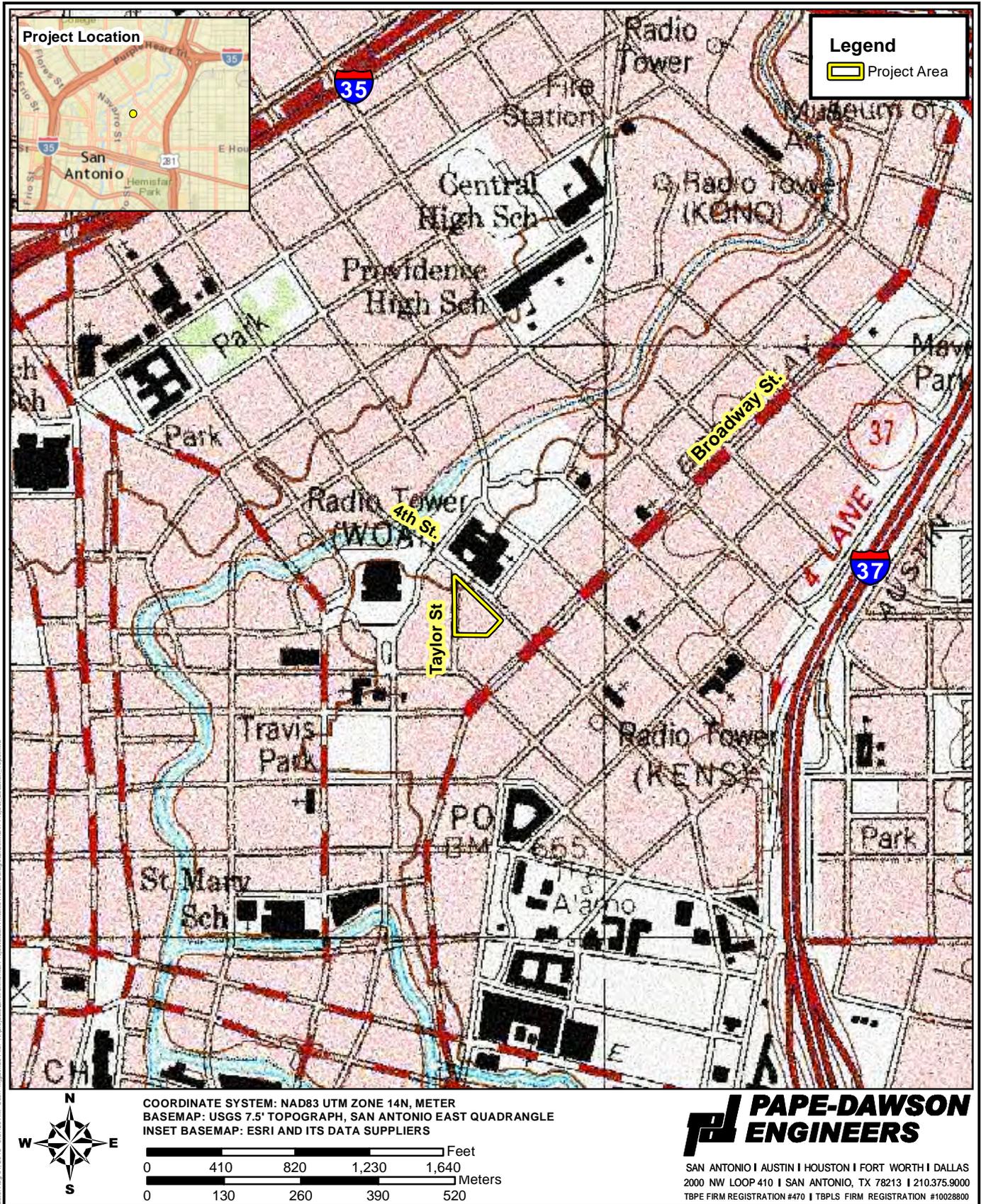
The goal of the monitoring was to gather information on the nature and types of cultural resources possibly buried in the buffered portion of the project area, with a focus on potentially significant resources related to the Spanish Colonial era or the Navarro Acequia. The archaeologist coordinated all field activities with appropriate construction personnel including the on-site construction foremen regarding scheduling and safety. The archaeologist complied with applicable safety regulations and wore all required safety equipment (e.g., hardhat and steel-toed boots). Monitoring consisted of a qualified archaeologist observing the mechanical excavation of soil within the Acequia Avoidance Area, while frequently inspecting the avoidance area and backdirt piles for cultural remains. When encountered, artifacts were examined, quantified, and assessed as to age and origin. Diagnostic artifacts or those of particular interest were to be collected for further study at Pape-Dawson's Archaeological Laboratory in Austin; however, none was encountered.

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 this point, construction would have been temporarily suspended so that the archaeologist could have better examined the cultural materials or features, taken photographs, and thoroughly documented the finds. Once the materials were assessed, construction would have recommenced, and continued 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 (Tobin Center for the Performing Arts, THC, COSA-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.

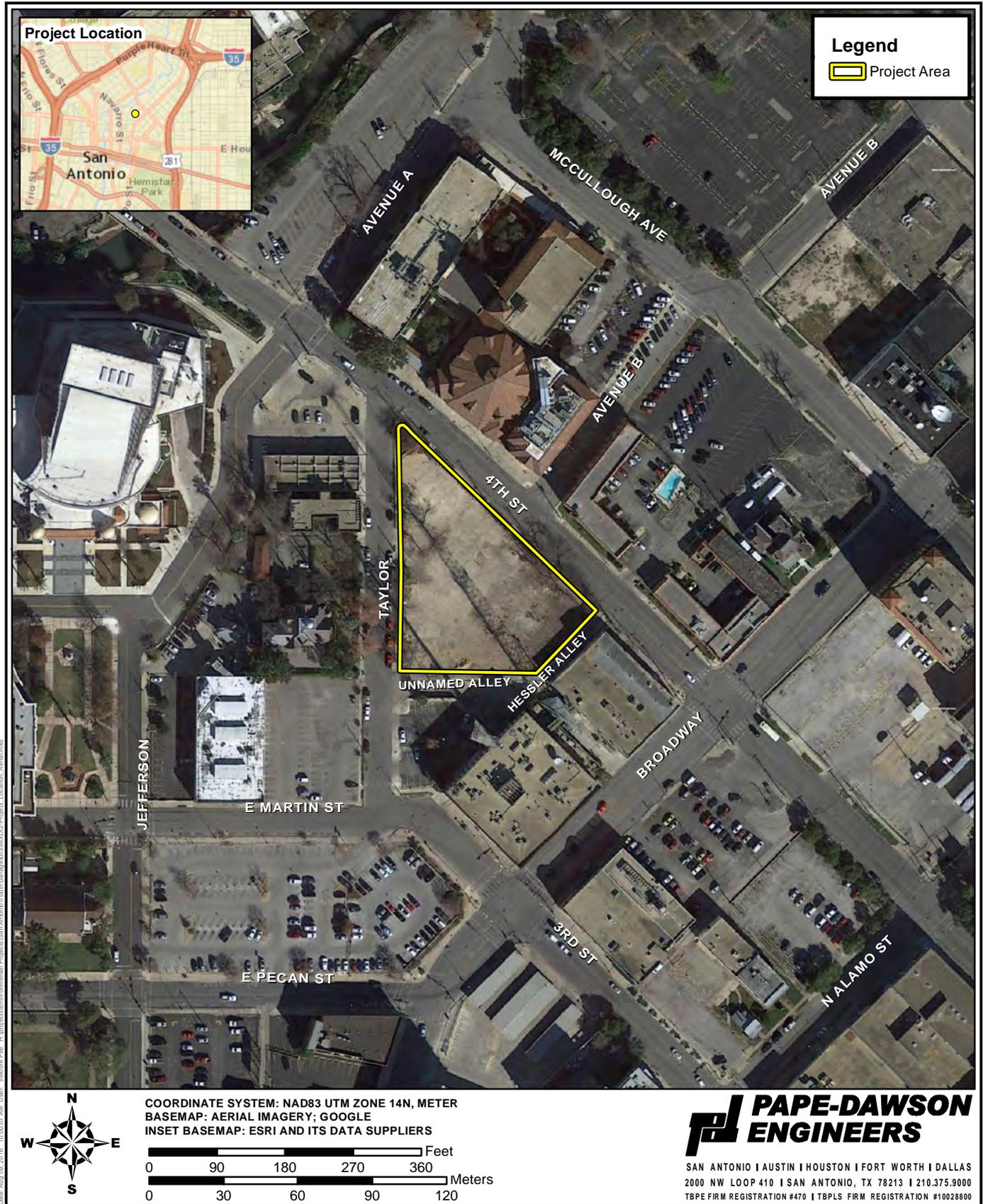
## Monitoring Results

On October 11, 2016, Dr. Mary Jo Galindo observed the mechanical excavation process within the Acequia Avoidance Area. The excavator was situated about midway along the northern edge of the Acequia Avoidance Area and was able to reach its 6-ft- (2-m-) wide bucket to the southeastern edge of the project area. The excavation began in the northern corner of the avoidance area oriented northeast to southwest. The excavation first progressed in a southeasterly direction (along 4<sup>th</sup> Street) before the machine turned and began excavating roughly parallel to Hessler's Alley (**Figure 3**). As the excavation continued, the machine generally moved southwesterly along the northern edge of the Acequia Avoidance Area.

Initially, the archaeologist was situated along the northeastern edge of the Acequia Avoidance Area (along 4<sup>th</sup> Street) and monitored the profile revealed by each swath of excavation. Particular attention was paid to the bedrock interface where a cut into the bedrock might have indicated an Acequia channel. Excavations along 4<sup>th</sup> Street were oriented northeast to southwest, while those along Hessler Alley were roughly oriented northwest to southeast, as the location of the machine prevented it from excavating exactly perpendicular to the alley. These angles were not optimum for detecting the Acequia,



**Figure 1 : Project Location Map**



**Figure 2 : Project Area Location Map**

Tobin Center Parking Garage PN: 07408-45  
 Bexar County, Texas  
 Cultural Resources Report  
 November 2016



**Figure 3. Initial excavation in progress, facing southwest.**

given that its projected route is oriented northeast to southwest. The monitoring encountered very dark brown (10YR2/2) loam (Zone I) over dark brown (10YR3/3) silty clay with common light yellowish brown (10YR6/4) mottles (Zone II), and bedrock marl (Zone III) as it was removed from roughly the surface to 4 ft (1.2 m) below surface (**Figure 4**).



**Figure 4. Clay pipe in southeastern wall along Hessler Alley, facing east-northeast.**

Figure 4 illustrates the former location of BHT 4, excavated as part of the previous survey effort, where the Navarro Acequia channel was documented in the southeastern end of the trench. BHT 4 was excavated about 6.6 ft (2 m) northeast of the guy wire, perpendicular with Hessler Alley (**Figures 5 and 6**).



**Figure 5. BHT 4 from cultural resources survey (note the same guy wire as in Figure 4), facing northwest.**



**Figure 6. Northeastern wall profile of BHT 4 with Navarro Acequia, facing north (note the brick and shovel handle from Figure 5).**

Additionally, a front-end loader was working with the excavator to level the excavation to grade and was assisting it with the earth moving by piling dirt where the excavator could easily scoop it up and into dump trucks, which were hauling the dirt off-site. When all the dump trucks had been filled, the

excavation continued by piling dirt about midway along the northern boundary of the Acequia Avoidance Area. As the dump trucks returned, they were filled with the resulting matrix.

After the northern quarter of the avoidance area had been excavated, the machine moved closer to Hessler Alley and continued to work in a northeast to southwest alignment, again roughly parallel to the Navarro Acequia's projected alignment (**Figure 7**). As work continued in this area, several brick footers from the former structure at 223 4<sup>th</sup> Street were encountered. Having been recommended not eligible for listing on the National Register of Historic Places or for designation as an SAL, in accordance with the UDC (Galindo et al. 2016), site 41BX2133 was not the focus of the monitoring; therefore, excavation continued without further documentation.



**Figure 7. Excavation in progress, facing south.**

In the eastern corner of the Acequia Avoidance Area (near the intersection of 4<sup>th</sup> Street and Hessler Alley), the angle of excavation turned slightly to the southeast, producing a profile that could potentially reveal the Navarro Acequia (**Figure 8**). Instead a clay pipe that runs parallel to Hessler Alley and would prove to be along the length of the avoidance area was encountered, and no evidence of an acequia channel was noted in this profile. A similar clay pipe was noted at the southeastern end of BHT 4 during the survey, about 4 ft (1.2 m) from the Navarro Acequia channel. Possible modification of the underlying bedrock was noted in one location, although not in a shape that resembled an acequia (**Figure 9**). About 24 ft (7.3 m) southwest of the intersection of 4<sup>th</sup> Street and Hessler Alley, two steps appeared to have been carved into the bedrock very near to the alley. Since the modification was not related to the Acequia, it was not subjected to further investigation.

As work progressed, the excavator moved to a central location within the avoidance area and proceeded roughly east to west. While not optimum, this angle did allow for a continuous profile (**Figure 10**) and a greater possibility of detecting the acequia. As the excavator moved closer to the dump trucks at the northern edge of the avoidance area, the front-end loader cleared the southeastern edge along Hessler Alley, transporting the dirt closer to the dump trucks. This action obscured the profile, making it more difficult to detect bedrock modifications that might indicate the acequia. The clay pipe installed parallel to the alley continued to be visible, but no acequia channel was encountered (**Figure 11**).



**Figure 8. Clay pipe parallel to Hessler Alley, facing south.**



Figure 9. Possible stair-step modification of bedrock near Hessler Alley, facing south.



Figure 10. Excavation profile, facing southwest.



**Figure 11. Southern corner of the Acequia Avoidance Area profile, facing southwest.**

Overall, no definitive evidence suggested by artifacts or features were observed during the current monitoring effort within the Acequia Avoidance Area that could be associated with the Spanish Colonial era or the Navarro Acequia (41BX2134). Some construction material observed during monitoring may be associated with the residential occupation of site 41BX2133, but its research value was limited by its secondary context. Additionally, the nature of the excavation process severely fragmented the few artifacts, such as ceramic sherds, that were observed. Pape-Dawson made a reasonable and good faith effort to identify historic properties within the project area. Based on the results of the monitoring efforts, the excavation within the Tobin Parking Garage Project area had no effect on significant cultural properties.

### **References**

Galindo, Mary Jo, Virginia Moore, Alamea N. Young, Jacob I. Sullivan, and Katie Hill  
2016 *Intensive Archaeological Survey of the Tobin Parking Garage Project, San Antonio, Bexar County, Texas*. Pape-Dawson Engineers, Austin.